

Government of the People's Republic of Bangladesh

**Project Implementation Unit
National Agricultural Technology Program - Phase II Project (NATP-2)
Department of Fisheries
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A. Terms of Reference for Market Access and Supply Chain Service Provider (Firm) in specific area under NATP-2, DoF part (Package No. SD/DoF/F-4)

Assignment title	Market Access and Supply Chain Service Provider
Assignment duration Contract period	36 months or by the end of the project whichever is earlier.
Primary assignment location	Mymensingh and Natore
Funding source(s)	IDA & IFAD Credit
Contracting entity	Director PIU, NATP-2, DoF

B. Context of the Assignment

Agriculture in Bangladesh comprises crops, livestock and fisheries. It provides food, feed, fiber and fuel to its citizens and animals, and plays a key role in economic development of Bangladesh. For achieving the set goal of SDG and turning Bangladesh into a middle income country by the 2021, the GDP has to grow by 7.4% per year. To attain the rate and to keep pace with the population growth, agriculture must grow at a constant rate of minimum 3-3.5% per year. Reaching technologies to the farmers requires technology generation and dissemination through the research and extension systems. National Agricultural Research System (NARS) is responsible for generating agricultural related technologies and Department of Agriculture Extension (DAE), Department of Fisheries (DOF), and Department of Livestock Services (DLS) are responsible for extension of generated technology to the farmers. Both research and extension have made an impressive contribution to food security in the country. In Bangladesh, private investment in research and extension is low. The NGOs, local government and community organizations are coming up but very slowly.

Bangladesh agriculture faces many challenges today. Major challenges are to raise productivity and profitability, reduce high production costs, increase price of products and resource-use efficiency, adaptation to climate change vulnerability, providing consumers safe food, production & distribution of quality seeds/varieties/ breeds/fingerlings, popularization of good agricultural practices, weak linkage of farm-produces with market etc. These challenges have stagnated the agricultural productivity and production. Further, nutrition outcomes and food safety have not kept pace with the progress achieved with most social and economic indicators. Thus, in order to produce more food for an ever increasing population, raw materials for agro-industries and higher income for farming communities from the decreasing resources (land, water, animal and fisheries), it is necessary to develop existing agricultural production system into a more dynamic, market oriented and sustainable commercial sector by higher

productivity and profitability through efficient natural resources management, agricultural intensification and diversification, mechanization, value addition and effective market linkages.

To that effect, the Government of Bangladesh (GOB) gives top priority to the development of agriculture sector through its increased productivity, production, supply chains, value addition and market linkages. GOB sought the support of development partners such as the World Bank to provide technical and financial support to activities aimed at boosting agricultural production through productivity enhancement, and increasing smallholders' income. In order to improve agricultural productivity and farm income, on the request of the Government of Bangladesh, the World Bank agreed to support a long term agricultural development program over a period of 15 years to be implemented in three phases of five years each with the first phase beginning in July 2007. IFAD also agreed to co-finance the program with the World Bank. Accordingly, the National Agricultural Technology Project (NATP): Phase-I (NATP-1) was designed with the development objective of improving the effectiveness of national agricultural technology system (including agricultural research, extension and development of supply chains) and increasing agricultural productivity and farm income in Bangladesh. NATP-1 was initiated in July 2007 and closed in December 2014. NATP-1 has significant achievements in generating technologies, increasing the effectiveness of extension and research systems, development of supply chains and broadening linkages between research-extension-farmers across the project areas. Based on the experience of NATP-1, the World Bank, jointly with IFAD and USAID, decided to provide financial support to GOB for National Agricultural Technology Program- Phase II Project (NATP-2).

C. Project Development Objective :

Project Development Objective (PDO) of National Agricultural Technology Program-Phase II Project (NATP-2) is to increase agricultural productivity of smallholder farms and improve smallholder farmers' access to markets in selected districts. PDO will be achieved through: a) strengthening the capacity of research, extension services and farmers to generate, diffuse and adopt agricultural technologies aimed at increasing farm productivity and reducing post-harvest losses; and b) promoting the sustainability of existing and newly created farmer groups and producer organizations by facilitating their stronger participation in commodity value chain, market-linkages, and improving their knowledge and skill base. Thus, the PDO will be achieved through the generation and release of more productive and locally adapted technologies, enhancing availability of quality seeds/breeds/fingerlings/ breeding materials at the small farm level and providing relevant production, value addition, food safety and marketing support.

D. Project Components

NATP-2 project will have the following 5 components:

Component-1 (Enhancing Agricultural Technology Generation): To be implemented by the Project Implementing Unit of Bangladesh Agricultural Research Council (PIU-BARC), MOA;

Component-2 (Supporting Crop Development): To be implemented by the Project Implementing Unit of Department of Agricultural Extension (PIU-DAE), MOA;

Component-3 (Supporting Fisheries Development): To be Implemented by the Project Implementing Unit of Department of Fisheries (PIU-DOF), MOFL;

Component-4 (Supporting Livestock Development): To be implemented by the Project Implementing Unit of Department of Livestock Service (PIU-DLS), MOFL;

Component-5 (Project Management): To be implemented by the Project Management Unit (PMU), NATP-2, MOA.

Bangladesh has recorded surplus fish production with an annual output of 41.34 lakh MT against a demand of 4.134 million MT in 2016-17. Bangladesh has achieved self-sufficiency in fish production. The target of fish production was 40.50 lakh MT in 2016-17, but it crossed the target by producing 41.34 lakh MT fish in Bangladesh. It's a big achievement for the country. There are fish 28% capture, 56% Culture and 16% marine in Bangladesh.

After attaining self sufficiency in fish production, the new challenge is to sustain it. Most important elements here are production and distribution. Not only production has to remain at the attained level, at the same it has to meet the ever increasing demand for more fish. Maintaining an effective backward linkage (technology, inputs, capital, etc.) as related to production supply chain is a matter of prime concern here. This linkage has to be quality wise acceptable as well as cost supportive without further affecting the prevailing purchase power parity. On the other hand, produce (wet fish and fishery products) distribution has to be capable of minimizing various types of post harvest losses attributed mainly to poor handling of wet fish, poor marketing system that does not work neither in favour of producers nor the consumers, the poor transportation system, and the poorly produced fishery products, and all these in the absence of even a moderately developed cool chain. All these leave no room for the poor farmers whereby they can maneuver the pricing mechanism forcing them to accept whatever the 'market' decides. So far, the 'market' has hardly worked in favour of them to ensure a reasonable price with an attractive profit margin. It is therefore very important, for the sake of production sustainability, to create a room wherefrom the farmers can effectively address the pricing issue.

The following research-based statistics illustrate the characteristics of quality losses in wet fishes. Post-harvest quality loss in wet fish occurs, based on different species and seasons, from 7- 19%, with an average loss encountered was 12.5%. Availability of ice, quality of ice and method of icing have been the key elements for quality loss in wet fish. Fish containers play a significant role in reducing quality loss from 23% in traditional bamboo basket to 2.5% in insulated Styrofoam box. About 20-25% fish of the country are consumed fresh, while 35-40% fish that require icing, are partially iced, except ilish, prawn, shrimp, pomfret and other high valued marine species, where adequate icing is practiced. Eighty eight percent fishermen, 77% fish farmer, 27% retailers and 47% fish vendors do not use ice in fish. Among the wholesalers/transporters, 12% use a ice-fish ratio of 1:1 and 44% use a ratio of 1:2. Most of wholesalers, retailers and vendors use an ice: fish ratio of 1:3 to 1:5, which is quite negligible.

The above paragraphs not only showcase the production scenario, it also portrays the positive aspects of developing a technology based forward linkage basket to shape the future of overall supply chain mechanism, beneficial to the farmers, traders as well as the end users, i.e., the consumers, The present assignment is all about to humbly support the mechanism by supporting the route shown by NATP-2's in improving farmers' access to market through effective

introduction of Producer Organizations (POs) as active actors in the field of Fish Supply Chain in selected areas.

NATP-2, DoF component will carry out an integrated approach to increase fish productivity, quality and output and facilitate fish farmers' access to market by, inter alia:

- a) Providing support for the sustainable development of inland culture fisheries and inland capture fisheries;
- b) Promoting selected fish production models involving improved fish varieties;
- c) Supporting the production of better quality fish seed;
- d) Supporting the introduction of appropriate fish feed;
- e) Applying relevant fisheries management tools including community based fisheries management activities;
- f) Restoring aquatic habitats;
- g) Creating suitable marketing linkages for better access to market;
- h) Supporting institutional capacity enhancement for quality control of fish feed development including the improvement of associated facilities;
- i) Promoting climate resilient and innovative aquaculture technologies;
- j) Strengthening existing and recruiting new local extension agents for fisheries aimed at expanding the delivery of extension services, and improving their skills, mobility and connectivity;
- k) Promoting ICT based extension methods;
- l) Carrying out of activities to strengthen the linkages with fisheries research;
- m) Facilitating the participation of small holder fish farmers in selected commodity markets;
- n) Improving fish market infrastructure and management of such infrastructures; and
- o) Establishing and operating a matching-grant scheme aimed at supporting the adoption of new fish technologies and the carrying out of rural services and value chain activities beneficial to fish farmer groups.

E. PROPOSED CONSULTANCY

The objectives of the assignment are to assist the Project to:

- Form and mobilize two (02) Producers' Organization (PO) for supply chain of fish farming (Backward and Forward linkages) comprising of at least 1000 fish farming households in each of the selected areas;
- Support the POs in coordination with the concerned Upazila Fisheries Office for 36 months to make it sustained and operational;
- Support the concerned fish farmers in producing fish and fishery product on the basis of market demand;
- Support the fish farmers to establish linkages with direct big consumers, market and to link with super Market chain;
- Assist to establish linkages with City Corporations and other relevant government departments to organize and set-up fish POs market locations/places for fish farmers.

- Assist the POs to run and operate post harvest management centres as an information and communication centre for backward and forward linkages in fisheries supply chain;.
- Assist the POs to mobilizing larger volumes, higher quality, reduced transaction costs and post-harvest losses through: enhanced technical skills, market linkages with increased buyer competition, equipped collection centres capable to cater for volumes suitable for targeted buyers.

F. Scope of the Service: Scope of the services, but not limited to, are:

1. Formation and mobilization of two (02) Producers' Organization (PO) for supply chain of fish farming (Backward and Forward linkages) comprising of at least 1000 fish farming households of the selected areas (One Natore district and another one in Mymensingh district) with an emphasis on CIG fish farmers following the set guidelines in consultation and association with the concerned Upazila Fisheries Office;
2. To support the POs in coordination with the concerned Upazila Fisheries Office for 36 months to make it sustained and operational;
3. To support the concerned fish farmers in producing fish and fishery product on the basis of market demand i.e. consumers requirement through providing assistance to get good quality fish seed, fish feed as well as technical knowhow in coordination with the concerned Upazila Fisheries Office and with the assistance of LEAF and CIG leaders ;
4. To support the fish farmers to establish linkages with direct big consumers, market and to link with super Market chain (Such as Meena bazaar, Agora, Nandan, etc.) as well as the international market.
5. To assist to establish linkages with City Corporations and other relevant government departments to organize and set-up fish POs market locations/places for fish farmers.
6. To assist the POs to run and operate post harvest management centres as an information and communication centre for backward and forward linkages in fisheries supply chain;.
7. To assist the POs to mobilizing larger volumes, higher quality, reduced transaction costs and post-harvest losses through: enhanced technical skills, market linkages with increased buyer competition, equipped collection centres capable to cater for volumes suitable for targeted buyers.

G. DELIVERABLES AND TIMELINES

The Consultant will prepare:

1. A brief Inception Report;
2. Monthly and quarterly progress report of the assignment;
3. Final report.

H. OUTPUTS AND TIMELINES

Task No.	Task Name	Completion dates
1.	Fielding of the Team	Month 1
2.	Desk reviews, documentation and consultations with relevant authorities	Month 1
3.	Inception report including work plan for the assignment	Month 1
4.	Inception workshop with relevant authorities	Month 1
5.	Selection of potential CIGs, fish farmers and potential buyers and consumers	Month 2 - 3
6.	Formation of PO and executive committees	Month 3 - 4
7.	Value chain analysis	Month 3 - 4
8.	Establishment of linkages between producers, transporters, processors, buyers and consumers.	Month 4- 6
9.	Operation and Management of PO	Month 3 - 36
10.	Operation and management of post harvest service centre	Month 15 - 36
11.	Assist POs and producers to use Fish Farmers' Web-site for backward and forward support (Sell and buy)	Month 15 - 36
12.	Monthly reporting	Month 1-36
13.	Quarterly reporting	Month 3-36
14.	Draft Final Report	Month 35
15.	Power Point Presentation of the Draft Final Report and Incorporation of the Comments made by the Client's Representatives	Month 35
16.	Final Report	Month 36

I. SELECTION CRITERIA OF CONSULTANCY TEAM

Schedule and staffing

The assignment is for thirty six months and requires an in-depth knowledge and understanding of the fisheries supply chain/value chains in fisheries, aquaculture technologies, extension methods and over all group mobilization and management capacity. The task is rural fish farmers oriented and at the same time to make proper linkages with consumers and buyers. Farmer motivation and technical support is essential to conduct the assignment.

The consulting firm shall have at least 5 years of consulting experience in agricultural/fisheries sector in Bangladesh. The firm shall have successfully completed at least 1 (one) contract on fisheries/agricultural supply chain/value chains with field level management from producers to consumers in Bangladesh.

The professional team to be deployed for the assignment should have proven experience in:

- Aquaculture, quality assurance and value chain;
- Group and organization management;

In addition the team shall have extensive working experience in Bangladesh.

Key staff:

- i. Team leader/Aquaculture, quality assurance and value/supply chain specialist with at least 20 years of experience in fisheries/agricultural sector, including at least 5 years of direct experience in aquaculture extension or fisheries quality assurance or fisheries value/supply chain management in Bangladesh;
- ii. Producer Organization Manager (02 persons) with at least 10 years of experience agricultural extension and aquaculture or fisheries value/supply chain in Bangladesh;

Other staff (as needed):

- Field Organizer (6 persons) at least 5 years of experience as fisheries extension worker.
- Support and administration staff.

Sl. No.	Position	Number	Duration	Minimum General Qualifications and Experience
1	Team Leader/ Aquaculture, Quality Assurance and Value/Supply Chain Specialist	1	15 days in each month spanning upto 36 months i.e. 1 person X 18 months	<p>A. General Qualifications</p> <p>i) Minimum B. Sc. Hons. In Agriculture/Fisheries/Equivalent;</p> <p>ii) At least 20 years of experience in agricultural sector.</p> <p>B. Experience</p> <p>i) At least 5 years of direct experience in aquaculture extension or fisheries quality assurance or value/supply chain management in fisheries in Bangladesh;</p> <p>ii) Knowledge on Computer (MS Word, Excel, Power Point etc.);</p> <p>iii) Having experience in report writing in English and Bangla;</p> <p>iv) Having excellent communication skills in English & Bangla and strong interpersonal skill to work in multiple dynamic teams.</p>
2	Producer Organization Manager	2	2 persons X 36 months	<p>A. General Qualifications</p> <p>i) Minimum B. Sc. Hons. In Fisheries/Equivalent;</p> <p>ii) At least 10 years of experience agricultural extension or aquaculture or agricultural value/supply chain in Bangladesh.</p> <p>B. Experience</p> <p>i) At least 3 years of direct experience in</p>

				aquaculture extension or fisheries value/supply chain in Bangladesh; ii) Knowledge on Computer (MS Word, Excel, Power Point etc.).
3	Field Organizer	6	6 persons X 36 months	A. General Qualifications i) Educational: H.S.C in Science with biology or equivalent; B. Experience i) At least 5 years of experience as fisheries extension worker; ii) Knowledge on Computer (MS Word, Excel, Power Point etc.)

Only the key staffs mentioned in Sl. No. 1 to 2 will be evaluated.

J. ADMINISTRATION AND COORDINATION OF STUDY

The Project Implementation Unit (PIU) of NATP-2, DoF will be responsible for issuing the contract and monitoring performance. The DoF will provide available reports and documents relating to the assignment and past experience in fisheries and associated issues. NATP-2 will provide financial support to organize six meetings for PO formation purposes (BDT 16000.00 for each meeting).

The respective the Consultant for this assessment shall be entirely responsible for arranging all other facilities such as office rent/ accommodation, vehicles, equipment, computers, transportation costs, support services and other logistics required for providing services. The consultants will initiate contacts with the appropriate Government and non-Government agencies, and organizations at the national, district and community levels necessary for carrying out their tasks.

K. SELECTION METHOD

The Consultant will be selected based on the Quality and Cost Based Selection (QCBS) Method following World Bank Guidelines for "Selection and Employment of Consultants under IBRD loans and IDA Credits & Grants by World Bank Borrowers", January 2011, Revised July 2014.