

## ToR for Engineering Expert

1. **Project title: Livestock and Dairy Development Project**
2. **Project context (Overview/ Project Summary/Project Purpose)**

### 2.1 Overview of the sector

- a. The livestock value-chains in Bangladesh are largely informal.** Mixed livestock production systems are predominant. There are considerable numbers of cattle and buffaloes and most farmers keep small animals (sheep and goats) and poultry. The livestock supply chains in Bangladesh largely depends on the smallholders, who are mostly practicing subsistence farming and do not have capacity to supply quality and quantity to meet the demand for the livestock industry. The red meat value chain is the least developed, with only two formal meat processing enterprises operating in the country, whereas the poultry chain is the most commercially developed. The milk supply chain provides a mixed picture, as milk not consumed by the farm households is supplied to informal traditional markets (>80%), while the rest enters a much smaller, but growing formal commercial processing and distribution circuit (5%).
- b. Despite informality, small-holder producers are engaged in commerce and contribute into private sector led value chains.** Many small holder producers in the livestock value chains depend on surplus production being sold to neighbours, markets or off-takers for improved livelihoods and income. Whether formally registered as a business or not, the small holders are de facto private sector actors. They engage in sales of surplus product and thus connect to a large and complex supply chain that include: feed manufacturers, health service providers, artificial insemination providers, logistics and transport providers, processors, retail and wholesale sales agents and exporters.
- c. Dairy production is dominated by small scale mixed crop-livestock units, typically with very low productivity levels.** These dairy production units commonly comprise 1-3 local/nondescript milking cows producing less than 480 liters per cow per annum. Total milk production is approximately 7.27 million tons per the Department of Livestock Services (DLS) (2016).
- d. Beef accounts for about 65% of total meat produced (including goat and poultry).** Animals are generally stall-fed or graze around the homestead, in small family-based production units. Goat meat, also mostly based on small family-based production units, contributes about 5% to national meat output but the goat population has been growing rapidly (nearly 30 % over the last 10 years).
- e. Poultry production continues to thrive.** The poultry industry is moving towards self-sufficiency in meeting local demand for meat and eggs. A significant part of the broiler market (~ 40 %) is dominated by a more resilient locally bred Sonali chicken, which sells for a much higher price (>40 % more) and is suited to backyard / semi-intensive production. The broiler industry now depends on imported maize and protein grains for formulating high performance feeds.
- f. Women are heavily involved in the livestock sector.** Women comprise 68 % of agricultural labor force. They tend to be involved in home-based activities such as feeding and milking of cows as well as raising small ruminants and backyard poultry. Women's involvement in marketing is limited due to traditional norms that restrict their mobility outside the homestead.

### 2.2 Project Description

The LDDP project seeks to promote climate resilient productivity growth, enhance market access, and improve risk management among smallholder farmers and Agro-entrepreneurs, by providing support for climate smart production systems, farmer empowerment and commercialization.

The project will foster a market-led transformation of livestock production, while ensuring that the supply response to growing demand is sustainable, inclusive, safe, and environmentally conscious. To this end, the project will improve the ecosystem for value chain development by financing key infrastructures including markets, and access to market, insurance and financial products and services, capacity building and knowledge.



Climate resilient livestock production systems will be developed through the promotion of appropriate climate smart agriculture (CSA) practices addressing feeding strategies, animal health and welfare, animal husbandry and breeding, as well as manure and waste management (including production of energy), improved storage and processing. The project will build on existing experience to foster the generation of renewable energy from solar and livestock manure sources.

The project is designed and will be implemented taking into consideration the different gender roles. The project will actively pursue the participation of women across all project components

### 2.3 Project objectives:

The project development objective is to improve productivity, market access, and resilience of small-holder farmers and agro-entrepreneurs operating in selected livestock systems and value chains in target areas.

### 2.4 Key expected results

- Farmers adopting improved agricultural technologies (following CSA principles) [core indicator] (50% female).
- Increased productivity of targeted species by direct beneficiaries (aggregated over cattle, buffalo, goat, sheep and poultry).
- Increase in market access reflected in increased sales (milk and/or processed milk products, live animals and meat, and egg) among the livestock producers and value chain actors in project areas (40% for female).
- Farmers, value chain actors have adopted either food safety standards and/or traceability system, and/or livestock insurance (including climate induced risks) (50% of female benefit)

### 2.5 Project Components:

- Productivity Improvement
- Market Linkages and Value Chain Development
- Improving Risk Management and Resilience of Livestock Production Systems
- Project Management

3. **Designation/Title of the position:** Engineering Expert

4. **Main Duty Station and Location:** Dhaka, Bangladesh

5. **Activities/outputs**

Main Duties/Tasks	Expected duration	Location
<p>Under the overall supervision of the Project authority, the Expert will work in collaboration with the DLS and relevant entities, project team and the selected processing companies/farmers' organizations and farmers. Engineer should have good knowledge on National Building Code, procurement and experience in work with DLS projects will be preferred. The duties include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• Will review all documents submitted by the Design and Supervision Consultant and Contractors and will report to the Project Authority.</li> <li>• To work under project authorities, most preferably civil structure construction, renovation, refurbishing, designing and supervision of multi-storey building, cattle houses, demonstration farm, slaughter houses and similar works.</li> <li>• Preparation of standard tender documents.</li> <li>• Should have good experience in review design, specifications and conduct progress meetings for construction.</li> <li>• Will prepare/review project implementation plan and review time extension proposal.</li> <li>• Good command in reviewing revised cost estimates and quality</li> </ul>	42 person months	Dhaka as duty station, with occasional local travels within the country

<p>management.</p> <ul style="list-style-type: none"> <li>• Visit project sites and will report to PD in respect of progress, quality, social and environmental issues.</li> <li>• Support the PD in checking and clarifying the quality and quantity for each of the invoices submitted by the consultant and for payment of the Contractors.</li> <li>• Should understand quality of electrical fittings and fixtures and knowledge and experience in drainage, plumbing and landscaping work.</li> <li>• Work as and what instructed by project authority.</li> <li>• To promote capacity building within the DLS and the selected private enterprises on knowledge generation and dissemination on the livestock value chain development.</li> <li>• Reporting: To prepare monthly reports on progress made so far, implementation approaches, challenges/issues and ways forward.</li> </ul>		
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**6. Selection Method**

A consultant will be selected following the Selection of Individual Consultants method as set forth in the World Bank Procurement Regulations for IPF Borrowers, July 2016 revised November 2017.

**7. Duration of Assignment**

The duration of the contract will be 42 months. However, the duration of the assignment may be increased or reduced according to the availability of the consultant, project needs and budget.

**8.0 Position Requirements**

**8.1 Education:**

- Advanced university degree in BSc Civil Engineering.

**8.2 Technical and Functional Experience:**

- At least 15years of experience in knowledge and data management preferably in the livestock sectors;
- Experience in the design and development of civil structure. Experience in civil engineering works related to livestock and public sector is preferred.
- Demonstrate sound knowledge on National Building Code and procurement of civil works
- Experience in managing and working with design and supervision consultant is preferred
- Ability to present information and interact effectively with a large spectrum of different stakeholders,
- Advanced knowledge of Microsoft Office and design related software is preferred

**8.3 Languages:**

Fluency in written and spoken Bangla and English is required.

