Participatory Procurement Practice of Water Sector in Foreign Aided Project: An Analysis of ADB Finance "SWAIWRPMP Project" in BWDB

A Dissertation by

AMRITA KUMAR DAS

Student ID No. 13182007

For the partial fulfillment of
Masters in Procurement and Supply Management

Institute of Governance Studies (IGS)
BRAC University, Dhaka.

March 2013

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March 2013

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STATEMENT OF THE AUTHOR

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Abbreviations

ADB	Asian Development Bank
ADP	Annual Development Programme
BWDB	Bangladesh Water Development Board
DPP	Development Project Proposal
FAP	Flood Action Plan
FCDI	Flood Control Drainage and Irrigation
GOB	Government of Bangladesh
IWRM	Integrated Water Resource Management
LCS	Landless Contracting Society
MoWR	Ministry of Water Resource
NGO	Non Government Organization
NWPo	National Water Policy
O&M	Operation and Maintenance
PPTA	Project Preparatory Technical Assistance
QCS	Quality Control Specialist
RFP	Request for Proposal
SMO	Subproject Management Office
SWAIWRPMP	South West Area Integrated Water Resource Planning and Management Project
TA	Technical Assistance
UN	United Nations
VFM	Value for Money
WMA	Water Management Association
WMO	Water Management Organization

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ABSTRACT

Bangladesh Water Development Board plays the most important role in water sector management of Bangladesh. Since its establishment in the 60's, lots of water management related project has been completed through this renowned organization of Bangladesh. The funding of these projects was both from the Government exchequer and Development Partners Aid/Grant. These completed projects have achieved mixed success in terms of sustainability. Previous planning efforts tended to focus on constructing major single purpose flood protection works, and overlooked diverse stakeholder's needs and multidimensional implications of water management. Implementation was also top down. O&M of the infrastructure was inadequate and under resourced, with little beneficiary participation and support. These called for major reforms in the policy and institutional framework and capacities of agencies to effectively meet the countries significant and highly complex sector challenges and opportunities. On the basis of fact findings, the Government initiated comprehensive policy and institutional reforms for the sector. The National Water Policy (NWP) was adopted in 1999 that set out due policy goals and principles for participatory and integrated water resources management (IWRM), strategic planning, sustainable O&M with progressive management transfer to water management associations (WMAs) and improved governance of sector organizations. Along this line, Guidelines for participatory water management (GPWM) were finalized. The National Water Management Plan (NWMP) was also finalized in 2004, which provided a strategic roadmap for achieving NWP goals, with its short term programme emphasizing on enabling environment and institutional capacities.

The SWAIWRPM Project was prepared through a project preparatory TA (PPTA) of ADB to institutionalize the said management process for medium and large FCDI schemes in the selected hydrological sub-regions in the South West. The standard procurement practice in SWAIWRPMP along with the participation of the beneficiaries at some important stages of the procurement cycle has made it a suitable candidate for the present study.

The Objects of the present study are to identify steps of procurement cycle followed in SWAIWRPMP, assess the compliance of sample work procurement packages with the procurement cycle, identify the constraints in implementing the procurement cycle, assess the sustainability of the procurement and assess the achievement of value for money in public procurement.

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Key informants interview with the different stakeholders of the supply chain of the project was conducted to express their views regarding the objectives of this study. Questionnaire survey was also conducted among the beneficiaries to have their primary view. Data regarding some sample packages of procurement was also collected from the field office. The Qualitative and quantitative analysis of these data has helped to reach a conclusion of this study.

The key findings of the study reveals Procurement cycle that described in the DPP of the project is followed strictly here with the direct guidance from the ISPMC consultants and time to time monitoring by the development partner ADB. Sometimes delay in designing of civil works creates bottlenecks which subsequently delays the whole procurement cycle. Besides involvement of local beneficiaries at important stages of procurement cycle, other steps taken by the project authority e.g. training programme on different income generating activities, construction of WMG building, resettlement programme of the affected people, transfer of O&M activities of the completed work to the local beneficiaries etc have ensured the sustainability of the procurement. Two most important stakeholders of the supply chain the executing agency and the local beneficiaries have also optimistic about the sustainability of the procurement.

Need identification from the local stakeholders, making congenial atmosphere for a genuine competitive bidding, rigorous time, quality and cost control by more than one party especially local stakeholder have ensured the achievement of value for money in the procurement practice of the SWAIWRPM project.

Though study reveals that good procurement practice is followed in the SWAIWRPM project, for further improvement, at Pre bidding stage more skilled manpower should be deployed in the design circle for short term solution of the problem as they are overloaded with the design work. In the long term the design of the civil works should be laid upon the consultants which will expedite the project implementation. Some power of estimate sanction may be delegated the field Executive Engineer as per the Delegation of Financial Power of BWDB which will expedite the project work.

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At the Bidding stage All the qualification criteria (financial and experience) should be reset in accordance with the PW3 document issued by the CPTU in order to ensure the participation of the local suppliers. In setting the experience criteria (both general and specific) the inflation of money should be taken into consideration. Provision of pre bid meeting should be kept so that the bidders can fill the bid document appropriately. Training classes on the procurement rules and regulations, contract management should be conducted for the suppliers so that they become aware of the rules and guidelines of the Development partners and the PPR and take part in the bid and manage the contract accordingly.

At Contract management stage the advance payment procedure should be relaxed or the amount of performance security should be made 5% if not front loaded. Better coordination among the three parties who are engaged in control of quality should be made in order to expedite the implementation. Local stakeholders should be involved more in contract management stage to control quality .Local stakeholders should be adequately trained so that they can take the responsibility of the O&M after transfer of the responsibility. If the newly constructed WMG building is rented for training purposes then the house rent will be a source of income for the WMGs. Moreover the interaction among the WMG members will also increase. The initiatives taken by the project authority should be supported by an expert from the concerned sector. For example if a WMG takes initiatives for Apiculture, the project authority should engage an Apiculturist to support that initiative. Key players of the WMGs should be trained in BIRRI, BARI, BFRI etc to give them the state of the art technical knowledge about different income generating activities then entrepreneurs will be developed and the procurement will be successful.

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CHAPTER-1

INTRODUCTION

1.1 Background of the study:

Public Procurement is considered as a cornerstone of the development of a nation. Effective Implementation of the Government pledges towards the people depends mostly on an efficient, effective, transparent and sustainable procurement process. Budget of Bangladesh comprises of two components: Development and Revenue. Funding for these two components of Budget come from both from the Government and Grant/ Loan from international lending agencies like World Bank, ADB etc and foreign govt. Foreign Grant/ loan comprise an important part of Bangladesh Government's Annual Development Programme (ADP). In the revised ADP of 2011-12 fiscal year the allocation was Tk. 355000 million among them Tk. 119300 million was project aid which is 33.61% of the total revised allocation . On an average the percentage of the project aid varies from 35-40% of the total ADP allocation. Year wise allocation, % of project aid in that allocation and expenditure of Annual Development Programme from financial year 1971-72 to financial year 2010-11 is shown in table-A1 of **APPENDIX- A** (handbook of Economic relations Division)

The total allocation of Annual Development Programme (ADP) is distributed among the different ministries of the Government including the Water Resource ministry. Year wise allocation and Utilization of ADP including the portion of project aid are shown in Table-A2 of **APPENDIX-B.** Bangladesh Water Development Board is the largest organization Under Ministry of Water Resources (MoWR). 45 Nos of projects were included in 2012-13 financial years' ADP of BWDB. Total allocation against these 45 projects was tk. 20857.70 million among them tk 15201.80 GOB funded and foreign Aid Tk. 5655.90million **(APPENDIX-C).** As the principal agency of the Government for managing water resources of the country it was given the responsibility of accomplishing the tasks of executing flood control, drainage and irrigation projects to increase productivity in agriculture and fisheries. After recurrence devastating flood of 1954 and 1955 ‘Crug Mission’ was formed in 1957 under United Nations (UN) to boost up food productivity by minimizing flood damage and water resources development & management in this region. As per mission’s recommendations, Bangladesh Water Development Board (BWDB) started its operation in 1959 as the water wing of the erstwhile ‘East Pakistan Water and Power Development Authority’ in 1959. After the independence of Bangladesh, the

authority was restructured in 1972 into two different organizations to deal with water and power separately. BWDB was created under the Bangladesh Water and Power Development Boards Order 1972 (P.O. No. 59 of 1972) as a fully autonomous organization. The reform program and structural adjustment process were undertaken by the GoB for transformation of BWDB is the enactment of the BWDB Act, 2000 that requires the BWDB's functions be guided by the National Water Policy (NWPo)-1999 and National water Management Plan (NWMP)-2004. Policy making and overseeing the overall management of BWDB is now vested on the Governing Council (GC) with thirteen Members headed by the Minister, Ministry of water Resources.

Bangladesh is located at the confluence of the three major regional river systems that bring about significant physical challenges including massive monsoon floods and drainage congestion (inundating 30% of the country's land area on average), riverbank erosion, serious dry season water scarcity, natural disasters such as cyclones and widespread ground water arsenic. Access to and effective management of water is critical for the livelihood of rural poor as they fundamentally affect their productive and livelihood activities. Moreover water management is further complicated by diverse and complex stakeholder's interest, widely varying in different or even same topographical locations among agriculture, capture and culture fisheries, boat transport, rural industries, drinking water and associated non-farm activities. Water is also vital for the country's rich natural ecosystems. Thus, it is paramount to manage this critical resource through an integrated, participatory and decentralized approach with due attention to the interests of the vulnerable poor.

Substantial efforts were made since the 1950's to manage the large public investment, culminating 9,500 km embankment, 11500 km canals, 60 km revetments and over 13,300 hydraulic structures. While these provide essential flood protection and drainage functions for 5.4 million hector of land, there performance remains suboptimal. On the other hand, irrigated areas expanded rapidly from 1.6 million hector in 1980 to 4.4 million ha in 2001, thanks to expansion of private groundwater irrigation, the main driving force for paddy production growth. Yet the cost of groundwater irrigation is rising as more water is extracted, posing a constraint for further expansion.

The region has the most acute water management problems in Bangladesh. Of particular concern is the 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) Flood inflow from the Ganges in the

monsoon and deterioration of existing FCDI systems (ii) drainage congestion and sedimentation of tidal channels caused by coastal polder construction and reduced tidal swept volume (iii) arsenic contamination. Improving water management is most critically needed in the area.

Following the devastating floods in 1987 and 1988 that inundated over 60% of the country's land, major international co-ordinate efforts were provided in 1990s under the flood action plan, to systematically address the country's water management problems. A total of 26 regional and thematic studies were done with the support of 16 external funding agencies. The FAP studies contributed to establishing a substantial knowledge base. However they also revealed deficiencies of the past sector interventions. Specially, previous planning efforts tended to focus on constructing major single purpose flood protection works, and overlooked diverse stakeholder's needs and multidimensional implications of water management. Implementation was also top down. These lead to negative environmental and social impacts (such as reduced capture fisheries causing hardships to the poorest), and left many water management problems within the area unaddressed (such as over drainage for high land) or opportunities unutilized (such as local water storage for irrigation and fish culture). Most critically, O&M of the infrastructure was inadequate and under resourced, with little beneficiary participation and support, leading to chronic facility deterioration, frequent flood damages and subsequent rehabilitation needs. These called for major reforms in the policy and institutional framework and capacities of agencies to effectively meet the countries significant and highly complex sector challenges and opportunities.

On the basis of fact findings, the Government initiated comprehensive policy and institutional reforms for the sector . The National Water Policy (NWP) was adopted in 1999 that set out due policy goals and principles for participatory and integrated water resources management (IWRM), strategic planning, sustainable O&M with progressive management transfer to water management associations (WMAs) and improved governance of sector organizations. Along this line, institutional reforms of Bangladesh Water Development Board (BWDB) were initiated which include (i) reformulation of its board to include stakeholder representatives and sector experts (ii) Long term assignment of leadership and (iii) significant staff rationalization with skill mix diversification, envisaging its transformation from atop down implementer to a service oriented agency. Guidelines for participatory water management (GPWM) were also finalized. The National Water Management Plan (NWMP) was also finalized in 2004, which provided a strategic roadmap for achieving NWP goals, with its short term programme emphasizing on enabling environment and institutional capacities.

While operationalizing NWP with sound O&M still remains a challenge, useful lessons were learned during the process of aforementioned interventions. First is the need for integrated planning, development and management of water to address diverse needs and concerns and for careful and sufficient provision of services to address other local production constraints. Second, sufficient time, resource and management are critical for WMA formation, with clear measurable targets that should be achieved prior to civil works. O&M requirements should be agreed at this stage with upfront cash contribution and follow on field training. Third, quality control requires rigorous attention with particular care for protecting poor people's interests. Fourth, well managed local infrastructures provide a basis for WMA's to start addressing social agendas with participation of the poor and taking on active roles in local development process.

The SWAIWRPM Project was prepared through a project preparatory TA (PPTA) of ADB to institutionalize the said management process for medium and large FCDI schemes in the selected hydrological sub-regions in the South West. A Summary on SWAIWRPM project is shown in **APPENDIX-D**. To launch the process, the PPTA prepared a participatory integrated water management plans (IWMPs) in Chenchuri beel and Narail schemes (covering 57,000 ha), which identified diverse water related stakeholders interests and cross sectoral development constraints, and laid out holistic measures to enhance and sustain their performance. Feasibility project design incorporated he aforementioned lessons, with provisions for setting out clear development targets, sufficient upfront WMA strengthening, WMA driven program delivery with due support for Agriculture, fishery and livelihood, mechanisms to protect and address the interests of the poor, intensive O&M capacity strengthening to WMAs and improved internal and external quality control, with necessary use of outsourcing to private providers including NGO's. Building the above preparatory processes, the project implementation is needed to demonstrate and institutionalize the way to enhance and sustain the performance of medium and large FCDI schemes, a critical and prioritized NWMP agenda.

The above mentioned participatory approach of project implementation in SWAIWRPM project also express the presence of a sustainable procurement cycle with the involvement of the stakeholders at different important stages of procurement cycle. So, analysis of the procurement cycle of SWAIWRPMP will reveal the involvement of the local stakeholders at different stages of procurement, the activities taken to make the procurement sustainable and the potential for achieving Value for Money. This is also a representative of the participatory projects taken in water sector under foreign investment. For this reason the South West Area Integrated Water

Resources planning and Management (SWAIWRPM) project has chosen for conducting the research work.

1.2 Statement of the problem

A transformational change in the implementation of the water sector project is expected due to introduction of the participatory water management approach. The specific objective of introducing this participatory approach in the SWAIWRPM project is as follows;

● To ensure people's participation at all stages of all stages of the water resources infrastructure rehabilitation procurement (selection, planning, implementation, operation and maintenance [O&M] and monitoring and evaluation [M&E])

●To establish sustainable water management in the selected sub projects with active participation of stakeholders and to develop and improve local people traditional knowledge, skills and capacity in planning, implementing and managing their water resources and systems.

●To transfer the management responsibility (fully or partially) from BWDB to the people of the community, through democratically established Water Management Organizations (WMOs)

Identifying the procurement cycle in SWAIWRPM project by analyzing some sample packages will not only help to identify the compliance of the above objectives of the project but also the constrains that hinders the implementation of the above objectives. This identification is also important for achieving the operating principles of the main lending agency of the project, Asian Development Bank (ADB) which are as follows:

Economy and Efficiency

To achieve economy and efficiency, contracts are to be procured through international competition unless other forms of procurement are more suitable and have been agreed upon between ADB and the borrower.

Fairness

Procurement procedures must give member countries adequate, fair, and equal opportunity to compete for contracts.

Transparency

Transparency is essential in the procurement process to achieve economy and efficiency and to combat fraud and corruption.

Compliance with the above ADB principles in the spending of the foreign aided fund will ensure not only value for money but also the required inflow of foreign aided fund in GOB's deficit Budget. So, identifying the procurement cycle of some sample packages is the main driving force of this study.

1.3 Research Questions

The study intends to know about the procurement practice of a specific foreign aided project like SWAIWRPMP. The main research question of the study is as follows:

Q1: Does the procurement cycle of the sample packages comply the objectives of the SWAIWRPM project which have mentioned in the Development Project Proposal (DPP)? If not finding out the constraints to implement it in SWAIWRPM project.

And the supplementary questions are as follows:

Q1: Does the procurement practice of the SWAIWRPM project have the potential to make the procurement sustainable?

Q2: Does the procurement practice in SWAIWRPM project is efficient and effective enough to achieve value for Money (VFM)?

1.4 Research Objectives

The Specific objectives of this study are as follows:

- To identify steps of procurement cycle followed in SWAIWRPMP.
- To assess the compliance of sample work procurement packages with the procurement cycle
- To identify the constraints in implementing the procurement cycle in SWAIWRPMP
- To assess the sustainability of the procurement in SWAIWRPMP
- to assess the achievement of value for money in public procurement.

1.5 Limitations of the study

The limitations of this study have come from both its scope and its methodology. Only the SWAIWRPM project has been taken for analyzing the participatory approach in foreign aided project. The beneficiaries and suppliers representative was selected on the basis of researcher's convenience. Selections of the suppliers were done those who were interest only. Time constraint was also a major limitation of the study.

1.6 Organization/Structure of the study (chapter details)

The study has been arranged in six broad headings: Introduction, Literature Review, Critical Analysis of Procurement Practice in SWAIWRPMP, Methodology, Findings & Analysis, Conclusion and Recommendations and References. In the introductory chapter, the areas which have been covered are the background of Study, Statement of the problem, Research questions, objectives and limitations of the study. The second chapter starts with a brief view Public Procurement, Value for money in Public Procurement, Sustainable Procurement, Procumbent Cycle, National Water Policy, BWDB Act-2000, National Water Management Plan, Scope Triangle or the quality Triangle of a Project, Cost Control, Time Control and quality control of a Project & finally critical path method and Gnatt chart for controlling Project targets. The third chapter start with provision of procurement practice in Foreign Aided Project under PPA'2006 & Procurement practice in the DPP of SWAIWRPMP. In the Methodology chapter which is the Fourth chapter, Methods of collecting data, Sample size place of study and study period & data processing & analytical framework of the study have been described. The Findings and Analysis chapter starts with the overview of the respondents followed by an overview of the survey questionnaire and key informant interview. Then the findings of the questionnaire survey have been presented with an analysis and in-depth discussion. Thereafter, conclusion of the study has been drawn with some specific recommendations. Finally, References and appendices have been stated for a clear understanding of the study.

CHAPTER-2

LITERATURE REVIEW

2.1 Public Procurement

Office of the Government Commerce, UK has defined public procurement as the process whereby public sector organizations acquire goods, services and works from third parties. It includes much that supports the work of government and ranges from routine items (e.g. stationery, temporary office staff, furniture or printed forms), to complex spend areas (e.g. construction, Private Finance Initiative projects, aircraft carriers or support to major change initiatives).

In the Public Procurement Act 2006, the term 'procurement' itself has been broadly defined to include purchasing or hiring of goods or acquisition of goods through hiring and purchasing, execution of works and performance of any services by any contractual means (Hoque, 2010).

2.2 Value for Money (VFM) in the public procurement

Achieving Value for Money (VFM) is important for any Public Procurement. In the "Construction Procurement Manual" of the Scotish Government Publication, the prime objective of public procurement is defined as to achieve VFM - the optimum combination of whole life cost and quality to meet the customer's requirement. VFM does not necessarily mean accepting the lowest bid; rather quality, as well as price, must be considered when appointing consultants and contractors. The greatest opportunity for achieving VFM occurs at project inception. Correct project definition is essential to meet the users' needs while achieving VFM. VFM is more than the lowest cost. VFM

- Increased benefits to the end users of a service
- Greater certainty of the financial outcome due to less exposure to risk
- The delivery of a service at a specified level for a lower cost.

2.3 Sustainable procurement

Sustainable procurement is a purchasing and investment process that takes into account the economic, environmental and social impacts of the entity's spending. Sustainable procurement allows organizations to meet their needs for goods, services, construction works and utilities in a way that achieves value for money on a whole-life basis in terms of generating benefits not only to the organization, but also to society and the economy, while remaining within the carrying capacity of the environment".

Effective procurement is sustainable procurement that promotes positive outcomes for the economy (e.g. through supplier diversity, such as subject matter experts (SMEs), ethnic minority enterprises, use of apprentices and training), environment (e.g. water, waste, green house gas (GHG) and emissions, etc.) and society (e.g. Diversity and equality, child labor, forced labor, working conditions, etc).The public sector should promote sustainable procurement throughout the acquisition and disposition process and sustainability should be embedded in all procurement decision making. Beyond legislative requirements, there are many drivers (as referenced in the BS8903: Principles and framework for Procuring Sustainable) that support sustainable procurement, such as:

• **Financial:** Provides the delivery of operational cost savings through more efficient goods, works and services; challenging demand at source to ensure need; reducing end of life disposal costs; driving efficiency in the supply chain; and developing market capacity, innovation and competitiveness. Sustainable procurement should reduce waste which, in turn, reduces cost.

• **Risk:** Significant sustainability impacts should be identified and addressed as part of any comprehensive risk management strategy. Identified risks may include, but are not limited to legal risks, financial liabilities, moral/ethical risks, security of supply risks, price volatility risks and risks to reputation. An organization's risk profile will continue to evolve based in part on the rapidly changing environments and the growing public awareness and appetite for

sustainable solutions.

• **Increased stakeholder expectations and awareness:** Generates greater pressure on organizations to consider the environmental, economic and social aspects of business and to implement sustainable initiatives. Organizations should recognize the need to foster stakeholder goodwill and proactively and effectively address expectations and concerns in regard to sustainable procurement.

• **Organizational policy commitments and targets:** An expression of the culture, values, and vision by which an organization operates. This should be supported by procurement and reflected in procurement policy, strategy objectives, business practice and decision making.

2.4 Procurement cycle

The Procurement Cycle encompasses the timeframe between the identification of a requirement and the ultimate award of a contract. It can also encompass the contract management process. The standard steps of the procurement cycle can be identified as follows:

Requirement Identification

The procurement cycle begins with the identification of a need which creates a requirement. A need to cross a body of water creates a requirement to build a bridge, a ferry, and so on.

Procurement Planning

Once requirements are defined and approved, procurement planning begins. Some important questions to consider at this stage are: (i) when are specific requirements needed? (ii) Are there any requirements on the critical path? (iii) Are there any dependent requirements? (iv) What are the different procurement methods that will be used? (v) What is the average lead-time for each procurement method?

At this stage it is crucial for a procurement practitioner to get involved in order to work with the project implementing entity or other government entities to develop a procurement plan that takes into account the most appropriate procurement method for each requirement considering the budget and urgency of need.

Procurement Requisition Processing

The first step in processing a procurement requisition is to determine what the requesting entity wants. This is done by reviewing specifications or description of Goods, Services or Works required by the requesting entity. Such information should ideally be clearly expressed in the procurement requisition. There must be sufficient detail in the description to ensure that all prospective bidders or service providers have essentially the same understanding of the requirement. If the specifications are clear the bidding process can begin, if not, the procurement practitioner must seek clarification in order to finalize the bidding or proposals request documents accordingly.

Determine Procurement Method

Once the requesting entity's requirement is clearly defined, the procurement practitioner must determine the appropriate procurement method to fulfill the requesting entity's need in a most expeditious and cost-effective manner. This should ideally be done during the procurement planning stage, and the requirement considered in the procurement plan; however, if this was not the case, at this point the procurement method needs to be determined

Prepare and Publish Bidding/Proposal Documents

Once the procurement method is determined, the next step is to begin the bidding process with the preparation of the bidding or proposal request documents. The procurement practitioner prepares the bidding/proposal request documents and then (after obtaining the necessary clearances to advertise the requirement) invites vendors, suppliers, contractors or consultants (firms or individuals based on the requirement) to submit bids/proposals. Such advertisement may be done locally and/or internationally depending on the governing procurement guidelines. Prospective bidders, upon request, will be given or sold a formal bidding/proposal request document containing all the information required to successfully compete for the fulfillment of the requirement, and, most importantly, to successfully prepare their bids/proposals for submission on a date specified in the bidding/proposal request documents.

In the case of shopping requirements, which are considered non-competitive procurements, a request for quotation is sent to three or more prospective bidders from a list of known sources of the goods/services being procured.

Pre-Bid/Proposal Meeting and Site Visit

Pre-bid meetings for works procurement are held alone or in conjunction with a site visit. Pre-proposal meetings are held primarily for complex requirements. The purpose of the pre-bid/ proposal meeting is to clarify the bid documents or the Request for Proposals (RFP). Bidders/Consultants are invited to such meetings after the bid/proposal documents have been advertised for a short period, allowing sufficient time for prospective bidders/consultants to

become familiar with the requirement. Pre-bid/proposal meetings are programmed during the preparation phase and are mentioned in the bidding/proposal request documents. If there's no mention of such meeting in the bidding/proposal request documents, such meeting is not held unless an amendment (addendum) is made to the bidding/proposal documents prior to scheduling the meeting. Sometimes, as a result of the site visit/pre-bid meeting there might be a need to extend the bid submission date by way of an Addendum to the bid document to give bidders sufficient time to address issues arising as a result of the site visit and pre-bid meeting.

Bid/Proposal Submission and Opening

After the pre-bid meeting, one of the following is a natural consequence:

(i) the selection process continues to the bid submission and opening date, as planned,

(ii) the submission date is extended by addendum to give bidders a reasonable amount of time address issues raised during the site visit and pre-bid meeting, or

(iii) the requirement is altogether cancelled by the Client.

Assuming the process continues as expected, the bid/proposal submission and opening will follow.

The opening event is a prelude to the evaluation process given that an initial summary examination of the documents received should take place to determine compliance with the submission requirements. Any bids/proposals received after the pre-announced bid/proposal submission date and time, should be rejected and not considered for further evaluation. This is the only circumstance that could lead to the rejection of bids/proposals during the opening event. For the bid/proposal opening a checklist is prepared. Attendance is also taken and, in the case of bids for goods and works procurement, the bids price is read out and recorded on a board for all attendees to see and record at their discretion. The preliminary examination of the bids/proposals is left for actual bid/proposal evaluation which is carried out by an approved evaluation panel.

Bid/Proposal Evaluation

Before the bid or proposal evaluation takes place, an evaluation panel is formed and approved. Ideally, to create a separation of functions, procurement practitioners should advise, oversee and/or assist with the drafting of the evaluation report, but they should not be members of the evaluation panel. Membership of such a panel should be determined based on the qualifications of the prospective evaluators. It is preferred that evaluation panel members should have knowledge and related experience and, at least, one member, preferably from the requesting entity, invited. Conflict of interest is a serious issue that must be taken into account in the evaluation process, such that all prospective members of the evaluation panel should sign a declaration of impartiality and confidentially wherein they are expected to declare absence of any family of business ties with the bidders/consultants that submitted bids/proposals. As mentioned above, after the initial examination done during the bid/proposal opening, a preliminary examination of the bids/proposals is done to determine, among other things, the responsiveness of the bids/proposals to the bid/proposal documents. Thereafter, a detailed examination of the bids/proposals is carried out as per the pre determined criteria.

Award Recommendation

The contract award recommendation resulting from the evaluation and scoring of bids/proposals leads to a request for clearance/no-objection to award the goods/works contract (depending on the requirement) or to begin negotiations with the selected consultant, in the case of consulting services. Upon concurrence and approval/no-objection of the award recommendation, in some cases Intent to Award is prepared and published.

Contract Negotiations

In the case of consulting services, the award recommendation by the evaluation panel is contingent upon a successful negotiation of the contract with the selected consultant (firm or individual). Thus, the award recommendation is in fact a recommendation to initiate contract negotiations with the selected consultant. Contract for goods and works procurement are not usually negotiated except under special circumstances the details of which must be specifically stipulated in the bidding documents.

Contract Award

For goods and works procurement, contract award takes place with the notification of the responsive bidder with the lowest evaluated price. Such notification is done by way of a formal letter of acceptance to which a response must be received within a stipulated period of time. In the response to the client the selected bidder must also declare their mobilization or timeframe within which they intend to begin setting up and taking over the site to begin works (this is in the case of works). For goods there isn't such mobilization period, so once the bidder signs the contract, the delivery schedule becomes effective. In some cases, depending on the legislation, the notice period is also used as a "standstill" period of sorts which is very similar to the intent to award period mentioned above in step 9, where the selected consultant are allowed a period of days to submit any claims if they consider that they may have suffered loss or injury due to a breach of an obligation imposed on the procurement entity by the present regulatory document. Otherwise, after the standstill period the contract is signed between the contracting parties.

Post Contract Award Considerations

After contract signing, unsuccessful bidders/consultants have the right to request debriefing by the procurement entity. The debrief can be done orally or in writing, and essentially gives bidders/consultants an indication of the strengths and weaknesses of their bids/proposals, which should help them understand the reasons why they were not selected. In some cases, this debriefing is done during the standstill period, but this depends on the approved procedures. Debriefing also helps bidders/consultants to improve the quality of their bids/proposals. Contract award is the beginning of the contract administration phase where the implementing entity will supervise the performance of consultants and the supervising engineer will oversee and report on the works contractor performance. In the case of goods, given that finished goods are usually being received, contract administration is limited to inspecting goods received to ensure they comply with requirements, and are fit for their intended purpose.

Contract management phase (After the contract is awarded)

Includes activities such as progress monitoring, delivery follow-up, payment action, monitoring, exercise optional periods/quantity, etc. During this phase, various activities may arise such as:

- ‘Kick off’ meeting (Meeting minutes)
- Task Authorizations
- Follow-up on the progress of the work
- Resolve disputes
- Amend the contract

Post contract phase (Close out, warranty and audit)

- Includes file final action. During this phase, some activities may arise such as:
- Final amendment on contract
- Approval on last payment
- Final payments
- Proof of delivery
- Return contract financial security and holdbacks
- Initiate an audit of a cost-reimbursable contract
- Make sure that all Crown-owned Intellectual Property and Government Furnished Equipment are returned
- Address Contractor claims
- Receive the contractor performance
- Client satisfaction
- Ensure your file is properly documented
- Put away your file

Then, the line diagram of standard procurement cycle is as follows:

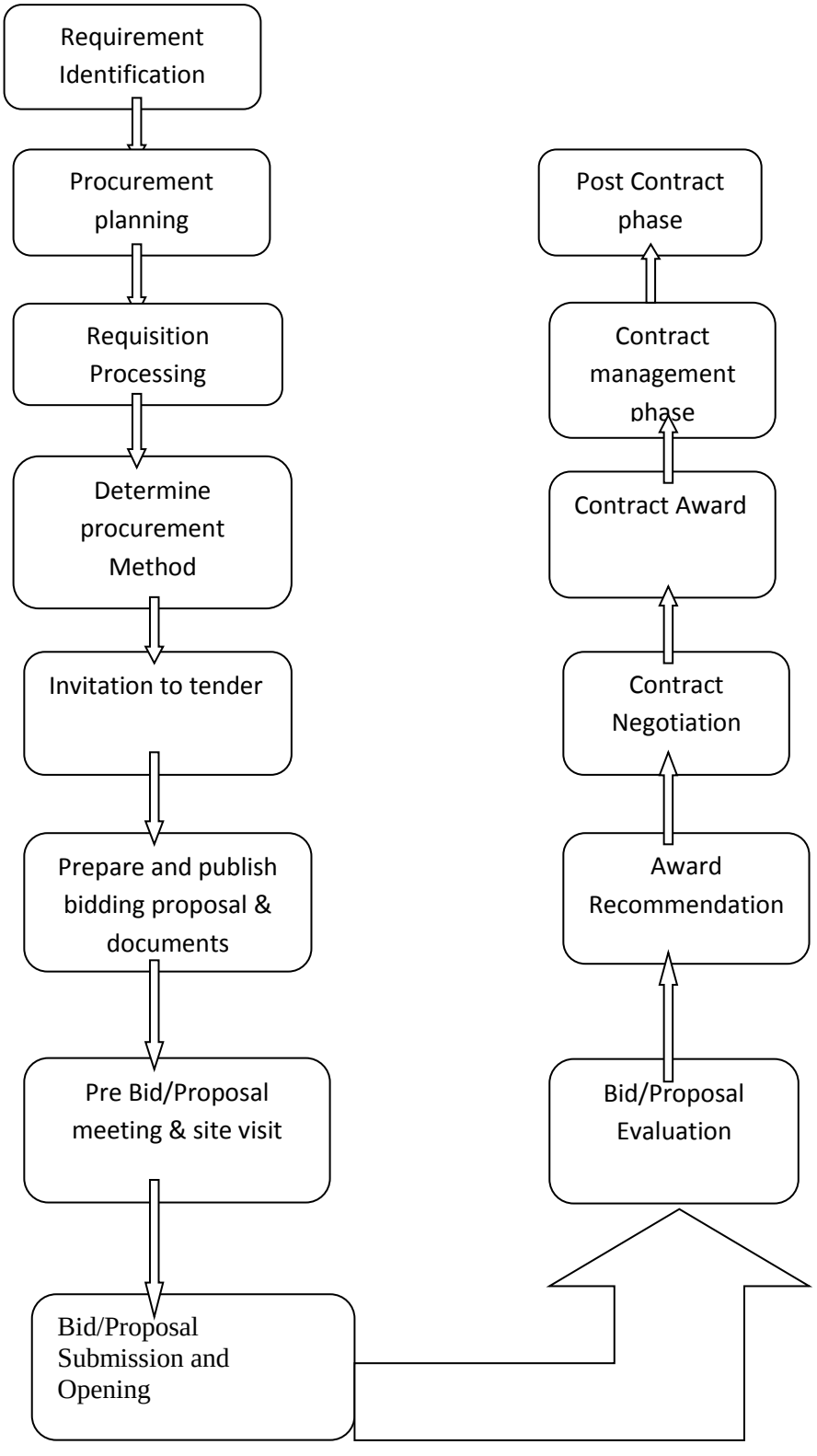


Fig.: Line Diagram of a Standard procurement cycle

2.5 National Water policy:

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

● To address issues related to the harnessing and development of all forms of surface water and ground water and management of these resources in an efficient and equitable manner.

● To ensure the availability of water to all elements of society including the poor and the underprivileged and to take into account the particular needs of women and children.

● To accelerate the development of sustainable public and private water delivery system with appropriate legal and financial measures and incentives including delineation of water rights and water pricing

● To bring institutional changes that will help decentralize the management of water resources and enhance the role of women in water management.

●To develop a legal and regulatory environment that will help the process of decentralization, sound environmental management and improve the investment climate for the private sector in water development and management.

● To develop a state of knowledge and capability that will enable the country to design future water resources management plans by itself with economic efficiency, gender equity, social justice and environmental awareness to facilitate achievement of the water management objectives through broad public participation.

2.6 BWDB Act 2000

BWDB Act 2000 (Act No. XXVI of 2000) is an Act with a view to ensure development and management of water resources by rescinding provisions of the Bangladesh Water and Power Development Boards Order of 1972 under the Bangladesh Water and Power Development Boar Order, 1972 (P.O. No. 59 of 1972). The Act expresses the establishment of the board, Power and responsibilities of the board etc.

As per the section 12 of this act, Subject of conditions under this Act anti guidelines provided by the National Water Policy and the National Water Management Plan, the Board shall perform the

following activities and towards that end shall carry out all activities relating to preparation of needed projects, their' implementation, operation, maintenance and evaluation.

Structural Functions

a) Construction of dams, barrages, reservoirs, embankments, regulators or other structures for development of rivers, flood control, drainage, surface irrigation, and drought prevention.

b) Re-excavation/ de-siltation of water channels and removal of obstacles from the mouths of rivers for improvement of water flows or diversion of water for assisting fisheries, navigation, forestry, wildlife development and up gradation of the environment.

c) Works for soil conservation, land accretion, land reclamation and estuary control.

d) River training and river bank protection for the protection of towns, bazaars, haats and places of historical and public importance from the hazards of land erosion.

e) Construction and maintenance of coastal embankment.

f) Prevention of salinity intrusion and desertification.

g) Harvesting of rainwater for irrigation, environmental preservation and supply of drinking water.

Non-structural Functions

a) Flood and drought forecasting and warning.

b) Hydrological survey and investigation.

c) Development of forestry and fishery on land available round Board's infrastructure and construction of reads on embankments in conjunction with relevant government agencies, for the preservation and improvement of the environment as well as for poverty alleviation.

d) Basic and applied research on all aspects of the Board's activities.

f) Establishment of water user's association and other water users/stakeholders' organizations, their training and participation, in project planning, implementation, operation and maintenance and cost recovery for long-term sustainability of benefits to the beneficiaries of completed projects.

2.7 National Water Management plan (NWMP)

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

The project will enhance the effectiveness of water sector operations through implementing key policy principles, improving sectoral governance and furthering reform action.

2.8 'Scope Triangle' or the 'Quality Triangle' of a project

Jekins, N. (2000-2010), defined "Scope Triangle" or the "Quality Triangle" that illustrates the relationship between three primary forces in a project. Time is the available time to deliver the project, cost represents the amount of money or resources available and quality represents the fit-to-purpose that the project must achieve to be a success. The normal situation is that one of these factors is fixed and the other two will vary in inverse proportion to each other.

For example, if quality level is fixed then the cost of the project will largely be dependent upon the time available. A Phenomenon known as "Scope creep" can be linked to the triangle too. When the scope starts to creep, new functionality must be added to cover the increased scope.

2.9 Cost control, time control and quality control

In the "Construction Procurement Manual" of the Scotish Government Publication, it has been described that changes to design, especially after contract award, is one of the major causes of cost overruns and of not achieving VFM. Changes arise mainly as a result of unclear or ambiguous project definition, inadequate time spent in project planning, risk analysis and management or due to changing circumstances. The consequence of changes during the construction stage can be many times greater than the direct impacts of the changes. The need for changes should be minimized by: having early discussions with outside authorities to anticipate their requirements. In the mentioned manual, method of time control is described. The project sponsor must be able to identify clearly those tasks which lie on the critical path. If the time taken for an activity exceeds its time allowance, there are essentially only two forms of corrective action

available; the re-sequencing of later activities or shortening the time allowance for future activities by increasing the resources to be made available for them (this option will normally result in extra costs). If neither is done, the overall time budget will be exceeded and the project will finish late. In the same manual, the process of quality control is explained. Quality control in construction typically involves insuring compliance with minimum standards of material and workmanship in order to insure the performance of the facility according to the design. These minimum standards are contained in the specifications. Hendrickson C. and Au T.(2008) argued as with cost control, the most important decisions regarding the quality of a completed facility are made during the design and planning stages rather than during construction. Quality control during construction consists largely of insuring conformance to this original

design and planning decisions. Quality requirements should be clear and verifiable, so that all parties in the project can understand the requirements for conformance.

2.10 Critical Path Method and Gnatt chart for controlling project targets

Critical Path Method (CPM) is used to control both the time and cost aspects of a project, in particular, time and cost trade-offs. CPM is very suitable for construction projects. In CPM, activities can be "crashed" at extra cost to speed up the completion time. This technique identifies a project critical path with activities that could not be delayed and also indicated activities with slack that could be somewhat delayed without lengthening the project completion time.

Schedules should be evaluated not merely in terms of meeting project milestones, but also in terms of the timing and use of scarce resources. Activities of the project can be expedited by employing more resources. This is called crashing of the project. Crashing a project causes shortening of critical path duration. Crash times result from an attempt to expedite the activity by the application of additional resources- for example, over-time, special equipment and additional staff or material. The relationship between time and activity cost is usually

approximately downward sloping straight line .

The Gantt chart shows planned and actual progress for a number of tasks displayed against a horizontal time scale. It is particularly effective and easy-to-read method of indicating the actual current status for each of a set of tasks compared to the planned progress for each item of the set. As a result, the Gantt chart can be helpful in expediting, sequencing and reallocating resources among tasks. Gantt chart provides a picture of the current state of a project.

CHAPTER-3

CRITICAL ANALYSIS OF PROCUREMENT PRACTICE IN SWAIWRPMP

3.1 Provision of procurement practice in Foreign Aided Project under PPA'2006

"Procurement" means the purchasing or hiring of Goods, or acquisition of Goods through purchasing and hiring, and the execution of Works and performance of Services by any contractual means. When procurement is done with public money, than it is called public procurement. Public Procurement Rules 2008 was framed by the government of Bangladesh under the Public Procurement Act 2006 which has come into effective on January 31, 2008.The main objective of enacting PPA 2006 & introducing PPR 2008 was, generally, of achieving value for money, ensuring transparency, accountability, fair treatment in all public procurement throughout the public sector organizations of our country.

Public procurement of the GoB finance projects must follow the PPA'2006 and PPR'2008. But regarding the foreign aided project PPA'2006 states something different. The section 3(2) of the PPA'2006 states the scope of application of the Act. Section 3(2) states the following:

Section 3(2) The Act shall apply to the following cases, namely;

(a) Procurement of goods, works or services by any procuring entity using public funds;

(b) Procurement of goods, works or services by any government, semi-government or any statutory body established under any law;

(c) Procurement of goods, works or services using public funds by a company registered under the Companies Act(Act No. 18 of 1994)

(d) Procurement of goods, works or services under a loan, credit or grant agreement or under any other agreement with a development partner or with a foreign state or an organization:

Provided that if there is anything to the contrary in any such agreement entered into, the provision of that agreement shall prevail.

So, the provision for procurement in the Foreign Aided Project states that if there creates any confusion between the PPA and the guidelines of the development partner, the guidelines of the development partner will prevail.

3.2 Provision of procurement practice in the DPP of SWAIWRPMP:

Goods and related services and civil works to be financed from the ADB loan proceeds will be procured in accordance with ADB's *Guidelines for procurement.* Vehicles, equipment and materials will be procured by international competitive bidding (ICB) where the cost is valued at more than $ 1 million equivalent, by international shopping between $ 300,000 to $ 1 million equivalent, or by using local competitive bidding (LCB) procedures, typically those specified in the Government's Public Procurement Regulations (PPR) where the estimated cost is $ 300,000 or less. The civil works to be financed from the proceeds of the ADB loan will be procured in accordance LCB procedures acceptable to ADB, typically those specified in the PPR. Given the small nature of individual contract (less than $ 2.0 million), the remoteness of the work area, and the intermittent distribution over a 7-year period following the institutional development of Water Management Groups (WMGs), individual contracts are unlikely to attract international bidders. LCB civil works procurement will follow the single-stage, one envelope procedure with post qualification. Small earthwork contracts valued at less than $ 8000 may b e awarded to Labor Contracting Societies (LCS) to be formed within the WMA among disadvantaged groups with the support of qualified NGOs.

The procurement provision in the DPP of SWAIWRPMP states the fact of participatory approach at different important stages of procurement cycle.

3.3 Stages of Procurement Cycle in SWAIWRPMP:

Procurement cycle in the SWAIWRPMP can be divided into three broad categories:

►Pre bidding stage

►Bidding stage

► Post bidding stage

3.3.1 Pre bidding stage

As SWAIWRPM project is based on participatory water management participation of people at different stages is given top most priority. So the first step is to preparation of Subunit Implementation plan and formation of WMG. The steps are described below:

First the whole project area is divided into distinct Hydrological unit which is known as Sub Unit Implementation Plan (SIP). After identification of the SIPs, some Water Management Group (WMGs) will be formed within the SIP. One WMA will be established for each subunit comprising the members of each WMG. The WMG and WMA will be formed following the legal framework of the Cooperatives Societies Act (2001). At the outset, an ad-hoc WMG is formed within the subunit involving elected village union representatives and prepare an SIP setting out specific impact targets and associated programs including their inputs and delivery schedules. The SIP also reconfirm subunit economic feasibility include resettlement and environmental management plans following the IWMP safeguards outputs and be endorsed by the WMA.

The project establishes and empowers WMAs to manage activities in the pre construction, construction and post construction stages with a goal that they play effective organizational, operational, resource mobilization and networking functions for productive water management with sustainable O&M. Upon finalization of the SIP, the project supports the WMA to implement the institutional development plan specified in the SIP, including (i) enrolling members and mobilizing functional subgroups (ii) registering, with the formation of management committee, O&M and other subcommittees and operational rules, and (iii) collecting cash contribution equivalent to annual O&M requirement for the concerned facilities transferred to WMAs, which will be established as an O&M reserve fund. The project facilitate the process by recruiting and fielding community based organizers locally, who will be trained by private providers including NGOs with the support of the ISPM consultants. All the 33% women participants are targeted for all activities.

During the above process, participatory detailed design of water management structures will be undertaken, along with the refinement and implementation of the resettlement plans (RPs) included in the SIP. After the WMAs achievement of its institutional development targets and endorsement of detailed design, an implementation agreement is signed among the Government, the WMA and local government representatives which serve as a benchmark to start civil work procurement.

Upon signing of the implementation agreement and implementation of the RP, this subcomponent will provide water management infrastructure specified in the SIP, including flood embankments (re-sectioning, improvement and retirement), regulators, sluice gates and pipes and water retention structure, re-excavated irrigation and drainage canals and local

riverbank protection. In the meantime the WMA is trained to monitor and final confirmation of civil works done by the contractors.

After the formation of the WMA, water related problems in the area are discussed in the monthly meeting along with some probable solution. Then the technical feasibility of the proposed works is conducted by ISPM consultants and the SMO office. If they are found technically feasible, design data is sent to the design office for civil design. After receiving of the design, engineering estimate of the civil work is conducted by the SMO office. After preparation of the estimate it is approved by the PD as per the Delegation of Financial Power'2008 of BWDB. In the mean time an annual procurement plan is prepared which is also approved by the PD. In the meantime the WMA is trained to monitor and final confirmation of civil works done by the contractors.

Approval of Annual Procurement Plan and the estimate initiate the bidding stage.

3.3.2 Bidding stage

After approval of the estimate draft Bid document is prepared which is sent to the ADB through PD for their consent. After receiving consent from the ADB, PD instructs the field Executive Engineer to invite Bid.

After receiving the consent from the PD Bid is invited by the local Executive Engineer and Bid document is issued which is available to the potential suppliers by a certain amount of Money.

Suppliers are provided at least 28 days for submission of the bid as per Rule 61(4) of PPR'2008

A standard Bid document supplied by the ADB contains 03 Parts and 09 sections. The contents of the parts and sections are as follows:

PART I	BIDDING PROCEDURE
	Section 1 - Instruction to Bidders (IFB)
	Section 2 - Bid Data Sheet (BDS)
	Section 3- Evaluation and Qualification Criteria (EQC)
	Section 4 – Bidding Forms (BDF)
	Section 5 – Eligible Countries (ELC)

PART II	REQUIREMENTS
	Section 6 – Work Requirements (WRQ)
PART III FORMS	CONDITIONS OF CONTRACTS AND CONTRACT
	Section 7 – General Conditions of Contract (GCC)
	Section 8 – Particular Conditions of Contract (PCC)
	Section 9 – Contract Forms (COF)

As per Rule 96(11) of the PPR'2008 Multiple Place Dropping of Bids are approved by the Water Resource secretary in request of the development partner to ensure competition. The places of dropping are as follows:

- Office of the Executive Engineer, Narail (Primary place)
- Office of the Deputy Commissioner, Narail (Secondary place)
- Office of the Project Director, SWAIWRPMP, Jessore (Secondary place)

Bid is opened by the Bid opened committee which is formed by the PD as per rule 7 of PPR'2008 on the stipulated day which is specified in the Invitation for Bids (IFB) at the primary place as per the rule 97(1) of PPR'2008.

After the Opening of Bids the data is recorded in Bid Opening Sheet as per Rule 97(4CHA) of PPR'2008. The Bid opening sheet is sent to the ADB via Project director.

After Opening of bids, they are evaluated by the Bid Evaluation Committee which is formed by the PD as per Rule 8 of PPR'2008. Bid Evaluation Committee prepares a Bid Evaluation Report recommending the lowest evaluated bidder in the prescribed format in accordance with the qualification criteria set in the Bid Document.

After the preparation of the Bid Evaluation Report it is sent to ADB through PD for their consent. After the consent of the ADB the PD approves the Bid Evaluation Report.

After approval of Bid Evaluation Report the Executive Engineer issues the Letter of Acceptance (LoA) which invites the lowest evaluated bidder to submit Performance security and Sign contract within 28 days of issuing the LOA.

After submission of Performance security contract is signed with the Executive Engineer. The following documents shall be deemed to form and be read and construed as part of the Agreement. The Agreement shall prevail over all other Contract documents. The documents are as follows:

- The Letter of Acceptance
- The Bid
- The Addenda Nos
- The Particular Conditions
- The General Conditions
- The Specifications
- The Drawings and
- The Completed Schedule

The Contractor has also to submit a work plan / time plan for completion of the work on time.

After signing of contract the contract management phase starts. The required rules of PPR'2008 are attached in **APPENDIX-E** and The sample documents of bidding procedure are attached in **APPENDIX- F**.

The procedure for formation of LCS and their work procedure is attached in **APPENDIX-G**.

The whole bidding procedure is reviewed by the development Partner ADB as per Para 1.11 of Procurement Guidelines issued by ADB in April'2010. The whole review procedure of ADB is shown in **APPENDIX- H**

3.3.3 Post bidding stage

This stage is also called the contract management stage. During this stage "Scope Triangle" or the Quality Triangle is controlled. Jekins, N. (2000-2010), defined "Scope Triangle" or the "Quality Triangle" that illustrates the relationship between three primary forces in a project. Time is the available time to deliver the project, cost represents the amount of money or resources available and quality represents the fit-to-purpose that the project must achieve to be a success.

As regards time control, time plan /work plan submitted by the contractor in the form of a Gantt chart at the time of signing contract. The Field Engineer and the Quality control Engineer compare the achievement with target. During the ongoing process, if the progress is far below the target, the contractor proposes for its changes and revised time plan submitted by them.

As regards the quality, during manufacturing of CC block, ratio of mixing aggregates, cement, water cement ratio, freshness of coarse aggregates etc are checked by both the field Engineer and the Quality Control Engineer . While in case of khal excavation the level of cutting, side slope, removal of earth from the bank is verified at regular interval.

Quality control specialists are recruited by the project authority as per the DPP. As per the TOR of the consultants the specific activities of the Quality Control Specialist are as follows:

⋄ Monitor the tendering and construction stage of each subunit and track in the management system

⋄ Oversee the functioning of the construction supervision and quality control system in terms of their effectiveness and accountability.

⋄ Assist the SMO in putting in place a system of effective supervision of construction work carried out by the contractors and the LCSs

⋄ Monitor construction activities ensuring that (a) SMO construction supervisor is on site, (b) the contractor has a capable manager in site, (c) proper construction practices are being followed, and (d) the design is being followed

⋄ Assist SMO in construction monitoring and quality control, check and certify the final contractors bill, and signed off the completed structures, thereby verifying that reimbursement for the final payment can be made.

⋄ Ensure that the beneficiaries are aware that they have the right to inspect construction activities and that they are aware of the complaint procedures and that follow up actions.

⋄ Develop training materials to be used in the quality control training of BWDB personnel.

⋄ Prepare construction related reports as required by the project management.

The above activities of the quality control specialist reveal the rigorous quality control mechanism in the construction stage by the SMO, QCS and the beneficiaries.

After the completion certificate is issued by the Engineer in charge, bill is submitted by the contractor which is certified by the QCS.

The creation of Bill/Payment certificate in SWAIWRPMP will be as follows:

◊ The Contractor shall submit to the Engineer monthly statements of the estimated values of works executed less the cumulative amount certified previously.

◊ The Engineer shall check the contractor's monthly statement and certify the amount to be paid to the contractor.

◊ The value of works executed shall be determined by the Engineer

◊ The value of works executed shall comprise the value of quantities of the items in the bill of quantities completed

◊ The value of works executed shall include the valuation of variations, certified day works and compensation events.

◊ The Engineer may exclude any items certified in a previous certificate or reduce the proportion of any items previously certified.

In SWAIWRPM project consultant is engaged to monitor the physical work and certification of bills for payment alongside the SMO engineers.

The Pay office or the PD office consider the below mentioned condition before making payment against a bill/payment certificate:

◊ Proper budget allocation for this item of expenditure has been made.

◊ Proper administration and technical sanction has been taken

◊The proper Procurement process has been followed

◊ The procurement has been approved by the Development Partner

◊ The work has been done as per the agreement and within the stipulated time period approved by the competent authority

◊ The bill has been certified by proper authority

◊ Availability of GOB and donors fund for payment of the bill

◊ Determination of proper DDP items for the bill/payment certificate

◊ Classification of proper loan category for the bill/payment certificate

If a bill fulfills the above mentioned preconditions the pay office can make the payment.

The PMO and SMO Sub Divisional Engineers are trained by the ISPM consultants and provide on-the-job training for O&M up to a full year. The WMA O&M subcommittees are trained to prepare and implement:

◊ Seasonal Operational Plan

◊ Annual maintenance plans with joint walk-through

◊ Resource mobilization plans for WMA-managed and jointly managed facilities

The WMA is also motivated to increase the O&M reserve fund (established through upfront cash contribution and deposited in the joint account of SMO and WMA) during the construction and post construction stage. Upon completion of the activities, and confirmation by the PMO that the subunit has substantially achieved its output targets including sustainability, the WMA enters into a management transfer or joint management agreement with the SMO. The agreement is signed subject to the

◊ Establishment of O&M subcommittee

◊ Preparation of satisfactory O&M plan

◊ Resolution of outstanding local conflicts

◊ Infrastructure quality satisfactory for the WMA

A sample O&M agreement with the WMA is attached in **APPENDIX-I** and O&M Plan is attached in **APPENDIX-J**

After signing the agreement, the WMA will operate the annual activity cycle including

◊The planning and implementation of the O&M activities

◊ WMA agriculture, fishery and livelihood activities

◊ Performance Monitoring

The WMA will undertake these using their funds. After the management transfer agreement is signed, the WMA will have the access to the O&M funds for the purpose of maintain the water management system. The fund will be jointly managed by the SMO and the WMA and releases to pay for specific maintenance works based on WMA requests. The WMA will replenish the amount by the end of the concerned O&M year. The fund will be handed over to the WMA upon confirmation of satisfactory replenishment by the WMAs in two consecutive years. DOC and SMO will maintain annual, social, technical and financial audit of the WMA.

During the construction stage, the agriculture, fishery and livelihood enhancement plans included in the SIP will be elaborated by the WMA subject matter subcommittee with the facilitation of NGO facilitators in SMO with concerned line departments and/or private providers. ISPM consultants will provide support and control the quality. Based on this, and after the completion of the construction works, specific programs as stipulated in the plans will be delivered. The relevant WMA subcommittee will monitor the quality and quantity of the services. SMO will monitor the program impacts as compared with pre project benchmark data, through data collected by O&M subcommittees and confirmation by the concerned departments. In each subunit, program completion report stipulating the amount of services provided and impacts will be submitted to PMO after signed off by the O&M subcommittees.

CHAPTER-4

METHODOLOGY

4.1 Methods of collecting data

A combination of questionnaire survey and interview method was adopted for this study. Survey method was used as this is considered as the best method available to the social scientists interested in collecting original data. Also, the interview method was used as this is helpful to gather clear idea on the issue providing insight into the conversation. Both qualitative and quantitative methods were followed in this study.

4.1.1 Respondent for questionnaire:

The questionnaire survey was adopted for collecting primary data in this research work. First the stakeholder analysis within the supply chain of the SWAIWRPM project has been conducted to have a 360^0 view of opinions. The Informants who have been selected after conducting stakeholder analysis are as follows:

►Key informants from executing Agency viz. BWDB

- Executive Engineers of the Sub Project Management office (Narail and Chenchury Beel sub Project)

- Sub divisional Engineers of Sub Project Management office (Narail and Chenchury Beel Sub Project)

► Officer in Charge of the main developing partner of this project viz. ADB

► Beneficiaries of the project (Local stakeholders)

►Quality control Engineers

►Suppliers

Before asking the above key informants for filling the questionnaire, the general idea of the research objectives were exchanged with them. After the exchange of general idea of the research objectives, the questionnaire was given to them. They were requested to fill the questionnaire based on the practical experience they had regarding the implementation of the

SWAIWRPM project. Both open end and close end questions were set in the questionnaire to reveal the real perception of the respondents. For key informant interview, the officer from the executing agency and the senior quality control engineers were interviewed. They were asked to give their perception regarding the procurement cycle, Value for money and Sustainability of the procurement.

4.1.2 Data for specific Procurement packages:

In the DPP of SWAIWRPM project all the three types of procurement occur. They are:

- Procurement of Goods
- Procurement of Works
- Procurement of Services

For this research work we will take procurement of works for our analysis. Procurement of works is implemented in two ways:

- Open Tendering
- Landless contracting Society (LCS) - for earthwork less than $ 5000

The following category of procurement works are conducted in the SWAIWRPM project.

- Khal Re-Excavation
- Rehabilitation/ Repair of regulators
- Embankment Re-sectioning
- River Bank Protection Work
- Construction of Regulators
- Construction of foot over bridge
- Construction of Water Management Group's (WMG) building

Among the above type of procurement of work we will take some representative sample packages for analysis. Data regarding the specific packages is collected from the concerned Sub Project Management Office (SMO). The questionnaire selected for collecting data about the specific packages are attached in Appendix- .

4.2 Sample size

The sample sizes of different stakeholders for questionnaire are as:

TABLE-4-1

Type of respondent	Sample Size
Key informants from executing Agency viz. BWDB	5
Beneficiaries of the project (Local stakeholders)	50
Officer in Charge of the main developing partner of this project viz. ADB	1
Quality control Engineers	2
Suppliers	5
Total sample size	63

The sample sizes for specific packages are as follows:

TABLE-4-2

Type of procurement packages	Sample Size
Khal Re-Excavation	6
Rehabilitation/ Repair of regulators	1
Embankment Re-sectioning	2
Construction of Water Management Group's (WMG) building	1
Total sample size	10

4.3 Place of study and study period

Survey was conducted at the SMO offices of BWDB, Consultant offices, Suppliers offices and concerned WMG offices, Narail, Bangladesh from 20 August 2012 to 4 September, 2012.

4.4 Data processing and Analysis/Analytical Framework

As a means of processing, collected data have been cleaned, edited, arranged and coded before analysis. The graphical representations of the answers in the form of 'pie chart' have been given for easy understanding of the responses**.**

Microsoft Excel has been used for constructing pie charts. Microsoft Word has been used for preparing the report.

CHAPTER-5

FINDINGS AND ANALYSIS

The purpose of this study is to find out the steps in the procurement cycle followed in SWAIWRPMP along with the constraints for implementation, sustainability of the procurement as well as the achievement of value for money. The main research question of this study is:

Q1: Does the procurement cycle of the sample packages comply the objectives of the SWAIWRPM project which have mentioned in the Development Project Proposal (DPP)? If not finding out the constraints to implement it in SWAIWRPM project.

And the supplementary questions are:

Q1: Does the procurement practice of the SWAIWRPM project have the potential to make the procurement sustainable?

Q2: Does the procurement practice in SWAIWRPM project is efficient and effective enough to achieve value for Money (VFM)?

For the purpose of the analysis 10(ten) packages of different types of procurement has been taken. They are as follows:

TABLE-5-1

SI No.	Name of the Packages	Types of Procurement	Procurement Method
01	Typical WMA/WMG Training Center (Single Storied Building) by the side of Mulia, Barenda &Singia Sluice Gate in Narail Sub- Project under SWAIWRPMP during the year 2011-12.	Works	Open Tendering method (OTM)
02	Re-Excavation of Singia Khal from Km. 0.000 to Km. 4.550= 4.550 Km in SIP No 16 in Narail Sub- Project under SWAIWRPMP during 2011-12.	Works	Open Tendering method (OTM)

SI No.	Name of the Packages	Types of Procurement	Procurement Method
03	Re-Excavation of Singia Branch/Dudpatali Khal from Km. 0.000 to Km. 1.200 = 1.200 Km. SIP-17~19 &Tangarakhali Khal from Km. 0.000 to Km. 2.400 = 2.400 Km. SIP-17~19 Total = 3.600 Km. under SWAIWRPMP in Narail Sub-Project during the year 2011-12.	Works	Open Tendering method (OTM)
04	Re-Sectioning of Embankment from Km. 17.500 to Km. 18.900= 1.400 km. & Km.19.300 to Km. 20.000= 0.700 Km. Total=2.100 Km in Narail Sub-Project under SAIWRPMP during the year 2011-12	Works	Open Tendering method (OTM)
05	Re-Sectioning of Embankment from Km. 20.000 to Km. 22.000 = 2.000 km in Narail Sub-Project under SAIWRPMP during the year 2011	Works	Open Tendering method (OTM)
06	Re-Sectioning of Khororia Khal from Km. 0.000 to Km.2.100 = 2.100 Km. in under SWAIWRPMP in Narail Sub-Project during the year 2011-12.	Works	Open Tendering method (OTM)
07	Re-Excavation of Peruli Khal from Km. 0.000 to Km. 2.800 = 2.800 Km. in SIP-22 in Narail Sub-Project under SWAIWRPMP during the year 2011-12.	Works	Open Tendering method (OTM)
08	Repair &Maintanance of Ranagati Regulator (10V-1.50MX1.80M) in Narail Sub-Project, under SWAIWRPMP during the year 2010-11	Works	Open Tendering method (OTM)

SI No.	Name of the Packages	Types of Procurement	Procurement Method
09	Re-Excavation of Tularampur Khal from Km. 0.000 to Km. 1.400 = 1.400 Km., H izoldanga Khal from Km. 0.000 to Km. 1.600 = 1.600 Km., Zia Khal from km. 0.000 to Km. 3.000 = 3.000 Km. &Mushuri Khal from Km. 0.500 to Km. 2.000 = 1.500 Km. in SIP-8 & 9 in Narail Sub-Project under SWAIWRPMP during the year 2011-12	Works	Open Tendering method (OTM)
10	Re-excavation of KhunarJola Khal from Km. 0.000 to Km. 0.600= 0.600Km, DhalirJola Khal from Km. 0.000 to Km. 0.600= 0.600Km, BirerJola Khal from Km. 0.000 to Km. 0.900= 0.900Km, Darer Khal-2 from Km. 0.000 to Km. 2.100= 2.100Km and Katanali Khal-2 from Km. 0.000 to Km. 0.600= 0.600Km total 4.800 km in Narail Sub-Project under SWAIWRPMP during the year 2011-12	Works	Open Tendering method (OTM)

Details of the sample packages is shown in **APPENDIX-K**

Relevant data was collected from the concerned offices about the above packages and questionnaire survey was conducted on the stakeholders of the SWAIWRPM project which includes Executive Engineers, Sub Divisional Engineers, community facilitators, Beneficiaries, Suppliers, consultants, development partner ADB's representative etc.to analyze the procurement process that followed in SWAIWRPMP. Different sets of questionnaire were prepared for each class of respondents which are presented in the **APPENDIX-L** .

The respondents has been asked questions broadly on the procurement process of the SWAIWRPM project, pros and cons of implementing the procurement process, sustainability of the procurement and achievement of value for money for the procurement.

5.1 General information about sample of the questionnaire survey

Sample size

Type of Respondent	Sample Size
Key informants from executing Agency viz. BWDB	5
Beneficiaries of the project (Local stakeholders)	50
Community facilitator	2
Officer in Charge of the main developing partner of this project viz. ADB	1
Quality control Engineers	2
Suppliers	2
Total sample size	62

5.2 Overview of the survey question

To get the perception of the respondents regarding the research questions the following nos of questions were asked to different respondents. Most of the questions were open ended except some closed questions:

TABLE-5-2

Type of respondent	No of questions
Key informants from executing Agency viz. BWDB	06
Beneficiaries of the project (Local stakeholders)	04
Officer in Charge of the main developing partner of this project viz. ADB	02
Quality control Engineers	03
Suppliers	02

5.3 Findings of the questionnaire survey

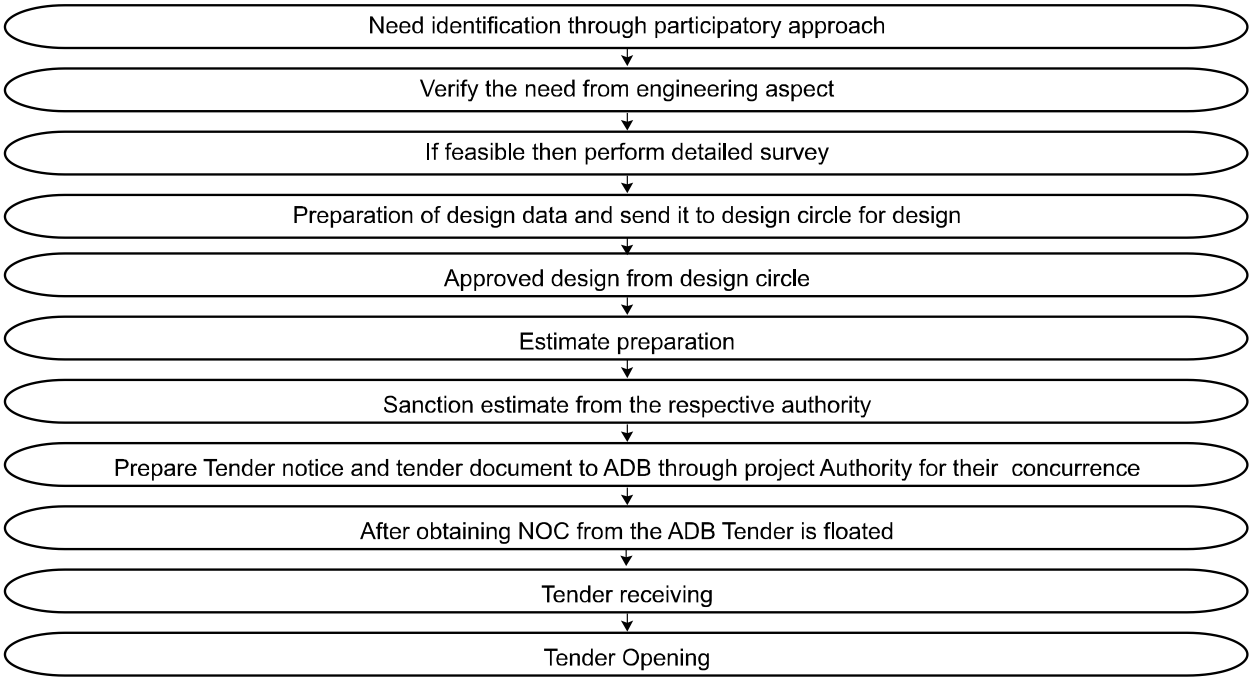
Findings of the survey are described below for each type of respondents:

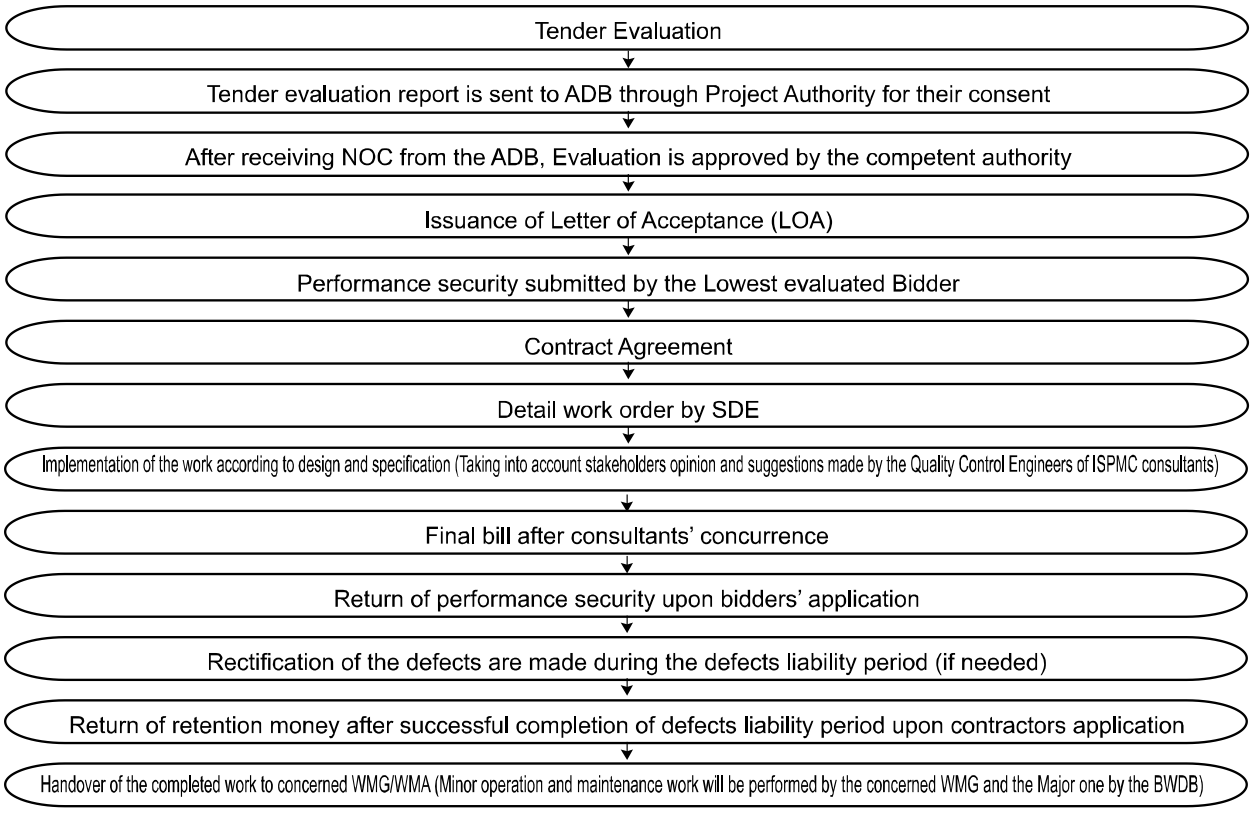
5.3.1 Questionnaire for the respondents from the Executing Agency

The respondents the executing agency are concerned Executive Engineers and Sub Divisional Engineers. Following 9(Nine) questions have been asked on the procurement process of the SWAIWRPMP.

Question: Would you please mention, what are the steps you do follow in procurement cycle for SWAIWRPMP?

By asking this question all the respondents explained their views about the procurement process that are usually followed in the project. As the procurement process is more or less a standard one the answers were almost the same. By compiling all the answers the procurement steps that are followed in SWAIWRPMP are as follows:





Question: Does the actual procurement procedure comply with the standard one? If not please mention the reasons.

compliance of the procurement procedure with the standard one. In the Development Project Proposal (DPP) of the SWAIWRPMP and in the Aide Memoire of the Loan Pre Appraisal Mission standard procurement procedure is expressed clearly.

All the respondents expressed that standard procurement procedure is followed here strictly as concurrence from the development partner ADB has to be taken at important stages for moving towards the next stage of the procurement. Also the Consultants from the ISPMC guide the Sub Project Management Office (SMO) to follow the required steps. So there is very little scope for deviation from the standard one.

By asking this question respondents were requested to explain their views regarding the completion time of each stage. After compiling the answers of the question the findings are as follows:

The procurement process in SWAIWRPMP is divided into three distinct phases:

► Pre bidding stage

During this stage the following works are done:

◊ Social Mobilization

◊ WMG formation & Training

◊ Need Identification

◊ Design

◊ Estimate

◊ Procurement plan Preparation

The respondents explain that there is no such standard time for completion of the stages specified in the DPP or loan agreement. The development partners sets some target dates for completion of these stages. With the direct guidance from the ISPMC consultant, the extension wing of the project formed the WMG and these stages almost follow the standard times set by the project authority time to time.

After formation of the WMG and identification of the need in consultation with the local stakeholders design data is t to the design office for designing of the proposed work. After designing estimate is prepared by the field office which consequently lead to preparation of Annual procurement plan. The respondents expressed that there is no standard time for completion of these stages but the field office tried their best to complete the stages as earliest. But the field office sometimes faces some problems during the design stage. The design office is overloaded with the work and due to lack of manpower the on failed to supply the required design on time which consequently causes delay in starting of the next bidding stage.

►Bidding stage

After preparation of the Annual Procurement Plan this stage starts with the Invitation of Tenders. As per the DPP of the project, Public Procurement Rules (PPR)'2008 is followed during this stage. The respondents expressed that time is strictly maintained during this stage as per the PPR and the Guidelines of Procurement issued by the ADB. They added that the flexible structure of the ADB acts as a catalyst for timely completion of this stage. All the communication with the development partner for their consent is done through internet which reduces the paperwork and lengthy procedure of bureaucratic structure.

►Contract Management stage

After approving of the Tender Evaluation Report by the Project Director and issuing of the Letter of Acceptance (LOA) by the Executive Engineer this stage starts. The Lowest evaluated bidder is requested to submit the performance security and sign the contract within the stipulated time. The respondents expressed that in accordance with the condition of the contract the lowest evaluated bidder is provided 28 days for completion of these works and time is strictly maintained here.

After signing of contract the Contractors are requested to submit a time schedule for completion of the work with the stipulated time. The respondents expressed that this time schedule is strictly maintained for completion of the work on time and the contractors have to update this time schedule after certain time interval.

So, compiling the answers of all the respondents it can be concluded that time is strictly maintained at all stages of the procurement stages. The respondents also provided the time required in completion of some sample packages in support of their answer .

Question: Do you think the procurement cycle steps can be reduced? If so, please give your reason

By asking the questions respondents were requested to explain their views for reduction of any stage of the procurement cycle. The respondents expressed that this is the standard procedure for an effective and efficient procurement. So, no step can be reduced but if the design of the physical work may laid on the consultants then it will eliminate the bottlenecks in the design stage which cause delay in the whole procurement process.

Question: Please mention, what sort of problems you face at 'Tender submission, evaluation and contract management stage?

By asking this question the respondents were requested to express their views about the problem they face at the tender evaluation and contract management stage. The respondents expressed that at the tender evaluation stage the main problems are from the bidders side. As the bidders have less knowledge about the procurement procedure and rules they often failed to fill the tender document completely which causes delay and difficulties in bid evaluation. Moreover the bidders have also less knowledge about the rate analysis of each item which results an unbalanced bid or front loading problem during tender evaluation.

The qualification criteria (Financial capability, Specific/general work Experience etc) is much higher than the GoB's standard. So sometimes local bidders can't participate in the bidding procedure which may reduce competition.

Moreover if the bid is invited for multiple packages in a single tender notice, Evaluation of these tenders becomes difficult within the stipulated time.

Three parties are involved for maintaining quality of the contractor's work at the contract management stage. They are the executing agency BWDB, the Quality control Engineers from the ISPM consultants, the O&M subcommittee of the concerned WMG. Sometimes the lack of coordination among these parties may cause delay in project implementation. Moreover the billing procedure is also lengthy and cumbersome which causes difficulties.

Question: Do you think this participatory approach of procurement has the potential to make the procurement sustainable?

By asking this question the question the respondents were requested to express their views regarding the sustainability of the procurement. All the respondents expressed that the project has the great potential to make the procurement sustainable as the root causes that made the previously taken water related project unsustainable are eliminated. As per the respondents the steps that are taken to make the procurement a successful one are as follows:

⋄ Formation of the WMG in participation with the local beneficiaries and engage them to identify the water related problems of their locality and suggest the solution as per their discretion and practical experience. Then the Engineers examine their technical feasibility. So the knowledge of the local people along with the technical knowledge of the Engineers will create a more refined identification of the Need which is an important stage for sustainable procurement.

⋄ More participants of the women in the water management process which is an important criteria for make the procurement sustainable. Statistics shows that there are 102 WMG's in the project comprising of 23,445 members among them 9,160 are women which is 39% of the total member.

⋄ Providing training to the WMG members regarding Agriculture, Fisheries, Gender & Livelihood, Operation & Maintenance etc. .

The activities that are taken by the project authority to build awareness among the local stakeholders and increase their income activities are as follows:

Agriculture

⋄ Training on different agriculture activities for WMG members e.g. seed production, vegetable production, preparation of compost, production of saline tolerant variety.

⋄ Demonstration on new variety of rice e.g. BIRRI-50(Aromatic), BIRRI-47(Saline tolerant), BINA-7(Short duration), BIRRI-51, 52(flood tolerant) and preparation of compost.

⋄ Farmers Field School (FFS) and Training on environmental friendly Integrated Pest management (IPM).

⋄ Arrangement of Farmers' field day for harvesting of the demonstration field which will inform all the farmers about the productivity of the high yield rice, technology that used etc.

Fisheries

⋄ Training on different fisheries activities e.g. Mix culture of fish, Culture of Mono sex Tilapia etc.

⋄ Arrangement of demonstration

⋄ Farmers field school (FFS) for the fish farmers.

Gender and Livelihood

⋄ Training on Income generating activities e.g. poultry raring, livestock raring etc.

⋄ Distribution of Duck, Goat and Sewing machine to the ultra poor

⋄Training on gender awareness

Operation and Maintenance

⋄Training on maintain quality of physical work, gate operation, small repair work etc.

All the above training activities are conducted to build awareness among the WMG members and the immediate effect of building awareness is that now the WMG members consider the procurement work of their own and try to make it sustainable.

⋄ O&M agreement will be signed with the concerned WMG and consequently the operation & maintenance of the procured work will be laid upon the local beneficiaries along with some minor repair work.

⋄ In order to avoid the adverse environmental impact during construction some guidelines called the Environmental Management Plan (EMP) has been prepared. These guidelines are followed strictly during the contract management stage in guidance from an Environmentalist with the direct support from the consultants.

⋄ Construction of WMG/WMA building which will act as a gathering and knowledge sharing among the WMG members. It can also be used for different income generating activities.

⋄ Implementation of the Resettlement plan for the people who has been affected by the project implementation will create a positive impact among the local people and they will consider the project as their own.

So, compiling the answers it can be said that the above activities that are taken by the project authority has the potential to make the project sustainable and all the respondents echoed the same.

Question: Do you think the procurement will bring Value for Money?

By asking this question the respondents were requested to explain their views regarding the achievement of Value for Money in the procurement. Value for money means that the optimum combination of whole life cost and quality to meet the customer's requirement. The respondents reply that as the customers in this case the local stakeholders are involved at different important stages of the procurement cycle from identification of need to the O&M of the implemented work. As per the definition of the value for money the procurement process of the SWAIWRPMP covers the whole life costing of the procurement taking into account the customer requirement. So, all the respondents provide their opinion that the project will bring Value for Money (VFM). The respondents also provide example of Repair of Ranagati regulator in support of their answer. The local stakeholders were demanding for the repair of the 10 vent Ranagati regulator at a cost of Tk 9.2 million. As per their demand the repair work of the regulator completed by maintaining required quality. Now the regulator is protecting around 5000 hectare of land from saline intrusion, flooding and saves tons of agricultural product. This increases the agricultural production of the catchment area to a large extent and increases the living standard of the people.

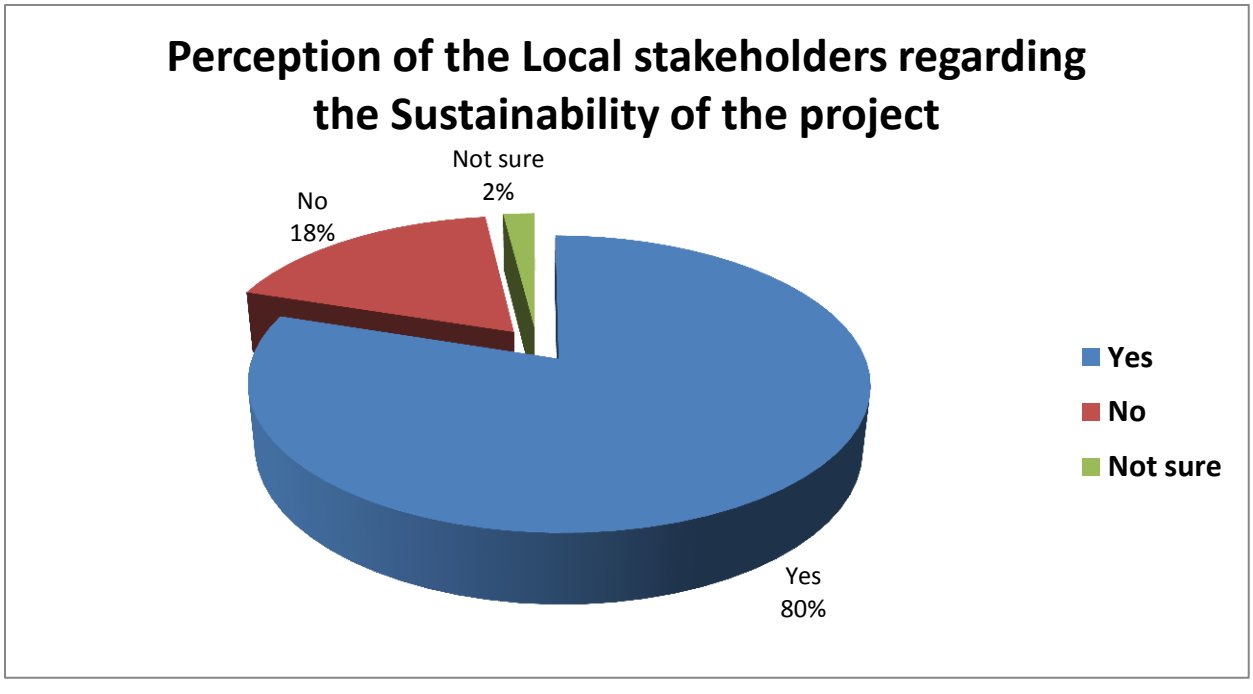
5.3.2 Questionnaire for the respondents from local beneficiaries

Narail Sub Project is divided into 07 Subunit Implementation Plans (SIPs). 43 WMGs has been formed within these 07 SIPs in participation with the local stakeholders. Among the members of the 43 WMGs 50 were chosen for questionnaire survey. Both qualitative and quantitative analyses were done to have a clear picture about the research questions. Following questions were asked to the local stakeholders for quantitative analysis:

Question: Do you think the procurement process in the SWAIWRPMP will be sustainable?

This is the main question that has been asked to get the perception of the respondents regarding the sustainability of the procurement process. . First the respondents were briefed about the definition of Sustainability. Then they were requested to answer in 'Yes', 'No' and 'Not Sure' The perceptions of the respondents are quite positive for this question. About 80% of the respondents perceive that the project will be sustainable, 18% of the respondents were not sure about the sustainability of the project and 2% of the respondents answered in the negative. The summary of their results is summarized below through pie charts:

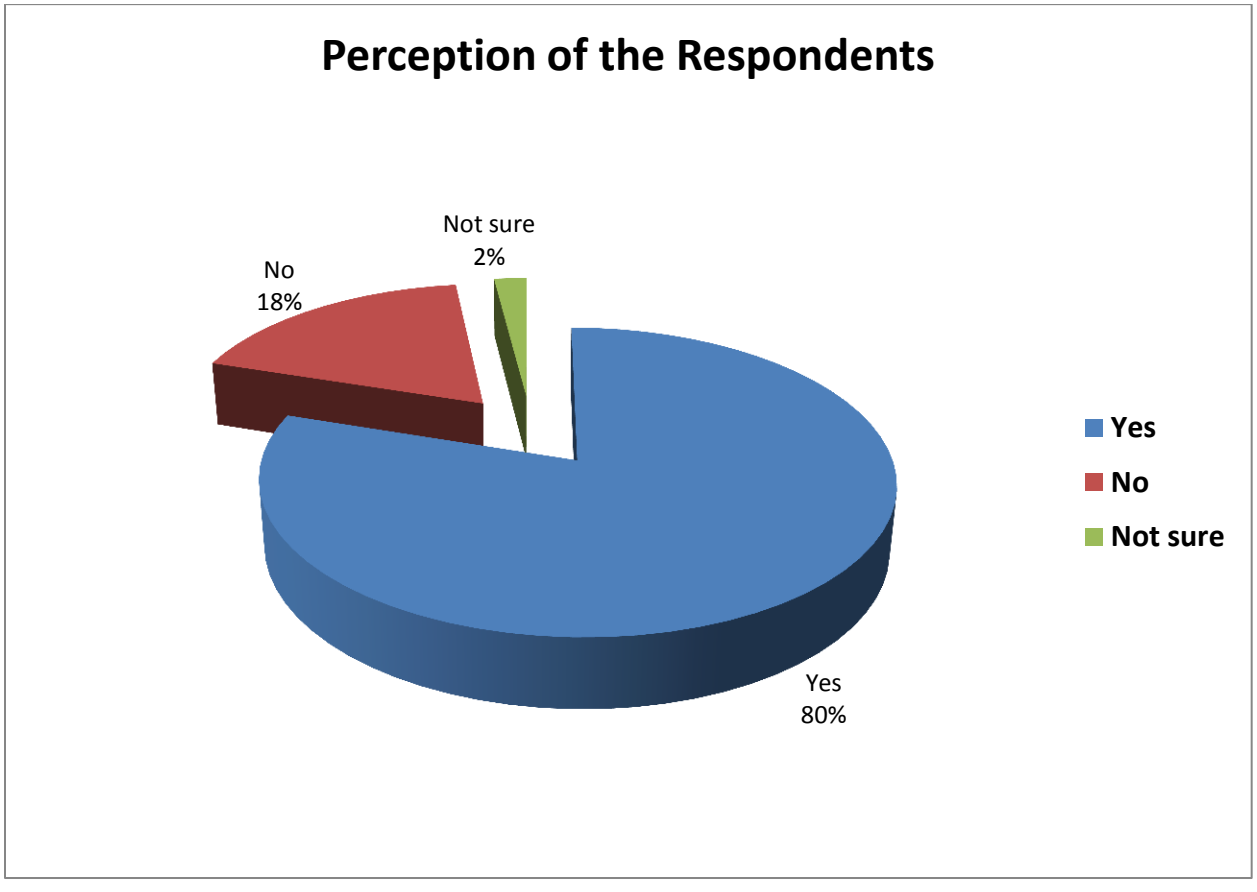
CHART-5-1



Question: Do you think the training programme taken by the project authority is sufficient enough to make the project sustainable?

This is a supplementary question that has been asked to get the perception of the respondents regarding the training programme that has been taken by the project authority in order to make the procurement process sustainable. First the respondents briefed about the training programme they attended. Then they were requested to answer in 'Yes', 'No' and 'Not Sure' .The perceptions of the respondents are quite positive for this question. About 80% of the respondents perceive that the project will be sustainable, 18% of the respondents were not sure about the sustainability of the project and 2% of the respondents answered in the negative. The summary of their results is summarized below through pie charts:

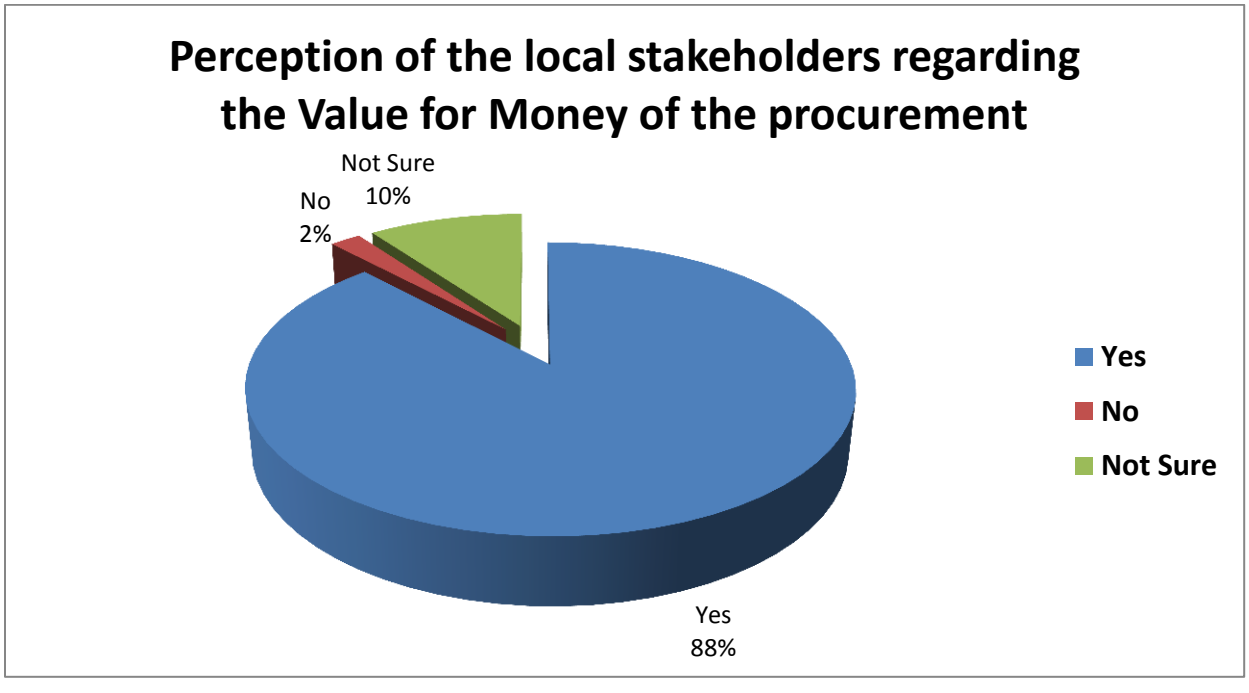
CHART-5-2



Question: Do you think the procurement process in the SWAIWRPMP will achieve value for Money?

This is the main question that has been asked to get the perception of the respondents regarding the achievement of Value for money of the procurement. First the respondents were briefed about the definition of Value for money. Then they were requested to answer in 'Yes', 'No' and 'Not Sure'. The perceptions of the respondents are quite positive for this question. About 88% of the respondents perceive that the project will be sustainable, 10% of the respondents were not sure about the sustainability of the project and 2% of the respondents answered in the negative. The summary of their results is summarized below through pie charts:

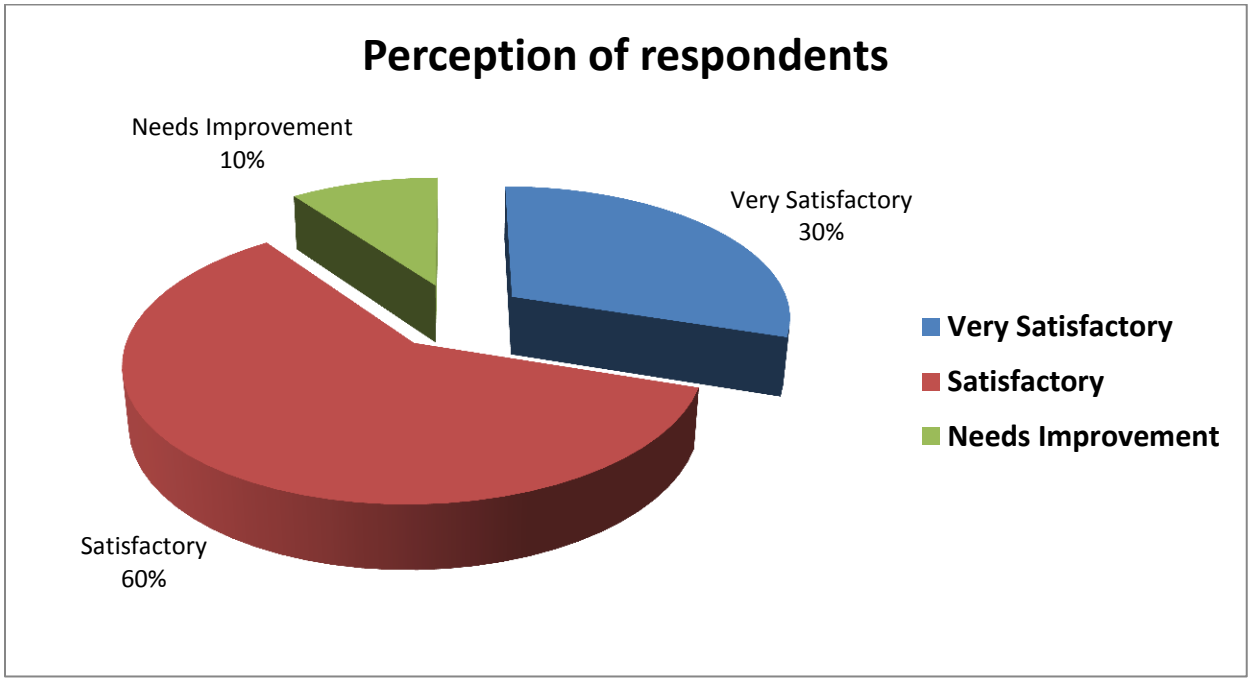
CHART-5-3



Question: Do you think quality is maintained during the construction stage of the procurement?

This is a supplementary question that has been asked to get the perception of the respondents regarding the quality of work which is a valuable element for achievement of Value for money of the procurement .As most of the respondents received training on maintaining quality of the physical work, they have the initial knowledge of quality. They were requested to answer in 'Very satisfactory', 'Satisfactory' and 'Needs Improvement. The perceptions of the respondents are quite positive for this question. About 30% of the respondents perceive that the quality of the work is Very satisfactory, 60% of the respondents perceive that the quality of work is Satisfactory and 10% of the respondents perceived that the quality of the work is not satisfactory and needs improvement. The summary of their results is summarized below through pie charts:

CHART-5-4



To have a detailed perception from the local stakeholders about the research questions the following questions are asked to some key respondents:

Question: What kind of role do you play during the identification of need?

By asking this question respondents were requested to express the process of identification of the need which is the first step of the procurement process. The respondents expressed that after the formation of the WMG monthly meeting is held regularly where different water related problems are discussed. After detailed discussion about the problems, they try to identify some solutions like construction/repair of Water control structures, Khal re-excavation, Embankment re-sectioning etc. After identification of the problems and probable solutions they are included in the resolution of the monthly meeting. After that the resolution is submitted to the project authority for engineering assessment and further necessary action.

Question: What kind of role do you play during the implementation of the work?

By asking this question the respondents were requested to explain their views regarding their role during the construction stage. The respondents answers that the O&M subcommittee of the WMG are responsible to monitor the work of the contractor as well as the LCS. They also expressed that the O&M subcommittee were trained adequately to monitor the work. They also expressed that quality of work has improved due to monitoring work.

Question: What is your overall perception regarding the sustainability of the procurement?

By asking this question the respondents are requested to explain their views regarding the sustainability of the project. The respondents replied that they are quite satisfied with the initiative that has been taken by the project authority to make the procurement sustainable. Besides the initiatives taken by the project authority they also provide some suggestions. They are as follows:

⋄If the newly constructed WMG building is rented for training purposes then the house rent will be a source of income for the WMGs. Moreover the interaction among the WMG members will also increase.

◊ The initiatives taken by the project authority should be supported by an expert from the concerned sector. For example if a WMG takes initiatives for Apiculture, the project authority should engage an Apiculturist to support that initiative.

◊ Key players of the WMGs should be trained in BIRRI, BARI, BFRI etc to give them the state of the art technical knowledge about different income generating activities then entrepreneurs will be developed and the procurement will be successful.

◊ Dynamic leadership should be chosen and nurtured to make the project sustainable after completion of the project period.

◊ Moreover after care activities should be continued by the executing agency even after completion of the project

Question: What is your overall perception regarding the achieving value for money of the procurement?

By asking this question the respondents were requested to explain their views regarding the achievement of value for money of the procurement. The respondents replies that as they can participate at important stages of procurement like identification of needed and maintaining of physical works quality the procurement of the project has a great potential for achieving value for money.

5.3.3 Questionnaire for the respondents from Quality control Engineers

Quality control engineers from the ISPM consultant team are engaged in maintaining the quality of physical work which is a very important stage for sustainability of procurement and achieving Value for Money. The Quality Control Engineers were asked the following question to explain their views:

Question: Would you please mention, what are the standard method for time, quality and cost control in SWAIWRPMP?

By asking the questions the respondents were requested to express their view regarding the quality control procedure in the SWAIWRPMP. The QCEs replied the following:

- As regards time control, we follow the existing procedure usually used by BWDB officials. These are the time plan /work plan submitted by the contractor during submission of bid. We compare the achievement with target. During the ongoing process, if the progress is far below the target, the contractor proposes for its changes and revised time plan submitted by them.

- As regards the quality, we focus our attention during the manufacturing stage. Such as, during manufacturing of CC block, we check the ratio of mixing aggregates, cement, water cement ratio, freshness of coarse aggregates etc. While in case of khal excavation we usually verify the level of cutting, side slope, removal of earth from the bank etc.

- As regards cost control sometimes we give our opinion, such as inclusion of one new item say "slushy" earth for khal excavation, (which were not considered during estimates and tendering). If we really see in the field we suggest for its inclusion.

Question: Are you facing any problem in performing your duty as a quality control specialist? If yes please specify possible areas for improvement

The respondents replied the following in response to this answer:

- Our job usually starts as and when actual construction begins. We visit the working site and offer our opinion. But here, as we were previously known to Sub-project Management office (SMO) they even request us to visit the site even before the actual work starts. In that case, we visit the site and comments on the ingredients.
- Very often we comments also on the output. Say, on the shape of the khal, slope of the khal, shape and size of CC block, etc.
- Sometimes SMO have confusion regarding our task. They never think that our checking is a random one being parallel to their checking. But sometimes they request us to make our visit continuously until a particular segment of work moves on.
- After all, we maintain a good working relation.

Question: Does the executing agency provide you adequate support? If not, please specify possible areas for improvement.

The respondents replied the following in response to the question:

- Yes, they are much cooperative. I always got my necessary documents such as BoQ, estimates, drawing etc.
- If I need a transport they were fair to help us.

5.3.4 Questionnaire for the respondents from the development partner ADB

Asian Development Bank (ADB) is the main development partner of SWAIWRPMP. So the following questions were asked to the representative of ADB who is in charge of the project to know her view regarding the project. The questions are as follows:

Question: What is the prescribed procurement practice of ADB?

In reply to this question the respondent replied that that prescribed procurement practice of ADB is described in "Procurement Guidelines" that last issued in April'2010. Moreover the specific procurement procedure for SWAIWRPMP will also be guided by the Loan Agreement that signed between GoB and the ADB.

Question: What is your overall observation about the procurement practice in SWAIWRPM project?

The respondents replied the following in response to this question:

I observed progressive improvement of procurement activities of the project. I presume some requirements may be difficult for BWDB project officers at the beginning of the project, but probably they found that ADB's procedures and requirements are not so difficult once they've got used to. Having practical experiences of external-funded projects may be a good learning chance for government officials.

5.3.5 Questionnaire for the respondents from the Suppliers

Suppliers play an important in bidding and contract management stage. Active participation of the suppliers in the bidding procedure is a must to ensure genuine competition which will consequently lead to achievement of value for money. Moreover the suppliers play an important role in the contract management stage to complete the work within the stipulated time with specified quality. The following questions were asked to the representatives of the suppliers to know their view regarding the procurement of the project:

Question: What are your overall observations regarding the bidding procedure of the SWAIWRPMP?

By asking this question suppliers were requested to explain their views regarding the bidding procedure of the project more specifically what are the pros and cons of the bidding procedure. The respondents reply that the bidding procedure of the SWAIWRPMP has some positive sides. They are as follows:

⋄ The bidding document supplied by the project authority is a complete one where the Instruction to Bidders, BOQ, Qualification criteria as well as technical and general specifications are stated very clearly.

⋄ In the PPR there is a usual provision for Single place dropping of bids but the project authority arranged multiple dropping of bids in Jessore and Narail district which ensures participation of large number of bidders

⋄All the bids are evaluated and lowest bidder selected within the quickest time and long before the tender validity period expired

⋄ The dropping and evaluation procedure is fair and transparent

Cons of the bidding procedure are:

⋄ The qualification criteria are much higher than the GoB funded projects criteria. It sometimes causes lack of competition in the bidding as the local bidders can't participate in the bidding procedure.

⋄ The lengthy bidding document sometimes creates difficulty in filling.

Finally they concluded that the pros overweigh the cons and ensure genuine competition & quickest decision making avoiding bureaucracy.

Question: What is your overall observation regarding the contract management procedure of the SWAIWRPMP?

By asking this question suppliers were requested to explain their views regarding the contract management procedure of the project more specifically what are the pros and cons of the contract management procedure. The respondents reply that the contract management procedure of the SWAIWRPMP has some positive sides. They are as follows:

◊ As the local stakeholders are involved in the contract management stage some local problems can be solved amicably which ensures first completion of the contract.

◊ The vast experienced and technically sound Quality Control Engineers provides suggestions at every stage of construction which make ease some difficult situations.

◊ The project authority provides every support to complete the work within the stipulated time and required quality

◊ There is no fund constraint in the project. So bill is paid within the quickest possible time.

Cons of the contract management are:

◊ Sometimes lack of coordination among the three parties involve in quality control causes delay.

◊ Billing procedure is somehow lengthy

◊The bill has to collect from Faridpur Regional Accounting Centre which is somehow not convenient.

Finally the suppliers concluded that though there some minor problem exists this participatory approach of contract management has helped them to complete the work on time & within specified quality.

5.4 Summery of Key findings

The in depth interview with the key informants reveals the fact that the procurement cycle that followed in SWAIWRPMP are guided by the DPP of the project and the procurement guidelines. They said that standard procurement procedure is followed strictly and in case of time there causes some delay in WMG formation and design of civil works stage. The delay in the WMG formation stage is due to the mobilizing and motivating the local people and in the design stage due to the lack of manpower in the design circle. The participation of the local beneficiaries is at the Identification of need stage of the procurement cycle which is the first stage and contract management stage where the look after the quality of the work. The after construction O&M will be conducted by the local beneficiaries after the signing of contract between the BWDB and the concerned WMG. The respondents from the executing agency expressed that training program of the local people on different income generating activities along with some important steps taken by them e.g. construction of WMG building, Resettlement program, involving them in different decision making activities will make the procurement sustainable. In line with the definition of value for money they also expressed that the procurement is obviously bringing value for Money as the t he procurement cycle of the project covers the whole life of procurement from the Identification of the need from the consumers to the after procurement O&M activities along with maintaining the specified quality of the physical works.

The questionnaire survey among the stakeholders of the WMGs reveals that most of the respondents perceived the procurement will be sustainable and is achieving value for money as the work is done as per their demand and involving them at the key steps of procurement cycle. The in depth interview with some key informants reveals that though they are enthusiastic about the sustainability of the procurement the provide some suggestions for further improvement. They are as follows:

⋄If the newly constructed WMG building is rented for training purposes then the house rent will be a source of income for the WMGs. Moreover the interaction among the WMG members will also increase.

⋄ The initiatives taken by the project authority should be supported by an expert from the concerned sector. For example if a WMG takes initiatives for Apiculture, the project authority should engage an Apiculturist to support that initiative.

⋄ Key players of the WMGs should be trained in BIRRI, BARI, BFRI etc to give them the state of the art technical knowledge about different income generating activities then entrepreneurs will be developed and the procurement will be successful.

⋄ Dynamic leadership should be chosen and nurtured to make the project sustainable after completion of the project period

The Quality control Engineers expressed how time and quality is maintained in the contract management stage of the procurement. In terms of time control, the actual progress of work is compared with the time/work plan submitted by the contractor at the time of contract signing. If the contractor is far behind the submitted schedule then revised schedule is submitted by the contractor which is approved and closely monitored by them. In terms of quality control they check the ratio of mixing aggregates, cement, water cement ratio, freshness of coarse aggregates etc during the construction stage. While in case of khal excavation they usually verify the level of cutting, side slope, removal of earth from the bank etc. They also express that sometimes there creates some confusion with the local office regarding their task. The local office never thinks that their checking is a random one being parallel to the executing agency's checking. But sometimes the local executing office requests them to make their visit continuously until a particular segment of work moves on. But over all they said that they always maintain a good cooperative relationship with the local stakeholders and executing agency to complete the work on time, with specified quality and within the contract amount.

Most of the suppliers expressed their satisfaction over the fair and transparent bidding procedure of the project. Besides stating the pros and cons of the bidding procedure they also provide some suggestions to make the bidding procedure more competitive. They are as follows:

⋄ Setting of qualification criteria as per the PW3 document which is issued by the CPTU so that local bidders can participate in the bidding procedure and make the bidding procedure genuinely competitive.

⋄ Setting of work experience criteria taking into account the inflation of Money

⋄ Arrangement of pre bid meeting so that they can submit the bid completely

Regarding contract management they also requested to make the billing procedure simple. They also hope for a better coordination among the executing agency, consultant and the local stakeholders to complete the work on time with specified quality.

The representative of the ADB expressed that procurement practice is followed strictly in the SWAIWRPM project. She also expressed that progressive improvement is going on among the project staff. So they are delegating some of the responsibility to the project authority. Previously the approval procedure of bidding document was in the following routes:

Bid Document Sent to ADB through PD ⟹ Consent from ADB ⟹ PD instructs to invite tender

But now the local BWDB office doesn't need to send the document to the ADB for consent. The Project Director provides the consent.

CHAPTER-6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Good procurement practice is a very important part for any project. A good procurement practice has the potential to make the best possible use of the public fund that is to achieve value for money and finally make the procurement sustainable. Participation of the local beneficiaries at different important stages of the procurement cycle can make good procurement practice a better one. For the purpose of this study a development partner finance project of BWDB namely "South West Area Integrated Water Resource Planning and Management Project (SWAIWRPMP) was taken as the case study. Besides following a good procurement practice, the main distinctive feature of the project is the participation of the local stakeholders at very important stages of the procurement cycle.

The main objectives of this study are the following:

- To identify steps of procurement cycle followed in SWAIWRPMP.
- To assess the compliance of sample work procurement packages with the procurement cycle
- To identify the constraints in implementing the procurement cycle in SWAIWRPMP
- To assess the sustainability of the procurement in SWAIWRPMP
- To assess the achievement of value for money in public procurement

After in depth analysis of some sample procurement packages and interview with the key informants of different stakeholders of the Supply Chain following conclusion can be drawn:

- Procurement cycle that described in the DPP of the project is followed strictly here with the direct guidance from the ISPMC consultants and time to time monitoring by the development partner ADB. Sometimes delay in designing of civil works creates bottlenecks which subsequently delays the whole procurement cycle.

- Besides involvement of local beneficiaries at important stages of procurement cycle, other steps taken by the project authority e.g. training programme on different income generating activities, construction of WMG building, resettlement programme of the affected people, transfer of O&M activities of the completed work to the local beneficiaries etc have ensured the sustainability of the procurement. Two most important stakeholders of the supply chain the executing agency and the local beneficiaries have also optimistic about the sustainability of the procurement.

- Need identification from the local stakeholders, making congenial atmosphere for a genuine competitive bidding, rigorous time, quality and cost control by more than one party especially local stakeholder have ensured the achievement of value for money in the procurement practice of the SWAIWRPM project.

Finally it can be said that clear and specific guidelines in the DPP, strict monitoring by the development partner and consultants, participation of local beneficiaries at different stages of procurement overall the dynamic leadership of the project Authority which matches Hersy's "Situational Leadership Model" has made the procurement of the project a successful and sustainable one.

6.2 Recommendations

Though good procurement practice is followed in the SWAIWRPM project, for further improvement, following recommendations at different stages of procurement cycle are drawn based on the study:

Pre bidding stage

Following recommendations are made at this stage:

◊ More skilled manpower should be deployed in the design circle for short term solution of the problem as they are overloaded with the design work. In the long term the design of the civil works should be laid upon the consultants which will expedite the project implementation.

◊ Now estimate is sanctioned by the Project Director. Some power of estimate sanction may be delegated the field Executive Engineer as per the Delegation of Financial Power of BWDB which will expedite the project work.

Bidding stage

Following recommendations are made at this stage

◊ All the qualification criteria (financial and experience) should be reset in accordance with the PW3 document issued by the CPTU in order to ensure the participation of the local suppliers.

◊ In setting the experience criteria (both general and specific) the inflation of money should be taken into consideration.

◊ Provision of pre bid meeting should be kept so that the bidders can fill the bid document appropriately.

◊ Training classes on the procurement rules and regulations, contract management should be conducted for the suppliers so that they become aware of the rules and guidelines of the Development partners and the PPR and take part in the bid and manage the contract accordingly.

Contract management stage

Following recommendations are made at this stage:

- Amount of Performance security is 10% of the contract amount where as in the Public Procurement Rules (PPR)'2008 the amount is 5% of the contract amount if not frontloaded. The argument behind the 10% performance security is that there is a provision for advance payment in the ADB guidelines. But the Advance payment procedure is so complicated that it becomes tough for the consultants to collect that advance payment. So the advance payment procedure should be relaxed or the amount of performance security should be made 5% if not front loaded.

- Better coordination among the three parties who are engaged in control of quality should be made in order to expedite the implementation.

- Local stakeholders should be involved more in contract management stage to control quality

- Local stakeholders should be adequately trained so that they can take the responsibility of the O&M after transfer of the responsibility.

- If the newly constructed WMG building is rented for training purposes then the house rent will be a source of income for the WMGs. Moreover the interaction among the WMG members will also increase.

- The initiatives taken by the project authority should be supported by an expert from the concerned sector. For example if a WMG takes initiatives for Apiculture, the project authority should engage an Apiculturist to support that initiative.

- Key players of the WMGs should be trained in BIRRI, BARI, BFRI etc to give them the state of the art technical knowledge about different income generating activities then entrepreneurs will be developed and the procurement will be successful.

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Table-A1
SUMMARY OF AID COMMITMENT AND DISBURSEMENT
(1971/72-2010/11)

(US$ Million)

Year	Opening Pipeline	Cancell./ Trans.a_/	Commitment			Total available	Dis bursement			Ex.rate adjust.a_/	Disb./ Avbl%
			Grant	Loan	Total		Grant	Loan	Total		
1	2	3	4	5	6=4+5	7	8	9	10=8+9	11	12=10/7%
1971/72	-	-	512.717	98.087	610.804	610.804	245.169	25.631	270.800	-	44.3
1972/73	340.004	-	483.700	394.713	878.413	1218.417	486.390	65.054	551.444	-	45.3
1973/74	666.973	-	106.758	448.310	555.068	1222.041	218.562	242.675	461.237	-	37.7
1974/75	760.804	-	345.223	921.467	1266.690	2027.494	374.840	526.209	901.049	-	44.4
1975/76	1126.445	-	380.551	578.330	958.881	2085.326	233.811	566.719	800.530	-	38.4
1976/77	1284.796	-	400.510	326.471	726.981	2011.777	255.501	279.211	534.712	-	26.6
1977/78	1477.065	-	433.195	714.679	1147.874	2624.939	392.868	440.992	833.860	-	31.8
1978/79	1791.079	-	936.011	824.228	1760.239	3551.318	501.839	528.210	1030.049	-	29.0
1979/80	2521.269	-	485.023	668.234	1153.257	3674.526	650.559	572.502	1223.061	-	33.3
1980/81	2451.465	-	549.996	1009.241	1559.237	4010.702	593.677	552.768	1146.445	-	28.6
1981/82	2864.257	-	805.563	1117.286	1922.849	4787.106	653.819	585.812	1239.631	-	25.9
1982/83	3547.475	-	836.626	685.906	1522.532	5070.007	587.503	589.880	1177.383	-	23.2
1983/84	3892.624	-	858.448	836.539	1694.987	5587.611	733.734	534.665	1268.399	-	22.7
1984/85	4319.212	-391.375	874.999	1105.873	1980.872	5908.709	703.333	566.113	1269.446	n.a.	21.5
1985/86	4639.263	430.613	873.593	787.852	1661.445	6731.321	545.589	760.339	1305.928	n.a.	19.4
1986/87	5425.393	-218.559	893.715	709.542	1603.257	6810.091	661.592	933.568	1595.160	n.a.	23.4
1987/88	5214.931	353.843	880.852	648.926	1529.778	7098.552	823.776	816.604	1640.380	n.a.	23.1
1988/89	5458.172	-314.669	661.152	1212.318	1873.470	7016.973	672.956	995.522	1668.478	n.a.	23.8
1989/90	5348.495	52.475	884.706	1290.360	2175.066	7576.036	765.884	1043.675	1809.559	296.224	23.9
1990/91	5915.160	-135.657	485.064	885.280	1370.344	7149.847	831.463	901.112	1732.575	-126.852	24.2
1991/92	5290.420	-104.557	1140.428	775.182	1915.610	7101.473	817.250	794.218	1611.468	489.851	22.7
1992/93	5979.856	-65.732	734.548	540.000	1274.548	7188.672	818.250	856.758	1675.008	-201.301	23.3
1993/94	5312.363	-330.472	463.850	1946.334	2410.184	7392.075	710.091	848.552	1558.643	76.403	21.1
1994/95	5914.939	-188.621	860.905	751.307	1612.212	7338.530	890.121	848.970	1739.091	631.176	23.7
1995/96	6230.617	-143.828	863.840	415.735	1279.575	7366.364	677.489	766.261	1443.750	-491.377	19.6
1996/97	5431.237	-722.771	842.250	818.867	1661.117	6369.583	736.069	745.161	1481.230	-191.261	23.3
1997/98	4697.092	-76.724	584.569	1206.146	1790.715	6411.083	502.842	748.531	1251.373	-264.180	19.5
1998/99	4895.530	-37.225	861.879	1786.637	2648.516	7506.821	669.346	866.711	1536.057	8.812	20.5
1999/00	5979.575	-128.947	619.248	855.779	1475.027	7325.655	726.079	861.869	1587.948	14.633	21.7
2000/01	5752.268	-210.604	937.729	1115.111	2052.840	7594.504	504.147	864.657	1368.804	-367.745	18.0
2001/02	5857.955	-117.826	401.769	476.975	878.744	6618.873	478.806	963.428	1442.234	272.847	21.8
2002/03	5450.047	-15.610	383.298	1309.273	1692.571	7127.008	510.147	1074.875	1585.022	179.848	22.2
2003/04	5738.109	-8.075	886.778	1036.302	1923.080	7653.114	338.452	694.980	1033.432	318.190	13.5
2004/05	6911.062	-277.480	302.917	1277.790	1580.707	8214.289	244.229	1244.218	1488.447	-31.302	18.1
2005/06	6694.542	-256.439	628.381	1158.979	1787.360	8225.463	500.542	1067.094	1567.636	-31.302	19.1
2006/07	6759.480	-286.925	728.493	1527.635	2256.128	8728.683	590.171	1040.404	1630.575	171.335	18.7
2007/08	7288.340	-62.992	961.881	1880.563	2842.444	10067.792	658.115	1403.399	2061.514	555.330	20.5
2008/09	8682.135	-113.158	423.257	2021.060	2444.317	11013.294	657.805	1189.500	1847.305	-320.301	16.8
2009/10	8861.288	-97.049	555.147	2428.530	2983.677	11747.916	639.171	1588.603	2227.774	-90.781	19.0
2010/11	9429.360	-384.898	630.460	5338.166	5968.626	15013.088	745.100	1031.642	1776.742	628.526	11.8
Total	186201.097	-3853.262	26500.029	43930.013	70430.042	252777.877	23347.087	31027.092	54374.179	1526.773	21.5

Notes:

a_/ Cancellation / Transfer and Exchange Rate Adjustment were introduced from 1984/85. Exchange Rate adjustment figure is not available separately for 1984/85 to 1988/89 and is included within Cancellation/Transfer amount- 135.657

Table-A2: Yearwise Revised Allocation and Utilization

Sector : Water Resources *(Taka in Crore)*

Fiscal Year	Allocation for Projects as per Revised ADP						Utilization as per IMED's Annual Report				
	Sectoral Total	GOB Taka	Project Aid	Technical Assistance		Self Financed	Total	GOB Taka	Project Aid	Technical Assistance	Self Financed
				GOB	Project Aid						
1971-72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1972-73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1973-74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1974-75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1975-76	151.42	134.07	17.35	NA	NA	NA	NA	NA	NA	NA	NA
1976-77	110.91	79.92	30.99	NA	NA	NA	NA	NA	NA	NA	NA
1977-78	142.73	105.87	36.87	NA	NA	NA	NA	NA	NA	NA	NA
1978-79	172.53	125.29	47.24	NA	NA	NA	NA	NA	NA	NA	NA
1979-80	297.16	225.65	71.51	NA	NA	NA	NA	NA	NA	NA	NA
1980-81	357.19	278.50	78.68	NA	NA	NA	NA	NA	NA	NA	NA
1981-82	398.47	291.47	108.00	NA	NA	NA	NA	NA	NA	NA	NA
1982-83	368.41	250.71	117.70	NA	NA	NA	NA	NA	NA	NA	NA
1983-84	479.40	280.15	199.43	2.25	7.57	NA	NA	NA	NA	NA	NA
1984-85	526.15	242.84	271.61	2.55	9.05	NA	392.56	185.53	197.03	NA	NA
1985-86	486.89	172.63	304.56	0.79	8.95	NA	412.40	227.33	176.07	NA	NA
1986-87	449.10	209.26	233.92	0.65	5.46	NA	460.58	234.44	226.14	NA	NA
1987-88	571.39	230.85	328.93	1.19	10.52	NA	448.73	244.75	203.98	NA	NA
1988-89	676.10	211.35	450.47	1.25	7.53	4.50	626.14	305.95	320.20	NA	NA
1989-90	700.24	236.00	448.56	1.75	10.93	3.00	1056.17	606.36	448.81	NA	NA
1990-91	797.15	229.25	480.12	0.03	67.15	2.50	670.28	318.92	350.46	NA	NA
1991-92	876.20	299.97	470.76	0.70	95.96	NA	526.90	257.40	270.48	NA	NA
1992-93	990.93	345.00	483.00	11.29	51.64	NA	693.66	320.50	362.16	NA	NA
1993-94	758.76	337.00	293.56	20.02	107.27	NA	566.74	319.57	246.17	NA	NA
1994-95	952.00	376.46	395.50	62.54	77.41	NA	662.10	362.98	299.12	NA	NA
1995-96	951.00	350.50	397.20	24.50	78.90	NA	562.68	340.97	221.91	NA	NA
1996-97	482.92	416.00	642.00	18.20	97.70	NA	988.92	395.06	513.78	84.20	NA
1997-98	1039.78	391.00	657.78	14.51	76.40	NA	898.74	360.50	538.24	NA	NA
1998-99	1140.22	449.80	600.42	13.81	99.08	NA	976.72	426.32	450.41	75.66	NA
1999-00	1711.42	698.57	612.95	11.96	93.71	NA	1066.40	646.40	420.00	76.45	NA
2000-01	1224.47	782.58	441.89	15.19	43.21	NA	993.48	694.62	299.86	47.24	NA
2001-02	958.27	670.27	288.00	9.05	30.97	NA	759.50	543.44	216.06	31.50	NA
2002-03	932.27	650.24	174.03	3.61	9.17	NA	732.99	628.48	94.39	7.76	NA
2003-04	710.87	572.36	147.51	4.21	32.87	NA	678.60	534.94	142.95	33.91	NA
2004-05	990.84	829.79	161.05	2.20	33.04	NA	912.50	774.20	139.39	35.77	NA
2005-06	667.93	486.10	172.28	1.21	17.65	NA	626.34	461.79	164.55	17.14	NA
2006-07	582.54	397.03	185.51	2.03	11.15	NA	410.53	280.37	130.16	6.51	NA
2007-08	999.73	676.10	313.63	1.12	10.50	NA	699.61	490.23	209.39	7.35	NA
2008-09	962.56	616.73	345.92	1.40	6.97	NA	905.72	481.61	314.11	6.54	NA
2009-10	1192.99	657.95	525.03	1.25	13.53	NA	1077.90	620.90	445.00	12.45	NA
2010-11	1711.00	979.27	422.92	2.29	10.99	NA	1155.26	822.79	322.47	9.97	NA

Appendix-C

২০১২-১৩ সালের বার্ষিক উন্নয়ন কর্মসূচীর সংক্ষিপ্ত সার

সেক্টর ৪ পানি সম্পদ

(লক্ষ টাকায়)

ক্রমিক নং	কর্মসূচীর শ্রেণী বিভাগ	প্রকল্প সংখ্যা	২০১২-১৩ সালের বার্ষিক উন্নয়ন কর্মসূচী				আমদানী শুল্ক ও মূল্য সংযোজন কর
			মোট	স্থানীয় মুদ্রা	প্রকল্প সাহায্য	প্রকল্প সাহায্যের টাকাংশ	
১	২	৩	৪	৫	৬	৭	৮
	বাংলাদেশ পানি উন্নয়ন বোর্ড						
১।	কৃষি: সেচ	৬	২৬৬০০	১৯৬০০	৭০০০	৬৬৫০	১৫০
২।	পানি সম্পদ	৩৮	১৮০৯২৪	১৩২৩৭৩	৪৮৫৫১	৩৩০৬৯	২০০
৩।	কারিগরি সহায়তা কর্মসূচী	১	১০৫৩	৪৫	১০০৮	০	০
৪।	পাউবো এর অননুমোদিত প্রকল্পের থোক		০				
	সর্বমোট	**৪৫**	**২০৮৫৭৭**	**১৫২০১৮**	**৫৬৫৫৯**	**৩৯৭১৯**	**৩৫০**

APPENDIX-E: Definition of key terms and some required rule of PPR'2008

Definitions of key terms of PPR 2008 that used in SWAIWRPMP are presented here:

"Advertisement" means an advertisement published under Section 40 in newspapers, websites or any other mass media for the purposes of wide publicity;

"Approving Authority" means the authority which, in accordance with the Delegation of Financial Powers, approves the award of contract for the Procurement of Goods, Works or Services

"Completion Date" is the date of completion of the Works as certified by the Project Manager

"Contractor" means a Person under contract with a Procuring Entity for the execution of any Works under the Act\

"Days" means calendar days unless otherwise specified as working days;

Delegation of Financial Powers" means the instructions with regard to the delegation of financial authority, issued by the from time to time, relating to the conduct of public Procurement or sub-delegation of financial powers under such delegation

"Evaluation Committee" means a Tender or a Proposal Evaluation Committee constituted under Section 7 of the Act

"Evaluation Report" means the report prepared after the evaluation of Tenders, Quotations, Expressions of Interest or Proposals

"Intended Completion Date" is the date on which it is intended that the Contractor shall complete the Works as specified in the Contract and may be revised only by the Project Manager by issuing an extension of time or an
acceleration order;

"Multiple Dropping" means submitting Tenders to more than one place as designated by the Procuring Entity

"Opening Committee" means a Tender Opening Committee (TOC) or a Proposal Opening Committee (POC) constituted under Section 6 of the Act

"Primary place" means the office of the Procuring Entity where all Tenders shall be received and opened

"Procurement" means the purchasing or hiring of Goods, or acquisition of Goods through purchasing and hiring, and the execution of Works and performance of Services by any contractual means

"Public Procurement" means Procurement using public funds

'Secondary place" "means the other place(s), designated by the Procuring Entity in exceptional cases, where Tenders can be dropped but not opened

"Tender Document or Request for Proposal Document", means the Document provided by a Procuring Entity to a Tenderer or a Consultant as a basis for preparation of its Tender or Proposal

"Works" means all Works associated with the construction, reconstruction, site preparation, demolition, repair, maintenance or renovation of railways, roads, highways or a building, an infrastructure or structure or an installation or any construction work relating to excavation, installation of equipment and materials, decoration, as well as physical Services ancillary to Works, if the value of those Services does not exceed that of the Works themselves

Some required rules of PPR 2008 that used in SWAIWRPMP are presented here:

Rule 7. Constitution of Tender or Proposal Opening Committee, Meetings, Etc :-
The Head of the Procuring Entity or an officer authorized by him or her or the Approving Authority, while the Approving Authority is below the level of HOPE, as the case may be, shall form a Tender or Proposal Opening Committee comprising of members as specified in Schedule II

Rule 8. Constitution of Evaluation Committee and Evaluation Procedures :-
(1) Tender Evaluation Committee (TEC) or Proposal Evaluation Committee (PEC) shall be formed comprising of members , as specified in Schedule II , prior to the invitation for Application, Tender or Proposal has been issued, but certainly must be formed before the deadline for submission of Applications, Tenders or Proposals.
(2) The Evaluation Committee formed under Sub-Rule (1) shall include external members having knowledge required for evaluation and, who shall be nominated by designation: provided that, for procurements of values within ceilings mentioned in Schedule II, Tender pr Proposal Evaluation Committees shall be formed in accordance with the said Schedule II.

(3) The Approving Authority shall form the Evaluation Committee; but when the approving authority is at the level of a Board of Directors or a Ministry or if the CCGP is the recommending authority, the Evaluation Committee shall be appointed with the approval of the Chairperson of the Board or the Secretary of the Ministry or Division, as the case may be.

Rule 19. Determination of Validities :-
(1) The validity period shall be determined depending on the complexity of the Tender or Proposal and the time needed for its evaluation and approval and shall be within the limits specified in Schedule II.

(2) Notwithstanding anything contained in Sub-Rule (1), shorter or longer periods may be authorized by the Head of the Procuring Entity or an officer authorized by him or her to suit the requirements of a particular Procurement activity.

Rule 21. Extension of Validity :-
(1) A Procuring Entity may, if justified by exceptional circumstances, request in writing a Tenderer or an Applicant to extend the validity period of its Tender or Proposal before the expiration date: provided that for the first extension of validity, the approval of the Head of the Procuring Entity and for second extension of such validity, the approval of the next higher level of authority shall be obtained.

(2) The request for extension of Tender or Proposal validity under Sub-Rule (1) shall state the new date for the expiry of Tenders or Proposals and all such requests for extension shall be sent to the Tenderers or Applicants within the time limit specified in Schedule II

Rule 90. Advertisement :-

(1) A Procuring Entity shall be the authority to directly advertise all Invitations for Pre-Qualification (IFPQ), Invitations for Enlistment (IFE), Invitations for Tender (IFT) and Request for Expressions of Interest for Goods and related Services, Works and Physical Services and, intellectual and professional Services, whichever is applicable in accordance with Section 40 of the Act.

(2) The Procuring Entities shall advertise their Procurement requirements which have been included into their Annual Procurement Plan in accordance with the following procedures - (a) invitations shall be advertised in, at least one Bangla language national newspaper and one

(1) English language national newspaper, both of whichshall have a wide daily circulation within Bangladesh;

(b) The Procuring Entity shall, in order to advertise, carefully apply sound judgment in choosing national newspapers which are commonly known andubiquitously accepted as having wide daily circulation;

(c) In addition to an advertisement on the national level, Procuring Entities based outside Dhaka shall consider, for certain Procurements as specified in Schedule III, advertising in a maximum of two (2) widely circulated local or regional newspapers for a maximum of two (2) days;

(d) Where more than one (1) edition of the newspaper is published on the date ofpublication of the advertisement, the Procuring Entity shall ensure that theadvertisement will be published in each copy of every such edition;

(e) If cost of the advertisement is a factor for wider publication, the ProcuringEntity may consider reducing the size of the advertisement and advertise in ahigher number of newspapers to ensure wider distribution and transparency;

(f) Pre-Qualification, Tender or Proposal Documents should be ready for issue orsale to interested Applicants and Tenderers by the time of the appearance ofthe advertisement;
(g) Subsequent changes or amendments to any invitation shall also be readvertisedpreferably in the same newspapers and websites where it wasoriginally published;

(h) all invitations shall also be advertised in the Procuring Entity's website, if any;

(i) The Procuring Entities shall send Invitations for Procurements where potentialcontract values are estimated to exceed the amounts specified in Schedule III,or as decide by the Government from time to time, for publication in the CPTU'swebsite

Sub Rule 96(11).

Tenders shall be received and opened in one location, but in exceptional cases, a Procuring Entity may allow **'multiple dropping'** in which case the following guidelines shall apply:

(a) 'multiple dropping' will be used only for Procurements above the threshold value specified in Schedule III;

(b) the Secretary of the concerned Ministry or Division shall approve the use of thisprocedure for the concerned Procurement;

(c) The Invitation for Tender shall state a deadline for Tender submission at the primary and secondary place(s) and tenders received at the secondary place(s) shall be reached at the primary place within the time specified in Schedule II and shall be opened immediately after those Tenders received at the primary place following the Rule. (d) the Procuring Entity shall ensure that each of its named secondary places is physically able to receive Tenders in accordance with the requirements of these Rules and it shall designate an officer at each nominated secondary place to receive Tenders;

(e) The Procuring Entity shall ensure the availability at all secondary places of alockable and secure Tender box into which Tenders can be placed byTenderers;

(f) An officer designated by Procuring Entity shall sign for all Tenders received fromsecondary places at the primary place and issue a receipt(s) to the personnelwho have delivered the Tenders from the secondary places;

(g) No information concerning Tenders shall be passed by personnel of onelocation to that of the another during the Tendering period;

(h) The Procuring Entity's primary place shall have overall responsibility for theTenders received and it shall ensure that all secondary places to which Tendersmay also be delivered are made aware of any extension to the period for thesubmission of Tenders or of the cancellation of any Tender process;

(i) The Procuring Entity shall ensure that the sealed Tenders at the secondaryplace(s) are hand-delivered before the date specified for opening of Tenders atthe primary place and including its safety shall ensure opening of all Tenders ata time, immediately after the expiry of the deadline for submission of Tenders onthe date, place as specified in the Tender Document ; and

(j) Copies of all receipts issued under 'multiple dropping' shall form part of theProcurement records as described in Rule 43.

97. Opening of Tenders. :-

(1) The Procuring Entity shall convene the meeting for the Tender opening; and Tenders shall be opened at the time and place specified in the IFT in presence of the Tenderers or his or her authorised representatives.

(2) The the place where the Tenders shall be opened should be suitably equipped andreserved in advance for the purpose of the Tender opening.

(3) The Tender Opening Committee (TOC) constituted in accordance with Rule10 shallopen, all Tenders received on or before the deadline for the submission of Tenders, in public andin only one place.

(4) The Tender Opening Committee shall ensure that -

(a) Except in case stated in Sub Rule 96(11), Tenders shall be opened immediatelyafter the deadline for the submission of Tenders but no later than one hour afterexpiry of the submission deadline;

(b) Tender Opening Sheet (TOS) is prepared containing the information relating toTenders or Proposals announced at the opening in accordance with Sub Rule(4)(f);

(c) Persons not associated with the Tender are not allowed to attend the opening ofTenders;

(d) The Tender opening is not delayed on the plea of absence of Tenderers or hisor her

representatives , as the presence of Tenderers or their authorisedrepresentatives is optional;

(e) The Tenderers' representatives shall be duly authorised by the Tenderer;

(f) The following information stated therein is read out from the Tenders afterTender opening which shall be recorded on a Tender Opening Sheet duly verified by the members of the Tender Opening Committee -
(i) Name and address of the Tenderer;

(ii) Withdrawal, substitution or modifications, if any;

(iii) The Tender price;

(iv) Discounts, if any; -and

(v) Tender security, if required and information relating to its amount; and

(g) The checklist with steps for Tender opening in Part D of Schedule IV shall befollowed.

(5) Tender modifications or discounts, which are not read out at the Tender opening orrecorded on the TOS, shall not be considered in the evaluation of the concerned Tenders.

(6) No Tender shall be rejected at Tender opening, but late Tenders or Tenderswithdrawn shall be returned directly to the Tenderers unopened.
(7) Upon completion of the Tender opening, all members of the TOC and the Tenderersor their representatives who attended the Tender opening shall sign the TOS, copies of which shallbe issued to the Head of a Procuring Entity or an officer authorised by him or her and to allmembers of the TOC and any authorized Consultants employed in the project and to theTenderers.

(8) The Member-Secretary of the TOC will ensure that the procedure as per Sub-Rule (4)is carried out and will sign to certify that the Tender Documents have been sent to the ProcuringEntity immediately after the Tender opening.

(9) Upon completion of the Tender opening all Tenders and all related documents shallbe kept in the safe custody of the Procuring Entity along with a copy of the TOS duly signed by allconcerned.

Bangladesh Water Development Board

South-West Area Integrated Water Resources Planning & Management Project

Bidding Documents

For

RE-SECTIONING OF EMBANKMENT FROM KM 1.200 TO KM.1.700 = 0.500 KM. AND FROM KM 3.400 TO KM 5.400 = 2.000 KM. TOTAL = 2.500 KM. IN NARAIL SUB-PROJECT UNDER SWAIWRPMP DURING THE YEAR 2012-13.

Invitation for Bid No.:03/2012-2013 (Re-Tender)

Bid Package No- NSP/EMBKT/RS/01/2012-13

Executive Engineer

Sub-Project Management Office

Narail Sub-Project, SWAIWRPMP

BWDB,Narail.

02nd December, 2012.

BIDDING DOCUMENT

Procurement of Works

RE-SECTIONING OF EMBANKMENT FROM KM 1.200 TO KM.1.700 = 0.500 KM. AND FROM KM 3.400 TO KM 5.400 = 2.000 KM. TOTAL = 2.500 KM. IN NARAIL SUB-PROJECT UNDER SWAIWRPMP DURING THE YEAR 2012-13.

Issued on : 02-12-2012
Invitation for Bids No : 03/2012-13
Package No : NSP/EMBKT/RS/01/2012-13
Employer : Bangladesh Water Development Board (BWDB)
Country : Peoples Republic of Bangladesh

Preface

This Bidding Document for the Procurement of Works has been prepared by Bangladesh Water Development Board for South West Area Integrated Water Resources Planning & Management Project (ADB Loan No. 2200-BAN (SF), Dutch Grant No. 0036-BAN)and is based on the Standard Bidding Document for the Procurement of Works–Small Contracts (*SBD Works-Small*) issued by the Asian Development Bank dated October 2006.

ADB's *SBD Works-Small* has the structure and the provisions of the Master Procurement Document entitled "Bidding Documents for the Procurement of Works–Small Contracts", prepared by multilateral development banks and other public international financial institutions except where ADB-specific considerations have required a change.

Table of Contents - Summary Description

PART III CONDITIONS OF CONTRACT AND CONTRACT FORMS

This Section contains the general clauses to be applied in all contracts. These Conditions are subject to the variations and additions set out in Section 8 (Particular Conditions of Contract).

This Section contains provisions which are specific to each contract and which modify or supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

This Section contains forms, which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Section 1 - Instructions to Bidders

This section specifies the procedures to be followed by Bidders in the preparation and submission of their Bids. Information is also provided on the submission, opening, and evaluation of bids and on the award of contract.

Table of Clauses

Section 1 - Instructions to Bidders

General

Scope of Bid

In connection with the Invitation for Bids indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues these Bidding Document for the procurement of Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of the International Competitive Bidding (ICB) are provided in the BDS.

Throughout these Bidding Document:

the term "in writing" means communicated in written form and delivered against receipt;

except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and

"Day" means calendar day.

Source of Funds

The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.

Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the financing agreement between the Borrower and the ADB (hereinafter called the Loan Agreement), and will be subject in all respects to the terms and conditions of that Loan Agreement. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to the funds.

Corrupt Practices

ADB's Anticorruption Policy requires borrowers (including beneficiaries of ADB-financed activity), as well as bidders, suppliers, and contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the ADB:

defines, for the purposes of this provision, the terms set forth below as follows:

"Corrupt practice" means the offering, giving receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any party in the procurement process or the execution of a contract;

"Fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a

contract;

"Collusive practices" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to influence the action of any party in a procurement process or the execution of a contract;

"Coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;

will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and

will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in ADB-financed activities if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, an ADB-financed contract.

Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 1.15 and Sub-Clause 15.6 of the Particular Conditions of Contract.

Eligible Bidders

A Bidder may be a natural person, private entity, government-owned entity—subject to ITB 4.6—or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture (JV). In the case of a JV:

all partners shall be jointly and severally liable, and

the JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5 (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

ADB considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest

may contribute to or constitute a prohibited practice under ADB's Anticorruption Policy. In pursuance of ADB's Anticorruption Policy's requirement that Borrowers (including beneficiaries of Bank-financed activity), as well as bidders, suppliers, and contractors under Bank-financed contracts, observe the highest standard of ethics. ADB will take appropriate actions, which include not financing of the contract, if it determines that a conflict of interest has flawed the integrity of any procurement process. Consequently all Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to:

they have controlling shareholders in common; or

they receive or have received any direct or indirect subsidy from any of them; or

they have the same legal representative for purposes of this bid; or

they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

A Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or

a Bidder participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or

a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the contract.

A firm that is under a declaration of ineligibility by the ADB in accordance with ITB 3, at the date of the deadline for bid submission or thereafter, shall be disqualified.

Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the Employer.

Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

Eligible Materials, Equipment and Services

The materials, equipment and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or

major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

Contents of Bidding Document

Sections of Bidding Document

The Bidding Document consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART I Bidding Procedures

Section 1 - Instructions to Bidders (ITB)

Section 2 - Bid Data Sheet (BDS)

Section 3 - Evaluation and Qualification Criteria (EQC)

Section 4 - Bidding Forms (BDF)

Section 5 - Eligible Countries (ELC)

PART II Requirements

Section 6 - Employer's Requirements (ERQ)

PART III Conditions of Contract and Contract Forms

Section 7 - General Conditions (GCC)

Section 8 - Particular Conditions (PCC)

Section 9 - Contract Forms (COF)

The Invitation for Bids issued

by the Employer is not part of the Bidding Document.

The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.

The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.

Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received no later than twenty-one (21) days prior to the deadline for submission of bids. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to

amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.

The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer not later than one week before the meeting.

Minutes of the pre-bid meeting, including the text of the questions rose, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.

Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

Amendment of Bidding Document

At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.

Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.

To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2

Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

Language of Bid

The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

Documents Comprising the Bid

The Bid shall comprise the following:

Letter of Bid;

completed schedules as required, including priced Bill of Quantities, in accordance with ITB 12 and 14;

Bid Security, in accordance with ITB 19;

alternative bids, if permissible, in accordance with ITB 13;

written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;

documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract;

Technical Proposal in accordance with ITB 16;

Any other document required in the BDS.

Letter of Bid, and Schedules

The Letter of Bid and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section 4 (Bidding Forms). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

Alternative Bids

Unless otherwise indicated in the BDS, alternative bids shall not be considered.

When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.

Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.

When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section 6 (Employer's

Requirements). The method for their evaluation will be stipulated in Section 3 (Evaluation and Qualification Criteria).

Bid Prices and Discounts

The prices and discounts quoted by the Bidder in the Letter of Bid and in the Bill of Quantities shall conform to the requirements specified below.

The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

The price to be quoted in the Letter of Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.

The Bidder shall quote any discounts and the methodology for their application in the Letter of Bid, in accordance with ITB 12.1.

Unless otherwise provided in the BDS and the Contract, the rates and prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. In such a case, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Tables of Adjustment Data included in Section 4 (Bidding Forms) and the Employer may require the Bidder to justify its proposed indices and weightings.

If so indicated in ITB 1.1, bids are being invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the bids for all contracts are submitted and opened at the same time.

All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.

Currencies of Bid and Payment

The unit rates and the prices shall be quoted by the bidder entirely in the currency specified in the BDS.

A bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country (referred to as “the foreign currency requirements") and wishing to be paid accordingly, shall indicate the respective currency portions in the Schedule of Payment Currencies included in Section 4 (Bidding Forms).

The rates of exchange to be used by the bidder for currency conversion during bid preparation shall be the selling rates for similar transactions prevailing on the date 28 days prior to the deadline for submission of

bids published by the source specified in the BDS. If exchange rates are not so published for certain currencies, the bidder shall state the rates used and the source. Bidders should note that for the purpose of payments, the exchange rates confirmed by the source specified in the BDS as the selling rates prevailing 28 days prior to the deadline for submission of bids shall apply for the duration of the Contract so that no currency exchange risk is borne by the bidder.

Foreign currency requirements indicated by the bidders in the Schedule of Payment Currencies shall include but not limited to the specific requirements for

expatriate staff and labor employed directly on the Works;

social, insurance, medical and other charges relating to such expatriate staff and labor, and foreign travel expenses;

imported materials, both temporary and permanent, including fuels, oil and lubricants required for the Works;

depreciation and usage of imported Plant and Contractor's Equipment, including spare parts, required for the Works;

foreign insurance and freight charges for imported materials, Plant and Contractor's Equipment, including spare parts; and

overhead expenses, fees, profit, and financial charges arising outside the Employer's country in connection with the Works.

Bidders may be required by the Employer to clarify their foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Payment Currencies are reasonable and responsive to ITB 15.2 above, in which case a detailed breakdown of its foreign currency requirements shall be provided by the Bidder.

Bidders should note that during the progress of the Works, the foreign currency requirements of the outstanding balance of the Contract Price may be adjusted by agreement between the Employer and the Contractor in order to reflect any changes foreign currency requirements for the Contract, in accordance with Sub-Clause 14.15 of the Conditions of Contract. Any such adjustment shall be effected by comparing the percentages quoted in the bid with the amounts already used in the Works and the Contractor's future needs for imported items.

Documents Comprising the Technical Proposal

The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section 4 (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

Documents Establishing the Qualifications of the Bidder

To establish its qualifications to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms).

Domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the

criteria for eligibility as described in ITB 33.

Period of Validity of Bids

Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.

In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended twenty-eight (28) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its bid.

Bid Security

Unless otherwise specified in the BDS, the Bidder shall furnish as part of its bid, a bid security in original form and in the amount and currency specified in the BDS.

The bid security shall be, at the Bidder's option, in any of the following forms:

an unconditional bank guarantee;

an irrevocable letter of credit; or

a cashier's or certified check;

from a reputable bank from an eligible country. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section 4 (Bidding Forms) or in another substantially similar format approved by the Employer prior to bid submission. In either case, the form must include the complete name of the Bidder. The bid security shall be valid for twenty-eight days (28) beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

Any bid not accompanied by an enforceable and compliant bid security, if one is required in accordance with ITB 19.1, shall be rejected by the Employer as non-responsive.

The bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 41.

The bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.

The bid security may be forfeited:

if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bids, except as provided in ITB 18.2 or

if the successful Bidder fails to:

Sign the Contract in accordance with ITB 40;

Furnish a performance security in accordance with ITB 41;

Accept the correction of its Bid Price pursuant to ITB 31.2; or

Furnish a domestic preference security if so required.

The Bid Security of a JV shall be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

Format and Signing of Bid

The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it "ORIGINAL". Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE". In addition, the Bidder shall submit copies of the bid, in the number specified in the BDS and clearly mark them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid, except for unlamented printed literature, shall be signed or initialed by the person signing the bid.

Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

Submission and Opening of Bids

Sealing and Marking of Bids

The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL", and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope.

The inner and outer envelopes shall:

bear the name and address of the Bidder;

be addressed to the Employer in accordance with BDS 22.1;

bear the specific identification of this bidding process indicated in the BDS 1.1; and

Bear a warning not to open before the time and date for bid opening.

If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

Deadline for Submission of Bids

Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS. When so specified in the BDS, Bidders shall have the option of submitting their bids electronically. Bidders submitting bids electronically shall follow the electronic bid

submission procedures specified in the BDS.

The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

Late Bids

The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

Withdrawal, Substitution, and Modification of Bids

A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

Received by the Employer prior to the deadline prescribed for submission of bids, in accordance with ITB 22.

Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

Bid Opening

The Employer shall open the bids in public at the address, date and time specified in the BDS in the presence of Bidders` designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as specified in the BDS.

First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding bid being substituted, and the substituted bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is

read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further.

All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Price(s), including any discounts and alternative offers; the presence of a bid security, if required; and any other details as the Employer may consider appropriate. Only discounts and alternative offers read out at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Bid and Bill of Quantities are to be initialed by at least three representatives of the Employer attending bid opening. No bid shall be rejected at bid opening except for late bids, in accordance with ITB 23.1.

The Employer shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative offers; and the presence or absence of a bid security, if one was required. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

Evaluation and Comparison of Bids

Confidentiality

Information relating to the examination, evaluation, comparison, and post-qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.

Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.

Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.

Clarification of Bids

To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer’s request for clarification and the response shall be in writing. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids, in accordance with ITB 31.

If a Bidder does not provide clarifications of its bid by the date and time set in the Employer’s request for clarification, its bid may be rejected.

Deviations, Reservations, and Omissions

During the evaluation of bids, the following definitions apply:

"Deviation" is a departure from the requirements specified in the Bidding Document;

"Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and

"Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

Determination of Responsiveness

The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB11.

A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

if accepted, would:

Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

Limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.

The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material deviation or reservation.

If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

Nonconformities, Errors, and Omissions

Provided that a bid is substantially responsive, the Employer may waive any nonconformity in the bid that does not constitute a material deviation, reservation or omission.

Provided that a bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.

Provided that a bid is substantially responsive, the Employer shall rectify nonmaterial nonconformities related to the Bid Price. To this effect, the

Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the method indicated in Section 3 (Evaluation and Qualification Criteria).

Correction of Arithmetical Errors

Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security may be forfeited.

Conversion to Single Currency

For evaluation and comparison purposes, the currency(ies) of the bid shall be converted into a single currency as specified in the BDS.

Margin of Preference

Unless otherwise specified in the BDS, a margin of preference shall not apply.

Evaluation of Bids

The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

To evaluate a bid, the Employer shall consider the following:

the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including Day work items, where priced competitively;

price adjustment for correction of arithmetic errors in accordance with ITB 31.1;

price adjustment due to discounts offered in accordance with ITB 14.4;

converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;

adjustment for nonconformities in accordance with ITB 30.3;

application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria);

The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not

be taken into account in bid evaluation.

If this Bidding Document allows Bidders to quote separate prices for different contracts, and the award to a single Bidder of multiple contracts, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Bid Submission Sheet, is specified in Section 3 (Evaluation and Qualification Criteria).

If the bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

Comparison of Bids

The Employer shall compare all substantially responsive bids to determine the lowest evaluated bid, in accordance with ITB 34.2.

Qualification of the Bidder

The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria).

The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.

An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.

Employer's Right to Accept Any Bid, and to Reject Any or All Bids

The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

Award of Contract

Award Criteria

The Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

Notification of Award

Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the

execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”) and the requirement for the Contractor to remedy any defects therein as prescribed by the Contract.

Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

Signing of Contract

Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.

Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

Performance Security

Within twenty-eight (28) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, subject to ITB 34.5, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer.

Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.

The above provision shall also apply to the furnishing of a domestic preference security if so required.

Section 2 - Bid Data Sheet

This section consists of provisions that are specific and supplement to the information or requirements included in Section I. Instructions to Bidders.

A. Introduction

ITB 1.1	The number of the Invitation for Bids is: T-14/1826 Date: 02-12-2012.
ITB 1.1	The Employer is: **Bangladesh Water Development Board** represented by Project Director, PMO-SWAIWRPMP, BWDB, Jessore.
ITB 1.1	The bidding process is: Local Competitive Bidding (LCB) The name of the LCB is: **RE-SECTIONING OF EMBANKMENT FROM KM 1.200 TO KM.1.700 = 0.500 KM. AND FROM KM 3.400 TO KM 5.400 = 2.000 KM. TOTAL = 2.500 KM. IN NARAIL SUB-PROJECT UNDER SWAIWRPMP DURING THE YEAR 2012-13.** The identification number of the LCB is: **NSP/EMBKT/RS/01/2012-13.** The number and identification of lots comprising this LCB is: Not Applicable
ITB 2.1	The Borrower is: The People's Republic of Bangladesh
ITB 2.1	The name of the Project is: South West Area Integrated Water Resources Planning & Management Project (SWAIWRPMP).
ITB 4.1(a)	The individuals or firms in a JV would be jointly and severally liable.

B. Bidding Documents

ITB 7.1	For **clarification purposes** only, the Employer's address is: Attention: Executive Engineer, Sub-Project Management Office, Narail Sub-Project, BWDB, Narail. Street Address: Rupgonj, Narail. Floor/Room number: N/A City: Narail. ZIP Code: N/A Country: Bangladesh Telephone: : 0481-62772 Facsimile number: N/A

	Electronic mail address: N/A Requests for clarification should be received by the Employer no later than: 14 days of Bid submission.
ITB 7.4	A Pre-Bid meeting Shall not take place.

C. Preparation of Bids

ITB 10.1	The language of the bid is: English.
ITB 11.1 (b)	In accordance with ITB 12 and ITB 14, the following schedules shall be submitted with the bid, including the priced Bill of Quantities for admeasurements contracts and Schedule of Prices for lump sum contracts: Schedule of equipment and key personnel.
ITB 11.1 (h)	The Bidder shall submit with its bid the following additional documents: **Not Applicable.**
ITB 13.1	Alternative bids shall not be permitted.
ITB 13.2	Alternative times for completion shall not be permitted
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: **Not permitted.**
ITB 14.6	**The prices quoted by the Bidder** shall be **fixed.**
ITB 15.1	The prices shall be quoted by the bidder and shall be paid in: **Bangladeshi Taka.**
ITB 18.1	The bid validity period shall be 120 (One Hundred Twenty) days.
ITB 19.1	The Bidder shall furnish a bid security in the amount of **Tk. 133000.00 (Taka One Lac Thirty ThreeThousand) Only.** The Bid security shall be issued in the form of a Pay Order (issued by a local bank of Faridpur Town) or Bank Draft issued by a Scheduled Bank of Bangladesh in favor of Deputy Director, Regional Accounting Centre (RAC), BWDB, Faridpur, Bangladesh or an unconditional and irrevocable Bank Guarantee issued by a Scheduled Bank of Bangladesh in favor of Executive Engineer, Sub-Project

	Management Office, Narail Sub-Project, BWDB, Narail. The currency of the bid security shall be: **Bangladeshi Taka.**
ITB 20.1	In addition to the original of the bid, the number of copies is: 02 (Two) copies of exactly the same as the original bid.
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Bids submitted by an existing or intended JV, an undertaking signed by all parties (i) stating that all parties shall be jointly and severally liable, and (ii) nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

D. Submission and Opening of Bids

ITB 21.1	Bidders Shall not have the option of submitting their bids electronically.
ITB 21.1 (b)	If bidders shall have the option of submitting their bids electronically, the electronic bidding submission procedures shall be: **Not Applicable**
ITB 22.1	For **bid submission purposes** only, the Employer's address is: Attention: Executive Engineer, Sub-Project Management Office, Narail Sub-Project, BWDB, Narail. Street Address: Rupgonj, Narail. Floor/Room number: N/A City: Narail. ZIP Code: N/A Country: Bangladesh **The deadline for bid submission is:** Date: **02nd January 2013.** Time: **Up to 12:00 hrs (Noon).** Place: **(1)** Office of the Executive Engineer, Sub-project Management Office, Narail Sub-Project, BWDB, Narail **(2)** Office of the Deputy Commissioner, Narail **(3)** Office of the Project Director, SWAIWRPMP, BWDB, Jessore.
ITB 25.1	The bid opening shall take place at: Office of the Executive Engineer, Sub-Project Management Office, Narail Sub-Project, BWDB, Narail Street Address: Rupgonj, Narail. Floor/Room number: N/A City: Narail. Country: Bangladesh Date: **02nd January 2013.** Time: **14:00hrs(Noon)**
ITB 25.1	If electronic bid submission is permitted in accordance with ITB 21.1, the specific bid opening procedures shall be: **Not applicable.**

E. Evaluation and Comparison of Bids

ITB 32.1	Not applicable.

ITB 33.1	**A margin of preference shall not apply.**

Section 3 - Evaluation and Qualification Criteria

Table of Criteria

1. Evaluation

In addition to the criteria listed in ITB 34.2 (a) – (f) the following criteria shall apply:

1.1 Multiple Contracts

Pursuant to Sub-Clause 34.4 of the Instructions to Bidders, if Works are grouped in multiple contracts, evaluation will be as follows:

A bidder may participate in more than 01 (One) Package but for qualifying in multiple packages aggregate of the qualify criteria for individual packages will be considered.

1.2 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows: Not Applicable.

1.3 Alternative Technical Solutions

Alternative technical solutions, if permitted under ITB 13.4, will be evaluated as follows: Not Applicable.

1.4 Margin of Preference (Applicable for ICB only)

If a margin of preference shall apply under ITB 33.1, the procedure will be as follows as: Not Applicable.

1.5 Quantifiable Nonconformities, Errors and Omissions

The evaluated cost of quantifiable nonconformities, errors and/or omissions are determined as follows: Not Applicable

2. Qualification

2.1 Eligibility

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
2.1.1 Nationality					
Nationality in accordance with ITB Sub-Clause 4.2.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Forms ELI –1; ELI –2 with attachments

2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB Sub-Clause 4.3.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Letter of Bid

2.1.3 ADB Eligibility

Not having been declared ineligible by ADB, as described in ITB Sub-Clause 4.4.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Letter of Bid

2.1.4 Government-owned Entity

Applicant required meeting conditions of ITB Sub-Clause 4.5.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Forms ELI -1, ELI - 2 with attachments

2.1.5 UN Eligibility

Not having been declared ineligible based on a United Nations resolution or Employer's country law, as described in ITB Sub-Clause 4.8.	must meet requirement	existing or intended JV must meet requirement	must meet requirement	not applicable	Letter of Bid

2.2 Pending Litigation

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.2.1 Pending Litigation

All pending litigation shall be treated as resolved against the Applicant and so shall in total not represent more than 50% (Fifty) percent of the Applicant's net worth.	must meet requirement by itself or as partner to past or existing JV	not applicable	must meet requirement by itself or as partner to past or existing JV	not applicable	Form LIT - 1

2.3 Financial Situation

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	

2.3.1 Historical Financial Performance

Submission of audited balance sheets and income statements or, if not required by the law of the applicant's country, other financial statements acceptable to the Employer, for the last 5(Five) years to demonstrate the current soundness of the applicants financial position. As a minimum, a Bidder's net worth calculated as the difference between total assets and total liabilities should be positive.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments

2.3.2 Average Annual Construction Turnover

Minimum average annual construction turnover of **BDT 118.00 (One Hundred Eighteen Point Zero Zero) Lakh** only (based on total certified payments received for contracts in progress or completed) over the last 5 (Five) years. Single entity or all Joint Venture (JV) partners together (with the average annual turnover of each partner multiplied by the JV share) must meet the requirement, while one (lead) partner must meet minimum 40% of the requirement and other partners need to meet 25% individually.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 2

2.3.3 Financial Resources

Using the relevant Forms FIN -3 and FIN - 4 in Section 4 (Bidding Forms) the Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments, to meet the financial requirements of the contract in the amount of his Bid. As a minimum the Bidder must show that his resources, in terms of at least his latest year's working capital and lines of credit, will be adequate to cover his Bid Price and current work commitments. Financial resources requirement is **BDT 29.50 (Twenty Nine Point Five Zero) Lakh.** Single entity or all partners together (with the financial resources of each partner multiplied by the JV share) must meet the requirement, while one (lead) partner must meet minimum 40% of the requirement.

2.4 Experience

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
2.4.1 General Construction Experience					
The Bidder must posses experience of minimum 02 (Two) civil construction contract, each having value equal to or greater than **BDT 59.00 (Fifty Nine Point Zero Zero) Lakh only** during the last 5 (five) years (**59.00 (Fifty Nine**).	must meet requirement	not applicable	must meet requirement	not applicable	Form EXP -1
2.4.2 Specific Construction Experience					
(a) Contracts of Similar Size and Nature					
The Bidder must have the experience of at least 01(One) contract of **BDT 59.00 (Fifty Nine Point Zero Zero) Lakh only** or more of similar nature (Construction/Re-sectioning /Repair of Embankment/Earth work) which is successfully completed during the last 5 (Five) years (2007-08 to 2011-12).Single entity or all joint venture (JV) partners together (with the experience of each partner multiplied by the JV share) must meet the requirement, while one (lead) partner must meet minimum 40% of the requirement.	Must meet requirement	must meet requirement	not applicable	not applicable	Form EXP – 2(a)

2. Construction Experience in Key Activities

For the above or other contracts executed during the period stipulated in 2.4.2(a) above, a minimum construction experience in the following key activities:	must meet all requirements	must meet all requirements	not applicable	not applicable	Form EXP-2(b)

2.5 Personnel

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position	Total Work Experience [years]	Experience In Similar Works [years]
1	Engineer (Diploma in Civil).	5	3
2	Manager (Graduate) Construction	5	3
3	Surveyor	1	1
4	Work Supervisor (HSC)	3	1

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Information Forms included in Section 4 (Bidding Forms).

2.6 Equipment

The Bidder must demonstrate that it has the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Min. Number Required
1	Water pump	02
2	Level Machine	01
3	Rammer	05

4	Total Station	01

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section 4 (Bidding Forms)

SECTION 4 - BIDDING FORMS

Letter of Bid

The Bidder must accomplish the Letter of Bid in its letterhead clearly showing the Bidder's complete name and address.

Date: .....

Bidding No.: .....

Invitation for Bid No.: .....

To: .....

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8;

(b) We offer to execute in conformity with the Bidding Documents the following Works:

NSP/EMBKT/RS/01/2012-13: RE-SECTIONING OF EMBANKMENT FROM KM 1.200 TO KM.1.700 = 0.500 KM. AND FROM KM 3.400 TO KM 5.400 = 2.000 KM. TOTAL = 2.500 KM. IN NARAIL SUB-PROJECT UNDER SWAIWRPMP DURING THE YEAR 2012-13.

The total price of our Bid, excluding any discounts offered in item (d) below is:

.....

(c) The discounts offered and the methodology for their application are:

(d) Our bid shall be valid for a period of **120 (One Hundred Twenty)** days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(e) If price adjustment provisions apply in accordance with GCC 44, the Table(s) of Adjustment Data shall be considered part of this Bid[1];

(f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;

(g) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries;

(h) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3;

(i) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.3, other than alternative offers submitted in accordance with ITB 13;

[1] Include if price adjustment provisions apply in the Contract in accordance with PCC Sub-Clause **44.1**.

(j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by the Bank, under the Employer's country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council;

(k) We are not a government owned entity / We are a government owned entity but meet the requirements of ITB 4.5;[2]

(l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: [3]

Name of Recipient	Address	Reason	Amount
.....	.....	.....	.....
.....	.....	.....	..... .

(m) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(n) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and

(o) If awarded the contract, the person named below shall act as Contractor's Representative:
_____

(p) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by the Bank.

Name .....

In the capacity of .....

Signed .....
.....

Duly authorized to sign the Bid for and on behalf of .....

Date .....
.....

[2] ***Use one of the two options as appropriate.***

[3] ***If none has been paid or is to be paid, indicate "none".***

Schedules

Bill of Quantities

RE-SECTIONING OF EMBANKMENT FROM KM 1.200 TO KM.1.700 = 0.500 KM. AND FROM KM 3.400 TO KM 5.400 = 2.000 KM. TOTAL = 2.500 KM. IN NARAIL SUB-PROJECT UNDER SWAIWRPMP DURING THE YEAR 2012-13.

BILL OF QUANTITIES

Name of the Work: Re-Sectioning of Embankment from km 1.200 to km.1.700 = 0.500 Km. and from km 3.400 to km 5.400 = 2.000 Km. Total = 2.500 Km. in Narail Sub-Project under SWAIWRPMP during the year 2012-13.

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
1	Mobilization of survey team with total station; execution of pre-work and post work survey in embankment construction/re-sectioning/khal excavation/ re-excavation, regulator, inlet, outlet, check structure construction/repair; preparation of survey reports both in printed and digital format, taking photographs of all measurements with white board showing the reading, preparation of as built drawing as per direction of Engineer in charge.	1Item	P/Item			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
2	Preparation of drawing from survey data including X-Sections, long sections in digital Auto CAD format, printing X-Sections in A4 format, long sections in A3 format, printing digital photographs of measurements including binding all materials as per specification and direction of Engineer in charge.	1 Item	P/Item			
3	Part time employment of Environmental Inspector for Implementation and reporting on environmental management plan provision for first Aid Box and Medical assistant as per specification and direction of Engineer in charge.	1 Item	P/Item			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
4	Erection of bamboo profile with full bamboo posts and pegs not less than 60 mm in diameter and coir strings etc. complete as per direction of Engineer in charge.	27 Nos	Each			
5	Supplying, sizing and placing of barrack bamboo pins and stays of diameter>= 8.0 etc. cm in position etc. complete as per direction of Engineer in charge. 40-540-20 : Length : >= 2.0 m to <= 4.5 m.	5208 Nos	Each			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
6	Labour charge, for driving barrack bamboo pins of diamenter >= 8.0 cm, by hammer or monkey hammer, as per direction of Engineer in charge. 40-550-20 : >=1.50 m to <= 2.0 m drive, in water including necessary staging etc. as required.	7812.00 M	P/M			
7	Supplying, sizing and fitting in position 8.0 cm and above dia in size full barrack bamboo half split walling pieces with nails average 1.00m apart including supply of all materials as per direction of Engineer in charge. 40-560-20 : Single walling.	3124.00 M	P/M			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
8	Supplying and placing in position and fitting, fixing single layer tarjah doubly woven matting with necessary ties including the cost of all materials etc. complete as per direction of Engineer in charge.	2343.00 Sqm	P/Sqm			
9	Earth work by manual labour in re-sectioning of embankment/ canal bank/ river slopes/ road/ compound etc. manually compacted by 7.0 kg iron rammer to avoid any air pocket in clayey soil (minimum 30% clay, 0-40% silt and 0-30% sand) within the initial lead of 30m and all lifts including throwing the spoils to profile in layers not exceeding 150mm thickness with clod breaking to maximum size of 100mm, removing roots & stumps of trees of girth upto 200mm from the ground, benching the side slopes stripping/ polishing the base of embankment and borrowpit areas, dug bailing, bail out of water, rough dressing including 150mm cambering at the center of the crest (where necessary) etc. complete as per direction of Engineer in charge. 16-140-20 : 0 m to 4 m height.	26028.810 Cum	P/Cum			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
10	Extra rate for every additional lead of 15m or part thereof beyond the initial lead of 30m up to a maximum of 19 leads (3m neglected) for all kinds of earth work. **5 Nos Lead**	26028.810 Pld Cum	Pld Cum			
11	Royalty of specified earth taken from private land (with prior permission of the Executive Engineer on production of royalty deeds with the land owner) from the area to be selected by the contractor with mutual agreement.	26028.810 Cum	P/Cum			
12	Fine dressing and close turfing of the slopes and the crest of embankment with 75mm thick, good quality durba or charkanta sods of size 200mm x 200mm, with all leads and lifts, including ramming, watering until the turf grows properly, maintaining etc. complete (measurement will be given on well grown grass only), as per direction of Engineer in charge.	23581.000 Sqm	P/Sqm			

Sl. No.	Description of item	Quantity	Unit	Quoted Rate		Amount
				in figure	in word	
1	2	3	4	5	6	7
13	Cutting and clearing jungles and uprooting trees up to 30cm girth and removing the same from site as per direction of Engineer in charge. 4-440-10 : Ordinary	40000.000 Sqm	P/Sqm			
Total (In Figure) :						
Total (In word) :						

(Zulfikar Ali Howlader)

Executive Engineer,

Narail Sub Project,

BWDB, Narail

Name of the Contractor :

Address :

Regd. No (If any) :

Quoted Price : **Tk. (In Figure) ---------- Taka (In Words) ----------**

Signature of the Contractor:

BID SECURITY
Bank Guarantee

Bank's Name, and Address of Issuing Branch or Office

Beneficiary: ..... name and address of Employer .....
Date: .....
Bid Security No.: .....

We have been informed that . . . . . **name of the Bidder**. . . . . (hereinafter called "the Bidder") has submitted to you its bid dated . . . . . (hereinafter called "the Bid") for the execution of . . . . . **name of Contract** . . . . . under Invitation for Bids No. . . . . ("the IFB").
Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.
At the request of the Bidder, we . . . . . **name of Bank**. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . .**amount in figures** . . . . . (. . . . . .**amount in words** . . . . .) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:
(a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
(c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB.
This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of the Bidder's bid.
Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.
This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

. . . . . .**Bank's seal and authorized signature(s)** . . . . . .

-- Note --

All italicized text is for use in preparing this form and shall be deleted from the final document.

BID SECURING DECLARATION

Date: _____

Bid No.: _____

Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [insert complete name of Employer]

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Borrower for the period of time of [insert number of months or years] starting on [insert date], if we are in breach of our obligation(s) under the bid conditions, because we:

(a) have withdrawn our Bid during the period of bid validity specified in the Form of Bid; or

(b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or

(c) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Signed: _____

In the capacity of _____

Name: _____

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____

Corporate Seal [where appropriate]

-- Note --

In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.

TECHNICAL PROPOSAL

Personnel

Equipment

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Others

Personnel:

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section 3 (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

1.	**Title of position**
	Name
2.	**Title of position***
	Name
3.	**Title of position***
	Name
4.	**Title of position***
	Name
5.	**Title of position***
	Name

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Fields with asterisk (*) shall be used for evaluation.

Position*		
Personnel information	**Name**	**Date of birth**
	Professional qualifications	
Present employment	**Name of employer**	
	Address of employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present employer**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From*	**To***	**Company, Project, Position and Relevant Technical and Management Experience***

Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section 3 (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*		
Equipment Information	**Name of manufacturer**	**Model and power rating**
	Capacity*	**Year of manufacture**
Current Status	**Current location**	
	Details of current commitments	
Source	**Indicate source of the equipment** ☐ **Owned** ☐ **Rented** ☐ **Leased** ☐ **Specially manufactured**	

The following information shall be provided only for equipment not owned by the Bidder.

Owner	**Name of owner**	
	Address of owner	
	Telephone	**Contact name and title**
	Fax	**Telex**
Agreements	**Details of rental / lease / manufacture agreements specific to the project**	

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

Form ELI – 1

Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
In case of JV, legal name of each partner	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	

Attached are copies of the following original documents.

- ❑ 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2.
- ❑ 2. Authorization to represent the firm or JV named in above, in accordance with ITB 20.2.
- ❑ 3. In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.
- ❑ 4. In case of a government-owned entity, any additional documents not covered under 1 above required to comply with ITB 4.5.

Form ELI - 2: JV Information Sheet

Each member of a JV must fill in this form

JV / Specialist Subcontractor Information	
Bidder's legal name	
JV Partner's or Subcontractor's legal name	
JV Partner's or Subcontractor's country of constitution	
JV Partner's or Subcontractor's year of constitution	
JV Partner's or Subcontractor's legal address in country of constitution	

JV Partner's or Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	

Attached are copies of the following original documents.

- ❑ 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2.
- ❑ 2. Authorization to represent the firm named above, in accordance with ITB 20.2.
- ❑ 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5.

Form LIT - 1: Pending Litigation

Each Bidder or member of a JV must fill in this form

Pending Litigation			
❑ ⍰⍰No pending litigation in accordance with Criteria 2.2 of Section 3 (Evaluation and Qualification Criteria) ❑ Pending litigation in accordance with Criteria 2.2 of Section 3 (Evaluation and Qualification Criteria)			
Year	Matter in Dispute	Value of Pending Claim in US$ Equivalent	Value of Pending Claim as a Percentage of Net Worth

Form FIN - 1: Financial Situation

Each Applicant or member of a JV must fill in this form

Financial Data for Previous 3 Years [US$ Equivalent]		
Year 1:	**Year 2:**	**Year 3:**

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues			
Profits Before Taxes			

Profits After Taxes			
❑ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions. • All such documents reflect the financial situation of the Applicant or partner to a JV, and not sister or parent companies. • Historic financial statements must be audited by a certified accountant. • Historic financial statements must be complete, including all notes to the financial statements. • Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).			

Form FIN - 2: Average Annual Construction Turnover

Each Bidder or member of a JV must fill in this form

The information supplied should be the Annual Turnover of the Bidder or each member of a JV in terms of the amounts billed to clients for each year for work in progress or completed, converted to US Dollars at the rate of exchange at the end of the period reported.

Annual Turnover Data for the Last 3 Years (Construction only)			
Year	**Amount Currency**	**Exchange Rate**	**US$ Equivalent**
Average Annual Construction Turnover			

Form FIN – 3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in Section 3 (Evaluation and Qualification Criteria)

Financial Resources		
No.	**Source of financing**	**Amount (US$ equivalent)**
1		
2		
3		

Form FIN- 4: Current Contract Commitments / Works in Progress

Bidders and each partner to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	**Name of Contract**	**Employer's** **Contact Address, Tel, Fax**	**Value of Outstanding Work** **[Current US$ Equivalent]**	**Estimated Completion Date**	**Average Monthly Invoicing Over Last Six Months [US$/month)]**
1					
2					
3					
4					
5					

Form EXP – 1: General Construction Experience

Each Bidder or member of a JV must fill in this form

General Construction Experience				
Starting Month Year	Ending Month Year	Years	Contract Identification and Name Name and Address of Employer Brief Description of the Works Executed by the Bidder	Role of Bidder

Form EXP – 2(a): Specific Construction Experience

Fill up one (1) form per contract.

Contract of Similar Size and Nature

Contract No . . . . . of	**Contract Identification**			
Award Date		**Completion Date**		
Role in Contract	❑ **Contractor**	❑ **Management Contractor**	❑ **Subcontractor**	
Total Contract Amount				**US$**
If partner in a JV or subcontractor, specify participation of total contract amount	**Percent of Total**		**Amount**	
Employer's Name **Address** **Telephone/Fax Number** **E-mail**				

Description of the similarity in accordance with Criteria 2.4.2(a) of Section 3

Form EXP - 2(b): Specific Construction Experience in Key Activities

Fill up one (1) form per contract

Contract with Similar Key Activities

Contract No . . . . . **of**	**Contract Identification**		
Award Date		**Completion Date**	
Role in Contract	❑ **Contractor**	❑ **Management Contractor**	❑ **Subcontractor**
Total Contract Amount			**US$**
If partner in a JV or subcontractor, specify participation of total contract amount	**Percent of Total**	**Amount**	
Employer's Name **Address** **Telephone Number** **Fax Number** **E-mail**			

Description of the key activities in accordance with Criteria 2.4.2(b) of Section 3

Section 5 - Eligible Countries

Afghanistan	Armenia
Australia	Azerbaijan
Bangladesh	Bhutan
Brunei Darussalam	Cambodia
China, People's Republic of	Fiji
Cook Islands	Georgia
Hong Kong, China	India
Indonesia	Japan
Kazakhstan	Kiribati
Korea, Republic of	Kyrgyz Republic
Lao PDR	Malaysia
Maldives	Marshall Islands
Micronesia, Federated States of	Myanmar
Mongolia	Nauru
Nepal	New Zealand
Pakistan	Palau
Papua New Guinea	Philippines
Samoa	Singapore
Solomon Islands	Sri Lanka
Taipei,China	Tajikistan
Thailand	Timor-Leste
Tonga	Turkmenistan
Tuvalu	Uzbekistan
Vanuatu	Viet Nam
Austria	Belgium
Canada	Denmark
Finland	France

Germany

Ireland

Italy

Luxembourg

The Netherlands

Norway

Portugal

Spain

Sweden

Switzerland

Turkey

United Kingdom

United States

SECTION-6
WORKS REQUIREMENTS

Table of content

SPECIFICATIONS

1: General

1.1 Objective of the work:

The Flood Control Embankment was constructed along the Chitra River to save the Project Area from intrusion of Saline Water during the year 1985-86. Before Implementation of the Project this area had been flooded due to Tidal effect. After Construction of the Embankment no major repair/Re-Sectioning work has been taken up during last twenty years. As a result due to wear & tear, rain fall, movement of vehicle, man and cattle has badly affected the embankment. Specially the side slope has been damaged badly.

If the proposed Re-Sectioning of the embankment is not taken up, the embankment may breach. This will cause submergence of large area & standing crops and homesteads. Under the above circumstances proposed Re-Sectioning work of the existing Embankment is essential during the financial year 2012-13.

.

1.2 Location and site data:

The Site is located beside Chitra River at Upazila-Narail. It starts from Shingia at Km 1.20 and ends at Tarapur Km. 5.400. A location map, few photographs of the embankment, basic design summary and quantities of BOQ in table form are enclosed for ready reference.

Site Location Map of Embankment

Water level data for River Bhairab at Afra Ghat, Jessore about 10.00 km downstream are shown in table below:

From January to June

ear	January		February		March		April		May		June	
	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL
2001	2.05	0.88	2.18	0.26	2.31	0.19	2.82	0.29	2.61	0.51	2.92	1.33
2002	1.81	0.00	1.88	0.00	2.11	0.01	2.48	0.06	2.52	0.27	2.65	0.65
2003	1.82	0.02	1.90	0.00	2.12	0.01	2.28	0.23	2.55	0.30	2.65	0.65
2004	1.79	0.01	1.91	0.01	2.11	0.03	2.31	0.20	2.44	0.26	2.58	0.72
2005	1.48	0.01	1.83	0.00	2.03	0.02	2.11	0.00	2.19	0.12	2.21	0.35
2006	2.30	0.24	2.32	0.04	2.17	0.00	2.35	0.15	2.31	0.31	2.51	0.56
2007	1.93	0.01	2.04	0.01	2.18	0.00	2.39	0.06	2.50	0.23	2.59	0.40
2008	2.25	0.36	2.46	0.20	2.43	0.29	2.58	0.41	2.73	0.53	2.55	0.54
2009	2.26	0.34	2.32	0.24	3.33	0.04	2.98	0.14	2.99	0.29	2.48	0.36
2010	2.04	0.02	2.14	0.02	2.58	0.00	2.51	0.22	2.84	0.27	2.62	0.60

From July to December

Year	July		August		September		October		November		December	
	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL	HWL	LWL
2001	2.85	1.31	2.93	1.30	2.99	1.20	2.77	0.08	2.48	0.68	2.06	0.16
2002	2.86	1.32	2.95	1.33	2.98	1.19	2.78	0.10	2.50	0.63	2.08	0.18
2003	2.80	1.32	2.89	1.50	2.96	1.44	3.00	1.31	2.61	0.78	2.12	0.33
2004	2.99	1.12	3.02	1.32	3.33	1.32	3.08	1.37	2.11	0.47	1.95	0.07
2005	2.93	0.60	2.84	1.17	2.90	1.05	2.87	1.07	2.79	0.81	2.24	0.55
2006	2.88	0.75	2.96	1.04	3.13	1.02	2.89	0.75	2.15	0.25	1.80	0.08
2007	3.38	0.83	3.45	2.15	3.20	1.83	3.08	1.24	2.61	1.01	2.22	0.28

2008	3.20	1.14	3.35	1.64	3.50	1.22	3.58	1.72	2.89	0.83	2.32	0.59
2009	2.71	0.44	3.21	0.65	3.21	1.14	2.81	0.74	2.53	0.43	2.43	0.18
2010	2.78	0.65	2.94	0.90	3.28	1.22	3.28	0.87	2.48	0.32	-	-

1.3 Major items of work:

The detailed Items of works and their quantity and description are shown in Section-4 (Schedules/BoQ) for convenience it mentioned here briefly. In case of any dispute BoQ will govern.

Sl. No.	Item of work	Quantity
1	Earth work by manual labor in re-sectioning of embankment.	26028.81 Cum
2	Fine dressing and close turfing of the slopes and the crest of embankment.	23581.00 Sqm
3	Cutting and clearing jungles and uprooting trees.	40000.00 Sqm
4	Erection of bamboo profile with full bamboo posts and pegs.	27.00 Nos.

1.4 Schedule:

The work will be executed within stipulated time as per requirement of GCC clause 1.1 (u) starting from the date mentioned in GCC 1.1(ff).

1.5 Work methodology:

The contractor will execute the work as per schedule indicated in section-1.4, within quantity indicated in section-1.3 conforming environment standard outlined in section-2 and civil works section-3.

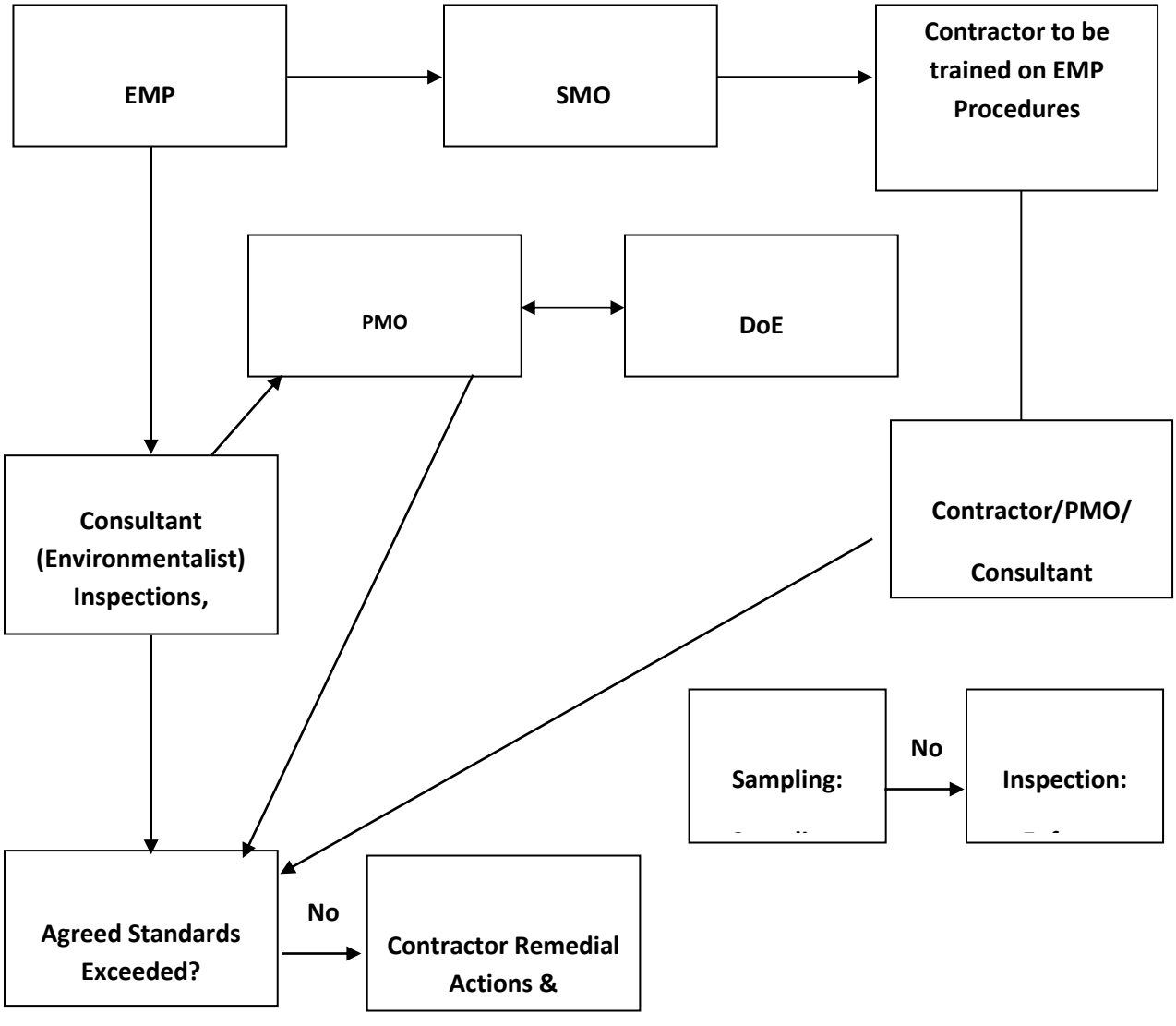
2: Environmental Management

2.1 Introduction:

In order to avoid the adverse environmental impact during construction the PMO Environmentalist with the help of the Consultants will incorporate the following general guideline in the tender Document:

The Environmentalist will carry out regular monitoring/inspection of the working sites during construction and will advice the Contractor to do the needful, if any step to be undertaken, in order to maintain the environmental situation unaffected. Various types of assistance from Department of Environment (DoE) may be sought in this connection whenever necessary. Figure 1 outlines the implementation of EMP during construction ensuring compliance with environmental rules, regulations and standards.

Figure 1: EMP Procedures during Construction



The contractor shall keep a set of current environmental standards and regulations at site all the times to be available all the times for consultation.

Contractor's Responsibility with respect to the Environment

2.2 General:

It is generally observed that during construction the working sites remain unprotected along with environmental risks and disposal of the by products are not done properly and timely. Sometime the disposals of the products are made wrongly, which affects the involved labours, local people and the environment of the area in an undesirable manner. Appropriate steps/measures to be taken by the Contractors so that no such situation is created during construction/ repair and maintenance phase of SAIWRPMP. Required measures are described as follows:

2.2.1 The Contractor shall take all necessary steps to protect the environment and to prevent environmental damage and public nuisance resulting from construction activities.

2.2.2 The Contractor shall comply with all statutory requirements, environmental regulations, and environmental Quality standards, as stated in the Environmental Conservation Rules (ECS), 1997 of DoE and Bangladesh Environmental Guidelines relevant to the project.

2.2.3 The Contractor shall bear all costs associated with the environmental pollution avoidance and environmental mitigation including any cleaning operation if necessary.

Contractors' general responsibilities are specified as follows:

2.3 Pollution from wastes :

2.3.1 Maintaining cleanliness and security of construction sites

2.3.2 Maintenance of appropriate temporary storage of all wastes before disposal.

2.3.3 Arranging disposal of all wastes generated during construction in environmentally acceptable manner, which assures no/least adverse environmental impact.

2.3.3.1 Taking all precautionary measures in handling against spillage of fuel/oils and lubricants (from vehicles, engines etc.).

2.4 Technical Issues :

Taking proper step to avoid environmental deterioration by drainage from working sites

2.4.1 Reinstating the top soils after construction work, if they are removed for construction activities.

2.4.2 Effort to abstain from any damage of agricultural land/crops or other properties during construction period (Within the sub-project areas) and compensate properly (allowing required to the owner) if it is Unavoidable.

2.4.3 Land to be used for construction purposes outside the embankment shall consist of the BWDB properties.

2.4.4 Adoption of measure for dust control (including regular spray water on dry surfaces) and grass turfing).

2.4.5 Control of vehicle movement and use of equipments diffusing exhaust pollution/ poisonous gases causing air pollution.

2.4.6 Maintaining strict measure against any activity that results in degradation of ground water quality.

2.4.7 The contractor shall inspect all roads for moving construction equipment/materials. Roads found inappropriate shall be strengthened by the contractor. If the access road degrades due to the contractor's activities, it will be properly repaired by the contractor at his own cost.

2.4.8 Adoption of measure/s having no/minimum adverse effects on fish migration and production (in khal/river/beel) and on wildlife.

2.4.9 Avoid any unnecessary noise as caused by construction activities and vehicle movement and maintain high mechanical standard of equipments and vehicle as approved by DoE.

2.4.10 Carry out turfing/plantation activities of the newly constructed/repaired embankment and other denuded earthen areas caused by construction work to avoid soil erosion creating vulnerability.

2.4.11 For excavation/re-excavation works the area has to surveyed and inspected by the Engineer. The contractor shall submit map indicating the area of planned earth excavation/re-excavation and cross- sections showing earth cut, based on baseline survey. The earth excavation/re-excavation areas must be confirmed and revised during the pre-work survey, before the actual excavation and filling work can proceed.

2.4.12 Carry out turfing/plantation activities of the newly constructed/repaired embankment and other denuded earthen areas caused by construction work to avoid soil erosion creating vulnerability.

Socio-economic (including gender) issues:

2.5.1 Employment of local manpower (to assure employment and income generation of project population)

2.5.2 Provision for accommodation of hygienic facility for the employed population with provision of first aid box (with separate scope for female workers) and Medical attendant for required first-aid treatment to be ensured locally and provision for availability of a qualified medical doctor at site on emergency requirement to be ensured by the contractor.

2.5.3 Provision of safety precautions and measures for accident prevention of all employees and supply of life saving equipments/means (helmets, life jackets, walkways, scaffolds, ladders, bridges, gangways etc.) to prevent accidents or injuries.

2.5.4 The contractor shall promptly report to BWDB Engineer or his representative of all accidents at site.

2.5.5 Provision of supply of safe drinking water and adequate water for other uses to the working manpower.

2.5.6 Provision of adequate sanitation facility for the working force (with separate scope for the females) including environmentally acceptable disposal of sanitary system and kitchen refuges.

2.5.7 Employment of female workers in suitable position (to maintain gender equity and income generation to vulnerable female- headed HHs).

2.5.8 Provision for just and timely payment to the employees including justified wages of the female workers (equal wage rate for man/woman employees/labours).

2.5.9 Ensure gender-friendly working environment for the work force, ensure women's respect and provision of separate rest room for the female (provision of childcare facility for the lactating mother).

2.5.10 Gender-friendly technology should be ensured.

2.5.11 Resolution of any conflict among the labours/with the local people to be carried out in socially acceptable manner (by the Contractor).

2.5.12 Arrangement for justified compensation of using earth/land or any other physical resource of the locality and leaving land in useable condition after removal/deposition of earth (by the Contractor).

2.5.13 Disposal of earth, construction materials and machineries to be done safely in order to avoid any accident (by human being/animals/plant and trees etc.). In case of occurrence of any accident it has to be properly compensated (by the Contractor).

2.5.14 Supervision of WMG representative shall have to be allowed to check the quantitative and qualitative levels of construction activities. All activities should be transparent to the WMG.

2.5.15 Provision of just compensation to the employee/s to meet the cost of treatment along with the cost of livelihood for family members, in case of any accident (by the Contractor).

2.6 Arsenic Aspects:

2.6.1 Provision for safe drinking water whic is free from arsenic and other pathogenic organics for the employee as well for the labours.

2.6.2 The limit of arsenic presence in drinking water should be well below according to Bangladeshi standard which is 0.05 mg/L.

3: Technical Specification (Civil Works):

Standard Specifications

Technical Specifications for Civil Works shall be followed for construction of general civil works under the Southwest Area Integrated Water Resources Planning and Management Project. Specifications for additional specialized item of civil work and for mechanical works shall be as set out in 3.2 Particular Specifications of this Section.

3.1 General:

3.1.1. Definition: Joint Verification Team: Team Consisting of BWDB field representative, Consultant and Contractor/his authorized representative. Project Director, SWIAIWRPMP will constitute Joint Verification Team.

Members of the Joint Verification Team (JVT):

This Joint Verification Team (JVT) consists of the following members below:-

1. Executive Engineer,
2. Sub-Divisional Engineer,
3. Sectional Officer/Sub-Assistant Engineer,
4. Quality Control Engineer (QCE),
5. Surveyor or Work Assistant,

Role of the Joint Verification Team (JVT):

(1) The Joint Verification Team (JVT) will present verify during the Pre-Work Survey & direct the work.

(2) The Joint Verification Team (JVT) will present verify during the Post-Work Survey & direct the work.

(3) The Joint Verification Team (JVT) will regularly monitor the progress of work.

(4) While taking measurement the Joint Verification Team (JVT) will involve in taking measurement & verify the measurement.

3.1.2. General Description of Works. Description of Work is included in Specifications.

3.1.3.Construction Program

1. Within 7days of the Notice of Award being issued, the Contractor shall submit to the Engineer for his approval a bar-chart program showing the sequence in which he proposes to carry out the Works, including the procurement and delivery of equipment and material. He should also submit implementation matrix and CPM as directed by the Engineer.

2. The Contractor shall, whenever required by the Engineer, also provide in writing for his information a general description of the arrangements and methods which the Contractor proposes to

adopt for the execution of the Works.

3. If at any time it would appear to the Engineer that the actual progress of the works does not conform to the approved program, the Contractor shall be obliged to produce for the approval of the Engineer, the reasons for any change and a revised program showing the modifications to the approved program necessary to complete the works within the scheduled time for completion. The submission to and approval by the Competent Authority of such program or the furnishing of such particulars shall not relive the Contractor of any of his duties and responsibilities under the Contract.

3.1.4. Notice of Operation

The Contractor shall give full and complete written notice of all important operations, including setting out, to the Engineer sufficiently in advance to enable the Engineer to make such arrangements as the Engineer may consider necessary for inspection and for any other purpose. The Contractor shall not start any important operation without the written approval of the Engineer.

3.1.5. Monitoring Progress

1. The Contractor shall furnish the Engineer, without cost to the Owner at regular monthly interval and in a form and number of copies determined by the Engineer, with the following:

2. Physical Progress for the preceding month and estimated progress for the report month;

3. Completion schedules (target and actual) based on the approved construction programme;

4. A tabulation of construction equipment, listing the major items and pieces of equipments comprising the Contraction plant which were utilized for performance of the Works during the preceding month;

5. A tabulation of employees countersigned by the Engineer's Representative, showing the supervisory staff and the numbers of the several classes of labor employed by the contractor in the preceding month;

6. Any report which may be specifically requested by the owner and/or the Engineer.

3.1.6. Attendance at Site Meetings

The Contractor shall provide attendance at progress and other meetings on site as requested by the Engineer.

3.1.7. As built drawings

1. Contractor will submit as built drawing based on post work survey.
2. As built drawing will constitute Long section for every 500m and X-section at 50 m interval
   X-section must clearly demonstrate embankment profile before and after re-sectioning
   Long section will in format of A3 (397X420mm) and X-section will be A4 (21 OX297mm). All drawings will be submitted in paper format in color print accompanied by digital copies in AutoCAD in a recent version.
3. Along with long section and X-section the contractor will submit photographs taken at the time of each measurement with white/black board showing the measurement confirmed.
4. All the above material and any additional required by the Engineer-in charge will be bonded together and submitted in 5-copies to the Engineer-in-charge.

3.1.8.Contractor's site facilities

1. The Contractor shall be responsible for the provision, maintenance, operation and subsequent removal of the following facilities and services on site at his own expenses:

(a) Temporary stores (including godowns for cement and other perishable materials), warehouse and workshop;
(b) Temporary buildings for office accommodation for his staff;
(c) Living accommodation for his staff outside site limits;
(d) Fencing, Lighting and guarding;
(e) Carnage or other means of off-loading plant and equipment, placing in temporary storage and moving from storage to equipment locations;
(f) Site transport for his staff;
(g) Electric supply for temporary building and tools;
(h) Raw water from site tube-wells and provision of adequate potable water.

2. The Contractor shall submit for the approval of the Engineer within 7 (seven) days from the detail work order to commence work (commencement date), his detailed plans and/or to commence construction drawings of his temporary buildings, godowns, workshops and lobour camp that he proposes to construct or rent, including his proposals for water and power supply and sewage facilities.

3. The labor camp shall be at a location approved by the Engineer and conform to all of the requirements required by the local law. It shall be laid out and constructed in accordance with a drawing prepared by the Contractor and approved by the Engineer.

4. The Contractor shall be responsible for acquiring the land he deems necessary at his own expenses for works beyond the owner's land and for his temporary buildings, godown,

workshops, staff quarters, labour camp and any temporary access roads. The Contractor shall maintain the Site and all working areas in a safe and sanitary condition and in all matters of health and sanitation shall comply with the requirements of the local medical officer of health or other competent authority.

3.1.9. Sufficiency of means employed

The Contractor shall have upon himself the full and entire responsibility for the sufficiency of his supervisory and other personnel, plant, machinery, tools or implements, scaffolding, timbering and generally for all means used for the fulfillment of the Contractor. In the event of any of these means proving insufficient, the Contractor is still fully and entirely responsible for the sufficiency of these means notwithstanding any previous approval or recommendation that may have been given by the Engineer.

3.1.10. Care of works

3.1.10.1 Movement of Plant

The Contractor shall exercise diligence and care in the movement of all plant within the Contractor area so as not to cause injury or damage to life or property. The Contractor shall be responsible for restoring any roadway, bridge, culvert etc damaged by his plant to the satisfaction of the Engineer or appropriate Authority.

3.1.10.2. Keeping works Free of water

Notwithstanding any approval by the Engineer of the arrangements made for the exclusion of water from the works, the Contractor will be held responsible for the sufficiency thereof and will be liable for keeping the works safe during water fluctuations and floods and shall make good any damage to the works that may be attributable to them at his own expense. Any losses of production, additional overheads or additional costs of any kind that may result from floods are at the Contractor's risk.

3.1.10.3 Material on and under the site

All Soil, turf, gravel, stone, timber, or other materials obtained in the excavations, clearing of the Site of the works and soil stripping, shall belong to the owner and must not be removed from the works site without the written consent of the Engineer. The Contractor, however, may use for the construction of the works timber felled on the site and any of the materials excavated under the Contract which the Engineer may determine to be fit for such use and shall use such materials if directed by the Engineer. In such case an adjustment of rate of that particular item shall be made in accordance with Board's guidelines.

3.1.11. Survey works

1. The metric system of units shall be used unless otherwise instructed by the Engineer.

2. The levels shown on the Drawing are referred to Public works Department (PWD) datum.

3. Prior to the start of the Works, the Contractor will receive from the Engineer a list of Project bench Marks and their values and reference points on the Site. The Contractor shall be responsible for checking the level of these bench marks prior to their use. Levels shall close within 10 mm multiplied by the square root of the length of the circuit in km. thereafter, the Contractor shall establish all setting out necessary for the performance or the work, to the approval of the Engineer including levels of the original ground surface at the site and final survey of the completed works for the final measurement.

4. From the centre line and grades established, the Contractor shall furnish and place all additional stakes, templates and bench marks necessary for marking and maintaining points, lines and sections for layout of the works.

5. The Contractor's methods of recording survey data shall be subject to approval and field books and tabulated data shall be well maintained and made available for inspection and checking by the Engineer when ordered.

6. Instruments and equipment for survey shall be subject to rigorous inspection by both the Contractor and the Engineer and any item found to be defective, in the opinion of the Engineer, shall be promptly replaced, repaired and adjusted as directed. All surveying shall be directly supervised by a qualified surveyor or Engineer.

7. The checking of the setting-out of the Works by the Engineer's staff shall not relieve the Contractor of any of his liabilities or responsibilities under the Contract.

3.1.11.1 Pre work survey

1. Prior to starting work the contractor in presence of verification team will carry out a detailed survey along the whole alignment of the embankment. The survey will show the detailed topographic feature along the embankment including location of settlement on embankment.
2. X-section for this purpose has to be taken at least 50m intervals showing at least 100m width 50 m on both sides from Embankment's centerline.
3. The joint verification team will then decide alignments and extent of re-sectioning.
4. Consultants will undertake random checking of at least 10% of the cross sections surveyed and report the findings to the Project Director. Re Survey will have to be conducted for all sections in case of any deviations affecting more than 1 0% of earthwork volume' under the contract. ADB mission (including staff consultants engaged)

may also visit & inspect the survey results of the contractor & the consultants.

5. Model X-section at 500m interval will be setup.

The survey work will be comforting following standard:

1. In the pre work and post-work survey elevations have to refer to PWD (public works datum

2. The accuracy of spot levels surveyed on land shall not be less then ± 2.5 in Z (altitude) ±1cm. in X and Y (plane).
3. Measurement by material tape must be within 0.5 cm for X and Y coordinates (plan) and 1.25crn for Z coordinates (altitude).
4. The accepted maximum misclosure for a line of leveling closing back on the starting point shall be ≤10√k (mm), where k is the length of the circuit in kilometers. Contractor has to arrange all the labor, equipment for this item work.

Preparation of re-sectioning plan:

1. Based on pre-work survey and decision given by the joint verification team, contractor will prepare detailed re-sectioning plan.
2. Re-sectioning plan will be consist of Long sections and X-sections.
3. Each X-section will clearly demonstrate the C/s & R/s slope length, top width, C/s & R/s side and top RL of the surveyed X-section with chainage.
4. Re-sectioning plan will clearly show embankment profile before and after re-sectioning in X section at 50m interval and long section for every 100m.
5. Long section will in format of A3 (397X420mm) and X-section will be A4 (210X297mm). All drawings will submitted in paper format in color print accompanied by digital copies in AutoCAD in a recent version. Contractor has to submit Photograph of each measurement showing reading in white board along with re-sectioning work plan.

"Consultants will undertake random checking of at least 10% of the cross sections surveyed and report the findings to the Project Director. Re-survey will have to be conducted for all sections in case of any deviations affecting more than 10% of earth work volume under the contract. ADB mission (including staff consultants engaged) may also visit and inspect the survey results of the contractor and the consultants."

Contractor has to arrange all the labor, equipments for this item work.

3.1.11.2 Measurement and payment:

Payments for pre-work and Post-work survey and preparation of excavation plan and as built drawing are included in Item-1 (Survey) and Item-2 (Drawing and Reporting).

3.1.11.3 post-work survey

1. After completion of re-sectioning contractor will carry out post-work survey in presence of Joint Verification team.
2. Post work survey will be done as per methodology and standard outlined in pre-work survey.
3. Report of post-work survey will be submitted in Long section and X-section.
4. X-sections will clearly demonstrate bed profile including slope before and after re- sectioning. .
5. Long section will in format of A3 (397X420mm) and X-section will be A4 (21 OX297mm). All drawings will submitted in paper format in color print accompanied by digital copies in AutoCAD in a recent version.

Measurement As mentioned above in **3.1.11.2**.

3.1.12. Fabricated items incorporated in works

1. Whenever required by Specification to fabricate or manufacture and furnish equipment for incorporation in the permanent works, the Contractor shall submit to the Engineer for his approval the names of the manufacturers or fabricators he proposes to use and also his detailed shop drawings for approval before proceeding with the work. All such drawings shall be adequately and properly checked before being submitted to the Engineer for approval and shall be so designated.

2. Any fabricating or manufacturing undertaken during or before the approval of the drawings will be at the Contractor's risk. The Engineer shall have the right to require the Contractor to make any changes in the design which may be necessary, in the opinion of the Engineer, to make the equipment or component materials conform to the requirements and intent of these Specifications without additional cost to the Employer.

3. Approval of the Contractor's drawings shall not be held to relieve the Contractor of any part of his obligation to meet all of the requirements of these Specifications or of the responsibility for the correctness of his drawings. At the time of delivery of the equipment, the Contractor, if requested to do so, shall furnish to the Engineer two complete sets of negatives of the final approved Drawings.

3.1.13 Inspection/tests at fabricators workshop

1. All equipment furnished under these specifications and all work performed in connection therewith will be subject to inspection by the Engineer or his authorized agent. Inspection at the manufacturer's plant will be made to determine that the equipment and the materials used for their manufacture meet the requirements of the technical Specification.

2. The Contractor shall notify the Engineer not less than 15 days in advance of the date and place equipment/material will be available for inspection. No equipment or material shall be transported to site until the Engineer's inspection at the manufacturer's plant has been made, the Engineer's approval is given, final drawing have been furnished by the Contractor and the Contractor's responsibility for furnishing equipment and materials meeting the requirements of the Contract Document are complied with; the cost of the Engineer's necessary inspection shall be borne by the Contractor.

3.1.14. Material and workmanship

1. Workmanship shall be of the best quality appropriate to each category of work. Materials used in the Works shall be of the best quality of their respective kinds as specified or described in the Contract. All workmanship and materials shall be to the approval and entire satisfaction of the Engineer. The Contractor shall

supply copies of orders or sub-contracts placed by him for materials for the Works.

2. Materials shall be delivered to the Site a sufficient Period before they are required to be used to enable the Engineer to take such samples as he may think proper for testing and examination and the Contractor shall supply such information as to their quality, weight and strength and other particulars as may be required. Any materials condemned by the Engineer shall be removed immediately from the site.

3. All materials stored on the site shall be adequately protected against contamination or deterioration.

3.1.15. Site Preparation

1. The Contractor shall give the Engineer at least seven days written notice of his intention to commence work on any part of the Site. Works shall not be commenced until written approval has been received by the Contractor from the Engineer.

2. The works are to be constructed in accordance with the Drawings and as directed by the Engineer. It may become necessary or desirable, during the progress of the work to change the slopes or dimensions. Whenever this occurs, the Contractor shall perform the required work to the revised slopes and dimensions in accordance with the written instruction of the engineer.

3. Prior to the commencement of the Works, the Contractor shall study the Drawings and fully understand all the aspects of the work and correlate the same with the dimensions shown in the structural drawings, and shall fix up the alignment, set the B.M pillars, levels, pegs etc.

4. Before works are permitted to commence, channel invert levels and alignment of the bed and top of side slopes and embankment toe and crest levels and alignment shall be accurately set out at every 100 meter for new and 150 meter for old works and at bends to the satisfaction of the Engineer.

5. Cutting or filling charts, prepared by the Engineer, will be given to the Contractor to sign as a token of his agreement.

3.1.16. Earthworks

1. Earthworks shall be undertaken to the liners and levels shown on the Drawings unless directed otherwise by the Engineer. In carrying out earthworks the Contractor shall take all necessary precautions to avoid damage to or deterioration of the earthwork materials and existing embankment.

2. The site shall be cleared as required to remove all stumps, roots, vegetable and other objectionable materials specifically within areas for embankment, channel excavations and structure excavation, structures, appurtenance and any other facilities indicated on the Drawings or designated by the Engineer. The cleared material shall be deposited in approved areas off site or burnt as directed by the Engineer.

3. Areas to be excavated or filled as well as borrow areas where material for filling is to be excavated, shall be stripped of topsoil containing organic or other unsuitable matter to a depth of at least 150 mm or to such greater depth/as may be shown on the Drawings or as may be determined by the Engineer. The topsoil shall be disposed of in accordance with Clause 316, "Spoil Tips" or stockpiled for the reinstatement of borrow pits.
    a.
4. All topsoil stripped from borrow areas shall be spread evenly over the borrow areas on completion of the work.

5. The Contractor shall exercise the greatest possible care and take all necessary precautions to prevent slips and falls of material from the sides of the excavation and embankments. Earth work faces shall be trimmed back to form a stable slope and to facilitate construction works to the approval of the Engineer. In the event of slips and falls occurring the Contractor shall make good all earthworks and associated works and execute any requisite modifications of the Works to the satisfaction of the Engineer.

3.1.17. Excavation and re-excavation of Channels

1. Whenever a spoil bank passes across any depression or drainage channel, sufficient openings as directed by the Engineer are to be left in it to ensure unobstructed flow of surface run-off in the drainage channel. The spoil bank should be trimmed to a gentle slope across access roads to facilitate easy traffic movement and its top should be graded to a smooth surface to facilitate access.

2. Cross bundhs are to be constructed across the drainage Channels for dewatering purpose to facilitate excavation. The Contractor shall submit his proposals for location and dimensions of cross bundhs to the Engineer for approval before work is permitted to commence.

3. The Contractor shall arrange to obtain earth for the construction of cross bundhs. The bundhs shall not be removed until the bed has been dewatered, excavated and the measurement of the excavated earth completed.

4. Bailing out of water shall be continued until excavation or re-excavation to the design bed level and section is completed.

3.1.18. Excavation for Structure

1. Excavation shall mean the removal of materials so that structures can be constructed to the lines, grades and dimensions shown on the Drawings. The Contractor shall prepare, submit and obtain approval from the Engineer for excavation plans including details of any surface or sub-surface dewatering prior to the start of any excavation.

2. Excavated materials shall be stockpiled for either backfilling, embankment/cross dam construction or deposited in spoil tips. Excavated material shall not be stockpiled at the top edge of cut slopes. The location of work areas and stockpiles and the use of excavated materials shall be as directed by the Engineer. All excavated material which meets the specification of fill work, unless otherwise ordered by the Engineer, shall be utilized for the fill work.

3. Except as may be directed by the Engineer, excess excavation for the convenience of the Contractor or over excavation performed by the Contractor for any purpose or reasons, shall be at the expense of the Contractor. If the excavation for foundations exceeds the depths specified, back filling shall be undertaken as fill works at the expense of the Contractor. If back filling is to be undertaken it shall be done by sand and shall have a fineness modulus (FM) between 1.0 and 1.50 or as directed by the Engineer.

4. When excavating to specified foundation levels, the Contractor shall not excavate the last 150 mm until immediately before commencing the construction work, except that the Engineer shall permit otherwise. Any damage to the work due to the Contractor's operations shall be repaired at the expense of the Contractor.

5. When the specified levels or limits of excavation are reached, the Engineer will inspect the ground exposed. If the Engineer considers that any part of the ground is by its nature unsuitable, he may direct that the unsuitable material be further excavated to a depth from the lowest excavation level shown on the Drawings or as directed by the Engineer and be replaced by a suitable backfill approved by the Engineer.

6. If the materials forming the bottom of any excavations, which is acceptable to the Engineer at the time of his inspection, subsequently become unacceptable to him due to exposure to

weather condition or due to flooding or have become puddle, soft or loose during the process of the works, the Contractor shall remove such damaged softened, or loosened material and excavate further by hand. Such further excavation shall be held to be excess excavation and the cost of the excess excavation and subsequent replacement with a suitable backfill shall be at the expense of the Contractor.

3.1.19. Structural Backfill

1. Structural backfill consists of furnishing, placing and compacting fill material around structures and other appurtenance to the lines and grades shown on the Drawings or directed by the Engineer. Prior to placing backfill, all trash, metal, debris, lumber, bricks, soft materials and similar objectionable foreign materials shall be removed from the area to be backfilled.

2. No backfill shall be placed in standing water, on surfaces that are excessively soft, wet or against concrete structures that have not cured for at least fourteen days or such other period as may be directed by the Engineer.

3. Structural backfill shall be either compacted by manual or mechanical means. Fill shall be placed in horizontal uniform layers of the following thickness:
    i. Manual compaction – 150 mm of loose materials :
    ii. Mechanical compaction – 230 mm of loose material.
4. Before Compaction, each layer shall be moistened or aerated to provide suitable conditions for compaction. Manual compaction shall be undertaken as described in Clause 309. Mechanical compaction shall only be undertaken by equipment approved by the Engineer.

5. Unless specified on the Drawings, each layer shall be compacted in accordance with Clause 308 and 309. Compaction equipment or methods which may cause damage to a structure shall not be used.

6. Unless shown otherwise on the Drawings, backfilling behind abutments, wing walls and retaining walls shall be with sand of fineness modulus not less than 0.80 or suitable soil approved by the Engineer. Suitable soil for backfill shall conform to Clause 305; clay soil with peat content shall not be used.

7. Layers of filling shall be tested as directed by the Engineer. Each compacted layer shall not be covered until the Engineer is satisfied that the specified degree of compaction has been achieved.

8. The insitu dry density of the sample points shall be determined in accordance by Test 15A, BS 1377 or ASTM Designation E-24 and compared to laboratory results to establish the degree of compaction.

3.1.20.PROTECTIVE WORKS

1. Pre cast concrete blocks shall be made to the dimensions shown on the Drawings and to the specified tolerances. The blocks shall comply with the percentages of the different block as shown on the Drawings. The Contractor shall prepare a size wise schedule of all blocks required for the Engineer's approval before execution of the work.
2. Except otherwise shown on the Drawings, precast concrete blocks (cc blocks) shall be made from concrete class E in accordance with Section 800 and cast in moulds formed from steel sheet. The moulds shall be sufficiently tight fitting to prevent grout losses and sufficiently rigid to withstand the effects of placing and vibratory the concrete without distorting and capable of releasing the hardened concrete blocks without causing damages to the blocks.
3. Each block shall be marked with a serial number and the date of casting; marking shall either be engraved on the block whilst the concrete is still "green" or painted on the block with water proof paint immediately after stripping formwork. The Contractor shall maintain a register (officially issued by the Engineer) of the number, date of casting, date and location of placing of each block and shall make the register available at all times for inspection by the Engineer.
4. Blocks shall not be stockpiled until they have been cured in accordance with 819 hereof. They shall not be placed in the Works until at least twenty one days after casting have elapsed or the specified strength has been attained.
5. Blocks which are damaged during transport, stockpiling or handling shall be rejected and removed from the site.
6. Blocks for use in launching aprons shall be stockpiled in different sizes and in the percentages shown on the Drawings to the satisfaction of the Engineer. Prior to the commencement of placing the blocks, the Contractor's proposal to ensure that the different block sizes are well distributed shall have been approved by the Engineer. If required, the effectiveness of the Contractor's proposal shall be demonstrated to the Engineer.

3.1.21. Filter Materials

Filter materials shall be as specified on the Drawings and either is:

- A khoa filter (crushed brick) complying with Clause 507, crushed stone or gravel (Shingle) filter;
- A inverted filter comprising of a fine filter and coarse filters complying with Clause 508;
- A geo-textile filters complying with Clauses 1807 to 1810.
- Khos filter material shall be made from first class bricks or picked jhama bricks as specified in Clause 1802.

- The Khos filter shall comply with the grading shown on the Drawings.

3.1.22. Turfing on Embankment Slopes

1. The crest and slope of the embankment shall be shaped to slopes and levels, fully compacted then fine dressed with approved top soil in a layer of not less than 50 mm thick before being covered by Durba grass turf or a similar approved turf from a source approved by the Engineer. The turf should be approximately 200 mm × 75 mm thick and be placed close together in a staggered pattern with 100% coverage. The turfs shall be set firmly into the top soil dressing and watered immediately after planting, then daily until the grass is well established and new growth is clearly visible.
2. All sodded areas shall be watered until the grass grows fully. Areas that do not grow or wash out shall be repaired and returned with fresh sods at the Contractor's expense.

3.1.23. Placing Blocks

1. Below LWL blocks shall be laid by controlled dumping. On the sloping revetment and in the apron blocks are to be placed to the profiles shown on the Drawings.
2. Revetment material is to be randomly placed to form the launching loose apron and placed in the proportions shown on the Drawings form conveniently located stockpiles of individual size.
3. The inverted filter layers and revetment material placement shall start from the toe and progress up the slope of the embankment.
4. The fine filter layers shall be placed and lightly tamped into place, followed by the coarse filter layer which shall be sufficiently compacted to support the overlaying material.
5. The inverted filter shall not advance more than 1 m up the slope before being covered by the specified overlaying material to assist placement and prevent damage to the filter layer.
6. Above LWL the overlaying material shall be laid on the filter in rows parallel to the direction of the current. The blocks in each row shall be staggered half a block width form those in the row below. Adjacent blocks in the same row shall be laid with a gap between them of the minimum dimensions given below:

	Block Size	Gap (mm)
a.	0.60 m and less	10
b.	Larger than 0.6 m	15

7. During the placement of the bricks or revetment material, the underlying filter shall not be disturbed by removing or denting a portion thereof by any manner harmful to the filter. Any damage to the filter during overlaying shall be repaired by the Contractor at his own cost.
8. The outer surface of the completed revetment shall have a smooth appearance with minimal unevenness.

3.2. BWDB's technical specifications for Embankment are:

The Technical Specification mainly contains the physical and chemical properties of materials to be used in works, the proportion and combination of uses of materials and mode and manner of execution o the works including formulation of the technique of building/construction works as per design. The technical specification for re-sectioning of Embankment is given below.

3.2.1 Earthwork in General:

Earthworks shall be undertaken to the liners and levels shown on the Drawings unless directed otherwise by the Engineer. In carrying out earthworks the Contractor shall take all necessary precautions to avoid damage to or deterioration of the earthwork materials and existing embankment.

3.2.2 EMBANKMENTS:

(1) Embankment construction consists of furnishing and placing materials to the lines and grades shown on the Drawings or as directed by the Engineer.

(2) Unsuitable material shall be stripped from the embankment foundation. The area shall then be scarified or ploughed prior to placing of any fill material.

(3) Profiles shall be erected using full bamboo posts and pegs not less than 60 mm diameter and coir string as directed by the Engineer. The embankment toe shall be marked by nicking out lines 75mm deep and 75mm wide.

(4) The embankment height shall be raised uniformly at all stages during construction. Each layer shall have a slight slope from the centre of the fill towards the sides so that all water shall drain freely from the embankment with no pockets to collect water. The crest of the embankment shall be provided with from 15mm cambering at the centre.

(5) Unless otherwise specified all embankments and small irrigation dykes shall be manually compacted embankments as specified in clause 308. embankments other than flood protection

(6) On completion, the embankment shall be protected by grass sod turfing unless shown otherwise on the Drawings or otherwise instructed by the Engineer. The turfing shall be in accordance with clause 510. the Executive Engineer shall record in the Measurement Book that the specified compaction has been achieved and the 100% of the embankment has been covered by established turf sods.

3.2.3 UNCOMPACTED EMBANKMENT

(1) In determining formation level of an uncompacted embankment 10% of fill height calculated on the basis of pre-work level and design level shall be added to the design level of embankment to allow for maximum shrinkage during the first monsoon season.

(2) Earthfill shall be placed in 150 mm (maximum loose thickness), uniformly spread laid in each layer and clods of earth broken to a maximum size of 100mm.

(3) After the first monsoon season the embankment shall be graded as required to the line and grades shown on the Drawings at no additional cost to the Owner.

3.2.4 MANUALLY COMPACTED EMBANKMENT

(1) Fill shall be placed and compacted in layers of 150 mm (maximum loose thickness), uniformly spread and compacted over the fill area of each layer. If, for any reason, progress in compacting the fill is interrupted for any unreasonable time the surface area of the fill shall be scarified or ploughed before compaction continues. Each 150 mm thick layer shall be compacted, using controlled manual compaction methods to avoid any air pocket.

(2) Should the Engineer fail to approve a fill layer, the material above that the unsatisfactory layer shall be removed and the unsatisfactory layer shall be re-compacted to satisfy the specification.

3.2.5 PROCEDURE FOR MANUAL EMBANKMENT COMPACTION

(1) Earth excavated from the borrow pit shall be placed in the embankment in horizontal layers parallel to the finished grade not exceeding a loose thickness of 150 mm. The earth of each basket is to be placed near to the earth placed before it and spread systematically. Throwing of earth in heaps will not be allowed.

(2) The clods of earth shall be broken down to a maximum size of 100 mm by striking the clods with the back of a spade or by other suitable method before the next basket of earth is thrown close to it. The earth shall be compacted manually using rammers made of Wood, iron or concrete weighing =>7 kg, fitted with shafts of about 1.5 m long Ramming shall reduce the voids and until no further shrinkage of earth is possible by ramming.

(3) Before commencing ramming, the moisture content of the soil shall be increased or decreased as necessary by sprinkling the soil with water or by allowing natural drying of the soil as necessary so that the ramming can achieve the compaction as specified. Both wetting and drying may be aided by furrowing the fill and then re-spreading when the moisture content is suitable.

(4) The preceding operations shall continue layer after layer until the top of the embankment is reached.

3.2.6 MECHANICALLY COMPACTED EMBANKMENT

(1) Embankments designated on the Drawings or by the Engineer to be mechanically compacted shall be compacted to the lines and grades shown on the Drawings or established by the Engineer. The Contractor's operations in the excavation of material designated for use in compacted embankments or compacted backfill shall be such as will result in an acceptable gradation of material, as determined by the Engineer, when placed.

(2) Just prior to and during placement operations, the materials shall have a moisture content of not greater than 5 percent wet or less than 5 percent dry of optimum moisture required for the purpose or compaction, as determined by Test No. 12 of BS 1337 and approved by the Engineer, and the moisture content shall be uniform throughout each layer. In-so-far as practicable, as determined by the Engineer, the material shall be brought to the proper moisture content at the site of excavation.

(3) If the moisture content is less than optimum for compaction, the moisture shall be supplemented by sprinkling and reworking the material at the site of compaction. If the moisture content is more than optimum for compaction, the material shall be dried by reworking, mixing with dry materials or other approved means. If the moisture content is less than optimum by more than 2 percent or is greater than optimum by 2 percent, the compaction operations shall not proceed, except with specific approval of the Engineer, until the material is wetted or allowed to dry out, as may be required, to obtain optimum moisture content within the tolerances permitted above, and no adjustment in price shall be made on account of any operations of the Contractor in wetting or drying the materials or on account of any delays occasioned thereby.

(4) If the material being excavated from canal or other water logged areas for use as embankment material is saturated, then it shall be initially stockpiled to drain the excess water before placing it for construction of embankment.
The material to be compacted shall be deposited in horizontal layers not more than 230 mm thick, and the distribution of materials shall be such that the compacted material will be homogeneous and free from lenses, pockets, streaks or other imperfections. The excavating and placing operations shall be such that the materials when compacted will be blended sufficiently to secure the best practicable degree of compaction, impermeability and stability, and for this reason the preceding compacted layer shall be scarified before placing the new layer.

(5) When the material has been conditioned and placed as specified or directed, it shall be compacted with appropriate motorized vibratory compaction equipment or tampers of adequate weight and size as approved by the Engineer.

(6) The material in compacted embankment on which a road is to be laid shall be compacted until the dry density of compacted material is not less than 90% of the laboratory maximum dry density as determined by Test No. 13 of BS 1377 (4.5 kg rammer method) or similar approved test for the material being compacted. Materials forming all other embankments on which limited vehicular traffic might be allowed after completion shall be compacted until its dry density reaches at least 85% of the laboratory value as tested above. The Engineer will take samples of the material being compacted and will perform tests required to determine that the compacted is meeting the requirements of these Specifications. The Contractor shall provide all necessary aid to the Engineer in obtaining representative samples for testing at no extra cost.

(7) The insitu dry density of the compacted fill shall be determined by the sand replacement method described in Test No. 15 of BS 1377 or similar approved test at locations ordered by the Engineer.

3.2.7 Re-sectioning Embankments

(1) Before commencing the re-sectioning, the original sloper and crest shall be cleared in accordance with Clause 205 and stripped in accordance with Clause 301.

(2) The Slopes shall be benched to form a series of horizontal steps to the approval of the Engineer's Representative.

(3) The embankment shall then be filled to the lines and grades shown on the Drawings.

3.2.8 Excavation for Structure

a. Excavation shall mean the removal of materials so that structures can be constructed to the lines, grades and dimensions shown on the Drawings. The Contractor shall prepare, submit and obtain approval from the Engineer for excavation plans including details of any surface or sub-surface dewatering prior to the start of any excavation.

b. Excavated materials shall be stockpiled for either backfilling, embankment/cross dam construction or deposited in spoil tips. Excavated material shall not be stockpiled at the top edge of cut slopes. The location of work areas and stockpiles and the use of excavated materials shall be as directed by the Engineer. All excavated material which meets the specification of fill work, unless otherwise ordered by the Engineer, shall be utilized for the fill work.

c. Except as may be directed by the Engineer, excess excavation for the convenience of the Contractor or over excavation performed by the Contractor for any purpose or reasons, shall be at the expense of the Contractor. If the excavation for foundations exceeds the depths specified, back filling shall be undertaken as fill works at the expense of the Contractor. If back filling is to be undertaken it shall be done by sand and shall have a fineness modulus (FM) between 1.0 and 1.50 or as directed by the Engineer.

d. When excavating to specified foundation levels, the Contractor shall not excavate the last 150 mm until immediately before commencing the construction work, except that the Engineer shall permit otherwise. Any damage to the work due to the Contractor's operations shall be repaired at the expense of the Contractor.

e. When the specified levels or limits of excavation are reached, the Engineer will inspect the ground exposed. If the Engineer considers that any part of the ground is by its nature unsuitable, he may direct that the unsuitable material be further excavated to a depth from the lowest excavation level shown on the Drawings or as directed by the Engineer and be replaced by a suitable backfill approved by the Engineer.

f. If the materials forming the bottom of any excavations, which is acceptable to the Engineer at the time of his inspection, subsequently become unacceptable to him due to exposure to weather condition or due to flooding or have become puddle, soft or loose during the process of the works, the Contractor shall remove such damaged softened, or loosened material and excavate further by hand. Such further excavation shall be held to be excess excavation and the cost of the excess excavation and subsequent replacement with a suitable backfill shall be at the expense of the Contractor.

3.2.9 STRUCTURAL BACKFILL

a. Structural backfill consists of furnishing, placing and compacting fill material around structures and other appurtenance to the lines and grades shown on the Drawings or directed by the Engineer. Prior to placing backfill, all trash, metal, debris, lumber, bricks, soft materials and similar objectionable foreign materials shall be removed from the area to be backfilled.

b. No backfill shall be placed in standing water, on surfaces that are excessively soft, wet or against concrete structures that have not cured for at least fourteen days or such other period as may be directed by the Engineer.

c. Structural backfill shall be either compacted by manual or mechanical means. Fill shall be placed in horizontal uniform layers of the following thickness:
    - Manual compaction – 150 mm of loose materials
    - Mechanical compaction – 230 mm of loose material.

d. Before Compaction, each layer shall be moistened or aerated to provide suitable conditions for compaction. Manual compaction shall be undertaken as described in Clause 309. Mechanical compaction shall only be undertaken by equipment approved by the Engineer.
e. Unless specified on the Drawings, each layer shall be compacted in accordance with Clause 308 and 309. Compaction equipment or methods which may cause damage to a structure shall not be used.
f. Unless shown otherwise on the Drawings, backfilling behind abutments, wingwalls and retaining walls shall be with sand of fineness modulus not less than 0.80 or suitable soil approved by the Engineer. Suitable soil for backfill shall conform with Clause 305; clay soil with a peat content shall not be used.

3.2.10 Testing Fill

1. Layers of filling shall be tested as directed by the Engineer. Each compacted layer shall not be covered until the Engineer is satisfied that the specified degree of compaction has been achieved.

2. The insitu dry density of the sample points shall be determined in accordance by Test 15A, BS 1377 or ASTM Designation E-24 and compared to laboratory results to establish the degree of compaction.

3.2.11 Borrow Pits

(1) The Contractor shall be responsible for arranging land and the purchase and supply of borrow material from pits for the permanent works. Prior to the excavation of any material from the borrow pit the area shall be cleared and stripped.

(2) Borrow areas shall be located on the river/sea side of the embankment wherever possible. The minimum distance of the borrow area from the toe of the embankment shall not be less than 105 multiplied by the depth of the borrow pit or 3 m whichever is greater or as specified in the drawing.

(3) Borrow areas located on the river/sea side of the embankment shall be not more than 30 m in length and shall be separated by gaps of undisturbed ground of not less than 6 m in length measured parallel with the embankment.

3.2.12 Spoil Tips

Spoil and excavated material from stripping and excavation which does not meet the specification for fill work, shall be disposed of at the selected sites to be arranged by the Contractor or within the specified site limits in locations approved by the Engineer or within the specified site limits.

3.2.13 Temporary Cofferdams

(1) Where necessary, the Contractor shall protect the works from the effects of tidal or flood waters ensuring that the works are constructed in the dry.

(2) The Contractor shall submit his proposed method of protecting the construction works to the Engineer for approval ten days prior to the commencement of construction. If the cofferdam has not been detailed on the Drawings, the Contractor will be responsible its design and subsequent performance; the Engineer's approval of the proposal will not relieve the Contractor of full responsibility for the design, maintenance and safety of the temporary cofferdam until its removal.

(3) The temporary cofferdam shall not be removed without the written permission of the Engineer, following his satisfactory inspection of the works within.

(4) The Contractor shall ensure that the cofferdam and its associated elements are carefully and completely removed without causing any harm to the permanent works.

APPENDIX - A

TABLE OF TOLERANCE

The following are the tolerances within which the works are to be executed:-

Item Description	Tolerance from Specifications	
	Upward	Downward

Earthworks

Crest level of Embankment after compaction +150 mm -000

Sides of Embankments per 10 m length +150 mm -000

Channel or Excavation level per 10 m length +150 mm -000

Channel Water Way Area -000

Alignment of Channels per 20 m length 150 mm

Maximum for any reach 300 mm

Formation Level for structures +000 Filled with Blinding

Formation Level for Gabions +50mm – 25 mm

Concrete Structures

Note : The following tolerances shall apply to all wrought formed and fair or fine unformed finished.

Structures – Tolerances from Specified position

Maximum departure of plan position

structure or element 25 mm

Structures – Tolerances from Specified Dimensions

Maximum departure in thickness

Or cross-sectional dimensions of

Columns, beams, buttresses, piers,

Wall footings etc, like up to and

Including 500 mm thick (except +6 mm -3 mm

tunnel and shaft linings)

ditto 500 mm to 1000 mm thickness +10 mm -5 mm

ditto 1000 mm to 4000 mm thickness +10 mm -8 mm ditto but over 4000 mm thickness +25 mm -10 mm

Item Description	Tolerance from Specifications	
	Upward	Downward
Surface – Tolerances form Specified Position Maximum departure of vertical, sloping Or curved surfaces including joint surfaces 25 mm Maximum departure of horizontal or Near-horizontal surfaces including Joint surfaces 20 mm **Surfaces-Tolerance on Straightness or Departure from Specified Curve** **General Surface** (a) Maximum deviation in horizontal or Vertical directions – gradual 12 mm in 2 m (b) Maximum deviation in horizontal or Vertical directions – abrupt 6 mm **Surface in Contract with Low Velocity flowing Water** (a) Maximum deviation in horizontal of flow 12 mm in 2 m or normal to flow – gradual		

(b) Maximum deviation in horizontal of flow

or normal to flow – abrupt 4 mm

Surface in Contact with High Velocity Flowing Water

(a) Maximum deviation in horizontal of flow 3 mm in 2 m

or normal to flow – gradual

(b) Maximum deviation in horizontal of flow 0

or normal to flow – abrupt

(Grind to 1 in 50 level)

Reinforcement

Maximum departure in required bar spacing 25 mm

Stonework ± 50 mm over

Pitching and Masonry 3 m

Gabions (Face of Basket) + 50 mm – 25 mm

Thickness of tipped rock or filter + 50 mm - 000

Item description	Tolerance from Specification	
	Upward	Downward
Shotcrete Departure of thickness or layers from nominal thickness +15mm -000 **Piles** Departure from specified position 50 mm Deviation from vertical for vertical piles 1 in 75 Deviation from specified rake for raking piles 1 in 25		

Concrete Piles casting tolerance

- Maximum departure in thickness or cross sectional area +6mm -000
- Deviation of pile face 6 mm in 3 m
- deviation of cross section centroid from straight line jointing end face centroid 12 mm

Timber piles tolerances

- deviation of cross section dimension -6 mm
- deviation of cross section centroid from straight line joining end face centroid 40 mm

Tolerance for level of top of pile

- Concrete piles $\pm$ 15 mm
- Timber pile +12 mm

Blockwork/Brickwork

Verticality $\pm$3 mm in 1 m

Line $\pm$5 mm in 3 m

Finished level $\pm$10 mm

APPENDIX – B

LIST OF BRITISH STANDARDS

The following is a list of British standard specifications and code of practice referred to in the Contract.

BS	4	Structural steel sections.
BS	12	Porland cement.
BS	21	Pipe threads for tubes and fittings where pressure-tight joints are made on threads.
BS	146	Portland cement and blast furnace
BS	153	Steel girder bridges.
BS	434	Testing zinc coatings on steel wire and for quality requirements.
BS	639	Covered carbon and carbon manganese steel electrodes for manual metal are welding.
BS	729	Hot dip galvanized coating on iron and steel articles.
BS	812	Testing aggregates.
BS	1199 & 1200	Building sands from natural sources.
BS	1377	Methods of test for soils for civil engineering purpose
BS	1387	Screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads.
BS	1452	Flake graphite cast iron
BS	1881	Methods for testing concrete.
BS	2451	Chilled iron shot and grit
BS	2499	Hot applied joint sealant for concrete pavements
BS	2569	Sprayed metal coatings
BS	2571	General purpose flexible PVC components fro moulding and extrusion
BS	2994	Carbon steel welded horizontal cylindrical storage tanks
BS	3100	Steel casting for general engineering purposes
BS	3148	Water for making concrete.
BS	3500	Methods for creep and ruptures testing of metal
BS	3506	Unplasticized PVC for industrial purposes
BS	4190	ISO metric black hexagon bolts screws and nuts
BS	4232	Surface finish of blast – cleaned steel for painting
BS	4254	Two-part polysulphide-based sealants.
BS	4360	Weldable structural steels.
BS	4848	Hot rolled structural steel sections.

BS	4921	Sherardised coating on iron and steel
BS	5135	Process of are welding of carbon and carbon manganese steels.
BS	5268	Structural use of timber
BS	5911	Precast concrete pipes and fittings for drainage and sewerage.

Embankment Design & Drawings

Supplementary Information

Section 7 - General Conditions of Contract

_____

[Name of Employer]

_____

[Name of Contract]

Table of Clauses

General Conditions of Contract

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

(a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

(b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.

(c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.1 hereunder.

(d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

(e) **Compensation Events** are those defined in GCC 41.1 hereunder.

(f) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 52.1.

(g) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below.

(h) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.

(i) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.

(j) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.

(k) **Days** are calendar days; months are calendar months.

(l) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

(m) A **Defect** is any part of the Works not completed in accordance with the Contract.

(n) The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.

(o) The **Defects Liability Period** is the period calculated from the Completion Date where the Contractor remains responsible

for remedying defects.

(p) **Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

(q) The **Employer** is the party who employs the Contractor to carry out the Works, as specified in the **PCC.**

(r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

(s) **Force Majeure** means an exceptional event or circumstance: which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.

(t) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

(u) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the **PCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

(v) **Letter of Acceptance** means the formal acceptance by the Employer of the Bid and denotes the formation of the Contract at the date of acceptance.

(w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.

(x) "**Party**" means the Employer or the Contractor, as the context requires.

(y) **PCC** means Particular Conditions of Contract

(z) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

(aa) The **Project Manager** is the person named in the **PCC** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

(bb) **Retention Money** means the aggregate of all monies retained by the Employer pursuant to GCC 45.1.

(cc) The **Site** is the area defined as such in the **PCC**.

(dd) **Site Investigation Reports** are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

(ee) **Specification** means the Specification of the Works included

in the Contract and any modification or addition made or approved by the Project Manager.

(ff) The **Start Date** is given in the **PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

(gg) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

(hh) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

(ii) A **Variation** is an instruction given by the Project Manager which varies the Works.

(jj) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the **PCC.**

2. Interpretation

2.1 In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is specified in the **PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

(a) Agreement,

(b) Letter of Acceptance,

(c) Contractor's Bid,

(d) Particular Conditions of Contract,

(e) General Conditions of Contract,

(f) Specifications,

(g) Drawings,

(h) Bill of Quantities (or Schedules of Prices for lump sum contracts), and

(i) any other document listed in the **PCC** as forming part of the Contract.

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the **PCC**.

4. Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 The Project Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC.** The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the Works, or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

(ii) Negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

(a) a Defect which existed on the Completion Date,

(b) an event occurring before the Completion Date, which was not itself an Employer's risk, or

(c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the **PCC** for the following events which are due to the Contractor's risks:

(a) loss of or damage to the Works, Plant, and Materials;

(b) loss of or damage to Equipment;

(c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and

(d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

14.1 The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **PCC,** supplemented by any information available to the Bidder.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The Works to Be Completed by the Intended Completion Date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Designs by Contractor and Approval by the Project Manager

17.1 The Contractor shall carry out design to the extent specified in the **PCC**. The Contractor shall promptly submit to the Employer all designs prepared by him. Within 14 days of receipt, the Employer shall notify any comments. The Contractor shall not construct any element of the permanent work designed by him within 14 days after the design has been submitted to the Employer or where the design for that element has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on taking these comments into account as necessary.

17.2 The Contractor shall be responsible for design of Temporary Works.

17.3 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.

17.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.5 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.6 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Safety

18.1 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20. Possession of

20.1 The Employer shall give possession of all parts of the Site to the

the Site

Contractor. If possession of a part is not given by the date stated in the **PCC,** the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall permit the ADB to inspect the Contractor's accounts, records and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by the ADB. The Contractor shall maintain all documents and records related to the Contract for a period of three (*3*) years after completion of the Works. The Contractor shall provide any documents necessary for the investigation of allegations of fraud, collusion, coercion, or corruption and require its employees or agents with knowledge of the Contract to respond to questions from the ADB.

23. Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 14 days of receipt of such request.

24. Procedure for Disputes

24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the rate specified in the **PCC,** together with reimbursable expenses of the types specified in the Contract Data, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If

neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified in the **PCC**.

B. Time Control

25. Program

25.1 Within the time stated in the **PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

25.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

25.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the **PCC.** If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the **PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

25.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

26. Extension of the Intended Completion Date

26.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

26.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Acceleration

27.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the

Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

27.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

28. Delays Ordered by the Project Manager

28.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

29. Management Meetings

29.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

29.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

30. Early Warning

30.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

30.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

31. Identifying Defects

31.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

32. Tests

32.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

33. Correction of Defects

33.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at

Completion, and is defined in the **PCC.** The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

33.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

34. Uncorrected Defects

34.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

35. Contract Price

35.1 In the case of an admeasurements contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

35.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

36. Changes in the Contract Price

36.1 In the case of an admeasurements contract:

(a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.

(b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

(c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

36.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

37. Variations

37.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.

37.2 The Contractor shall provide the Project Manager with a quotation for

carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

37.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

37.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

37.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

37.6 In the case of an admeasurements contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC 36.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

38. Cash Flow Forecasts

38.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

39. Payment Certificates

39.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

39.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

39.3 The value of work executed shall be determined by the Project Manager.

39.4 The value of work executed shall comprise:

(a) In the case of an admeasurements contract, the value of the quantities of work in the Bill of Quantities that have been completed; or

(b) In the case of a lump sum contract, the value of work executed

shall comprise the value of completed activities in the Activity Schedule.

39.5 The value of work executed shall include the valuation of Variations and Compensation Events.

39.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40. Payments

40.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

40.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

40.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

40.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

41. Compensation Events

41.1 The following shall be Compensation Events:

(a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 20.1.

(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

(c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.

(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.

(e) The Project Manager unreasonably does not approve a subcontract to be let.

(f) Ground conditions are substantially more adverse than could

reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.

(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

(i) The advance payment is delayed.

(j) The effects on the Contractor of any of the Employer's Risks.

(k) The Project Manager unreasonably delays issuing a Certificate of Completion.

41.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

41.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

41.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

42. Tax

42.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC 44.1.

43. Currencies

43.1 Where payments are made in currencies other than the currency of the Employer's country specified in the **PCC,** the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

44. Price Adjustment

44.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the **PCC.** If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c \ Imc/Ioc$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients specified in the **PCC,** representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

Imc is a consolidated index prevailing at the end of the month being invoiced and Ioc is the same consolidated index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."

44.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

45. Retention

45.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the **PCC** until Completion of the whole of the Works.

45.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 52.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" bank guarantee.

46. Liquidated Damages

46.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the **PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the **PCC.** The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

46.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the

rates specified in GCC 40.1.

47. Bonus

47.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in the **PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

48. Advance Payment

48.1 The Employer shall make advance payment to the Contractor of the amounts stated in the **PCC** by the date stated in the **PCC,** against provision by the Contractor of an unconditional bank guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

48.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

48.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

49. Securities

49.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the **PCC,** by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee.

50. Dayworks

50.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

50.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

50.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

51. Cost of Repairs

51.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

52. Completion

52.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed.

53. Taking Over

53.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

54. Final Account

54.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

55. Operating and Maintenance Manuals

55.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the **PCC.**

55.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC 55.1**,** or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

56. Termination

56.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

56.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

(a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;

(b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;

(c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the

Project Manager's certificate;

(e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;

(f) the Contractor does not maintain a Security, which is required; and

(g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **PCC.**

(h) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 57.1.

56.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

56.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

56.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57. Fraud and Corruption

57.1 ADB requires that Borrowers (including beneficiaries of ADB loans), as well as Contractors, Subcontractors, manufacturers, and Consultants under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy, the ADB:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;

(ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

(iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

(b) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive or coercive practices during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the ADB to remedy the situation; and

(c) Will sanction a party or its successor, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a ADB-financed contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a ADB-financed contract.

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the **PCC.** Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

58.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

60. Release from Performance

60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

61. Suspension of ADB Loan or Credit

61.1 In the event that the ADB suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:

(a) The Employer is obligated to notify the Contractor, with copy to the Project Manager, of such suspension within 7 days of having received the ADB's suspension notice.

(b) If the Contractor has not received sums due it within the 28 days for payment provided for in GCC 40.1, the Contractor may immediately issue a 14-day termination notice.

62. Eligibility

62.1 The Contractor shall have the nationality of an ADB member country. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

62.2 The materials, equipment and services to be supplied under the Contract shall have their origin in eligible source countries and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment and services.

62.3 For purposes of GCC 62.2, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

Section 8 - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

Particular Conditions of Contract

A. General	
GCC 1.1 (q)	The Employer is **Bangladesh Water Development Board** represented by Project Director, PMO-SWAIWRPMP, BWDB, Jessore.
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be **180 (One Hundred Eighty)** days from the date of Signing the contract.
GCCs 1.1 (aa) & 4.1	The Project Manager is the Executive Engineer, Sub-Project Management Office, Narail Sub-Project, BWDB, Narail.
GCC 1.1 (cc)	The Site is located beside Chitra river at Upazila: Narail and is defined in a drawings SE of Design of BWDB, jhenaidah.
GCC 1.1 (ff)	The Start Date shall be 7 (Seven) days within signing of the contract.
GCC 1.1 (jj)	The Works consist of Mobilization of a survey team, preparation of drawings, part time employment of environmental inspector, Earth work by manual labour in re-sectioning of embankment, Fine dressing and close turfing of the slopes and the crest of embankment, Cutting and clearing jungles and uprooting trees, Erection of bamboo profile with full bamboo posts and pegs etc.
GCC 2.2	Sectional Completions are: **Not Applicable.**
GCC 2.3(i)	The following documents also form part of the Contract: **Work Program.**
GCC 3.1	The language of the contract is **English.** The law that applies to the Contract is the law of the Peoples Republic of Bangladesh.
GCC 8.1	Schedule of other contractors: **Not Applicable.**
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for the Works, Plant and Materials: Nil (b) For loss or damage to Equipment: Nil. (c) For loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract Nil. (d) for personal injury or death: (i) of the Contractor's employees: Nil (ii) of other people: Nil
GCC 14.1	Site Investigation Reports are: **N/A**
GCC 17.1	The following shall be designed by the Contractor: **Not Applicable.**
GCC 20.1	The Site Possession Date(s) shall be: **3 (Three)** days from the date of Signing the contract.
GCC 23.1	Appointing Authority for the Adjudicator: **President of Institute of Engineers**

	Bangladesh (IEB).
GCC 24.3	The Adjudicator shall be paid by the hour at the rate of: **Taka 1000.00**
GCC 24.4	Institution whose arbitration procedures shall be used: **Contracts with domestic contractors:** Sub-Clause 26.1—Any dispute between the Employer and a domestic Contractor arising in connection with the present Contract shall be referred to adjudication or arbitration in accordance with the laws of the Employer's country. The place of arbitration shall be: **IEB.**
B. Time Control	
GCC 25.1	The Contractor shall submit for approval a Program for the Works within **07 (Seven)** days from the date of the Letter of Acceptance.
GCC 25.3	The period between Program updates is **15 (Fifteen)** days. The amount to be withheld for late submission of an updated Program is **5 (Five) %** of contract value.
C. Quality Control	
GCC 33.1	The Defects Liability Period is: **365** days.
D. Cost Control	
GCC 43.1	The currency of the Employer's country is: **Bangladeshi Taka.**
GCC 44.1	Price adjustment: **Not Applicable.**
GCC 45.1	The proportion of payments retained is: **10 (Ten) %** of contract value**.**
GCC 46.1	The liquidated damages for the whole of the Works are **0.10%** per day. The maximum amount of liquidated damages for the whole of the Works is **10%** of the final Contract Price.
GCC 47.1	The Bonus for the whole of the Works is: **Not applicable.**
GCC 48.1	The Advance Payments shall be: 10% of the contract value and shall be paid to the Contractor no later than 7 (seven) days from the Signing of the contract.
GCC 48.3	Advance payment shall be recovered proportionately from the bill. The whole recovery shall be made within 60% payment of the Contract value.
GCC 49.1	The Performance Security amount is **10 (Ten) %** of the Contract Value in case of front loading it will be increases to **25%.**
E. Finishing the Contract	

GCC 55.1	The date by which operating and maintenance manuals are required is **15 days** of work completion. The date by which "as built" drawings are required is **7 days** of work completion. • As built drawing shall be prepared as per **Article 3.1.7** of **Section-6: Employer's Requirement** of this bidding document.
GCC 55.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is **5% of contract value.**
GCC 56.2 (g)	The maximum number of days is: **100 days.**
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is **110%.**

Section 9 - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Table of Forms

Letter of Acceptance

. . . . . ***Date*** . . . . . .

To: . . . . . ***name and address of the Contractor*** . . . . . .

Subject: . . . . . ***Notification of Award Contract No*** . . . . . .

This is to notify you that your Bid dated . . . . ***date*** . . . . for execution of the . . . . . ***name of the contract and identification number, as given in the Appendix to Bid*** . . . . . for the Accepted Contract Amount of the equivalent of . . . . . ***amount in numbers and words and name of currency*** . . . . . ., as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

[Choose one of the following statements:]

We accept that _____***[insert the name of Adjudicator proposed by the Bidder]*** be appointed as the Adjudicator.

[or]

We do not accept that _____***[insert the name of the Adjudicator proposed by the Bidder]*** be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____***[insert name of the Appointing Authority]***, the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with GCC 23.1.

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Agency: .....

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the . . . . . day of . . . . . ., ..., between . . . . . ***name of the Employer***. . . . . (hereinafter "the Employer"), of the one part, and . . . . . ***name of the Contractor***. . . . .(hereinafter "the Contractor"), of the other part:

WHEREAS the *Employer* desires that the Works known as . . . . . ***name of the Contract***. . . . .should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. ***In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.***

2. ***The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents***.

   the Letter of Acceptance

   the Bid

   the Addenda Nos . . . . . ***insert addenda numbers if any***. . . . .

   the Particular Conditions

   the General Conditions;

   the Specification

   the Drawings; and

   the completed Schedules,

3. ***In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.***

4. ***The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.***

   IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of . . . . . name of the borrowing country***. . . . .on the day, month and year indicated above.***

Signed by	Signed by.....
for and on behalf of the Employer	for and on behalf the Contractor
in the presence of:	in the presence of:
Witness, Name, Signature, Address, Date	Witness, Name, Signature, Address, Date

Performance Security

Bank's Name, and Address of Issuing Branch or Office

Beneficiary: ..... ***Name and Address of Employer*** .....

Date: .....

Performance Guarantee No.: .....

We have been informed that . . . . . ***name of the Contractor***. . . . . (hereinafter called "the Contractor") has entered into Contract No. . . . . ***reference number of the Contract***. . . . . dated . . . . . .with you, for the execution of . . . . . ***name of contract and brief description of Works***. . . . . (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we . . . . . ***name of the Bank***. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . ***name of the currency and amount in figures*** [1]. . . . . (. . . . . ***amount in words***. . . . .) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the . . . . . Day of . . . . . , ... [2], and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

. . . . . .

Seal of Bank and Signature(s)

-- Note --

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

1 *The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Employer. If the bank issuing the performance security is located outside the country of the Employer, it shall have a correspondent financial institution located in the country of the Employer.*

2 *Insert the date twenty-eight days after the expected completion date. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

Advance Payment Security

Bank's Name, and Address of Issuing Branch or Office

Beneficiary: ..... ***Name and Address of Employer*** .....
Date:.....
Advance Payment Guarantee No.: .....

We have been informed that . . . . . ***name of the Contractor***. . . . . (hereinafter called "the Contractor") has entered into Contract No. . . . . ***reference number of the Contract***. . . . . dated . . . . . .with you, for the execution of . . . . . ***name of contract and brief description of Works***. . . . . (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum . . . . . ***name of the currency and amount in figures*** [1]. . . . . (. . . . . ***amount in words***. . . . .) is to be made against an advance payment guarantee.

At the request of the Contractor, we . . . . . ***name of the Bank***. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . ***name of the currency and amount in figures****. . . . . (. . . . . ***amount in words***. . . . .) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number . . . . . ***Contractor's account number***. . . . . at . . . . . ***name and address of the Bank***. . . . . .

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty (80) percent of the Contract Price has been certified for payment, or on the . . . day of . . . . . , ... [2], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date..

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

. . . . . ***Seal of Bank and Signature(s)***. . . . . .

-- Note --

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

[1] The Guarantor shall insert an amount representing the amount of the advance payment denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer. If the bank issuing the performance security is located outside the country of the Employer, it shall have a correspondent financial institution located in the country of the Employer.

[2] Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

APPENDIX-H

ADB Review of Procurement Decisions

Scheduling of Procurement

1.ADB shall review the procurement arrangements proposed by the borrower in the procurement plan for its conformity with the financing agreement and these Guidelines. The procurement plan shall cover an initial period of at least 18 months. The borrower shall update the procurement plan on an annual basis or as needed always covering the next 18 months period of project implementation. Any revisions proposed to the procurement plan shall be furnished to ADB for its prior approval.

Prior Review

2. With respect to all contracts47 which are subject to ADB's prior review:(a) In cases where prequalification is used, the borrower shall, beforeprequalification submissions are invited, furnish ADB with the draftdocuments to be used, including the text of the invitation to prequalify,the prequalification documents (including instructions to applicants,qualification criteria, application forms, and scope of contract), and theevaluation methodology, together with a description of the advertisingprocedures to be followed, and shall introduce such modifications in saidprocedure and documents, as ADB shall reasonably request. The reportevaluating the applications received by the borrower, the list of proposedprequalified bidders, together with a statement of their qualificationsand of the reasons for the exclusion of any applicant for prequalification,shall be furnished by the borrower to ADB for its comments before theapplicants are notified of the borrower's decision, and the borrowermake such additions to, deletions from, or modifications in the said list asADB shall reasonably request.

(b) Before bids are invited, the borrower shall furnish to ADB for its comments,draft bidding documents, including the invitation to bid; instructions tobidders, including the basis of bid evaluation and contract award; andthe conditions of contract and specifications for the civil works, supplyof goods, or installation of equipment, etc., as the case may be, togetherwith a description of the advertising procedures to be followed for thebidding (if prequalification has not been used), and shall make suchmodifications in the said documents as ADB shall reasonably request. Anyfurther modification shall require ADB's approval before it is issued to theProspective bidders.

(c) After bids have been received and evaluated, the borrower shall, before afinal decision on the award is made, furnish to ADB, at least four weeksprior to expiration of bid validity, a detailed report (prepared, if ADB shall sorequest, by experts acceptable to ADB), on the evaluation and comparison ofthe bids received, together with the recommendations for award and suchother information as ADB shall reasonably request. ADB shall, if it determinesthat the intended award would be inconsistent with the financing agreementand/or the procurement plan, promptly inform the borrower and state thereasons for such determination. Otherwise, ADB shall provide its no objectionto the recommendation for contract award. The borrower shall award thecontract only after receiving the "no objection" from ADB.

(d) If the borrower requires an extension of bid validity to complete theprocess of evaluation, obtain necessary approvals and clearances, and tomake the award, it should seek ADB's prior approval for the first requestfor extension, if it is longer than four weeks, and for all subsequentrequests for extension, irrespective of the period.

(e) If after publication of the results of evaluation, the borrower receivesprotests or complaints from bidders, a copy of the complaint and a copyof the borrower's response shall be sent to ADB for information.

(f) If as result of analysis of a protest the borrower changes its contract awardrecommendation, the reasons for such decision and a revised evaluationreport shall be submitted to ADB for no objection. The borrower shallprovide a republication of the contract award in the format of paragraph2.60 of these Guidelines.

(g) The terms and conditions of a contract shall not, without ADB's priorapproval, materially differ from those on which bids were asked orprequalification of contractors, if any, was invited.

(h) Promptly after each contract is awarded, ADB shall be furnished with threecopies of the contract as executed. If the final contract proposed to beexecuted differs substantially from the draft contract previously approvedby ADB, or if any substantial amendment of the contract is proposed afterits execution, the proposed changes shall be submitted to ADB for priorapproval.

(i) All evaluation reports shall be accompanied by a summary of the procurement on a form provided by ADB. The description and amount of the contract, together with the name and address of the successful bidder, shall be subject to release by ADB upon receipt of the signed copy of the contract.

3. Modifications. In the case of contracts subject to prior review, beforegranting a material extension of the stipulated time for performance of acontract, agreeing to any modification or waiver of the conditions of suchcontract, including issuing any change order or orders under such contract(except in cases of extreme urgency) which would in aggregate increase theoriginal amount of the contract by more than 15% of the original price, theborrower shall seek ADB's no objection to the proposed extension, modification,or change order. If ADB determines that the proposalwould be inconsistentwith the provisions of the financing agreement and/or procurement plan, it shallpromptly inform the borrower and state the reasons for its determination. Acopy of all amendments to the contract shall be furnished to ADB for its record.

4. Translations. Contracts awarded under ICB must be written in English. Anysupporting documentation that might have originated in another language(such as technical descriptions of equipment) must be accompanied with anEnglish translation.

Post Review :

5. If ADB and the borrower have agreed on post review, ADB will review andrespond as soon as practicable, but no later than 6 months after receipt of therequired documents, or it will be assumed that ADB has no objection to theborrower's action. The borrower shall retain all documentation with respectto each contract where post review is required during project implementationand up to two years after the project closing date. This documentation wouldinclude, but not be limited to, the signed original of the contract, the evaluationreport including the analysis of the respective proposals, and recommendationsfor award, for examination by ADB or by its consultants. Master copies ofelectronic documents must be retained in print form, suitably authenticatedby the issuing agency by signature, stamp or other feature acceptable to ADB.The borrower shall furnish such documentation to ADB upon award of contractunless otherwise specified in the financing agreement. If ADB determines that thegoods, or works were not procured in accordance with the agreed proceduresas

reflected in the financing agreement, it may declare misprocurement asestablished in paragraph 1.12 of the Guidelines. ADB shall promptly inform theborrower the reasons for such determination. If misprocurement is declaredafter disbursement, the borrower shall refund the corresponding amountto ADB.

APPENDIX-I

নড়াইল উপ-প্রকল্পের সিপ এস ডব্লিউ এন ৮,৯,১৬,(১৭-১৯), ২১,২২, (২৩-২৫), চেনচুরী বিল উপ-প্রকল্পের সিপ এস ডব্লিউ সি (১০+১২), ১৩, ১৫, ১৬, (৪-৬,৮,৯,১৪), (১৭-১৮)

উল্লেখিত সিপ সমূহের্ ডব্লিউ এম এ ব্যবস্থাপনা কমিটি গঠিত হয়েছে কিন্তু সমবায় দপ্তর কতৃক এখন পর্যন্ত নিবন্ধিকরণ করা যায় নাই। বিগত ১১/০৯/২০১২ ইং তারিখে আগারগাস্থ সমবায় অধিদপ্তরের অতিরিক্ত রেজিষ্টার এর কক্ষে দক্ষিণ পশ্চিমাঞ্চলীয় সমন্বিত পানি সম্পদ পরিকল্পনা ও ব্যবস্থাপনা প্রকল্পের প্রকল্প পরিচালক, নিবাহী প্রকৌশলী, মূখ্য সম্প্রসারণ কর্মকর্তা, উপ-প্রধান সম্প্রসারণ কর্মকর্তা, পরামর্শক সংস্থার সমবায় বিশেষজ্ঞ ও ডব্লিউ এম ও বিশেষজ্ঞ গণের সঙ্গে ডব্লিউ এম এ এর নিবন্ধিকরণ বিষয়ে এক সভা অনুষ্ঠিত হয়। আলোচনা সভায় এই মর্মে সিদ্ধান্ত গৃহীত হয় যে, ডব্লিউ এম এ নিবন্ধিকরণ আইনের আংশিক পরিবর্তনের প্রস্তাব সমবায় অধিদপ্তরে প্রেরণ করলে উক্ত আইনে সংশোধন করত: নিবন্ধিকরণ করা সম্ভব হবে বলে আশ্বাস প্রদান করা হয়। সিদ্ধান্ত মোতাবেক এ নিবন্ধিকরণ আইনের আংশিক পরিবর্তন করার প্রস্তাব প্রক্রিয়াধীন।

তবে আইন সংশোধন পূর্বক ডব্লিউ এম এ নিবন্ধিকরণ সময় সাপেক্ষ। এমতাবস্থায় পানি উন্নয়ন বোর্ডের নিবাহী প্রকৌশলী ও সিপে গঠিত ডব্লিউ এম এ কমিটির সংশ্লিষ্ট চেয়ারম্যান ও সেক্রেটারির সঙ্গে একটি সমঝোতা স্বারক স্বাক্ষরের ভিত্তিতে সিপের আওতাধীন অবকাঠামো পরিচালনা ও রক্ষণাবেক্ষনের দায়ীত্ব সুবিধাভোগীদের নিকট হস্তান্তর বাংলাদেশ পানি উন্নয়ন বোর্ড সম্মত হলে করা যেতে পারে।

সমঝোতা স্মারক

প্রস্তাবনা

বাংলাদেশ পানি উন্নয়ন বোর্ড, দক্ষিণ পশ্চিমাঞ্চলীয় সমন্বিত পানি সম্পদ পরিকল্পনা ও ব্যবস্থাপনা প্রকল্পের অধীনস্থ চেনচুরী বিল ও নড়াইল উপ-প্রকল্পের সকল অবকাঠামো মেরামত ও সংস্কার এবং প্রয়োজনে নির্মাণ করা হয়েছে।

হাইড্রোলজিক দিক বিবেচনায় প্রত্যেকটি উপ-প্রকল্পকে কতগুলি সিপ (সাব ইউনিট ইমপ্লিমেন্টশন প্ল্যান) এলাকায় ভাগ করা হয়েছে। দক্ষতার সঙ্গে পানি ব্যবস্থাপনা করার লক্ষ্যে হাইড্রোলজি দিক বিবেচনায় পুনরায় আরও ছোট আকারে পানি ব্যবস্থাপনা এলাকায় বিভক্ত করা হয়েছে। সিপ এলাকাভুক্ত পানি ব্যবস্থাপনা এলাকার জন্য পানি ব্যবস্থাপনা দল সংগঠিত হয়েছে এবং ইতোমধ্যে উহা নিবন্ধকরণ করা হয়েছে, যা পানি ব্যবস্থাপনা সমবায় সমিতি রূপে কাজ করছে। সিপ এলাকার সকল পানি ব্যবস্থাপনা দলকে অথাৎ পানি ব্যবস্থাপনা সমবায় সমিতি নিয়ে কেন্দ্রীয় ভাবে পানি ব্যবস্থাপনা এসোসিয়েশন গঠিত হয়েছে তবে এসোসিয়েশনের নিবন্ধিকরণ এখন পর্যন্ত হয় নাই।

এই প্রকল্পের উদ্দেশ্য হলো যে, প্রকল্পের অবকাঠামোর সকল মেরামত / নতুন নির্মাণ ইত্যাদি সম্পন্ন করার পর উহার পরিচালনা ও রক্ষনাবেক্ষনের দায়ীত্ব সুবিধাভোগীদের সমন্বয়ে গঠিত সংস্থার উপর ন্যাস্ত করা হবে। প্রকল্পের আওতাধীন পানি নিয়ন্ত্রক কাঠামোসমূহ সুবিধাভোগীদের নিজস্ব লোকবল দ্বারা পরিচালনা করতে হবে। যেহেতু পানি ব্যবস্থাপনা এসোসিয়েশন এখন পর্যন্ত সরকার কর্তৃক নিবন্ধিত হয় নাই সেহেতু এসোসিয়েশন ও বাংলাদেশ পানি উন্নয়ন বোর্ডের সঙ্গে একটি সমঝোতা স্মারক স্বাক্ষরিত হতে হবে।

এই কারনে পাউবোর্ড ও সিপ সংশ্লিষ্ট পানি ব্যবস্থাপনা এসোসিয়েশনের সহিত একটি সমঝোতা স্মারক সহির প্রয়োজন হয়েছে। যেহেতু পাউবোর্ড এবং পানি ব্যবস্থাপনা এসোসিয়েশন একে অপরের সহযোগিতা করার জন্য সম্মত সেহেতু এই সমঝোতা স্মারক (MOU) স্বাক্ষরিত হলো।

সমঝোতা স্মারক চুক্তিনামার নমুনা

সমঝোতা স্মারক

এই সমঝোতা স্মারক অদ্য.....২০১২ ইং সনের .....তারিখে নিম্নলিখিত পক্ষগণের মধ্যে স্বাক্ষরিত হলো ঃ

এস ডব্লিউ এন ৮,৯,১৬,(১৭-১৯), ২১,২২, (২৩-২৫), এস ডব্লিউ সি (১০+১২), ১৩, ১৫, ১৬, (৪-৬,৮,৯,১৪), (১৭-১৮) পানি ব্যবস্থাপনা এসোসিয়েশনের পক্ষে সংশ্লিষ্ট চেয়ারম্যান ও সেক্রেটারি বৃন্দ

১. জনাব....., চেয়ারম্যান

২. জনাব....., সেক্রেটারি

এবং

বাংলাদেশ পানি উন্নয়ন বোর্ডের পক্ষে নির্বাহী প্রকৌশলী চেনচুরী / নড়াইল

জনাব.....

প্রত্যক্ষ করা হয়েছে যে ঃ

যেহেতু, পানি উন্নয়ন বোর্ড SAIWRPMP প্রকল্পের আওতায় চেনচুরী ও নড়াইল উপ-প্রকল্পের অবকাঠামোর সকল নির্মাণ / পুণঃনির্মান কাজ সমাপ্ত করেছে এবং প্রকল্পের পানি নিয়ন্ত্রক কাঠামো পরিচালন ও রক্ষনাবেক্ষনের দায়ীত্ব সুবিধাভোগীগনের উপর অপিত হবে বিধায় নিম্নে বর্ণিত সহযোগীতার পরিধি অনুযায়ী উভয় পক্ষ কাজ করিতে একমত হওয়ায় সমঝোতা স্বারক স্বাক্ষর করা হলো।

সহযোগীতার পরিধি

১) পানি ব্যবস্থাপনা এসোসিয়েশনের দায়িত্বঃ

ক) পানি ব্যবস্থাপনা এসোসিয়েশন **এস** ডব্লিউ এন ৮,৯,১৬,(১৭-১৯), ২১,২২, (২৩-২৫), এস ডব্লিউ সি (১০+১২), ১৩, ১৫, ১৬, (৪-৬,৮,৯,১৪), (১৭-১৮) এর সভাপতি ও সেক্রেটারিগণ যথাক্রমে সিপ সমূহের আওতাভুক্ত পানি নিয়ন্ত্রক কাঠামোর পরিচালনা সুবিধাভোগীদের দ্বারা করাবেন এবং অবকাঠামো রক্ষনাবেক্ষন করবেন।

খ) পানি ব্যবস্থাপনা দলের অন্তর্গত পরিচালন ও রক্ষনাবেক্ষন উপ কমিটি হতে গেট পরিচালনার নিমিত্তে গেট অপারেটর নিযুক্ত হবে এবং গেট অপারেটর Voluntary হিসেবে কাজ করবে।

গ) গেট পরিচালনের ব্যাপারে পানি ব্যবস্থাপনা এসোসিয়েশন পানি উন্নয়ন বোর্ড থেকে কারিগরি জ্ঞান নিয়ে পানি ব্যবস্থাপনা সমবায় সমিতির সাথে আলোচনা করে গেট পরিচালন ক্যালেন্ডার চূড়ান্ত করবেন (পরিশিষ্ট - ঘ)। তবে কতিপয় অবকাঠামো সিপ এস ডব্লিউ সি ১৬, (১৭-১৮) ও (৪-৬,৮,৯,১৪) এর পানি ব্যবস্থাপনার সঙ্গে সম্পৃক্ত বিধায় উল্লেখিত সিপে গঠিত প্রত্যেক ডব্লিউ এম এ কমিটি হতে ৪ জন করে সদস্য নিয়ে ১২ জনের একটি ব্যবস্থাপনা কমিটি গঠন করতে হবে। উক্ত ব্যবস্থাপনা কমিটিই পরিশিষ্ট - ঘ অনুযায়ী গেট পরিচালন ক্যালেন্ডার চূড়ান্ত করবেন।

ঘ) গেট পরিচালনের (খোলা/বন্ধ) জন্য সকল কারিগরি প্রশিক্ষণ পাউবোর্ড দিবে।

ঙ) গেটের মধ্য দিয়ে গাছের গুড়ি চলাচল প্রতিরোধ করতে হবে।

চ) অবকাঠামো সমূহের রক্ষনাবেক্ষন ব্যয়ের ভাগাভাগি পরিশিষ্ট - খ অনুযায়ী হবে ।

ছ) MOU স্বাক্ষর করার পর পানি ব্যবস্থাপনা এসোসিয়েশন আওতাভুক্ত সিপের অবকাঠামোর ব্যবহারিক মালিকানা হস্তান্তর ও রক্ষনাবেক্ষন চুক্তি স্বাক্ষর করতে হবে।

য) পানি ব্যবস্থাপনা সমবায় সমিতির তত্বাবধানে পরিচালন ও রক্ষনাবেক্ষন উপ-কমিটির সদস্যদের দ্বারা সুবিধাভোগীদের দেয়া চাঁদা (টাকা/একর/বৎসর) তুলতে হবে।

২) পানি উন্নয়ন বোর্ডের দায়ীত্ব ঃ

ক) সিপ এলাকার গেট অপারেশন ক্যালেন্ডার প্রস্তুত করতে পানি ব্যবস্থাপনা কমিটিকে সাহায্য করবে।

খ) গেট অপারেশন সংক্রান্ত কারিগরি প্রশিক্ষণ প্রদান করবে।

গ) MOU স্বাক্ষর করার পর পানি ব্যবস্থাপনা এসোসিয়েশনের সঙ্গে পাউবোর্ড অবকাঠামোর ব্যবহারিক মালিকানা হস্তান্তর ও রক্ষনাবেক্ষন চুক্তি স্বাক্ষর করতে হবে।

ঘ) পাউবোর্ডের লোকবল যে কোন সময় কাঠামো পরিদর্শন করতে পারবে।

৩) সমঝোতা স্বারকের মেয়াদ ঃ

এই সমঝোতা স্মারক সহির তারিখ থেকে সমঝোতা স্মারক বাতিল না হওয়া পর্যন্ত বলবৎ থাকবে। যে কোন পক্ষ অন্য পক্ষকে লিখিত নোটিশ দ্বারা এই সমঝোতা স্মারক বাতিল করতে পারবে। তবে এরূপ ক্ষেত্রে নোটিশ প্রদানের তারিখ হতে পরবর্তী ১৮০ কর্ম দিবস সমঝোতা স্মারকের কার্যকারিতা থাকবে।

উপরোক্ত বর্ননার পরিপেক্ষিতে উভয় পক্ষের সম্মতিক্রমে এই সমঝোতা স্মারক... ... ... তারিখে স্বাক্ষর করা হল।

নিবাহী প্রকৌশলী নড়াইল/ চেনচুরী

পানি ব্যবস্থাপনা এসোসিয়েশন **এস ডব্লিউ এন** ৮,৯,১৬,(১৭-১৯), ২১,২২, (২৩-২৫),

পানি ব্যবস্থাপনা এসোসিয়েশন **এস ডব্লিউ সি** (১০+১২), ১৩, ১৫, ১৬, (৪-৬,৮,৯,১৪), (১৭-১৮)

চেয়্যারম্যান

সেক্রেটারি

APPENDIX-K

Questionnaire for Specific Packages

Q1. Name of the package:Typical WMA/WMG Training Center (Single Storied Building) by the side of Mulia, Barenda&Singia Sluice Gate in Narail Sub-Project under SWAIWRPMP during the year 2011-12.

Q2. Estimated value of the package: 3109476.66

Q3. Contract value of the package:3099488.37

Q4. Design receiving date:30-11-2011

Q5. Estimate sanctions date: 27-12-2011

Q6. Tender invitation date:04-04-2012

Q7. Tender receiving date:09-05-2012

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date:20-02-2012

Q12. Contract agreement signing date:08-03-2012

Q13. Date of commencement:08-03-2012

Q14. Date of completion:20-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package:

Questionnaire for Specific Packages

Q1. Name of the package: Re-Excavation of Singia Khal from Km. 0.000 to Km. 4.550= 4.550 Km in SIP No 16 in Narail Sub- Project under SWAIWRPMP during 2011-12.

Q2. Estimated value of the package: 7672893.28

Q3. Contract value of the package: 4394309.39

Q4. Design receiving date: 09-01-2011

Q5. Estimate sanctions date: 27-09-2011

Q6. Tender invitation date: 03-10-2011

Q7. Tender receiving date: 02-11-2011

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 11-12-2011

Q12. Contract agreement signing date: 29-12-2011

Q13. Date of commencement: 01-01-2012

Q14. Date of completion: 25-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 3000.00 Hac

Questionnaire for Specific Packages

Q1. Name of the package: Re-Excavation of Singia Branch/Dudpatali Khal from Km. 0.000 to Km. 1.200 = 1.200 Km. SIP-17~19 &Tangarakhali Khal from Km. 0.000 to Km. 2.400 = 2.400 Km. SIP-17~19 Total = 3.600 Km. under SWAIWRPMP in Narail Sub-Project during the year 2011-12.

Q2. Estimated value of the package: 3754711.14

Q3. Contract value of the package: 2092770.80

Q4. Design receiving date: 23-11-2011

Q5. Estimate sanctions date: 27-12-2011

Q6. Tender invitation date: 04-04-2012

Q7. Tender receiving date: 09-05-2012

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 20-02-2012

Q12. Contract agreement signing date: 08-03-2012

Q13. Date of commencement: 08-03-2012

Q14. Date of completion: 20-07-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 5000.00 Hac

Questionnaire for Specific Packages

Q1. Name of the package: Re-Sectioning of Embankment from Km. 17.500 to Km. 18.900= 1.400 km. & Km.19.300 to Km. 20.000= 0.700 Km. Total=2.100 Km in Narail Sub-Project under SAIWRPMP during the year 2011-12

Q2. Estimated value of the package: 4099054.10

Q3. Contract value of the package: 2653167.04

Q4. Design receiving date:

Q5. Estimate sanctions date: 04-04-2012

Q6. Tender invitation date: 04-04-2012

Q7. Tender receiving date: 09-05-2012

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 27-05-2012

Q12. Contract agreement signing date: 01-06-2012

Q13. Date of commencement: 01-06-2012

Q14. Date of completion: 27-07-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package:

Questionnaire for Specific Packages

Q1. Name of the package: Re-Sectioning of Embankment from Km. 20.000 to Km. 22.000 = 2.000 km in Narail Sub-Project under SAIWRPMP during the year 2011-12

Q2. Estimated value of the package: 4971254.42

Q3. Contract value of the package: 363519.96

Q4. Design receiving date:

Q5. Estimate sanctions date: 04-04-2012

Q6. Tender invitation date: 04-04-2012

Q7. Tender receiving date: 09-05-2012

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 27-05-2012

Q12. Contract agreement signing date: 01-06-2012

Q13. Date of commencement: 01-06-2012

Q14. Date of completion: 20-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package:

Questionnaire for Specific Packages

Q1. Name of the package: Re-Sectioning of Khororia Khal from Km. 0.000 to Km.2.100 = 2.100 Km. in under SWAIWRPMP in Narail Sub-Project during the year 2011-12.

Q2. Estimated value of the package: 3143027.15

Q3. Contract value of the package: 1923852.92

Q4. Design receiving date: 25-08-2011

Q5. Estimate sanctions date:

Q6. Tender invitation date: 03-10-2011

Q7. Tender receiving date: 2-11-2011

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 11-12-2011

Q12. Contract agreement signing date: 14-12-2011

Q13. Date of commencement: 01-01-2012

Q14. Date of completion: 25-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 4500.00 Hac

Questionnaire for Specific Packages

Q1. Name of the package: Re-Excavation of Peruli Khal from Km. 0.000 to Km. 2.800 = 2.800 Km. in SIP-22 in Narail Sub-Project under SWAIWRPMP during the year 2011-12.

Q2. Estimated value of the package: 5631913.04

Q3. Contract value of the package: 2946965.43

Q4. Design receiving date: 25-08-2011

Q5. Estimate sanctions date: 27-09-2011

Q6. Tender invitation date: 03-10-2011

Q7. Tender receiving date: 02-11-2011

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 11-12-2011

Q12. Contract agreement signing date: 29-12-2011

Q13. Date of commencement: 01-01-2012

Q14. Date of completion: 25-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 3500.00 Hac.

Questionnaire for Specific Packages

Q1. Name of the package: Repair &Maintanance of Ranagati Regulator (10V-1.50MX1.80M) in Narail Sub-Project, under SWAIWRPMP during the year 2010-11.

Q2. Estimated value of the package: 9367526.23

Q3. Contract value of the package: 9269891.64

Q4. Design receiving date: 25-11-2009

Q5. Estimate sanctions date: 23-01-2011

Q6. Tender invitation date: 01-12-2010

Q7. Tender receiving date: 10-01-2011

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 20-02-2011

Q12. Contract agreement signing date: 16-03-2011

Q13. Date of commencement: 22-03-2011

Q14. Date of completion: 28-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 9800.00 Hac

Questionnaire for Specific Packages

Q1. Name of the package: Re-Excavation of Tularampur Khal from Km. 0.000 to Km. 1.400 = 1.400 Km., Hizoldanga Khal from Km. 0.000 to Km. 1.600 = 1.600 Km., Zia Khal from km. 0.000 to Km. 3.000 = 3.000 Km. &Mushuri Khal from Km. 0.500 to Km. 2.000 = 1.500 Km. in SIP-8 & 9 in Narail Sub-Project under SWAIWRPMP during the year 2011-12.

Q2. Estimated value of the package: 6470827.39

Q3. Contract value of the package: 4201056.91

Q4. Design receiving date: 22-10-2009

Q5. Estimate sanctions date: 27-09-2011

Q6. Tender invitation date: 03-10-2011

Q7. Tender receiving date: 02-11-2011

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 11-12-2011

Q12. Contract agreement signing date: 10-01-2012

Q13. Date of commencement: 10-01-2012

Q14. Date of completion: 28-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package: 3000.00 Hac.

Questionnaire for Specific Packages

Q1. Name of the package: Re-excavation of KhunarJola Khal from Km. 0.000 to Km. 0.600= 0.600Km, DhalirJola Khal from Km. 0.000 to Km. 0.600= 0.600Km, BirerJola Khal from Km. 0.000 to Km. 0.900= 0.900Km, Darer Khal-2 from Km. 0.000 to Km. 2.100= 2.100Km and Katanali Khal-2 from Km. 0.000 to Km. 0.600= 0.600Km total 4.800 km in Narail Sub-Project under SWAIWRPMP during the year 2011-12

Q2. Estimated value of the package: 3772890.90

Q3. Contract value of the package: 2750787.35

Q4. Design receiving date: 22-03-2012

Q5. Estimate sanctions date: 04-04-2012

Q6. Tender invitation date: 04-04-2012

Q7. Tender receiving date: 09-05-2012

Q8: Tender Evaluation Report sending date to ADB (by internet):

Q9: Tender Evaluation Report approved date by ADB (By internet):

Q10. Tender evaluation Report approved date by competent authority:

Q11. Letter of acceptance issuance date: 27-05-2012

Q12. Contract agreement signing date: 08-03-2012

Q13. Date of commencement: 04-06-2012

Q14. Date of completion: 28-06-2012

Q15. Time extension required or not. If required then specify the new completion date:

Q16. Benefited area of the package:

APPENDIX-L

Institute of Governance Studies

BRAC University

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The Chartered Institute of Purchasing and Supply (CIPS), UK

Thesis topic: Procurement Practice in Foreign aided Project: An analysis of ADB Finance SWANIWRPM Project in BWDB

Questionnaire for Executive Engineer/Sub Divisional Engineer

[This research proposal is fully needed for CIPS requirement. This survey questionnaire is prepared for obtaining opinion of the respondent like as Executive Agency of BWDB; quality Control Consultants, Suppliers, and Beneficiaries group. And collected data will be restricted within report document. We solicit your support and cooperation providing information.]

Part A: Demographic Information

1. Length of Service:
2. Position:
3. Age:
4. Last Academic Degree:

Part B: The following questions deals with SWANIWRPM Project procurement activities and their timing and procedure. You are requested to explain and share your opinion.

Question 1: Would you please mention, what are the steps you do follow in procurement cycle for SWAIWRPMP?

Question 2: Does the actual procurement procedure comply with the standard one? If not please mention the reasons.

Question 3: Does the actual time required for completion of each stage comply with the standard one? If not please specify the reasons.

Question 4: Do you think the procurement cycle steps can be reduced? If so, please give your reason

Question 5: Do you think this participatory approach of procurement has the potential to make the procurement sustainable?

Question 6: Do you think the procurement will bring Value for Money?

Institute of Governance Studies

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The Chartered Institute of Purchasing and Supply (CIPS), UK

Thesis topic: Procurement Practice in Foreign aided Project: An analysis of ADB Finance SWANIWRPM Project in BWDB

Questionnaire for Quality control Specialist

[This research proposal is fully needed for CIPS requirement. This survey questionnaire is prepared for obtaining opinion of the respondent like as Executive Agency of BWDB; quality Control Consultants, Suppliers, and Beneficiaries group. And collected data will be restricted within report document. We solicit your support and cooperation providing information.]

Part A: Demographic Information

1. Length of Service:
2. Position:
3. Age:
4. Last Academic Degree:

Part B: The following questions deals with SWANIWRPM Project procurement activities and their timing and procedure. You are requested to explain and share your opinion.

Q1 Would you please mention, what are the standard method for time, quality and cost control in SWAIWRPMP?

Q2 Are you facing any problem in performing your duty as a quality control specialist? If yes please specify possible areas for improvement.

Q3 Does the executing agency provides you adequate support? If not, please specify possible areas for improvement.

Institute of Governance Studies

BRAC University

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The Chartered Institute of Purchasing and Supply (CIPS), UK

Thesis topic: Procurement Practice in Foreign aided Project: An analysis of ADB Finance SWANIWRPM Project in BWDB

Questionnaire for Suppliers

[This research proposal is fully needed for CIPS requirement. This survey questionnaire is prepared for obtaining opinion of the respondent like as Executive Agency of BWDB; quality Control Consultants, Suppliers, and Beneficiaries group. And collected data will be restricted within report document. We solicit your support and cooperation providing information.]

Part A: Demographic Information

1. Length of this profession:
2. Age:
3. Last Academic Degree:

Part B: The following questions deals with SWAIWRPM Project procurement activities and their timing and procedure. You are requested to explain and share your opinion.

Q1 What are your overall observations regarding the bidding procedure of the SWAIWRPMP?

Q2 What is your overall observation regarding the contract management procedure of the SWAIWRPMP?

Institute of Governance Studies

BRAC University

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The Chartered Institute of Purchasing and Supply (CIPS), UK

Thesis topic: Procurement Practice in Foreign aided Project: An analysis of ADB Finance SWANIWRPM Project in BWDB

Questionnaire for Beneficiaries

[This research proposal is fully needed for CIPS requirement. This survey questionnaire is prepared for obtaining opinion of the respondent like as Executive Agency of BWDB; quality Control Consultants, Suppliers, and Beneficiaries group. And collected data will be restricted within report document. We solicit your support and cooperation providing information.]

Part A: Demographic Information

1. Name of WMG:
2. Position:
3. Age:
4. Sex:
5. Last Academic Degree:

Part B: The following questions deals with SWAIWRPM Project procurement activities and their timing and procedure. You are requested to explain and share your opinion.

Q1: Would you please mention what kind of role do you play during the identification of need?

Q2: What kind of role do you play during the implementation of the work?

Q3**:** What is your overall perception regarding the sustainability of the procurement?

Q4 What is your overall perception regarding the achieving value for money of the procurement?