

**TERMS OF REFERENCE
FOR
INSTITUTIONAL STRENGTHENING AND PROJECT MANAGEMENT CONSULTANT**

A. BACKGROUND

General

1. The southwest area of 4.0 million hectares (ha), about 27% of the country's total area, covers the right bank of the Ganges and the lower Meghna rivers, with a population of 28.6 million (23% of the total population). The region contributes 21% of the national gross domestic product (GDP). With its sectoral share of 36%, agriculture plays a dominant role, yet its productivity is lagging 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.¹ 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 1995.² They have demonstrated success on improved infrastructure performance through operationalizing beneficiary participation envisaged in the government's Guidelines for Participatory Water Management.³ To extend the integrated and participatory water management to 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 (SAIWRPMP), with \$12.5 million of co-financing from the Government of the Netherlands(GON).⁴ The project supported 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

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

² 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.

³ Ministry of Water Resources. 2000. *Guidelines for Participatory Water Management*. Dhaka.

⁴ ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for Southwest Area Integrated Water Resources Planning and Management Project (Bangladesh)*. Manila (Loan 2200(SF) and Grant 0036-BAN)

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) was the executing agency.

4. The SAIWRPMP 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. 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 (WMGs) 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. WMOs 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. The success of SAIWRPMP led to additional financing by ADB to the tune of \$45.0 million and \$7.0 million grant by GON in nine subproject areas and is referred to as SAIWRPMP-AF. The additional financing covered 267 WMGs and 23 WMAs and has been recently completed.

6. The proposed Climate Resilient Integrated Southwest Project for Water Resource Management (CRISP-WRM) replicates the successful previous projects in five additional subproject areas with a total area of 82,000 ha with the population of about 469,500 in the southwest region of the country. ADB's financial support for the proposed CRISP-WRM is included in ADB's country assistance program for 2015. The project provides a consultancy package for institutional strengthening and project management consultants (ISPMC). BWDB will recruit the ISPMC package according to ADB's *Procurement Regulations for Borrowers and Standard Request for Proposal for Selection of Consultants* (as amended from time to time).

Outline of the Proposed CRISP-WRM

7. The proposed CRISP-WRM project consists of five subprojects viz. (i) Tarail-Pachuria, (ii) Satla-Bagda Polder 1, (iii) Ramshil-Kafulabari, (iv) Rajoir-Kotalipara, and (v) Beel Kajulia with a total area of 82,029 ha, and is located in Tungipara, Kotalipara, Gopalganj Sadar and Rajoir upazilas of Gopalganj and Madaripur districts. The areas of these subprojects are bounded by the MBR (from Takerhat) in the northern side, Modhumati River in the western side up to Patgati, Jhanjania river (from Bashbari to Kotalipara) in the south and Bisharkandi river in the eastern side. Out of these five subprojects (i) to (iv) are already completed BWDB FCDI projects and (v) is the new subproject (Index map is enclosed). The name of subprojects with area and upazila is listed below:

S. No.	Name of the subproject	Area	Upazila
1.	Tarail Pachuria FCDI Project	21,606 ha.	Tungipara, Kotalipara and Gopalganj.
2.	Satla –Bagda Project (Polder-1)	14,600 ha	Kotalipara
3.	Ramshil-Kafulabari FCDI Project	6,959 ha	Kotalipara and Rajoir
4.	Rajair-Kotalipara FCDI Project	12,000 ha	Kotalipara and Rajoir
5.	Beel Kajulia FCDI Project	26,864 ha.	Gopalganj sadar and Rajoir
Total project area		82,029 ha	Gopalganj and Madaripur districts

8. The main objective of the project is to improve the socio-economic condition of the area by increasing agricultural production and fisheries development through improving the existing drainage congestion and to introduce participatory water resources management in an integrated manner based on the concept of ADB recently completed southwest project.

9. During the period of approval of the DDP SAIWRPMP-AF (ADB financed), the ECNEC decided in a meeting held on 25 August 2015 to conduct a feasibility study addressing drainage congestion in Tungipara and Kotalipara *upazila*, which was later also recommended by ADB Loan review mission October 2018.

10. The main problem of the area is drainage congestion especially during post monsoon as the average ground level is very low lying with elevation ranging from 0.2 m to 0.80 m PWD, which covers about 42% of total area. During the study the consultant explored that the project interventions like re-excavation of khals, dredging of rivers and rehabilitation of existing sluice/regulators with special attention to gate operation of sluices by mechanical hoisting device can improve more than 30% of the area from drainage congestion. The remaining 12% cannot be drained out during post monsoon as their land level is very low which around 0.2 m PWD. But this low pocket (12%) has potential for fish habitats and the planned 30% area of land could also be used as seasonal fish culture starting from July to November.

11. Out of the gross area of five subprojects i.e., 82,029 ha, the net cultivated area is about 62,000 ha. The area is cultivated mainly with rice, jute, pulses, oil crops, wheat, and vegetables. The cropping intensity at present is 128.60%. Due to low land level in the project area and very mild hydraulic gradient in the surrounding rivers which influence the tidal flow from downstream resulting the drainage congestion in the project area. Moreover, the gate operation of sluice/regulators is not properly maintained and participatory O&M with an integrated manner is not practiced at present so that about 34,500 ha. of cultivated land suffers from post monsoon drainage.

12. To remove the drainage congestion and promoting the irrigation facilities few boat pass cum regulators and rehabilitation of existing sluices/regulators with mechanical gate operation along with massive re-excavation of khals of the subprojects will be implemented. The project activities include the following, (i) 572.43 km of Khal re-excavation, (ii) rehabilitation of 73 existing regulators, (iii) rehabilitation of 25 existing inlet/outlet structures, (iv) gate installation with FRP for boat-pass, (v) installation of 175 mechanical hoisting device with accessories for gate operation, (vi) re-sectioning of 5.0 km embankment, (vii) 9.86 km of embankment/dyke construction, (ix) 23.63 km of river dredging including Barni Baor, (x) 5.18 km of bank protection works, (xi) construction of 17 new boat pass cum regulators, (xii) construction of 13 surface drainage outlet, (xiii) construction of 13 culver/bridges, (xiv) construction of 308 Arsenic free tube wells, and (xv) construction of 2 watch tower and wooden walk trail.

13. The total cost of the project is \$89.00 million. Out of which ADB contribution is \$71.00million and GOB contribution is \$18 million.

14. The implementation of all the subprojects will have a major impact on agriculture and fisheries and to a minimum extent on the environment. Due to the elimination of annual floods during monsoon and specially drainage congestion during post monsoon a more diversified cropping pattern and higher cropping intensity (from 128.60% to 179.47%) is expected. However, the incremental benefit of rice, wheat and non-cereal crops will be about 1,60,000 mt. and the fisheries will be increased to about 6,600 mt.

15. To ensure proper water management and increase food production a capacity building and training program will have to be implemented. It is envisaged that there would be 184 WMGs and 20 WMAs including those for the Beel Kajulia area. The Project will also support income-generating activities undertaken on public lands relevant to the project infrastructure (e.g., canal and embankment slopes) by the poorest subgroups formed in the WMA, along with other priority livelihood initiatives. Specific activities promoted will include social forestry, nurseries, crop cultivation, and livestock and local value-addition to crop, fishery, and livestock outputs.

16. The WMGs will take over water management from BWDB and beneficiaries need to be trained in O&M. Minor maintenance of the completed projects will be done by WMAs through community fund and the major maintenance will be done by BWDB.

17. Apart from capacity building in O&M, farmers will have to receive training and support in improving and sustaining agriculture, fisheries, and livelihood. Training will include classroom training, demonstrations, farmers/fisheries field schools and excursions as well as refresher courses for farmers (male and female) in each of the 184 WMGs.

Implementation Arrangement

18. BWDB under the Ministry of Water Resources is the executing agency of the project. The Project Management Office (PMO) under BWDB will be led by the full-time Project Director and will manage and monitor the overall implementation of the project. 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. Two SMOs will be established at the level of subproject to implement five subprojects. One of the SMOs will be established at Gopalganj O&M Division as SMO-1 and a Specialized Division with set-up will exclusively work for the proposed project. Specialized Division as SMO-2 will be established at Kotalipara or Tungipara supplemented by required new staff. Responsibility of SMOs will be decided during implementation of the project in consultation with PMO and ISPMC. The ISPMC team will support PMO and SMOs. The ISPMC will work under the direct supervision of the Project Director. The ISPMC shall assist the Project Director as per the requirement of the Terms of Reference (TOR) in close consultation with the concerned field executive engineer under the guidance of the PMO. The ISPMC will also appoint personnel to support agriculture extension officers' roles including community mobilization and WMO support and capacity development. These community facilitators will report to the PMO.

19. PMO, SMO and the ISPMC team will work in 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).

Outline of the Consultancy Services

20. A consulting team comprising of 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 will continue up-to the project completion time. The services will include the following major tasks.

21. The major tasks of the consulting services of the ISPMC package is summarized in the table below.

Summary of Major Service Activities

Task	Major Activities
Task 1: Preparation of IWMP for Beel Kajulia subproject,	(i) Preparation of IWMP for Beel Kajulia subproject that will be implemented during the project period.
Task 2: Implementation support for formation and capacity development of WMOs in five subproject areas, and follow-up capacity development of existing WMOs in the subproject areas of SAIWRPMP and SAIWRPMP-AF as after care.	<u>For five subprojects:</u> (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 <u>For Subprojects of SAIWRPMP and SAIWRPMP-AF:</u> (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 five subproject areas, including construction supervision and quality control	(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 and update of O&M and LCS manuals
Task 4: Supporting institutional capacity strengthening of BWDB and supporting agencies for participatory water resources planning and management	(i) Support organizing training for BWDB and line agencies, (ii) MIS upgrading (iii) Capacity development support for OCWM and Audit Directorate of BWDB
Task 5: Supporting internal audit for the project including the effectiveness of its internal controls	(i) Periodic assessment of the adequacy of the financial management arrangements for projects within BWDB (ii) Support with timely and actionable information to PMO for improving these arrangements. (iii) Conducting internal checks and controls to ensure transparency and necessary compliance.
Task 6: Supporting community mobilization	(i) Appointing community facilitators, senior facilitators, field coordinators and WMO monitors in discussion and coordination with PMO.
Task 7: Knowledge Transfer	(i) Support enhancing BWDB staff skills through hands-on involvement in survey, design, supervision and contract management aspects.

AF = additional financing, BWDB = Bangladesh Water Development Board, IWMP = integrated water management plans, MIS = management information system, OCWM = Office of Chief Water Management, SAIWRPMP = Southwest Area Integrated Water Resources Planning and Management Project, WMO = water management organization.

Source: Asian Development Bank.

22. The ISPMC team will also support PMO for the preparation and supervision of small packages of relevant consulting/sub-contracting services, such as the following. They are not a

part of the ISPMC package, 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 integrated water management plan (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.

B. SCOPE OF CONSULTING SERVICES

Task 1: Preparation of IWMP for Beel Kajulia Subproject

23. The ISPMC team will prepare IWMP for Beel Kajulia subproject in close coordination with PMO, following intensive participatory analyses of diverse local water management problems and development constraints, and assessments of feasibility and safeguards. This IWMP is expected to be prepared in the first year of the project period, so that the implementation can be started from the second year. The IWMPs will include technical and economic feasibility studies, identification of required need and activities in the subproject, preparation of initial environment examination and/or environment impact assessment.

Task 2: Implementation Support for Formation and Capacity Development of WMOs in five Subproject Areas, and Follow-up Capacity Development of existing WMOs in the subproject areas of SAIWRPMP and SAIWRPMP-AF.

24. 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 and WMAs on agriculture, fishery, gender and livelihoods. The table below summarizes the activities describes further details.

Summary of Major Service Activities

WMO support to 5 subprojects to be formed under this CRISP-WRM.	• Social mobilization for formation of 184 WMGs, 20 WMAs and 20 SIPs preparation; • Experiential capacity building for agriculture, fisheries, and livelihood improvement; • Institutional and 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 and evaluation; • Developing WMO O&M fee collection system; • Establishment of WMO network
After care: Support to existing WMOs in Subproject of SAIWRPMP and SAIWRPMP-AF.	• Follow-up training and monitoring in institutional and financial capacity development for WMOs (369 WMGs and 37 WMAs), class room and hand held practical training for sustainable O&M; • Follow-up support for collective Action such as input-output services for agriculture, fishery, other income-generating activities;

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- Develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring and evaluation;
 - WMO O&M annual fee collection support;
 - Strengthening of WMO network.
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25. More specifically, the ISPMC's activities will include support PMO and SMO for the following, but not limited to:

For five subprojects:

- 25.1 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.
- 25.2 Prepare SIPs based on an IWMP for the subproject, covering plans for WMO institutional development, water infrastructure, agriculture, fishery, livelihood enhancement, and O&M;
- 25.3 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;
- 25.4 On the basis of annual training plan prepared and training manuals, strengthen the capacities of the concerned staff with due monitoring of their performance;
- 25.5 Mobilization of beneficiaries for the preparation of about 184 WMGs and 20 WMAs. (The number of WMGs and WMAs will be finalized, depending on actual need in the course of the implementation.)
- 25.6 Institutional and financial capacity building for WMOs.
- 25.7 Facilitation in implementation of agriculture and fishery promotion support services for increase of agriculture and fishery production in the project area.
- 25.8 Facilitation in implementation of gender and livelihood activities, specially Income Generation Activities (IGA) and Collective Action taken for livelihood enhancement of the stakeholders
- 25.9 Develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring and evaluation.
- 25.10 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.
- 25.11 Provide classroom and hand held practical training to WMOs for sustainable O&M.
- 25.12 Provide support services for agriculture, fishery and livelihood enhancement.
- 25.13 Monitor and support for establishment of WMO network.
- 25.14 Collect and analyze WMO member household survey data at the initial and final stage of the project period as baseline and end line surveys.
- 25.15 Facilitate implementation of Agriculture and Fishery Extension Support Services and Income Generation Activities (IGA) that will include to:
- 25.16 Prepare technical guideline and operation manuals for Agriculture and Fishery Extension Support Services and IGA;
- 25.17 Review and update, if necessary, the overall work plan for Agriculture and Fishery Extension Support Services and IGA prepared under the Preparatory Survey;

- 25.18 Prepare monitoring and evaluation forms for Agriculture and Fishery Extension Support Services and IGA and assist BWDB in establishing Agriculture and Fishery Extension Support Services and IGA monitoring and evaluation system;
- 25.19 Assist BWDB in the preparation of Agriculture and Fishery Extension Support Services and IGA Annual Work Plan;
- 25.20 Assist the inception training of project field staff and staff of concerned line agencies on Agriculture and Fishery Extension Support Services and IGA conducted by BWDB;
- 25.21 Support the establishment of coordination and collaboration system for the implementation of Agriculture and Fishery Extension Support Services and IGA among BWDB and line agencies concerned.
- 25.22 Review and update, if necessary, technical guideline and operation manuals for Agriculture and Fishery Extension Support Services and IGA;
- 25.23 Prepare technical guideline and operation manuals for new Agriculture and Fishery Extension Support Services and IGA programs and activities;
- 25.24 Implement mid-term review on Agriculture and Fishery Extension Support Services and IGA and assist the preparation of the overall work plan of Agriculture and Fishery Extension Support Services and IGA for the remaining period;
- 25.25 Assist BWDB in the preparation of Agriculture and Fishery Extension Support Services and IGA Annual Work Plans;
- 25.26 Assist the refresher training of project field staff and staff of concerned line agencies on Agriculture and Fishery Extension Support Services and IGA conducted by BWDB;
- 25.27 Assist and advise the execution of the overall implementation of Agriculture and Fishery Extension Support Services and IGA;
- 25.28 Assist the monitoring and evaluation of Agriculture and Fishery Extension Support Services and IGA conducted by BWDB, and
- 25.29 Support the strengthening of coordination and collaboration system for the implementation of Agriculture and Fishery Extension Support Services and IGA among BWDB and line agencies concerned.
- 25.30 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 subprojects of SAIWRPMP and SAIWRPMP-AF:

- 25.31 Provide WMO with follow-up support for institutional and financial capacity building for WMOs (369 WMGs / 37 WMAs), such as refreshment training.
- 25.32 Provide classroom and hand held practical training for sustainable O&M including preparation of O&M plan.
- 25.33 Provide Collective Action such as input-output services for agriculture, fishery, and other income-generating activities.
- 25.34 Support and monitor WMO's annual O&M fund collection.
- 25.35 Strengthening of WMO network for sustainability of WMOs
- 25.36 Collect and analyze WMO member household survey data as end line survey.

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

- 26. The project is expected to include the following civil works: (i) Re-excavation of silted up khals for drainage improvement; (ii) Dredging of Barni Baor and major river (iii) Rehabilitation and construction of water management structures, such as boat-pass, inlet-outlet structures, and

bridge/culvers; (iv) repair and maintenance of earthen flood embankments and construction of new embankments to restore a washed-away portion in existing embankment system, (v) bank protection work, etc.;

27. Services under this task will include:

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

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

Detailed design:

- 28.1 Review and verify all available primary and secondary data collected during the preparation of feasibility study report for 5 (five) subprojects;
- 28.2 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.
- 28.3 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;
- 28.4 Prepare the detailed design for rehabilitation or construction of structures including gate with electrically hoisting devices. 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.

Construction supervision:

- 28.5 Review variations and claims submitted by contractors and make recommendations to BWDB;
- 28.6 Recommend BWDB to issue the commencement order to the Contractors;
- 28.7 Recommend BWDB for acceptance of the Contractor Performance security, advance payment security and required insurances;
- 28.8 Review and recommend BWDB for approval of the proposals submitted by the contractors which include work program, method statements, material sources, and 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;
- 28.9 Review any issues resulting from ambiguities and/or discrepancies in the Contract Documents and recommend to BWDB necessary clarifications or instructions;

- 28.10 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;
- 28.11 Recommend BWDB to liaise with the appropriate authorities to ensure that all the affected utility services are promptly relocated;
- 28.12 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;
- 28.13 Regularly monitor physical and financial progress against the milestones as per the contract so as to ensure completion of contract in time;
- 28.14 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. The Consultant shall confirm that key personnel proposed by the contractor including an accident prevention officer are 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.
- 28.15 Supervise field tests, sampling and laboratory test to be carried out by the contractors;
- 28.16 Inspect the construction method, equipment to be used, workmanship at the site in accordance with the specifications;
- 28.17 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;
- 28.18 Recommend BWDB to coordinate the works among different contractors employed for the Project;
- 28.19 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;
- 28.20 Carry out timely reporting to BWDB for any inconsistency in executing the works and suggesting appropriate corrective measures to be applied;
- 28.21 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;
- 28.22 Provide periodic and/or continuous inspection services during defects liability period and if any defects are noted, instruct the contractor to rectify;
- 28.23 Check and certify as-built drawings for the parts of the works designed by the contractors, if any;
- 28.24 Assist BWDB to prepare and submit an operation and maintenance manual for the facilities constructed in the Project to BWDB;
- 28.25 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;
- 28.26 Prepare and submit reports to BWDB, and
- 28.27 Assist BWDB to prepare O&M guideline/manual for WMOs.

Safeguard requirements:

- 28.28 Prepare the draft of EMP and EMoP in accordance with Environmental Conservation Rules 2023 in Bangladesh, ADB's Safeguard Policy Statement 2009, and Environmental Assessment and Review Framework (EARF) prepared for the CRISP-WRM;
- 28.29 Assist BWDB in dissemination and explanation of additionally confirmed and identified environmental issues to public including holding public consultations;

- 28.30 Assist BWDB in obtaining and renewing the Environmental Clearance Certificate (ECC) from Department of Environment (DOE), Ministry of Environment, Forest and Climate Change in accordance with the planned implementation schedule;
- 28.31 During the preparation of bidding documents, clearly identify environmental responsibilities as explained in the EIA/IEE and EMP and transfer the EMP cost to BOQ as non-competitive item (provisional sum);
- 28.32 Assist BWDB to review the Contractor's Environmental Management Plan (CEMP) or Site-Specific Environmental Management Plan (SEMP), community and occupational health and safety plan, excavated spoil or dredge materials management plan, dredging plan to be prepared by the contractor in accordance with EMP, government rules and regulations and ADB Environmental Guidelines (EARF) and to make recommendations to BWDB regarding any necessary amendments for its approval;
- 28.33 Conduct site visits and 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;
- 28.34 Assist BWDB in monitoring the compliance with conditions stated in the EPC and the requirements under EMP and ADB Environmental Guidelines (EARF);
- 28.35 Conduct capacity building program for improving safeguard implementation in the project.
- 28.36 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);
- 28.37 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;
- 28.38 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 nongovernmental organizations (NGOs). The following contents should be included in the plans;
- 28.39 Skills Training and project related Job Opportunities
- 28.40 Provision of Agricultural and Fishery Extension Support Services
- 28.41 Provision of the special allowance to vulnerable PAPs
- 28.42 Assist BWDB to implement the measures identified in the revised RAP;
- 28.43 Monitor land acquisition, if any and compensation activities being undertaken by BWDB, and report the results in monthly progress reports;
- 28.44 Assist BWDB in facilitating stakeholder's participation (including focus group discussions for vulnerable PAPs) and providing feedback their comments on RAP;
- 28.45 Assist BWDB in establishment of grievance redress mechanism including formation of Grievance Redress Committee for environment and resettlement.
- 28.46 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
- 28.47 Provide technical services with grievance redress committee for keeping and updating records when necessary.

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

29. 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.

- 29.1 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.
- 29.2 Assist OCWM to develop a computer based database of WMOs, including information collection and assessment of DOC's existing database, and coordination with DOC.
- 29.3 Examine necessary support for BWDB for developing clear institutional set up of the Directorate of Audit 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
- 29.4 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.
- 29.5 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;
- 29.6 Develop and arrange experiential overseas training in participatory water resources planning and management and value chain development.

Task 5: Supporting internal audit for the project including the effectiveness of its internal controls

30. The objectives of the internal audit are to: (i) periodically review the adequacy of the project financial management arrangements in Bangladesh Water Development Board (BWDB) and (ii) provide the project management with timely information on corrective actions necessary to improve those arrangements. The Internal Auditor shall be responsible for internal checks and controls to ensure the credibility and efficacy of the systems and procedures for project management for ensuring transparency and compliance with the relevant guidelines and rules,

including requirements stipulated in the Project Administration Manual (PAM) and government requirements.

Scope of Work:

31. The internal audit will be carried out for the duration of the project on an annual basis following the relevant standards of internal auditing and will include such tests and controls as the auditor considers necessary under the circumstances.

32. When conducting internal audit, special attention should be paid to the following:

- 32.1 Ensure that the accounting and financial management systems remain reliable and effective in design and assess the extent to which they are being followed.
- 32.2 Review the efficacy, adequacy, and application of accounting, financial, and operating controls and thereby ensure the accuracy of the books of accounts.
- 32.3 Verify that the system of internal check is effective in design and operation to ensure the prevention of and early detection of defalcations, frauds, misappropriations, and misapplications.
- 32.4 Identify areas of significant inefficiencies in the existing systems and suggest necessary remedial measures.
- 32.5 Confirm the existence of financial propriety in all decisions and verify compliance to government and statutory requirements as well as requirements of the Asian Development Bank (ADB), where applicable.
- 32.6 Confirm that the agreed procurement procedures and arrangements have been followed for works, goods, and services.
- 32.7 Check that all expenditures incurred have the necessary supporting documents and have been incurred following the rules of the Government of Bangladesh and the relevant financing agreement with ADB.
- 32.8 Ensure adequate records regarding the assets created and assets acquired by the project, including details of cost, identification, and location of assets are being maintained.
- 32.9 Carry out physical verification of assets as appropriate.
- 32.10 Review the reliability and integrity of financial and operating information and the means used to identify, measure, classify, and report such information.
- 32.11 Review operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned.
- 32.12 Ascertain that the internal control system including financial and operational controls, accounting system, and reporting structure are adequate and effective.
- 32.13 Suggest ways and means for mitigation of risks associated with the existing procedures and systems.
- 32.14 Monitor compliance with the best practices of corporate governance and identification of significant deviations thereof.
- 32.15 Ascertain the integrity and reliability of financial and other information provided to the management and stakeholders, including that used in decision making.
- 32.16 Identify financial control and process weaknesses and make recommendations for improvement.
- 32.17 Comment on the effectiveness of the mechanisms available in BWDB for ensuring compliance with observations of the earlier audit reports, and report on the corrective action taken on the observations of the earlier audit reports, along with a list of serious

observations made by the Foreign Aided Project Audit Directorate (FAPAD) that have not yet been complied with.

Task 6: Supporting community mobilization

33. The objective of community mobilization is to actively engage and involve local communities and stakeholders in the decision-making, planning, and management processes related to water resources and enhance their capacity to collectively manage and protect water resources to ensure sustainable and equitable water management. In this regard, the project aims to establish WMOs to sustain the project benefits, with strengthened institutional arrangements and social mobilization.

34. To support community mobilization work and formation, development and establishment of WMOs, ISPMC will be responsible for appointment of community facilitators, senior facilitators, field coordinators and WMO monitors. They will mainly be responsible for supporting the WMO formation, SIP preparation, capacity building of WMOs, link WMOs with Government's line agencies, service providers and market linkage, support collective action plans (CAP) of WMOs and check and monitor the overall WMOs and CAP activities under the guidance of PMO's WMO Development Unit.

35. The community facilitators, senior facilitators, field coordinators and WMO monitors will be engaged by ISPMC as support staff, and their selection must be approved in advance by the Project Director. Additionally, their TOR must be vetted by the PD. This team would report directly to the PMO and work under PMO's guidance. However, ISPMC is required to maintain their timesheet and payments, which will be reimbursed by the PMO. This will be included as a provisional sum under the ISPMC contract. For managing this activity, handling, and management charge of 5% of the invoice amount will be paid to the ISPMC for this task.

Task 7: Knowledge Transfer

36. The Consultant shall carry out the knowledge 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.

C. OVERALL RESOURCE REQUIREMENTS

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

a. International (man-month)		Total (p-m) (Key and non-key experts)	Key experts (p-m)	Non-key experts (p-m)
a-1	Water Resources Management Specialist/Team leader (TL).	12	12	
a-2	Water Management Organization (WMO) Specialist	9	9	

a-3	Environment, Health and Safety (EHS) Specialist	6	6	
Total of International		27	27	

b. National (man-month)		Total (p-m) (Key and non-key experts)	Key experts (p-m)	Non-key experts (p-m)
b-1	Water Resources Engineer/Deputy Team Leader (DTL)	54	54	
b-2	Water Management Organization (WMO) Specialist	36	36	
b-3	Integrated Water Resources Planner	30	30	
b-4	Value Chain Specialist	25	25	
b-5	Design Engineer (2)	36	36	
b-6	Mechanical Engineer	10	10	
b-7	Quality Control Engineer	48	48	
b-8	Agriculture Extension Specialist	36	36	
b-9	Fishery Development Specialist	36	36	
b-10	Agriculture Economist	10	10	
b-11	Gender and Social Development Specialist	36	36	
b-12	O&M Specialist	18	18	
b-13	Environment, Health and Safety (EHS) Specialist	20	20	
b-14	Mid-Level WMO Specialist	48		48
b-15	Mid-Level Value Chain Specialist	24		24
b-16	Mid-Level Quality Control Engineer (2)	96		96
b-17	Mid-Level Design Engineer	36		36
b-18	Mid-Level Agriculture Extension Specialist	36		36
b-19	Mid-Level Fishery Development Specialist	36		36
b-20	Mid-Level Gender and Social Development Specialist	36		36
b-21	Training Specialist	48		48
b-22	Resettlement Specialist	12		12
b-23	GIS specialist / Remote Sensing Specialist	12		12
b-24	Internal Auditor (Chartered Accountant)	10		10
b-25	Internal Auditor (support to Chartered Accountant)	20		20
Total of National Experts		809	395	414
Gross total National and International Experts		836	422	414

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 the 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.

D. REPORTING REQUIREMENTS

38. 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.

38.1 Regular reports:

- a) **Inception Report** (15 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.
- b) **Monthly Progress Report** (15 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.
- c) **Quarterly Progress Report** (15 copies), to be submitted within 15 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. The report for the fourth quarter of each calendar year should include the status of yearly progress of the respective calendar year, and will be called the annual progress report. The annual progress report will have to be submitted within 30 days after the end of each calendar year.
- d) **Draft environment management plan implementation monitoring report (annual)** (15 copies), 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 ADB.
- e) **Draft resettlement plan implementation monitoring report (semiannual)** (15 copies), to be submitted within 30 days after the end of June and December of each 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 ADB.
- f) **Mid-term Review Report** (15 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.
- g) **Project 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 services, incorporating comments from BWDB and ADB and other relevant parties.

- h) **Internal Audit Report** (15 copies) to be conducted annually and submitted to the Project Steering Committee with a copy to the Project Audit Review Committee in BWDB within 30 days from the last day of audit fieldwork.

38.2 Technical notes and other reports:

Drafts of each technical note will be reviewed by BWDB and ADB other relevant parties, will have to be finalised incorporating comments. The timelines for delivering each of these reports would be agreed in the inception report.

- a) **IWMP reports** (15 copies), to be submitted in the first and second year of the services, for the Beel Kajulia subproject that are indicated in **Table 1**.
- b) **O&M manuals** of water management structures and SIP wise O&M manuals (15 copies for each).
- c) **Draft Resettlement plans**, to assist the executing agency to submit resettlement plans for construction and rehabilitation of structures, as necessary.
- d) **Capacity development and implementation plans** for BWDB, line agencies and WMOs, and keep on updating during contract implementation.
- e) **Special Reports** by subject matter specialists, as necessary.
- f) **LCS (Labor Contracting Society) Guidelines**, to be reviewed and suggested revised version to be submitted.

E. CLIENT'S INPUTS AND COUNTERPART PERSONNEL

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

- 39.1 Relevant project data, reports maps of the SAIWRPMP and SAIWRPMP-AF and the proposed CRISP-WRM, as available with BWDB.
- 39.2 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 Directorate of Groundwater Hydrology will be charged requisite amount of fee.
- 39.3 All other required information, as available
- 39.4 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,

F. CLIENT'S INPUTS TO FACILITATE PREPARATION OF PROPOSALS

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

- 40.1 Relevant project data, reports maps of the SAIWRPMP and SAIWRPMP-AF and the proposed CRISP-WRM, as available with BWDB, including feasibility study reports of subprojects that were prepared under the original Southwest project.
41. The ADB's website provides basic information of the original Southwest project: http://adb.org/projects/details?proj_id=34418-013&page=overview
42. Draft safeguard documents for the proposed CRISP-WRM project are available on the ADB's web-sites:
- 42.1 Draft resettlement framework:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-rf>
 - 42.2 Draft resettlement plan:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-rp>
 - 42.3 Draft initial environment examination:
<http://www.adb.org/projects/documents/sw-area-integrated-water-resources-planning-and-management-af-iee>
 - 42.4 Semi-annual Environmental and social monitoring reports

G. QUALIFICATION REQUIREMENTS AND INDICATIVE TASKS OF EACH EXPERT

43. 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.

44. Team Leader must be responsible for supervision and management of the 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)	Required qualifications: The consultant must have a graduate degree, preferably a postgraduate degree, in civil engineering, water resources management, or equivalent professional experience. S/he preferably has 20 years of professional work experience, and the professional experience must include 10 years in planning, detailed design or implementation of water resources projects, flood control, irrigation, and drainage improvement projects. Experience in urban water supply and wastewater management cannot be counted in experience in water resources management. Experience of 5 years in the position of Team Leader/ Deputy Team Leader or Project Director would be required for this position. Experience in similar projects in South Asian countries, especially in Bangladesh, as well as experience with projects financed by Multilateral Development Banks including ADB, World Bank and other international organizations 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. <u>Major Tasks:</u> - Provide overall guidance, supervision and management of the entire ISPMC 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; - Ensure efficient coordination with PMO, BWDB, ADB, supporting agencies and other relevant agencies; - Guide Deputy Team Leader to ensure sound management of the ISPMC team and coordination with PMO during the absence of Team Leader; - Supervise the activities of the IWMP and SIP preparation, based on the experience learnt from the original Southwest project, ensuring stakeholder participation; - Support and advise project implementation activities of BWDB; - 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; - 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; - 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; - 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. - Prepare training programs for post-construction O&M for PMO/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; - Assist PMO to ensure that all project activities meet safeguard and gender requirements of the government and ADB; - Lead developing and conducting the institutional capacity development programs for BWDB and supporting agencies; - Lead establishing baseline and end-line targets for the project performance monitoring; - Supervise the preparation of regular reports, technical reports, and other deliverables to be submitted to BWDB.
a.2 Water Management Organization (WMO) Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate 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 professional work experience, and the professional experience must include 10 years in water resources projects, such flood control, irrigation,

	and drainage improvement projects. S/he also must have a good understanding of stakeholder participation to water resources projects. International experience in similar projects in South Asian countries, especially in Bangladesh, as well as experience with projects financed by Multilateral Development Banks including ADB, World Bank and other international organizations will be given advantages. Preference will also be given to experience in multidisciplinary water resources projects for externally funded projects in developing countries. <u>Major Tasks:</u> - Act as a task leader of stakeholder participation, WMO formation and ensure that project activities are conducted with due participation of stakeholders; - Assist PMO to prepare and revise TORs of community and senior mobilisers, and supervise mobilisers' activities; - Assist PMO to evaluate performance of the facilitators and WMOs; - Assist Team Leader to supervise the ISPMC's activities, regarding WMO formation, WMO support, and stakeholder participation; - 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; - Supervise to ensure that SIP implementation is undertaken through a participatory integrated approach; - Lead and oversee developing and implementing WMO training programs; - Develop improved training program for PMO/SMO staff, BWDB, facilitators and supporting agencies in participatory water resources planning and management; - Develop training programs for BWDB in participatory water resources planning and management; - 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 - Working with Team Leader, national WMO specialist, Institutional Specialist, and other relevant team members, develop proposals on institutional capacity strengthening of BWDB for participatory water resources management. - Organize Workshop on CAP, target setting and performance assesment of CF and SF in collaboration with SMOs. - Advise and assist OCWM and Directorate of Audit (under BWDB) for registration of WMOs, annual auditing and capacity building. - Assist and Guide quarterly participatory performance assesment and target setting workshop on CAPs and Advise for development.
a-3. Environmental, Health and Safety (EHS) Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in environmental science, relevant natural sciences, or equivalent professional experience. S/he preferably has 15 years of experience in professional work experience. The experience must include 5 years in the preparation of EIA or IEE and EHS documents, preferably for water resources management projects. International experience for externally funded projects in developing countries, especially in

	South Asian countries, as well as experience with projects financed by Multilateral Development Banks including ADB, World Bank and other international organizations will be given advantage. <u>Major Tasks:</u> - 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 five subprojects; - 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; - Formulation of draft EHS plan and documentation for IWMPs and SIPs; - During the preparation of bidding documents, clearly identify environmental, health and safety responsibilities as explained in the EIA/IEE, EMP and EHS plan;
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National Experts	
b-1. Water Resources Engineer / Deputy Team Leader (DTL) (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree, in civil engineering or water resources engineering, or equivalent professional experience. S/he preferably has 18 years of professional work experience and 5 years in water resources planning, development, and management. Experience in externally funded projects for multi-disciplinary water resources projects to support participatory and integrated planning as well as experience with projects financed by Multilateral Development Banks including ADB, World Bank and other international organizations will be given preference. Experience in urban water supply and wastewater management cannot be counted in experience in water resources management here. <u>Major Tasks:</u> - 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; i. Working with Team Leader, lead the development of capacity development programs for WMOs, to ensure all necessary activities are covered; j. Working with Team Leader, lead the development of the institutional capacity strengthening for BWDB and supporting agencies. k. Identify and select critical associated services such as agriculture, fishery, and livelihood enhancement, considering benefits and dis-benefits of the interventions; and l. Assist Team Leader in preparing documents to be submitted to BWDB and ADB.
b-2. WMO Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a master's in agriculture, sociology or relevant social sciences, or equivalent professional work experience. S/he preferably has 12 years of professional work experience, including 5 years in water resources planning, development, and management projects. Experience in multi-disciplinary skills to support participatory and integrated planning of water resources management project will be given preference. <u>Major Tasks:</u> a. Assist International WMO Specialist to accomplish his/her tasks; b. Impart orientation and training for the facilitators selected and engaged by PMO for WMO formation process and placed in SMOs; c. Supervise facilitator's activities for WMO formation and capacity development, and devise effective measures to ensure their satisfactory performance; d. On the basis of annual training plan, strengthen the capacities of the concerned staff with due monitoring of their performance; e. Assist PMO 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; f. Contribute the preparation of IWMPs and SIPs, especially drafting WMO institutional development plans; g. Arrange and impart trainings for WMO capacity strengthening in financial and administrative management and arrangements; h. Assist PMO in advising WMOs on appropriate organizational setup and operational arrangements including by-laws, the rules and regulations; i. Facilitate the participatory detailed design process for the concerned subunits; j. Assist OCWM and Directorate of Audit for registration of WMOs and annual auditing; k. Support PMO to arrange and deliver training for WMOs; l. Work with TL, DTL, and other relevant team members to assist SMOs and BWDB to facilitate O&M fee collection of WMOs; m. Supervise field activities of Mid-level WMO specialists and WMO monitors. n. Assist and Guide quarterly participatory performance assessment and target setting Workshops on CAPs.
b-3 Integrated Water Resources Planner (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree in civil/water resources engineering, water resources management or other relevant fields, or equivalent professional experience (master's preferred)

	S/he preferably has 10 years of professional work experience. National experience of 5 years in water resources strategy formulation, planning, and programming, with multi-disciplinary skills and experience to support participatory water resources management project will be given preference. <u>Major Tasks:</u> 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 - 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. Value Chain Specialist (Key expert)	<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. S/he preferably has 10 years of work experience, including 5 years in 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. <u>Major Tasks:</u> - Assess needs and relevance for value chain programs for enhancing the productivity of WMOs in the project area; - Develop sustainable value chain based farming practices in livestock, aquaculture and horticulture that bring positive outcome in quality of nutrititious food intake as well as economic and environmental benefits; - Identify potential partners and develop and implement suitable agricultural business plans with WMOs members and provide guidance during implementation and undertake regular monitoring and evaluation; - Enhance economic activity with WMOs by fostering private sector engagement and promotin of linkages with sustainable supply chains- International, national and local in general and women in particular; - Contribute to develop trainings and demonstration programs for WMOs. - 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-5. Design Engineer (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, in civil /water resources engineering, or equivalent professional experience.

	S/he preferably has 12 years of professional work experience, including 5 years in water resources management, flood embankments, regulators, river protection works, and other facilities required under the project; <u>Major Tasks:</u> - 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 qualities, 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-6. Mechanical Engineer (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, in Mechanical engineering, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in water resources management, flood embankments, regulators, gate with hoisting device and other mechanical facilities required under the project; <u>Major Tasks:</u> - 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 qualities, 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-7. Quality Control Engineer (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree in civil /water resources engineering, or equivalent professional experience. S/he has 10 years of professional work experience, preferably in BWDB project including 5 years in construction supervision and management. The consultant is expected have good understanding of quality control systems comprising proper site recording, reporting, and auditing arrangements.

	<u>Major Tasks:</u> a. Review the current procedures and managerial practices for structural design, bidding, contract and construction management including scheduling, supervision, quality control, quantity and quality recording; b. 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; c. Develop quality control monitoring system for the ISPMC team and SMOs to ensure construction quality and accountability under the project including on-site supervision and recording systems arrangements; d. Monitor the tendering and construction stages of each package and track in the management systems; e. Assist SMOs in putting in place a system of effective supervision of construction work carried out by contractors and LCSs; f. 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; g. 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; h. Ensure that the beneficiaries are aware that they have the right to inspect construction activities and that they are aware of the complaint procedures and that follow-up actions on the; i. Instruct WMO O&M committee for monitoring construction works in their concerned WMO area; and j. Develop training materials to be used in the quality control training of BWDB personnel.
b-8. Agriculture Extension Specialist (Key expert)	<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 12 years of work experience, including 5 years in agriculture or irrigation projects. <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 and update, if necessary, the overall work plan for agriculture extension support services and income generating activities for WMOs; e. Prepare monitoring and evaluation forms for agriculture extension and support services and agriculture related income generating activities for WMOs and assist BWDB in establishing monitoring and evaluation system for agriculture extension and agriculture related income generating activities; f. Support the establishment and 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, PMO and SMOs.
b-9. Fishery Development Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in fisheries or related subjects, or equivalent professional experience. S/he preferably has 12 years of professional work experience, including 5 years in projects related to fisheries development and fisheries extension. <u>Major Tasks:</u> - 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, PMO and SMOs.
b-10. Agriculture Economist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in agriculture economics/ economics or equivalent professional experience. S/he preferably has 20 years of or longer professional work experience. The experience must include 5 years in 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. <u>Major Tasks:</u> - 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 five 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 five 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.
b-11. Gender and	<u>Required qualifications:</u>

Social Dev. Specialist (Key expert)	The consultant must have a graduate degree, preferably a postgraduate degree in sociology, or relevant social science, or equivalent professional experience. She/he preferably has 12 years of experience, including 5 years in surveys and implementation of social development programs with a particular focus on vulnerable people including poor women. Experience in externally funded projects will be given advantage. <u>Major Tasks:</u> a. Ensure all project activities are conducted in consideration of gender requirements; b. Conduct gender awareness training for PMO and SMO staff and facilitators in gender consideration; c. For IWMP and SIP preparation, collect sex-disaggregated socio-economic data and information, including occupational pattern, poverty, and other human development indexes; d. Provide technical inputs to develop WMO base-line and end-line surveys, and MIS development to ensure that necessary gender data are included; e. Formulate a draft livelihood enhancement plan for IWMPs and SIPs; f. Support agriculture economist to design, arrange, and supervise socio-economic survey ensuring all necessary data are included in the survey; g. Support relevant team members to identify needs and develop WMO training programs; h. Suggest subproject-specific interventions to address gender imbalances and support other vulnerable groups; i. Monitor the implementation of GAPs, to ensure women participation of WMO activities and training. j. Assist the PMO in preparing GAP implementation monitoring reports.
b-12. O&M Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree in civil/water resources engineering or equivalent professional experience S/he has 12 years of professional work experience including 5 years in structural design and or construction quality control of water resources management project. The experience must include O&M plan development of participatory manner. National experience for externally funded of BWDB projects will be given preference. <u>Major Tasks:</u> a. Ensure that WMOs can have adequate O&M capacity before O&M transfer to WMOs, and assist PMO/SMO to organize training to WMOs; b. Propose improved institutional set up of JMC to ensure sustainable O&M, as necessary. c. 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; d. 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; e. 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;

	f. 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; g. 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 h. Facilitate, with water management association specialist, signing of management transfer/ joint management agreement between SMO and WMOs i. Prepare LCS guidelines.
b-13. Environmental, Health and Safety (EHS) Specialist (Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in civil engineering, environmental science or other relevant social science degree, or equivalent professional experience. S/he preferably has 12 years of professional work experience, including 5 years in preparation of EIA or IEE and EHS documents following government's requirements in Bangladesh. Experience in externally funded water resources management or irrigation projects will be given preference. <u>Major Tasks:</u> a. Assist International Environmental, Health and Safety (EHS) Specialist to accomplish his/her tasks; b. Assist BWDB in dissemination and explanation of additionally confirmed and identified environmental issues to public including holding public consultations; c. Assist BWDB in obtaining and renewing the Environmental Clearance from DOE in accordance with the planned implementation schedule; d. Prepare the IEE including EMP, ECOPs for the works packages as guided by ESRF and ensure to submit for approval; e. Assist formulation of draft EHS plan and documentation for IWMPs and SIPs f. During the preparation of bidding documents, clearly identify environmental responsibilities as explained in the EIA/IEE or EMP and EHS plan and transfer the EMP and EHS cost to BOQ; g. Assist in the preparation and review of the inception report, progress reports, and completion report and ensure that these reports meet environmental requirements. h. Conduct environmental monitoring and prepare the semi-annual environmental monitoring report. i. Conduct training for BWDB officials and project stakeholder.
b-14. Mid-Level WMO Specialist (Non-key expert)	<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 professional work experience, including 5 years in water resources planning, development, and management projects. Experience in multi-disciplinary water management to support participatory and integrated planning will be given preference. <u>Major Tasks:</u>

	a. 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-15. Mid-Level Value Chain Specialist (Non-Key)	<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. S/he preferably has 10 years of work experience, including 5 years in 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. <u>Major Tasks:</u> g. Assist Value Chain Specialist and work with him/her to accomplish tasks indicated in his/her tasks; h. 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-16. Mid-Level Quality Control Engineer (Non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a post graduate degree, in civil engineering, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in construction supervision and management. The consultant is expected have good understanding of quality control systems comprising proper site recording, reporting, and auditing arrangements. <u>Major Tasks:</u> Assist Quality Control Specialist for accomplishing tasks indicated in her/his tasks.
b-17. Mid-Level Design Engineer (Non-Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, in civil engineering, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in water resources management, flood embankments, regulators, river protection works, and other facilities required under the project; <u>Major Tasks:</u> a. Assist Design Engineer for accomplishing tasks indicated in her/his tasks; b. 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; c. 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; d. Support relevant team members to draw draft water management

	infrastructure plan and O&M plan for incorporation into IWMPs and SIPs; e. Prepare the technical specifications, bill of qualities, contract packaging, pre-qualification and tender document for the implementation of infrastructure and or any civil works; and f. Review and advice on the existing design standards in terms of cost effectiveness and efficiency.
b-18. Mid-Level Agriculture Extension Specialist (Non-Key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in fisheries or related subjects, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in projects related to fisheries development and fisheries extension. <u>Major Tasks:</u> a. Assist Agriculture Extension Specialist for accomplishing tasks indicated in her/his tasks.
b-19. Mid-Level Fishery Development Specialist (Non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in fisheries or related subjects, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in projects related to fisheries development and fisheries extension. <u>Major Tasks:</u> a. Assist Fishery Development Specialist for accomplishing tasks indicated in her/his tasks.
b-20 Mid-Level Gender and Social Development Specialist (non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in sociology, or relevant social science, or equivalent professional experience. S/he preferably has 8 years of experience, including 5 years in surveys and implementation of social development programs with a particular focus on vulnerable people including poor women. Experience in externally funded projects will be given advantage. <u>Major Tasks:</u> Assist Gender and Social Development Specialist for accomplishing tasks indicated in her/his tasks.
b-21. Training Specialist (Non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree, preferably a postgraduate degree in agriculture or other relevant discipline, or equivalent professional experience. S/he preferably has 15 years of professional work experience, including 5 years experience in agricultural promotion support and income generation support projects. <u>Major Tasks:</u> a. Review and update, if necessary, the overall training plan for agriculture extension, fishery development and income generating activities for WMOs; b. Assists PMO for organizing WMO capacity development training, and support coordination with supporting agencies; c. Prepare monitoring and 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 PMO,

	e. Prepare training module and annual training report.
b-22. Resettlement Specialist (Non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree in relevant social science, or equivalent professional experience. S/he preferably has 10 years of professional work experience, including 5 years in preparation and/or implementation of resettlement plans. Experience in externally funded of projects will be given advantage. <u>Major Tasks:</u> - Ensure the preparation and implementation of the resettlement plan meets requirements of the government and ADB; - Assist PMO and SMOs to coordinate with Deputy Commissioners offices. - The Resettlement Consultant will design, a plan to implement an information campaign in the affected areas primarily to inform the Affected Persons (APs) about the entitlement policy and how to avail of their respective entitlements. The campaign would include measures such as distribution of information booklets, leaflets, notices and other materials among the PAPs, carrying out community meetings, public announcements and any other measures necessary to provide information to all PAPs in the project area. - Soon after the engineering design is finalized, based on the final design the Resettlement Consultant will review/conduct census and baseline socioeconomic survey of the APs to finalize and/or update the Resettlement Plan. Further the Consultant will provide necessary support to PD to get approved by the ADB and respective Ministry of the Government of Bangladesh for its subsequent implementation. - Consultant will prepare final list of affected households/persons based on the census/SES/IOL for issuance of ID card. - The Resettlement Consultant will assist BWDB in processing entitlements for the APs and making payment of resettlement benefits to them. He will compile and process data in this connection for reporting or any other purposes. And will assist BWDB to make payment by A/C payee cheque to APs by the BWDB. - Training on Resettlement: The Resettlement consultant will organize a short training program for the core officials involved with implementation of RP as part of capacity building of BWDB. The training will be funded by BWDB. - Information Campaign and Information Dissemination: The Resettlement Consultant will conduct continued consultations among the the APs and other concerned regarding policies and options and assist APs in collecting legal documents required to claim compensation. He will also assist/guide APs to aware about the GRC procedures for disputes resolution. - Disbursement of Compensation: Payment of compensation to non-titled owners will be processed and paid by IA under direct supervision of the BWDB. The Consultant will supervise the process and will keep record of payment. - Notice for Encumbrance Free: After completion of payment of all compensation/entitlement and resettlement grants/benefits to APs from BWDB, consultant will keep records of issuance date of notice for making ROW encumbrance free signed by both BWDB and EPs.

	Land handover to contractors: The consultant will assist BWDB to hand-over the encumbrance free land to contractors. Contractors will move into sites the day following expiration of the encumbrance free notice.
b-23. GIS Specialist/ Remote Sensing Specialist (Non-key expert)	<u>Required qualifications:</u> The consultant must have a graduate degree in information communication technology or related field, or equivalent professional experience. S/he preferably has 8 years of professional work experience in concerned field. <u>Major Tasks:</u> - Support the preparation of IWMPs and SIP by using GIS and by collection and assessment of available satellite and other digital data; - Prepare necessary maps for project reporting and MIS; - Provide advisory support the development of WMO database; - Prepare necessary maps for the project reporting and MIS
b-24. Internal Auditor- Chartered Accountant (Non-key expert)	<u>Required qualifications:</u> The candidate must be a qualified Chartered Accountant or Certified Internal Auditor, with an overall 10 years of working experience with 5 years of experience of internal auditing. Experience with financial management arrangements for projects, preferably foreign and/or donor-funded projects. <u>Major Tasks:</u> - Ensure that the accounting and financial management systems remain reliable and effective in design and assess the extent to which they are being followed. - Review the efficacy, adequacy, and application of accounting, financial, and operating controls and thereby ensure the accuracy of the books of accounts. - Verify that the system of internal check is effective in design and operation to ensure the prevention of and early detection of defalcations, frauds, misappropriations, and misapplications. - Identify areas of significant inefficiencies in the existing systems and suggest necessary remedial measures. - Activities other than these mentioned in internal audit's scope of work.
b-25. Internal Auditor- Support to Chartered Accountant (Non-key expert)	<u>Required qualifications:</u> Must be a qualified Chartered Accountant or Certified Internal Auditors, with an overall 5 years of working experience with 3 years of experience of internal auditing. Experience with financial management arrangements for projects, preferably foreign and/or donor-funded projects is an advantage. <u>Major Tasks:</u> Assist Internal Auditor (Chartered Accountant) for accomplishing tasks indicated in her/his tasks.

H. DUTIES AND RESPONSIBILITIES

BWDB's Responsibilities

45. The Project-Director will ensure that the objectives, scope of works and expected outputs of the study as detailed in the TOR would be achieved within the agreed time schedule, and that the contents of the report are acceptable to GOB, and will direct the planning process and work program and supervise the study and monitor progress according to the objectives set in the TOR.

46. The Project Director will arrange regular meetings between the Consultants and relevant professional staffs of BWDB to discuss implementation, technical and management issues. Any unresolved issues, either technical or otherwise, shall be taken up with BWDB's senior technical personnel.

47. BWDB shall provide or make available the following data, services and facilities to the Consultants as per existing rule of BWDB.

47.1 All available information in PMO office and BWDB;

47.2 Available previous study reports.

Consultant's Responsibilities

48. The consultant should carry out the services as detailed in "Objectives, Scope of Works and Expected outputs" in the best interest of the Government with reasonable care, skill and diligence with sound engineering, administrative and financial practices. The Consultants should be responsible to the Project Director for discharge of responsibilities. All the primary and secondary data, maps, consultation information, notes on the interviews and other relevant audio and video clips collected during the service delivery would be handed over to the Project Director. In response to that, the consultant should:

48.1 Make available all the primary and secondary data (entire set of information involving audio-visual recordings) to Project Director or other agencies concerned as and when required directed by Project Director. Data and information would be submitted to the Project Director both in hard and soft copies.

48.2 Make necessary arrangements for site investigation, environmental and social survey and data collection as needed for performance of the assigned task in close consultation with the field office.

48.3 Provide all support for the effective delivery of the services as stipulated in the objectives, scope of works and expected outputs written in the TOR.

48.4 Actively join the workshops with regard to the purpose of the service in presence of the BWDB officials and other stakeholders both at the project area.

48.5 All types of technical support (like preparation of maps on the requirement of the client and any other information related to the task the consultant is assigned with) would be provided to the Project Director.

49. All the stakeholder consultation sessions would be recorded for future documentation. Video recording would be done and the clips should be handed over to the Project Director. Consultants would be introduced with necessary introductory information and mobile phone number duly incorporated in the reports. Discussion points should be focused on properly and addressed accordingly.