Government of the People's Republic of Bangladesh
Office of the Project Director
Sustainable Forests & Livelihoods (SUFAL) Project
Bangladesh Forest Department
Ban Bhaban, Agargaon, Dhaka-1207, Bangladesh

SUFAL

Terms of Reference (TOR)

Consulting Services for Market study for wood chips, saw dust and other wood products including furniture (demand and supply)

(Package no: SD 33)

Forest Department

Terms of Reference

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1. Background of the Project

Forest Department (FD) under the Ministry of Environment, Forest and Climate Change has received IDA loan of US$175.00 million and GoB contribution of US$3.90 million for a period of 5 years (01 July 2018 to 30 June 2023) to implement Sustainable Forests & Livelihoods (SUFAL) Project. The overall objective of the project is to improve collaborative forest management and increase access to alternative income generation activities for forest-dependent communities in targeted sites. This will be achieved by: (i) improving public sector management of forest resources and increasing participation of communities in forest conservation and restoration and, (ii) reducing direct dependence and exploitation of forest resources by offering alternative livelihood sources to dependent communities and improving the enabling environment for trees outside forests. Together, these will result in the eventual improvement of forest cover and ecosystem functions, coastline protection and increased employment opportunities for some of the poorest and most vulnerable communities, including women and small ethnic communities. Project will implement a number of activities which are grouped under following four components:

Component-1: Strengthening Institutions, Information Systems and Training

Component-2: Strengthening Collaborative Forest and Protected Areas Management

Component-3: Increasing Access to Alternative Income Generating Activities (AIGAs), Forest Extension Services and Trees Outside Forests (ToF)

Component-4: Project Management, Monitoring and Reporting

This project envisages improvement of FD's organizational effectiveness by adopting improved policy and regulatory frameworks, infrastructure investment, management information systems upgrade, and capacity building of FD officials. The project finances restoration of forest cover, areas additional tree planting outside forests, technology transfer, training, research and

innovation support and engages forest dependent communities in collaborative forest management practices through Collaborative Forest Management Committees (CFMC). By and large, the project will enhance wildlife and Protected Area (PA) management practices and thereby improve forest conservation and wildlife protection in the country.

SUFAL project is also financing for increasing tree cover in the Trees outside Forests (ToF) of the country. Tree planting is considered economically profitable for farmers. The domestic market for furniture in Bangladesh is growing (19% per year), and demand for timber is expected to reach 9.77 million m^3 by 2030. Many private sector nurseries are servicing the demand for tree seedlings. The FD as the technical leader in the sector can be effective in ensuring that the private sector meets this demand with benchmarks and advance market information to ensure profitability to farmers. To do this the FD needs to reorient its role in forest extension and work more closely with farmers and private nurseries. Private enterprise in forestry is active in the TOF value chain—nurseries, farms, and sawmills. The project will facilitate the growth of this value chain with technology transfer, training, and market information and by addressing policy and regulatory hurdles to facilitate the flow of legally harvested as well as quality timber for value addition and export. Therefore, this consultancy service is planned to conduct a comprehensive wood market study and develop information system for flourishing the sector.

2. Objectives of Assignment

The main objective of this assignment is to conduct wood-based market study including policy and regulatory review for enhancing value chain and export. Besides, this assignment will develop a survey-based database on the demand, supply and forecast for tree species that will be available to nursery owners and farmers and public. Specific objectives of this assignment are:

a) To conduct market study for wood chips, saw dust, and other wood products including furniture (demand and supply);

b) To review and make recommendations for updating policies and regulatory reforms to ease procedures, costs, and barriers for tree growers, sawmill owners, and exporters;

c) To develop and operationalize an online wood-based market information system, including mobile app with database of nurseries and wood processing units based on the survey (demand, supply and forecast of timber) for using by the stakeholders.

d) To Conduct feasibility study on the adoption of forest certification of forest management e.g. Forest Stewardship Council (FSC)/ Pan-European Forest Certification (PEFC).

3. Scope of the Service

3.1. Study Area
- Study area will be countrywide with special focus in Hill forest areas, Plainland Sal forest areas, coastal and mangrove forest areas as well as Trees outside Forests.

3.2. Wood-based Market Study
- Identify the scales and extent of wood-based market value chain and actors (e.g. quality seed suppliers, private nursery owners, tree growers, timber bidders' network, sawmill owners, timber & furniture merchants, varieties of associations, importers & exporters, carpenters, etc.) of the project area.
- Review and identify gaps of forest tree species seedling production in private nurseries and assess quality seed sources and capacity for quality seedling production;
- Identify the trends and portfolio of alternate timber / wood processing industries (e.g. particle board, veneers, medium density fireboard (MDF), plywood etc.);
- Analysis of supply of quality timber with source, in the wood processing industries including sawmills, and furniture marts;
- Conduct a feasibility study on the application of blockchain to secure the value chain for wood supplies.
- Study of the demand and supply of wood-based market, including wood chips and saw dust, focusing on domestic consumption, import and export, and future trends.
- Assess the efficiency and constraints (technology adoption, skills and capacity of manufacturers) of wood processing industries focusing on timber logging, wood processing, seasoning and end use.
- Identify the potential utilization of sawing induced wastages including sawdust, shavings, etc.).
- Review the social forestry model in the review and consider as a potential source of stable timber supplies, explore the possibility of establishing marketing cooperatives (of multiple social forestry plots/villages) including the use of long-term supply contracts.

- To Conduct feasibility study on the adoption of forest certification of forest management e.g. Forest Stewardship Council (FSC)/ Pan-European Forest Certification (PEFC).
- The survey must be conducted with CAPI (https://dimewiki.worldbank.org/Computer-Assisted_Personal_Interviews_(CAPI), to avoid issues with paper forms and lost or incorrectly entered data.

3.3. Review of Policy and regulations

- To review and make recommendations on policies and regulatory reforms to ease procedures, costs, and barriers for tree growers, sawmill owners, and exporters;
- Review of existing legal instruments, forestry regulations, taxation and market policies including following policies and rules:
  - Forest Produce Transit (Control) Rules 2011
  - Chittagong Hill Tracts Transit Rules 1973
  - Sundarbans Reserved Forests Transit Rules
  - Social Forestry Rule 2004 (amendments 2010 & 2011)
  - Sawmill (License) Rules 2021,
  - Furniture Policy for CHT, and
  - Other relevant policies and rules.

3.4. Development of wood-based market information system

- To develop and operationalize an online wood-based market information system with database of nurseries, wood processing units, sawmills, wood-based products, particle boards, furniture, etc. based on the survey (demand, supply and forecast of timber) for using by the stakeholders.
- Conduct a feasibility study for designing and establishment of online service for import-export, timber auction market of FD to encourage imports and purchase of wood produced from legally and sustainably managed forests. This study will mainly show how this on-line service could be developed and the potential benefits going forward, and define the specification and remit of any such system.
- The MIS interface will be hosted at BFIS (http://bfis.bforest.gov.bd/bfis/) of Bangladesh Forest Department's BCC server.
- The market information system will be designed on android (mobile app) platform for authenticated users.

4. Transfer of Knowledge (Training, Workshop, Seminar, etc.)

While undertaking the activities as stated under "scope of services" of this TOR, the consultant will undertake targeted capacity building exercises and transfer technology of conducting value chain study to the FD personnel and private persons/stakeholders who will be engaged in the process. New knowledge and capacity in the frame of minimized wastage and optimum efficiency in resource use at nursery, silvicultural practices of timber trees, reduced damage during felling trees, proper use timber minimizing misuse and eco-friendly use of preservatives increasing the life span or durability of timber and its wastage for further use by organizing training or demonstrating technology to wood-based industries.

5. Data, Personnel, Facilities and Local Services to be provided by the Client

The Project Director (PD) will provide necessary information as per requirement of the Firm. PD will also inform all cost centers to provide arrangements for necessary data and documents as needed for the preparation of reports by the consultant. Consulting firm will engage trained enumerators, staffs and qualified experts for field data collection.

6. List and schedule of deliverables and Period of Performance

The following are the deliverables of this assignment:

Sl.	Deliverables	Delivery Schedule	Payment percentage
1	Inception Report including detailed methodology and work plan (following a workshop).	T0 +1 month	10%
2	Wood-based market survey, including field-testing of Questionnaire, sample size and detailed methodology (following a workshop)	T0+3 months	10%
3	Wood based market survey and draft Report (shared with PMU and comments from workshop incorporated) having following key thematic areas, as well as the wood-based market information system, as described in the Scope of Work: a. Demand and supply database of wood chips, saw dust and wood products including furniture. b. Future trends/projection for demand and	T0 + 8 months	30%

Sl.	Deliverables	Delivery Schedule	Payment percentage
	supply of wood-based products.		
	c. GIS based distribution map of wood-based processing units in the country.		
	d. Challenges/constraints and opportunities		
	e. Develop an online wood-based market information system along with android apps and database of nurseries, wood processing units, sawmills, wood-based products, particle boards, furniture, etc. based on the survey (demand, supply and forecast of timber) for using by the stakeholders and location map using GIS.		
	f. Feasibility studies (i) Forest Certification, and (ii) online service for import-export and timber auction market of FD, (iii) application of blockchain to secure the value chain for wood supplies, (iv) possibility of establishing marketing cooperatives of Social Forestry groups.		
4	Data entry using CAPI (https://dimewiki.worldbank.org/Computer-Assisted_Personal_Interviews_(CAPI), debugging and maintenance of the apps and MIS platform at BFIS for 6 months, including community workshop	T0 + 10 months	30%
5.	Draft Final Report, including a workshop.	T0 + 11 months	10%
6.	Wood based market survey Final report by incorporating comments/ recommendations from workshop.	T0 + 12 months	10%

Note: T0 is commencement month of the contract.

7. Team Composition & Qualifications for the Key Experts

For this assignment, the following Key Experts with appropriate qualification and demonstrated experience are to be made available:

Sl	Team Composition	Duration	Remarks
1	Forestry and Wood Technology Specialist cum Team Leader	12 months	Key Expert

2	Marketing Specialist	6 months (split over 12 months)	Key Expert
3	Database Expert	5 months	Key Expert
4	GIS Expert	2 months	Key Expert
5	Web and app Developer	2 months	Key Expert

Additionally, 15 Enumerators cum Data entry personnel should be engaged.

Qualifications of key experts

Forestry and Wood Technology Specialist cum Team Leader

Academic qualification of the expert, Forestry and Wood Technology Specialist cum Team Leader, should be at least Masters in Forestry, Wood Science or related field. S/he should have minimum 10 (ten) years of general working experience of Forestry Programs in development projects financed by Government/ Donor/ International Organizations. S/he should have job experiences of wood industry/Forestry/Natural Resources Management/Social Forestry activities.

S/he shall serve as the Team Leader and coordinate with other key experts in the team and the project management unit (PMU). S/he should supervise the team members and their activities in collecting, collating and analyzing field data as per agreed work schedule. S/he should lead policy reviews, present all the deliverables in the workshops, finalize reports, and ensure smooth development and operationalization of the information system. S/he should serve as the Focal Point for the assignment and coordinate with the Project Director and Chief Technical Advisor (CTA). S/he should lead all the activities in preparing reports.

Marketing Specialist

Academic qualification of the expert, Marketing Specialist, should be at least Masters in Economics/ Marketing/ Business Administration or related field. S/he should have minimum 05 (five) years of general working experience of development programs in development projects financed by Government/ Donor/ International Organizations. S/he should have job experiences of value chain studies and market survey activities.

S/he shall be responsible for conducting market survey (demand, supply and forecast) of products along the entire value chain of the industry, from the producers to till the consumers under the guidance of Forestry Specialist and the PMU. S/he should be able to review relevant

policy & legislations and recommend market constraints from the policy perspectives. S/he should guide the enumerators for collection of appropriate data and s/he should be able to analyze and report the reports.

Database Expert

Academic qualification of the Database Expert should be at least Masters in MIS or CSE or Statistics or Applied Statistics or Mathematics or Applied Mathematics or related field. S/he should have minimum 05 (five) years of general working experience in development and management of web-based database in development projects financed by Government/ Donor/ International Organizations. With web developer in the team s/he should be able to develop an online market information system of wood-based industry and manage survey data to support the MIS. S/he shall support the Team Leader with all other key experts in development of information system and reporting.

GIS Expert

Academic qualification of the expert should be at least a Master's in GIS/ Geoinformation Science/Geography/ Forestry/Remote Sensing. S/he should have 5 (five) years specific working experience in GIS and mapping. S/he should be capable in geo-spatial data management and mapping, spatial analysis and monitor of plantation programs of the project. With database and web-cum app developer s/he will manage spatial data and develop different thematic maps using GIS technology.

Web and App Developer

Academic qualification of the Web Developer should be at least Masters in MIS or CSE or or related field. S/he should have minimum 05 (five) years of general working experience in development and management of web-based database in development projects financed by Government/ Donor/ International Organizations. With Database Expert in the team s/he should be able to develop an online market information system of wood-based industry and manage survey data to support the MIS. S/he shall support the Team Leader with all other key experts in development of information system and reporting.

8. Institutional Arrangement

The consultant/firm will report directly to the Project Director, SUFAL Project. The consultant will work closely with other consultants working within the PMU. The consultant is expected to undertake the activities (scope of services) mentioned in the ToR in order to achieve the stated objectives. The consultant will be responsible for all field operations, including logistic arrangements for data collection and obtaining household consent. The consultant shall coordinate with the concerned DFO and Deputy Project Directors/Assistant Project Directors (DPD/ APD) during field implementation. The consultant/firm, for all administrative matters, will communicate through the PD. All travel costs for conducting field activities will be borne by the consultant. All field activities of the consultant should follow the guidance provided by the PD. The consult must follow communication principles of the project and as such all communications for reporting to anyone should be made through the Project Director.

9. Duration

It is envisaged that Consultants services shall commence for 12 months from June 2022.