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

Project Name: Development of Smart Project Monitoring and Management Information System (SPMMIS).

Directorate of Planning-1 BWDB, 6th Floor, WAPDA BHABAN. Motijheel C/A, 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

: Development of Smart Project Monitoring and

Management Information System (SPMMIS).

02. Administrative Ministry/Division

: Ministry of Water Resources

03. Executing Agency

: Bangladesh Water Development Board

04. Location of the Project

: All over Bangladesh

05. Objective of the Project

:

The prime objective of the project is to digitalize 56 Projects, Improvement of performance of water infrastructure management and monitoring systems utilizing web and GIS technology is the vision behind this proposal. To be specific, the objectives are as follows:

- Collection of baseline information of 53 on-going Projects. Baseline information would include GPS locations of all interventions, available data set and satellite images.
- Information collection of Canal & Road Network, locations of structures & preparation of GIS based maps of 03 completed Projects viz. Teesta Barrage Project, Ganges-Kobadak (G-K) Irrigation Project & Tarail-Pachuria FCDI Project from BWDB and other sources.
- Preparation of Index maps of Projects under this Contract with Real Time Information of all interventions.
- Development of Smart Project Monitoring and Management Information System Software (SPMMIS) with source code keeping provision of preserving baseline information, list of structures with location on GIS maps, GPS locations of Project activities, Satellite images, shape files of classified categories of information.
- Incorporation of all collected & surveyed information in newly developed Smart Monitoring Software.
- Future provision for further development and enrichment of preserved data-base and arrangement for inclusion of newer categories of data.

06. Estimated Cost

(In lakh Taka)

	Original	Latest Revised
(a) Total	196.00	196.00
(b) Taka	196.00	196.00
(c) Foreign Currency	107	-
(d) Project Aid	w	-
(e) RPA		-

07.

Date of Approval	:	PCP/PFS	PP
(a) Original	;	Date: 28-07-2015	
		Vide memo no: পাসম 42.00.0000.039.14.028.15207	
(b) Latest Revised	:	Date: 06-06-2016	
		Vide memo no: পাসম 42.00.0000.039.14.028.15174	

08. Implementation Period

Date of Completion	Date of Commencement	
December,2016	June,2015	(a) Original
June,2017	June,2015	(b) Latest Revised
June,2017	June,2015	(c) Actual
	June,2015	(c) Actual

09. Financing Arrangement (Source-wise):

9.1 Status of Loan/Grant

a) Foreign Financing : Not Applicable

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

b) GOB:

(In lakh Taka)

Total amount	Loan	Grant	Cash Foreign Exchange		
1	2	3	4		
196.00	ner .	196.00	-		

9.2 Utilization of Project Aid/Grant : Not applicable

(In million)

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

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

(In lakh Taka)

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

B. IMPLEMENTATION POSITION

01. Implementation Period:

	Implementation Period as per PP		Time Over-run (% of original	Remarks
Original	Latest Revised	period	implementation period)	
1	2	3	4	5
June,2015- December,2016	June,2015- June,2017	June,2015- June,2017	31.58%	No fund were relesed against the project in ADP of FY 2015-2016. Besides the signing of contract was delayed. Hence, the Implementation period of the project was required to be extended.

02. Cost of the Project:

(In lakh Taka)

Description	Estimated Cost cription				Actual expenditure	Cost over-run (% of original cost)	Remarks
	Original	Latest revised					
1	2	3	4	5	6		
TOTAL	196.00	196.00	189.50	-	Cost decreased deu to low contract value with the		
TAKA	196.00	196.00	189.50	-	consultant.		
PA	-	-	net .				

03. Project Personnel: (As per PSP)

Sanctioned	Manpower	Status of the ex	Status of the existing manpower			
strength as per PP/PSP	employed during execution	Manpower require- ment for O&M as per PP/PSP	Existing manpower for O & M	Others	Employed	
1	2	3	4	5	Male	Female
Officer (s)	22	146			20	02
Staff(s)	-	-	-	-	-	_
Total:	22		_	-	20	02

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

Field of	Provision as per PP		Actual		Remarks
Training /Study tour/workshop/Seminer etc.	No of person	Man months	No of person	Man months	
1	2	3	4	5	6

a. Foreign: N/A

b. Local : N/A

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

(In lakh Taka)

	T. C. I	T					(III Iakii Taka)
	Items of work		Target (as per PP/PFS)		Actual	Progress	Reasons for deviation (±)
(:	as per PP/PSP)	Unit	Financial	Physical (Quantity)	Financial	Physical (Quantity)	
SI	1	2	3	4	5	6	7
1.	Consultancy (4874):	m.m	193.50	100 %	187.00	100%	Contract signed for the consultancy work is Tk 187.00 lakh
2.	Stationary for BWDB (4828)	1 Item	1.00	100 %	1.00	100 %	IS TO TO THE THE
3.	Others(4899)	1 Item	0.50	100 %	0.50	100 %	
4.	Motor Vehicle (Maintanance) (4901)	1 Item	1.00	100 %	1.00	100 %	
	Toatal (1-6)		196.00		189.50	100 %	

(Weighted)

$06.\ Information\ regarding\ Project\ Director\ (s):$

Name & Designation with	Full time	Part time	Responsible for more than	Date of		Remarks	
pay Scale			one project	Joining	Transfer		
1	2	3	4	5	6	7	
Md. Abdul Hye Superintanding Engineer, Grade-4 50,000-71,200	-	Yes	No	09-12-2015	11-01-2016	The Project Director is the Team Leader and stationed at Head	
Fazlur Rashid Superintanding Engineer, Grade-4 50,000-71,200	-	Yes	No	30-06-2016	30-06-2017	Quarter Office in Dhaka.	

07. Procurement of Transport (in Nos.) : $\ensuremath{\mathrm{N/A}}$

Type of transport	Number as per P.P.	Procured with date	Transferred to Transport Pool with date	Transferr ed to O & M with date	Condemned/ damaged with date	Remarks
1	2	3	4	5	6	7

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	Tender/Bid/ Proposal Cost (in lakh Taka)		Tender/B	id/Proposal	Date of completion of works/services and supply of goods		
/consultancy) as per bid document	As per PP/PSP	Contract value	Invitation date	Contract signing/ L.C opening date	As per contract	Actual	
1	2	3	4	5	6	7	
Consultatancy service for "Development of Smart Project Monitor-ing and Management Information System (SPMMIS).". Consultant: Center For Environmental and Geographic Information Services (CEGIS)	187.00	187.00	26/04/2016	29/06/2016	28/06/2017	28/06/2017	

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

a) Foreign: Not Applicable

b) Local: 22 persons, 76 man months

	Name of the Field	1	ved man	Actual man month utilised	Remarks
SI.		As per PP/PSP	As per contract		
	1	2	3	4	5
1.	GIS-IT Expert /Team Leader	7	7	7	
2.	Sr. Water resources Engineer	4	4	4	
3.	Monitoring & Evaluation Expert	3	3	3	
4.	Data base Expert (2 nos)	8	8	8	
5.	GIS Specialist (3 nos)	12	12	12	
6.	GIS Programmer (3 nos)	12	12	12	
7.	Data Analyst (5 nos)	15	15	15	
8.	Technical Asssistant(6 nos)	15	15	15	
		76	76	76	

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

Description of items	Quantity (as per PP)	Quantity procured with date	Transferred to O & M with date	Disposed off as per rule with date	Balance	Remarks
1	2	3	4	5	6	7

C. FINANCIAL AND PHYSICAL PROGRAMME:

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

(In lakh Taka)

Financial Year	Financial provision & physical target as per original PP/PSP				t Financial provision & physical ta latest revised PP/PSP			
	Total	Taka	P.A	Physical (%)	Total	Taka	P.A.	Physical (%)
1	2	3	4	5	6	7	8	9
2015-2016	-	-	-	-	-	-	-	-
2016-2017	196.00	196.00		100 %	196.00	196.00	-	100%

01. (b) Revised ADP allocation and progress:

(In lakh Taka)

Financial	Revised Allocation & target				Taka	Expenditure & physical progress			
Year	Total	Taka	P.A.	Physical %	release	Total	Taka	P.A.	Physical %
1	2	3	4	5	6	7	8	9	10
2015-2016	-	-	-	NAT .	-	-		-	-
2016-2017	190.00	190.00	-	100 %	189.50	189.50	189.50	-	100 %
Total	190.00	190.00	-	100%	189.50	189.50	189.50	-	100 %

D. ACHIEVEMENT OF OBJECTIVES OF THE PROJECT /STUDY:

	Objectives as per PP/PFS	Actual achievement	Reasons for shortfall, if any
•	Collection of baseline information of 53 ongoing Projects. Baseline information would include GPS locations of all interventions, available data set and satellite images.	completed	Does not arise
•	Information collection of Canal & Road Network, locations of structures & preparation of GIS based maps of 03 completed Projects viz. Teesta Barrage Project, Ganges-Kobadak (G-K) Irrigation Project & Tarail-Pachuria FCDI Project from BWDB and other sources.	completed	
•	Preparation of Index maps of Projects under this Contract with Real Time Information of all interventions.	completed	
•	Development of Smart Project Monitoring and Management Information System Software (SPMMIS) with source code keeping provision of preserving baseline information, list of structures with location on GIS maps, GPS locations of Project activities, Satellite images, shape files of classified categories of information.	completed	
•	Incorporation of all collected & surveyed information in newly developed Smart Monitoring Software.	completed	
•	Future provision for further development and enrichment of preserved data-base and arrangement for inclusion of newer categories of data.	ensured	

E. BENEFIT ANALYSIS

01. Annual Out-put: Since it is a Web-based Smart Project Monitoring System Software

Development Project so, tangible output will not be derived. It is applicable for investment project.

Items of out-put	Unit	Estimated quantity expected at full capacity	Actual quantity of out-put during the 1st year of operation at full capacity (or during, real production for newly completed project).
(a) Incremental Agricultural Benefit. (b) (c) (d)			It is an Web-based smart project monitoring system software development project. Using this software, 56 BWDB projects will come under Web-based smart project monitoring system only.

02. Cost/Benefit: Not applicable (It is not an investment project. Hence, not applicable)

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

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

It is a Web-based smart project monitoring system software development project. So, it is not applicable for this project.

F. MONITORING AND AUDITING

0.1 Monitoring: Not Applicable (It is a contract based consultancy project, which is completed during the contract period.)

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

(a) Ministry / Agency:

-

(b) **IMED**:

-

(c) Others: (Please specify)

0.2. Auditing during and after Implementation:

2.1. Internal Audit: N/A

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

2.2. External Audit: N/A

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

G. DESCRIPTIVE REPORT

1. General Observations/Remarks of the Project:

1.1 Background

Bangladesh Water Development Board (BWDB) is the premier organization to take care of water resources available in Bangladesh. Since commissioning, BWDB is solely entrusted with attempting numerous interventions with a view to ensuring integrated and potential use of water resources for the betterment of life and livelihood of ever-increasing population of Bangladesh. It is, and of course, will be one of the most challenging jobs for GoB to confirm food security for the giant group of people. BWDB takes mandate to provide large scale irrigation facilities, protection of agricultural lands from flood, tidal surges, salinity and other risks and threats. In this response, up to June, 2014, BWDB has completed 776 ADP Projects including Bank Protection Works, Irrigation Projects, FCD, FCD/I and River Dredging Works. In line with these tasks, BWDB has constructed numbers of closures across channels dividing the main land with another island and has reclaimed 1.02 lac ha lands from the sea. Such achievement has contributed to enhance irrigation facilities, settlement to the landless people and thus attained regional challenge to combat both natural and man-made interventions. Char Development & Settlement Project is the name behind the efforts and achievements in coastal belts in south-eastern coastal belt of Bangladesh. Among numerous physical interventions, BWDB has constructed Embankments (both sea facing, river facing and canal facing), Irrigation & Drainage canals with allied hydraulic structures, Pump Houses, 04 Barrages (Manu, Buri Teesta, Teesta & tangon), Closures, Bridges and Culverts, Roads (including semi-pacca), Rubber Dams (Pekua, Mahamaya, Palakata, Kahua & Bagujora), Weirs etc. In terms benefit, BWDB has supported 64 lac ha area with FCDI facilities, 14.14 lac ha area with Irrigation facilities. More than 1.02 lac ha area is reclaimed from the sea. 250.74 lac M.tons food is being produced in BWDB Project Area with increased yield 99.00 lacs Ton. In case of Bank Protection works, 870 km Bank Revetment Works has been completed, 220 Spurs are there with 22 Nos. town Protection Projects. The list of approach and success is still being written continuously and relentlessly. There are 72 Climate Change Trust Fund Projects among which, 61 Projects are on-going and 11 Projects are completed.

Like every year, BWDB is assigned with a huge workforce with the mandated target. In this connection, 53 Projects are on-going in this financial year, 2014-15. Undoubtedly, the major challenges are protection from flood and continuation to agricultural development along with many other development initiatives. Huge population and relevant economic activities are dependent on the efficient functioning of Project infrastructure. Maintenance activities a regular task of the BWDB which involves considerable amount of investment each year. Usually GoB investment is ensured for regular maintenance of structures based on priorities. In case of major damage due to cyclone and flood, GoB allocates fund against rehabilitation Proposals. Foreign investment in terms of grants and loans are utilized for rehabilitation schemes on selection basis.

It is felt that BWDB performs a major role in development activities of Bangladesh. To fuel up the pace of development initiatives, it is mandatory to know the baseline scenario instantly so that decision could be made with ease. Fund allocating authorities need to have a glimpse of present scenario and then get confirmed about the demand. At present, piece meal works, scattered information preservation and incomplete database management system are the main casualties of BWDB. Bangladesh is thriving to handle environmental degradation challenges every moment. Even foreign delegates request for well arranged information database for research & further development also. In this line, it is necessary to modernize information preservation system and monitoring activities of development works. So it is thought to develop a GIS and web based interactive digital information system for smart monitoring activities.

1.2 Justification/Adequacy

Since commissioning of BWDB, interventions are being constructed. Re-modelling, replacements & retirements have been done on requirement. Project maps are prepared during the Project completion time. As a result, most of the preserved information has been outdated. Adjacent Projects are not integrated in the maps also. The result is scattered and obscure scenario in developed water resources management concerns. It is high time Water Resources related organizations should prepare computerized maps with future provisions for updating the information time to time. BWDB proposes to deploy Consultant to conduct topographic survey of 53 on-going Projects in 2014-15 financial year and 03 completed Projects such as Teesta Barrage Project, Ganges-Kobadak Irrigation Project & Tarail-Pachuria Flood Control, Drainage & Irrigation Project, prepare GIS maps and database including all relevant information, develop a central software where all relevant information could be preserved, viewed, updated & future necessary data would be included. Honorable Minister, State Minister, Secretary, Officials of MoWR, BWDB, RRI, WARPO, Bangladesh Haor & Wetland Development Board, Joint River Commission would access to the database on requirement, if allowed. For decision making steps regarding future water resources management steps, existing and proposed interventions in proper location, location-based project infrastructure information along with latest situation is necessary. Currently, BWDB is using old hardcopy maps and tables (for Projects those were completed far ago and no rehabilitation work was done to date) where the situation is not updated because of non-availability of sufficient information and lack of other overlaying spatial information such as settlement, roads, railways, drainage pattern etc. These shortcomings could be overcome by introducing a computerized GIS based Project Infrastructure Information System where geo-referenced satellite images or Google image can be viewed in background. For this, all the project infrastructures need to be surveyed, mapped and tabled in GIS and database system. Other layers of data need to be added as separate data layers with interactive data view and query system. Satellite images of different times could be added to visualize the changed situations. Photographic information of infrastructures could be stored in the Project Monitoring and Management System with timestamps, so that the physical situation, work progress and changes

over time can be visualized and assessed. All these facilities will provide rational base of allocation of monitoring budget to each project considering the priority and available budget.

Furthermore, a GIS based Smart Project Monitoring and Management Information System (SPMMIS) Software with source code will keep the records of all allocations, investments, interventions and responses with timestamps and locations. The historical information will guide to plan better monitoring activities which will optimize the investment and project status.

This proposal has been prepared in response to the expectation of the Honorable Prime Minister of Bangladesh in a meeting in MoWR on 12 May 2014 with the concept of building a digital Smart System for project management and monitoring—to ensure efficient investment and quality monitoring of the water resources projects. Moreover, the preserved data will be used as baseline scenario for presentation before foreign donors.

1.3 Objectives

The prime objective of the project is to digitalize 56 Projects, Improvement of performance of water infrastructure management and monitoring systems utilizing web and GIS technology is the vision behind this proposal. To be specific, the objectives are as follows:

- Collection of baseline information of 53 on-going Projects. Baseline information would include GPS locations of all interventions, available data set and satellite images.
- Information collection of Canal & Road Network, locations of structures & preparation of GIS based maps of 03 completed Projects viz. Teesta Barrage Project, Ganges-Kobadak (G-K) Irrigation Project & Tarail-Pachuria FCDI Project from BWDB and other sources.
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- Incorporation of all collected & surveyed information in newly developed Smart Monitoring Software.
- Future provision for further development and enrichment of preserved data-base and arrangement for inclusion of newer categories of data.

1.4 Project revision with reasons

Implementation period of the project was extended for Six month without cost increase. Original Implementation period of the project was June, 2015- December, 2016. And Revised Implementation period is June, 2015- June, 2017.

No fund was allocated against the project in ADP FY 2015-2016, besides the contract was signed in delay on 29th June, 2016. Hence the Implementation period of the project is extended.

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

Since commissioning of BWDB, interventions are being constructed. Re-modelling, replacements & retirements have been done on requirement. Project maps are prepared during the Project completion time. As a result, most of the preserved information has been outdated. Adjacent Projects are not integrated in the maps also. The result is scattered and obscure scenario in developed water resources management concerns. It is high time Water Resources related organizations should prepare computerized maps with future provisions for updating the information time to time. BWDB proposes to deploy Consultant to conduct topographic survey of 53 on-going Projects in 2014-15 financial year and 03 completed Projects such as Teesta Barrage Project, Ganges-Kobadak Irrigation Project & Tarail-Pachuria Flood Control, Drainage & Irrigation Project, prepare GIS maps and database including all relevant information, develop a central software where all relevant information could be preserved, viewed, updated & future necessary data would be included. Honorable Minister, State Minister, Secretary, Officials of MoWR, BWDB, RRI, WARPO, Bangladesh Haor & Wetland Development Board, Joint River Commission would access to the database on requirement, if allowed. For decision making steps regarding future water resources management steps, existing and proposed interventions in proper location, location-based project infrastructure information along with latest situation is necessary. Currently, BWDB is using old hardcopy maps and tables (for Projects those were completed far ago and no rehabilitation work was done to date) where the situation is not updated because of non-availability of sufficient information and lack of other overlaying spatial information such as settlement, roads, railways, drainage pattern etc. These shortcomings could be overcome by introducing a computerized GIS based Project Infrastructure Information System where geo-referenced satellite images or Google image can be viewed in background. For this, all the project infrastructures need to be surveyed, mapped and tabled in GIS and database system. Other layers of data need to be added as separate data layers with interactive data view and query system. Satellite images of different times could be added to visualize the changed situations. Photographic information of infrastructures could be stored in the Project Monitoring and Management System with timestamps, so that the physical situation, work progress and changes over time can be visualized and assessed. All these facilities will provide rational base of allocation of monitoring budget to each project considering the priority and available budget.

Furthermore, a GIS based Smart Project Monitoring and Management Information System (SPMMIS) Software with source code will keep the records of all allocations, investments,

interventions and responses with timestamps and locations. The historical information will guide to plan better monitoring activities which will optimize the investment and project status.

This proposal has been prepared in response to the expectation of the Honorable Prime Minister of Bangladesh in a meeting in MoWR on 12 May 2014 with the concept of building a digital Smart System for project management and monitoring—to ensure efficient investment and quality monitoring of the water resources projects. Moreover, the preserved data will be used as baseline scenario for presentation before foreign donors.

According to the Original PFS the project implementation period was - June, 2015- December, 2016. But due to to delay of contract signing with the consultant, besides no fund fund was realeased against the project in ADP 2015-2016. The contract aggreement was signed on 29th june, 2016. As a result project implementation period is extended BY MoWR from June, 2015- June, 2017 Vide memo no: পাসম 42.00.0000.039.14.028.15-.174; Date: 06-06-2016 without Cost inrease

Moreover the contract aggrement is signed lower cost than approved cost. Hence the project cost is reduced by Tk.6.50 lakh. The expenditure of the project is 189.50 lakh tk and physical achievement is 100% and the project is being completed in approved time.

- 3. Brief description on planning and financing of the project and its applicability.
 - Project Identification
 - Project Preparation
 - ♦ Appraisal
 - Credit Negotiation
 - Credit Agreement
 - Credit Effectiveness
 - Loan Disbursement
 - Loan Conditionalities
 - Project Approval.
 - Others (if any).

Applicable For Invest ment Project

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 beneficiaries of the project are registered Officials of MoWR, BWDB, WARPO, RRI & Banglaedesh Haor & Wetland Development Board to the data-base software and provision for use of preserved information on requirement	
4.2	Programme for use of created facilities of the project.	A GIS based Smart Project Monitoring and Management Information System (SPMMIS) Software with source code will keep the records of all allocations, investments, interventions and locations. This will creat the facilities to BWDB to plan better monitoring activities which will optimize the investment and project status	
4.3	O & M programme of the project.	Maintance of software will be performed by BWDB. The consultant will provide technical support.	
4.4	Impact of the project - 4.4.1 Direct	A GIS based Smart Project Monitoring and Management Information System (SPMMIS) Software with source code will keep the records of all allocations, investments, interventions and locations. The historical data will guide to plan better monitoring activities which will optimize the investment.	
	4.4.2 Indirect	Transperancy will be ensured	
4.5	Transfer of Technology and Institutional Building through the project	Technology and data will be transferd by the consultant to BWDB officials.	
4.6	Employment generation through the project.	Not related	
4.7	Possibility of Self employment.	Not related	
4.8	Possibility of women-employment opportunity.	nployment Not related	
4.9	Women's participation in development.	Not related	
4.10	Probable Impact on Socio-Economic activity.	Not related	
4.11	Impact on environment.	Not related	

4.12	Sustainability of the project.	The Project will be sustainable.
4.13	Contribution to poverty alleviation/reduction	Not related
4.14	Opinion of the public representatives, local elite, local administration, teachers, religious leaders, women's representatives etc.	Not related
4.15	Contribution of Micro-credit programmes and Comments on overlapping with any NGO activities.	Not related

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

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

It is a contract base consultancy project. The above problems don't occour.

6. Remarks & Recommendations of the Project Director:

The prime objective of the project is to develop management and monitoring systems of water infrastructures of BWDB utilizing web and GIS technology under this study. Development of Smart Project Monitoring and Management Information System Software (SPMMIS) with source code keeping provision of preserving baseline information, list of structures with location on GIS maps, GPS locations of Project activities, Satellite images, shape files of classified categories of information.

The beneficiaries of the project are registered Officials of MoWR, BWDB, WARPO, RRI & Banglaedesh Haor & Wetland Development Board.

It is recommended that the Development of Smart Project Monitoring and Management Information System (SPMMIS) will play a vital role to achieve the desired objectives.

Date: 11.09.17	Signature and seal of the Project Director/Manager (Fazlur Rashid) Director, Planning-1, BWDB Dhaka.
Monitoring and play a vital ra upon the perd	ded that the development of Smart Project Management Information System (SpMMIS) with the desired objectives and formance of the project, similar study be taken in tuture for web & Gils based BWDB projects. (Md. Mahfuzur Rahman) Signification Cheferal BWDB, Dhaka.
8. Remarks/Comments of the officer in-	charge of the Ministry/Division
Date:	Signature and Seal