

BANGLADESH WATER DEVELOPMENT BOARD



PROJECT COMPLETION REPOT FOR CONSTRUCTION OF ADDITIONAL PUMP STATION AT GORANCHATBARI

NAME OF ZONE: CENTRAL ZONE, BWDB, DHAKA

NAME OF CIRCLE: DHAKA O&M CIRCLE, BWDB, DHAKA

NAME OF DIVISION: DHAKA O&M DIVISION-2, BWDB, DHAKA

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** : Construction of Additional Pump Station at Goranchatbari.
02. **Administrative Ministry/Division** : Water Resources Ministry.
03. **Executing Agency** : Bangladesh Water Development Board.
04. **Location of the Project** : Goranchatbari, P.S-Rupnagar (Previous-Pallabi), Dist-Dhaka.

05. **Objective of the Project** :

- Improvement of water logging problem of Uttara, Mirpur, Pallabi and Cantonment area.
- Improvement of drainage system for the north-west part of 58 sq km of Dhaka city in order to mitigate damage of wealth due to flooding/water logging.
- Improvement of over all social and environmental condition of the said area.
- Improvement of internal communication network of above mentioned area.

06. **Estimated Cost** :

(In lakh Taka)

	Original	Latest Revised
(a) Total	7983.05	8890.73
(b) Taka	7983.05	8890.73
(c) Foreign Currency	N/A	N/A
(d) Project Aid	N/A	N/A
(e) RPA	N/A	N/A

07. **Date of Approval** :

PCP	PP
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(a) **Original** : 01-06-2010

(b) **Latest Revised** : 23-04-2015

08. **Implementation Period** :

	Date of Commencement	Date of Completion
(a) Original	02-11-2011	30-06-2013
(b) Latest Revised	02-11-2011	30-06-2015
(c) Actual	02-11-2011	24-06-2015

09. **Financing Arrangement (Source-wise): GOB**

9.1 **Status of Loan/Grant**

a) **Foreign Financing** : N/A

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

N/A

b) GOB :

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange
1	2	3	4
8802.50	-	8802.50	-

9.2 Utilization of Project Aid : (Source wise)

(In million)

Source (s)	Total Amount		Actual Expenditure		Unutilized Amount	
	In US \$	In Local Currency	In US \$	In Local Currency	In US \$	In Local Currency
1	2	3	4	5	6	7

N/A

9.3 Re-imbursible Project Aid (RPA):

(In lakh Taka)

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

N/A

B. IMPLEMENTATION POSITION

01. Implementation Period :

Implementation Period as per PP		Actual Implementation period	Time Over-run (% of original implementation period)	Remarks
Original	Latest Revised			
1	2	3	4	5
01-06-2010 to 30-06-2012	01-06-2010 to 30-06-2015	02-11-2011 to 24-06-2015	= (36÷25)×100 = 144%	

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	7983.05	8890.73	8807.50	10.33%	-
TAKA	7983.05	8890.73	8807.50	10.33%	-
PA	-	-	-	-	-

03. Project Personnel:

Sanctioned strength as per PP	Manpower employed during execution	Status of the existing manpower			Manpower Employed	
		Manpower requirement for O&M as per pp	Existing manpower for O&M	Others		
1	2	3	4	5	Male	Female
Officer (s)	17	10	-	-	Carriedout by BWDB existing manpower	
Staff(s)	16	8	-	-		
Total :	33	18	-	-		

04. Training of Project Personnel (Foreign/Local) :

Field of Training /Study tour /workshop / Seminar etc.	Provision as per PP		Actual		Remarks
	Number of person	Man - months	Number of person	Man - months	
1	2	3	4	5	6
a. Foreign	2	4 weeks	6	42 man days	-
b. Local	-	-	11	77 man days	-

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

(In lakh Taka)

Items of work (as per PP)	Unit	Target (as per PP)		Actual Progress		Reasons for deviation (±)
		Financial	Physical (Quantity)	Financial	Physical (Quantity)	
1	2	3	4	5	6	7
Survey & Investigation	1 item	3.00	1 item	3.00	1 item	-
Petrol & Lubricant (5 nos)	1 item	5.00	1 item	5.00	1 item	-
Stationary	1 item	2.00	1 item	2.00	1 item	-
Printing & Publications	1 item	2.00	1 item	2.00	1 item	-
Repair, maintenance of existing vehicles (Jeep 5 Nos.)	1 item	4.00	1 item	4.00	1 item	-
Supply of Computer	2 Nos.	1.00	2 Nos.	1.00	2 Nos.	-
Supply of Photocopier Machine	2 Nos.	2.00	2 Nos.	2.00	2 Nos.	-
Supply of Leveling Instrument with Stand	2 Nos.	2.50	2 Nos.	2.50	2 Nos.	-
Construction of Additional Pump Station at Goranchatbari						
a. Pump Station building	1 item	1442.47	1 item	1422.80	1 item	-
b. Surge tank & ancillary Structure	1 item	644.70	1 item	584.18	1 item	-
c. Electrical Substation building	1 item	-	1 item	-	1 item	The item was excuded on RDPP
d. Mechanical Supply & installation	1 item	5820.39	1 item	5817.35	1 item	-
e. Electrical Supply & installation	1 item	961.67	1 item	961.67	1 item	-
Total =		8890.73	100%	8807.50	100%	

6. 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. Belayet Hossain Superintending Engineer 25750-1000-33750	Full time	-		12-01-2011	10-10-2012	
Md. Abdul Latif Mia Superintending Engineer 25750-1000-33750	Full time	-		15-10-2012	03-09-2014	
Mohammad Ali Superintending Engineer 25750-1000-33750	Full time	-		03-09-2014	30-06-2015	

07. Procurement of Transport (in Nos.) : Not Applicable

Type of transport	Number as per P.P.	Procured with date	Transferred to Transport Pool with date	Transferred to O&M with date	Condemned/ damaged with date	Remarks
1	2	3	4	5	6	7
Car	-					
Jeep	-					
Microbus	-					
Minibus	-					
Bus	-					
Pick-up	-					
Truck	-					
Motor Cycle	-					
By-cycle	-					
Speed Boat	-					
Launch	-					
Others with name	-					

08. Procurement of Goods, Works and Consultancy Services:

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

Description of procurement (goods / works / consultancy) as per bid document	Tender/Bid/Proposal Cost (in crore Taka)		Tender/Bid/Proposal		Date of completion of works/services and supply of goods	
	As per PP	Contracted value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual
1	2	3	4	5	6	7
Supply of Computer-2 Nos.	1.00	1.00	19-04-2011	21-04-2011	21-04-2011	25-04-2011
Supply of Leveling Instrument with Stand-2 Nos.	2.50	2.50	19-04-2011	21-04-2011	21-04-2011	25-04-2011
Supply of Photocopier Machine-2 Nos.	2.00	2.00	28-04-2011	04-05-2011	05-05-2011	11-05-2011

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

Name of the Field	Approved man month		Actual man month utilised	Remarks
	As per PP	As per contract		
1	2	3	4	5

a) Foreign: N/A.

b) Local : N/A.

09. Construction/Erection/Installation Tools & Equipment:

Description of items	Quantity (as per PP)	Quantity procured with date	Transferred to O&M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7
Pump with related excessories (each pump 7.33m ³ /sec capacity)	3 Nos	3 Nos Pumps 30-06-2015	01-07-2015	-	3 Nos.	

C. FINANCIAL AND PHYSICAL PROGRAMME:

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

(In lakh Taka)

Financial Year	Financial provision & physical target as per original PP				Financial provision & physical target as per latest revised PP			
	Total	Taka	P.A.	Physical %	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9
2010-11	3997.76	3997.76	-	50.078	10.15	10.15	-	0.114
2011-12	3985.29	3985.29	-	49.922	3169.88	3169.88	-	35.654
2012-13	-	-	-	-	2550.00	2550.00	-	28.682
2013-14	-	-	-	-	691.735	691.735	-	7.781
2014-15	-	-	-	-	2468.865	2468.865	-	27.769
Total =	7983.05	7983.05	-	100.00%	8890.73	8890.73	-	100.00%

01. (b) Revised ADP allocation and progress :

(In lakh Taka)

Financial Year	Revised Allocation & target				Taka release	Expenditure & physical progress			
	Total	Taka	P.A.	Physical %		Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2010-11	10.15	10.15	-	0.114	10.15	10.15	10.15	-	0.114
2011-12	3169.88	3169.88	-	35.654	3169.88	3169.88	3169.88	-	35.654
2012-13	2550.00	2550.00	-	28.682	2550.00	2550.00	2550.00	-	28.682
2013-14	691.735	691.735	-	7.781	691.735	691.735	691.735	-	7.781
2014-15	2468.865	2468.865	-	27.769	2385.73	2385.73	2385.73	-	27.769
Total =	8890.73	8890.73	-	100.00%	8807.50	8807.50	8807.50	-	100.00%

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT:

Objectives as per PP	Actual achievement	Reasons for shortfall, if any
Improvement of water logging problem of Uttara, Mirpur, Pallabi and Cantonment area.	Improvement of water logging problem of Uttara, Mirpur, Pallabi and Cantonment area.	N/A
Improvement of drainage system for the north-west part of 58 sq km of Dhaka city in order to mitigate damage of wealth due to flooding/water logging.	Improvement of drainage system for the north-west part of 58 sq km of Dhaka city in order to mitigate damage of wealth due to flooding/water logging.	N/A
Improvement of over all social and environmental condition of the said area.	Improvement of over all social and environmental condition of the said area.	N/A
Improvement of internal communication network of above mentioned area.	Improvement of internal communication network of above mentioned area.	N/A

E. BENEFIT ANALYSIS

01. Annual Out-put: N/A.

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project).
(a)			
(b)			
(c)			
(d)			

02. Cost / Benefit : N/A

Item	Estimated	Actual
(1) Benefit cost ratio of the project		
(i) Financial	1.47 : 1.00	1.47 : 1.00
(ii) Economic	1.86 : 1.00	1.86 : 1.00
(2) Internal Rate of Return		
(i) Financial	17.84%	17.84%
(ii) Economic	22.21%	22.21%

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

F. MONITORING AND AUDITING

0.1 Monitoring:

Name & Designation of the Inspecting Official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
(a) Ministry / Agency: BWDB Md. Azizul Hoque Director General, BWDB.	29-08-2014	পাম্প হাউজ পরিদর্শন করিলাম। Over head Crane Installaation এখনো বাকী আছে। Pump Installation কাজ এখনো শুরু হয় নাই। যদি এই বর্ষায় Pump Installation শেষ না হয় তবে Test Pumping করা যাবে না। ফলে কাজ সমাপ্তি বিলম্ব হবে। এতে জটিলতার সৃষ্টি হবে। ঠিকাদার Payment বিলম্ব পাবেন।	আগামী ১ মাসের মধ্যে Over head Crane সহ Pump Installation শেষ করার জন্য প্রয়োজনীয় উদ্যোগ নিতে হবে।
Md. Abdul Mannan Addl. Director General	08-02-2012	Pile এর reinforcement এর কাজ অবিলম্বে শুরু করতে হবে। Work Programme revised করতে হবে। Contract Agreement অনুযায়ী নির্ধারিত সময়ে সকল কাজ সম্পন্ন করার ব্যপারে সংশ্লিষ্ট সকলকে অনুরোধ করা হলো।	নির্ধারিত সময়ে সকল কাজ সম্পন্ন করার ব্যপারে সংশ্লিষ্ট সকলকে অনুরোধ করা হলো।
	15-01-2013	৩০শে জুন ২০১৩ এর মধ্যে চুক্তি অনুযায়ী কাজ সমাপ্ত করতে হবে। সেভাবে Sequence অনুযায়ী Surge Tank, Tunnel, Regulator ইত্যাদি সমস্ত কাজ সম্পন্ন করার ব্যবস্থা গ্রহণ করতে হবে। Mechanical parts embedded করার সময় যান্ত্রিক বিভাগের প্রকৌশলীকে অবশ্যই উপস্থিত থাকতে হবে। প্রকল্প পরিচালককে লক্ষ্যমাত্রা অনুযায়ী কাজ কাস্টোমায়নের সকল পদক্ষেপ গ্রহণের জন্য বলা হলো।	প্রকল্প পরিচালককে লক্ষ্যমাত্রা অনুযায়ী কাজ কাস্টোমায়নের সকল পদক্ষেপ গ্রহণের জন্য বলা হলো।
	05-10-2013	সংশোধিত অনুমোদিত সময় সূচী অনুযায়ী পাম্প স্টেশনের বাকী কাজ অবশ্যই ৩০শে জুন ২০১৪ এর মধ্যে সম্পন্ন করতে হবে। সে অনুযায়ী বাস্তব ভিত্তিক Work Programme upload করার জন্য প্রকল্প পরিচালককে নির্দেশ দেয়া হলো।	বাস্তব ভিত্তিক Work Programme upload করার জন্য প্রকল্প পরিচালককে নির্দেশ দেয়া হলো।
Sunil Baran Dev Roy Addl. Director General	09-11-2013	রাস্তা কাটার জন্য দুটি Segment এর কাজ বন্ধ আছে। প্রকল্প পরিচালক ও R&HD এর সংশ্লিষ্ট দপ্তরের সাথে আলোচনা করে রাস্তা কাটার বিষয়ে জরুরী ভিত্তিতে নিষ্পত্তি করত: Tunnel এর বাকী ২টি Segment এর কাজ আরম্ভ করার জন্য নির্দেশ দেয়া হলো। কাজের সময় ভিত্তিক অগ্রগতি মনিটরিং করার জন্য Time schedule update করার পরামর্শ দেয়া হলো। উল্লেখ্য প্রকল্পটি জুন/২০১৪ সালে সমাপ্তির জন্য নির্ধারিত থাকায় সংশ্লিষ্ট সকলকে সে লক্ষ্যে যথাযথ ভাবে অগ্রগতি নিশ্চিত করার জন্য সচেতন থাকার বিষয়ে অনুরোধ করা হলো।	কাজের সময় ভিত্তিক অগ্রগতি মনিটরিং করার জন্য Time schedule update করার পরামর্শ দেয়া হলো। প্রকল্পটি জুন/২০১৪ সালে সমাপ্তির জন্য নির্ধারিত থাকায় সংশ্লিষ্ট সকলকে সে লক্ষ্যে যথাযথ ভাবে অগ্রগতি নিশ্চিত করার জন্য সচেতন থাকার বিষয়ে অনুরোধ করা হলো।
(3) CE, CZ Sunil Baran Dev Roy Chief Enginner Central Zone, BWDB, Dhaka.	02-03-2012	কাজের গতি মন্থর। কাজটি তড়ান্বিত করা জন্য নির্দেশ পদান করেন। টানেল এবং রেগুলেটরের কাজ যুগপত ভাবে করা যায় কি না সে বিষয়ে ডিজাইন দপ্তরের মতামত নেয়ার জন্য পরামর্শ দেন।	কাজটি তড়ান্বিত করা জন্য নির্দেশ পদান করেন। টানেল এবং রেগুলেটরের কাজ যুগপত ভাবে করা যায় কি না সে বিষয়ে ডিজাইন দপ্তরের মতামত নেয়ার জন্য পরামর্শ দেন।
	04-05-2012	কাজের অগ্রগতি মন্থর। গতি তড়ান্বিত করার জন্য পরামর্শ দেন।	গতি তড়ান্বিত করার জন্য পরামর্শ দেন।
	11-08-2012	ডাইভারশন রোডের রেয়ার বাই লেয়ার কম্পেকশন হচ্ছে কি না তা নিশ্চিত করার জন্য মাঠ পর্যায়ের কর্মকর্তাদের পরামর্শ প্রদান করেন।	ডাইভারশন রোডের রেয়ার বাই লেয়ার কম্পেকশন হচ্ছে কি না তা নিশ্চিত করার জন্য মাঠ পর্যায়ের কর্মকর্তাদের পরামর্শ প্রদান করেন।
	31-08-2012	কাজের অগ্রগতি মন্থর। গতি তড়ান্বিত করার জন্য পরামর্শ দেন।	গতি তড়ান্বিত করার জন্য পরামর্শ দেন।

Name & Designation of the Inspecting Official	Date of Inspection	Identified Problems	Recommendations
1	2	3	4
Mahatab Uddin Chief Enginner Central Zone, BWDB, Dhaka.	07-10-2013	কাজের গুনগত মান সঠিক আছে বলে মন্তব্য করেন। কাজের গতি আরও তড়ান্বিত করার জন্য পরামর্শ প্রদান করেন।	কাজের গতি আরও তড়ান্বিত করার জন্য পরামর্শ প্রদান করেন।
Md. Ismail Hossain Chief Enginner Central Zone, BWDB, Dhaka	09-12-2014	পাম্পের ইন্সটলেশন সহ কমিশনিং সম্পন্ন করার জন্য সংশ্লিষ্ট সকলকে নির্দেশ প্রদান করেন।	কমিশনিং এর কাজ ২০-১২-২০১৪ইং তারিখে মধ্যে সম্পন্ন করার জন্য সংশ্লিষ্ট সকলকে নির্দেশ প্রদান করেন।
(4) CE, Design Joti das Kundu Chief Engineer Design circle-1, BWDB, Dhaka.	21-09-2013	কাজের গুনগত মান সঠিক আছে বলে মন্তব্য করেন। ঢালাই কাজের স্যাম্পল বুয়েট কর্তৃক পরীক্ষা করার জন্য নির্দেশ প্রদান করেন।	ঢালাই কাজের স্যাম্পল বুয়েট কর্তৃক পরীক্ষা করার জন্য নির্দেশ প্রদান করেন।
(b) IMED: Md.Shahadat Hossain Assistant Director	02-06-2014	কাজটি চলমান আছে মর্মে সাইট অর্ডার বুকে মন্তব্য করেন। সময় বর্ধিত করনের বিষয়ে প্রয়োজনীয় নির্দেশনা প্রদান করেন।	সময় বর্ধিত করনের বিষয়ে প্রয়োজনীয় নির্দেশনা প্রদান করেন।
(C) Others: (Please specify)			

0.2. Auditing during and after Implementation:

2.1. Internal Audit: Not yet done

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

2.2. External Audit:

Audit period	Date of submission of Audit Report	Major findings/ objections	Whether objections resolved or not.
1	2	3	4
12-03-2012 to 19-03-2012	19-11-2012	কাজ শুরু করার আগেই ঠিকাদারকে অনিয়মিত ভাবে ৫ কোটি টাকা পরিশোধ করায় সুদ বাবদ ৪০,০০,০০০/- টাকা অনারজন জনিত ক্ষতি।	জবাব প্রদান করা হয়েছে। নিষ্পত্তি প্রক্রিয়াধীন আছে।
26-06-2014 to 06-11-2014	30-10-2014	চুক্তির বিওকিউতে ৫০০ এমএম ডায়া কাষ্ট ইনসিটো বোর্ড পাইলস এর কাজের উল্লেখ না থাকলেও বিলে উক্ত কাজের মেজারমেন্ট নিয়ে বিল পরিশোধ সরকারের ৩৭,৪৪,০০০.০০ টাকা অনুমোদনের অতিরিক্ত ব্যয়।	জবাব প্রদান করা হয়েছে। নিষ্পত্তি প্রক্রিয়াধীন আছে।
	03-11-2014	চুক্তি পত্র সংশোধন ছাড়াই চুক্তির বিওকিউতে উল্লেখিত কাজের পরিমান অপেক্ষা বিলে অতিরিক্ত মেজারমেন্ট নিয়ে বিল পরিশোধে সরকারের ৩০,৪০,০৯৬.৪০ টাকা অনুমোদনের অতিরিক্ত ব্যয়।	জবাব প্রদান করা হয়েছে। নিষ্পত্তি প্রক্রিয়াধীন আছে।
03-08-2015 to 11-08-2015	05-08-2015	প্রকল্পের ডিপিপিতে নির্দেশিত খোলা দরপত্রের পরিবর্তে ডিপিএম পদ্ধতিতে মূল্যায়ন কমিটি কর্তৃক অস্বাভাবিক উর্দ্ধে দর ৪৬.৫৫% উর্দ্ধে সুপারিশ ও চুক্তি সম্পাদনে বোর্ডের ২৪,৯৪,০৯১৫৪/- টাকা ক্ষতি।	জবাব প্রদান করা হয়েছে। নিষ্পত্তি প্রক্রিয়াধীন আছে।
	06-08-2015	প্রকল্পের ডিপিপিতে নির্দেশিত খোলা দরপত্রের পরিবর্তে ডিপিএম পদ্ধতিতে দরপত্র আহবান ও কার্য চুক্তি সম্পাদন বিল পরিশোধ বোর্ডের ৮৭,৮০,৯৯,৯৫৮/- টাকা অনিয়মিত ব্যয়।	জবাব প্রদান করা হয়েছে। নিষ্পত্তি প্রক্রিয়াধীন আছে।

G. DESCRIPTIVE REPORT

I. General Observations/Remarks of the Project on :

1.1 Background:

Bangladesh suffered two most severe floods on records during 1987 and 1988. Subsequently in response to the request of the Government of Bangladesh, an international conference of donors was organized in London by the World Bank, wherein a proposal for formulation of a Flood Action Plan (FAP) for Bangladesh was accepted. In January 1990 another conference was held in Dhaka as a follow up of London conference. As an outcome of the conference Japan International Co-operation Agency (JICA) conducted a feasibility study under FAP 8A for 850 sq. km. area of greater Dhaka that includes Tongi, Savar, Keraniganj and Narayanganj; and Asian Development Bank conducted another feasibility study under FAP 8B for an area of 260 sq. km. of Dhaka Metropolitan city. These studies were accepted from technical, social, economic and environmental point of view. But it was not practicable to invest a huge amount of required US\$ 450 million at a time. Rather, it was considered rational to take up, on priority basis, the measures for flood protection, drainage and environmental improvement of the most densely populated western part of the city covering an area of 136 sq. km. Accordingly, the flood control measures already implemented under the project (DIFPP) substantially protected the 136 sq. km. area of the western part of Dhaka city.

The basic concept followed in formulating the Dhaka Integrated Flood Protection Project (FAP-8B) was to develop an integrated urban development program which would provide.(1) Flood Control (2) Drainage works (3) Complementary environmental programmes.

Considering this event in mind flood protection embankment along the river Turag and river Tongi was constructed. The natural drainage obstructed when the river stage is high and therefore, drainage by lifting pumps are needed to pump out the internal run-off. As per recommendation of FAP-8B a pumping station of 22 m³/s capacity as the first stage had been installed at Goranchatbari which is 1/3 of the ultimate design capacity required to remove two days consecutive rainfall with a 5 years recurrence frequency. The area required for the retarding pond for the full capacity of 65.20 cubic metres per second is about 686 hectares. However, it is considered that the pumping capacity provided by this first stage will significantly reduce the accumulated rainfall runoff from within the tributary drainage area during the monsoon season and will have a very favorable impact upon the higher lands within the influence of the pump station. As more of the lower lands become urbanized, the capacity of the pump station can be increased to accommodate those needs and to reduce the corresponding retarding pond areas.

Dhaka has experienced an extremely rapid population growth after independence of Bangladesh from 1.6 million in 1974 to 12.8 million in 2008 (Statistical Year Book/Pocket Book 2008). In order to lessen the pressure of the city's population on housing, transportation, utilities and civic facilities, RAJUK undertook a number of initiatives for expanding the city area, mostly in the northern direction, "Uttara Residential Model Town (3rd phase) Project:" and the "The Purbachal New Town Project" are mentionable among them.

The total project area of Uttara 3rd phase is about 2010 acres and is located entirely within the western Dhaka flood protection Embankments constructed along the eastern bank of the Turag River RAJUK requested BUET to study the land use plan for the model town to identify the drawbacks and weakness of the plan and suggest an

optimum development plan for the Uttara residential model town (3rd Phase). In response to the request by RAJUK, BUET formed a multidisciplinary team of consultants. The Uttara Residential Model Town (3rd Phase) would require considerable land development activities by earth filling up to the level of +6.00 m PWD. In the event of filling the water bodies by land development would have to be drained out from the Uttara residential area (3rd Phase). Capacity of retention basin and required pump capacity has been assessed for the entire project area, Estimated storage volume of the retention pond and corresponding required pump capacity for different return periods were calculated.

For the same, conditions, pump of total discharge capacity of about 46.2 m³/sec is required for the drainage of the runoff contribution from adjacent areas as well as from Uttara phase-3 area. The Geotechnical consultants of BUET recommended the use of open channel section as storm water drainage system for the project area (3rd Phase). The channel will drain the storm runoff to the lakes flowing through the project site and the accumulated water in retention pond will be pumped to the Turag river by the Goranchatbari pump station. The present discharge capacity of the three pumps of the Goranchatbari pump house is about 22 m³/s. There fore additional 3 (three) pumps having equal capacity of the existing pumps should be installed to keep the project area free from inundation.

1.2 Justification/Adequacy:

Bangladesh suffered two most severe floods on records during 1987 and 1988. Subsequently in response to the request of the Government of Bangladesh, an international conference of donors was organized in London by the World Bank, wherein a proposal for formulation of a Flood Action Plan (FAP) for Bangladesh was accepted. Then, it was considered rational to take up, on priority basis, the measures for flood protection, drainage and environmental improvement of the most densely populated western part of the city covering an area of 136 sq. km. Accordingly, the flood control measures already implemented under the project (DIFPP) substantially protected the 136 sq. km. area of the western part of Dhaka city.

1.3 Objectives :

With the implementation of additional pump installation to draw internal water at Goranchatbari on the North-western side of the Dhaka city, the following objectives would be fulfilled

- Improvement of water logging problem of Uttara, Mirpur, Pallabi and Cantonment area.
- Improvement of drainage system for the north-west part of 58 sq km of Dhaka city in order to mitigate damage of wealth due to flooding/water logging.
- Improvement of over all social and environmental condition of the said area.
- Improvement of internal communication network of above mentioned area.

1.4 Project revision with reasons :

The Original DPP of the project costing Tk. 7983.05 lakh was approved by the ECNEC on 01.06.2010 (Implementation period July 2010 to June 2012). The administrative approval letter was issued by the ECNEC vide memo on- 20.811.014.34.00.039.209-2010-140, date: 05-09-2010 (Copy enclosed) & MoWR vide memo on- 42.043.015.00.01.026.2008.305, date: 20-09-2010 (Copy enclosed, Appendix-III)

a) Subsequently the tendering method for procurement of Construction of Additional Pump Station at Goranchatbari was approved (by CCGP) as DPM instead of OTM (mentioned in Original DPP) vide MoWR's memo no-42.034.031.00.00.007.2011-548 dated: 04-09-2011. Accordingly DPM method instead of OTM is included in the procurement plan of the Revised DPP.

b) (i) "Proposal of Extension of Time" for the Construction of Additional Pump Station at Goranchatbari was approved (by IMED) up to June 2013 vide the MoWR's memo no-42.043.014.01.00.018.2010-110 dated:

24.06.2012 (enclosed). Subsequent the completion time was extended upto June 2014 vide the MoWR's memo no-42.00.0000.042.14.012.13-247 dated: 27.10.2013 (Copy enclosed, Appendix-V)

- (ii) Actual field condition impeded in the progress of this special type of Pump station. The contractor could not make available a huge volume of construction materials and laborer in time. Procurement uncommon Mechanical items from International market (China) also took more time.
 - (iii) As to why the progress of work has hampered. To complete the work and to ensure quality of works the extension of time upto June, 2015 is required.
- c) (i) **Civil works** : Quantity of some major items i.e. M.S Rod, R.C.C works, drilling of pile etc. have been increased as per revised design and actual field condition. Rate of M.S Rod (60-grade) as non-tender item has also been included as per revised design. Enhanced rates of different non-tendered items have been incorporated in the Revised DPP. as per PPR-2008 (Clause-80 kha).
- (ii) **Mechanical Works**: The new additional Pump House is 55 feet apart from the old Pump House. A set of three cranes of old pump house cannot be used for the new additional Pump House. As to why, cranes are required and included in the Revised DPP..

Actually, two vertical lift gates of old Pump House were not included in its estimates as well as DPP and gates were installed under separate project, DIFPP. The estimate of the new additional Pump House has been done following the estimate of old Pump House and the gates were not included in the DPP of new Pump House. Two gates are essential and included in the Revised DPP.

- (iii) **Electrical works**: Provision of electrical accessories / equipment taken in drawing/DPP was insufficient. A Committee consisted of 4 members (1 member from PDB) has submitted a drawing showing necessary electrical accessories / equipment with recommendation. Proposed electrical accessories / equipment of Revised DPP are most essential for smooth operation and maintenance of the Pump House.

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

FCD interventions are aimed to water regime for the benefit of the people living in the project area. Some times internal floods are caused by storm water flooding in the built up area due to insufficient drainage facilities.

The growth of urban centers and their population has been significantly increasing in the Dhaka city over the past several decades. with increasing density of population and households. This phenomenon, which is happening despite the constraints to development in the project area, is gradually exacerbating the adverse social, environment and economic impacts that currently characterize the area due to variety of factors. A particularly significant factor is the unplanned land and building development

The drainage congestion of the project area is the major problem that affects the population in this area and existing infrastructure. Nevertheless, given the increasing demands of urbanization in Dhaka city and the requirement for more housing, private sector developers are continuing to develop more residential accommodation by land fill and raising land elevation generally to above normal flood Develops. However, this is being undertaken without an overall land use plan and will undoubtedly lead to increased unplanned urbanization and drainage issues. Therefore, there is urgency for an overall land use plan to be prepared and implemented.

The mitigation of socio economic and environmental degradation within the project area is a key consideration in formulating the development strategy for this area and indeed has been the key driver in assigning high priority to this project by the government and BWDB. The key issues that would continue to exacerbate the socio economic and environmental degradation are:

- The uncontrolled annual drainage and flooding in large parts of the project area and the significant impacts when there is major monsoon flooding (such as in 1988 and 2004);
- The unplanned urbanization in the project area; and

- The need to improved infrastructure facilities and services including road communications, water supply and sanitation and other public utilities and services.

The present proposed project addresses flood control, drainage and road communications while actions related to the urban planning in the project area has been initiated by RAJUK, which is currently formulating Detailed Area Plans for the urban development of Dhaka City.

The Dhaka Metropolitan Development Plan (DMDP) prepared by RAJUK describes the Dhaka Structure Plan for the period 1995-2015. The DMDP comprised the following three components:

- Structure Plan
- Urban Area Plan
- Detailed Area Plan

The Urban Area Plan provides an interim mid-term strategy for the period 1995-2005 and covers the development of urban areas within the Metro Dhaka management Area (i.e. the area administered by RAJUK). The Detailed Area Plans (DAPs) were initially prepared for priority areas. DAPs for all areas are currently under preparation by consultants appointed by RAJUK.

Project rationale is sound and its expected economic performance is good. There is no economic case for delaying implementation. The urbanization of this area is increasing and unplanned land filling by private developers is accelerating. The unavailability of an approved RAJUK's Detailed Area Plan (DAP) is exacerbating this situation. Given the significant number of government agencies with specific responsibilities in the project area and the other stakeholders, the project implementation requires a high degree of integration and consultation.

Due to its urban profile, there are several government agencies that have specific responsibilities in the project area. This together with the communities in the area, private sector and non-government organizations constitute a large stakeholder base for the project area. Inevitably, the varied interests and responsibilities of the various agencies and stakeholders in the project area may Socio Economic and Environmental Degradation.

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

- ◆ Project Identification: Dhaka O&M Division-2, BWDB, Dhaka.
- ◆ Project Preparation : Dhaka O&M Division-2, BWDB, Dhaka.
- ◆ Appraisal : Planing Commision
- ◆ Credit Negotiation : N/A
- ◆ Credit Agreement : N/A
- ◆ Credit Effectiveness : N/A
- ◆ Loan Disbursement : N/A
- ◆ Loan Conditionalities: N/A
- ◆ Project Approval. : Planing Commision
- ◆ Others (if any). : Aided by GOB fund.

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

4.1	Whether the beneficiaries of the project have clear knowledge about the Target/ Objectives of the project. : Yes	
4.2	Programme for use of created-facilities of the project : Yes	
4.3	O & M programme of the project. : Yes	
4.4	Impact of the project -	
	4.4.1 Direct: Improvement of water logging problem of Uttara, Mirpur, Pallabi and Cantonment area.	
	4.4.2 Indirect: Improvement of over all social and environmental condition of the said area.	
4.5	Transfer of Technology and Institutional Building through the project : N/A	
4.6	Employment generation through the project.	
4.7	Possibility of Self employment	As the project was taken to improve drainage facility in the project area, so removal of water logging will open the door of opportunities to the habitats of that area irrespective of gender & occupation. That will boast socio-economic advancement.
4.8	Possibility of women-employment opportunity	
4.9	Women's participation in development	
4.10	Probable Impact on Socio-Economic activity.	
4.11	Impact on environment : Positive.	
4.12	Sustainability of the project : Yes	
4.13	Contribution to poverty alleviation/reduction : N/A	
4.14	Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc. : N/A	
4.15	Contribution of Micro-credit programmes and Comments on overlapping with any NGO activities. : N/A	
5.	<i>Problems encountered during Implementation (with duration & steps taken to remove those)</i> N/A	
5.1	Project Management	5.12 Project aid disbursement and re-imbursment
5.2	Project Director	5.13 Mission of the development partners.
5.3	Land Acquisition	5.14 Time & Cost Over-run
5.4	Procurement	5.15 Project Supervision/Inspection
5.5	Consultancy	5.16 Delay in Decision
5.6	Contractor	5.17 Transport
5.7	Manpower	5.18 Training
5.8	law & Order	5.19 Approval
5.9	Natural calamity	5.20 Others.
5.10	Project financing, allocation and Release.	
5.11	Design formulation/approval	

6. Remarks & Recommendations of the Project Director:

প্রকল্পটি সফল ভাবে সমাপ্ত হয়েছে। প্রকল্পটি সমাপ্ত হওয়ার ফলে উত্তরা, মিরপুর, পল্লবী এবং সেনানিবাস এলাকার জলাবদ্ধতা দূরীকরণ সম্ভব হয়েছে। তবে পন্ডিং এরিয়া হতে ঢাকা এলিভেটেড এক্সপ্রেস ওয়ে পিপিপি প্রকল্পের জন্য ৪০ একর জমি হস্তান্তর করার ফলে পন্ডিং এরিয়ার আয়তন হ্রাস পাওয়ার কারণে জলাবদ্ধতা পরিপূর্ণ ভাবে নিষ্কাশন করার জন্য IWM কর্তৃক সম্পাদিত সমীক্ষার সুপারিশ মতে অপর আরও ১টি ২২ কিউমেক ক্ষমতা সম্পন্ন পাম্প স্টেশন স্থাপন প্রক্রিয়াধীন আছে।

Date:

Signature and seal of the Project Director/Manager

(Mohammad Ali)
Superintending Engineer
Dhaka O & M Circle
BWDB, Dhaka.

7. Remarks/Comments of Agency Head

This project has reduced water logging problem & improved drainage system of Uttara, Mirpur, Pallabi and Cantonment area. Socio-economic condition of the people and communication network of the mentioned area has become better after execution of the project. So based on the objectives, the project is on its mark.

Date:

Signature and Seal
(MD. ISMAIL HOSSAIN)
Director General
BWDB, Dhaka.

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

Date:

Signature and Seal