

Project Administration Manual

Project Number: 34418-023
Loan and Grant Numbers: LXXXX; GXXXX
September 2015

People's Republic of Bangladesh: Additional
Financing – Southwest Area Integrated Water
Resources Planning and Management Project

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Bangladesh Water Development Board (BWDB) is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by BWDB of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan Agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

ABBREVIATIONS

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
BWDB	=	Bangladesh Water Development Board
CQS	=	consultant qualification selection
DAE	=	Department of Agriculture Extension
DMF	=	design and monitoring framework
DOF	=	Department of Fisheries
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GAP	=	gender action plan
GDP	=	gross domestic product
IEE	=	initial environmental examination
LA	=	land acquisition
LGED	=	Local Government Engineering Department
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PMO	=	project management office
O&M	=	operation and maintenance
PAM	=	project administration manual
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RAC	=	Regional Accounting Centre, BWDB
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SMO	=	subproject management office
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference
WMA	=	water management association
WMG	=	water management group
WMO	=	water management organization

I. PROJECT DESCRIPTION

1. The project location, design and activities are described in **Appendix 1**. The project is additional financing to Loan 2200-BAN (SF): Southwest Area Integrated Water Resources Planning and Management Project. It will expand successful experience of the current Southwest project neighboring geographical areas. The project will apply participatory water resources planning and management procedures. The procedures are described in **Appendix 2**.¹

A. Rationale

2. Water affects various aspects of the livelihoods of the rural population in Bangladesh. The country is on a vast floodplain at the confluence of the three major rivers, and has faced significant physical challenges including monsoon floods, changes in river courses due to erosion and sedimentation, water scarcity in the dry season, cyclones, and widespread arsenic contamination of groundwater. The productivity of agriculture, fisheries and associated nonfarm industries is susceptible to these water-related issues. More than 80% of poor people in Bangladesh live in rural areas,² and depend on agriculture or fisheries for their livelihoods. Despite a fall in the share in the gross domestic products to 17% in FY2013, agriculture in Bangladesh remains the largest employer, providing jobs to 48% of the population.³ Access to and effective management of water is essential to improved productivity and livelihoods for rural poor people. Water management is complicated by diverse stakeholder interests among different water users including agriculture, fisheries, navigation, industries, and drinking water.

3. Chronical infrastructure deterioration of existing flood control, drainage and irrigation (FCD/I) schemes, especially large-scale schemes,⁴ has impaired their water management capacity. The absence of stakeholder participation causes a lack of user ownership, which is followed by rapid deterioration of structures, inefficient and irrelevant planning, and inefficient water uses. Managing critical water resources through an integrated and participatory approach is essential for efficient water management; the sustainability of FCD/I schemes; and improved livelihood of vulnerable poor people, including women.

4. The Asian Development Bank (ADB) has provided finance for participatory water management projects for small-scale schemes since 1995.⁵ The schemes have demonstrated success in improved infrastructure performance through beneficiary participation. To extend the integrated and participatory water management to the large scale FCD/I schemes, in 2005 ADB approved a \$20 million equivalent loan for the current project.⁶ The project also included \$12.5 million of cofinancing from the Government of the Netherlands. The current project supports establishment of participatory water management organizations (WMOs) with the inclusion of socially disadvantaged groups; integrated water resources management planning; infrastructure

¹ The project name is referred to the “Southwest Area Integrated Water Resources Planning and Management Project (Second Phase)” in the government’s Development Project Proposal/Proforma.

² World Bank. 2014. *World Development Indicators*. Washington DC.

³ Planning Commission. 2015. *Agriculture Sector Development Strategy, Background Paper for 7th Five Year Plan*. Dhaka.

⁴ FCD/I schemes with command area above 1,000 ha are categorized large-scale in Bangladesh.

⁵ For example, ADB. 1995. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People’s Republic of Bangladesh for Small-Scale Water Resources Management Sector Project*. Manila.

⁶ ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People’s Republic of Bangladesh, Southwest Area Integrated Water Resources Planning and Management Project (Bangladesh)*. Manila (Loan 2200(SF) and Grant 0036-BAN)

renovation; and coordinated support services for WMOs in the two pilot subprojects, comprising the Narail and Chenchuri Beel FCD/I schemes with a total area of 57,000 hectares (ha).

5. The current project successfully demonstrated that the participatory approach can improve the water resources management of large FCD/I schemes. This is the first success case for large schemes among several trials in Bangladesh. After a slow start-up as a result of delays due mainly to limited experience of the Bangladesh Water Development Board (BWDB) in using a participatory approach, the progress of the current project has significantly improved since 2010. Renovation of water management infrastructure in the two targeted subproject areas has been completed with satisfactory achievements of anticipated targets. In total, 116 WMOs, consisting of 102 water management groups (WMGs) and 14 higher tier water management associations (WMAs), have been organized and trained and are effectively functioning in the two subproject areas. About 25,400 households have benefitted from the project, including the socially disadvantaged groups such as landless farmers and women. Capacity enhancement activities for WMOs are demonstrating visible proactive WMO activities in agriculture, fisheries, livestock, and collective livelihood actions. Operation and maintenance (O&M) of small structures have been handed over to WMOs, after development of O&M manuals and WMO O&M capacity. As a result of the current project, rice production nearly doubled and fishery production increased by 30% in the two subproject areas.⁷ BWDB acquired knowledge and experience of participatory water resources planning and management through the project.

6. The current project has been continuously rated *on track* since the second quarter of 2011. Cumulative disbursement had reached \$20.3 million (or 95% of the total loan amount)⁸ for the ADB loan and \$12.3 million (98% of the total grant amount) for the Netherlands grant as of 31 July 2015. The current project has been complying with all loan covenants, including requirements for environment and involuntary resettlement safeguards and gender consideration.

7. The additional financing will replicate the successful current project in nine additional subprojects with a total area of 84,000 ha and the population of about 469,500 in nearby areas. By applying knowledge and experience acquired from the current project, BWDB's institutional capacity for the participatory water resources management is expected to be enrooted. Based on the lessons learned through the current project, the design of the institutional strengthening component will be further strengthened by establishment of a mechanism of a national capacity enhancement support under BWDB to ensure sustainability of participatory water resources management by WMOs.

8. The project is in line with government and ADB strategies. Economic growth and poverty reduction are the main objectives of the government's Sixth Five-Year Plan, FY2011 – FY2015.⁹ Achieving food security is considered essential to accomplishing these objectives. Food security and agricultural productivity is also part of ADB's strategic priorities for 2014-2020 in the action plan of the Midterm Review of the ADB's strategy 2020.¹⁰ ADB's country partnership strategy for

⁷ Implementation, Monitoring and Evaluation Division, Ministry of Planning . 2014. *Mid Term Evaluation Report of the Southwest Area Integrated Water Resources Planning and Management Project*. Dhaka.

⁸ The disbursed amount is equivalent to SDR13.172 million out of the total ADB loan of SDR13.863 million. The disbursed amount in dollars at \$20.3 million exceeds the approved loan amount of \$20.0 million because the loan is denominated in special drawing rights.

⁹ Government of People's Republic of Bangladesh. Planning Commission. 2011. *Sixth Five Year Plan FY2011-FY2015: Accelerating Growth and Reducing Poverty*. Dhaka.

¹⁰ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

Bangladesh, 2011 – 2015 emphasizes innovative approaches to water resource management, and to support the government's objectives for rural poverty reduction, food security, and gender equality.¹¹

B. Impact and Outcome

9. The impact of the project will be enhanced economic growth and reduced poverty in rural areas of the selected districts in the southwest area of Bangladesh, aligned with the government's Sixth Five-Year Plan, FY2011–FY2015. The outcome will be enhanced productivity and sustainability of the selected existing FCDI systems, which could contribute to increasing incomes and livelihood standards of disadvantaged groups, including women. The impact and outcome statements are unchanged from the current project.

C. Outputs

10. The output targets for the current project will be scaled up by expanding the geographical areas from the current two subprojects to include nine additional subprojects. The scope and targets of the additional financing outputs are summarized in the following paragraphs.

11. **Output 1: Water management organizations' capacity for sustainable water resources planning and management in the subproject areas strengthened.** The additional financing will cover formation and capacity development of WMOs in the additional nine subproject areas, aiming at enrollment of 70% of farmers. Follow-up support for O&M capacity development will also be provided to the existing 102 WMGs and 14 WMAs in the two subproject areas of the current project. An integrated water management plan will be prepared for each subproject area. Each plan formulates holistic water resources management planning and safeguard assessments for the subproject, following intensive participatory analyses of local conditions and needs. Each subproject will be divided into hydrological subunits. WMAs will be formed that will manage each subunit and lower-tier WMGs. A subunit implementation plan (SIP) will be prepared for each subunit. The plan will include specific requirements for renovation or construction of water management infrastructure, and capacity development and livelihood support programs for WMOs.

12. Subsequent to preparation of SIPs, the project will support the WMOs to implement the institutional development plan specified in the SIPs, including (i) capacity development training of executive committees and subgroups under WMOs, (ii) development of operational rules, (iii) registration, and (iv) establishment of a fee collection system for O&M services and other WMO activities. The project will also support skills development of WMOs for efficient use of water management infrastructure to improve the productivity of agriculture and fisheries activities, and for ensuring attention is given to all aspects of water resource management related to gender and social inclusion. The support will be linked to other income-generating activities of WMOs. An additional 150 WMGs are expected to be formed under the project, with the inclusion of the socially disadvantaged and with 33% participation of women.

13. The project support will be extended to training and capacity development of WMOs for monitoring civil works, routine minor maintenance of infrastructure, preparing O&M manuals, and effectively using WMO O&M funds. O&M responsibility for infrastructure will be transferred

¹¹ ADB. 2011. *Country Partnership Strategy: Bangladesh, 2011–2015*. Manila.

to WMAs or WMGs, depending on their functions and covering area, after completion of works and WMO O&M capacity development training.

14. Output 2: Infrastructure facilities of flood control, drainage, and irrigation schemes in the subproject areas restored. The second output will include renovation or construction of water management infrastructure, such as gated water retention structures, flood embankments, re-excavation of drainage and/or irrigation canals, and local riverbank protection works, as specified in the SIPs.

15. Output 3: Institutional capacity for sustainable participatory integrated water resources planning and management strengthened. The third output will focus on the national institutional capacity development of BWDB for (i) efficient coordination with government departments, such as the Department of Agriculture Extension and the Department of Fisheries; (ii) management and monitoring of WMO activities that will be registered with BWDB under the new participatory water management rules 2014;¹² and (iii) performance monitoring and O&M of water management infrastructure.

¹² Government of Bangladesh. 2014. *Bangladesh Gazette*. Dhaka.

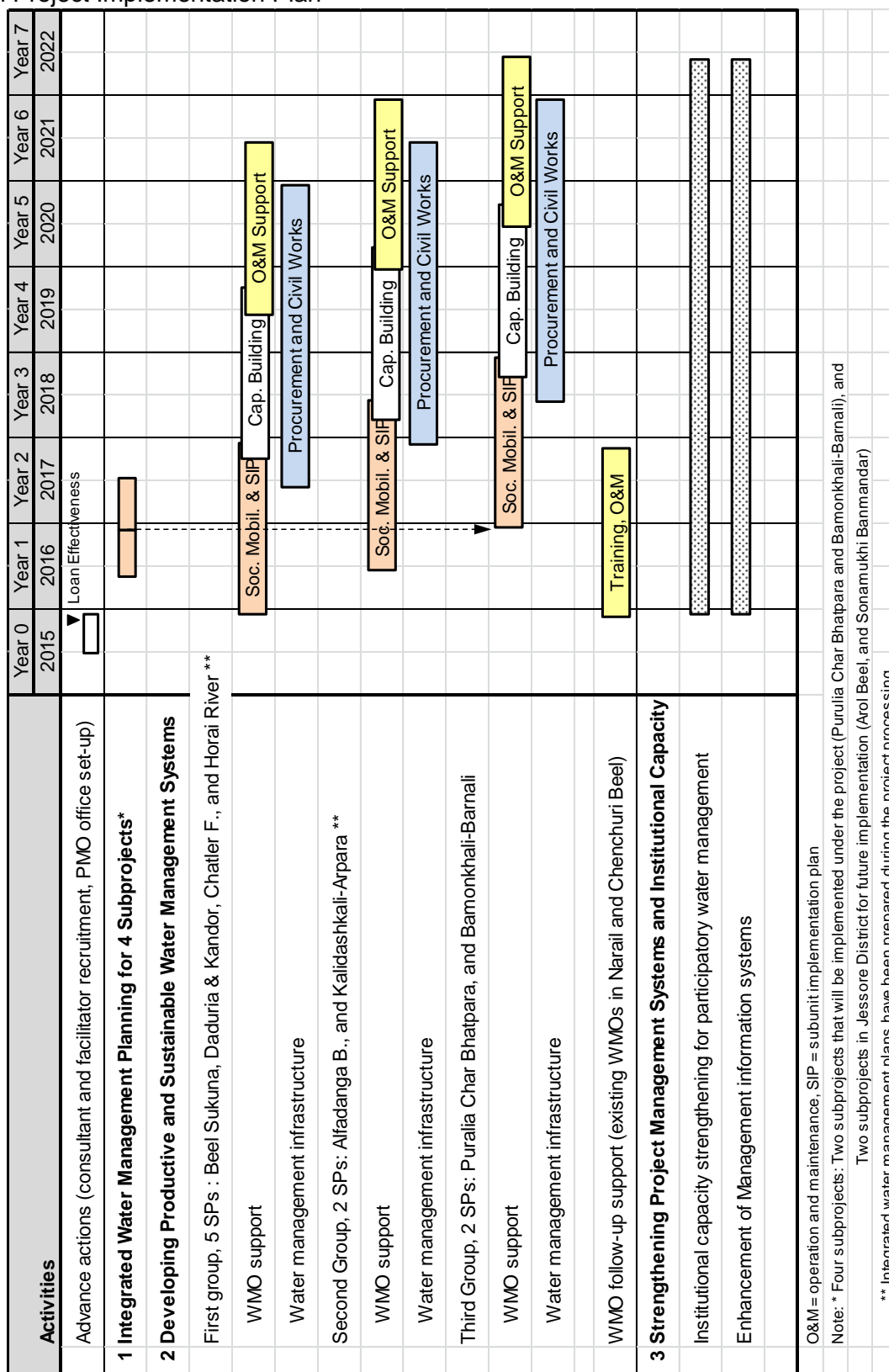
II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2015 Ma	Ap	Ma	Ju	Ju	Au	Se	Oc	No	Dec	2016 Jan	Responsible
Fact finding mission	x											ADB
ADB SRM												
DPP PEC consideration					x							GOB
DPP ECNEC approval						x						GOB
Loan negotiation						x						GOB, ADB
ADB Board approval							x					ADB
Loan signing								x				GOB, ADB
Government legal opinion provided									x			GOB
Loan effectiveness									x			GOB, ADB
Advance contracting actions												
A. Consulting services												
• Advertisement					x							BWDB
B. Goods												
• Advertisement					x							BWDB
C. Mobilizers					x							BWDB
Land acquisition and resettlement for embankment												
• Start survey and preparation										x		BWDB
Government budget inclusion (FY2015/16)					x							GOB
	2015 Ma	Ap	Ma	Ju	Ju	Au	Se	Oc	No	Dec	2016 Jan	

ADB = Asian Development Bank, BWDB = Bangladesh Water Development Board, GOB = Government of Bangladesh, SRM = staff review meeting
Source: Asian Development Bank estimate.

Overall Project Implementation Plan



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> Project Steering Committee (PSC) 	<ul style="list-style-type: none"> Provide policy guidance to oversee its implementation. Ensure smooth inter-ministry/agency coordination. Oversee project implementation and guide resolve implementation problems and issues that require higher level interventions.
<ul style="list-style-type: none"> BWDB (Executing agency) 	<ul style="list-style-type: none"> Overall responsibility for executing the project. Coordinate with MOWR and ensure fund placement for the project. Arrange necessary institutional support and services for project implementation. Establish a Project Management Office (PMO) as the focal point of the project implementation. Establish 4 Subproject Management Offices (SMO) for the implementation at the subproject level. Ensure to designate adequate staff at PMO and SMO, and recruit adequate contract-basis staff at PMO, including mobilizers. Communicate and coordinate with MOWR and supporting departments such as the Department of Agriculture Extension (DAE), Department of Fisheries (DOF), Department of Cooperatives (DOC), Local Government Engineering Department (LGED), and other relevant agencies and institutions.
<ul style="list-style-type: none"> PMO under BWDB 	<ul style="list-style-type: none"> Manage and monitor the overall implementation of the project, and budget Liaise with MOWR, supporting departments and other relevant agencies and institutions. Award and manage contracts for procurement of works and goods, and for recruitment of consulting services. Manage project finance and accounts, and monitor the use of funds provided by government, ADB and a co-financer. Liaise with, monitor and supervise SMOs for subproject implementation. Provide logistic support to supporting departments for the implementation of project activities. Prepare and submit periodic progress reports, annual financial audit reports, safeguard monitoring reports, and other reports meeting government and ADB requirements. Collect and collate expenditure statements, and prepare and submit withdrawal applications for funds to ADB.
<ul style="list-style-type: none"> SMO under BWDB 	<ul style="list-style-type: none"> Manage and supervise day-to-day implementation of project activities in respective subproject areas. Coordinate with upazilla and union level institutions and local communities at subproject level.

Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> • ADB 	<ul style="list-style-type: none"> • Review overall project implementation including compliance with ADB loan and financing grant regulations, loan agreement, project agreement, and grant agreement. • Select, following ADB guidelines and as agreed in response to the BWDB request project implementation consultants on behalf of BWDB. • Review project documents that require ADB's approval or no-objection. • Provide funding for eligible items of expenditures.
<ul style="list-style-type: none"> • Cofinancer 	<ul style="list-style-type: none"> • Review overall project implementation together with ADB. • Provide funding for eligible items of expenditures.

B. Key Persons Involved in Implementation

Executing Agency

BWDB

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C. Project Organizational Structure

16. The organizational structure of the project is shown in **Figure 3.1**. **Figure 3.2** shows the organization structure within BWDB for the implementation of the project. Any change in implementation arrangements in the PAM requires ADB's approval. The existing implementation arrangements for the current Southwest project basically will be continued, with the following adjustments:

- (i) Functions of the Central Project Coordination Office (PCO) under BWDB will be merged with PMO, and a Dhaka liaison office of PMO will function as the PCO.
- (ii) The existing PMO office is placed in Jessore and a liaison office in Dhaka. For the implementation of the additional subprojects, PMO's office will be moved to Faridpur, and will continue the liaison office in Dhaka.
- (iii) The national-level technical coordination committee will be newly formed.
- (iv) The existing district level regular inter-agency coordination meetings for the subproject implementation will be continued as the district project coordination committee.
- (v) The new project will have four SMOs, while the current project has two SMOs. The four SMOs will implement nine subprojects.

17. **Project Steering Committee.** The existing set-up will be continued. It is chaired by the Secretary, MOWR, with the project director as the committee secretary. Members will include representatives from ministries and agencies concerned.¹³

18. **Project Management Office (PMO).** The existing set-up will be continued. PMO is placed under the Additional Director General (West Region), BWDB and is led by the full-time project director not less than the level of Superintending Engineer. PMO will be enhanced by individuals recruited from the market, such as research assistants and facilitators. The research assistants will assist PMO for technical aspects including data processing and analyses for the preparation of SIPs and management information system (MIS). Senior and community facilitators will be directly engaged by PMO, and will support agriculture extension officers' roles including community mobilization and WMO support and capacity development. PMO will continue to be responsible for overall project management and monitoring. Like the current project, PMO will also (i) prepare IWMPs of the four subprojects with the support of the relevant SMOs, and (ii) develop and maintain MIS. The Principal Extension Officer, the head of the WMO development unit under PMO, will serve as a gender focal point of the project.

19. The Central PCO under Planning Directorate II of BWDB was established for the current project for coordination with MOWR, BWDB, and other relevant agencies, but will be merged with PMO for ensuring direct and close coordination with the relevant agencies. The liaison office of PMO in Dhaka will play the anticipated coordination role of PCO. The member secretary of the project steering committee will be changed from the project coordinator, the head of PCO, to the project director. PMO will also coordinate with other BWDB projects, and other externally financed projects. For institutional capacity strengthening activities, PMO will coordinate with Office of Chief Water Management and Directorate of Audit of BWDB.

¹³ Including the Planning Commission, Ministry of Water Resources, Ministry of Agriculture, Ministry of Fisheries & Livestock, Ministry of Local Government, Rural Development & Cooperatives, Ministry of Environment and Forest, Ministry of Land, Ministry of Women & Children Affairs, Economic Relation Division, Local Government Division, Implementation Monitoring & Evaluation Division, WARPO, Local Government Engineering Department, Department of Public Health Engineering, Department of Agriculture Extension, Department of Environment, and Department of Fisheries.

20. **Subproject Management Office (SMO).** The existing set-up mechanism will be continued, including distribution of responsibilities between PMO and SMOs and anticipated functions of SMOs. Four SMOs will be newly established at the level of subproject to implement nine subprojects as in **Table 3.1** and **Figures 3.1 and 3.2**. Each SMO will be headed by a senior executive engineer. The Executive Engineer Construction Division Chenchuri Beel was created under the current Southwest project, and has been working exclusively for the implementation of the Chenchuri Beel Subproject. The SMO will be shifted from Narail to Faridpur, and this special set-up SMO will exclusively work for the new project. It will implement five out of nine subprojects. Other three SMOs will be built on the existing set-up of the concerned BWDB division O&M offices supplemented by required staff, and executive engineers who are the head of the division O&M offices will lead SMOs in dual charges basis. The three dual charge SMOs will implement the remaining four subprojects as indicated in **Table 3.1**. Like in the current project, SMO will also (i) support PMO to prepare IWMPs, and (ii) prepare and implement SIPs. PMOs will have a space that can be used for documentation works and discussions for facilitators and PMO staff's field visits.

Table 3.1: List of Subprojects and Responsible SMOs

Sl. No.	Name of sub-project	District of subproject location	SMO in charge	Remarks
1.	Beel Sukunia	Faridpur	SMO in Faridpur Sadar	Existing O&M office
2.	Daduria Beel	Faridpur	SMO (special setup) in Faridpur Sadar	An existing special setup SMO [for Chenchuri Beel Subproject] will be transferred from Narail
3.	Kandor Beel			
4.	Alfadanga Boalmari			
5.	Chatlar-Fakurhat			
6.	Purulia Charbhatpara	Gopalganj		
7.	Kalidas Khali Arpara	Magura	SMO in Magura Sadar	Existing O&M office
8.	Bamonkhali-Barnali			
9.	Horai River	Rajbari	SMO in Rajbari Sadar	

SMO = subproject management office

21. The existing Narail O&M office and relevant field-level Deputy Chief Extension Officer at the Jessore Office will be continuously involved in the follow-up capacity strengthening support for existing 102 WMGs and 14 WMAs that were established in the Narail and Chenchuri Beel subprojects under the current Southwest project. The Narail O&M office is in charge of the implementation of the Narail Subproject under the current project, while the Chenchuri Beel special set-up SMO is in charge of the Chenchuri Beel subprojects. After the completion of the current project, the Narail O&M office will be in charge of O&M of structures in the Narail and Chenchuri Beel schemes, and the two schemes are under the jurisdiction of Deputy Chief Extension Officer at the Jessore Office of BWDP for registration and management of WMOs. PMO, especially its WMO development unit, will be enhanced by facilitators engaged from the market, and will implement the follow-up support in coordination with the Narail O&M and Deputy Chief Extension Officer.

22. **Supporting agencies.** The existing collaboration will be continued. DAE and DOF are the key supporting agencies, and their district or upazila (sub-district) level offices will provide technical inputs for IWMP preparation, SIP preparation, and capacity enhancement of WMOs for relevant topics. District or upazila level offices DOL, DPHE and district women affairs officers will also provide technical inputs for SIP preparation and capacity enhancement of WMOs for relevant topic where necessary. DOC's support will include technical inputs to BWDB's capacity strengthening programs for registration, auditing, monitoring and management of WMOs. Registration and auditing of WMOs were shifted from DOC to BWDB under the new Participatory Water Management Regulation 2014. DOC will provide technical inputs for capacity development of the BWDB's new role. The existing memorandums of understanding (MOU) between BWDB/MOWR and each agency concerned will be reviewed and renewed within 9 months of the loan effectiveness. Specific cooperation arrangements will be agreed upon under the MOUs.

23. Possible collaboration with and support from other organizations will also be explored in the course of the project implementation, especially for enhancing technical inputs to training and other institutional capacity development activities for WMOs and BWDB, as appropriate and depending on the needs of WMOs. Topics may include agriculture and fisheries post-harvest processing and development of linkages with markets or business partners for ensuring sustainability of WMOs.¹⁴

24. **National Technical Coordination Committee.** The committee will be newly established at the national level, for practical coordination, communication and information sharing between BWDB, PMO, SMOs and the key supporting departments that will be intensively involved in the project implementation, such as DAE and DOF. It will be chaired by Additional Director General (West Region), BWDB, and members will be the project director, subproject managers, Chief Water Management BWDB, Director Auditing BWDB, and the focal points from the key supporting departments. The focal points will be designated officials from the supporting departments, who is not as high as Director level, for timely and practical discussion and coordination of technical and other field-level aspects.

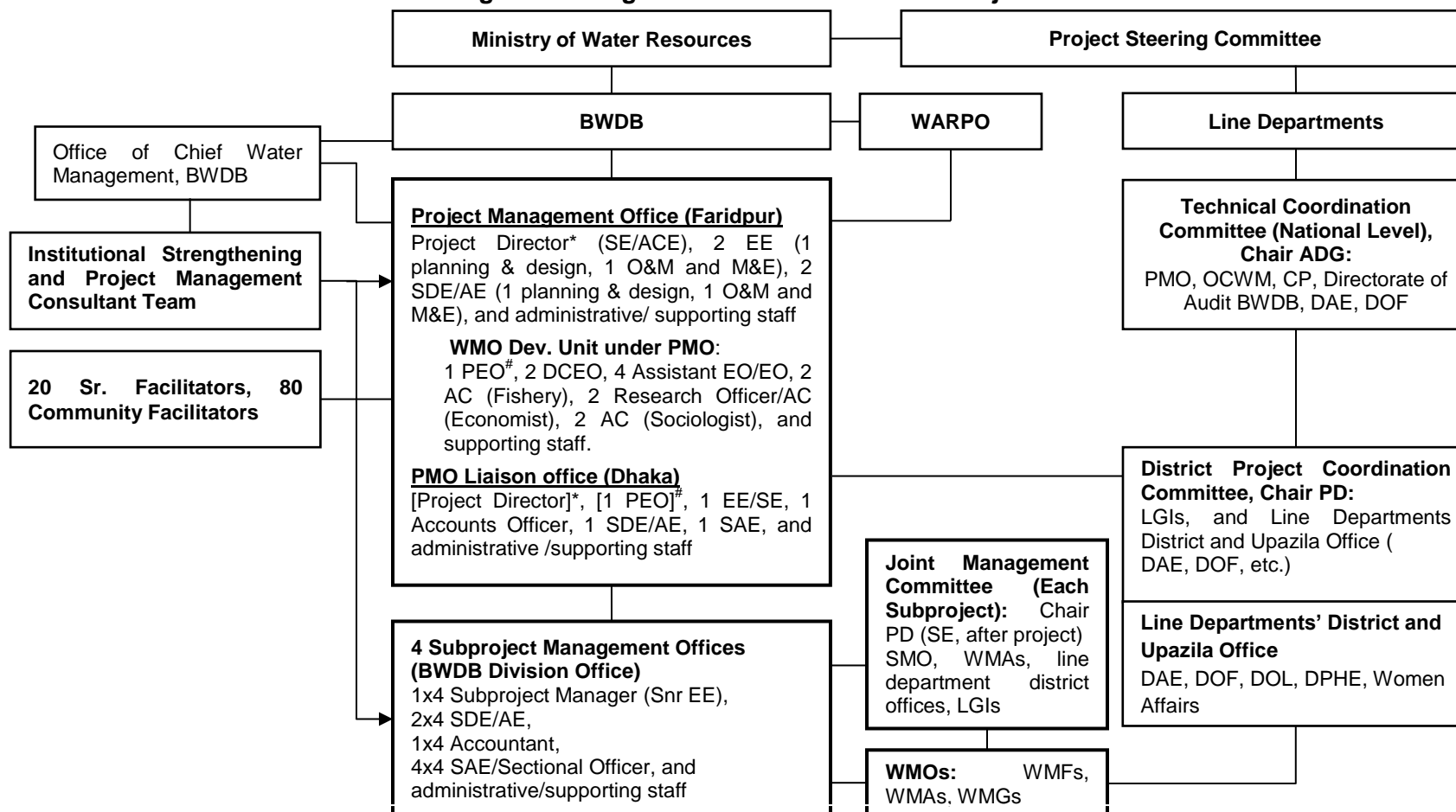
25. **District Project Coordination Committee** The existing subproject-wise regular inter-agency coordination meetings for the subproject implementation will be continued as the district project coordination committee. More than one subproject in a district will be discussed. The committee is a project specific set-up, and is chaired by the Project Director, PMO, and members will be representatives from the district concerned and district offices of the key supporting departments. Representatives of other supporting departments may be invited for the meetings as necessary. This committee is mainly for planning and monitoring of project activities, especially WMO capacity development activities. Progress and achievements of training for WMOs will be reported, and the committee will discuss and coordinate training plans of various topics in WMO financial management, agriculture, fisheries, livestock, women empowerment and other capacity development for WMOs.

26. District Level Inter-Agency Project Evaluation Committee meetings are existing government requirements for discussing water resources intervention planning to avoid duplicates or conflicts. As per government requirements, it will be held when necessary and comprised by representatives of PMO, district administration, and district offices of DAE, DOF, LGED and relevant agencies. Concurrence for SIPs will be obtained from the committee.

¹⁴ Potential agencies may include government institutions, civil societies, and research institutes, such as the Department of Agricultural Marketing, Bangladesh Agriculture Development Corporation, and PKSF.

27. **Joint Management Committee (JMC).** Concept and functions of JMCs of the current project will be continued. A JMC will be established for each subproject, to coordinate, monitor and make decisions on water resources planning and management in the concerned subproject. The JMC's tasks will include endorsement of O&M plans of water management structures, monitoring O&M of water management structures, and an intermediary role of water management conflicts among WMAs and/or WMGs that cannot be resolved by themselves. It will be chaired by the project director during the project period, and by a superintending engineer, the head of a concerned BWDB circle office after the project period. Members will be the representatives from the BWDB circle office, SMO, WMAs, local government institutions, and district offices of the supporting departments.

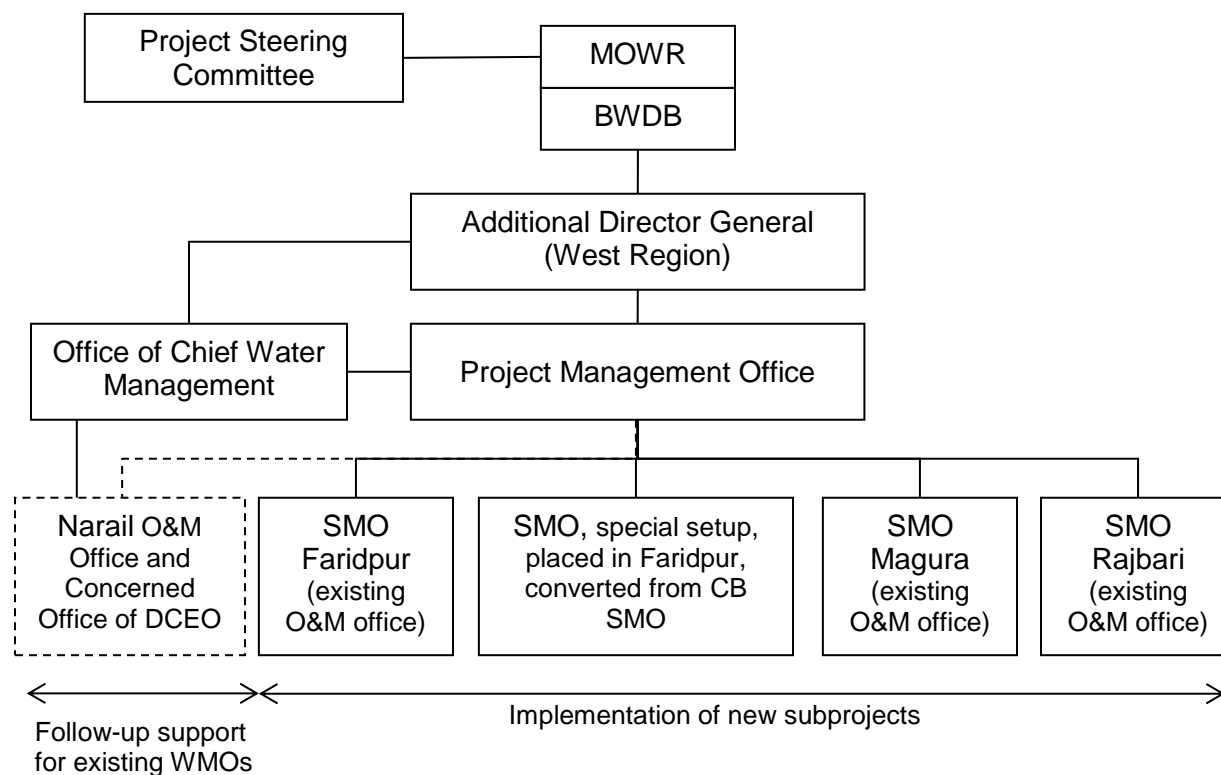
Figure 3.1: Organization Structure of the Project



AC = Assistant Chief, ADG = Additional Director General, ACE = Additional Chief Engineer, AE = Assistant Engineer, BWDB = Bangladesh Water Development Board, CP = Chief Planning, DAE = Department of Agriculture Extension, DCEO = Deputy Chief Extension Officer, DOF = Department of Fisheries, DOL = Department of Livestock, DPHE = Department of Public Health Engineering, EE = executive engineer, EO = extension officer, LGI = local government institution, M&E = monitoring and evaluation, OCWM = Office of Chief Water Management, O&M = operations and maintenance, PEO = Principal Extension Officer, PMO = project management office, SAE = sub-assistant engineer, SDE = Sub-divisional Engineer, SE = superintending engineer, WARPO = Water Resources, Planning Organization, WMA = water management association, WMF = water management federation, WMG = water management group, WMO = water management organization.

Note: * and #: Common at PMO in Faridpur and PMO liaison Office in Dhaka.

The implementation arrangement chart, especially the structure of the PMO Dhaka liaison office, will be finalised during the inception mission.

Figure 3.2: Organization Structure in BWDB

BWDB = Bangladesh Water Development Board, DCEO = Deputy Chief Extension Officer, MOWR = Ministry of Water Resources, O&M = operation and maintenance, and SMO = subproject management office.

IV. COSTS AND FINANCING

28. The additional financing is estimated to cost \$63.7 million (Table 4.1).

Table 4.1: Project Investment Plan
(\$ million)

Item	Current project ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. WMO capacity strengthening	7.7	13.8	21.5
2. Infrastructure facilities restoration	21.9	24.9	46.8
3. Institutional capacity strengthening	6.9	16.8	23.7
Subtotal (A)	36.5	55.5	92.0
B. Contingencies^d	6.1	4.5	10.6
C. Financing Charges During Implementation^e	0.8	3.7	4.5
Total (A+B+C)	43.4	63.7	107.1

^a Refers to the original amount. Includes taxes and duties of \$3 million financed from government resources.

^b Includes taxes and duties of \$6.4 million financed from government resources and Asian Development Bank (ADB) loan resources.

^c In fourth quarter 2014 prices for the estimated cost of the additional financing.

^d Physical contingencies computed at 0% - 10% depending on the item. Price contingencies computed at 0.3% for 2015, 1.5% for 2016, 1.4% for 2017 and 1.5% for all remaining years on foreign exchange costs and 6.5% for 2015, 6.2% for 2016 and 6.0% for all remaining years on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest. Interest during construction for ADB loan has been computed at 2.0% per year. The financing charges include \$250,000 of administration charges for ADB's administration of a grant from the Government of the Netherlands.

Source: Asian Development Bank estimates.

29. The financing plan is in Table 4.2. The Government of the Netherlands will finance \$7.0 million on a grant basis through a cost-sharing modality to cover 11.0% of the total project cost of the additional financing, which will be administered by ADB. The Government of Bangladesh will make the ADB loan, the Netherlands grant, and counterpart funds available to the executing agency through budgetary allocation.

Table 4.2: Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank Special Funds resources (loan)	20.0	46.1	45.0	70.6	65.0	60.7
Government of the Netherlands (grant) ^b	12.5	28.8	7.0	11.0	19.5	18.2
Government ^c	10.9	25.1	11.7	18.4	22.6	21.1
Total	43.4	100.0	63.7	100.0	107.1	100.0

^a Refers to the original amount.

^b Administered by ADB. This amount includes the Asian Development Bank's administration fee, audit cost, and bank charges, to the extent that these items are not covered by the interest and investment income earned on this grant.

^c Final computation for minor adjustments of the government's contribution amounts like PMO staff's number will be done in government's documents.

Sources: Asian Development Bank estimates.

A. Detailed Cost Estimates by Expenditure Category

Table 4.3: Detailed Cost Estimates by Expenditure Category

Item	Tk. million			\$ '000			% of Total Base Cost	Tax and Duties	
	Foreign Exchange	Local Currency	Total	Foreign Exchange	Local Currency	Total		\$ '000	%
A. Investment Costs									
1. Civil Works	197.6	1,778.8	1,976.5	2,531.2	22,781.2	25,312.5	45.6%	3,598.5	14.2%
a. Structures	72.9	655.7	728.5	918.9	8,270.2	9,189.1	16.6%	1,306.1	14.2%
b. Channels & khals	67.3	605.9	673.2	869.8	7,828.1	8,697.9	15.7%	1,286.9	14.8%
c. Embankments	52.7	474.2	526.9	680.8	6,127.2	6,808.0	12.3%	1,005.5	14.8%
d. Minor rehabilitation during project	4.8	43.0	47.8	61.7	555.6	617.4	1.1%	91.2	14.8%
2. Vehicles	36.3	74.1	110.4	469.3	957.1	1,426.4	2.6%	482.9	33.9%
3. Consultancy Services	192.3	377.9	570.2	2,365.6	4,882.4	7,248.0	13.1%	969.5	13.4%
4. Training & Capacity Building	0.2	1,046.0	1,046.2	2.5	13,513.9	13,516.4	24.4%	1,932.8	14.3%
a. Training	0.0	418.7	418.7	0.0	5,409.9	5,409.9	9.8%	756.9	14.0%
b. Capacity building	0.2	1.7	1.9	2.5	22.5	25.0	0.0%	3.2	13.0%
c. Social mobilisation	0.0	625.5	625.5	0.0	8,081.6	8,081.6	14.6%	1,172.6	14.5%
5. Surveys & Investigations ^a	0.0	37.2	37.2	0.0	480.0	480.0	0.9%	67.2	14.0%
6. Project Management	27.1	467.0	494.1	349.5	6,033.6	6,383.2	11.5%	507.0	7.9%
a. Project staff	0.0	223.5	223.5	0.0	2,887.9	2,887.9	5.2%	-	0.0%
b. Project operations & support	27.1	243.5	270.5	349.5	3,145.8	3,495.3	6.3%	507.0	14.5%
7. Office Equipment	11.2	20.8	32.0	144.5	268.4	412.9	0.7%	141.6	34.3%
8. Land Acquisition & Resettlement	0.0	52.3	52.3	0.0	675.9	675.9	1.2%	-	0.0%
a. Land Acquisition	0.0	26.9	26.9	0.0	347.9	347.9	0.6%	-	0.0%
b. Resettlement compensation	0.0	25.4	25.4	0.0	328.0	328.0	0.6%	-	0.0%
Subtotal (A)	464.7	3,854.0	4,318.7	5,862.6	49,592.6	55,455.2	100.0%	7,699.4	13.9%
Total Base Cost (=A)	464.7	3,854.0	4,318.7	5,862.6	49,592.6	55,455.2	100.0%	7,699.4	13.9%
B. Contingencies									
1. Physical	8.9	128.8	137.7	113.9	1,660.5	1,774.4	3.2%		
2. Price	21.1	189.5	210.5	272.0	2,448.0	2,720.0	4.9%		
Subtotal (B)	29.9	318.3	348.2	385.9	4,108.5	4,494.4	8.1%		
C. Financing Charges During Implementation									
1. Interest during implementation	272.2	0.0	272.2	3,516	0.0	3,516.3	6.3%		
2. Administration charges (Netherlands funds)	19.4	0.0	19.4	250.0	0.0	250.0	0.5%		
Subtotal (C)	291.5	0.0	291.5	3766.3	0.0	3,766.3	6.8%		
Total Project Cost (A+B+C)	786.1	4,172.4	4,958.5	10,014.9	53,701.1	63,716.0	114.9%		

a Including hydrological surveys, hydraulic surveys, and other minor surveys and studies.

Note: Figures may not sum precisely because of rounding.

Table 4.4: Allocation and Withdrawal of Loan/Grant Proceeds

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS				
Number	Item	Total Amount Allocated for ADB Financing (\$)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	22,490,000		85% of total expenditure claimed
2	Vehicles and Equipment	1,275,000		
2A	Vehicles		990,000	100% of total expenditure claimed*
2B	Equipment		285,000	100% of total expenditure claimed*
3	Resettlement	375,000		100% of total expenditure claimed
4	Training and capacity building	8,450,000		60 % of total expenditure claimed
5	Consulting Services	3,990,000		49% of total expenditure claimed
6	Project Management	3,130,000		86% of total expenditure claimed
7	Interest Charge	3,520,000		
8	Unallocated	1,770,000		
	Total	45,000,000		

* Exclusive of taxes and duties imposed within the territory of the Borrower.

ALLOCATION AND WITHDRAWAL OF NETHERLANDS GRANT PROCEEDS			
Number	Item	Total Amount Allocated for Grant Financing (\$)	
		Category	Basis for Withdrawal from the Grant Account
1	Training and Capacity Development	3,710,000	26% of total expenditure claimed
2	Consulting Services	3,040,000	38% of total expenditure claimed
3	ADB Administration Fees and Other Charges*	250,000	100% of amount due.
	Total	7,000,000	

* This amount also serves as a reserve for payment of ADB's administration fees and bank charges or other charges pursuant to the Administration Arrangement.

B. Detailed Cost Estimates by Financier

Table 4.5: Detailed Cost Estimates by Financier

		Government		Asian Development Bank			Government of the Netherlands			Total Cost	Tax and Duties	
		Amount (\$ million)	% of Cost Category	Amount (\$ million)	% of Cost Category	Loan category	Amount (\$ million)	% of Cost Category	Grant category		\$ million	%
A.	Investment Costs^a											
	1. Civil Works	4.02	15.2%	22.49	84.8%	1	0.00	0.0%	-	26.51	3.6	14.2%
	a. Structures	1.52	15.8%	8.08	84.2%		0.00	0.0%		9.60	1.3	14.2%
	b. Channels & khals	1.35	14.8%	7.77	85.2%		0.00	0.0%		9.12	1.3	14.8%
	c. Embankments	1.05	14.8%	6.09	85.2%		0.00	0.0%		7.14	1.0	14.8%
	d. Minor rehabilitation during project	0.09	14.6%	0.55	85.4%		0.00	0.0%		0.65	0.1	14.8%
	2. Vehicles	0.51	33.9%	0.99	66.1%	2A	0.00	0.0%	-	1.50	0.5	33.9%
	3. Consultancy Services	1.02	13.4%	3.72	48.9%	5	2.87	37.8%	2	7.61	1.0	13.4%
	4. Training & Capacity Building	2.03	14.3%	8.45	59.6%	4	3.71	26.1%	1	14.18	1.9	14.3%
	a. Training	0.79	14.0%	3.39	59.8%		1.49	26.2%		5.68	0.8	14.0%
	b. Capacity building	0.00	13.0%	0.02	60.5%		0.01	26.5%		0.03	0.0	13.0%
	c. Social mobilisation	1.23	14.5%	5.04	59.4%		2.21	26.1%		8.48	1.2	14.5%
	5. Surveys & Investigations	0.07	13.6%	0.27	52.3%	5	0.18	34.1%	2	0.52	0.1	14.0%
	6. Project Management	3.56	53.2%	3.13	46.8%		0.00	0.0%		6.70	0.5	7.9%
	a. Project staff	3.03	100.0%	0.00	0.0%	-	0.00	0.0%	-	3.03	0.0	0.0%
	b. Project operations & support	0.53	14.5%	3.13	85.5%	6	0.00	0.0%	-	3.67	0.5	14.5%
	7. Office Equipment	0.15	34.3%	0.28	65.7%	2B	0.00	0.0%	-	0.43	0.1	34.3%
	8. Land Acquisition & Resettlement	0.36	49.5%	0.37	50.5%		0.00	0.0%		0.74	0.0	0.0%
	a. Land Acquisition	0.36	100.0%	0.00	0.0%	-	0.00	0.0%	-	0.36	0.0	0.0%
	b. Resettlement compensation	0.00	0.0%	0.37	100.0%	3	0.00	0.0%	-	0.37	0.0	0.0%
	Subtotal (A)	11.72	20.1%	39.71	68.3%		6.75	11.6%		58.18	7.7	13.9%
	Total Base Cost	11.72	20.1%	39.71	68.3%		6.75	11.6%		58.18	7.7	13.9%
B.	Physical Contingencies	0.00	0.0%	1.77	100.0%	8	0.00	0.0%		1.77		
C.	Financing Charges During Implementation	0.0	0.0%	3.52	93.4%	7	0.25	6.6%	3	3.77		
	Total Project Cost (A+B+C)	11.72	18.4%	45.00	70.6%		7.00	11.0%		63.72		
	% Total Project Cost	18.4%		70.6%			11.0%					

Note: ^a Including price contingencies.

- Figures may not sum precisely because of rounding.
- The total of the ADB financing amount for the items 4 and 5 are \$3.99 million (49% of the total amount), and cofinancing grant is \$3.04 million (38%).
- The category 6.b Project management – project operations & support includes annual audit costs.
- The cofinancing grant will be administered by ADB. The cofinancing amount includes ADB's administration fee, audit costs, bank charges, and a provision for foreign exchange fluctuations (if any), to the extent that these items are not covered by the interest and investment income earned on this grant.

C. Detailed Cost Estimates by Outputs

Table 4.6: Detailed Cost Estimates by Outputs

(\$ million)							
Item	Total Cost	WMO Capacity Strengthening		Infrastructure Facilities Restoration		Institutional and Project Management Capacity Strengthening	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A. Investment Costs							
1. Civil Works	25.31	0.00	0.0%	24.86	98.2%	0.45	1.8%
a. Structures	9.19	0.00	0.0%	8.74	95.1%	0.45	4.9%
b. Channels & khals	8.70	0.00	0.0%	8.70	100.0%	0.00	0.0%
c. Embankments	6.81	0.00	0.0%	6.81	100.0%	0.00	0.0%
d. Minor rehabilitation during project	0.62	0.00	0.0%	0.62	100.0%	0.00	0.0%
2. Vehicles	1.43	0.00	0.0%	0.00	0.0%	1.43	100.0%
3. Consultancy Services	7.25	0.55	7.6%	0.00	0.0%	6.69	92.4%
4. Training & Capacity Building	13.52	12.59	93.1%	0.00	0.0%	0.93	6.9%
a. Training	5.41	4.51	83.3%	0.00	0.0%	0.90	16.7%
b. Capacity building	0.03	0.00	0.0%	0.00	0.0%	0.03	100.0%
c. Social mobilisation	8.08	8.08	100.0%	0.00	0.0%	0.00	0.0%
5. Surveys & Investigations	0.48	0.00	0.0%	0.00	0.0%	0.48	100.0%
6. Project Management	6.38	0.00	0.0%	0.00	0.0%	6.38	100.0%
a. Project staff	2.89	0.00	0.0%	0.00	0.0%	2.89	100.0%
b. Project operations & support	3.50	0.00	0.0%	0.00	0.0%	3.50	100.0%
7. Office Equipment	0.41	0.00	0.0%	0.01	3.4%	0.40	96.6%
8. Land Acquisition & Resettlement	0.68	0.68	100.0%	0.00	0.0%	0.00	0.0%
a. Land Acquisition	0.35	0.35	100.0%	0.00	0.0%	0.00	0.0%
b. Resettlement compensation	0.33	0.33	100.0%	0.00	0.0%	0.00	0.0%
Total Base Cost	55.46	13.82	24.9%	24.87	44.9%	16.76	30.2%

Note: Figures may not sum precisely because of rounding.

D. Detailed Cost Estimates by Year

Table 4.7: Detailed Cost Estimates by Year

		(\$ million)						
Item	Total Cost	2016	2017	2018	2019	2020	2021	2022
A. Investment Costs								
1. Civil Works	25.31	0.20	1.06	10.41	11.20	2.44	0.00	0.00
a. Structures	9.19	0.19	0.46	4.11	3.79	0.64	0.00	0.00
b. Channels & khals	8.70	0.00	0.31	3.31	4.06	1.01	0.00	0.00
c. Embankments	6.81	0.00	0.26	2.73	3.08	0.74	0.00	0.00
d. Minor rehabilitation during project	0.62	0.00	0.03	0.25	0.27	0.06	0.00	0.00
2. Vehicles	1.43	1.43	0.00	0.00	0.00	0.00	0.00	0.00
3. Consultancy Services	7.25	1.52	1.68	1.32	1.23	0.77	0.53	0.20
4. Training & Capacity Building	13.52	1.90	3.02	3.24	2.61	1.20	1.03	0.51
a. Training	5.41	0.44	1.39	1.95	1.45	0.17	0.01	0.00
b. Capacity building	0.03	0.01	0.02	0.00	0.00	0.00	0.00	0.00
c. Social mobilisation	8.08	1.45	1.61	1.29	1.16	1.03	1.02	0.51
5. Surveys & Investigations ^a	0.48	0.06	0.13	0.13	0.12	0.02	0.02	0.00
6. Project Management	6.38	0.99	0.99	0.99	0.99	0.99	0.97	0.48
a. Project staff	2.89	0.44	0.44	0.44	0.44	0.44	0.44	0.22
b. Project operations & support	3.50	0.54	0.54	0.54	0.54	0.54	0.52	0.26
7. Office Equipment	0.41	0.20	0.12	0.07	0.03	0.00	0.00	0.00
8. Land Acquisition & Resettlement	0.68	0.08	0.51	0.08	0.00	0.00	0.00	0.00
a. Land Acquisition	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.00
b. Resettlement compensation	0.33	0.08	0.16	0.08	0.00	0.00	0.00	0.00
Subtotal (A)	55.46	6.37	7.51	16.24	16.18	5.42	2.55	1.19
Total Base Cost	55.46	6.37	7.51	16.24	16.18	5.42	2.55	1.19
B. Contingencies	4.50	0.27	0.44	1.19	1.45	0.61	0.35	0.18
1. Physical	1.77	0.20	0.24	0.52	0.52	0.17	0.08	0.04
2. Price	2.72	0.07	0.20	0.67	0.94	0.44	0.27	0.14
C. Financing During Implementation	3.77	0.09	0.21	0.38	0.63	0.77	0.83	0.86
Total Project Cost (A+B+C)	63.72	6.73	8.15	17.82	18.26	6.80	3.73	2.22
% Total Project Cost	100.0%	10.6%	12.8%	28.0%	28.7%	10.7%	5.9%	3.5%

Note: Figures may not sum precisely because of rounding.

E. Contract and Disbursement S-curve

30. Preliminary S-curves for contract awards and disbursements over the project life of the project are shown below. The S-curves will be updated upon the loan effectiveness, based on the updated project implementation schedule.

Figure 4.1: S-Curve (ADB Loan)

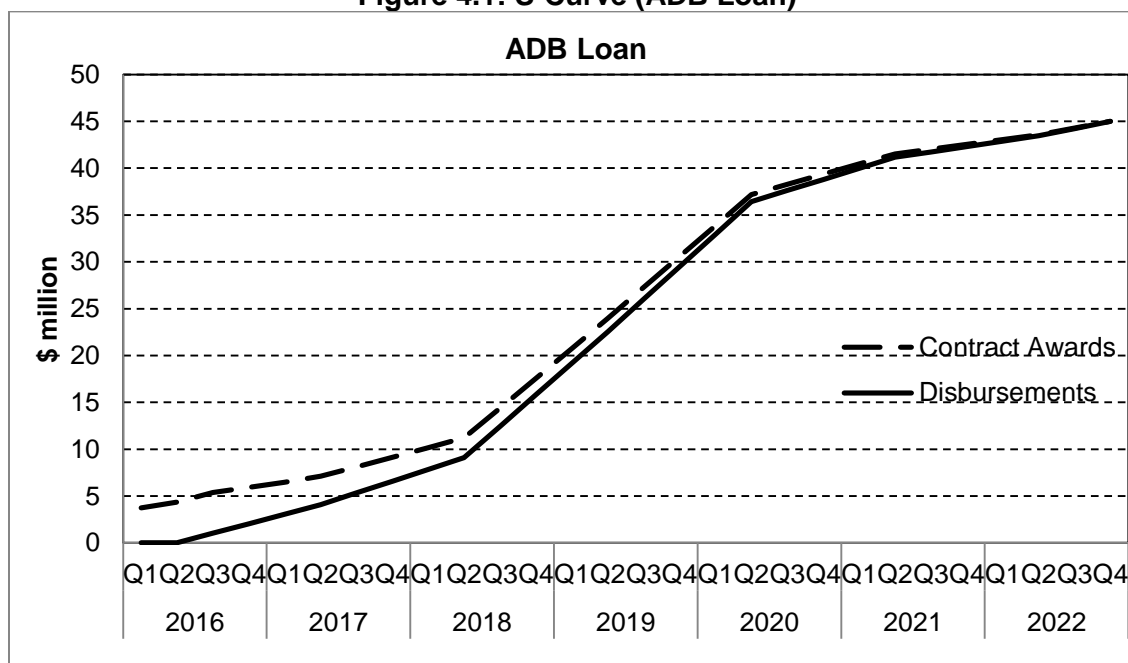
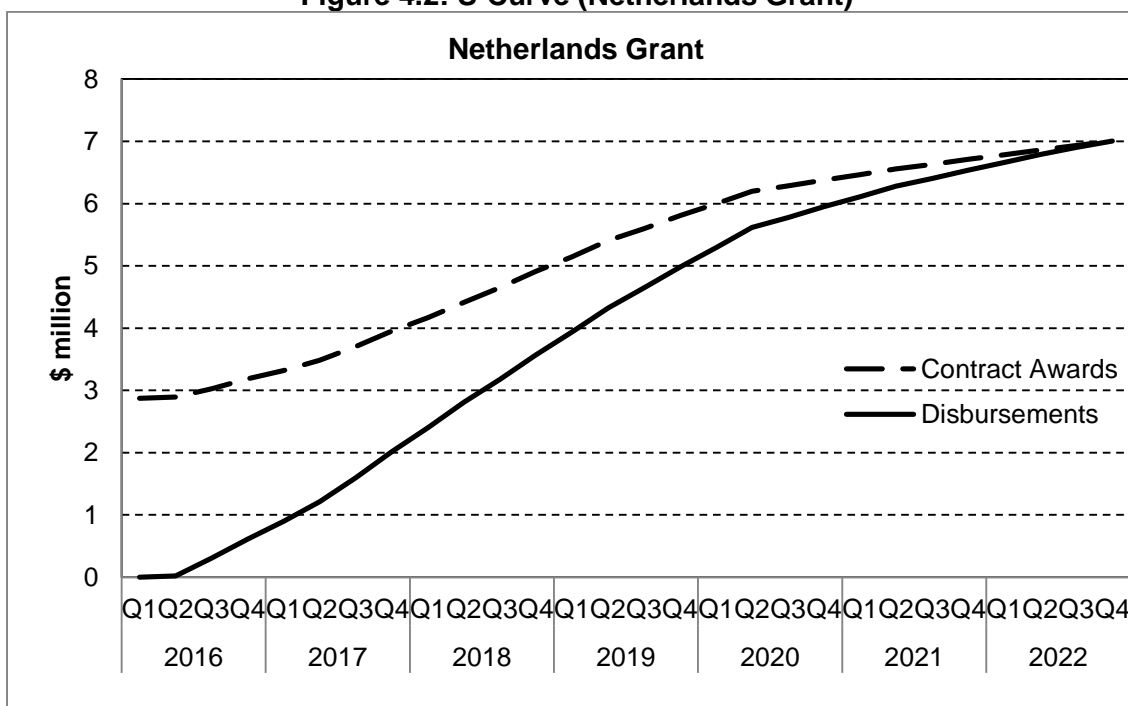
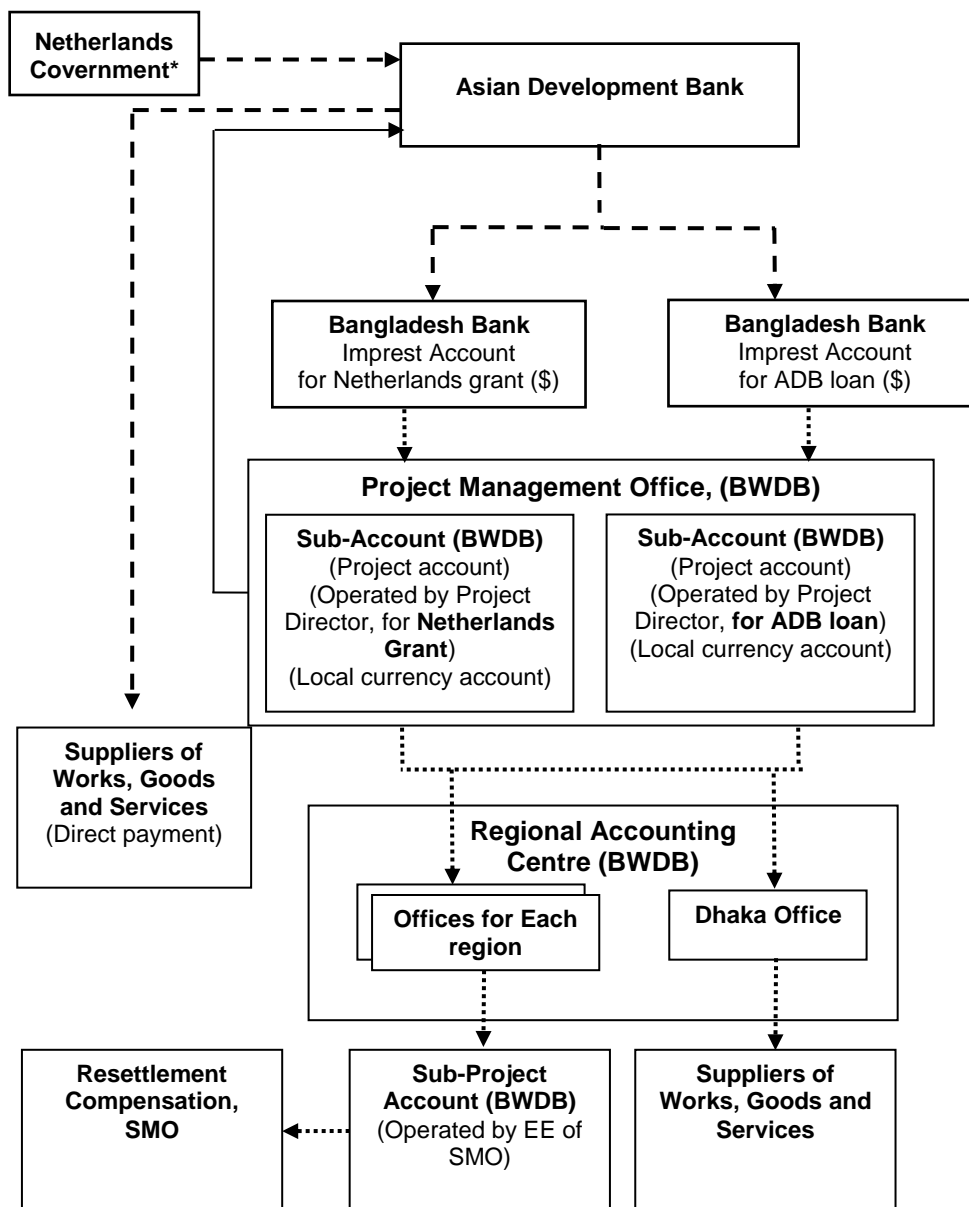


Figure 4.2: S-Curve (Netherlands Grant)



F. Fund Flow Diagram



Legend:

- > Foreign currency fund flows
-> Local currency fund flows
- > Submission of withdrawal applications

BWDB = Bangladesh Water Development Board
 EE = Executive Engineer
 SMO = Subproject Management Office

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

31. A financial management assessment of BWDB was undertaken during the project preparation in accordance with ADB's Guidelines for Financial Management and Analysis of Projects and Financial Due Diligence: a Methodology Note, and Technical Guidance Notes.¹⁵ The financial management assessment considered the capacity of the BWDB, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. BWDB has experienced a number of bi-lateral and multi-lateral projects, including the on-going the Southwest Area Integrated Water Resources Planning and Management Project (ADB and The Netherlands Government) and other projects financed by ADB.

32. The assessment concludes that the overall pre-mitigation financial management risk of BWDB is moderate, and BWDB has sufficient experience and capacity to manage the project funds as well as adequate fund flow, accounting and budgeting arrangements. The government's midterm review report and the project performance assessment of the Southwest project concluded that BWDB's institutional capacity as the executing agency is satisfactory. The draft project completion report of the project management consultant of the current project also concluded that the capacity was strengthened through the project. The project set clear input and output targets to ensure good governance. The latest audited project financial statements under the project were submitted on time, and with an unqualified audit opinion. The management letter highlighted some minor financial irregularities, which BWDB has addressed. However, improvements are required in several areas including (i) introducing more recent software and IT system for accounting data management, (ii) ensuring a full time accountant at PMO, and (iii) regular training in ADB disbursement and procurement guidelines. Mitigation measures are built into the project design.

33. Key findings of the financial management assessment and the financial management action plan are as follows.¹⁶

Table 1: Summary of the Financial Management Assessment and Action Plan

Particulars	Risk Assessment	Conclusions and Action Plan
A. Funds Flow Arrangements	Low	<p>Funds received from donors including ADB are deposited into an imprest account of an approved commercial bank. The proposed arrangement generally follows approved government protocols, and it is generally satisfactory. BWDB does not have the capacity to manage foreign exchange risk as this task is undertaken by the MOF on behalf of BWDB.</p> <p>The MOF, at the request of BWDB, will usually approve the opening of an Imprest account to any authorized commercial bank in Bangladesh under a foreign aided project against the specific project.</p> <p>Counterpart funds are assessed based on the approved ADP and are usually released in 4 quarterly installments</p>

¹⁵ Available at: <http://www.adb.org/Documents/Others/FM-toolkit/Methodology-Note.pdf>, and Financial Management. See also Analysis of Projects Guidelines (2005): <http://www.adb.org/Documents/Guidelines/Financial/default.asp>.

¹⁶ A full financial management assessment report is available upon request.

		<p>made through the Finance Division of the MOF into the Central Account of BWDB. BWDB submits requests for funds to the Ministry of Finance through MOWR. Payments of GOB counterpart fund are disbursed by the MOF in 4 quarterly installments through the Central Account of the BWDB. Payments for the project will be done various RACs.</p> <p>Fund flow arrangements are further described in paras. 35 to 47 below and are deemed adequate for the project.</p>
B. Organization and Staffing	Moderate	<p>BWDB's finance and accounting operations are headed by ADG (Finance). There is a comptroller of Finance and Account who is in charge of two directors - Directors of Finance and Director of Accounts. Director of Audit reports directly to the ADG (Finance).</p> <p>Currently under the ADG (Finance), there is a sanctioned headcount of 220 against the current staff of 168 positions or about 24% staff shortage.</p> <p>The account staffs are graduates from the commerce or accounting field with experiences in different operations of BWDB. Key staff are graduates and permanent members of BWDB with regular training on the latest financial government regulations and BWDB's accounting system and policies. They have not been trained in ADB project management procedures but have experience in working with foreign-aided projects. Training in ADB procedures is therefore required. Staff rotation occurs every few years.</p> <p>The existing BWDB shall also ensure that a permanent Finance staff is assigned to the project. The existing PMO has one permanent accounting officer deputed from ADG (Finance), and he is planned to be continued for the additional financing. Accordingly, project staffing arrangements are considered adequate. However, as there is possibility of his transfer during the project, regular training and staffing monitoring needs to be continued during the project.</p>
C. Accounting Policies and Procedures	Low	<p>The accounting system adopted by BWDB allows for proper recording of all project financial transactions based on an entity accounting system. The control mechanism are guided by BWDB financial procedure and other administrative and government manuals which stipulate the payment and disbursement approval process; and including the assignment of accounting codes. The prescribed government accounting codes specify how all these transactions should be followed and recorded by the accounting department. The Chart of Accounts shows that it is adequate to record and report on project activities and its disbursement categories, and meets the requirements of IMED. The Chart of Account is also consistent with the government prescribed economic and financial code, universal to all government offices. BWDB has adopted a Cash Basis of Accounting. Its accounting policies and procedures are guided by a few written procedure manuals in accordance to the Bangladesh Accounting System (BAS),</p>

		Financial Administrative Regulations (FAR), Financial Rules and Policies. Accounting policies and procedures are adequate for the purpose of the project.
D. Segregation of Duties	Low	The duties are well segregated.
E. Budgeting System	Moderate	The budgets include physical and financial targets and are prepared according to ADP requirements, which undergo stringent checks from within BWDB and inter-ministerial approval for all approved foreign aided projects. Reports on project progress are regularly reported to MOWR, IMED and MOF for ADB funded projects, and other reports will follow ADB report requirements to monitor project performance. Actual expenditures are compared to the budgeted expenditures on monthly, quarterly and annual basis. Any variation thereof will require an explanation to the MOWR and IMED. In addition, if the yearly expenditures / achievements are below 95% of the overall budget target, further explanation will be provided by BWDB to MOWR and IMED. Approvals for budget variation are required in advance from the MOWR and the Planning Commission and approved by MOF. Procedures are in place for field offices and for project consultants to plan the project activity requirements with the assistance from the field Zone, Circle Line and Divisional Line under the project area. These are checked by PD before finalizing the budgets. Project plans and budgets are generally realistic as it goes through vigorous checks from the technical and planning departments before it gets adopted into the budget.
F. Internal / External Audits	Moderate	<p>BWDB internal audit department audit the financial performances of all RACs including its circle lines and divisional offices in order to ensure that each office complies with policies and operating procedures in accordance to the procedure manual with respect to payments, receipts, record keeping and debt recovery. It also audits the accounting vouchers to ensure that it complies with the correct accounting codes as prescribed by the GOB. The Director of Audit reports its audit findings to ADG (Finance) and ADG (Finance) will in turn submit this to DG.</p> <p>The CAG, an independent Government Ministry, typically audit the projects funded by the GOB. For foreign aided projects, the current audit practice is to use the Office of Director General, FAPAD under the auspices of the CAG to perform this task. FAPAD auditors perform its audit annually, usually 4 months after the end of the fiscal year.</p> <p>BWDB is also subject to a statutory audit, although historically there are delays in the submission of the audited financial statements to the Governing Council of BWDB. ADB shall also work with BWDB to encourage more timely submission of BWDB financial statements</p>
G. Reporting and Monitoring	Low	All accounting records and supporting documents are retained by the respective RAC offices in charge of the specific project and allows for proper auditing to take place by both internal and external auditors. Monthly reporting is

		<p>also sent by the respective RAC offices to the Director of Accounts informing them about all project disbursement activities and amount utilized. The financial and procurement reports of the agencies are prepared according to the accounting standard of government, which is consistent with International Standards. The reporting of the financial statement is on a monthly basis.</p> <p>The current project demonstrated sound performance of auditing and reporting. It has complied with the preparation and submission of audit reports every year since 2006-07. No Serious Financial Irregularities (SFI) were identified in the audit reports, 21 out of 22 non-SFI audit observations have been sorted out with letters to certify settlement from FAPAD. PMO has replied to the recent remaining one, and it is being reviewed at FAPAD.</p>
H. Information Systems	High	<p>The current project developed an MIS, including a financial module. Though it needs improvement, project level financial records have been recorded electrically. However, the project MIS is not integrated in the entity-level accounting system. Currently, BWDB's accounting system software uses a 2006 version of MS Great Plains Dynamic Accounting Software. This system is not fully integrated with the project accounting system at the RAC level and most information transmitted is via email and external memory devices like thumb drive raising issues of sensitive data security. Improvements to BWDB's ICT system are currently being undertaken by WB under their WMIP program.</p>
Overall	Moderate	

ADB = Asian Development Bank, ADG = Additional Director General, ADP = annual development plan, CAG = Comptroller and Auditor General, FAPAD = Foreign Aided Project Audit Director, IMED = Implementation Monitoring and Evaluation Division, MOWR = Ministry of water resource, PD = Project Director, RAC = Regional Accounting Centre.

34. BWDB generally has adequate experience and capacity to implement externally aided projects. The existing PMO has demonstrated sound financial management performance, and it will continue the implementation of the additional financing project. Nevertheless, close monitoring of the financial management of the project will be continued. The following actions will be undertaken.

- (i) PMO key staff will receive training on ADB's procurement and financial management, project management, and reporting procedures to refresh and further strengthen their capacity. A dedicated full-time financial accountant, preferably the continuation of the existing PMO staff, must be assigned to the project.
- (ii) The management information system (MIS) will be improved during the implementation of the project to monitor the project progress, including the financial progress, and project impacts, including benefits. MIS development has been initiated under the current project. The improved MIS will become fully operational by 17 December 2017.

- (iii) A Statement of Audit Needs will be provided to BWDB and communicated to FAPAD to ensure that ADBs audit requirements are met.

B. Disbursement

35. The loan proceeds and ADB administered co-financier funds will be disbursed in accordance with ADB's *Loan Disbursement Handbook*,¹⁷ and detailed arrangements agreed upon between the Government and ADB. Online training for project staff on disbursement policies and procedures is available at: http://wpqr4.adb.org/disbursement_elearning. Project staff is encouraged to avail of this training.

36. **Types of Disbursement Arrangements.** The following four major types of disbursement may be used: (i) direct payment, (ii) commitment procedure, (iii) reimbursement, and (iv) imprest fund. Details of disbursement procedures are described in ADB's *Loan Disbursement Handbook* (refer to footnote 7).

37. **Institutional Responsibility.** BWDB will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. The government will make funds available to BWDB through budgetary allocation.

38. **Imprest fund procedure.** Separate imprest accounts for BWDB should be established and maintained for each financing source, namely for the ADB loan and the Netherlands grant. The imprest accounts are to be used exclusively for ADB's and Netherlands' funds share of eligible expenditures. BWDB is accountable and responsible for proper use of advances to the imprest accounts.

- (i) **ADB Loan Imprest Account.** BWDB will establish and manage an imprest account in a US dollar at the Bangladesh Bank or any other commercial bank nominated by the Bangladesh Bank or Ministry of Finance and acceptable to ADB.
- (ii) **Netherlands Grant Imprest Account.** The Government of the Netherlands will deposit funds to ADB for administration as jointly cofinanced fund. BWDB will establish and manage a separate imprest account in US dollar at the Bangladesh Bank or any other commercial bank nominated by the Bangladesh Bank or Ministry of Finance and acceptable to ADB.

39. The total outstanding advance to the imprest accounts should not exceed the estimate of ADB's or co-financier's share of expenditures to be paid through the imprest accounts for the forthcoming six (6) months. BWDB may request for initial and additional advances to the imprest accounts based on an Estimate of Expenditure Sheet¹⁸ setting out the estimated expenditures to be financed through the accounts for the forthcoming six (6) months. The request of the initial advance to the imprest accounts should be accompanied with evidences satisfactory to ADB that the imprest accounts have been duly opened.

¹⁷ Available at: <http://www.adb.org/documents/loan-disbursement-handbook>. This PAM was written based on the 2015 version. The latest handbook should be applied.

¹⁸ Available in Appendix 10B of the Loan Disbursement Handbook (2015). The latest version of the handbook should be used.

40. Supporting documents should be submitted to ADB or retained by BWDB in accordance with ADB's *Loan Disbursement Handbook* when liquidating or replenishing the imprest accounts.

41. **Other notes on disbursement procedures.** Separate sub-account(s) may be established and maintained by BWDB for each funding source. The sub-account(s) is to be used exclusively for ADB's and/or co-financer funds share of eligible expenditures. BWDB should ensure that every liquidation and replenishment of each subaccount is supported by sufficient documentation in accordance with ADB's *Loan Disbursement Handbook* when liquidating or replenishing the imprest accounts.

42. Before the submission of the first withdrawal application or the request of the initial advance to the imprest accounts, BWDB should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person.

43. Withdrawal application forms and other loan financial information can also be downloaded from ADB's Loan Financial Information System (LFIS) at <http://lfis.adb.org>. BWDB can request access to the LFIS from this site or by sending an e-mail to lfis@adb.org.

44. ADB's Statement-of expenditure (SOE) procedure may be used for reimbursement of eligible expenditures or liquidation of advances to imprest accounts. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents, and for independent audit.¹⁹

45. The minimum value per withdrawal application is US\$100,000 equivalent. Individual payments below this amount should be paid by BWDB and subsequently claimed to ADB (i) through reimbursement; or (ii) from the imprest/sub-accounts, unless otherwise accepted by ADB.

46. The following control mechanisms will be applied for payment of resettlement costs when ADB's financing is used: (i) a bank account of RAC (Regional Accounting Centre) of BWDB will receive advances from the sub-account (i.e., Project Account) for the ADB loan; (ii) RAC will use the cheque payment from the RAC's bank account for the resettlement compensation costs to affected people; (iii) Cheques will be signed by RAC, and will be distributed by RAC with the support of SMOs and the resettlement plan implementation NGOs; (iv) RAC will make payments based on supporting documents to evidence genuine payees, such as photographs of resettlers and with exchange of receipt with a finger print of a resettler which will be retained by RAC; (v) RAC's bank account will be replenished from PMO's Sub-Account for the ADB loan; and (vi) The SOE, for liquidation and replenishment of advances from ADB loan, will be prepared by RAC with support of SMOs and NGOs, and submitted to PMO of BWDB for attaching to withdrawal applications.

47. **Disbursement arrangements for counterpart fund.** All disbursements under government financing will be carried out in accordance with regulations of Government of Bangladesh relevant to co-financing of the projects financed by the multilateral financing organizations. BWDB shall open and maintain the separate account for government's counterpart funds.

¹⁹ Checklist for SOE procedures and formats are available in the Loan Disbursement Handbook.

C. Auditing Arrangement and Public Disclosure

48. BWDB will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. BWDB will prepare project financial statements in accordance with the government of Bangladesh's accounting laws and regulations which are consistent with international accounting principles and practices. Project financial statements shall include at a minimum, a statement of receipts and payments with accompanying notes and schedules. These shall be prepared to ensure maximum alignment to international accounting standards and Government of Bangladesh Financial Regulations.

49. BWDB will cause the project financial statements to be audited in accordance with International Standards on Auditing by an auditor acceptable to ADB. BWDB will submit audited financial statements in the English language to ADB within 6 months of the end of the fiscal year. The annual audit report for the project financial statements will include a management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan proceeds were used only for the purposes of the project or not; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv) use of the imprest fund procedure; and (v) the use of the SOE procedure certifying to the eligibility of those expenditures claimed under SOE procedures, and proper use of the SOE and imprest procedures in accordance with ADB's *Loan Disbursement Handbook* and the project documents.

50. BWDB will also cause the entity-level financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited entity-level financial statements, together with the auditors' report and management letter, will be submitted in the English language to ADB within one month after their approval by the competent authority.

51. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's *Public Communications Policy (2011)*. ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The entity level financial statements and the management letter will not be disclosed.

52. The Government and BWDB have been made aware of ADB's approach on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.²⁰ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the

²⁰ ADB approach on delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

53. A formal request for the project to be included in the FAPAD audit schedule should be sent to FAPAD office. This request is best sent when the loan, grant and project agreements are signed, and the request should include a copy of the loan and project agreements, and any other relevant documents. FAPAD would then advise the appropriate field office to include the project in its audit schedule

54. In addition, to ensure that audited project financial statements are submitted on a timely basis, BWDB through PMO should submit its project financial statements for audit to FAPAD within 3 months from the close of the financial year. PMO shall be responsible for the project financial statements. By 1 October of each year, FAPAD should receive the unaudited financial statements. It will then take 3 months to complete the audit, and issue an opinion no later than 6 months from the end of the financial year. A statement of audit needs is provided in **Appendix 3**.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

55. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines*²¹ and ADB's *Guidelines on the Use of Consultants*.²² The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower and BWDB have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

56. ADB may, subject to its policies and procedures, allow upon request (a) advance contracting and (b) retroactive financing of eligible expenditures for up to 20% of the proposed loan and cofinancing grant, incurred prior to loan and grant effectiveness but not earlier than 12 months before the date of signing of the related legal agreements. Eligible items of the advance contracting and retroactive financing are recruitment of consultants, project management including contract-based PMO staffs and mobilizers, and procurement of goods and works.

57. The following table summarizes target timeframe of advanced recruitment actions for the institutional strengthening and project management consultant package. Other advanced actions will cover procurement of vehicles, motorcycles and office equipment and recruitment of contract-based PMO staff, including mobilizers.

No.	Activity	Days		Action By
1	Prepare Request for Expression of Interest		Ongoing	BWDB with ADB's review
2	Advertise in CMS-CSRN and newspapers		31-Aug-15	BWDB
3	EOI submission	30	30-Sep-15	External
4	Shortlisting/draft request for proposal (RFP)	15	15-Oct-15	BWDB with ADB's review
5	Issue RFP	7	22-Oct-15	BWDB with ADB's review
6	Proposal submission	45	06-Dec-15	Shortlisted firms
7	Evaluation of technical proposals (TPs)	15	21-Dec-15	BWDB with ADB's review
8	Approval of report on evaluation of TPs	7	28-Dec-15	ADB
9	Public opening of financial proposals (FPs)	5	02-Jan-16	BWDB with ADB's review
10	Evaluation of FPs/ranking	15	17-Jan-16	BWDB with ADB's review
11	Approval of FP evaluation and overall ranking	7	24-Jan-16	ADB
12	Invite 1st ranked firm for contract negotiations	3	27-Jan-16	BWDB
13	Contract negotiations	14	10-Feb-16	BWDB
14	Submission of draft negotiated contract to ADB	3	13-Feb-16	BWDB with ADB's review
15	ADB's review/approval	6	19-Feb-16	ADB
16	Contract signing and issuance of notice to proceed	15	05-Mar-16	BWDB

B. Procurement of Goods, Works and Consulting Services

58. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines*. ADB reserves the right to disallow utilization of loan proceeds if it is unable to agree with the recommendation with BWDB on either the bidding documents or bid evaluation reports. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is **Appendix 4**. As this project will be financed by ADF resources with ADB-

²¹ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

²² Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

administered cofinancing, universal procurement will apply to all contract packages financed under the project.²³ The procurement capacity assessment of BWDB is in **Appendix 9**.

59. **Procurement of goods and works.** The same types of works that are conducted under the current project will be included in the additional financing. International competitive bidding (ICB), if any, will be followed for civil work contracts costing \$15 million or more, to ensure competition. National competitive bidding (NCB) will be applied for civil works contracts costing less than \$15 million. For procurement of goods and related services, ICB procedures will be used if the estimated cost is \$2 million or more, and NCB if the estimated cost is less than \$2 million. Shopping could be used for goods and works, if the estimated cost is less than \$0.1 million. All civil works packages under the project will be small packages for construction or rehabilitation of rather minor structures. No package under the project will apply the prequalification. ADB's standard bid documents for single stage – one envelope system will be used.

60. For all ICB contracts for works and goods, ADB will conduct prior review in accordance with the procedures explained in PAI 3.02 and 3.03. BWDB will submit to ADB procurement documents, such as draft bid documents, bid evaluation reports, and draft contracts, at every stage of the procurement for each contract packages, and seek ADB's prior concurrence.

61. For NCB contracts for goods, ADB will conduct prior review for the first package. BWDB will seek ADB's prior concurrence at every stage of the procurement procedures, as described in para 60. The subsequent packages will use the corresponding approved bid documents as master bidding documents. For the subsequent packages, ADB will conduct post review in accordance with the procedures explained in PAI 3.02 and 3.05 in principle, but BWDB is requested to submit documents at each stage of the procurement, instead of sending all documents after awarding. BWDB should forward a copy of the bidding documents to ADB immediately after release of the invitation of bid (IFB) for each contract package, and ADB will conduct post review of each package. BWDB may be required to issue addenda/addendum based on comments from ADB (if any), before bid submission. Other procurement documents, such as bid evaluation reports and signed contracts should also be submitted to ADB as soon as they become available, for ADB's post review.

62. For NCB contracts for works with the estimated cost of \$1,000,000 or more, ADB will conduct prior review for the first package of each type of works, and will conduct post review for the subsequent packages, following the same procedures for NCB goods procurement as described in para. 61.

63. For NCB contracts for works with the estimated cost less than \$1,000,000, ADB will conduct prior review for the first package of each type of works if there is no previous prior approval for similar works packages of \$1,000,000. BWDB will seek ADB's prior concurrence at every stage of the procurement procedures, as described in para 60. The subsequent packages will use the corresponding approved bid documents as master bidding documents. For the subsequent packages, ADB will conduct post review in accordance with the procedures explained in PAI 3.02. The post review (sampling) with the procedures explained in PAI 3.02 may be applied for packages up to certain amount subject to ADB's approval.²⁴ All documents,

²³ ADB. 2013. Blanket Waiver of Member Country Procurement Eligibility Restrictions in Cases of Cofinancing for Operations Financed from Asian Development Fund Resources. Manila

²⁴ Guidance Notes are prepared on how to conduct post review sampling. Further details on at what stage this assessment shall be carried out either during review mission, MTR or other stage, will further be discussed during project implementation.

including IFB, bid documents, bid evaluation reports and signed contracts should also be submitted to ADB as soon as they become available, for ADB's post review or post review (sampling).

64. For shopping for goods, ADB will conduct prior review for the first package, and will conduct post review for the subsequent packages, following the same procedures for NCB goods procurement for the second and subsequent packages as described in para. 61.

65. For shopping for works, ADB will conduct prior review for the first package of similar type of works, and will conduct post review or post review (sampling) for the subsequent packages, following the same procedures as described in para. 63.

66. The community participation modality will be applied to simple and small earth works packages, such as re-excavation of small khals (small streams) and minor embankment re-sectioning. The community participation modality shall not be used for contracts worth higher than \$10,000 equivalent, however the application of this modality will be decided depending on the nature and scale of each works package, which should be acceptable to ADB. BWDB will award a contract to a labor contracting society that will be organized under a water management organization. Awarding of community contracts to the labor contracting societies will be done in accordance with PAI 5.10. ADB will review the award of the contract on a post review basis to ensure that the following information are accurately indicated in the contract: work schedule, responsibilities of SMO and the labor contracting society in monitoring and inspecting progress and quality of works, payment procedures and terms, and grounds for contract termination.

67. If, through its post review and post review (sampling), the ADB determines that an action by a borrower amounted to misprocurement, it will declare misprocurement.

68. **Consulting services.** All consultants, NGOs, and other institutions will be recruited according to ADB's *Guidelines on the Use of Consultants*.²⁵ The outline terms of reference for consulting services are in Section C below and **Appendix 5**.

69. The project provides a consultancy package for institutional strengthening and project management consultants (ISPMC). Other consultancy recruitment includes small surveys and supporting services, as indicated in para. 70 below.

70. ISMPC will be selected using ADB's quality- and cost-based selection (QCBS) modality with a quality to cost ratio of 90:10 as the package requires adequate knowledge and experience in participatory water resources planning and management. Other rather small-size consulting/NGO services will be engaged through consultant qualification selection (CQS) modality, as indicated in the procurement plan.

C. Procurement Plan

71. An 18-month procurement plan is in **Appendix 4**.

²⁵ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

D. Consultant's Outline Terms of Reference

72. The project will have the following consulting services packages:

- (i) institutional strengthening and project management consultant (ISPMC),
- (ii) small packages by national consultant or resource institutions:
 - Resettlement plan survey and implementation,
 - Hydraulic data collection and studies for IWMP and SIP preparation,
 - Hydrological data collection and studies for IWMP and SIP preparation,
 - GIS and database development of WMOs,
 - Benefit monitoring and evaluations, and
 - MIS development and improvement including training and initial operation support.

73. The ISPMC team will assist PMO to prepare detailed terms of reference of the small packages under (ii) above, and will oversee and supervise the small packages.

1. ISPMC Package

74. A consulting team led by an international firm and comprising international and national experts will be engaged in accordance with ADB's *Guidelines on the Use of the Consultants*. The ISPMC team will be led by an International Team Leader who will supervise the entire activities of the ISPMC, and will be in charge of the progress and the quality assurance of the entire ISPMC activities. The services will include the following major tasks.

75. The major tasks of the consulting services of ISPMC will include the following. Details are described in **Appendix 5**.

Task 1: Preparation of integrated water management plans for four subprojects,

Task 2: Implementation support for formulation and capacity development of WMOs in nine subproject areas, and follow-up capacity development of existing WMOs in the Narail and Chenchiri Beel subproject areas,

Task 3: Implementation support for rehabilitation and construction of water management infrastructure in the nine subproject areas, including construction supervision and quality control, and

Task 4: Supporting institutional capacity strengthening of BWDB and line agencies for participatory water resources planning and management.

76. Besides, the ISMPC team will also support PMO for the preparation and supervision of small packages of relevant consulting/NGO services. The ISPMC's contract will include subcontracting supporting studies/analyses by national consultants, research institutions and NGOs. ISMPC will ensure the quality of deliverables and services by subcontractors.

Table 6.1: Summary of Major Service Activities

Task	Major Activities
Task 1: Preparation of IWMP for four subprojects	(i) Preparation of IWMP for two subprojects to be implemented under the additional financing project (ii) Preparation of IWMP for two subprojects that may be implemented by future projects

Task 2: Implementation support for formation and capacity development of WMOs in nine subproject areas, and follow-up capacity development of existing WMOs in the Narail and Chenchiri Beel subproject areas	<p><u>For nine subprojects:</u></p> <ul style="list-style-type: none"> (i) Support social mobilization for formulation of WMOs (ii) Institutional capacity development of WMOs, including WMO operation, O&M of structures, agriculture, fisheries, business development, livelihood improvement, and income generation activities (iii) SIP preparation <p><u>For Narail and Chenchuri Beel Subprojects :</u></p> <ul style="list-style-type: none"> (i) Follow-up institutional capacity development of WMOs (ii) Support WMOs for operationalize the annual O&M fund collection system
Task 3: Implementation support for rehabilitation and construction of water management infrastructure in the nine subproject areas, including construction supervision and quality control	<ul style="list-style-type: none"> (i) Detailed design (ii) Support for tender procedures (iii) Preparation and update of resettlement plans (iv) Construction supervision, including monitoring of the environment management plan and resettlement plan implementation (v) Preparation of O&M manuals
Task 4: Supporting institutional capacity strengthening of BWDB and line agencies for participatory water resources planning and management	<ul style="list-style-type: none"> (i) Support organizing training for BWDB and line agencies, (ii) MIS upgrading (iii) Capacity development support for OWCM and Audit Directorate of BWDB

BWDB = Bangladesh Water Development Board, IWMP = integrated water management plans, MIS = management information system, OCWM = Office of Chief Water Management, WMO = water management organization.
Source: Asian Development Bank. 2015.

a. Overall Resource Requirements

77. The indicative design of the overall composition of the consultant team is shown in the following table.

Table 6.2: Summary of ISPMC Requirement (indicative)

a. International (man-month)		Total (Key + non-key experts) (p-m)	Key experts* (p-m)
a-1	Water Resources Development Specialist /TL	30	30
a-2	Participatory Development Specialist	17	17
a-3	Institutional Specialist	6	6
a-4	Agriculture Economist	3	3
a-5	Quality Control Specialist (infrastructure)	1	1
a-6	Environmental Safeguard Specialist	3	3
a-7	O&M Specialist	3	3
a-8	MIS Specialist	2	
a-9	Resettlement Specialist	4	4
a-10	Value Chain Advisor	2	2
Total of International		71	69

b. National (man-month)		Total (Key + non-key experts) (p-m)	Key experts* (p-m)
b-1	Water Resources Management Specialist/ DTL	72	72
b-2	Water Management Organization Specialist	70	70
b-3	Participatory Development Specialist	18	18
b-4	Institutional Advisor	36	36
b-5	Value Chain Specialist	36	36
b-6	Mid-level WMO Specialist (2 positions)	62	
b-7	Design Engineer	46	46
b-8	Quality Control Engineer (2 positions)	84	84
b-9	Mid Level Quality Control Engineer (4 positions)	168	
b-10	Agricultural Extension Specialist	58.5	58.5
b-11	Mid Level Agricultural Extension Expert	52	
b-12	Fishery Development Specialist	53	53
b-13	Mid Level Fishery Development Expert	57	
b-14	Agricultural Economist	19.5	19.5
b-15	Gender & Social Dev. Specialist	32	32
b-16	Environmental/Safeguard specialist	26	
b-17	Training Specialist	25	
b-18	O&M Specialist	48	48
b-19	Hydraulic Engineer / Hydrologist	18	
b-20	Resettlement Specialist	18	18
b-21	GIS Specialist/Remote Sensing Specialist	8	
b-22	MIS Specialist	12	
Total of National		1019	591
Gross total		1090	660

Note: *: Biodata of only key positions will be evaluated as part of technical proposal.

b. Reports and Major Deliverables

78. The consultants will furnish the following reports and deliverables. Other deliverables to present their findings or analyses results will also be produced as necessary.

(1) Regular reports:

- a) Inception Report: to be submitted within one month after the commencement of the services, presenting the methodologies, schedule, organization, and other information to present the planned implementation of the services.
- b) Monthly Progress Report: to be submitted by the 10th day of each month, describing briefly and concisely all activities and progress for the previous month. The report will include details of expert personnel mobilization, progress of work, financial man-month used. Problems encountered or anticipated will be clearly stated, together with actions to be taken or recommendations on remedial measures for correction. It will also indicate the work to be performed during the coming month.
- a) Monthly Progress Report: to present the details of progress of the services,

implementation progress of safeguard (resettlement and environment) and gender requirements, expert personnel mobilization, financial person-month used, problems encountered, actions and/or proposals for resolution, and the anticipated services for the next period of the services.

- b) Quarterly Progress Report: to be submitted within 30 days after the end of each quarter, presenting the project progress status of each quarter and work plan for the succeeding quarter. The reports will include the details of the progress of the project activities, implementation progress of safeguard (resettlement and environment) and gender requirements, and other information that were included in the monthly progress report.
 - c) Draft environment management plan implementation monitoring report (annual), to be submitted within 30 days after the end of each calendar year, presenting the progress of the environment management plan to meet requirements of the government and ADB. This is for assisting the executing agency to submit the safeguard monitoring reports to ABD.
 - d) Draft resettlement plan implementation monitoring report (annual), to be submitted within 30 days after the end of each calendar year, presenting the progress of resettlement plans to meet requirements of the government and ADB. This is for assisting the executing agency to submit the safeguard monitoring reports to ABD.
 - e) Mid-term Review Report: to be submitted within about 30 months when instructed by BWDB as per the actual progress of the project activities, presenting the progress of the project activities, implementation progress of safeguard (resettlement and environment) and gender requirements, problems encountered, actions and/or proposals for resolution, proposal of improvement towards the remaining project period, and other assessment and information that evaluates the project activities since the beginning of the project.
 - f) Construction Completion Report: to be submitted within three (3) month after completion of construction, which comprises a full size of as-built drawings for all the structures and facilities completed, and the final details of the construction completed together with all data, records, material tests results, field books, etc.
 - g) Service Completion Report: submit a draft report three months before the end of the completion services, and the final report at the end of all the consulting engineering services, incorporating comments from BWDB and ADB.
- (2) Technical notes and other reports:
- a) IWMP reports: to be submitted in the first and second year of the services, for the four subprojects.
 - b) O&M manuals of water management structures.
 - c) Draft resettlement plans, to assist the executing agency to submit resettlement plans for construction and rehabilitation of structures, as necessary.
 - d) Capacity development plans for BWDB, line agencies and WMOs.
 - e) Special reports by subject matter specialists, as necessary.

E. Procurement Control Summary Sheet (PCSS)

79. BWDB, upon signing various procurement contracts, shall forward a copy of the signed contract to ADB requesting issue of Procurement Control Summary Sheet (PCSS) number to facilitate financial monitoring of expenditure under the contract both by BWDB and ADB. The PCSS number shall be referred to in the SOE sheet for all expenditure claims against the respective contracts submitted to ADB for reimbursement.

80. Any contract variations during the contract execution beyond the limit specified in the Project Administration Instructions will require ADB's prior approval.

VII. SAFEGUARDS

81. BWDB will ensure that all the requirements prescribed in the (i) initial environmental examination (IEE),²⁶ (ii) resettlement framework (RF), and (iii) resettlement plans (RP) will be complied with during the preparation and implementation of the project.

82. Pursuant to ADB's Safeguard Policy Statement 2009 (SPS), ADB will not reimburse expenditure incurred on any activities listed in the ADB's Prohibited Investment Activities List set forth in Appendix 5 of the SPS.

83. BWDB will ensure that all investments are in compliance with applicable national laws and regulations, and ADB's SPS.

A. Environment Safeguards

84. The project is categorized a "red" project under the government regulation and therefore, an EIA was prepared and approved by the Department of Environment (DOE). Under the ADB's SPS, the project is categorized "B". The government's EIA is equivalent to IEE under ADB's SPS. An IEE was prepared in accordance with the government and ADB's SPS requirements. The IEE includes the environmental management plan (EMP) and its monitoring plan. PMO with the support of the ISMPC team and in consultation with SMOs will be responsible for implementing IEE and its EMP and monitoring plan. PMO will be assisted by environment experts in the ISMPC team. To ensure the implementation of IEE and its EMP and monitoring plan, the following actions need to be undertaken by PMO:

- (i) Obtain environmental clearance from DOE, and extract all DOE requirements for implementing the project prior to awarding any civil work contract.
- (ii) Ensure that all bidding and contract documents for civil works include all the requirement from DOE as part of environmental clearance and requirement described in the IEE and its EMP.
- (iii) Ensure that the environmental specialist from the ISMPC team will conduct a training to guide the contractors in preparing appropriate site management plan and monitoring plan.
- (iv) Ensure that the environmental specialist from the ISMPC team will develop generic monitoring plan appropriate for the project.
- (v) Ensure that contractor submit the site management plan prior to commencement of civil works.
- (vi) Ensure that ISMPC review and approve the site management plan.
- (vii) Ensure that ISMPC monitor the implementation of mitigation measures and EMP (including the implementation of health and safety requirement for their workers) that translated into site management plan by the contractor, and report the implementation of IEE and its EMP as part of the project quarterly progress report.
- (viii) Ensure that the environmental consultant visits the project areas where there is an on-going construction to equip him/her in preparing annual report on the implementation of IEE and its EMP to be submitted to ADB.
- (ix) Ensure that any un-expected impacts are properly and timely mitigated.

²⁶ The executing agency prepared an environmental impact assessment (EIA) for the nine subprojects to meet the government's requirements, and the EIA was approved by the Department of Environment (DOE). The government's EIA is considered to be the IEE, and it meets ADB's category B project for the environment safeguard.

- (x) Any complaint and grievance related with environmental impacts should be resolve through its grievance redress mechanism (GRM) and reported to ADB in a timely manner.

B. Social Safeguards

85. **Involuntary resettlement.** The project is categorized B. In the Alfadanga-Boalmari subproject area, 1.5 km of new embankment will be constructed for the restoration of washed-away portion, and will require about 2.74 hectares (ha). A resettlement plan was prepared for 1.5 km of the new embankment construction. The other rehabilitation and construction works will be done within the Right of Way or locations where no land acquisition is involved. However, the precise locations of the rehabilitation and re-sectioning of existing embankments will be determined during the project implementation through the beneficiary participatory planning procedures, and will be based on walkthrough surveys with WMOs. There is a possibility of involuntary resettlement due to rehabilitation and re-sectioning works depending on the locations of works, while the works locations will be selected to mitigate involuntary resettlement. As a prudent measure, a resettlement framework was prepared, in accordance with the government's laws and regulations and ADB's SPS, should any involuntary resettlement-related issue arise.

86. The resettlement framework and resettlement plan that have been agreed by the executing agency will be implemented by PMO, with the support of the ISMPC team and in consultation with SMOs. The ISMPC will include resettlement specialists who will be engaged in intermittent basis until the implementation of resettlement plans is completed. To ensure the implementation of resettlement plans , the following actions will need to be carried out by PMO:

- (i) Continue the existing GRM under the current project at PMO level and at the subproject level in close coordination with local authorities.
- (ii) For the implementation of resettlement plans, PMO will check whether there is any change on the detailed design that changes the impact on involuntary resettlement. If there is no change, PMO will inform ADB that no updated resettlement plan will be required. PMO will work closely with local authority to implement the resettlement plan: (1) making full payment of compensation to project-affected peoples (PAPs), who opt for a compensation, (2) obtaining paper work on transferring land to the local authority from PAPs who opt donating their lands for the project, (3) keeping and maintaining all the records for (1) and (2), and submit the report to ADB on resettlement plan implementation through quarterly project progress report, and (4) submitting resettlement plan implementation report to ADB after completing the resettlement plan implementation for Alfadanga-Boalmari.
- (iii) If the resettlement plan for Alfadanga-Boalmari needs to be updated in line with detailed design, the updated resettlement plan needs to be prepared by following the principles described in the resettlement framework, and to be submitted to ADB for review and approval prior to awarding the civil work contract. The updated resettlement plan will need to be implemented by following actions described in (ii) above.
- (iv) After completing the design and plan for each subproject (each embankment), the due diligence by following the resettlement framework and using the screening checklist will be carried out to check whether any of the subprojects will involve involuntary resettlement or/and land acquisition. If there is no involuntary resettlement or land acquisition, the brief due diligence report on

- involuntary resettlement should be submitted to ADB prior to awarding a civil work contract.
- (v) If any of the subprojects will involve involuntary resettlement, a resettlement plan for the particular subproject needs to be prepared in accordance with the resettlement framework. the resettlement plan will need to be submitted to ADB for review and approval prior to awarding civil work contract for the particular subproject. The resettlement plan needs to be implemented by following steps described in (ii) above.
 - (vi) All the progress reports on the implementation of resettlement plans and also the report on completion of resettlement plan implementation should include report in the GRM activities.
 - (vii) During the project implementation, any grievance or complaint submitted by PAPs has to be resolved in accordance with the agreed procedure described in the GRM, and should be recorded and reported to ADB immediately by email or by other means.
 - (viii) Ensure that PMO's resettlement specialist is in close coordination with local authorities, and site engineers shall conduct routinely consultations with PAPs to ensure PAPs are well informed about their rights if their property will be taken for the project.
 - (ix) Ensure that the resettlement framework and resettlement plans will be translated into Bengali, and will be made available to be accessed by the PAPs.

87. **Indigenous peoples.** There are no indigenous peoples as defined for operational purposes by ADB's SPS in the project. Therefore, no action is required to be undertaken by PMO.

VIII. GENDER AND SOCIAL DIMENSIONS

88. **Social development and poverty reduction.** The project will provide a more stable environment with improved water management and strengthened livelihood improvement capacity of beneficiaries, while providing income generation during the construction of the civil works, which potentially provides higher opportunity for future income generation.²⁷ It is expected that the project will have positive impacts on the poverty reduction and food security of the poor. Despite good progress in recent years, Bangladesh remains under difficult economic situation with an annual per capita gross national income of \$1,010 (in 2013), and with 31.5% of its population living below poverty line.²⁸ Over 80% of the poor in rural areas, and most of them are engaged in agriculture, nonfarm related activities, and fisheries. PMO will establish a monitoring system to document the project's impact on poverty reduction caused by improvement on efficient water use that is the key to the poverty reduction in the project area.

89. The project will be implemented with high participation of stakeholders in decision making. The empowerment of the poor and women, including income generation, livelihood improvement, and the inclusion of the socially weak like tenant farmers and share-croppers are built into the project design. The specific strategy includes (i) pro-poor procedures for beneficially selection and employment; (ii) inclusive membership access to WMOs; (iii) WMO participation in planning, design, implementing and monitoring; and (iv) an inclusive comprehensive capacity development program for WMOs for water management and livelihood

²⁷ ADB's Handbook on Social Analysis: A Working Document: <http://www.adb.org/Documents/Handbooks/social-analysis/default.asp>.

²⁸ Poverty headcount rate at the upper poverty line by the cost of basic needs method. Bangladesh Bureau of Statistics. 2011. Statistical Year Book of Bangladesh – 2010. Dhaka

improvement. PMO will document the progress of stakeholders' participations in its quarterly project progress report.

90. **Gender actions.** The project is classified gender equity theme. A gender action plan (GAP) has been prepared for the project with clear targets and responsibilities.²⁹ Women will benefit from (i) being a member of management committee of WMOs, with a minimum 33% of female members; (ii) receiving training in agriculture, livestock, postharvest processing, fisheries production, or other water management and livelihood improvement matters depending on beneficiaries' practical and strategic needs; and (iii) employment opportunities for construction and O&M works. PMO will ensure establishing an MIS system with sex-disaggregated data collection, gender based analysis, and review and reporting on the implementation of the GAP in all reports. The GAP for project activities under the additional financing is in **Table 8.1**. The progress in implementing the GAP will be reported regularly through quarterly project progress report.

91. **Labor, health, and social protection.** BWDB will ensure that the contractors, sub-contractors, and suppliers for the project follow all applicable labor laws of the government. The contractors and their sub-contractors will be further required to include provisions to (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; (ii) avoid employing children and forced labor; (iii) open an opportunity to employ females, (iv) ensure equal pay for equal work for male and female laborers; and (v) adopt a good practice as well as follow legally mandated provisions of labor health, safety, sanitation, welfare and working conditions. PMO will ensure that contracts shall also include clauses for termination in case of any breach of these provisions by contractors and its sub-contractors. Further, PMO will report in its quarterly project progress report the implementation of contractors' compliance with applicable labor law at the minimal to cover the above requirements.

²⁹ Briefing Note: Project Gender Action Plans: <http://www.adb.org/Documents/Brochures/Project-Gender-Action-Plans/default.asp>, and Updated Gender Mainstreaming Categories of ADB Projects: <https://lpedgedmz.adb.org/lnadbg1/ocs0178p.nsf/0/37CC7D6E8E3CC57D482576E20083C156?OpenDocument>

Table 8.1: Gender Action Plan

Output/Activities		Indicators and Targets	Responsibility	Time frame
Output 1: WMOs' capacity for sustainable water resources planning and management in the subproject areas developed				
Output 1a: Preparation of integrated water management plans				
Activity:	Preparation of four integrated water management plans for each subproject			
Tasks:	<ul style="list-style-type: none"> - Ensure women participation in consultation meetings - Integrate activities to address women's needs in the integrated water management plan 	<ul style="list-style-type: none"> - Include 40% of women participation in consultation meetings. The data/ list of meeting participants will be presented with sex-disaggregated data. - Final integrated water management plans will include actions identified in the meeting. 	PMO, Consultants	At start of project, in year 1 to 2.
Output 1b: Preparation of SIPs				
Activity:	Preparation of SIPs for each subunit			
Tasks:	<ul style="list-style-type: none"> - Ensure women participation in consultation meetings - Ensure activities to address women's needs included in SIPs (need based) 	<ul style="list-style-type: none"> - Include women participation in consultation meetings. The data/list of meeting. participants will be presented with sex-disaggregated data - Final SIPs include provisions for joint and/or separate gender training for women and men. 	PMO, Consultants	At start of project, in year 1 to 2.
Output 1c: WMO formulation and support				
Activity:	1c-1: Formulation and capacity building of WMOs			
Tasks:	<ul style="list-style-type: none"> - Ensure women engagement as social mobilizers - Train PMO and SMO staff on gender issue - Training of WMO members, both female and male beneficiaries, in water management and O&M - Elect women representatives in WMGs 	<ul style="list-style-type: none"> - Recruitment of 33% women for senior and community mobilizers. - Include 33% women members in WMGs. - Provide training to 100% PMO and SMO staff and facilitators in gender and other social consideration issues using the guidelines for gender requirements. - Include 33% of women participants in training in water management and O&M. - 80% of WMGs have at least two out of five elected women member of the management committee (President, vice-president, secretary, etc.). 	WMO development unit of PMO, work contractors, Consultants	Year 1 to 6

Output/Activities		Indicators and Targets	Responsibility	Time frame
Activity:	1c-2: Livelihood improvement support			
Tasks:	<ul style="list-style-type: none"> - Ensure women participation in training and supporting programs - Organize destitute women groups according to selected on-farm and off-farm activities - Integrate activities to address women's needs in integrated water management and provide training 	<ul style="list-style-type: none"> - 33% women participation in livelihood support training, such as crop diversification, seed production, composting process and techniques, nurseries, tree planting, poultry raising, cow and goat rearing, safe sanitation, and other trainings as per their needs. - 100% of destitute women from WMO member families received at least one livelihood support training. 	WMO Development Unit of PMO, Consultants	After forming WMOs, year 1 to 6.
Output 2: Infrastructure facilities of flood control, drainage and irrigation schemes in the subproject areas restored				
Activity:	Rehabilitation and construction of water management structures			
Tasks:	<ul style="list-style-type: none"> - Ensure women benefit from employment in project supported construction works - Emphasize gender aspect of labor standard including equal wage for women and men for equal work - Occupational health and safety, safe water supply, and sanitation - Separate toilets for women, where identified 	<ul style="list-style-type: none"> - Form LCS groups with 25% WMG women members. - Train PMO and SMO staff and facilitators to supervise; verify and ensure that the conditions for recruiting women in construction works are met. - Facilities for women workers where women are employed are available and cover specific needs of women on the standard operating procedure for health and safety staff. - Incorporate relevant sex segregation information in field monitoring reports and contractors' compliance reports. 	PMO, contractors, Consultants	Within two months after beneficiaries selection, year 2 to 6
Output 3: Institutional capacity for sustainable participatory water resources planning and management strengthened				
Output 3a Institutional capacity strengthening for management of WMOs				
Activity:	Capacity building of BWDB on integrated water resources management with participatory approaches, and management of WMOs, including institutional capacity development of OCWM.			
Tasks:	<ul style="list-style-type: none"> - Integrate a gender-specific module in BWDB training - Include women in the training program - Raise awareness and build capacity of men and women officials in mainstreaming gender in integrated water resources management 	<ul style="list-style-type: none"> - 15% women participants in training programs. - Gender aspects integrated in the relevant training program / module. 	PMO, OCWM of BWDB	Year 1 to 6
Output 3b: Institutional capacity strengthening for sustainable operation and maintenance of structures				
Activity:	Updating present MIS			
Tasks:	<ul style="list-style-type: none"> - Establish MIS system with sex disaggregated data base for project reporting. - Ensure effective use of sex-disaggregated data 	<ul style="list-style-type: none"> - Identify gender indicators and incorporate in the MIS. - Data in MIS are used in quarterly GAP implementation progress reports. 	PMO, BWDB and Consultants	Year 2 to 6.

BWDB = Bangladesh Water Development Board, GAP = gender action plan, LCS = labor contracting society, MIS = management information system, OCWM = Office of Chief Water Management, O&M = operations and maintenance, PMO = project management office, SIP = subunit implementation plan, SMO = subproject management office, WMG = water management group, and WMO = water management organization.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Overall project Unchanged	1c. 100 WMGs completed agriculture, fisheries, and livelihood programs and achieve SIP targets 1d. Joint management committees are established in two subprojects and FCDI infrastructure managed through annual O&M plan Overall project (by 2022) 1e. 13 IWMPs approved by ADB (2015 baseline: 9) 1f. 36 SIPs with sex-disaggregated data are endorsed by WMAs (2015 baseline: 14) 1g. 70% of beneficiary household are enrolled as members of WMGs with 33% female participation (2015 baseline: 0% in 9 subproject areas) 1h. 252 WMGs completed agriculture, fisheries, and livelihood programs and achieve SIP targets with 33% female participation (2015 baseline: in 102 WMGs) 1i. O&M transfer agreements are signed with WMOs concerned for all structures planned in SIPs (2015 baseline: 13 agreements)	1e. IWMP reports 1f. WMA meeting minutes, project progress reports 1g. BME reports, project progress reports, project completion report 1h. BME reports, project progress reports, project completion report 1i. BME reports, project progress reports, project completion report	
Output 2. Current project Infrastructure facilities of FCDI schemes in the subproject areas restored Overall project Unchanged	Current project 2a. FCDI infrastructure in Narail and Chenchuri Beel subproject areas are improved Overall project (by 2022) 2b. In 11 schemes, FCDI infrastructure is fully functioning (2015 baseline: in two schemes)	2a. Prepared SIPs, project progress reports, project websites 2b. Prepared SIPs, BME report, project progress report	
Output 3. Current project Institutional capacity for sustainable participatory integrated water resources planning and management	Current project 3a. MIS to monitor completed schemes is operational 3b. BWDB's O&M MIS is made operational in the project area	3a. Project progress and completion report, MIS 3b. Project progress and completion report, MIS	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
strengthened Overall project Unchanged	3c. BWDB–Local Government Engineering Department MOU is signed for coordinated FCDI works 3d. Ministry of Water Resources–Ministry of Land MOU for public water body leasing is signed Overall project (by 2022) 3e. BWDB uses MIS for O&M monitoring (2015 baseline: No) 3f. OCWM strengthening proposal approved by BWDB (2015 baseline: Not available) 3g. BWDB conducts annual auditing for 252 WMGs after WMG registration (2015 baseline: 0) 3h. WMO database of BWDB with sex-disaggregated data is functioning (2015 baseline: Not available)	3c. Project progress reports, MOU 3d. Project progress reports, MOU 3e–3h. Project progress reports, BME report	
Key Activities with Milestones 1. WMOs' capacity for sustainable water resources planning and management in the subproject areas strengthened 1.1 Prepare IMWPs (seven IWMPs: completed, four IMWPs by June 2017: added) 1.2 Prepare SIPs, including finalization of required physical works and overall WMO training programs (in two subprojects: completed, in nine subprojects by November 2018: added) 1.3 Form WMOs (in two subprojects: completed, in nine subprojects by July 2018: added) 1.4 Train WMOs (in two subprojects: completed, in nine subprojects till June 2022: added) 1.5 Support WMOs in Narail and Chenchiri Beel subproject areas for annual O&M fee collections (till December 2019: added) 2. Infrastructure facilities of FCDI schemes in the subproject areas restored 2.1 Provide detailed design, procurement, construction and rehabilitation, and construction supervision of civil works (in two subproject areas: completed, in nine subproject areas by December 2021: added) 3. Institutional capacity for sustainable participatory integrated water resources planning and management strengthened 3.1 Prepare an OCWM capacity strengthening proposal, including job descriptions and human resources (by July 2017: added) 3.2 Conduct training to BWDB, including project management office, OCWM, and Directorate of Audit (till 2022: added) 3.3 Develop basic modules of MIS (completed) 3.4 Upgrade existing MIS (by December 2017: added) 3.5 Develop WMO database for BWDB (by December 2017: added) Project Management Activities Recruitment of the project management consultant team (for the current project: completed, for additional financing by January 2016: added)			

Inputs ADB Loan: \$20.0 million (current) \$45.0 million (additional) \$65.0 million (overall) Government of the Netherlands: \$12.5 million (current) \$7.0 million (additional) \$19.5 million (overall) Government of Bangladesh: \$10.9 million (current) \$11.7 million (additional) \$22.6 million (overall)
Assumptions for Partner Financing Current project None Overall project Unchanged

ADB = Asian Development Bank; BME = benefit monitoring and evaluation; BWDB = Bangladesh Water Development Board; FCDI = flood control, drainage, and irrigation; ha = hectare; IWMP = integrated water management plan; MIS = management information system; MOU = memorandum of understanding; O&M = operation and maintenance; OCWM = Office of Chief Water Management; SIP = subunit implementation plan; t = ton; WMA = water management association; WMG = water management group; WMO = water management organization. Note: The design and monitoring framework was revised and realigned in line with ADB's Updated Design and Monitoring Framework Guidelines (2015).

^a Government of Bangladesh, Planning Commission. 2011. *Sixth Five-Year Plan FY2011–FY2015: Accelerating Growth and Reducing Poverty*. Dhaka.

Source: Asian Development Bank.

B. Monitoring Requirements

92. **Project performance monitoring:** PMO has an MIS which will consist of the project management and O&M modules, and the MIS will be further improved during the proposed project. The project management module of the MIS will include a benefit monitoring function using targets, indicators, assumptions, and risks in the project DMF. The baseline data for indicators and targets set out in the DMF were collected during the PPTA and will be stored in the MIS. Data indicators for subsequent years will be input annually in the MIS. The project management consultant will support the PMO in monitoring performance. The financial and physical progress will be recorded in the project management module of the MIS.³⁰

93. **Compliance monitoring:** Status of compliance with assurances, conditions and loan covenants—policy, legal, financial, economic, environmental, and others— will be reviewed at each ADB review mission. All non-compliance issues, if any, will be updated in quarterly progress reports together with remedial actions. PMO will include status of compliance in quarterly progress reports.

94. **Safeguards monitoring:** Monitoring of social safeguards especially the implementation of the resettlement plan(s) will be reported through the quarterly project progress reports, and semi-annual reports will be submitted to ADB as stand-alone report.

95. The monitoring of environmental safeguard especially for EMP implementation will be reported through the quarterly project progress reports, and annual reports will be submitted to ADB as stand-alone report.

96. **Gender and social dimensions monitoring:** The GAP will be implemented and monitored by BWDB. The status of the implementation of the GAP will be reported in BWDB's quarterly progress report that will be submitted to ADB. The status will also be discussed at each ADB review mission, including a mid-term review mission.³¹

C. Evaluation

97. Within 3 years after the effectiveness, ADB will conduct a mid-term review to identify problems and constraints encountered and suggested measures to address them, including appropriateness of scopes, design, implementation arrangements, implementation schedule, compliance with safeguards and other covenants.

98. Within 6 months of physical completion of the project, BWDB will submit a project completion report to ADB.³²

³⁰ ADB's project performance reporting system is available at:
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

³¹ ADB's Handbook on Social Analysis: A Working Document, is available at:
<http://www.adb.org/Documents/Handbooks/social-analysis/default.asp>, Staff Guide to Consultation and Participation: <http://www.adb.org/participation/toolkit-staff-guide.asp>, and, CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations: <http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp>

³² Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

D. Reporting Requirements

99. PMO under BWDB will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency audited financial statements, together with the associated auditor's report, should be adequately reviewed.

100. **Project progress reports.** BWDB will prepare progress reports and submit these to ADB on a quarterly basis within 45 days from the end of each quarter (termed as semiannual report and annual report for the reporting quarters ending June and December, respectively). Each report will provide (i) a narrative description of progress made during the period, (ii) changes in the implementation schedule, (iii) problems or difficulties encountered, and (iv) work to be carried out in the next period. The progress reports will also include a summary of contract awards and disbursements, project expenditure for the period and total expenditure of the project to date, contract award and financing plan for the next quarter, financial account of SGIA, a quarterly monitoring report of the GAP implementation, and status of implementation of loan covenants including environment and involuntary resettlement safeguard requirements. Suggested contents of project progress reports are indicated in **Appendix 6**.

101. The project progress reports should include the assessment of physical progress. Each implementation activity carries certain weight and should be accounted for while computing the physical progress. **Appendix 8** shows guidelines for computing physical progress of the project to be used both by BWDB and ADB for assessment during project implementation. A graph of anticipated overall physical and financial progress during the life of the project to help identifying the status of achievement of the targets and or underperformance is also shown.

102. **Annual projections for contract award and disbursement.** BWDB will prepare annually the projections for contract awards and disbursements under the project with quarterly breakdown for one calendar year ahead. Separate projections for the ADB loan and co-financing grant have to be prepared. BWDB will submit the projections to ADB by 30 November of each year using the prescribed templates.

103. **Audited financial statements.** BWDB will have its project financial statements audited annually, in accordance with appropriate auditing standards consistently applied, by independent auditors whose qualifications, experience and terms of reference acceptable to ADB; and (ii) furnish to ADB, as soon as available but in any event not later than 6 months after the end of each fiscal year, certified copies of such audited project financial statements and the report of the auditors relating thereto will include a separate audit opinion on the use of the loan and grant proceeds, imprest account and compliance with SOE procedures and financial covenants. Refer to Section V for further details.

E. Stakeholder Communication Strategy

104. As the project is for promoting the participatory water resources planning and management, the project is designed for stakeholder involvement and communication. The stakeholder communication strategy has been built into the design of the entire project, from integrated water management planning, the implementation, and operation and maintenance,

while no separate stakeholder communication strategy has been established. A key part of the project implementation strategy will be focusing on information sharing and consultation that will guide communications with stakeholders during project implementation. Such information sharing will help to build consensus and ensure continuous stakeholder support throughout the project implementation.

105. The primary audiences for the communication strategy are local communities in the subproject areas, the general public (NGOs and development partners, key individual decision makers) and the Government and authorities (local Upazila administration, institutions and ministries).

106. The communication activities will include door-to-door awareness campaigns, public meetings, publicity programs with educational institutes, etc. Stakeholder consultations have already been started since the PPTA for the original project with affected households, elected local representatives and other stakeholders. Socio-economic survey and senses surveys were also conducted before formulating the proposed project. Detailed interventions, including infrastructure renovation, and capacity development support for WMOs, will be determined based on discussions with WMOs. After making the plan, the proposed interventions will be explained at each proposed subproject site. This close communication with local stakeholders has been successfully implemented under the current project, and will be maintained during the implementation of the additional financing.

X. ANTICORRUPTION POLICY

107. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.³³ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.³⁴

108. To support these efforts, relevant provisions are included in the loan agreement/regulations and the bidding documents for the project. The following measures will be undertaken by BWDB to ensure integrity and transparency:

- (i) The BWDB will post the physical and financial details, project progress, and business opportunities associated with the project in the project website, along with (a) the following information in relation to goods, works and services procured for the project: (i) the list of participating bidders, (ii) the name of the winning bidder, (iii) the amount of the contracts awarded, and (iv) the goods, works and services procured; and (b) a copy of the five-year lease contracts with local community groups for participatory regular O&M. For individual subproject, the SMOs will post the abstract of all contracts executed, including the quantity of works and their associated costs.
- (ii) Through the mobilization of independent auditor, BWDB will undertake annual financial audit for the project, including expenditures at all SMOs and associated offices, which will include investigation of all financial records and transactions.
- (iii) The government, through independent auditors and through the government's Anticorruption Commission, shall conduct periodic inspections and random spot checks of civil servants' and contractors' activities related to the procurement of goods, works and services and to fund withdrawals and settlements under the project.

109. Anyone coming across evidence of fraud and corruption associated with the project may contact the Office of Anticorruption and Integrity at the following address and contact numbers:

Office of the Anticorruption and Integrity (OAI)
Asian Development Bank,
6 ADB Avenue, Mandaluyong City,
1550 Metro Manila, Philippines
Telephone : +(63-2) 632 5004; +(63-2) 632 2152
Email : anticorruption@adb.org; integrity@adb.org

³³ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

³⁴ ADB's Integrity Office web site is available at: <http://www.adb.org/site/integrity/main>

XI. ACCOUNTABILITY MECHANISM

110. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.³⁵

³⁵ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

APPENDIX 1: DETAILED PROJECT DESCRIPTION

A. The Project

1. Background

1. The southwest area of Bangladesh covers the south bank of the Ganges and the Lower Meghna rivers. Agriculture plays a dominant role in the region but productivity is lagging behind the national average due mainly to the dominance of traditional varieties associated with the area's susceptibility to flooding, and slower expansion of irrigation. Of particular concern is water shortage due to reduced inflow into the Ganges distributaries and associated social and environmental hardships, including salinity intrusion, livelihood loss, and environmental degradation. Other challenges include (i) the flood inflow from the Ganges in the monsoon (ii) deterioration of existing flood control and drainage/ irrigation (FCD/I) systems, (iii) drainage congestion and sedimentation of tidal channels caused by coastal polder construction and reduced tidal swept volume, (iii) arsenic contamination that is the highest in the country, and (iv) vulnerability to cyclones and tidal surges. Improving water management is critically needed in this region.¹

2. The original Loan No. 2200 (SF)/ Grant No. 0036 – BAN: Southwest Integrated Water Resources Planning and Management Project is co-financed by ADB (for \$20 million equivalent) and the Embassy of the Kingdom of the Netherlands (EKN) (for \$12.5 million). The original project was approved in November 2005, became effective in August 2006, and is scheduled to be closed in December 2015. It aims to enhance the productivity and sustainability of existing FCD/I schemes through integrated planning, infrastructure renovation, and coordinated support services, with establishing water management organizations (WMOs), comprising water management groups (WMGs) and their higher tier water management associations (WMAs). The original project comprises (i) two subprojects – Narail and Chenchuri Beel (57,000 ha), which were fully appraised prior to the project approval, and (ii) additional subprojects (43,000 ha) that were to be appraised and implemented during the project period. In September 2009, the project fund kept for the implementation of additional subprojects was substantially re-allocated to emergency rehabilitation of infrastructure damaged by the devastating cyclone that hit the country in May 2009. The original project also conducted a pre-feasibility study of candidate additional subprojects in 2008, and feasibility studies for the selected seven additional subprojects in 2013.

3. The original project suffered initial start-up difficulties, but has demonstrated good performance since 2010. As of March 2015, renovation of water management infrastructure in the Narail and Chenchuri Beel subproject areas has been substantially completed under the current project with satisfactory achievements of anticipated targets. 14 WMAs and 102 WMGs have been formulated covering the entire two subproject areas, and have been functional. Capacity enhancement activities for WMOs are on-going. Operation and maintenance (O&M) of small structures have been handed over to WMAs and WMGs after providing O&M capacity development training. The current project is considered to be the first successful participatory project for large FCD/I schemes. Knowledge and experience of participatory water resources planning and management have been acquired in BWDB.

4. The additional financing will expand the successful participatory water resources planning and management practices to other nine additional subproject areas (84,000 ha) in the

¹ One subproject consists of restoration of one existing FCD/I scheme.

Southwest region of Bangladesh. It will make institutional capacity firm and ensure sustainability, through applying knowledge and experience acquired through the implementation in the two on-going subproject areas to the additional subproject areas. The existing participatory concept, implementation procedures, and implementation arrangement will be continued, with necessary adjustments and improvements.

5. The following tables summarize the Narail and Chenchuri Beel subprojects and works achieved under the original Southwest project.

Table A1.1: Subprojects Implemented under the Original Southwest Project

sl.	Name of Subproject	District	SMO in charge	Area (ha, gross)	Area (ha, net)	Population	No of. WMG formed
1	Narail	Narail & Jessore	Narail, NSP	31,600	23,440	92,487	43
2	Chenchuri Beel	Narail	Narail, CBSP	25,500	17,900	98,713	59
Total				57,100	41,340	191,200	102

Table A1.2: Project Activities under the Original Southwest Project

Outputs		Activity
1	WMOs' Capacity Strengthening for Sustainable Water Management Systems	
	a. Preparation of IWMP	<ul style="list-style-type: none"> • IWMPs (feasibility studies) for 7 SPs that are to be implemented under the additional financing
	b. WMO Support: <ul style="list-style-type: none"> • WMO support in 2 SP areas, Narail and Chenchuri Beel. 	<ul style="list-style-type: none"> • Social mobilization (102 WMGs) & preparation of 14 SIPs. • Capacity building for agriculture, fisheries, and livelihood improvement. • Capacity building for sustainable O&M
2	Restoration of Infrastructure Facilities of FCD/I Schemes	
	a. Water Management Infrastructure in 2 SP areas	<ul style="list-style-type: none"> • Implementation of civil works
3	Institutional Strengthening	
	a. Enhanced skills of BWDB and line agencies to operate participatory water management	<ul style="list-style-type: none"> • Capacity building and training on IWRM, participatory approaches and WMO development for BWDB and line agencies
	b. MIS development	<ul style="list-style-type: none"> • MIS development and implementation

BWDB = Bangladesh Water Development Board, IWMP = integrated water management plan, MIS = management information system, SIP = subproject implementation plan, WMG = water management group, WMO = water management organization.

Table A1.3: Civil Works List under the Original Southwest Project

Subprojects		Regulators (no.)		Pipe outlets (no.)		Khal re-excavation *	
		rehab.	new	rehab.	new	no.	km
1	Narail	9	3	0	6	77	124.37
2	Chenchuri Beel	8	2	0	7	42	121.37
Total		17	5	0	13	119	245.74

Subprojects	Embankment (km)*			Protection works	
	Total length of existing embankment	re-sectioning	retired (new)	no.	km
1 Narail	24.00	8.60	2.410	1	0.145
2 Chenchuri Beel	96.00	15.86	2.266	2	1.850
3 Purulia Charbhatpara	3.00	0.00	0.00	1	0.788**
Total	123.00	24.46	4.676	4	2.783

Note: * Part of the stretches did not require re-sectioning

** special emergency bank protection work taken up during 2011-12 to save existing Purulia- Charbhatpara subproject outside the two ongoing subprojects (a candidate sub-project) decided during MTR Mission visit.

Table A1.4: Administrative Units (District, Upazilla & Unions) under the Original Southwest Project

Sl.	Name of Sub-Project	Name of District	Name of Upazila (# of Unions)	Name of Union	Total # of Unions
1	Narail & Chenchuri Beel	Narail	i. Narail Sadar (10)	Tolarampur, Shahabad, Mulia, Poursava, Kolora, *Singasolpur, Bhadravilla, Chachori, Bichali, *Auria.	18
			ii. Kalia (6)	Peruli, Purulia, Panchgram, Mauli, Babrahasla, Kashipur.	
			iii. Lohagora(2)	Laxmipasha, Digholia,	
2	Narail SP	Jessore	iv. Avoy Nagar (2)	Shiddipasha, Shuvarara.	2
Total		2	4 (20)	20	20

Note: Total no. of district = 2
Total no. of upazilla = 4
Total no. of union = 20

2. Subproject Areas for Additional Financing

6. The nine subprojects are located in the districts of Faridpur, Magura, Rajbari, Gopalganj, and Narail of the southwest region. **Table A1.5** summarizes the nine subprojects that will be implemented during the project.²

Table A1.5: List of Subprojects to be Implemented

sl.	Name of Subproject	District	SMO in charge	Imple. group	Area (ha, gross)	Area (ha, net)	Population	Estm- ed No of WMGs	Estmat- ed cost (\$ M) ^a
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² During the project preparatory stage of the original Southwest project, 11 candidate subprojects had been identified. However, four subprojects were replaced with four new priority subprojects (SPs No. 1,2,4, and 6) during the DPP preparation, as the four subprojects were decided to be conducted by government funds. A pre-feasibility assessment of the updated long-listed 11 candidate schemes was undertaken in 2008 under the original project. After the pre-feasibility study, three qualified schemes were taken over by the Water Management Improvement Project funded by the World Bank. Hence, in 2011, a few more candidate schemes were examined based on the latest data, and one of them (SP No. 7) was considered for further studies. Feasibility studies were conducted for seven candidate SPs (1-7) under the ongoing project. The candidate subprojects were selected based on the selection criteria defined in the loan agreement.

1	Beel Sakunia	Faridpur	Faridpur	1	9,681	7,933	84,438	17	3.128
2	Kandor -	Faridpur	Faridpur	1	3,301	2,388	15,519	6	1.457
3	Daduria Beel		-S						
4	Alfadanga-Boalmari	Faridpur	Faridpur	1	8,011	6,632	35,884	15	5.536
5	Chatler-Fakurhat	Faridpur	Faridpur	2	10,268	8,092	46,000	9	4.095
6	Kalidashkali-Arpara	Magura	Magura	1	13,197	10,616	59,124	28	4.745
7	Horai River	Rajbari	Rajbari	2	18,600	13,764	83,324	31	7.347
Subtotal 1 to 7					63,058	49,425	324,289	106	26.309
8	Purulia Char Bhatpara	Gopalganj	Faridpur	3	4,156	3,400	33,000	10	0.626
9	Bamonkhali-Barnali	Magura/Narail	Magura	3	16,782	13,500	112,200	34	2.374
Subtotal 8 to 9					20,938	16,900	145,200	44	3.000
Subtotal 1 to 9					83,996	66,325	469,489	150	29.309

Note: Subprojects 1 – 7: Integrated water management plans (feasibility studies) have been prepared during the project processing.

Subprojects 8 – 9: Straight forward subprojects that will require only simple rehabilitation works. Integrated water management plans are to be prepared during the project period.

SMO name, Faridpur-S: Special set-up SMO that will be converted from the Chanchuri Beel SMO of the current project, and will be shifted from Narail to Faridpur.

a: Includes costs for civil works and capacity development and training for WMOs

7. The integrated water management plans (IWMPs) for seven out of nine subprojects (Subproject No. 1 to 7) have been prepared under the on-going Southwest project. IWMPs include feasibility studies. The two remaining subprojects (Subproject No. 8 to 9) will involve only straightforward rehabilitation, and IWMPs will be prepared during the additional financing project period. IWMPs for the two subprojects will also be implemented under the project.

8. The project will also cover the preparation of IWMPs for the following two subprojects, for preparation for potential future investment, maybe by the government fund. The implementation of civil works and WMO supports in these two subprojects are not included in the additional financing project.

Table A1.6: Additional Subprojects for IWMP Preparation, but No Implementation

sl.	Name of Subproject	District	BWDB O&M Office	Imple. group	Area (ha, gross)	Population	Estm'd No of. WMG	Estmat-ed cost (\$ M) ^a
10	Arol Beel	Jessore	Jessore	-	15,750	105,600	32	3.081
11	Sonamukhi Banmandar	Jessore	Jessore	-	9,070	59,400	18	3.078
Subtotal 10 to 11					24,820	165,000	50	6.159

Note: *: Includes costs for civil works and capacity development and training for WMOs

3. Project Activities and Anticipated Outputs of Additional Financing

9. The impact of the current and overall project will be enhanced economic growth and reduced poverty in rural areas of the selected districts in the southwest area of Bangladesh. The outcome will be enhanced productivity and sustainability of the selected existing FCD/I systems.

10. The outputs will be (i) WMOs' capacity strengthened for sustainable water resources planning and management in the subproject areas, (ii) infrastructure facilities of FCD/I schemes restored in the subproject areas, and (iii) institutional capacity for sustainable participatory water resources planning and management strengthened. **Table A1.7** summarizes the outputs and activities.

11. Under the first output, the proposed additional financing will cover formation and capacity development of WMOs in the additional nine subproject areas. Follow-up support for O&M capacity development will also be provided to the existing 102 WMGs and 14 WMAs in the two subproject areas of the current project. An integrated water management plan (IWMP) will be prepared for the four FCD/I schemes covering about 45,000 ha. (SPs no. 8-11, see **Tables A1.5 and A1.6**). Each IWMP formulates holistic water resources management planning and safeguard assessments for the subject subproject, following intensive participatory analyses of local conditions and needs.

12. Each subproject will be divided into hydrological subunits controlled by individual local structures. The project will form WMAs that will manage each subunit and lower tier WMGs. The project will prepare a subunit implementation plan (SIP) for each subunit, which will include specific requirements of renovation or construction of water management infrastructure, and capacity development and livelihood support programs for WMOs.

13. Subsequent to preparation of SIPs, the project will support the WMOs to implement the institutional development plan specified in the SIPs, including (i) capacity development training of executive committees and subgroups under WMOs, (ii) development of operation rules, (iii) registration, and (iv) establishment of a fee collection system for O&M services and other WMO activities. The project will also support WMOs' skills development for efficient use of water management infrastructures to improve productivities of agriculture and fishery, and for ensuring attention to all gender- and social inclusion related aspects of water resource management. The support will be linked to other income-generating activities of WMOs. Additional 150 WMGs are expected to be formed with the inclusion of the socially disadvantaged and with 40% women participation under the proposed additional financing.

14. The project support will be extended to training and capacity development of WMOs for monitoring civil works, routine minor maintenance of infrastructure, formulation and operation of O&M committees under WMOs, preparation of O&M manuals, and effective use of WMO's O&M funds. O&M of infrastructure will be transferred to WMAs or WMGs, depending on their functions and covering area, after completion of works and WMO O&M capacity developing training. The project will provide special attention to a link between the sustainability of WMO activities and sustainability of water management infrastructures. The sustainability of O&M by WMOs will be ensured by sustainability of WMOs themselves and their O&M fund collection.

15. Relevant line agencies, such as the Department of Agriculture Extension, Department of Fisheries, Department of Livestock, and Department of Public Health Engineering, will provide technical inputs for their respective specialities, as supporting agencies. Physical interventions will include rehabilitation and construction of regulators, re-excavation of khals and

strengthening (re-sectioning) of flood embankments. Indicative quantities of anticipated civil works are shown in **Table A1.8**, while requirements of physical interventions will be determined during the SIP preparation, in due consultation of needs of WMOs.

16. The first output will also include follow-up supports for existing WMOs formulated under the current project in the Narail and Chenchuri Beel subproject areas. To ensure the sustainability of WMOs, refreshing training will be provided. The project will also support WMGs for collecting Tk 60/acre/year of annual O&M fees from WMG members that is articulated in the signed O&M agreement to operationalize the O&M fee collecting system.

17. Baseline household surveys were conducted in the Narail and Chenchuri Beel subproject areas under the L2200/G0036 Southwest project, as part of the preparation of WMO formation and SIP preparation. The additional financing project will cover the end-line surveys for the Narail and Chenchuri Beel subproject area, and baseline and end-line surveys in the nine subproject areas. Facilitators will collect data from each household along with their beneficiary consultation tasks for WMO members, under the supervision of PMO and the Institutional Strengthening and Project Management consultant team.

18. The second output will include renovation or construction of water management infrastructure, such as gated water retention structures, flood embankments, re-excavation of drainage and/or irrigation canals, and local riverbank protection works, as specified in the SIPs.

19. The third output will focus on the national-level institutional capacity development of BWDB, for: (i) efficient coordination with relevant government departments, such as the Department of Agriculture Extension and the Department of Fisheries, (ii) management and monitoring of WMO activities that will be registered with BWDB under the new participatory water management rules 2014,³ and (iii) performance monitoring and O&M of water management infrastructures (MIS).

20. It aims at the enhancement of the institutional capacity of BWDB and line agencies for operating and institutionalizing participatory and integrated water management, embodied in the National Water Policy. The project will support training and study tours. The project will also cover upgrading of the MIS. The existing MIS was developed under the original project for hydrological data collection and sharing, and FCD/I scheme infrastructure data. The MIS will be updated to include O&M data and improve the accessibility and sharing of information using more recent technologies.

21. Institutional capacity strengthening of BWDB will cover the Directorate of Audit and the Office of Chief Water Management (OCWM) to develop capacity for registration, auditing, and performance monitoring of WMOs, and management of WMO design. As per the new Participatory Water Management Regulation 2014,⁴ BWDB is responsible for registration and performance (technical, institutional, and financial) auditing of WMOs, while the Department of Corporatives (DOC) used to be in charge of the registration and auditing. Capacity development of OCWM and the Directorate of Audit of BWDB is an urgent need. Detailed institutional capacity strengthening programs for BWDB will be developed during the project, but anticipated support include the preparation and operationalizing clear procedures of registration and

³ Government of People's Republic of Bangladesh. 2014. *Bangladesh Gazette*. Dhaka.

⁴ Under the Participatory Water Management Rules (GOB, SRO 23.2014, Bangladesh Gazette, Feb 11 2014), the Office of Chief Water Management of BWDB is responsible for registration and performance (technical, institutional, financial) auditing of WMOs.

auditing, and the development database of WMOs. For OCWM, institutional capacity strengthening will be extended to developing a proposal of OCWM's job descriptions and required institutional and human resources setup from the central to local levels, training in development and management of WMOs, and relevant logistic support.

Table A1.7: Project Activities under Additional Financing

Outputs		Activity
1	WMOs' Capacity Strengthening for Sustainable Water Management Systems	
	a. Preparation of IWMP	<ul style="list-style-type: none"> • IWMPs (feasibility studies) for 2 SPs that are to be implemented under the proposed project but were not prepared under the current project. • IWMPs (feasibility studies) for 2 SPs (Arol Beel and Sonamukhi Banmandar SPs in Jessore District) that may be implemented under future projects.
	b. WMO Support: <ul style="list-style-type: none"> • WMO support in 9 SP areas 	<ul style="list-style-type: none"> • Social mobilization (150 WMGs) & 22 SIP preparation. • Experiential capacity building for agriculture, fisheries, and livelihood improvement, value chain activities. • Capacity building for sustainable O&M • Establishment of WMO network
	<ul style="list-style-type: none"> • Follow-up support for existing WMOs formulated under the current project in Narail and Chenchuri SP areas. 	<ul style="list-style-type: none"> • Capacity building and training for sustainable O&M and other collective actions, • Strengthening of WMO network
2	Restoration of Infrastructure Facilities of FCD/I Schemes	
	a. Water Management Infrastructure in 9 SP areas	<ul style="list-style-type: none"> • Implementation of civil works
3	Institutional Strengthening	
	a. Enhanced skills of BWDB and line agencies to operate participatory water management	<ul style="list-style-type: none"> • Capacity building and training on IWRM, participatory approaches and WMO development for BWDB and line agencies • Support to Office of the Chief Water Management, Audit Directorate & BWDB
	b. Strengthening MIS	<ul style="list-style-type: none"> • MIS upgrading & implementation

BWDB = Bangladesh Water Development Board, IWMP = integrated water management plan, MIS = management information system, SIP = subproject implementation plan, WMO = Water Management Organization.

Table A1.8: Indicative Civil Works List under Additional Financing

Subprojects	Regulators (no.)		Pipe outlets (no.)		Khal re-excavation	
	rehab.	new	rehab.	new	no.	km
1 Beel Sakunia	3	1		2	8	25.0
2 & Kandor -	3	1	1		6	9.2
3 Daduria Beel						
4 Alfadanga-Boalmari	5		4	2	18	34.4
5 Chatler-Fakurhat	3			1	17	62.3
6 Kalidaskhali-Arpara	7	1	16	2	14	119.8
7 Horai River Purulia Char	7	4			30	110.0
8 Bhatpara	2					6.0
9 Bamonkhali-Barnali	15		54	16		55.1
Total	45	7	75	23	93	421.8

sl	Subprojects	Embankment (km)			Bank protection works	
		Total length of existing embankment	Re-sectioning*	Retired (new)	no.	km
1	Beel Sakunia	18.4	11.7			
2 &	Kandor -	15.6	10.4			
3	Daduria Beel					
4	Alfadanga-Boalmari	60.2	3.0	1.5	1	0.64
5	Chatler-Fakurhat	11.5	2.2		2	0.4
6	Kalidaskhali-Arpara	57.6	16.3			
7	Horai River Purulia Char	67.7	5.7			
8	Bhatpara	3.0	3.0			
9	Bamonkhali-Barnali	20.5	20.5			
	Total	254.5	72.9	1.5	3	0.4

Note: * Part of the stretches may not require re-sectioning

B. Overall Implementation Procedures

22. Figure A1.1 shows the overall implementation procedures of the project implementation. The implementation of a subproject will have a 5.5 to 6-year of cycle. A cycle of WMO support will consist of three stages: (i) social mobilisation, WMO formulation, and SIP preparation, (ii) WMO capacity strengthening, and (iii) operation and management support. Required physical and non-physical interventions in each sub-unit under the subproject will be determined in the SIP. In parallel with the WMO support activities, detailed structural design will be conducted based on the SIP, and civil works will be conducted. Further details of the subproject implementation procedures are explained in **Appendix 2** of the Updated Project Administration Manual.

23. The nine subprojects will be grouped into three. To mitigate start-up difficulties, the subproject implementation will be started by phase of the three groups, as in **Figure A1.1**. **Table A1.9** lists administration units in the subproject areas.

Figure A1.1: Overall Implementation Schedule

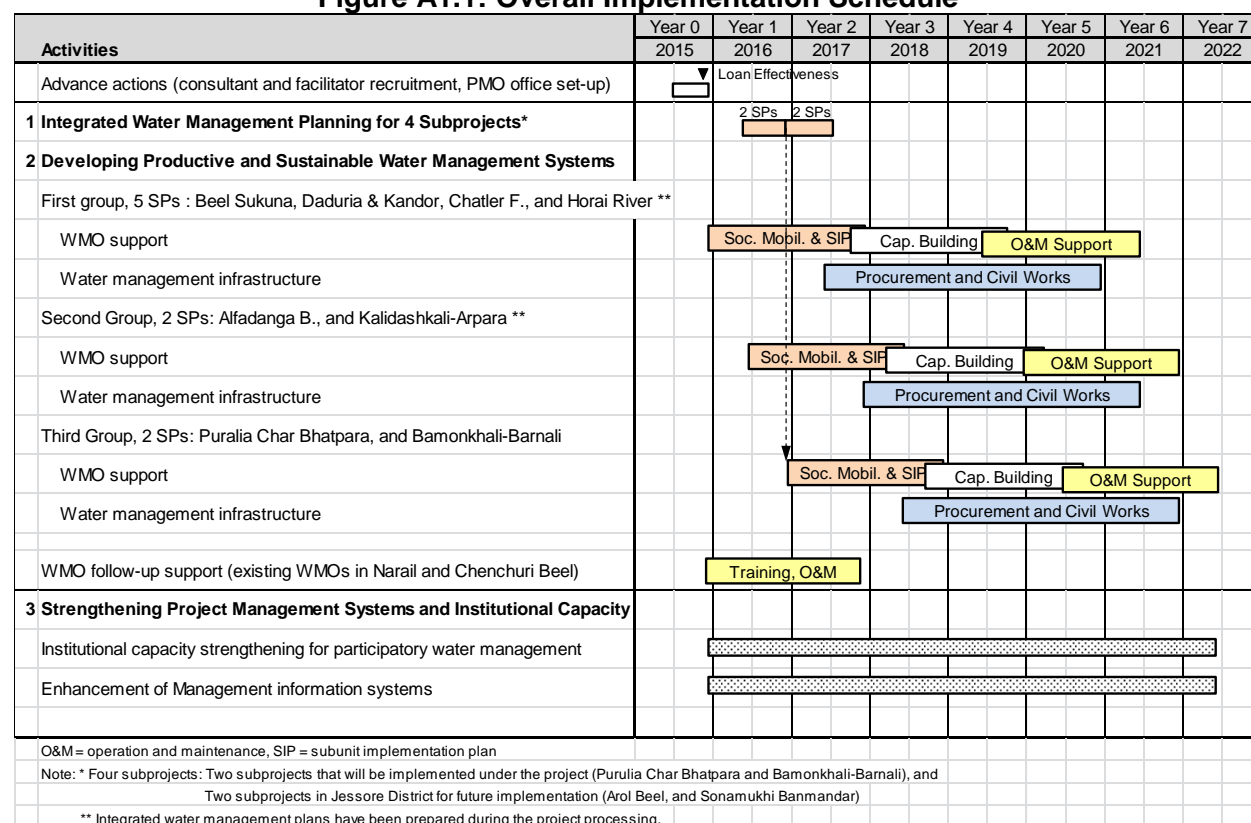


Table A1.9: Administrative Units (District, Upazilla & Unions) in Each Subproject

SL NO	Name of Sub-Project	Name of District	Name of Upazila (# of Unions)	Name of Union	Total # of Unions
1	Beel Sukunia	Faridpur	i. Faridpur Sadar (4)	Faridpur Pourashava, Garda, Kaijhuri, Kanaipur	7
			ii. Nagorkanda (1)	Talma,	
			iii. Saltha (2)	Gatti, Atghar	
2	Daduria Beel	Faridpur	iv. Boalmari *(3)	Chatul *, Shekhar, Boalmari Pourashava*	4
3	Kandor Beel	Faridpur	iv. Boalmari *(3)	Boalmari Pourashava*, Chatul*, Boalmari	
4	Alfadanga-Boalmari	Faridpur	iv. Boalmari *(1)	Gunabah	7
			v. Alfadanga (6)	Pachuria ,Bana, Burich, Gopalpur, Alfadanga, Tagarbanda	
5	Chatler-Fakurhat	Faridpur	vi. Sadarpur (4)	Krisgnapur, Bhasanchar, Sadorpur, Dhaukhali	13
			vii. Bhanga (9)	Nurulgonj, Kauli-bera, Tuzapur, Chandra, Gharua, Nasirabad, Manikdah, Hamirdi Bhanga Paurashava	
6	Kalidaskhali - Arpara	Magura	viii. Salikha* (6)	Talkhari, Dhaneshworgati, Arpara, Shatokhali, Salikha, Bunagati	6
7	Horai River	Rajbari	ix. Rajbari Sadar (8)	Khangonj, Chandoni, Mizanpur, Banibaha, Alipur, Mulghar, Basantopur, Ramkantopur	13
			x. Baliakandi (4)	Jamalpur, Baharpur, Islampur, Modhapur	
			xi. Kalukhali (1)	Ratondia	
8	Bamankhali-Barnali	Narail	xii. Narail Sadar (3)	Habakhali, Maij para, Shahabad	12
		Magura	xiii. Magura Sadar (6)	Birail palito, Kuchiamora, Gopalgram, Jagdal, Satrujitpur , Chaulia	
			xiii. Shalikh* (3)	Gangarampur, Bunagati, Arpara,	
9	Purulia-Charbhatpara	Gopalganj	xiv. Kashiani (1)	Ratoil	1
Total		5	14		63

Note: * Duplicate
 Total no. of district = 5
 Total no. of upazilla = 14
 Total no. of union = 63

APPENDIX 2: UPDATED SUBPROJECT IMPLEMENTATION PROCEDURES¹

A. General

1. The existing subproject implementation procedures under the current Southwest project will be applied to the additional financing project, with minor adjustment and improvement. The procedures and arrangements of managing subproject development cycle from scheme identification to O&M handover to water management organizations (WMOs), maybe water management associations (WMAs) or water management groups (WMGs) depending on the size and nature of relevant infrastructures, or establishment of joint management system with WMAs are provided herewith. In principle, provisions in the Guidelines for Participatory Water Management (GPWM) will be followed, with the assistance of the consultants for institutional strengthening and project management (ISPM).

B. Overview of Subproject Development Cycle

2. The following basic principles underlie the participatory development approach of the Project.

- (i) Subprojects and individual subunits under the subproject must be requested by the genuine representatives of the stakeholders, such as unikon parishad (UP) members and other local leaders interested in improving water resource management.
- (ii) Local beneficiaries must be involved in all stages of subproject/subunit development participating in the key decision-making processes. Direct beneficiaries (owners and tenants) will be accurately identified with clear identification of subproject/subunit boundaries.
- (iii) The overall approach is a combination of two, parallel but interrelated processes, one that addresses institutional and social matters and the other that addresses technical matters.
- (iv) WMOs to be formulated under the project will follow the new participatory water management rule 2014 of Bangladesh.

3. Under the project, subproject development cycle is divided into the following distinct stages and steps.

3-1. Integrated Water Management Plan (IWMP) Preparation Stage

- (i) Subproject identification, screening, and selection with pre-feasibility assessments and consultation;
- (ii) IWPM preparation, and feasibility study including safeguards assessment of the identified subproject;

3-2. Participatory IWPM Implementation and O&M Stage

- (iii) Participatory preparation of comprehensive subunit implementation plan (SIP);

¹ Project Implementation Procedures updated from the current Southwest project RRP 2005

- (iv) Institutional development of WMOs and detailed design;
- (v) Tendering and Construction of water management and associated infrastructure;
- (vi) Agriculture fishery and livelihood development activities; and
- (vii) O&M training , and post-investment monitoring and support

4. The flowchart in Figure A2.1 presents the sequence of activities, which will be institutionalized under the project. Proper monitoring and evaluation mechanism will ensure quality, and will contribute to learning lessons to fine tune, adapt and simplify the concepts during the implementation period. Internal monitoring and quality control system will be improved and be further elaborated, while an external performance and technical audit will be carried out through the ISPM consultants.

5. **Special note on household surveys.** Under the L2200/G0036 Southwest project, detailed household socio-economic surveys were conducted in the subproject areas as part of the preparation for WMO formation and subunit implementation plans (SIPs) to identify specific needs of different groups of potential WMO members. Data were collected by facilitators under supervision of PMO and the ISPM consultants. The data present baseline conditions of each WMO. The household surveys with data collection by facilitators will be conducted also during the additional financing project as below:

- Household surveys in the Narail and Chenchuri Beel subproject areas will be conducted by the end of the second year of the additional financing project period. This is to collect end-line data in the two subproject areas.
- In the nine subproject areas to be implemented under the additional financing, the household surveys will be conducted during the WMO formation and SIP preparation stage, which will become baseline data. The same surveys will also be conducted at the end of the subproject cycle (about 5.5 years), to capture end-line conditions.

C. Arrangements in Each Development Stage

C-1. Subproject Identification, Selection, IWMP Preparation and Feasibility Studies

Stage 1: Verification of the Subproject Selection for IWMP preparation

6. For two subprojects for which an IWMP will be prepared but that will not be implemented under the project, the selection of the subproject will be verified to ensure that the subprojects meets the criteria that were applied to the other subprojects. The criteria are indicated in Figure A2.1.

Stage 2: IWMP Preparation and Feasibility Assessment²

7. **IWMP Preparation.** For the two out of nine selected subprojects, PMO with the assistance of ISPM consultants and prospective SMO, will prepare the IWMP plan for the subproject, through (i) data collection on physical, socio-economic, and institutional setting; (ii) participatory rural appraisal at union and upazila levels; (iii) problem assessments on

² In principal, all planning documents produced under this stage, including IWMPs, feasibility studies, and safeguards assessment will be prepared and processed in one batch during the first 1.5 years of the Project implementation.

agriculture, fisheries, infrastructure and water management and inventorying of existing and planned programs; and (iv) identification of priority investment requirements focusing on water and associated interventions. PMO will coordinate with local government institutions, potential water uses, and relevant government institutions like DAE and DOF. This will be compiled into an IWMP that stipulates existing settings, problems and constraints, strategy and specific programs, and intended output targets, encompassing (i) WMO institutional development; (ii) water management infrastructure; (iii) agriculture, fishery, and livelihood enhancement plans including gender and vulnerable group development; and (iv) scheme O&M plan. During the process, WARPO will be provided with support by ISPM consultants to effectively guide the integrated planning process.

8. **Feasibility Studies.** On the basis of the identified priority interventions, PMO and ISPM consultants will undertake subproject-level feasibility studies following the sample provided under the PPTA final report. The feasibility studies would include analysis of internal economic rate of return (EIRR) based on estimated agriculture, fisheries and other benefits. They will also assess social and poverty impacts, and strategy and actions for social and gender development.

9. **Safeguards Assessments.** PMO will also assess environmental impacts and prepare resettlement plans associated with the identified interventions. Specifically, PMO will undertake initial environmental examination (IEE) for each subproject, based on which decision will be taken by PMO in consultation with Department of Environment (DOE) and ADB whether an individual subproject will be subject to a full environmental impact assessment (EIA), following the guidelines of the Government and ADB. For subprojects requiring EIAs, detailed impact assessments will be undertaken with public consultation process described in the environmental management plan (EMP) prepared under the PPTA, supplemented by necessary consultations at national level. The PMO will ensure the EIA processes and procedures are followed, including public consultations with the assistance of the ISPM consultants. As to the land acquisition and resettlement, a short or full draft resettlement plan (RP) will be prepared in each subproject following the resettlement framework and sample resettlement plans prepared under the PPTA, with due consultation and survey of affected households and information disclosure process.

10. **Finalization of IWMPs, Feasibility Studies, and Safeguards Documents.** The above procedures will be undertaken in closure consultation with the JMC, the UP council, and stakeholders at the field level. At this stage, PMO and prospective SMO will identify key stakeholders and their leaders to form WMOs. Initial guidance of beneficiary contribution for the identified interventions will be provided to potential beneficiaries. The IWMP, feasibility study reports, IEE/EIA, and draft RPs for the subproject will be endorsed by the JMC and UP council. They will be submitted to WARPO for clearance, and then to SASC and ADB for endorsement. The IEE/EIA will also be submitted and cleared by DOE after due consultative and disclosure process prior to launching the subproject.

C-2. Participatory IWMP Implementation and Subproject O&M

General Principle- Implementation Based on Hydrological Subunit

11. The subproject IWMP as endorsed will be implemented on the basis of hydrological units within the subproject area generally defined as hydrologically independent sub-schemes, semi-dependent compartments, and their sub-units controlled by individual hydrological structures. Among these, sub-schemes/ compartments/ sub-units having the benefit area of 1,000 ha or less and that are relatively independent from the rest of the system may be implemented by

LGED through its small-scale water resources development sector project assisted by the Government of the Netherlands (GON) and ADB, whereas the rest of the areas are to be implemented under the Project. Regardless of the implementation agency, however, the WMAs established within the subproject area will be federated altogether and participate in the subproject JMC, which will periodically meet to guide and decide on the overall project implementation issues.³ For larger schemes such as the two sample subprojects prepared under the PPTA, initial implementation will concentrate on subunits located within one sub-scheme (as opposed to taking up subunits in multiple sub-schemes simultaneously) to demonstrate sound performance of the implementation mechanisms with commensurate capacity development of the executing agency and supporting organizations.

Stage 3. Preparation of Subunit Implementation Plan (SIP)

12. **Institutional Setup.** For the nine subprojects for the implementation, an ad-hoc joint management committee (JMC) will be formed to support planning, development, and O&M processes. The JMC will initially chaired by the Project Director (or PMO executive engineer in planning), and participated by WARPO (during the IWMP preparation stage), LGED, and other concerned line departments at the upazila/ district level, and representatives of UPs and other stakeholders organizations. The head of the prospective subproject management office (SMO) for subproject will also facilitate and participate in the process.

13. **Request/ Application through UP.** Upon approval of the IWMP, the concerned SMO will initiate project information campaign within the subproject area. Specifically, PMO will issue a letter or circular to the UPs that provides a clear explanation of the project and the process and requirements whereby prospective local leaders and stakeholders can initiate actions to obtain project assistance. The information will be disseminated among subunit stakeholders through the concerned UP member. SMO through senior and community facilitators engaged by PMO and trained by ISPM consultants will facilitate the process with the support of the ISPM consultants and in close interaction with the UP members. At this stage, the facilitators will obtain the following information in consultation with diverse stakeholders of the concerned subunit.

- (i) Preliminary scope of subunit works refined through consultative process.
- (ii) If there is broad, popular support for the subunit works.
- (iii) If there is any opposition to the proposed works, and if so, its extent.
- (iv) Existing water management practices and accurate beneficiary boundary areas.
- (v) Beneficiary willingness to assume the designated O&M works including establishment of O&M reserve fund through upfront cash contribution.
- (vi) Basic characteristics of the community, specific interests, concerns and needs in various categories of farmers in different topographical areas, fishermen, landless and women groups.

³ Ad-hoc JMC chair will be handed over from project director/ executive engineer (planning) to subproject advisor/ subproject manager at this stage. Its formal structure will be defined by the time of the mid-term review.

14. **WMA Foundation Committee.** Upon confirmation of the implementability of subunit works by SMO, the concerned and interested stakeholders will be promoted to form an WMA foundation committee (of about 10-12 members, comprising UP members as appropriate, and representatives across all benefited areas and from different professions having stake in water management), and submit the request to the SMO. Local representatives having interest in participating in civil work contracts will be discouraged to participate in the foundation committee.

15. **JMC Sub-committee for the Subunit.** Upon receipt of the request for subunit implementation, a JMC sub-committee for the subunit will be formed, initially chaired by subproject manager of SMO, upazila or block level line department staff (that includes at least agriculture extension and fisheries), and representatives of the WMA foundation committee and the concerned UPs, which will guide the process of participatory SIP preparation and follow-on implementation activities. JMC sub-committee will regularly meet at the SMO office or subunit sites to review the progress of preparing and implementing the SIP, and decide on the program activities and expenditures, schedules, and responsibilities of the concerned organizations during the next interval period.

16. **SIP Preparation and Feasibility Confirmation.** At the outset, the JMC sub-committee members (with the presence of ISPM consultants at initial stages) will undertake a field visit to confirm the scope of subunit works and other information collected by senior and community facilitators in para 12 above, based on which SIP preparation and feasibility confirmation will be initiated. For these purposes, latest data on socio-economic conditions, topography, water level, agriculture, fisheries, and environment will be collected. Accurate boundaries of the subunit benefit area will be established on an appropriately sized map. Specific benchmark beneficiaries are identified representing geographical locations and social groups for socio-economic aspects and data duly recorded for further follow-up in the later stage. The collected data and information will be used to prepare a comprehensive SIP to lay out specific programs, their schedules, and institutional responsibilities. The SIPs will stipulate subunit specific requirements for WMO formation (including required special consideration for technical and social aspects), water management structures to be constructed or rehabilitated, and WMO capacity development programs (agriculture, fishery, livelihood enhancement, and business development, etc.).⁴ These requirements will become output targets of each subunit. In preparing SIP, particular attention should be provided to establish effective linkages with the existing programs and projects in the agriculture and rural development sector. During this process, subunit feasibility will also be confirmed through due cost and benefit analysis within the framework of the overall subproject feasibility studies in IWMPs. Subunit specific environment issues will be discussed in SIPs, in line with the existing IEE (government's EIA), and subproject specific environmental management plan (EMP) will be prepared.

17. To support the preparation of these outputs, ISPM consultants, in close collaboration with PMO, will prepare SIPs. This will be undertaken with active consultation with the stakeholders in particular JMC subcommittee for the subunit. SMO will provide day-to-day supervision of the process. The draft will also have to be discussed and endorsed by the WMA foundation committee and JMC sub-committee for the subunit, of which minutes are duly prepared. These will then be forwarded to PMO for clearance.⁵ Initially the SIP and feasibility

⁴ SIP will also stipulate the required level of agriculture inputs to achieve the output targets, and possible delivery mechanisms of the necessary inputs including those delivered by the private sector.

⁵ The clearance does not include the detailed design, which will be undertaken during the WMO strengthening stage with more intensive consultation with the WMOs and endorsed at the time of signing of the implementation agreements (IAs) for subunit implementation.

confirmation report including EMP will be submitted to ADB for review and endorsement prior to implementation of the SIP. Once it has been established through a joint review by the Government and ADB that outputs have achieved the desired level of quality, they will be retained in PMO for use by ADB during review missions.

Stage 4: WMO Institutional Development and Detailed Design

18. **WMO Formation.** With subunit approval, the process of establishing WMOs under the legal framework of the Participatory Water Management Rule (2014) is initiated, in accordance with the institutional development plan specified in the SIP. In principle, one WMA will be established for each subunit, while a few WMAs may be established in case of larger subunits cutting across unions or having several distinct facilities. For the purpose of WMO formation, the concerned WMO is to nominate two qualified community based organizers (CBOs) from the locality, who will be contracted with SMO to facilitate the concerned WMO to strengthen its organization with the support by the senior and community facilitators and BWDB community organizer (CO) in providing motivation and support to the community. Their capacity will also be strengthened by ISPM consultants to take on the role of supporting CBOs' activities.

19. The facilitators will start with an information campaign to the stakeholders. Then, an inventory of beneficiary households inside the subunit area is prepared. In this process, direct beneficiaries (agriculture and fisheries), other relevant stakeholder groups (such as landless), and respected local leaders will be identified, and a complete list of beneficiaries and affected persons will be established. On the basis of this, the WMO foundation Committee will be modified and transformed to WMO Management Committee, to promote appropriate representation of various stakeholder groups within the area. Subsequently, the Committee will prepare, with the facilitation of the CBOs and facilitators (trained by ISPM consultants), draft WMO constitution, by-laws, and rules and regulations that define the organizational setup, and operational arrangements and procedures. They will also (i) organize general meetings; (ii) enroll members (including collection of initial shares and savings) with a focus on direct beneficiaries ensuring larger farmers participate; (iii) form village, and other social-based groups; (iv) discuss and finalize beneficiary contribution arrangements for O&M,⁶ (v) organize the first WMO general assembly; (vi) apply for registration; and (vii) conduct an election within the specified time frame. (Specific member, task force or sub-committee maybe assigned to promote these processes as appropriate) The WMO will also appoint a manager and a treasurer. Training for financial management including accounting will also be provided from the trained NGO facilitators and ISPM consultants.

20. As a process to strengthened the institutional basis. The WMO, through facilitation by the CBOs facilitators, will also undertake immediate works as stipulated in the institutional development plan under the SIP, including the cleaning of canals and filling of dike slopes that the WMO is to manage after subunit work completion. At the same time, the CBOs will facilitate the formation of subgroups to receive agriculture and fishery extension, and livelihood support services later. These groups are encourages to have at least 33% of women.

21. The main aim of these institutional activities is to create a strong and broad-based WMO. It will become the platform for all water resource management decisions affecting the subunit. This includes resolving the inevitable conflicts of interest between the various

⁶ As to O&M, farmers are encouraged to apply an arrangement that the contribution will not disbenefit the smaller farmers and the poor, e.g., by applying landholding based contribution with special arrangements to reduce the burden to those who have fewer assets.

stakeholders. To this end, the facilitators will also interact with project-affected persons to agree on necessary mitigation measures. For water control structures, provisional facility operational arrangement will be discussed and agreed among different stakeholders (e.g., farmers in low lying area and relatively higher areas, culture fishery beneficiaries, and capture fishers) with the facilitation of the COs and SMO engineering staff with the support of the ISPM consultants. For purposes of conflict resolution, the Union Parishad will be involved in accordance with their mandate. In general, the Union Parishad will act in an advisory capacity to MWA and to promote this role, the members of the Union Parishad will be provided with training. For conflicts that cannot be resolved at the Union Parishad levels, the matter will be raised to a JMC sub-committee for the subunit, which would be authorized to conduct inquiries and to take measures to enforce its decisions and to take pre-emptive action.

22. Participatory Detailed Design. During this stage, data collection for detailed design of the engineering works is undertaken, followed by the design work through a consultative process with the farmers including joint walk-through. The design work will be undertaken primarily by PMO and BWDB design engineers and may be supplemented by private firms. To support the process, the ISPM consultants will review the existing design standards and update/improve those in the light of the international and local experience to promote more efficient and low-cost yet durable structures.

23. Upon preparation of the draft detailed design, the designated design engineers of PMO and BWDB or private firms will present to a general WMO meeting (i) the design concept, (ii) proposed O&M arrangements, and (iii) required amount of beneficiary contribution. A joint walk-through with the direct beneficiaries will also be arranged. Based on the MWA feedback, additional design data, if required, will be collected and draft final designs prepared. The field consultation will be duly recorded and minutes signed by the WMA Management Committee chair and kept in SMO.

24. At this time, a list of direct beneficiaries and their landholding size and how much each will contribute in cash will be prepared, through facilitation by the facilitators. The WMO will contribute an amount equivalent to annual O&M requirement for the concerned facilities, estimated on the basis of the arrangement that WMO will bear the full O&M responsibility of subordinate facilities of the subproject of which management is transferred to the WMO, whereas they will be responsible for operation and annual maintenance (such as filling of rain cuts in embankment slopes and canal cleaning, as opposed to periodic maintenance) for the main facilities of which command area is beyond 2,500 ha, in principle. After estimating the total beneficiary contribution and cost sharing arrangements among the beneficiary members, a campaign for collecting the contribution is initiated. Further adjustment of its distribution to reduce the burden if the smaller farmers will be encouraged.

25. Approval of Detail Design. After the completion of these processes, a general WMO meeting will be called to discuss and finalize the detailed design including the required beneficiary contribution and its arrangements for the individual farmers. The representatives of the SMO, PMO, and ISPM consultants will be present, and the minutes will be prepared and signed by the Management Committee and kept in SMO. The detailed design as approved by the WMO will be sent to PMO for clearance with the assistance of the ISPM consultants.

26. Resettlement Plan. In parallel to the activities ongoing in this stage, the draft RP corresponding to the subunit will be refined and finalized, in accordance with the resettlement framework and resettlement plan, and corresponding guidelines of the Government and ABD. The PMO will engage private firm (for RP refinement) and NGO (for supporting consultative

process of RP refinement, and its implementation), which conduct their designated activities under supervision and guidance on the resettlement specialist in ISPM consultant team. The RP as prepared by PMO and SMO and approved by BWDB will be forwarded to ADB for approval, after which its implementation process will be initiated by SMO through the recruited NGO.

27. Signing Implementation Agreement (IA). The activities related to Stage 4 of the subproject development cycle culminate in signing an IA for subunit implementation, which set out specific subunit activities undertaken, schedules, and institutional responsibilities. It will be signed by an elected management committee of the WMO, subprojects manager in SMO, upazila agriculture and fishery officer, and the concerned union chairperson(s). The agreement will only be signed when the following conditions have been met and confirmed by PMO with the support of the ISPM consultants.

- (i) Membership enrollment in the WMO includes representation from a minimum of 70% of the direct beneficiary households in each geographical and stakeholder groups of the system. At least 33% membership is targeted for women.
- (ii) The WMO has engaged a manager who has been working on their behalf for at least 4 months prior to the signing of the IA, along with a qualified treasurer.
- (iii) The WMO has finalized its constitution and by-laws, has been registered with the Office of Chief Water Management (OCWM) of BWDB. At least 33% of the management committee members should be women.
- (iv) The engineering designs, beneficiary contribution works and arrangements have been discussed in WMO general meeting and endorsed.
- (v) Provisional facility operational plans for water control structures have been discussed and agreed among different stakeholders within and outside WMO.
- (vi) The WMO has (a) collected the initial upfront cash contribution amounting to annual equivalent of O&M cost deposited to joint account by WMO and SMO, and (b) agreed to build up the fund through annual contribution during and after civil works to the target specified in the SIP.
- (vii) The WMO has demonstrated through their records that they have conducted regular meetings and the Management Committee has met monthly for at least 4 months prior to the signing of the IA.
- (viii) The WMO has completed all the immediate activities as stipulated in the institutional development plan of the SIP, including the immediate canal cleaning works and minor repair of earth structures, and has agreed to continue self-help work as such.

28. Follow-on WMO Institutional Development. While the signing of the IA will serve as the benchmark to start Stage 5 activities, institutional development activities for the WMO will continue beyond this stage. Specifically, they will continue collecting additional contributions from the direct beneficiaries during the constructions and post-construction stage and deposit the amount in the aforementioned joint account. The WMO will also continue to develop their capital resource base through the sale of shares and by encouraging members to contribute to savings. At the discretion of the WMO, these capital funds will be used to generate income

through various means ranging from financing income-generating activities for the poorest people in the community to providing credit to small farmers and businesses. During the process, PMO assisted by the ISPM consultant team will also providing training on the operation and management of WMOs including procedures and arrangements of election. OCWM will conduct regular inspection and audit of WMOs upon their registration. PMO will assist OWCM for facilitating the inspection and audit of WMOs in the project area.

Stage 5: Pre-tendering, and Construction

29. **Implementation of RP.** RP implementation, initiated on its approval by BWDB and ADB will have been undertaken by the SMO. The necessary compensation to the affected persons must have been fully disbursed prior to initiating the tendering process of the civil works for the subunit.

30. **Tendering, Contract Signing, and Work Initiation.** Upon confirmation of the due progress in RP implementation, tendering for the subunit civil works will be initiated by SMO, following the procedures stipulated in the Public Procurement Regulations 2003. Private contractors will be invited for the construction of key structures, whereas small simple earth work contracts valued at less than about \$10,000 equivalent may be awarded to labor contracting societies (LCS) to be formed within the WMO among disadvantaged groups with the support of the facilitators, who will be provided with designated wage rate as defined by the Government. For works undertaken by private contractors, the WMO will be provided with the copy of the contract. The WMO management committee members are not allowed to work as contractors in any of the construction works under the subunit.

31. **Construction and Monitoring.** During the construction by contractors, the WMO will be involved in monitoring construction done by contractors, by establishing O&M sub-committee. For this purpose PMO and ISPM consultants will train the O&M sub-committee members on construction monitoring. The subproject manager will issue instructions to the contractor while giving the sub-committee members as well as elected UP members the right to lodge written complaints to SMO. SMO will provide improved construction supervision, while contractors will also maintain work records including photographs taken at pre- and post- construction and other key stages, following the construction management guidelines to be improved by PMO with the assistance of ISPM consultants. As build drawings will be prepared by the contractor, with copies shared with the WMO (for the facility management handed over to them) and the concerned SMO. In addition, external performance monitoring and technical auditing will also be undertaken, through third-party specialists mobilized by ISPM consultants and working closely with the Comptroller of Auditor General (CAG) office.

32. **Initial O&M Training and Planning.** At this stage, the WMO O&M sub-committee will also be trained to prepare an O&M plan for the subunit with the assistance of the sub-divisional engineer trained by the PMO and ISPM consultants. The O&M plan will comprise operational plan (as prepared during the Stage 4 and refined at this stage, for different cropping seasons), maintenance plan, and resource mobilization plan, for both WMO managed facilities and jointly managed facilities (see para 13 for differentiation of facility management).

33. **Preparation for Agriculture, Fishery, and Livelihood Enhancement Plans.** Upon signing of the IA, the WMO will receive support from the Department of Agriculture Extension (DAE), Department of Fisheries (DOF), and other line departments, and private providers as appropriate, to elaborate agriculture, fishery (where relevant), and livelihood enhancement plans building on the SIP, with the support of the ISPM consultants. COs and the facilitators will

facilitate the process. At this stage, the WMO will form sub-committees for agriculture, fishery, and livelihood enhancement comprising the representatives of the concerned groups. The sub-committees will take a lead role in planning, undertaking, and monitoring the concerned development activities. The concerned plans as elaborated by the sub-committees will be presented to the JMC sub-committee and then forwarded to PMO and ISPM consultants for clearance.

34. **Joint Inspection at Completion of Civil Work.** Upon completion of the civil works, a joint inspection will be organized by WMO O&M sub-committee, designated SMO staff, and ISPM quality control engineer. To ensure the quality, payment of last installment to contractors will only be effected after approval of the quality control specialist in ISPM consultant team.

Stage 6A: Agriculture, Fishery, and Livelihood Enhancement

35. **Agriculture Extension and Support.** The project will provide agriculture extension services in the subunit area to promote adoption of high-yielding and improved varieties of crops and their diversification through field demonstration and training. While demonstration and training subjects will be decided based on local demands and production constraints, priorities identified include (i) improved soil nutrient management with soil testing and diagnoses; (ii) crop intensification and diversification including high yield variety (HIV) and cash crop cultivation practices; (iii) integrated pest management (IPM); (iv) seed multiplication; (v) on-farm water management; and (vi) farmer tours to advanced WMOs and production areas. For field demonstration, demonstration plots will be selected from among the landless people (operating on landowner's land) and marginal farmers who agreed to repay the cost of input materials to the WMO. From each demonstration group, two members, a man and a woman will be selected as group leaders who will be trained to serve as local extensionists. Upon completion of each crop season, the concerned farmers on the demonstration plot (including those who received the demonstration mini kit) will repay the stipulated amount in cash or in kind to the WMO which will be deposited as resource fund, based on which WMO will undertake the next round of demonstration by purchasing demonstration materials and mobilizing WMO extensionalists, with the support of DAE staff and/or private providers using the fund generated.

36. Following the SIP prepared based on the assessment of the farmer needs and willingness to purchase improved food grain seeds, the DAE or selected private agents will assist the seed multiplication activities of the enterprising farmers to produce the required amount of improved seeds within the subunit area and its vicinity. For this purpose, the SMO/PMO through local DAE office will deliver foundation (or first generation certified or C1) seeds from a local agriculture research station, and necessary inputs for demonstration. On the basis of this, seed multiplication will be undertaken by the selected farmers having sufficient soil conditions with the technical support. After the crop season, the harvested C1 (or C2) seeds are sold to the other farmers who showed interest, whereas the seed multiplier farmers will repay the cost of inputs provided by the project to the WMO, which will be used for the next generations of seed multiplication activities. The SMO/PMO will further facilitate the purchase of foundation or C1 seeds by WMO to sustain the process.

37. **Fishery Demonstration and Support.** The project will provide fishery development services for WMOs, in accordance with the fishery development plan prepared in para 32 above. Services for fishery development will be delivered by DOF field staff or private providers, and focus on beels, khals, and other open and semi-open water bodies of which improved water management is made possible through the water infrastructure. For this purpose, WMO fishery groups are formed with priority membership of poor having lost access to floodplain fisheries,

and are provided with culture fishery opportunities in water bodies in particular those created in the khals behind water retention structures. The relevant public water bodies within the subunit area will be leased out to the concerned fishery groups through the WMO. The training subjects provided may include (i) fish production technologies; (ii) pond fish and fingerlings production; (iii) integrated fish culture including rice-fish culture and duck-fish culture (iv) beel farming; (v) pen/ cargo culture and (vi) beneficiary tour to advanced WMOs and production areas, among others

38. Livelihood Enhancement Support. The project will support productive income generating activities undertaken by the poor and vulnerable groups organized under the WMO, in accordance with the livelihood enhancement plan prepared in para 32 above. In this context, efforts will be made to promote such activities on the public lands relevant to the Project infrastructure, such as canal and embankment bank slopes. Specific activities promoted will include social forestry, nurseries, vegetable cultivation, and livestock. Training will be provided through the concerned line departments and/or private providers mobilized under the project. The willing WMOs will also be trained by concerned microfinance institution or other relevant parties to operate micro-credit using the collected shares and savings. Those who will be entitled to undertake income generating activities on the public lands will undertake necessary routine maintenance activities of the concerned facilities.

39. Performance Monitoring. The SMO will monitor the activity performance and impacts of agriculture, fishery, and livelihood programs, through the WMO subject matter sub-committees, with the facilitation of the COs and capacity development support provided by the ISPM consultants. Specifically, the activity performance will be monitored in the light of the subject matter plans that stipulate inputs and outputs targets, and their schedules. Impacts monitoring will be done by collecting impact information from the key benchmark farmers. On the basis of the performance monitoring, the SMO and the WMO will undertake at the end of each cropping season the review and planning for the development programs for the next cropping season, with the support of the ISPM consultants.

Stage 6B: Support for Establishing Sustainable O&M Mechanisms

40. General. In parallel to Stage 6A activities, the project will support the initial smooth operation of the constructed facilities as well as the continued development of the technical, administrative, and organizational management functions of WMAs as effective and sustainable O&M and development organizations.

41. Test Run and Rectification. Upon confirmation that the civil works were completion in accordance with the plan, WMA O&M sub-committee members and SMO sub-divisional engineer will undertake (with the presence of ISPM consultants during initial implementation period) a joint walk-through and test runs of water control structures. Any deficiency should be noted and rectified by the concerned contractors or by the SMO, depending on their nature.

42. Water Control Structure Operation.⁷ Prior to the start of each cropping season, the WMA O&M sub-committee will refine as necessary the system operational plan following the plan prepared in paras 33 and 34 above, with the facilitation of the COs and the SMO sub-divisional engineer trained by the ISPM consultants. During the initial year of operation, SMO will closely monitor and advise the system operation including water level management

⁷ In principle, operation of water control structures will be undertaken by the designated WMO regardless of the type of management – WMO-managed or jointly managed facilities.

(including irrigation water distribution within the subunit areas). For this purpose, the WMA O&M sub-committee will be trained by PMO and ISPM consultants to monitor the actual water conditions in different cropping seasons as compared with SIP targets, and coordinate various stakeholder groups for effective water management, with a care that operation is undertaken in line with the agreed plan while ensuring intended benefits to the diverse stakeholders. A team in PMO and the ISPM consultants may be invited to assist the resolution of any operation-related problems.

43. **Maintenance Planning and Implementation.** At the same time, and in particular at the end of the monsoon season, the WMA O&M sub-committee will also prepare the system maintenance plan with the assistance of the SMO sub-divisional engineer (trained by PMO and ISPM consultants) through (i) joint walk-through by O&M sub-committee members, group representatives of the concerned facilities, and the SMO staff (ii) identification of any maintenance needs on the basis of the standard guideline to be prepared and finalized by BWDB; (iii) preparation of the maintenance plan differentiating the works to be done by the WMA and by the SMO; and (iv) preparation of the resource mobilization plan with rating for each beneficiary farmers (for the works for which the WMO is responsible). On the basis of this, the SMO will closely monitor and train the WMA to implement the maintenance plan up to a full year after completion of the civil work in principle.

44. **Further WMO Strengthening as Enterprise.** As part of the program to strengthen the functions of the WMO, the ISPM consultants will prepare a training for strengthening their bargaining capacities through improved technical, organizational, and managerial functions (such as organizing collective purchases and sales) to achieve better deals with inputs and service providers and marketing agents while making those providers and agents responsive and accountable to clients. Field trip to interact with the successful WMOs that exist within the country will also be arranged by the ISPM consultants.

45. **Organizational Performance Monitoring.** The SMO with the assistance of the ISPM consultants will closely monitor the WMO performance in terms of (i) proper functioning of the groups/ committees through regular meetings and activities; (ii) regular book keeping in membership, activity records, meeting minutes, beneficiary contribution, and finance, encompassing their activity areas including agriculture, fishery, and livelihood enhancement, facility O&M, and general administration; (iii) capacity to monitor and report to SMO the program performance and impacts while identifying measures to resolve any problems. OCWM will also provide annual audit for every WMO in accordance with their rules and regulations. These are recorded on a regular basis by SMO and reported to PMO for file and advice.

46. **Annual Work Plan for the Post-investment Phase.** By the end of the 12th month after completion of the civil works, SMO and the WMO (in particular O&M and subject-matter sub-committees) will jointly work out the draft annual work plan for the subsequent year, stipulating the programs and activities for (i) agriculture, fishery and livelihood; (ii) O&M-related activities including conflict resolution; and (iii) general administrative matters. On the basis of the performance evaluation, specific areas where further technical and facilitation support by the Project organization will be identified, and required inputs agreed. The annual work plan will be discussed with the PMO and the ISPM consultants for endorsement.

47. **Management Transfer.** Upon completion of the above activities and confirmation by PMO and the ISPM consultants that the concerned subunit has substantially achieved its output targets, the WMO enters into a O&M transfer agreement with BWDB and the UP on the O&M responsibilities of the facilities concerned. WMOs will be entrusted with full O&M of subordinate

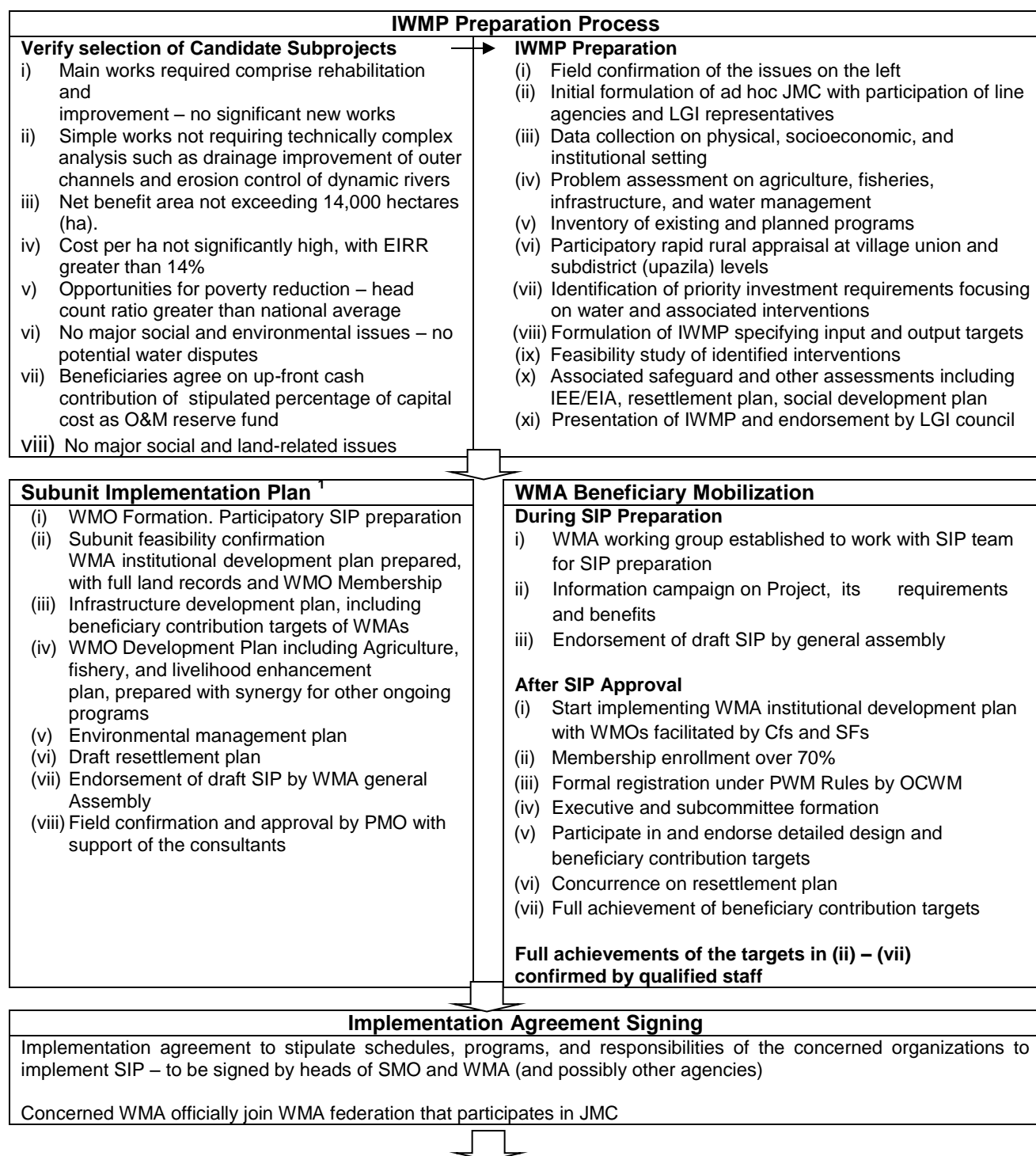
facilities of which command area is up to 2,500ha, and operation and regular/ annual (as opposed to periodic) maintenance of other main facilities. The agreement is signed on condition that (i) an O&M subcommittee has been established; (ii) an O&M plan, satisfactory to ADB, PMO and the ISPM consultants have been prepared by the O&M sub-committee and agreed upon by the general meeting of the WMA; (iii) any outstanding local conflicts are resolved; (iv) as-built drawings are prepared; and (v) subunit infrastructure is designed and constructed to the satisfaction of the WMA. Upon signing of the agreement, SMO concerned will then proceed with initiating the activities for a new subunit.

Stage 7: Post-investment WMO activities, Monitoring and Support

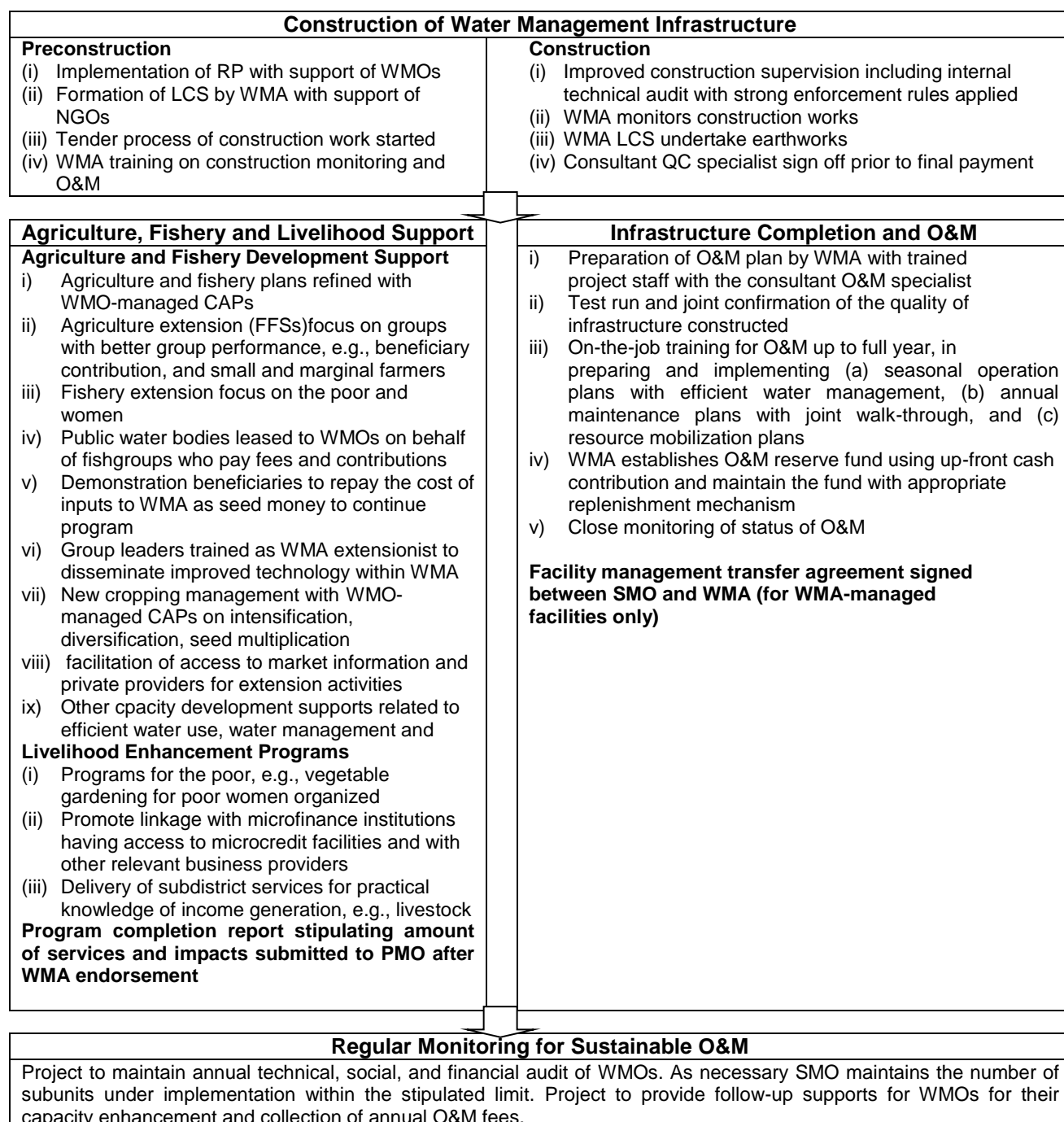
48. After signing of the management transfer/ joint management agreement, the WMO will operate the annual activity cycle including (i) the planning and implementation of O&M activities, (ii) WMO agriculture, fishery, and livelihood activities, and (iii) performance monitoring.

49. The WMO will undertake these activities using their own funds, comprising (i) shares and savings collected from the beneficiaries; (ii) incomes or in-kind contribution generated from income generating activities using public land and fishery activities undertaken by the concerned WMO groups; and (iii) O&M fund established with upfront and follow-on beneficiary contribution. In particular, after the management transfer/ joint management agreement is signed, the WMO will have access to the O&M funds for purposes of maintaining the water management system. The fund will be initially jointly managed by SMO and the WMO, to be released to pay for specific maintenance works based on requests from the WMO. The WMO will replenish the amount by the end of the concerned O&M year. The fund will be handed to the WMO upon confirmation of satisfactory replenishment by the WMOs for two consecutive years.

50. To ensure effective and sustainable operation of these functions, periodic performance monitoring will be made operational, through (i) WMO's own monitoring and report to the SMO in programs and their performance for agriculture, fishery, livelihood, system O&M and general administration as well as in agriculture and social impacts and (ii) monitoring by SMO and DOC by fielding their concerned staff. The key representatives of the WMO are invited to SMO to report and discuss the status. The concerned line department staff will also undertake regular monitoring and support activities by visiting the subunit area at key stages of their operation, such as operational planning for each cropping season, joint walk-through for identification of maintenance requirements, and agriculture, fishery, and livelihood development review and programming. A succinct activity record and findings will be filed in the SMO and forwarded to PMO and OCWM for file and necessary action.

Figure A2.1 Subproject Implementation Procedure

¹ Implementation of water management infrastructure will be undertaken on the basis of delineated hydrological subunits in principle. As to facilities encompassing more than one subunit (e.g., embankments), they will be implemented on the basis of the progress of the concerned subunit works, except where advance work completion is required, e.g., embankment sections critically degraded or those threatened by river erosion.



CBO = community-based organizer, DOC = Department of Cooperatives, EIA = environmental impact assessment, EIRR = economic internal rate of return, IEE = initial environmental examination, IWMP = integrated water management plan, JMC = joint management committee, LCS = labor contracting society, LGI = local government institution, NGO = nongovernment organization, O&M = operation and maintenance, PMO = project management office, RP = resettlement plan, QC = quality control, SIP = subunit implementation plan, SMO = subproject management office, WMA = water management association

APPENDIX 3: STATEMENT OF AUDIT NEEDS

A. Background

1. The ADB and the Government of Bangladesh (GOB) have entered into a Loan and Grant Agreement whereby, ADB will provide \$45 million equivalent for the purpose of financing civil works, equipment, consulting services, training and capacity development, and project management. The Government of Netherlands funds \$7.0 million as grant basis for financing consulting services, and training and capacity development. The GOB shall contribute \$ 11.7 million against these funding. This will be carried out through the Bangladesh Water Development Board (BWDB). BWDB shall maintain separate books of account which will be consolidated by PMO with respect to this project, including all items of expenditure financed out of the proceeds of the loan and grant agreement.

B. Financial Reporting and Auditee Requirements

2. BWDB will prepare project financial statements on a cash basis of accounting, in accordance with its Financial Administrative Regulations (FAR). Project financial statements shall be prepared separately for L-2200 and the additional financing/OR Consolidated financial statements shall be prepared for the Project, including proceeds under the original loan and the additional financing. This shall not be construed to refer to the financial statements of BWDB as a whole.

3. The audit of the project financial statements shall be carried out by the Foreign-Aided Project Audit Directorate (FAPAD) within the Comptroller and Auditor General (CAG) of Bangladesh in accordance with CAGs Audit Manual.¹, as supplemented by this Statement of Audit needs. The auditor will review that the funds received from all sources and expenditures incurred during the reporting period are as per agreed terms and conditions. This will include all expenditure to the extent that it relates to the activities of the project and BWDB supporting this project.

4. BWDB will submit to ADB audited project financial statements as of June 30 each year, within 6 months of the end of the fiscal year in English. A complete set of audited project financial statements includes:

- (i) Audit opinion on the project financial statements
- (ii) Audit opinion on specific donor requirements ²
- (iii) Project financial statements and statement of budget vs. actual along with complete notes to the financial statements including necessary break downs and details, summary of accounting policies and explanatory notes
- (iv) Management letter (Section F below)

5. To ensure the timely submission of audited project financial statements, BWDB will formally request the CAG to include the project audits in their yearly work plan through the ERD, at the time of loan negotiations. To support timely submission, unaudited project financial statements should be submitted to the CAG for audit within 3 months of the end of the fiscal year.

¹ Audit standards for CAG directorates are set out in an Audit Manual and are based on INTOSAI and Asian Organization of Supreme Audit Institutions standards.

² Separate or combined opinions on the project financial statements and specific ADB requirements may be provided

6. In addition, BWDB shall also submit a copy of their own entity level audited financial statements within one month of the date of their approval by the governing body of BWDB.

C. Specific Audit Needs

7. The audit would cover the entire project i.e. covering all sources and application of funds, including the ADB, the cofinancer and the GOB. The Financing Arrangement as currently agreed with ADB, includes Direct Payments (DPs) by ADB to suppliers. The Project Director shall provide all pertinent information to the Auditors including preservation and use of resources procured and its reflection in the project accounts, so as to facilitate comprehensive audit coverage. The audits should be carried out annually from commencement of the Project.

8. The auditor will provide assurance as to whether the project financial statements present a true and fair view of the receipts and expenditures, or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework.

9. In addition, ADB will also require an assessment by the auditors of compliance with provisions of the financing agreement with ADB, especially those relating to accounting and financial matters. Positive assurance should be provided in accordance with International Standard of Supreme Audit Institutions – 4200 on Financial and Compliance Audit. An audit opinion shall be provided that will inter alia include verification that:

- (i) All funds, including counterpart funds, have been used in accordance with the conditions of the loan agreements, with due regard to economy and efficiency, and only for the purposes for which the funds were provided;
- (ii) The BWDB were in compliance as at [insert date] with all financial covenants of the loan agreement;
- (iii) With respect to SOEs, (a) adequate supporting documentation has been maintained to support claims to ADB for reimbursement of expenditures incurred; and (b) except for ineligible expenditures as detailed in the audit observations, if any, appended to this audit report, expenditures are eligible for financing under the Loan Agreement;
- (iv) The Imprest Account gives a true and fair view of the receipts collected and payments made during the year ended [insert date], and (ii) these receipts and payments support the Imprest Account Liquidation/ replenishments during the year

10. ADB would expect that the auditors should advise a calendar for discussion/review of audit observations (particularly any serious matters) through tri-partite meetings and review meetings to facilitate executive follow-up on audit observations and recommendations. Moreover, ADB would need a review of actions taken on the recommendations presented in the previous audit report on the progress made.

D. Project Financial Statements (PFSs)

11. The Project Annual Financial Statements (APFSs) shall be prepared in accordance with international accounting best principles and practices as well as government's accounting laws and regulations. These should include:

- (i) Sources and Consolidated Uses of Funds showing the funds received and expended from ADB and GOB for the project, as well as imprest account balances.
- (ii) Statement of Budget vs Actual showing expenditure for the current year and cumulative year to date,
- (iii) Detailed notes to the financial statements including explanatory notes, break down of expenditure, reconciliation of reimbursements, Details of expenditure by Currency/Method of Funding/Output Component, Statement of Imprest Account, and Accounting Policies

12. Project Books of Account shall be maintained by the Project Management Office (PMO) of BWDB.

13. Project Financial Statements shall provide sufficient level of detail to identify types of expenditures as identified in the allocation Tables of the Loan and Grant Agreements.

14. The project financial statements shall also provide sufficient level of detail to be able to identify expenditure relating to each of the three outputs of the project; namely, (i) WMOs' capacity strengthened for sustainable water resources planning and management in the subproject areas, (ii) infrastructure facilities of FCD/I schemes renovated, and, (iii) institutional capacity for sustainable participatory water resources planning and management strengthened.

15. Draft template for the Financial Statements shall be provided to the PMO during implementation to ensure maximum alignment with Cash Basis International Public Accounting standards as well as conformity with IBAS.

16. Please note that any financial statement template is a working draft, which may require adjustment based on the actual activities of the Project.

E. Management Letter

17. In addition to the audit report, ADB will require a separate management letter.

18. The management letter should specifically:

- (i) Give comments and observations on the notes to the accounts, accounting records, systems, and internal controls that were examined during the course of the audit;
- (ii) Identify specific deficiencies and areas of weakness in systems and internal controls and make recommendations for their improvement including MOE response to the identified deficiencies;
- (iii) Communicate matters that have come to attention during the audit which might have a significant impact on the implementation of the Project; and
- (iv) Bring to GOB and ADB attention any other matters that the auditor considers pertinent.
- (v) The auditor should also make follow-up of audit recommendations to their conclusion.

19. Serious issues, which affect the auditor's opinion as to whether the financial statements give a true and fair view, should be referred to in the audit opinion. Management Letter should include only those issues which do not affect the fairness of the financial statements.

F. Management Representation Letter

20. PMO is responsible for the preparation and fair presentation of the project financial statements and for maintaining sufficient internal control, as determined necessary, to ensure that the financial statements are free from material misstatement, whether due to fraud or error. To this end, PMO must provide the auditor with a 'Management Representation Letter' with a copy to ADB. The Letter of Representation (Management Representation Letter) to the auditor will include the following:

- (i) Project financial statements are free from material misstatement, including omissions and errors and are fairly presented.
- (ii) All documents and other information in relation to the financial statements shall be made available to auditors to ensure that the audit can be commenced at any time, soon after the date of these financial statements
- (iii) The borrower or executing agency has utilized the proceeds from the loan only for the purposes intended under the legal agreement(s).
- (iv) The borrower or executing agency was in compliance with the financial covenants of the financing agreement (specify the specific financial covenants).
- (v) The imprest fund procedure (where applicable) has been applied in accordance with the ADB Loan Disbursement Handbook.
- (vi) Adequate supporting documentation has been maintained to authenticate claims stated on the statement-of-expenditure (SOE) for reimbursement of eligible expenditures incurred and liquidation of advances provided to the imprest account (where applicable).
- (vii) Effective internal control, including over the procurement process, was maintained.

G. General

21. Review missions and normal project supervision will monitor compliance with financial reporting and auditing requirements and will follow up with concerned parties, including the external auditor.

22. ADB has made BWDB aware of ADB's approach on delayed submission, and the requirements for satisfactory and acceptable quality of the audited financial statements³. ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower, or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed.

³ ADB approach on delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

23. ADB retains the right to verify or have audited (i) the project (ii) the validity of BWDB's certification for each withdrawal application, and (iii) that ADB's financing is used in accordance with ADB's policies and procedures.

24. In case an external auditor needs to be commissioned for a supplementary audit, the auditor should be given access to all legal documents, correspondences, and any other information associated with the commission and deemed necessary by the auditor. Confirmation should also be obtained of amounts disbursed and outstanding with ADB and the Government etc.

H. Public Disclosure

25. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011)⁴. ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The audit management letter and entity-level financial statements will not be disclosed.

Note: This is a statement of audit needs for ADB and does not in any way intend to limit the scope of the statutory audit.

⁴ Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

APPENDIX 4: INITIAL PROCUREMENT PLAN**Basic Data**

Project Name: Southwest Area Integrated Water Resources Planning and Management Project (additional financing)	
Project Number: 34418-023	Approval Number:
Country: Bangladesh	Executing Agency: Bangladesh Water Development Board
Project Procurement Classification: Category B	Implementing Agency:
Project Procurement Risk: Moderate	N/A
Project Financing Amount: US\$ 63,700,000 ADB Financing: US\$ 45,000,000 Cofinancing (ADB Administered): US\$ 7,000,000 Non-ADB Financing: US\$ 11,700,000	Project Closing Date: 31 December 2022
Date of First Procurement Plan: 5 August 2015	Date of this Procurement Plan: 5 August 2015

A. Methods, Thresholds, Review and 18-Month Procurement Plan**1. Procurement and Consulting Methods and Thresholds**

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	US\$ 2,000,000 and Above	Prior review
National Competitive Bidding for Goods	Between US\$ 100,001 and US\$ 1,999,999	Prior review for the first package, thereafter post review.
Shopping for Goods	Up to US\$ 100,000	Prior review for the first package, thereafter post review
International Competitive Bidding for Works	US\$ 15,000,000 and Above	Prior review
National Competitive Bidding for Works	Between US\$ 100,001 and US\$ 14,999,999	The first package of similar type of works is subject to prior review. Thereafter post review. The post review (sampling) may be applied for packages up to certain amount subject to ADB's approval. The procurement plan will be revised, if the application of the post review (sampling) is approved.
Shopping for Works	Up to US\$ 100,000	The first package of similar type of works is subject to prior review, thereafter, post review. The post review (sampling) may be applied for packages up to certain amount subject to ADB's approval. The procurement plan will be revised, if the application of the post review (sampling) is approved.
Community Participation for Works	Up to US\$ 10,000	Prior review for the first package, thereafter post review as per PAI 5.10

Consulting Services	
Method	Comments
Consultant's Qualification Selection for Consulting Firm	Prior review
Quality- and Cost-Based Selection for Consulting Firm	Prior review
Individual Consultants Selection for Individual Consultant	Prior review

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
G-02	Vehicles	1,000,000.00	ICB	Prior	1S1E	Q1/ 2016	Prequalification of Bidders: N Domestic Preference Applicable: N Advance contracting: N Bidding Document: Goods

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/ Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
C-01	Institutional Strengthening and Project Management	7,610,000.00	QCBS	Prior	Q3 / 2015	FTP	Assignment: International Quality-Cost Ratio: 90:10 Advance contracting: Y Comments: International and national consultants. The consulting services require high technical and management competence.
C-02	Hydraulic studies	170,000.00	CQS	Prior	Q2 / 2016	BTP	Assignment: National Advance contracting: N

C-04	GIS WMO database development	120,000.00	CQS	Prior	Q2 / 2016	BTP	Assignment: National Advance contracting: N
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4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table lists smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
G-03	Motorcycles	154,000.00	1	NCB	Prior	1S1E	Q1 / 2016	Prequalification of Bidders: N Domestic Preference Applicable: N Advance contracting: N Bidding Document: Goods
G-04	Office equipment and furniture	59,000.00	1	SHOPPING	Prior		Q1 / 2016	Advance contracting: N
G-05 to 09	Office equipment and furniture	361,000.00	5	SHOPPING	Post		Q1 / 2016	Advance contracting: N Comments: Q1 2016 to Q2 2016

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior/ Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
C-03	Hydrological studies	60,000.00	1	CQS	Prior	Q2 / 2016	BTP	Assignment: National

								Advance contracting: N
C-05	Benefit monitoring and evaluation	50,000.00	1	CQS	Prior	Q1 / 2016	BTP	Assignment: National Advance contracting: N
C-06	Management information system development	50,000.00	1	CQS	Prior	Q1 / 2016	BTP	Assignment: National Advance contracting: N
C-07 to 12	Resettlement plan survey and implementation	250,000.00	3	CQS	Prior	Q1 / 2016	BTP	Assignment: National Advance contracting: N Comments: Q1 2016 to Q4 2017

B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Pack age Num ber	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procure ment Method	Review (Prior/Post)	Bidding Procedur e	Comments
I-W01	Construction and/or rehabilitation of water management structures (regulators, piped culvert etc.)	6,625,000.00	24	NCB	Post	1S1E	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
I-W02	Construction and/or rehabilitation of water management structures (regulators, piped culvert etc.)	486,000.00	8	SHOPPIN G	Post		
I-W03	Local riverbank protection works	1,332,000.00	2	NCB	Post	1S1E	Prequalification of Bidders: N Domestic Preference Applicable: N

							Bidding Document: Small Works
I-W04	Embankment construction or resectioning	2,606,000.00	16	NCB	Post	1S1E	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
I-W05	Embankment construction or resectioning	446,000.00	7	SHOPPING	Post		
I-W06	Khal (canal) re-excavation	4,784,000.00	36	NCB	Post	1S1E	Prequalification of Bidders: N Bidding Document: Small Works
I-W07	Khal (canal) re-excavation	1,734,000.00	23	SHOPPING	Post		
I-W08	Construction of PMP, SMO and WMO office buildings	1,581,000.00	9	NCB	Post	1S1E	Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: Small Works
I-W09	Construction of PMP, SMO and WMO office buildings	210,000.00	3	SHOPPING	Post		
I-W10	Arsenic free drinking tubewell	134,000.00	8	SHOPPING	Post		
I-W11	Earth works (minor Khal re-excavation or minor embankment resectioning)	3,570,000.00	380	CPP	Post		Comments: Labor contracting societies under water management groups to be engaged.

Consulting Services							
Pack age Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
None							

C. National Competitive Bidding

1. General

The procedures to be followed for national competitive bidding shall be those set forth for the National Open Tendering Method in the Government's *Public Procurement Rules, 2008* (as updated and issued pursuant to the Bangladesh *Public Procurement Act, 2006*) with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.

2. Advertising

Bidding of NCB contracts estimated at \$500,000 or more for goods and related services or \$1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.

3. Anti-Corruption

Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions (such as conflict of interest, etc.).

4. Location of Bid Submission

Submission of bids to 'primary' and 'secondary' locations, or 'multiple droppings' of bids, shall not be required or allowed. Advertisements and bidding documents shall specify only one location for delivery of bids.

5. Rejection of All Bids and Rebidding

Bids shall not be rejected and new bids solicited without ADB's prior concurrence.

6. Eligibility

The eligibility of bidders shall be as defined under section I of the Procurement Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the Guidelines, as amended from time to time.

7. Lottery

A lottery system shall not be used to determine a successful bidder, including for the purpose of resolving deadlocks.

8. Qualification Requirements

A successful bidder must be determined by an assessment process that shall include the application of qualification requirements to all bids.

9. Rejection of Bids

A bid shall not be rejected on the grounds that its bid price is not within a percentage range above or below the contract estimate.

APPENDIX 5: DRAFT OUTLINE TERMS OF REFERENCE FOR INSTITUTIONAL STRENGTHENING AND PROJECT MANAGEMENT CONSULTANT

1. BACKGROUND

1.1 General

1. The southwest area of 4 million ha (27% of the country's total) covers the right bank of the Ganges and the Lower Meghna rivers, with a population of 28.6 million (23% of the total). The region contributes 21% of the national GDP. With its sectoral share of 36%, agriculture plays a dominant role, yet its productivity is lagging behind the national average. Paddy yields remain at 3.1 t/ha due mainly to the dominance of traditional varieties associated with the area's susceptibility to flooding, and slower expansion of irrigation (38% as opposed to the national average of 55% of net cultivated area). About 51% of the area's population is poor, second to the highest—the northwest—among the country's four main regions. As to water resources, the southwest has 78 flood control, drainage/irrigation (FCD/I) systems covering 1.1 million ha. It has the most acute water management problems in Bangladesh. Of particular concern is water shortage due to reduced inflow into the Ganges tributaries and associated social and environmental hardships, including salinity intrusion, livelihood loss, and environmental degradation. Other challenges include (i) the flood inflow from the Ganges in the monsoon and deterioration of existing FCD/I systems, (ii) drainage congestion and sedimentation of tidal channels caused by coastal polder construction and reduced tidal swept volume, (iii) arsenic contamination (highest in the country), and (iv) vulnerability to cyclones and tidal surges. Improving water management is critically needed in this region of the country.

2. Infrastructure deterioration of the existing FCD/I schemes has been a chronic issue, especially for large scale schemes.⁵² A lack of users' ownership causes quick deterioration of structures. The absence of stakeholder participation results also in inefficient and non-pertinent planning and inefficient water uses. Managing critical water resource through an integrated and participatory approach is essential for efficient water management, the sustainability of FCD/I schemes, and improved livelihood of the vulnerable poor, including women.

3. The Asian Development Bank (ADB) has financed for participatory water management projects for small-scale schemes since 1995.⁵³ They have demonstrated success on improved infrastructure performance through operationalizing beneficiary participation envisaged in the government's Guidelines for Participatory Water Management.⁵⁴ To extend the integrated and participatory water management to the large scale FCD/I schemes, in 2005 ADB approved \$20 million equivalent of a loan for the current Southwest Area Integrated Water Resources Planning and Management Project, with \$12.5 million of cofinancing from the Government of the Netherlands.⁵⁵ The current project supports establishment of participatory water management organizations (WMOs) with the inclusion of socially disadvantaged groups, integrated water resources management planning, infrastructure renovation, and coordinated support services for WMOs in the two pilot subprojects, comprising Narail and Chenchuri Beel FCD/I schemes with a total area of 57,000 hectares (ha). The Bangladesh Water Development Board (BWDB) is the executing agency.

⁵² FCD/I schemes with command area above 1,000 ha are categorized large-scale in Bangladesh.

⁵³ For example, ADB. 1995. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for Small-Scale Water Resources Management Sector Project*. Manila.

⁵⁴ Ministry of Water Resources. 2000. *Guidelines for Participatory Water Management*. Dhaka.

⁵⁵ ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Southwest Area Integrated Water Resources Planning and Management Project (Bangladesh)*. Manila (Loan 2200(SF) and Grant 0036-BAN)

4. The Southwest project successfully demonstrated that the participatory approach can improve the water resources management of large FCD/I schemes. This is the first success case for large schemes among several trials in Bangladesh. As of May 2015, renovation of water management infrastructure in the two targeted subproject areas has been substantially completed with satisfactory achievements of anticipated targets. In total, 116 WMOs, consisting of 102 water management groups (WMOs) and 14 higher tier water management associations (WMAs), have been organized, trained and effectively functioning in the two subproject areas. About 25,400 households are benefitted, including the socially disadvantaged groups like landless farmers and women. Capacity enhancement activities for WMOs continued till June 2015, and demonstrated visible vitalization of WMO activities in agriculture, fisheries, livestock, and collective livelihood actions. Operation and maintenance (O&M) of small structures have been handed over to WMOs, after development of O&M manuals and WMOs' O&M capacity.

5. BWDB is processing a proposed additional financing for the Southwest project to replicate the successful current project in nine additional subproject areas with a total area of 84,000 ha with the population of about 469,500 in the southwest region of the country. ADB's financial support for the proposed additional financing is included in ADB's country assistance program for 2015. A potential co-financing is under discussion. The proposed project provides a consultancy package for institutional strengthening and project management consultants (ISPMC). BWDB will recruit the ISPMC package according to ADB's *Guidelines on the Use of Consultants (2013, as amended from time to time)*.

1.2 Outline of the Proposed Additional Financing Project

6. The detailed project description is in **Appendix 1** of this TOR, and **Appendix 2** describes subproject implementation procedures. (Appendixes 1 and 2 of the PAM will be attached to the TOR.) The project comprises eleven subprojects in five administrative districts. The implementation of nine out of eleven subprojects will be covered by the project. Feasibility studies along with integrated water management plans (IWMPs) for seven out of the nine subprojects have been prepared during the project processing. Feasibility studies and IWMPs for the two out nine subproject have to be prepared during the project, before the implementation of physical activities. The project will also cover feasibility studies along with the preparation of IWMPs for the two remaining subprojects, but will not include the implementation of the plans for these two subproject areas. The implementation of the two subprojects may be done by the Government of Bangladesh in the future. The following tables summarize the subproject status, and administrative units under each subproject.

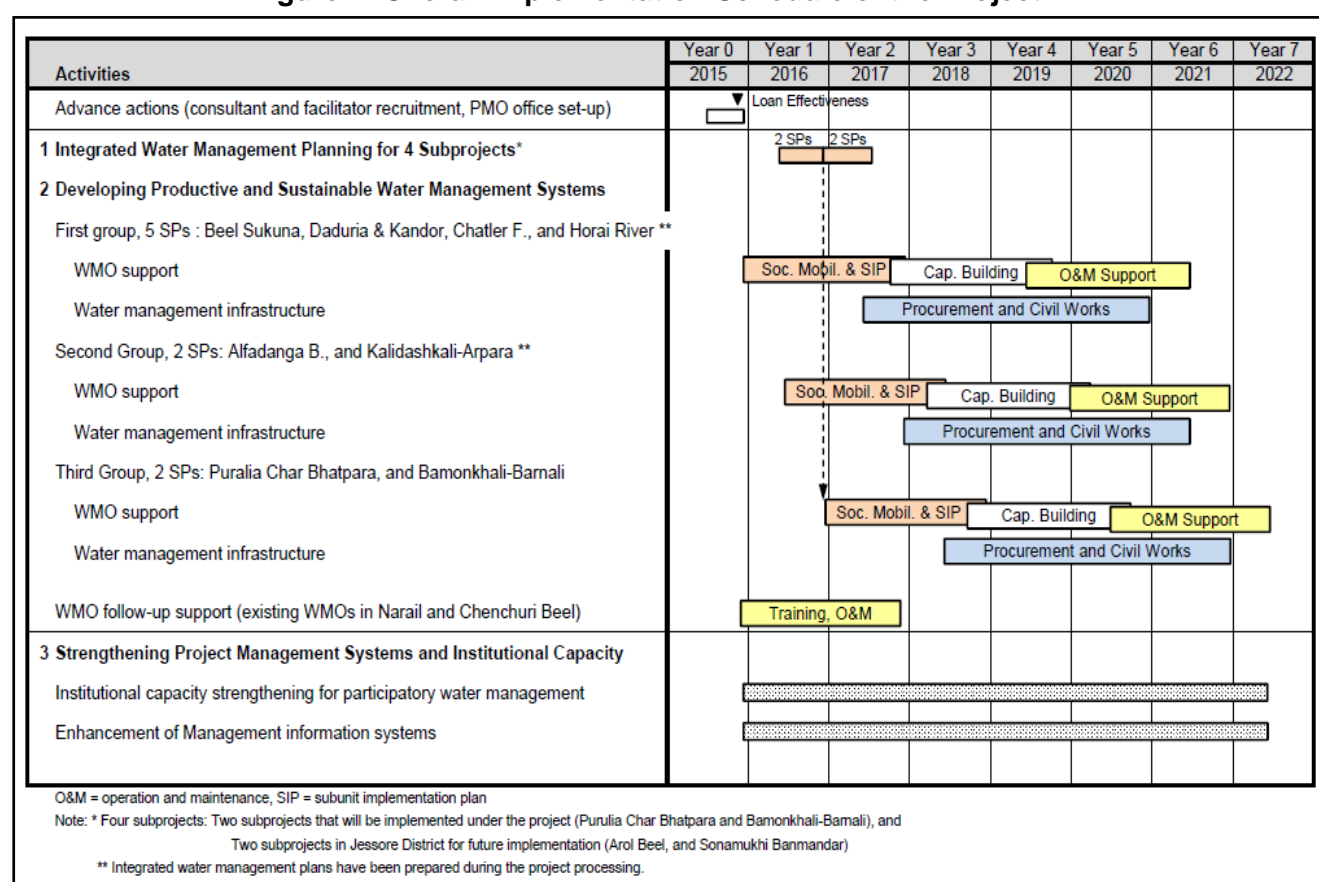
Table 1: List of Subprojects

Implementation	District	IWMP Preparation	District
1. Beel Sukunia Subproject	Faridpur	<u>To be implemented under the project</u>	Gopalganj Magura
2. Kandor Beel Subproject	Faridpur	8. Purulia-Charbhatpara Subproject	
3. Daduria Beel Subproject	Faridpur	9. Bamankhali Barnali Subproject	
4. Alfadanga-Boalmari Subproject	Faridpur		
5. Chatlar-Fakurhat Subproject	Faridpur		
6. Kalidaskhali-Arpara Subproject	Magura	<u>IWMP preparation only</u>	Jessore Jessore
7. Horai River Subproject	Rajbari	10. Arol Beel Subproject	
8. Purulia-Charbhatpara Subproject	Gopalganj	11. Sonamukhi-Banmandar Subproject	
9. Bamankhali-Barnali Subproject	Magura		

Table 2: Locations of Subprojects

Division	Subproject	District	Upazila
Dhaka	a. Beel Sukunia b. Kandor Beel c. Daduria Beel d. Alfadanga-Boalmari e. Chatler-Fakurhat	Faridpur	Nagarkanda, Faridpur sadar, Alfadanga, Boalmari, Sadarpur, Madhukali, Bhangha
	Horai River	Rajbari	Rajbari Sadar, Baliakandi and Kalukhali
	Purulia Char Bhatpara	Gopalgoni	Kashiani
Khulna	a. Kalidashkali-Arpara b. Bamonkhali-Barnali	Magura	Magura Sadar and Salikha
	c. Arol Beel d. Sonamukhi Banmandar	Jessore	Jhikargacha, Chowgacha and Sharsa

7. The following chart indicates overall implementation schedule of the project.

Figure 1: Overall Implementation Schedule of the Project

1.3 Implementation Arrangement

8. BWDB under the Ministry of Water Resources is the executing agency. The Project Management Office (PMO) under BWDB will be led by the full-time project director, and will manage and monitor the overall implantation of the project. PMO will be enhanced by individuals directly engaged by PMO, such as research assistants and facilitators. The research

assistants will assist PMO for technical aspects including data processing and analyses. Senior and community facilitators will support agriculture extension officers' roles including community mobilization and WMO support and capacity development. The Subproject Management Offices (SMOs) will manage and supervise day-to-day implementation of project activities in respective subproject areas, including coordination with upazilla and union level institutions and local communities at subproject level. Four SMOs will be newly established at the level of subproject to implement nine subprojects as in **Table 3**. The Chanchuri Beel SMO was created under the current Southwest project, exclusively for the implementation of the Chenchuri Beel Subproject. The SMO will be shifted from Narail to Faridpur, and this special set-up SMO will exclusively work for the proposed project. It will implement five out of nine subprojects. Other three SMOs will be built on the existing set-up of the concerned BWDB division O&M offices supplemented by required staff. The three dual charge SMOs will implement the remaining four subprojects as indicated in **Table 3**. The ISPMC team will support PMO and SMOs.

Table 3: List of Subprojects and Responsible SMOs

Sl. No.	Name of sub-project	District of subproject location	SMO in charge	Remarks
1.	Beel Sukunia	Faridpur	SMO in Faridpur Sadar	Existing O&M office
2	Daduria Beel	Faridpur	SMO (special setup) in Faridpur Sadar	An existing special setup SMO [for Chenchuri Beel Subproject] will be transferred from Narail
3	Kandor Beel			
4	Alfadanga Boalmari			
5	Chatlar-Fakurhat			
6.	Purulia Charbhatpara	Gopalganj		
7.	Kalidas Khali Arpara	Magura	SMO in Magura Sadar	Existing O&M office
8.	Bamonkhali-Barnali			
9.	Horai River	Rajbari	SMO in Raibari Sadar	

SMO = subproject management office

9. PMO, SMO and the ISPMC team will work close coordination with supporting agencies that will provide technical inputs for the implementation of the project. Such agencies will include Department of Agriculture Extension (DAE) and Department of Fishery Extension (DOF).

2. OUTLINE OF THE CONSULTANCY SERVICES

10. A consulting team led by an international firm and comprising international and national experts will be engaged in accordance with ADB's *guideline on the Use of the Consultants*. The ISPMC team will be led by an International Team Leader who will supervise the entire activities of the ISPMC, and will be in charge of the progress and the quality assurance of the entire ISPMC activities. The consulting services are expected to continue for 6.5 years. The services will include the following major tasks.

11. The major tasks of the consulting services of the ISPMC package will include the following. **Table 5** summarizes major activities under each task.

- Task 1: Preparation of integrated water management plans for four subprojects,
- Task 2: Implementation support for formulation and capacity development of WMOs in nine subprojects, and follow-up capacity development of existing WMOs in the Narail and Chenchiri Beel subprojects,
- Task 3: Implementation support for rehabilitation and construction of water management infrastructure in the nine subprojects, including construction supervision and quality control, and
- Task 4: Supporting institutional capacity strengthening of BWDB for participatory water resources planning and management.

Table 5: Summary of Major Service Activities

Task	Major Activities
Task 1: Preparation of IWMP for four subprojects	<ul style="list-style-type: none"> (iii) Preparation of IWMP for two subprojects to be implemented under the additional financing project (iv) Preparation of IWMP for two subprojects that may be implemented by future projects
Task 2: Implementation support for formation and capacity development of WMOs in nine subproject areas, and follow-up capacity development of existing WMOs in the Narail and Chenchiri Beel subproject areas	<p><u>For nine subprojects:</u></p> <ul style="list-style-type: none"> (iv) Support social mobilization for formulation of WMOs (v) Institutional capacity development of WMOs, including WMO operation, O&M of structures, agriculture, fisheries, business development, livelihood improvement, and income generation activities (vi) SIP preparation <p><u>For Narail and Chenchuri Beel Subprojects :</u></p> <ul style="list-style-type: none"> (iii) Follow-up institutional capacity development of WMOs (iv) Support WMOs for operationalize the annual O&M fund collection system
Task 3: Implementation support for rehabilitation and construction of water management infrastructure in the nine subproject areas, including construction supervision and quality control	<ul style="list-style-type: none"> (vi) Detailed design (vii) Support for tender procedures (viii) Preparation and update of resettlement plans (ix) Construction supervision, including monitoring of the environment management plan and resettlement plan implementation (x) Preparation of O&M manuals
Task 4: Supporting institutional capacity strengthening of BWDB and supporting agencies for participatory water resources planning and management	<ul style="list-style-type: none"> (iv) Support organizing training for BWDB and line agencies, (v) MIS upgrading (vi) Capacity development support for OWCM and Audit Directorate of BWDB

BWDB = Bangladesh Water Development Board, IWMP = integrated water management plans, MIS = management information system, OCWM = Office of Chief Water Management, WMO = water management organization.

Source: Asian Development Bank. 2015.

12. Besides, the ISMPC team will also support PMO for the preparation and supervision of small packages of relevant consulting/NGO services, such as following. They are not a part of the ISPMC package, and but ISPMC team will assist PMO to prepare detailed terms of

reference of the small packages, and to oversee and supervise the small packages

- Resettlement plan survey and implementation,
- Hydraulic data collection and studies for IWMP and subunit implementation plan (SIP) preparation,
- Hydrological data collection and studies for IWMP and SIP preparation,
- GIS and database development of WMOs,
- Benefit monitoring and evaluations, and
- MIS development and improvement including training and initial operation support.

3. SCOPE OF CONSULTING SERVICES

3.1 Task 1: Preparation of IWMPs for Four Subprojects

13. The ISPMC team will prepare IWMPs of four subprojects in close coordination with PMO, following intensive participatory analyses of diverse local water management problems and development constraints, and assessments of feasibility and safeguards. Two out of the four IWMPs are expected to be prepared in the first year of the project period, so that the implementation can be started from the second year. The remaining two IWMPs will be prepared in the second year, subsequently. The IWMPs will include technical and economical feasibility studies, identification of required activities in each subproject, preparation of initial environment examination and/or environment impact assessment. **Appendix 2** describes further details of the requirements of IWMPs.

3.2 Task 2: Implementation Support for Formation and Capacity Development of WMOs in Nine Subproject Areas, and Follow-up Capacity Development of Existing WMOs in the Narail and Chenchiri Beel subproject areas

14. The ISPMC team will support PMO and SMOs for formation and institutional and financial capacity development of WMOs, so that WMOs can have responsibilities in minor O&M of water management infrastructures. Activities will include planning and conducting classroom and field oriented training and extension programs for WMGs & WMAs on agriculture, fishery, gender and livelihoods. The table below summarizes the activities, and **Appendix 2** describes further details.

Table 6: Summary of Major Service Activities

WMO support to 9 Subprojects to be formed under additional financing.	<ul style="list-style-type: none"> • Social mobilization for formation of 150 WMGs & 22 SIPs preparation; • Experiential capacity building for agriculture, fisheries, and livelihood improvement; • Institutional & financial capacity building for WMOs and class room and hand held practical training for sustainable O&M; • Develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring & evaluation; • Developing WMO O&M fee collection system; • Establishment of WMO network
After care: Support to existing WMOs in Narail Subproject (NSP) & Chenchuri Beel	<ul style="list-style-type: none"> • Follow-up training and monitoring in institutional & financial capacity development for WMOs (102 WMGs & 14 WMAs), class room and hand held practical training

Subproject (CBSP).	for sustainable O&M; • Follow-up support for collective Action such as input-output services for agriculture, fishery, other income-generating activities; • Develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring & evaluation; • WMO O&M annual fee collection support; • Strengthening of WMO network.
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15. More specifically, the ISPMC's activities will include support PMO and SMO for the following, but not limited to:

For nine subprojects:

- Prepare Subunit Implementation Plan (SIP) based on the lessons learnt from the original Southwest project, with clear delineation, semi-dependent compartments, and mutually dependent subunits, and effective implementation sequence for these units, clearly stipulating output targets and programs for WMOs, water structures, support services, and O&M.
- Prepare SIPs based on an IWMP for the subproject, covering plans for WMO institutional development, water infrastructure, agriculture, fishery, livelihood enhancement, and O&M;
- Organize workshops at the subproject and union levels to create awareness about project interventions and to motivate the people in view of implementation of the findings of the IWMP;
- On the basis of annual training plan prepared and training manuals, strengthen the capacities of the concerned staff with due monitoring of their performance;
- Mobilization of beneficiaries for the preparation of about 150 WMGs and 22 WMAs. (The number of WMGs and WMAs will be finalized, depending on actual need in the course of the implementation.)
- Institutional & financial capacity building for WMOs.
- Facilitation in implementation of agriculture & fishery promotion support services for increase of agriculture and fishery production in the project area.
- Facilitation in implementation of gender and livelihood activities, specially Income Generation Activities (IGA) and Collective Action taken for livelihood enhancement of the stakeholders
- Develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring & evaluation.
- Develop sustainable value chain-based farming practices in livestock, aquaculture and horticulture that bring positive outcomes in quality of nutritious food intake as well as economic and environmental benefits.
- Provide class room and hand held practical training to WMOs for sustainable O&M.
- Provide support services for agriculture, fishery and livelihood enhancement; and
- Monitor and support for establishment of WMO network.

- Collect and analyze WMO member household survey data at the initial and final stage of the project period as baseline and end line surveys.
- Facilitate implementation of Agriculture & Fishery Extension Support Services and Income Generation Activities (IGA) that will include to:
 - Prepare technical guideline and operation manuals for Agriculture & Fishery Extension Support Services and IGA;
 - Review & update, if necessary, the overall work plan for Agriculture & Fishery Extension Support Services and IGA prepared under the Preparatory Survey;
 - Prepare monitoring & evaluation forms for Agriculture & Fishery Extension Support Services and IGA and assist BWDB in establishing Agriculture & Fishery Extension Support Services and IGA monitoring & evaluation system;
 - Assist BWDB in the preparation of Agriculture & Fishery Extension Support Services and IGA Annual Work Plan;
 - Assist the inception training of project field staff and staff of concerned line agencies on Agriculture & Fishery Extension Support Services and IGA conducted by BWDB;
 - Support the establishment of coordination and collaboration system for the implementation of Agriculture & Fishery Extension Support Services and IGA among BWDB and line agencies concerned.
 - Review and update, if necessary, technical guideline and operation manuals for Agriculture & Fishery Extension Support Services and IGA;
 - Prepare technical guideline and operation manuals for new Agriculture & Fishery Extension Support Services and IGA programs & activities;
 - Implement mid-term review on Agriculture & Fishery Extension Support Services and IGA and assist the preparation of the overall work plan of Agriculture & Fishery Extension Support Services and IGA for the remaining period;
 - Assist BWDB in the preparation of Agriculture & Fishery Extension Support Services and IGA Annual Work Plans;
 - Assist the refresher training of project field staff and staff of concerned line agencies on Agriculture & Fishery Extension Support Services and IGA conducted by BWDB;
 - Assist and advise the execution of the overall implementation of Agriculture & Fishery Extension Support Services and IGA;
 - Assist the monitoring & evaluation of Agriculture & Fishery Extension Support Services and IGA conducted by BWDB, and
 - Support the strengthening of coordination and collaboration system for the implementation of Agriculture & Fishery Extension Support Services and IGA among BWDB and line agencies concerned.
- Assist PMO and SMOs to implement the project in due consideration of the social aspects, such as identification of opportunities of leasing BWDB facility land to the poor group who may be entrusted to provide facility maintenance.

For existing WMOs in Narail and Chenchri Beel subprojects:

- Provide WMO with follow-up support for institutional & financial capacity building for WMOs (102 WMGs/14 WMAs), such as refreshment training.
- Provide class room and hand held practical training for sustainable O&M including preparation of O&M plan.

- Provide Collective Action such as input-output services for agriculture, fishery, and other income-generating activities.
- Support and monitor WMO's annual O&M fund collection.
- Strengthening of WMO network for sustainability of WMOs
- Collect and analyze WMO member household survey data as end line survey.

3.3 Task 3: Implementation support for rehabilitation and construction of water management infrastructure in the nine subproject areas, including construction supervision and quality control

16. The project is expected to include the following civil works: (i) repair and construction of water management structures, such as sluices, water retention structures, and piped culvers; (ii) repair and maintenance of earthen flood embankments and construction of new embankments to restore a washed-away portion in existing embankment system; (iii) re-excavation of silted up khals for drainage improvement;

17. Services under this task will include:

- Planning, design, tendering & implementation. Consultant will supervise the construction work and will ensure the quality of civil works as per design and specification.
- Facilitation in implementation of Environmental Management Plan (EMP), Environmental Monitoring Plan (EMoP) and Resettlement Plan.

18. More specifically, the ISPMC's activities will include support PMO and SMO for the following, but not limited to:

Detailed design:

- Review and verify all available primary and secondary data collected during the preparation of feasibility study report for 7 (seven) subprojects;
- Carry out the required surveys and investigations such as topographical survey, geotechnical survey, material availability survey, and baseline survey for project evaluation, as applicable to the concerned project components.
- Prepare detailed work plan, progress reports and implementation schedule for the Project to ensure effective monitoring and timely project outputs, and regularly update the same;
- Prepare the detailed design for rehabilitation or construction of structures. All the design should be in conformity with the Bangladeshi Standards, or with the appropriate international standards. The detailed design will, as a minimum, include construction drawings, detailed cost estimates, necessary calculations to determine and justify the engineering details for the project, associated contract documentation to include detailed specifications, bill of quantities (BOQ), and implementation schedule for the civil works. Such detailed specifications will contain those in relation to i) quality control of materials and workmanship, ii) safety, and iii) protection of the environment. The detailed design shall be prepared in close consultation with, and to meet the requirements of BWDB and will be incorporated into the detailed design report to be submitted for approval of ADB.

Tender assistance:

- Prepare bidding documents in accordance with the latest version of Standard Bidding Documents of ADB, in consideration of requirements of the Central Procurement Technical Unit (CPTU) of Bangladesh for the national competitive bidding of works together with all relevant specifications, drawings and other documents;
- Prepare bidding documents which includes the clauses to have Contractor comply with the requirement of the Environmental Management Plan (EMP) and ADB Guidelines for environmental
- Assist BWDB in issuing bid invitation, conducting pre-bid meeting, issuing addendum/corrigendum, and clarifications to bidders' queries;
- Assist BWDB in contract negotiation by preparing agenda and facilitating negotiations including preparation of minutes of negotiation meeting;
- Assist BWDB in preparation and recruitment of small consulting services packages; and
- Assist BWDB in preparation of a draft and final contract agreement.

Construction supervision:

- Recommend BWDB concerning variations and claims;
- Recommend BWDB to issue the commencement order to the Contractors;
- Recommend BWDB for acceptance of the Contractor Performance security, advance payment security and required insurances;
- Review and recommend BWDB for approval of the proposals submitted by the contractors which include work program, method statements, material sources, manpower and equipment deployment. The Consultant shall review the program submitted by the contractors in particular from the point of view of securing the safety during the construction and require them to submit further details, if necessary;
- Recommend BWDB to explain and/or adjust ambiguities and/or discrepancies in the Contract Documents and issue any necessary clarifications or instructions;
- Review, verify and further detail the design of the works, recommend BWDB to approve the Contractors' working drawings and, if necessary, issue further drawings and/or give instructions to the Contractor;
- Recommend BWDB to liaise with the appropriate authorities to ensure that all the affected utility services are promptly relocated;
- Carry out field inspections on the contractor's setting out to ensure that the works are carried out in accordance with drawings and other design details;
- Regularly monitor physical and financial progress against the milestones as per the contract so as to ensure completion of contract in time;
- Supervise the works so that all the contractual requirements will be met by the contractors, including those in relation to i) quality of the works, ii) safety and iii) protection of the environment. According to ADB Guidelines, the Consultant shall confirm that an accident prevention officer proposed by contractor is duly assigned at the project site and that construction works are carried out according to the safety plan as well as the safety measures prescribed in the work program.
- Supervise field tests, sampling and laboratory test to be carried out by the contractors;
- Inspect the construction method, equipment to be used, workmanship at the site in accordance with the specifications;

- Survey and measure the work output performed by the contractors and recommend BWDB to issue payment certificates such as interim payment certificates (IPC) and final payment certificate (FPC) as specified in the contract;
- Recommend BWDB to coordinate the works among different contractors employed for the Project;
- Modify the designs, technical specifications and drawings, relevant calculations and cost estimates as may be necessary in accordance with the actual site conditions, and recommend BWDB to issue variation orders;
- Carry out timely reporting to BWDB for any inconsistency in executing the works and suggesting appropriate corrective measures to be applied;
- Inspect, verify and recommend BWDB to determine claims issued by the parties to the contract (i.e. BWDB and contractors) in accordance with the civil works contract;
- Perform the inspection of the works and recommend BWDB to issue certificates such as the Taking-Over Certificate, Performance Certificate as specified in the civil works contract;
- Provide periodic and/or continuous inspection services during defects liability period and if any defects are noted, instruct the contractor to rectify;
- Check and certify as-built drawings for the parts of the works designed by the contractors, if any;
- Assist BWDB to prepare and submit an operation and maintenance manual for the facilities constructed in the Project to BWDB;
- Provide periodic and/or continuous inspection services for the completed works and if any damages, other than defects, are identified, recommend BWDB to provide necessary maintenance works;
- Prepare and submit reports to BWDB, and
- Assist BWDB to prepare O&M guideline/manual for WMOs.

Safeguard requirements:

- Prepare the draft of EMP and EMoP in accordance with Environmental Conservation Rules 1997 in Bangladesh and ADB's Safeguard Policy Statement;
- Assist BWDB in dissemination and explanation of additionally confirmed and identified environmental issues to public including holding public consultations;
- Assist BWDB in obtaining Environmental Clearance from Department of Environment (DOE), Ministry of Environment and Forest in accordance with the planned implementation schedule;
- During the preparation of bidding documents, clearly identify environmental responsibilities as explained in the EIA/IEE and EMP;
- Assist BWDB to review the Construction Contractor's Environmental Program to be prepared by the contractor in accordance with EMP, relevant plans and ADB Environmental Guidelines and to make recommendations to BWDB regarding any necessary amendments for its approval;
- Monitor the effectiveness of EMP and negative impacts on environment caused by the construction works, and provide technical advices, including a feasible solution, so that BWDB can improve situation when necessary;

- Assist BWDB in monitoring the compliance with conditions stated in the EPC and the requirements under EMP and ADB Environmental Guidelines;
- Prepare the draft of RAP as necessary by sub-contracting a local firm/NGO based on detailed design in accordance with the agreed resettlement framework, including entitlement matrix and compensation plan; coordinate with various agencies in preparing the procedures for timely land acquisition and disbursement of compensation to project affected persons (PAPs);
- Assist BWDB through sub-contractor in identifying the eligible PAPs, and prepare/update the draft list of eligible PAPs and 'Payment Statement' for individual eligible PAPs. The places where each eligible PAPs will relocate to are necessary to be recorded so that the Executing Agency could implement monitoring on income and living conditions of resettled persons;
- Assist BWDB in conducting social assessment during early stage of the detailed design stage and review the existing income restoration plan and special assistance plan for vulnerable PAPs and revise/update the contents of the plans if necessary based on priorities identified with support of relevant government agencies and Non-Governmental Organizations (NGOs). The following contents should be included in the plans;
- Skills Training & project related Job Opportunities
- Provision of Agricultural & Fishery Extension Support Services
- Provision of the special allowance to vulnerable PAPs
- Assist BWDB to implement the measures identified in the revised RAP;
- Monitor land acquisition, if any and compensation activities being undertaken by BWDB, and report the results in monthly progress reports;
- Assist BWDB in facilitating stakeholder's participation (including focus group discussions for vulnerable PAPs) and providing feedback their comments on RAP;
- Assist BWDB in establishment of grievance redress mechanism including formation of Grievance Redress Committee;
- Assist BWDB to ensure that the PAPs are fully aware of the grievance redress procedure and the process of bringing their complaints, investigate the veracity of the complaints, and recommends actions/measures to settle them amicably, fairly and transparently before they go to the redress committee or the courts of law; and
- Provide technical services with grievance redress committee for keeping and updating records when necessary.

3.4 Task 4: Supporting institutional capacity strengthening of BWDB and supporting agencies for participatory water resources planning and management

19. The institutional capacity strengthening for participatory water resources planning and management will mainly focus on BWDB, but support under the project would be extended to supporting agencies, as necessary.

- Develop, organize, arrange and conduct institutional capacity strengthening participatory water resources management for BWDB, which include:
 - training for the Directorate of Audit in regular technical and financial auditing of WMOs.

- training for Office of Chief Water Management (OCWM) in WMO development, registration, and management.
- training for OCWM in development and maintenance of WMO database.
- necessary coordination with the Department of Cooperatives (DOC) to seek their technical inputs for training.
- Assist OCWM to develop a computer based database of WMOs, including information collection and assessment of DOC's existing database, and coordination with DOC.
- Examine necessary support for BWDB for developing clear institutional set up of the Directorate of Audi and the Office of Chief Water Management (OCWM), and provide necessary supports, which may include:
 - clarifying and operationalizing clear procedures of registration and auditing,
 - developing a proposal of OCWM's job description and required institutional and human resources setup,
 - training in development and management of WMOs, and
 - relevant logistic support. Details of capacity development activities like training programs will be established by the project implementation management consultant team, at the early stage of the project implementation
- Assist BWDB by forming a report for Chief Water Management Office (OCWM) who is responsible for WMOs development, registration etc. following Participatory Water Management Rule-2014. The report will comprise of existing institutional set up, further manpower requirement and vision of OCWM to make WMOs of BWDBs existing projects sustainable.
- Develop and arrange capacity development training for BWDB officials and supporting agencies in participatory water resources planning and management, including the capacity of project implementation management, such as procurement and financial management;
- Develop and arrange experiential overseas training in participatory water resources planning and management.

3.5 Technology Transfer

20. The Consultant shall carry out the technology transfer as an important aspect in design and supervision works. The Consultant shall provide the opportunity to BWDB officers and staffs to be involved in the working team of the Consultant during the design, contract administration and supervision works for their capacity building wherever possible. If requested by BWDB, the Consultant shall brief and demonstrate the survey and design procedure, the construction supervision and contract management process and procedures. The consultant shall assist BWDB and its staff to build their capacity as a part of on the job training under the Project.

4. OVERALL RESOURCE REQUIREMENTS

21. The indicative design of the overall composition of the consultant team is shown in the following table.

c. International (man-month)		Total (p-m) (Key and non-key experts)	Key experts (p-m)	Non-key experts (p-m)
a-1	Water Resources Development Specialist /TL	30	30	
a-2	Participatory Development Specialist	17	17	
a-3	Institutional Specialist	6	6	
a-4	Agriculture Economist	3	3	
a-5	Quality Control Specialist (infrastructure)	1	1	
a-6	Environmental Safeguard Specialist	3	3	
a-7	O&M Specialist	3	3	
a-8	MIS Specialist	2		2
a-9	Resettlement Specialist	4	4	
a-10	Value Chain Advisor	2	2	
Total of International		71	69	2

a. National (man-month)		Total (p-m) (Key and non-key experts)	Key experts (p-m)	Non-key experts (p-m)
b-1	Water Resources Management Specialist/ DTL	72	72	
b-2	Water Management Organization Specialist	70	70	
b-3	Participatory Development Specialist	18	18	
b-4	Institutional Advisor	36	36	
b-5	Value Chain Specialist	36	36	
b-6	Mid-level WMO Specialist (2 positions)	62		62
b-7	Design Engineer	46	46	
b-8	Quality Control Engineer (2 positions)	84	84	
b-9	Mid-Level Quality Control Engineer (4 positions)	168		168
b-10	Agricultural Extension Specialist	58.5	58.5	
b-11	Mid-Level Agricultural Extension Expert	52		52
b-12	Fishery Development Specialist	53	53	
b-13	Mid-Level Fishery Development Expert	57		57
b-14	Agricultural Economist	19.5	19.5	
b-15	Gender & Social Dev. Specialist	32	32	
b-16	Environmental/Safeguard specialist	26		26
b-17	Training Specialist	25		25
b-18	O&M Specialist	48	48	
b-19	Hydraulic Engineer / Hydrologist	18		18
b-20	Resettlement Specialist	18	18	
b-21	GIS Specialist/Remote Sensing Specialist	8		8
b-22	MIS Specialist	12		12
Total of National		1019	591	428
Gross total		1090	660	430

Note: Firms are not required to submit the CVs of the non-key experts with the proposal submission. These experts shall not be evaluated during evaluation of the proposals, however, firms are required to elaborate on their input in the work program and briefly the tasks that shall be performed by the non-key experts. CVs of the non-key experts will be requested from the firm with whom contract shall be successfully concluded either

before or after contract negotiations. Firms, are however required to include the remuneration and all other associated cost of such non-key experts in the financial proposal.

4 REPORTING REQUIREMENTS

22. The ISPMC team will furnish at least the following reports and deliverables. Other deliverables to present their findings and analyses results will also be produced as necessary. For all reports, the Consultant shall submit draft reports, and shall submit the final versions after incorporating comments from BWDB, who will consult with ADB. The consultant shall provide both hard copy and soft copy of the reports to BWDB.

(1) Regular reports:

- c) **Inception Report** (20 copies): to be submitted within one month after the commencement of the services, presenting the methodologies, schedule, organization, and other information to present the planned implementation of the services.
- d) **Monthly Progress Report** (20 copies): to be submitted by the 10th day of each month, describing briefly and concisely all activities and progress for the previous month. The report will include details of expert personnel mobilization, progress of work, financial man-month used. Problems encountered or anticipated will be clearly stated, together with actions to be taken or recommendations on remedial measures for correction. It will also indicate the work to be performed during the coming month.
- h) **Monthly Progress Report** (20 copies), to present the details of progress of the services, implementation progress of safeguard (resettlement and environment) and gender requirements, expert personnel mobilization, financial person-month used, problems encountered, actions and/or proposals for resolution, and the anticipated services for the next period of the services.
- i) **Quarterly Progress Report** (20 copies), to be submitted within 30 days after the end of each quarter, presenting the project progress status of each quarter and work plan for the succeeding quarter. The reports will include the details of the progress of the project activities, implementation progress of safeguard (resettlement and environment) and gender requirements, and other information that were included in the monthly progress report.
- j) **Draft environment management plan implementation monitoring report (annual)**, to be submitted within 30 days after the end of each calendar year, presenting the progress of the environment management plan to meet requirements of the government and ADB. This is for assisting the executing agency to submit the safeguard monitoring reports to ABD.
- k) **Draft resettlement plan implementation monitoring report (annual)**, to be submitted within 30 days after the end of each calendar year, presenting the progress of resettlement plans to meet requirements of the government and ADB. This is for assisting the executing agency to submit the safeguard monitoring reports to ABD.
- l) **Mid-term Review Report** (20 copies), to be submitted within about 30 months when instructed by BWDB as per the actual progress of the project activities, presenting

the progress of the project activities, implementation progress of safeguard (resettlement and environment) and gender requirements, problems encountered, actions and/or proposals for resolution, proposal of improvement towards the remaining project period, and other assessment and information that evaluates the project activities since the beginning of the project.

- m) **Construction Completion Report** (20 copies), to be submitted within three (3) month after completion of construction contracts, which comprises a full size of as-built drawings for all the structures and facilities completed, and the final details of the construction completed together with all data, records, material tests results, field books, etc.
- n) **Service Completion Report** (20 copies), submit a draft report three months before the end of the completion services, and the final report at the end of all the consulting engineering services, incorporating comments from BWDB and ADB.

(2) Technical notes and other reports:

- f) **IWMP reports** (20 copies), to be submitted in the first and second year of the services, for the four subprojects that are indicated in Table 1.
- g) **O&M manuals** of water management structures (20 copies for each structure).
- h) **Draft resettlement plans**, to assist the executing agency to submit resettlement plans for construction and rehabilitation of structures, as necessary.
- i) **Capacity development and implementation plans** for BWDB, line agencies and WMOs, and keep on updating during contract implementation.
- j) **Special reports** by subject matter specialists, as necessary.

5 CLIENT'S INPUTS AND COUNTERPART PERSONNEL

23. The executing agency will assign staff of PMO and SMOs. The executing agency will also provide necessary data and information:

- Relevant project data, reports maps of the original Southwest project and the proposed additional financing project, as available with BWDB.
- Access to hydrological, hydro-meteorological, and other relevant data and information, as available with BWDB. Hydrological data that are available in BWDB's Directorate of Surface Water Hydrology and tDirectorate of Groundwater Hydrology will be charged requisite amount of fee.
- All other required information, as available
- Supports for obtaining approvals, permissions and other required procedures to conduct services, as far as possible, such as work permits, visas, clearances through customs, instructions and information to officials, agent and representatives of Bangladesh,

6 CLIENT'S INPUTS TO FACILITATE PREPARATION OF PROPOSALS

24. The following data and information are available with the executing agency:

- Relevant project data, reports maps of the original Southwest project and the proposed additional financing project, as available with BWDB, including feasibility study reports seven subprojects that were prepared under the original Southwest project.

25. The ADB's web-site provides basic information of the original Southwest project:
http://adb.org/projects/details?proj_id=34418-013&page=overview
26. Draft safeguard documents for the proposed additional financing project are available on the ADB's web-sites:
- Draft resettlement framework:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-rf>
 - Draft resettlement plan:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-rp>
 - Draft initial environment examination:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-iee>

7 QUALIFICATION REQUIREMENTS AND INDICATIVE TASKS OF EACH EXPERT

27. Members of the ISPMC team are expected to have the following qualifications. The following tables also summarize overall tasks of each team member. In addition to the tasks listed below, members must provide necessary inputs for relevant reports and deliverables, capacity strengthening activities, supervision of supporting studies of their relevant fields, and all other activities to accomplish the services. All experts will work in due consideration of the participatory dimension that will be applied to each step of the project activities, and social consideration including the gender aspects.

28. Team Leader must supervise and management entire services of the ISPMC team, and must allocate necessary detailed tasks that are not indicated in the table below to team members to accomplish the entire services of the ISPMC team.

International Experts	
a.1 Water Resources Management Specialist/Team Leader (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree, in civil engineering, water resources management, or equivalent professional experience. S/he preferably has at least 15 years of professional work experience, and the professional experience must include planning, detailed design or implementation of water resources projects, such flood control, irrigation, and drainage improvement projects. Experience in urban water supply and waste water management cannot be counted in experience in water resources management here.</p> <p>Experience in similar projects in South Asian countries, especially in Bangladesh, will be given advantages. Preference will also be given to experience in leading multidisciplinary team for externally funded projects in developing countries. The consultant is desirable to have a broad knowledge of water resources planning and management projects, including institutional aspects, stakeholder participation, environment and involuntary resettlement safeguard aspects.</p> <p><u>Major Tasks:</u> a. Provide overall guidance, supervision and management of the entire ISPMC</p>

	<p>services, including coordination and management of inputs of individual experts, the time management, quality control, and consolidating and integrating outputs from individual experts as quality outputs and reports of the ISPMC team;</p> <ul style="list-style-type: none"> b. Ensure efficient coordination with PMO, BWDB, ADB, supporting agencies and other relevant agencies; c. Guide Deputy Team Leader to ensure sound management of the ISPMC team and coordination with PMO during the absence of Team Leader; d. Supervise the activities of the IWMP and SIP preparation, based on the experience learnt from the original Southwest project, ensuring stakeholder participation; e. Support and advise project implementation activities of BWDB; f. Organize workshops at the subproject and union levels to create awareness about project interventions and to motivate the people in view of implementation of the findings of the IWMP; g. Assist PMO in setting up effective management information system (MIS) and monitoring and quality control arrangements of project implementation with sound reporting, recording, and auditing of all processes and activities; h. Within MIS, establish and refine a sound monitoring and support system for PMO to support SMO's facilitation with WMAs and JMCs to prepare annual work plans covering O&M and socio-economic development of subproject/subunit areas; i. Lead the detailed design task team, ensuring all deliverables are prepared in accordance with quality and time constraints. Administer and supervise design and documentation activities for civil works contracts. j. Prepare training programs for post-construction O&M for SMO and WMA including : (a) subproject-specific O&M manual; (b) standardized O&M planning MIS, (c) Structure operation and monitoring by WMA; and (d) maintenance planning and implementation by SMO and WMA with initial training support with DTL; k. Assist PMO to ensure that all project activities meet safeguard and gender requirements of the government and ADB; l. Lead developing and conducting the institutional capacity development programs for BWDB and supporting agencies; m. Lead establishing baseline and end-line targets for the project performance monitoring; n. Supervise the preparation of regular reports, technical reports, and other deliverables to be submitted to BWDB.
<p>a.1 Participatory Development Specialist (Key expert)</p>	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree, in water resources management, stakeholder participation, or relevant social or natural science degrees, or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience, and the professional experience must include water resources projects, such flood control, irrigation, and drainage improvement projects. S/he also must have good understanding of stakeholder participation to water resources projects.</p> <p>International experience in similar projects in South Asian countries, especially in Bangladesh, will be given advantages. Preference will also be given to experience in multidisciplinary water resources projects for externally funded projects in developing countries.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Act as a task leader of stakeholder participation, and ensure that project activities are conducted with due participation of stakeholders; b. Assist PMO to prepare and revise TORs of community and senior mobilisers, and supervise mobilisers' activities; c. Assist PMO to evaluate performance of the facilitators and WMOs;

	<ul style="list-style-type: none"> d. Assist Team Leader to supervise the ISPMC's activities, regarding WMO formation, WMO support, and stakeholder participation; e. Ensure that the process of IWMP and SIP preparation is undertaken through a participatory integrated approach and mobilization of the designated supporting agencies for identifying support services; f. Supervise to ensure that SIP implementation is undertaken through a participatory integrated approach; g. Lead and oversee developing and implementing WMO training programs; h. Develop improved training program for PMO/SMO staff, BWDB, facilitators and supporting agencies in participatory water resources planning and management; i. Develop training programs for BWDB in participatory water resources planning and management; j. Organize workshops at the subproject and union levels to create awareness about project interventions and to motivate the people in view of implementation of the findings of the IWMP; and k. Working with Team Leader, Institutional Specialist, and other relevant team members, develop proposals on institutional capacity strengthening of BWDB for participatory water resources management.
a-3. Institutional Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree, in civil engineering, water resources management, public administration management, or relevant institutional development, or equivalent professional experience. The consultant must have knowledge of policy and institutional analyses of water resources management of the public sector. S/he preferably has at least 15 years of professional work experience. Experience in policy and institutional analysis and development advice for integrated and sustainable water resources management, and sustainable service delivery in Asia, will be given preference. International experience in externally funded projects in developing countries, especially in Bangladesh, will be given advantage.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Working with Team Leader, Participatory Development Specialist, and other relevant team members, develop proposals on institutional capacity strengthening of BWDB for participatory water resources management. b. Review the progress of institutions development of BWDB's completed projects and advise on the policy and institutional actions of the Government with a focus on the following and other most critical issues; c. Review the progress in improving BWDB's O&M budgetary system through MIS introduction, guidelines for performance-based allocation and management, and efficient O&M fund utilization, and advise on their further effective functioning; d. Support the preparation and implementation of human resources development policy and plan of BWDB, including the operation of need-based manpower planning, professional career development, and rules for job rotation and promotion; e. Advise PD and TL on refining overall institutional arrangements and procedures for project implementation; f. Review the achievements of institutional performance targets as stipulated in the project documents for JMC, WMAs, identify any constraints in achieving those targets, and recommend effective measures to address the identified constraints.
a-4. Agriculture Economist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree in agriculture economics or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience. The experience must include economic evaluation for planning of water resources development or rural development projects. International experience in externally funded projects in developing countries, especially in Bangladesh, will be given advantage.</p>

	<p><u>Major Tasks:</u></p> <ol style="list-style-type: none"> Guide and supervise the situational analysis (on economic and poverty status poverty; water resources; agriculture, fishery and other industries), and strategy and priority assessments for the four subproject areas that will be covered by the IWMP preparation; Guide and supervise the detailed economic and feasibility studies following the standard ADB guidelines for the four subproject areas that will be covered by the IWMP preparation; Prepare the relevant sections of IWMP reports; Assist PMO and Team Leader for establishing baseline and end-line targets for the project performance monitoring; Assist PMO and TL in developing agriculture, fishery and livelihood improvement benefit monitoring and reporting systems for incorporation into the Project MIS; and Support establishing assessment procedures and reporting format for feasibility confirmation in preparing SIPs for individual hydrological subunits of the subprojects.
<p>a-5. Quality Control Specialist (Infrastructure) (Non-key expert)</p>	<p><u>Required qualifications:</u></p> <p>The consultant must have a graduate degree in civil engineering or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience. The experience must include construction supervision and/or quality control. International experience for externally funded projects in developing countries, preferably in Asia, will be given preference.</p> <p><u>Major Tasks:</u></p> <ol style="list-style-type: none"> Review the current procedures and managerial practices for (a) structural design, pre-qualification, bidding, and contract and construction management including scheduling, supervision, quality control, quantity and quality recording, payment, and (b) internal financial and engineering auditing arrangements; Assess the construction quality; effectiveness and accountability of the existing construction management system; and procedural, managerial, and capacity constraints to ensure acceptable construction quality and accountability standards; Develop quality control monitoring system for the ISPMC team and SMOs to ensure construction quality and accountability under the project and other works of BWDB, including on-site supervision and recording systems and internal technical auditing arrangements; Support PD and TL in assess available staff qualifications with recommendations and draw capacity development plan (CDP) for project staff engaged in construction supervision and quality control with distinct performance targets; Work with national DTL and quality control specialist (infrastructure) to support and supervise the initial operation of the performance audit and technical audit applied for the Project; and Prepare and submit reports on the design and operation of performance and pilot technical audit, with institutional options assessment to operate technical auditing in infrastructure projects in the country at large.
<p>a-6. Environmental Safeguard Specialist (Key expert)</p>	<p><u>Required qualifications:</u></p> <p>The consultant must have a graduate degree, preferably a post graduate degree in environmental science, relevant natural sciences, or equivalent professional experience.</p> <p>S/he preferably has 8 years of or longer experience in professional work experience. The experience must include the preparation of EIA or IEE, preferably for water resources management projects. International experience for externally funded</p>

	<p>projects in developing countries, especially in South Asian countries, will be given advantage.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Prepare draft EIA/IEE including EMP and EMoP in accordance with Environmental Conservation Rules 1997 in Bangladesh, and ADB's Safeguard Policy Statement, for the four subprojects that will be covered by the ISPMC preparation; Assist BWDB to ensure that the project activities and reporting meet all requirements of the government and ADB; Assist BWDB in dissemination and explanation of additionally confirmed and identified environmental issues to public including holding public consultations; During the preparation of bidding documents, clearly identify environmental responsibilities as explained in the EIA/IEE and EMP;
a-7.O&M Specialist (Key expert)	<p>Required qualifications: The consultant must have a graduate degree in civil engineering or equivalent professional experience</p> <p>S/he preferably has 15 years of or longer professional work experience. The experience must include construction quality control or O&M plan development of water resources management structures. International experience for externally funded projects in developing countries, preferably in Asia, will be given preference.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Ensure that WMOs can have adequate O&M capacity before O&M transfer to WMOs, and assist SMOs to organize training to WMOs; Propose improved institutional set up of JMC to ensure sustainable O&M, as necessary. Prepare subproject-specific or subunit-specific O&M manuals, defining arrangements and responsibilities for (a) joint management between SMO and WMAs; and (b) management transfer to WMOs; Prepare training programs for SMO staff and for WMG O&M Subcommittees on their roles and responsibilities for sustaining the FCD/I infrastructure, and impart training; Assist SMOs to jointly develop subunit O&M plans with WMAs, with (a) joint walk-through; identification of maintenance needs in light of O&M manual; (b) preparing implementation plan; and (c) preparing resource mobilization plan; Assist SMOs to facilitate the WMO implementation of resource mobilization plan, in particular devising appropriate arrangements for collected O&M fund release to and replenishment by the WMO, held in the joint account of SMO and WMO; Assist SMOs to undertake annual assessment of subproject performance through the operation of O&M planning MIS being developed in BWDB, to identify maintenance needs in a standardized manner; and Facilitate, with water management association specialist, signing of management transfer/ joint management agreement between SMO and WMOs
a-8.MIS Specialist (Key expert)	<p>Required qualifications: The consultant must have a graduate degree in information communications technology or relevant natural sciences, or equivalent professional experience.</p> <p>S/he preferably has ten (10) years of or longer professional work experience. Experience in planning and/or developing IT systems will be given advantages</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Examine the existing MIS software and will point out all limitations in compliance with the project concept of additional financing;

	<ul style="list-style-type: none"> b. Design a few probable options to develop/modify the existing MIS and will display those options to PMO, ADB officials for finalizing the option suited for recording project information, in consideration of the latest available information technologies; c. Look in depth concept of the project and will modify/re-design the existing MIS software to keep the records of project interventions, e.g. detail of WMG/WMA development, SIP preparation & development, infrastructure, management transfer etc. d. Assist other relevant team members to develop institutional capacity strengthening program for WMO database for BWDB. e. Supervise and guide the modification of existing MIS by local IT experts, and will arrange on job training for PMO officials who will be the responsible for future operation of the software.
a-9. Resettlement Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree in relevant social science, or equivalent professional experience, including the experience in resettlement plan preparation and/or implementation for externally funded projects in developing countries. The consultant who has experience in both resettlement plan preparation and implementation will be given advantage. Experience in external funded projects in developing countries in South Asia will be given high preference.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Lead the preparation of draft resettlement plans, as necessary as per the final detailed design, including associated assessments and arrangements, such as data collection of right of way and stakeholder consultation; b. Assist PMO to update the resettlement plan that was prepared during the project processing, including associated assessments and arrangements, such as data collection of right of way and stakeholder consultation, based on the detailed design and updated data; c. Ensure the preparation and the implementation of the resettlement plans meet requirements of the government and ADB; d. Assist PMO and SMOs to engage and supervise national consultants, NGOs or other institutions that will conduct survey and/or implementation of the resettlement plans; e. Identify and develop necessary livelihood improvement support programs for project affected people, including additional supports for vulnerable groups; f. Assist PMO and SMOs to prepare necessary documents on land acquisition and resettlement to be submitted to relevant government offices; g. Assist PMO for the preparation of relevant safeguard reports to be submitted to ADB to ensure that those reports meet ADB's safeguard requirements.
a-10. Value Chain Advisor (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree in agro-business or other relevant degree, or equivalent professional experience.</p> <p>S/he preferably has 10 years of or longer professional work experience. The consultant is expected to have knowledge of are the agriculture and fisheries value chain development in the rural sector, linking farmers and fishermen groups with output marketing and/or the private sector, and contracting the two sides. International experience for externally funded projects in developing countries, especially in Bangladesh, will be given advantage.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Assess needs and relevance for value chain programs for enhancing the productivity of WMOs in the project area; b. Develop sustainable value chain-based farming practices in livestock,

	<p>aquaculture and horticulture that brings positive outcomes in quality of nutritious food intake as well as economic and environmental benefits;</p> <p>c. Identify potential partners, and develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring & evaluation;</p> <p>d. Enhance economic activity with the WMOs by fostering private sector engagement and promotion of linkages with sustainable supply chains- international, national and local in general and women in particular;</p> <p>e. Contribute to developing trainings and demonstrations programs for WMOs.</p>
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National Experts		
b-1. Water Engineer (Key expert)	Resources	<p>Required qualifications: The consultant must have a graduate degree, preferably a post graduate degree, in civil engineering or water resources engineering, or equivalent professional experience.</p> <p>S/he preferably has 20 years of or longer professional work experience in water resources planning, development, and management. Experience in externally funded projects for multi-disciplinary water resources projects to support participatory and integrated planning will be given preference. Experience in urban water supply and waste water management cannot be counted in experience in water resources management here.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Act as Deputy Team Leader (DTL), and assist Team Leader for overall implementation of the services of the ISPMC team and for accomplishing Team Leader's tasks; Overseen the entire services during the absence of Team Leader; Advise technical aspects for efficient detailed design, procurement and construction supervision; Identify and assess, in coordination with design engineer, alternative technical options based on water flows and water tables, tidal impacts, and other local water management conditions taking into account the interests of diverse stakeholders; Supervise relevant team members to ensure quality technical design of structures; Facilitate and regularly maintain the communication between BWDB/PMO/SMO, supporting agencies, and local government offices; Assist Team Lead to supervise the preparation of IWMPs and SIPs; Identify and select priority water management investments, and prepare WMA institutional development plan, water resources infrastructure plan, and O&M plan for the subproject, to be incorporated into the IWMP; Working with Team Leader, lead the development of capacity development programs for WMOs, to ensure all necessary activities are covered; Working with Team Leader, lead the development of the institutional capacity strengthening for BWDB and supporting agencies. Identify and select critical associated services such as agriculture, fishery, and livelihood enhancement, considering benefits and dis-benefits of the interventions; and Assist Team Leader in preparing documents to be submitted to BWDB and ADB.
b-2. WMO Specialist (Key expert)		<p>Required qualifications: The consultant must have a graduate degree in agriculture, sociology or</p>

	<p>relevant social sciences, or equivalent professional work experience.</p> <p>S/he preferably has 20 years of or longer professional work experience, including water resources planning, development, and management projects. Experience in multi-disciplinary skills to support participatory and integrated planning of water resources management will be given preference.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assist International WMO Specialist to accomplish his/her tasks; Impart orientation and training for the facilitators selected and engaged by PMO for WMO formation process and placed in SMOs; Supervise facilitator's activities for WMO formation and capacity development, and devise effective measures to ensure their satisfactory performance; On the basis of annual training plan, strengthen the capacities of the concerned staff with due monitoring of their performance; Assist SMO to undertake initial information campaign and consultation process with the local stakeholders regarding the scope of the subprojects and subunits, and facilitate the submission of formal request from the locality; Contribute the preparation of IWMPs and SIPs, especially drafting WMO institutional development plans; Arrange and impart trainings for WMO capacity strengthening in financial and administrative management and arrangements; Assist SMOs in advising WMOs on appropriate organizational setup and operational arrangements including by-laws, the rules and regulations; Facilitate the participatory detailed design process for the concerned subunits; Assist OCWM and Directorate of Audit for registration of WMOs and annual auditing; Support SMOs to arrange and deliver training for WMOs; Work with TL, DTL, and other relevant team members to assist SMOs and BWDB to facilitate O&M fee collection of WMOs; Supervise field activities of Mid-level WMO specialists.
<p>b-3.Participatory Development Specialist (Key expert)</p>	<p>Required qualifications:</p> <p>The consultant must have a graduate degree in civil engineering, water resources management or other relevant fields, or equivalent professional experience</p> <p>S/he preferably has 10 years of or longer professional work experience. International work experience in water resources strategy formulation, planning, and programming, with multi-disciplinary skills and experience to support participatory water resources management will be given preference.</p> <p>Major Tasks:</p> <p>The consultant will guide the PMO (planning cell), with Project Director (PD) and PMO Executive Engineer (Planning) as counterpart staff to take over the role of the consultants, who will provide the following support with domestic water resources planner:</p> <ol style="list-style-type: none"> Under the supervision of Team Leader and Deputy Team Leader, assist Team Leader for the preparation of IWMPs and SIPs, consolidating inputs from relevant ISPMC team members; Evaluate and prioritize stakeholders' needs of infrastructure construction and rehabilitation identified through stakeholder consultation, in line with technical appropriateness; Contribute to developing capacity development programs of WMOs for

	O&M, efficient water use, and other topics that require technical knowledge.
b-4. Institutional Advisor (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree in water resources management, public administration management, or related discipline, or equivalent professional experience.</p> <p>S/he preferably has 20 years of or longer professional experience, with adequate knowledge of the institutional aspects of the public sector. Experience in undertaking policy and institutional analyses and advising on institutional reforms and improved performance of water sector institutions will be given advantage.</p> <p><u>Major Tasks:</u></p> <ol style="list-style-type: none"> Work with International Institutional Specialist to accomplish his tasks; Assist BWDB/ PMO/ SMOs with the establishment of institutional setup including composition and general staff qualifications, for participatory water resources management; Provide inputs for developing proposals for institutional set-up and strengthening of OCWM and the Directorate Audit of BWDB; Assess, develop and arrange necessary training for OCWM and the Directorate of Audit of BWDB for WMOs development, registration, and auditing; Develop a computer based WMO database for OCWM. Develop capacity building training for BWDB and supporting agencies, especially on participatory water resources planning and management ; Assist PMO/ SMO in assessing appropriate WMO institutional set-up WMO management and O&M implementation.
b-5. Value Chain Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree in agriculture, marketing/enterprise development, commerce, business management, or other relevant fields, or equivalent professional experience.</p> <p>S/he preferably has 10 years of or longer work experience, including development of links between farmers, fishermen or other primary level parties with small-scale entrepreneurs, commercial markets or their organizations. The consultant is expected to have experience in development of business models and good understanding of markets in the rural agriculture and fisheries.</p> <p><u>Major Tasks:</u></p> <ol style="list-style-type: none"> Assist International Value Chain Advisor, and work with him/her to accomplish tasks indicated in his/her tasks; Develop and organize value chain activities for the WMOs through participatory Collective Action and in collaboration with other relevant experts in the team, such as WMO Development Specialists, Agriculture Specialist, Fisheries Specialists, and Training Specialist.
b-6. Mid-Level Specialist, 2 nos. (Non-key expert) WMO	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post-graduate degree in agriculture or related field, or equivalent professional experience.</p> <p>S/he preferably has 10 years of or longer professional work experience, including water resources planning, development, and management projects.</p>

	<p>Experience in multi-disciplinary water management to support participatory and integrated planning will be given preference.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assist WMO Specialist for accomplishing his/her tasks at subproject levels; Conduct field activities of WMO capacity development under the supervision of WMO Specialist.
b-7.Design Engineer (Key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree, in civil engineering, or equivalent professional experience.</p> <p>S/he preferably has 20 years of or longer professional work experience, including water resources management, flood embankments, regulators, river protection works, and other facilities required under the project;</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Define the scope of technical data required for IWMP and SIP preparation, and arrange data collection, technical survey and analysis, including topography, subsoil conditions, and other data; On the basis of the defined design values, support the PMO design cell and BWDB design office to undertake detailed design of the identified physical facilities; Support relevant team members to draw draft water management infrastructure plan and O&M plan for incorporation into IWMPs and SIPs; Prepare the technical specifications, bill of materials, contract packaging, pre-qualification and tender document for the implementation of infrastructure and or any civil works; and Review and advice on the existing design standards in terms of cost effectiveness and efficiency.
b-8.Quality Control Engineer, 2 nos. (Key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree in civil engineering, or equivalent professional experience.</p> <p>S/he preferably has 20 years of or longer professional work experience, including construction supervision and management. The consultant is expected have good understanding of quality control systems comprising proper site recording, reporting, and auditing arrangements.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assist International Quality Control Specialist (Infrastructure) to accomplish tasks indicated in his tasks; Monitor the tendering and construction stages of each package and track in the management systems; Assist SMOs in putting in place a system of effective supervision of construction work carried out by contractors and LCSs; Monitor construction activities ensuring that (a) SMO construction supervisor is on site, (b) the contractor has a capable manager in site, (c) requirements in contracts and proper construction practices are being followed, and (d) the design is being followed; Assist SMOs in construction monitoring. and quality control, check and certify the final to contractors bills, and sign off on the completed structures, thereby verifying that reimbursement for the final payment can be made; Ensure that the beneficiaries are aware that they have the right to inspect construction activities and that they are aware of the complaint

	<p>procedures and that follow-up actions on the;</p> <p>g. Instruct WMO O&M committee for monitoring construction works in their concerned WMO area; and</p> <p>h. Develop training materials to be used in the quality control training of BWDB personnel.</p>
b-9. Mid-Level Quality Control Engineer, 4 positions. (Non-key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree, in civil engineering, or equivalent professional experience.</p> <p>S/he preferably has 10 years of or longer professional work experience, including construction supervision and management. The consultant is expected have good understanding of quality control systems comprising proper site recording, reporting, and auditing arrangements.</p> <p><u>Major Tasks:</u> a. Assist Quality Control Specialist for accomplishing tasks indicated in her/his tasks.</p>
b-10. Agriculture Extension Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree in agriculture or related field, or equivalent professional experience. S/he preferably has 20 years of or longer professional work experience, including agriculture or irrigation projects.</p> <p><u>Major Tasks:</u> a. Identify needs of stakeholders, and provide inputs for developing and conducting WMO capacity development programs; b. Provide technical inputs in the preparation of IWMPs and SIPs, including data for the economic and financial analyses for IWMPs; c. Prepare technical guideline and operation manuals for agriculture extension and support services and agriculture related income generating activities for WMO capacity development; d. Review & update, if necessary, the overall work plan for agriculture extension support services and income generating activities for WMOs; e. Prepare monitoring & evaluation forms for agriculture extension and support services and agriculture related income generating activities for WMOs and assist BWDB in establishing monitoring & evaluation system for agriculture extension and agriculture related income generating activities; f. Support the establishment & strengthening of coordination and collaboration system for the implementation of agriculture extension and support services and agriculture related income generating activities among BWDB and supporting agencies concerned; g. Ensure coordination with DAE.</p>
b-11. Mid-level Agriculture Extension Specialist (Non-key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post-graduate degree in agriculture or related field, or equivalent professional experience. S/he preferably has 10 years of or longer professional work experience, including agriculture or irrigation projects.</p> <p><u>Major Tasks:</u> a. Assist Agriculture Extension Specialist for accomplishing tasks indicated in her/his tasks.</p>
b-12. Fishery Development Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree in fisheries or related subjects, or equivalent professional experience. S/he preferably has 20 years of or longer professional work experience,</p>

	<p>including projects related to fisheries development and fisheries extension.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assess the performance of fishery sector in the subproject areas, including production and marketing constraints (feed, pest management, etc.); Identify needs of stakeholders, and provide inputs for developing and conducting WMO capacity development programs; Provide technical inputs in the preparation of IWMPs and SIPs, including data for the economic and financial analyses for IWMPs; Support relevant team members in identifying priority investment opportunities for the selected subprojects for fishery development; Develop appropriate fishery development support packages for WMO capacity development, in consultation with fishery research institutes; Monitor field level fishery extension workers in their activities to support WMO to implement their agriculture development plans; and Ensure coordination with DOF.
b-13. Mid-Level Fishery Development Specialist (Non-key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree, preferably a post graduate degree in fisheries or related subjects, or equivalent professional experience. S/he preferably has 10 years of or longer professional work experience, including projects related to fisheries development and fisheries extension.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assist Agriculture Extension Specialist for accomplishing tasks indicated in her/his tasks.
b-14. Agricultural Economist (Key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree in agriculture economic or economics, or equivalent professional experience.</p> <p>S/he preferably has 20 years of or longer professional work experience. Experience in the economic analysis for externally funded agriculture and/or water resources projects will be given advantage.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> For IWMP preparation, work with Social Development and Gender Specialist to collect socio-economic data, including land use, population, incomes, poverty, and other human development indexes; Assist International Agriculture Economist to accomplish tasks indicated in his/her task list, including economic and financial analyses for IWMP preparation; Design, arrange and supervise the socioeconomic survey in collaboration with gender and poverty specialist; Assess the present performance and issues of economic activities of the subprojects, collecting information including production in agriculture, fishery, livestock, and other rural industries; Assess the production and marketing potential of agriculture crops and fishery; and Support PMO and SMO to develop agriculture and fishery input and benefit monitoring and reporting mechanisms.
b-15. Gender & Social Dev. Specialist (Key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree, preferably a post graduate degree in sociology, or relevant social science, or equivalent professional experience. S/he preferably has 15 years of or longer experience, including including surveys and implementation of social development programs with a</p>

	<p>particular focus on vulnerable people including poor women. Experience in externally funded projects will be given advantage.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Ensure all project activities are conducted in consideration of gender requirements; Conduct gender awareness training for PMO and SMO staff and facilitators in gender consideration; For IWMP and SIP preparation, collect sex-disaggregated socio-economic data and information, including occupational pattern, poverty, and other human development indexes; Provide technical inputs to develop WMO base-line and end-line surveys, and MIS development to ensure that necessary gender data are included; Formulate a draft livelihood enhancement plan for IWMPs and SIPs; Support agriculture economist to design, arrange, and supervise socio-economic survey ensuring all necessary data are included in the survey; Support relevant team members to identify needs and develop WMO training programs; Suggest subproject-specific interventions to address gender imbalances and support other vulnerable groups; Monitor the implementation of GAPs, to ensure women participation of WMO activities and training. Assist the PMO in preparing GAP implementation monitoring reports.
b-16.Environmentalist/ Safeguard Specialist (Key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree, preferably a post graduate degree in civil engineering, environmental science or other relevant social science degree, or equivalent professional experience. S/he has preferably has 12 years of or more professional work experience, including preparation of EIA or IEE following government's requirements in Bangladesh. Experience in externally funded water resources management or irrigation projects will be given preference.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Assist BWDB in dissemination and explanation of additionally confirmed and identified environmental issues to public including holding public consultations; Assist BWDB in obtaining Environmental Clearance from DOE in accordance with the planned implementation schedule; During the preparation of bidding documents, clearly identify environmental responsibilities as explained in the EIA/IEE and EMP; Assist in the preparation and review of the inception report, progress reports, and completion report and ensure that these reports meet environmental requirements.
b-17. Training Specialist (Non-key expert)	<p>Required qualifications:</p> <p>The consultant must have a graduate degree, preferably a post-graduate degree in agriculture or other relevant discipline, or equivalent professional experience. S/he preferably has 12 years of or longer professional work experience, including experience in agricultural promotion support and income generation support projects.</p> <p>Major Tasks:</p> <ol style="list-style-type: none"> Review & update, if necessary, the overall training plan for agriculture extension, fishery development and income generating activities for

	<p>WMOs;</p> <ul style="list-style-type: none"> b. Organize WMO capacity development training, and support coordination with supporting agencies; c. Prepare monitoring & evaluation forms for agriculture extension, fishery development and income generating activities for WMOs capacity development, and develop monitoring and evaluation system of training, d. Assist organizing training of project field staff and staff of concerned supporting agencies on agriculture and fishery development conducted by BWDB,
b-18. O&M Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree in civil engineering, or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience, including structural design and/or construction quality control of water resources management structures. Experience in participatory O&M will be given advantage.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Assist SMOs to organize training for construction monitoring and O&M for WMOs during the construction stage; b. Prepare subproject-specific or subunit-specific O&M manuals, defining arrangements and responsibilities for (a) joint management between SMO and WMAs; and (b) management transfer to WMAs; c. Prepare training programs for SMO staff and for WMA O&M subcommittees on their roles and responsibilities for sustaining the FCD/I infrastructure, and impart training; d. Assist SMOs to jointly develop subunit O&M plans with WMOs, with joint walk-through, and identification of maintenance needs in light of O&M manual, preparing implementation plan, and preparing resource mobilization plan; e. Work with PMO, SMOs and other relevant ISPMC members, to ensure WMO's annual O&M fee collection; f. Assist SMOs to undertake annual assessment of subproject performance through the operation of O&M planning MIS being developed in BWDB, to identify maintenance needs in a standardized manner; g. Identify opportunities of leasing BWDB facility land; h. Facilitate, with other relevant ISPMC members, signing of O&M agreements between BWDB and WMOs.
b-19. Hydraulic Engineer/ Hydrologist (Non-key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree in civil engineering, or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience including design of hydraulic structures.</p> <p><u>Major Tasks:</u></p> <ul style="list-style-type: none"> a. Establish design criteria for hydraulic design. b. Investigate the hydraulic conditions on the sites for the detailed design. c. Collaborate with the sub-contractor to conduct hydraulic calculation. d. Prepare the detailed design, drawings and hydraulic analysis of hydraulic structures.
b-20. Resettlement Specialist (Key expert)	<p><u>Required qualifications:</u> The consultant must have a graduate degree in relevant social science, or equivalent professional experience. S/he preferably has 15 years of or longer professional work experience, including reparation and/or implementation of resettlement plans. Experience in externally funded projects will be given advantage.</p>

	<p>Major Tasks:</p> <ul style="list-style-type: none"> a. Assist International Resettlement Specialist, to accomplish tasks indicated in his/her task list. b. Ensure the preparation and implementation of the resettlement plan meets requirements of the government and ADB; c. Assist PMO and SMOs to coordinate with Deputy Commissioners offices.
<p>b-21. GIS Specialist/ Remote Sensing Specialist (Non-key expert)</p>	<p>Required qualifications:</p> <p>The consultant must have a graduate degree in information communication technology or related field, or equivalent professional experience.</p> <p>S/he preferably has 8 years of or longer professional work experience in concerned field.</p> <p>Major Tasks:</p> <ul style="list-style-type: none"> a. Support the preparation of IWMPs and SIP by using GIS and by collection and assessment of available satellite and other digital data; b. Prepare necessary maps for project reporting and MIS; c. Provide advisory support the development of WMO database; d. Prepare necessary maps for the project reporting and MIS
<p>b-22. MIS Specialist (Non-key expert)</p>	<p>Required qualifications:</p> <p>The consultant must have a graduate degree in information technologies, or similar discipline, or equivalent professional experience. S/he preferably has 8 years of or longer professional work experience, including experience in the concerned field.</p> <p>Major Tasks:</p> <ul style="list-style-type: none"> a. Assess the present project MIS and develop an improved user friendly web based MIS; b. Assess and develop data transfer methods from the existing to the improved MIS; c. Develop improved reporting system using MIS, based on requirements of ADB and BWDB; d. Develop an improved project web-site, and develop an operation manual of regular update of the web-site; e. Provide advisory support the development of WMO database.

APPENDIX 6: SUGGESTED CONTENTS FOR PROJECT PROGRESS REPORT

A. Introduction and Basic Data

- ADB loan number, project title, borrower, executing agency(ies), implementing agency(ies) (if applicable);
- total estimated project cost and financing plan;
- status of project financing including availability of counterpart funds and cofinancing;
- dates of approval, signing, and effectiveness of ADB loan;
- original and revised (if applicable) ADB loan closing date and elapsed loan period based on original and revised (if applicable) loan closing dates; and
- date of last ADB review mission.

B. Utilization of Funds (ADB Loan, Cofinancing, and Counterpart Funds)

- cumulative contract awards financed by the ADB loan, cofinancing, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets);
- cumulative disbursements from the ADB loan, cofinancing, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets); and
- re-estimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

C. Project Purpose

- status of project scope/implementation arrangements compared with those in the report and recommendation of the President (RRP), and whether major changes have occurred or will need to be made;
- an assessment of the likelihood that the immediate development objectives (project purpose) will be met in part or in full, and whether remedial measures are required based on the current project scope and implementation arrangements;
- an assessment of the validity to the key assumptions and risks that affect attainment of the quantifiable implementation targets; and
- other project developments, including monitoring and reporting on environmental and social requirements that might adversely affect the project's viability or accomplishment of immediate objectives.

D. Implementation Progress

- assessment of project implementation arrangements such as establishment, staffing, and funding of the PMO;
- information relating to other aspects of the executing agency's internal operations that may impact on the implementation arrangements or project progress;
- progress or achievements in implementation since the last progress report;
- assessment of the progress of each project activities, such as,
 - recruitment of consultants and their performance;
 - stakeholder consultation, formulation of WMOs, and capacity development of WMOs and BWDB;
 - detailed design and procurement of goods and works, including preparation of bid documents;

- the performance of suppliers, manufacturers, and contractors for goods and works contracts; and
- the performance of consultants and mobilizers.
- assessment in stakeholders' reactions and responses, and stakeholder's opinions observed through field activities.
- assessment of progress in implementing the overall project to date in comparison with the original implementation schedule—quantifiable and monitorable target, (include simple charts such as bar or milestone to illustrate progress, a chart showing actual versus planned expenditure, S-curve graph showing the relationship between physical and financial performance, and actual progress in comparison with the original schedules and budgets, and the reference framework or guidelines in calculating the project progress that are shown in Appendix 5);
- the progress of GAP implementation, and safeguard requirements (see the next section) since the last reporting period; and
- an assessment of the validity of key assumptions and risks in achieving the quantifiable implementation targets.

E. Compliance with Covenants

- the borrower's and the executing agency's compliance with financial loan covenants including the executing agency's financial management, and the provision of audited project accounts or audited agency financial statements; and
- the borrower's and the executing agency's compliance with project-specific loan covenants associated with implementation, environment, and social dimensions.

F. Major Project Issues and Problems

Summarize the major problems and issues affecting or likely to affect implementation progress, compliance with covenants, and achievement of immediate development objectives. Recommend actions to overcome these problems and issues (e.g., changes in scope, changes in implementation arrangements, and reallocation of loan proceeds).

APPENDIX 7: COMPUTATION OF PHYSICAL PROGRESS

Activities	(a) Assigned Weight	(b) Actual Progress (%)	(a) x (b) Weighted Progress (%)
Staffing of PMO and SMOs	5		
Consultants Recruitment (ISPMC package)	5		
Recruitment of facilitators	5		
WMA/WMG establishment	10		
Feasibility studies for two subprojects to be implemented under the project	5		
SIP preparation	10		
Detailed design and procurement for infrastructure renovation	10		
Physical completion of infrastructure renovation	10		
Agriculture and other supports for WMOs	10		
O&M systems establishment	5		
Project management function	5		
MIS establishment	10		
Overall disbursements	10		
Total Weight	100		

(a) Assigned weight for each activity; (b) Actual progress of each activity

(a)/100 x(b) weighted progress for each activity ; Project progress = sum of all weighted progress for each activity

APPENDIX 8: REFERENCE MATERIALS

A. Project Related Documents

A1. Basic Project Design

- Loan Agreement
- Project Agreement
- Report and Recommendation of the President (RRP) to the Board of Directors
- Final Report on feasibility studies for the seven subprojects

A3. Safeguards

- Initial environment examination (IEE), equivalent to the government's environmental impact assessment report
- Resettlement framework
- Resettlement plan

B. General ADB Documents for Project Administration

C.

Documents may be updated/revised time to time. The latest versions should be applied.

B1. General

- Anticorruption and Integrity
- Frequently Asked Questions on Anticorruption and Integrity: A Guide for ADB Staff
- Guidelines for the Economic Analysis of Projects
- Project Financial Reporting and Auditing
- Handbook for Borrowers on the Financial Management and Analysis of Projects
- Financial Management and Analysis of Projects
- Financial Management Technical Guidance Note: Preparing and Presenting Cost Estimates for Projects and Programs Financed by the Asian Development Bank
- Financial Management Technical Guidance Note: Project Financial Reporting and Auditing
- Guidelines for Preparing the Design and Monitoring Framework
- E-Handbook on Project Implementation
- Second Governance and Anticorruption Action Plan
- Revised Guidelines for Implementing ADB's Second Governance and Anticorruption Action Plan (GACAP II)
- Operations Manual (Policies and Procedures)
- Special Operations Loan Regulations (Applicable to Loans Made by ADB from its Special Funds Resources) (January 2006)
- Project Administration Instructions
- Public Communications Policy (October 2011)

B2. Consultants

Relevant ADB documents and templates for recruitment of consulting services are available at:

<http://www.adb.org/site/business-opportunities/operational-procurement/consulting>

- Guidelines on the Use of Consultants by the ADB and Its Borrowers
Harmonized Request for Proposal (RFP) for the Recruitment of Consulting Firms
(Standard Request for Proposal)

B3. Procurement

Relevant ADB documents and templates for the procurement are available at:
<http://www.adb.org/site/business-opportunities/operational-procurement/goods-services>

- Procurement Guidelines
- Standard Bidding Documents – Procurement of Goods (including related services)
- Standard Bidding Documents – Procurement of Works
- Standard Bidding Documents – Procurement of Works (Small Contracts)
- Guide on Bid Evaluation

B4. Disbursement

- Loan Disbursement Handbook (2015)

B5. Environmental and Social Safeguards

- Safeguard Policy Statement (June 2009)

B6. Social Dimensions and Gender Development

- Handbook on Social Analysis: A Working Document
- Handbook on Poverty and Social Analysis: A Working Document
- Core Labor Standards Handbook
- Strengthening Participation for Development Results: An Asian Development Bank Guide to Participation
- Tip Sheet No. 4 – Project Reviews: Monitoring and Reporting on Gender (April 2013)
- Project Gender Action Plans: Lessons for Achieving Gender Equality and Poverty Reduction Result (A Briefing Note, 2009)
- Legal Empowerment for Women and Disadvantaged Groups (January 2009)
<http://www.adb.org/publications/legal-empowerment-women-and-disadvantaged-groups>

B7. Others

- Executing Agency's Project Progress Reports (PAI 5.01)

APPENDIX 9: PROCUREMENT CAPACITY ASSESSMENT¹

Executing Agency: Bangladesh Water Development Board (BWDB) under the Ministry of Water Resources (MOWR)	Proposed Amount (US\$): 61.85 million										
Assessor: ADB Staff Consultants for the Southwest Area Integrated Water Resources Planning and Management Project – Additional Financing	Date: March 2015										
<p>A. Expected Procurement</p> <p>The envisaged procurement will comprise (i) civil works including rehabilitation and construction of 52 regulators, rehabilitations and construction of 98 pipe outlets, 1.04 km of river protection works, excavations of 420 km of drainage channels (khal), strengthening of 73 km of embankments, and miscellaneous constructions (e.g. foot bridges, WMO offices) (ii) goods including 16 transport vehicles and 75 motorcycles, ICT equipment with peripherals and software packages and (iii) services including consulting firms for implementation support/ IWRM study of additional subprojects and NGO services for resettlement planning survey and implementation, benefit monitoring and evaluation studies, hydrological studies and surveys, and upgrading of O&M management information system.</p> <p>B. General Procurement Environment Assessment</p> <p><u>Risk Assessment:</u> Risk assessment associated with general procurement environment has been conducted. Following are the identified criterion wise risk rating:</p> <table> <tr> <td>Legal and Regulatory Framework</td> <td>– Low</td> </tr> <tr> <td>Institutional Framework</td> <td>– Moderate</td> </tr> <tr> <td>Procurement Market and Operations</td> <td>– Moderate</td> </tr> <tr> <td>Integrity of the Procurement System</td> <td>– High</td> </tr> <tr> <td>Overall risk rating</td> <td>– Moderate</td> </tr> </table> <p><u>Summary of Findings:</u> Bangladesh has enforced a comprehensive procurement law – the Public Procurement Act, 2006 (PPA 2006) which covers all types of procurement. The law is sought to ensure transparency and accountability in public procurement and fairness to all participants in Government purchases. The law is supported by Public Procurement Rules, 2008 (PPR 2008) which provides necessary explanation and modality of application. The provisions of the law and regulations are consistent with internationally accepted principles and practices. The current project has used ADB's standard bidding documents for goods, works and consultancy services. Thus, the Act, Rule and Standard Bidding Documents provide a unified national procurement framework.</p> <p>Implementation Monitoring and Evaluation Division (IMED) is the central and apex</p>		Legal and Regulatory Framework	– Low	Institutional Framework	– Moderate	Procurement Market and Operations	– Moderate	Integrity of the Procurement System	– High	Overall risk rating	– Moderate
Legal and Regulatory Framework	– Low										
Institutional Framework	– Moderate										
Procurement Market and Operations	– Moderate										
Integrity of the Procurement System	– High										
Overall risk rating	– Moderate										

¹ The original assessments were conducted by the PPTA teams for the Flood and Riverbank Erosion Risk Management Investment Program (FRERMIP) and for the Irrigation Management Improvement Project (IMIP) in 2014. This report was prepared by the ADB staff consultant team for the Southwest Project additional financing, by updating the original assessment report. This document will become one of attachments of the Updated Project Administration Manual.

organization of the Government for Monitoring and Evaluation (M&E) of public sector development projects that are included in the Annual Development Program (ADP). IMED also deals with matters relating to PPA. The Central Procurement Technical Unit (CPTU), established under IMED in 2002, acts as the central organ of Government for policy formulation, coordination, monitoring and improvement of the public procurement process. The CPTU also has the authority to intervene in the bidding process if complaints are made by any or more bidders. It also acts to resolve such disputes or complaints. In February 2012, CPTU has introduced the web based procurement system, called 'Electronic Government Procurement (e-GP) System' that provides online platform for carrying out procurement activities. Presently, some 16 units under four Government organizations are using e-GP system for carrying out part of their procurements on pilot basis. BWDB is one of the four organizations.

The status of the e-GP in four target agencies (RHD, LGED, BWDB and REB) is as follows:

Agency	July 1 - Dec. 31, 2013		Jan. 1 - June 30, 2014		July 1 - June 30, 2015			Cumulative
	Target	Achievement	Target	Achievement	Target	Achievement (Nov' 2014)	% Progress	Achievement (up to Nov. 2014)
RHD	400	776	1000	899	2400	1102	46%	2777
LGED	400	2612	1000	2222	2400	2668	111%	7502
BWDB	120	279	300	360	720	486	68%	1125
BREB	15	21	40	48	96	43	45%	112
Total		3,688		3,529		4,299		11,516

In spite of existence of international standard law and regulation, the public procurement regime remains somewhat weak. This can be attributed to (i) a lack of understanding of applicable procurement rules and regulations among officials involved in procurement, (ii) unwarranted intervention from local politician (iii) inadequate oversight capacity of regulatory authority and (iv) largely in effective system of appeals and review of procurement decisions. All these factors appear to undermine the integrity of the public procurement system. However, as Government has targeted full introduction of e-GP System over the next few years, a meaningful oversight may be possible after the said system is fully introduced for all procurement cases. The e-GP system, when fully introduced will generate national procurement database as by product paving the way for evaluation of effectiveness of procurement framework.

C. Organizational and Staff Capacity

Risk Assessment: Low

Summary of Findings:

Bangladesh Water Development Board. BWDB is a major implementing agency of the Government. Since its creation in 1959, the organization has implemented large number of projects including big and medium sized projects. Most of the major and important projects were implemented with external assistance; in fact, up to the year 2000, project aid used to exceed Government funding in BWDB ADP. As of 2014, eight aided projects are under implementation and cumulative project aid component constitutes 4.05% of ADP (BDT 9530 million, \$ US \$ 123.77 million) for the fiscal year (2014-15).

As is a major implementing agency, procurements constitute major activities of BWDB. The engineering staffs of the organization are quite familiar with the processes of all types of procurement i.e. goods, works and consulting services. The donor agencies of water sector projects constitute agencies of friendly governments, international agencies and financial institutions. As most of donor agencies had imposed their own procurement policy and rules in respective aided project, BWDB staffs are also familiar with procurement rules and procedures of major donor agencies.

Over the decade long water sector reform initiatives beginning mid-1990s, BWDB underwent a staff reduction (mostly supporting staff) as well as complete halt on new recruitment in all categories. This put a strain on implementation capacity due to shortage of staff in the junior ranks. Only, since 2005, Government lifted ban and new recruitment has now become regular phenomenon. Moreover, a proposal for increasing staff strength of BWDB is under final stage of approval process. However, BWDB is facing the problem arising out of departure of significant number of new engineering recruits within initial years. As of 2014, 88 young engineers recruited in 2005, 43 left the organization. This phenomenon requires carrying out induction repeatedly.

Project Management Office (PMO). The present PMO was established in August 2006 for implementing the current Southwest Integrated Water Resources Management and Planning Project (SAIWRMPP). The same PMO has been working for processing the proposed additional financing project. It will also continue to manage the implementation of the proposed project, and key staff will continue their assignment. The key staffs are familiar with ADB procurement and disbursement procedures and have practical working experience.

Some of the professional staffs possess substantial direct procurement experience. The present Project Director, who is experienced in ADB procurement, will retire at around the expected loan effectiveness. However, it is agreed that the present PMO will be strengthened by immediate assignment of a new Project Director and by continuation of other key staffs. A competent BWDB official at the rank of Superintending Engineer or higher with procurement proficiency and other management capacity will be assigned as the Project Director. Thus, the capacity of PMO in respect of procurement activities will continue to be at satisfactory level. Moreover, any capacity gap may be filled with provision of a procurement specialist in the team of implementation support consultant.

The designation of the existing PMO key staffs is as follows:

- Mr. Kamalur Talukder, Project Director (August 2011):
- Mr. Md. Anisul Islam, EE (October 2012):
- Mr. Sk Nazrul Islam, EE (June 2011)
- Mr. Abu Raihan Md. Al-Biruni, Asstt. Engineer (August 2013)
- Mr. Abu Sale Md. Tofahel Chowdhury, Sub Divisional Engineer (July 2010)
- Mr. Md. Humayoun Kabir, Accounts officer (May 2009)
- Mr. Md. Masud Karim, PEO (June 2010)
- Mr. Md. Hafizur Rahman, Extension Officer (August 2007)
- Mr. Md. Amimul Ehsan, Asstt. Chief (Fishery) (July 2010)
- Mr. Md. Abdur Razzak, AC (Sociology) (January 2008)
- Mr. Md. Alamgir, Research Officer (August 2007)
- Mr. Md. Monirul Islam, EE/SMO Chenchuri Beel Subproject (September 2011)

The above mentioned key staff are expected to continue with the additional financing.

D. Information Management

Risk Assessment: Information Management – Moderate

Summary of Findings:

Procurement records are maintained at the respective procuring units for longer periods beyond project implementation. Records are kept in paper/physical files. As the information are not maintained in a structured manner, instant retrieval is difficult. Moreover, shifting office location sometimes causes loss or misplacement of files and thereby loss of vital information.

E. Procurement Practices**1. Procurement of Goods and Works**

Risk Assessment: Low

Summary of Findings:

Procurements of goods and works under aided projects are quite frequent in BWDB as a number of such projects used to be in the annual development program portfolio. In most cases, procurement is carried out following guidelines of concerned donor agencies. The national procurement framework is also in line with international practice. Following national guidelines leads to similar outcomes as following donor guidelines. Under NCB, bidding process can be completed by 4 months. However, guidelines of donor dictates little longer timeline at each stage of bidding process, and thereby requires about 50% more time to complete bidding process.

2. Consulting Services

Risk Assessment: Procurement Practices – Moderate

Summary of Findings:

During project implementation, implementation support consultancy service will be required. In addition, NGO services will be required for resettlement plan implementation. As these services are required for developing and application of innovative methods and procedures, recruiting qualified consultant will be challenging.

Procurement of consulting services is not as frequent as the procurement of goods or works. Time required for service procurement is much longer. Evaluation of expression of interest (EOI) and proposal evaluation requires special skill. Usually planning offices carryout consulting service procurement. BWDB have experience of recruiting international and national consulting services, but may not be enough for this project. Need careful review of recruitment documents.

F. Effectiveness

Risk Assessment: Low

Summary of Findings:

The institutional arrangement and practice appear to be generally adequate for making

procurement effectively.

G. Accountability Measures

Risk Assessment: Low

Summary of Findings:

Adequate process control and oversight mechanism is established in the national procurement framework and organizational practice. There is no provision and practice opposed to the ADB procurement guidelines.

All required procurements are detailed out in approved development project proposal/proforma (DPP). Thereafter, no additional approval is required for initiating and carrying out procurement except approval bid evaluation from competent authority as per delegation of financial power. Draft bid document, when exceeded certain cost ceiling have to be approved by Director General. In the process, the draft is reviewed by Director, Central Procurement Cell which acts as knowledge procurement knowledge hub. This eliminates associated risk to great extent.

Summary Assessment

Overall Risk Rating: Low

National procurement environment is founded on sound legal procedural framework and is generally is conducive for making effective procurement under the project. The EA i.e. BWDB is quite experienced in procurement of goods, works - both for exclusively government funded project as well as aided project. But their capacity is somehow limited for procurement of consulting services. There is a wide variation of degree of knowledge and experience among individual staff member on procurement process and issues. Personnel assigned to the project, especially those who will be dealing with procurement may need undergoing orientation training on ADB procurement guidelines and procedures. Another weakness about BWDB is that they does not maintain central database of procurement. Such information, if existed centrally, could help quick checking of bidders qualification and experience thereby lessening bid evaluation time as well as avoiding misinformation.

Specific Recommendations, Project Implementation

Capacity Constraint	Recommended Action	Responsibility and comment
Individual staff member assigned to the project may not have adequate knowledge and experience of procurement under ADB aided project	Impart training on ADB procurement guidelines, methods and procedures. Avoid frequent replacement of PMO and SMO staff	BWDB and ADB BWDB
General Recommendations, Executing Agency		
Risks/Capacity Constraint	Recommended Action	Responsibility and comment
Inadequate capacity for oversight of organization wise procurement activities.	Develop M&E procurement oversight.	BWDB may take initiative to develop and institute a 'Procurement Information Management System' with

		adequate tools for automatic auditing and surveillance. The action may be taken up under any aided project.
General Recommendations, Procurement Environment		
Risk/Capacity Constraint	Recommended Action	Responsibility and comment
No project specific risks	None	