

**Government of the People's Republic of Bangladesh**  
Directorate of Food  
Modern Food Storage Facilities Project (MFSP)  
Probashi Kollayan Bhaban (Level-17)  
71-72, Eskaton Garden, Dhaka-1000  
[www.mfsp.gov.bd](http://www.mfsp.gov.bd)

Memo no. MFSP-13.01.0000.362.11.286.2020.32

Date: 14/07/2020

**Request for Expressions of Interest  
(Consulting Services– Firms Selection)**

Country: Bangladesh  
Project: Modern Food Storage Facilities Project (MFSP)  
Credit No.: 52650- BD  
Package: SD-32  
Assignment Title: Supervision Consultant for Construction of Steel Silos

The Government of Bangladesh has received financing from the World Bank toward the cost of the Modern Food Storage Facilities Project (MFSP), and intends to apply part of the proceeds for consulting services.

The consulting services ("the Services") include Supervision of construction of steel silos at eight locations; Detail TOR is available at the website [www.mfsp.gov.bd](http://www.mfsp.gov.bd) ->Tender->Services.

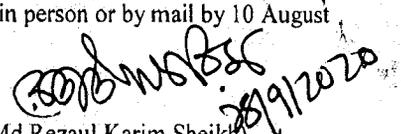
The Project Director, Modern Food Storage Facilities Project now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. Key Experts will not be evaluated at the shortlisting stage. The short listing criteria are:

- a) Registration of consultant (firm);
- b) Age of the consultant (firm);
- c) Availability of key professional staff;
- d) Annual turnover of the consultant (firm) expressed preferably in US\$ equivalent;
- e) Experience of the consultant (firm) in supervision of construction of silos;
- f) Experience of the consultant (firm) in other similar/complex works/assignments;
- g) Support service of the consultant (firm)

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank's Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrowers updated January 2011 setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected. The Consultant will be selected in accordance with the Quality and Cost Based Selection method. Further information can be obtained at the address below during office hours *i.e.* 0900 to 1700 hours.

Expressions of interest must be delivered in a written form to the address below in person or by mail by 10 August 2020 1400 hour. The authority reserves the right to accept or reject all EOIs.

  
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**Government of the People's Republic of Bangladesh**  
**Ministry of Food**  
**Modern Food Storage Facilities Project (MFSP)**

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**Terms of Reference of  
Supervision Consultant for Construction of Steel Silos**

**Funding:** IDA Credit \_\_\_\_\_ for  
Modern Food Storage Facilities Project (MFSP)

**Client:** Project Director  
Modern Food Storage Facilities Project  
Level-17 Probashi Kallyan Bhaban  
71-72 Eskaton Garden, Dhaka, Bangladesh

July 2020

## Terms of Reference

### Background

1. Despite strong economic growth and a steady decline in poverty in Bangladesh over the past decades, natural disasters regularly cause serious damage to the country's infrastructure and agriculture sectors severely affecting food access and food availability for the poor and vulnerable. The expected increase in frequency and intensity of weather-related shocks makes it more imperative that the Government of Bangladesh enhance its preparedness to address food security in disaster-prone areas. Grain stocks for public food distribution and strategic grain reserves currently rely on a network of some 670 central and local storage depots. Most of these conventional godowns are old and poorly maintained, leading to considerable physical losses in grain as well as in the nutritional value of the grain stored.
2. The modern food storage facilities proposed for construction under the project is expected to considerably improve the efficacy of the government's emergency response and recovery efforts in disaster-prone areas, and if grain stocks are properly managed, could enhance the efficiency of its Public food Distribution System (PFDS) at the same time. The silos to be constructed under the project are essentially flat bottom, large tank-type structures made of corrugated, galvanized, bolted steel, to be used for bulk storage of food grains in a monitored atmosphere. The silos will allow storage handling of large volumes of food grain, particularly rice, for two to three years. The steel-bolted silos used in all climate zones will allow for speedy construction, and will have temperature control and fumigation systems, automated mechanical handling, and central computerized control system.
3. Bangladesh produces about 30 million tons of rice annually, the dominant crop in the country. About 60 percent of the production is Boro rice (November to March) and about 35% Aman rice (August to November). At present the Ministry of Food of Bangladesh is responsible for managing food grain operations in the public sector and maintaining security stock. Most of the food grains are stored in traditional brick and concrete go-downs. The World Bank assisted in building four modern wheat silos (total capacity 225,000 MT) equipped with mechanized handling, drying, cleaning, aeration, weighing, bagging, etc. These were mainly designed for storing imported wheat in bulk. The silo system of grain handling revolutionized the department's ability to meet disaster needs. At present the effective storage capacity of all these go-downs is nearly 2.1 million ton and these are located all over the country at the Upazila level.
4. Modern Food Storage Facilities Project is being implemented by Directorate General of Food through a Project Management Unit (PMU) for mainly construction of grain silos at eight locations with a total capacity of 535,500 metric ton; two of them are for wheat and six of them are for rice grain. The silos at Ashuganj, Mymensingh and Madhupur are under construction since 4 April 2018 by joint venture of Toma Construction Company Limited, Bangladesh and Frame, Italy. Gerico France SA is supervising the construction works. Construction of the two wheat silos at Chittagong and Maheswarapasha, and the remaining three rice silos at Narayanganj, Dhaka and Barisal are still to start with upcoming resources from an Additional financing (AF) to the initial project.
5. **Project Development Objective.** The overall project development objective is to increase the grain reserve available to households to meet their post disaster needs and improve the efficiency of grain storage management. The modern food storage facilities proposed for construction under the project is expected to considerably improve the efficacy of the government's emergency response and recovery efforts in disaster-prone areas, and if grain stocks are properly managed, could enhance the efficiency of its Public food Distribution System (PFDS) at the same time.

6. **Objectives of the Assignment.** The overall objective of this assignment is to supervise all civil, electrical and electro-mechanical works relating to the construction of modern food storage facilities in the form of steel silos under MFSP and MFSFP AF. This includes all aspects relevant to the construction, reviewing of design, contract management and implementation of the social and environmental safeguards of the project in accordance with the provisions of the legal agreements prevailing for the MFSFP and MFSFP AF and in line with relevant government rules and regulations. The locations, configurations and capacities of the steel silos are presented in the Table below:

Sl. No	Site	No. of bins	Bin Size (in feet)	Total bin capacity (MT)	Grain Type	Remarks
1	Barisal CSD	16	60 D X 40 H	48,000	Rice	Not awarded. Supervision of all works.
2	Narayanganj CSD	16	60 D X 40 H	48,000	Rice	
3	Dhaka CSD	16	60 D X 40 H	48,000	Rice	
4	Maheshwarpasha, CSD	6	90 D X 78 H	76,200	Wheat	
5	Chittagong, CSD	9	90 D X 78 H	114,300	Wheat	
6	Ashuganj, CSD	35	60 D X 60 H	105,000	Rice	Under construction. Supervision of remaining works
7	Mymensingh, CSDS	16	60 D X 40 H	48,000	Rice	
8	Madhupur	16	60 D X 40 H	48,000	Rice	
	Sub-Total	130		535,500		

7. **The specific objectives of this assignment include:**

- Act as ‘Engineer’ for construction of silos at eight locations.
- Review, amend and complement, if required, the existing design, specification etc. of bidding documents/contracts for silo construction;
- Supervise, administer and ensure quality of all works contracts (civil, mechanical, electrical, electro-mechanical etc.) related to the construction of the silos;
- Act as ‘Technical Sub Committee (TSC)’ to assist Bid Evaluation Committee or IPP for evaluation of bids;
- Supervise installation and ensure quality of all equipment acquired by the project for the construction and operation of the silos;
- Support relevant project management activities, financial and contract management related to the silos;
- Submit project implementation progress reports and completion report in the prescribed format and within the time frame agreed.

8. **Construction Supervision and Monitoring and Contract Management.**

The Consultant shall act as the “Engineer” and shall provide comprehensive construction and contract management services during construction in order to ensure that the works implemented, and goods provided are in accordance with the designs, specifications and terms and conditions of the relevant contracts and standards. The Consultant would ensure construction quality and contractors performance. The consultant shall conduct full time technical supervision of all construction /erection activities by the contractors & would be responsible for all construction supervision contracts covering all project activities. Core services shall include but not necessarily be limited to the following:

- Review and approve the contractors work program and progress schedules ensuring that the Contractors' have incorporated / followed the most effective and expeditors methodology for carrying out the works and submit to PMU for approval.
- Supervision and monitoring of works based on the work program submitted by the contractors.
- Checklist and approving Construction and Supply Contractors shop-drawings, specifications and all submissions for compliance with their contract requirements
- Fully implementing FIDIC principles in realizing role as "Engineer" including appropriate contract management
- Supervise all construction works during implementation as per contract agreement through establishing procedures for systematic on-site checking and monitoring of quality and quantities of all work items, including field checks to confirm integrity of survey data, application of improved and modern methods for construction of the Silos.
- Monitoring and controlling all aspects of the site construction activities including the Contractor's and Sub-Contractor's daily/weekly/monthly progress, quality management program, safety management program, materials procurement/testing/approvals etc.
- For the civil works, goods, and equipment supply and installation contracts, the consultant would be responsible for inspection and supervision of the construction works, installation of equipment and testing of construction material, in order to ensure that the works implemented, and goods supplied are in accordance with the deigns, specifications and terms and conditions of the relevant contracts and standards.
- Complete supervision and inspections of all silo sites.
- Coordination of the Construction and Supply Contractors to prevent/avoid delays claim etc.
- With prior approval of PMU, the Engineer will visit factory (if necessary) at the cost of contractor for in-factory testing during manufacturing, inspection of goods and materials, witnessing the manufacturing processes and issuing acceptance report.
- Work closely with field engineering staff in order to ensure quality and timely completion of the works.
- Provide strong on-site project supervision team of key and non-key experts, with an onsite project office, report daily progress of the works and monitor deliverables strictly against the agreed work plan submitted by the contractor;
- Inspect borrow pits, and crushing plants, and order tests of materials and ensure adherence to specifications and approve the sources of materials.
- Make arrangement to check the quality of the materials brought to site, ensure quality of construction consistent with the specifications.
- Verify the test results to ensure the quality of works and goods conducted by the contractors as stated in the bidding documents.
- Ensure that the tests and frequency of tests stated in the bidding documents and compliance of the test results are being done by the contractors.
- Ensure implementation of Quality Assurance Check List for all category of works in order to establish a systematic construction procedure.
- Variations and claims management. Prepare Variation Orders considering contract agreement and recommend for approval, if required. In this case, proper attention should have to be paid during design and preparation of BOQ so that the numbers of Variations could be kept minimum.
- Contract administration and management.
- All contract and construction documentation, administration and record keeping.

- Preparation of monthly progress reports.
- Ensure the provision of warranties, guarantees and insurance management.
- Assurance for proper demobilization and restoration of the construction sites after completion, O&M during warranty period by the contractors.
- In the event of contractual dispute which may result in legal action, adjudication or arbitration between the contractor and the employer, and on the instruction, assist client in collating and preparing factual documentation which describes the circumstances of the dispute.
- Assist client concerning the Schedule of handing over the sites, and possible delays due to lack of possession with a view to assuring that the Contractors are given possession of the Site in accordance with the agreed work program.
- Jointly inspect with client the completed civil works and assist informal taking over, and review and approve or prepare “as built” drawings and plans (as the case may be), and provide reports testifying satisfactory completion of the contracts.
- Ensure presence of Team Leader in all monthly progress review meetings.
- Ensure that the contractors are maintaining site order books and recording their activities as per the work program.
- Ensure continuous and complete presence of their staff during all casting executed by the contractors.
- The measurement book (MB) to be signed by the Consultant.
- Liaise with the Environmental and Social Specialists of the Bank/ Project Management Unit and provide data, information and all other requested assistance to them.
- Monitor implementation of site specific Environmental and Social Management Plans and compliance with Social and Environmental safeguards as per World Bank guidelines
- Ensure compliance of safeguard instruments for all contract packages.
- Ensure implementation of safeguard compliances stated in BOQs of the bidding documents.
- Ensure withholding of interim payments to the contractors if they failed to implement the items for safeguard compliance of BOQ items for all Contract Packages.
- Support concern individual consultants of the MFSP Project Management Unit for conducting field level capacity building and training programs
- Prepare a Project Completion Report and handover the Project to the Project Director and its operation and management team so that they are familiar with the uses and operation of the facilities and to allow for good operations of the facilities.

The individual consultants of the project will supervise Environmental and Social obligations of the Contractor, in addition to mitigate Covid-19 situation, Gender Based Violence(GBV) and Sexual Exploitation and Abuse (SEA).

### **8.1 Certification of Bills.**

The D&S Consultant shall be responsible for reviewing and certifying the bills of work done submitted by the Contractor (s):

- Checking and certifying of bills submitted by the Contractor in accordance with the contract;
- Review and certify measurement as per applicable standards and the contract;

- Deduct / hold appropriate amount from the bills in case of any non-compliance observed with respect to quality and safety, till such non-compliance is addressed by the Contractor (s);
- Review and approve rate analysis in consultation with PIU for any extra / non-scheduled items executed by the Contractor(s);
- Review and comment any claims made by the Contractor (s);
- Assessment of cost over-runs / savings with every bill;
- Preparation of deviation statements (financial) at predetermined stages;
- Manage change orders;
- Review and certify final bills of the Contractor (s) to facilitate payment; and
- Maintain accurate records of all date and quantities of work carried out. In addition, maintain all payments made to the Contractor(s), and all materials and equipment supplied to the site.

### **8.2. Completion Certification and Handing Over.**

The D&S Consultant shall assess the completeness of works as per the contract and shall certify the completion, allowing the client to initiate occupying process into the premises. Following activities are expected under acceptance / handing over:

- Visit the works completed as announced by the Contractor, generate list of snags, and issue the same to the Contractor for action;
- Monitor performance during defects liability period and enforcing rectification of defects;
- Document relevant material, work test reports, measurements, commissioning reports pertaining to each section of the work;
- Check for signage, markers for cables, trench covers, proper functioning of various systems;
- Review as built drawings submitted by the Contractor (s);
- Review the status of relevant statutory approvals;
- Certify the virtual completion and the final completion of works as applicable;
- Testing, commissioning and handing over the facility;
- Detailed inspection at completion of work and during defect liability period, Co-ordination with the contractors to rectify the defects during the defects liability period which shall be one year after the handing over of the site; and
- Recommending release / forfeiture of securities / guarantees.

### **8.3. Defects Liability:**

The Consultant shall attend and provide any required defects liability phase services commencing on the date of issue of the last completion certificate for a period of one year. The services shall include the following:

- Supervising and ensuring that any defects under the warranty period are being completed.
- Attending any after-completion tests and taking appropriate action when needed.
- Conducting periodic inspections of the Works to ensure satisfactory conditions of the buildings and proper operations of the technology supplied.
- Following up with Construction and Supply Contractors to ensure rectification of any defect or malfunctioning items.

- Ensuring proper rendering of services under manufacturers warranties and guarantees and taking appropriate action.
- Maintaining all required correspondence during the defect's liability period.
- Reviewing and advising DG Food in relation to any final account/liability.
- Submitting 3-monthly reports to DG Food including all aspects of the Defects Liability Period and a Defects Liability completion report.

#### **8.4. MIS Reporting.**

- Develop an integrated construction schedule on MS Project (or similar widely accepted tool) with two-week micro plans for activities covering all trades and monitor compliance. The plan must clearly articulate the critical path (CPM);
- The D&S Consultant shall bring to prompt attention to the Project Director/PMU any activity which is slipping from critical path (CPM or baseline);
- The D&S Consultant shall conduct fortnightly reviews and recasting of schedules where necessary to make up for lost time;
- The D&S Consultant shall submit a monthly report on the progress made and hold apart from regular meetings with the Contractors where it shall brief the progress of the construction works; and
- The D&S Consultant shall use on-line secure report mechanism for the construction works to report progress, status update so that all stakeholders including the Government, PD, PIU, World Bank and other stakeholders can view it.

#### **8.5. Environment, Social, Health and Safety (ESHS).**

The Consultant shall ensure that the Contractor's ESHS performance is in accordance with good international practice and delivers the Contractor's ESHS obligations. The ESHS and RSMF related services will include but are not limited to:

- Review the Contractor's Environment and Social Management Plan (C-ESMP) prepared based on the Strategies and Management Plans as are necessary to manage the ESHS risks and impacts of ongoing works including all updates and revisions, including COVID-19;
- Review the Code of Conduct submitted by the bidders including its implementation arrangement that will be apply to the Contractor's employees and subcontractors. The Code of Conduct shall ensure compliance with the ESHS provisions of the contract, including those as may be more fully described in the Works Requirements in Section of the bidding document.
- Review ESHS and RSMF (to the extent applicable) provisions of method statements, implementation plans, GBV/SEA prevention and response action plan, drawings, proposals, schedules and all relevant Contractor's documents;
- Play an active role to ensure that the Contractors, Labor *Sardars*, and laborers are made fully aware of the GRM and its objectives and functions, as well as the hearing and redress process. The Consultant will also ensure that Grievance Redress Committees (GRCs) are established at the work sites.
- Monitor closely and prepare bi-monthly reports which the Implementing Agency would share with the Bank. The report will contain implementation status of all plans that have operationalized the Bank's social safeguard policies, as well as the corporate requirements on gender, citizen engagement, GBV/SEA, GRM and the like.
- Review and consider the ESHS risks and impacts of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, consent/permits and other relevant project requirements;

- Supervise regularly Contractor's compliance with ESHS requirements in accordance with the approved safeguard documents including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month
- Undertake audits and inspections of Contractor's accident logs, community liaison records, monitoring findings and other ESHS related documentation, as necessary, to confirm the Contractor's compliance with ESHS requirements;
- Agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ESHS obligations;
- Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations;
- Check that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations and submit a monthly report to IA;
- Review and critique, in a timely manner, the Contractor's ESHS documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
- Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ESHS issues;
- Establish and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality e.g. of those reporting allegations of GBV/SEA.
- Ensure any GBV/SEA instances and complaints that come to the attention of the consultant are registered in the grievance redress mechanism.

#### **9. Support Management of Contracts.**

The Consultant would assist Project Director on management of contract activities and advise necessary measures towards smooth implementation of the construction Contracts. The Consultant would also keep provision of any other specialist services as may be required from time to time.

#### **10. Statutory' Approvals and Certificates.**

The D&S Consultant shall identify and obtain all pre-construction stage statutory approvals. The D&S Consultant shall also identify all the approvals required during and after completion of the construction that shall be included in the scope of the Contractor (s). The D&S Consultant shall prepare time schedule for submission of all statutory approvals and certificates applicable as per government rules /regulation. Any expenditure related to these approvals like statutory fee etc. shall be borne by the Project. The D&S Consultant shall prepare time schedule for submission of all statutory approvals and certificates applicable as per government rules / regulation.

#### **11. Reporting Requirements and Time Schedule for Deliverables**

The Consultant will report implementation progress of the Project to the Project Director through monthly and quarterly progress reports. The monthly and quarterly progress reports should include project implementation status, major issues, and proposed corrective actions. The Consultant will prepare the following reports in English and submit in the number of copies indicated below to the Project Director. All reports submitted must have signatures of the author, checker and approver, with seals of the Consultant. For each report submitted, an electronic copy of the same should be provided. Electronic copies will be in the format used in their preparation with all links, formulas, and fields active. For all reports, an executive summary will be included.

The Consultant shall:

- (a) Inception report in one month of contract signing
- (b) Monthly and Quarterly Progress Reports during construction period
- (c) Review and certify IPC
- (d) Review and certify any change required during construction
- (e) Factory Tests and Acceptance
- (f) Immediately notify the Client of any failure by the Contractor to comply with its EHS, SEA, SH and Covid-19 obligations;
- (g) Immediately notify the Client of any allegation, incident or accident, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Client's Personnel, Contractor's Personnel or Experts. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information. The Consultant shall provide full details of such incidents or accidents to the Client within the timeframe agreed with the Client.
- (h) Immediately inform and share with the Client notifications on ES incidents or accidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting;
- (i) Monthly Progress Reports on EHS, SEA, SH, Covid-19 etc. safe-guard issues.

**12. Facilities and Equipment to be Provided by the Client.**

- (a) PMU will provide all relevant reports, maps, data and studies available.
- (b) PMU will provide one set of signed contract document for construction of silos
- (c) PMU will provide any other assistance like liaison with the Government and other agencies concerned.
- (d) The Project will provide the Consultant all readily available material, reports and data relating to the consulting services, including resettlement and environmental documents.

**13. Facilities to be Provided by the Consultant.**

The Consultant should have at least the following facilities (but not limited to) during the construction supervision/ monitoring period:

- I. Suitable office space with consumables and communication both in field and main office;
- II. Suitable equipment for all supervision /monitoring works;
- III. Vehicles, office equipment including telephones, computers and printers, etc.
- IV. Required support personnel.

No separate / additional payment is required from the Project for the Consultant's facilities.

**14. Contract Conditions:** FIDIC Contract Conditions will apply.

### 15. Procurement Method.

The Consultant will be hired following the Quality and Cost Based Selection (QCBS) method following World Bank Guidelines: "Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014).

### 16. Duration of Service.

The initial estimate of duration of service is 36 months. However, the contract will be lump-sum and will be linked with the progress of construction works of silos by contractors.

### 17. Team Composition & Qualification Requirements for the Key Experts:

The key professionals of the firm should have the following academic qualification, skill and professional experiences to perform the job described below:

No	Position with man-month	Required qualification and expertise	Job Description
1	Team Leader (36 months)	<p><u>Education</u></p> <p>Graduate Engineer preferably with a master's degree in relevant field.</p> <p>Must be fluent in English.</p> <p><u>Expertise</u></p> <p>Minimum 15 years of overall professional experience in construction supervision.</p> <p>Must have successfully supervised at least two (2) construction projects as team leader; value of each works must be minimum 20 million USD and one shall be grain silo construction including grain storing, handling, conveying, weighing, packaging equipment and quality control.</p>	<ul style="list-style-type: none"><li>• Act as 'Engineer' for construction of silos at eight locations.</li><li>• Act as 'Technical Sub Committee (TSC)' to assist Bid Evaluation Committee or IPP for evaluation of bids;</li><li>• Full responsible to perform all task as specified in Scope of Services, Tasks (Components) and Expected Deliverables of this TOR</li><li>• Full responsibility for all aspects of project management, administration, quality control, construction supervision, contract administration, monitoring, maintaining liaison and reporting.</li><li>• Management of the activities of the team to ensure timely delivery of project output.</li><li>• Provide advice and direction to the team</li><li>• Prepare project plan, schedules and time frame for publications of different reports.</li><li>• Liaison with PMU and other concerned agencies.</li><li>• Periodic and regular updating of the project implementation schedule.</li><li>• Assist in day-to-day project planning and management.</li><li>• Facilitate information flow between all parties involved.</li><li>• Review and update design calculations and drawing during implementation as proposed</li></ul>

No	Position with man-month	Required qualification and expertise	Job Description
			<p>by the contractor.</p> <ul style="list-style-type: none"> <li>• Preparation of reports.</li> <li>• Variations and claims management</li> <li>• With prior approval of PMU, the Team Leader will visit factory for in-factory testing</li> </ul>
2	Deputy Team Leader (36 months)	<p><u>Education</u></p> <p>Graduate Engineer preferably with a master's degree in relevant field.</p> <p>Must be fluent in English.</p> <p><u>Expertise</u></p> <p>Minimum 12 years of overall professional experience in construction supervision.</p> <p>Must have successfully supervised at least two (2) construction projects; value of each works must be minimum 15 million USD and one shall be grain silo construction including grain storing, handling, conveying, weighing, packaging equipment and quality control.</p>	<ul style="list-style-type: none"> <li>• Assist Team Leader in all respect</li> <li>• Assist to prepare project plan, schedules and time frame for publications of different reports.</li> <li>• Oversee all procurement of services, equipment and materials required for the work and organize required logistics for efficient performance of the team.</li> <li>• Involve himself for overall supervision and guidance for design review, quality control, report preparation and other relevant activities of the project.</li> <li>• Liaison with PMU and other concerned agencies.</li> <li>• Periodic and regular updating of the project schedule.</li> <li>• Assist in day to day project planning and management.</li> <li>• Facilitate the flow information between all parties involved in the project.</li> <li>• Preparation of reports.</li> </ul>
3	Civil Engineer (30 months)	<p><u>Education</u></p> <p>Graduate in Civil/Structural Engineering.</p> <p>Master's degree in same field is an asset.</p> <p>Must be fluent in English.</p> <p><u>Expertise</u></p> <p>Minimum 12 years of overall professional experience in construction supervision.</p> <p>Must have successfully supervised at least two (2) construction projects as civil engineer; value of each civil works must be minimum 5 million</p>	<ul style="list-style-type: none"> <li>• Assessment of engineering requirement of the Silo structures</li> <li>• Review and complete of field layout to ensure correct location of different structures.</li> <li>• Review and update detailed designs and shop drawings of the structures during implementation.</li> <li>• Supervise all civil construction, erection, witnessing of testing &amp; commissioning work of the silo.</li> </ul>

No	Position with man-month	Required qualification and expertise	Job Description
		USD and one shall be silo construction. Experience in jetty construction is preferable.	
4	Mechanical Engineer  (24 months)	<p><b><u>Education</u></b> Graduate Mechanical Engineer. Master's degree in same field is an asset. Must be fluent in English.</p> <p><b><u>Expertise</u></b> 15 years' experience in installation, commissioning and handling equipment for wheat/rice silo technology, particularly of pneumatic unloading equipment and grain conveying, bagging, sewing, weighing and packing operation.</p>	<ul style="list-style-type: none"> <li>• Prepared work plan for Mechanical system erection, installation and commissioning.</li> <li>• Review and update detailed Mechanical design and drawings during implementation</li> <li>• To supervise installation and erection of Mechanical works</li> <li>• Advise Team Leader on quality of supplied mechanical equipment, machineries etc.</li> </ul>
5	Electrical Engineer  (18 months)	<p><b><u>Education</u></b> Graduate Electrical Engineer. Master's degree in same field is an asset. Must be fluent in English.</p> <p><b><u>Expertise</u></b> Minimum 12 years' experience in installation, commissioning and handling wheat/rice silo electrical equipment.  Experience in installation of sub-station, control room etc.</p>	<ul style="list-style-type: none"> <li>• Preparation of overall work plan for the installation electrical machinery.</li> <li>• Prepare and guide electro-mechanical system installation and commissioning.</li> <li>• Review and update detailed Electrical design and drawings during implementation</li> <li>• To supervise Electrical works</li> <li>• Advise Team Leader on quality of supplied electrical equipment, machineries etc.</li> </ul>

#### 18. Team Composition & Qualification Requirements for the Non-Key Experts:

The consultant will suggest staff requirement.

No	Position	Required qualification and expertise	Job Description
1	Resident Civil Engineer  (Number, as required)	<p><b><u>Education</u></b> Graduate in Civil Engineering</p> <p><b><u>Expertise</u></b> 5-year experience in respective field.  Experience in Supervision of superstructures like vertical</p>	<ul style="list-style-type: none"> <li>• Interpret the drawings, specifications and conditions of contract, etc. to the contractor.</li> <li>• Supervise the construction at site, on full time basis to ensure quality of workmanship &amp; material.</li> <li>• Exercise control over time schedule and implement progress.</li> <li>• Exercise control on strict adherence of the construction work to the drawings and specifications and ensure that</li> </ul>

No	Position	Required qualification and expertise	Job Description
		storages structures, Jetty, terminals, etc.	<p>the standard specification is followed in construction work.</p> <ul style="list-style-type: none"> <li>• Assist the Soil and Material Engineer to conduct and evaluate test as per practice on materials and workmanship, approve/disapprove progressive works as per check list.</li> <li>• Record authorized deviation from contract drawings.</li> <li>• Ensure against the use of inferior materials and workmanship.</li> <li>• Record measurements of works which are completed and specifically of works which will be covered up from view or excluded from excess.</li> <li>• Maintain daily records of progress, materials, labors, machinery at site as well as Daily Log.</li> <li>• Assist the Team Leader / Silo Specialist in verifying bills for payment to construction contractors.</li> </ul>
2	Resident Electrical/Mechanical Engineer  (Number, as required)	<p><b>Education</b> Graduate in Mechanical/Electrical Engineering.</p> <p><b>Expertise</b> 5-year experience in respective field.  Experience in Supervision of installation of electro-mechanical equipment in large project.</p>	<ul style="list-style-type: none"> <li>• Interpret the electro-mechanical drawings, specifications and conditions of contract etc. to the contractor.</li> <li>• Supervise the construction of mechanical works.</li> <li>• Supervise erection, testing, commissioning and acceptance test of silo</li> <li>• Record authorized deviation from contract drawings.</li> <li>• Ensure against the use of inferior materials and workmanship.</li> <li>• Maintain daily records of electro-mechanical machineries and equipment at site.</li> </ul>
3	Environmental Specialist	<p><b>Education</b> M.Sc. in Environmental Science and B.Sc in Civil Engineering from a reputed University</p> <p><b>Expertise</b> 10 years of experience in EIA development and EMP implementation. Experience in overall Environmental, Social, and Health and Safety (ESHS) Management in the infrastructure project combined with Civil, Electrical and Mechanical Erection Work.</p>	<ul style="list-style-type: none"> <li>• Preparation of quality monitoring report</li> <li>• Supervise the implementation of the EMP and SMP and social and environmental safeguard compliance</li> <li>• Supervise environmental and social safeguard compliance specially the occupational health and safety aspect during construction</li> <li>• Monitor ES, labor influx impact, GBV, SEA, Covid-19 obligations</li> </ul>

## **19. Code of Conduct.**

**For supervision of civil works contracts:** All experts and support staff of the Consultant:

- (i) Comply with applicable laws, rules, and regulations
- (ii) Comply with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including sub-contractors and day workers (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
- (iii) Must not use of illegal substances
- (iv) Must follow Non-Discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including sub-contractors and day workers (for example, on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic, or health status)
- (v) Must show respect while Interactions with the local community(is), members of the local community (is), and any affected person(s) (for example to convey an attitude of respect, including to their culture and traditions)
- (vi) Must prohibited Sexual harassment (for example to prohibit use of language or behavior, towards women and/or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
- (vii) Must avoid Violence, including sexual and/or gender-based violence (for example acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty)
- (viii) Must prohibited Exploitation including sexual exploitation and abuse (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior or abuse of power)
- (ix) Must Protect of children (including prohibitions against sexual activity or abuse, or otherwise unacceptable behavior towards children, limiting interactions with children, and ensuring their safety in project areas)
- (x) Should ensure Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
- (xi) Must avoid of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)
- (xii) Protection and proper use of property (for example, to prohibit theft, carelessness or waste)
- (xiii) Duty to report violations of this Code
- (xiv) Non-retaliation against personnel who report violations of the Code, if that report is made in good faith

**Each Expert shall sign indicating that they have:**

- (i) received a copy of the code;
- (ii) had the code explained to them;
- (iii) acknowledged that adherence to this Code of Conduct is a condition of employment; and
- (iv) understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.