



**Ministry of Fisheries and Livestock, Bangladesh
Department of Fisheries (DoF)**

Sustainable Coastal and Marine Fisheries Project (SCMFP)

**Terms of Reference
for
Marine Fisheries Management Specialist (International)
Individual Consultant (Package No.: SD29)**

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1. Background

Bangladesh's physical and cultural characteristics and the livelihoods of nearly 165 million people are defined by the Ganges-Brahmaputra-Meghna delta—the world's largest, most densely populated delta, and one of the richest in aquatic resources. Bangladesh has progressed in reducing extreme poverty and boosting shared prosperity, with poverty incidence (based on international US\$ 1.90 per capita/day poverty line and measured using the Purchasing Power Parity exchange rate) declining from 44.2 percent in 1991 to 13.8 percent in 2016. GDP has grown above the average for developing countries, averaging 6.5 percent per year since 2010, and reaching 7.24 percent in 2017, driven mainly by the manufacturing and service sectors.

The Project supports to sustainably develop the country's enlarged EEZ through (a) more effective management of coastal fisheries, with responsibilities shared between the DoF and artisanal fishing communities; (b) improved sector transparency, integrity, and accountability; and (c) gender-balanced institutional development as included in component 1 with synergy to component 3 of the project. Component 1 aims to strengthen the enabling environment for infrastructure improvements and technology investments through support to policy and institutional development, research, and measures for strengthening the MCS, improving safety of life at sea (SOLAS), and enabling effective fisheries management. Specifically, funding will be provided for policy and regulations development, stock assessments, analysis for defining sustainable fishing levels, preparation of management plans, training, design and implementation of control and monitoring systems, and procurement and installation of equipment and infrastructure for the DoF and other national fisheries research institutions. Recruitment of qualified female staff will be prioritized for new technical positions as part of the MCS, vessel monitoring, and data management systems, alongside the provision of capacity building for women's enhanced leadership and decision making in fisheries management.

This component will also assist DoF in establishing the data and analytical foundations for evidence-based fisheries management that uses updated stock data and analysis for optimizing fisheries production, including by better monitoring, analyzing, and adapting to ongoing climate change impacts on the country's fisheries, for example, through monitoring of commercial species distribution and adjustment of fishing effort. Also support in (i) carrying out stock surveys and assessments for shrimp, demersal, and pelagic stocks; (ii) strengthening the catch monitoring systems for both industrial and artisanal fisheries; and (iii) preparing updating and implementing national fisheries management plans on a participatory manner and following international principles and standards, including the "precautionary principle". For (i) and (ii), funds will be provided for knowledge exchange, capacity development and training, fishery surveys and stock assessments, and electronic equipment upgrades for the DoF's research vessel. Support for the catch and monitoring systems will cover on-board observers for industrial and semi-industrial vessels, catch measurement at both industrial and artisanal landing sites, and stock and catch data management.

Financing will be provided for design, supply, and installation of equipment and recruitment of extension agents for catch data collection and calibration of existing monitoring systems. The project will provide technical assistance for updating and participatory preparation of national FMPs (zonal and/or species based). Plan development and implementation will be carried out based on the 'precautionary principle' in conjunction with stock assessments and in consultation with key stakeholders. The development of FMPs will inform the nation's fisheries policies and regulations based on scientific evidence and will address existing gaps in fleet control, MCS, legal enforcement, co-management, and conflict resolution among stakeholders in the sector. Technical assistance will be provided for preparation of the management plans, capacity training for expanding the DoF's expert base, community outreach, and stakeholder engagement.



The project supports for strengthening the fishery policies, regulatory framework, and institutional capacity following international principles and standards, to reducing investment risks due to regulatory and enforcement gaps; and conducting awareness-raising programs. Activities under this component will be carried out in consultation with different fishers' and boat owners' associations (industrial and artisanal) and relevant government entities, such as the Bangladesh Coast Guard (BCG), Bangladesh Navy (BN), Police, Chittagong Port Authority and Customs, and other stakeholders. Establish enable system in improving (a) vessel registration and fleet capacity management; (b) licensing management system; (c) stock monitoring; (d) MCS, including joint coordination (e.g. information sharing and division of responsibilities) with other government entities; (e) co-management by small-scale fishers' associations; and (f) enforcement and conflict resolution among different fishers (e.g., to address illegal trawler entry into coastal waters). The DoF's capacity for citizen engagement and conflict resolution will be strengthened, including through the establishment of a functional grievances redress mechanism for fishers.

The project supports in (i) expansion and strengthening of fishermen identification and fishing boat registration and (ii) development and deployment of integrated MCS capabilities. It will support DoF for expansion of the current fisher ID card system and improved vessel registration and licensing. It will also support linking a fishing craft database to a geographic information system (GIS) platform to produce visual reports on the size and location of vessels as well gear used. The fisher ID card database will be similarly geo-referenced to show locations of artisanal fishermen. Project-supported measures will further help improve the coordination and effectiveness of the registration responsibilities currently split between the DoF and MMD.

A Joint Monitoring Center (JMC), managed by the DoF and connecting other relevant marine and coastal authorities exclusively for civilian purposes, will be established to coordinate domestic MCS functions, including patrolling and information sharing, for improved reporting, search and rescue, and enforcement. The project will support the design, purchase, and installation of physical and communications infrastructure; provision of licenses; and technical assistance and services for capacity development and training, as well as development of protocols and guidance manuals for information sharing and division of responsibilities among the DoF and the other partners for JMC functional. Project funds for (b) will be further directed for design, deployment, and training for the integrated MCS coverage aimed at improving safety of life at sea and effective fisheries management. This will allow upgrading and providing 100 percent coverage to the industrial fleet's vessel monitoring system (VMS), including software, hardware, and transponders, and will introduce the automatic identification system (AIS) or compatible units for the artisanal fleet. It will further support integration of the AIS and VMS with the fisher ID and vessel databases, and with the land-based catch monitoring system.

For the First Phase of the project, the Government of Bangladesh has received an IDA Credit of US\$240 million equivalent for a period of 5 years. The Department of Fisheries (DoF) under the Ministry of Fisheries and Livestock (MoFL) is the lead program implementation agency with overall project implementation responsibilities and direct implementing functions for the project activities under Components 1 and 2 (see project component matrix below) estimated at US\$188 million. In addition, the Social Development Foundation (SDF), specialized in implementing Community Driven Development (CDD) approach, will implement Component 3 as a co-implementing agency with close cooperation and coordination of DoF in order to build community institutions that can help diversify fishers' livelihoods while supporting co-management approaches for improved fisheries resource sustainability.

As per the Project implementation arrangement, a Project Management Unit (PMU) has been established at the DoF, headed by a Project Director, and staffed with DoF officers and technical



consultants. The PMU will also establish its presence in the three regions of DoF, namely Barishal, Chattogram and Khulna. The program is the first re-engagement of GoB with the World Bank in the fisheries sector after two decades, necessitating significant project management, policy and planning, investment design and supervision, capacity building, and monitoring and evaluation supports during the implementation of the current phase of the Project.

Project Objectives and Components

The overall objective of the project is to explore *greater economic opportunity from coastal and marine fisheries resources, while promoting sustainable management of fisheries stocks and environment to reduce poverty and improve livelihoods of the coastal community.*

Specific objectives

- a) To strengthen stock surveys and assessment program for shrimp, demersal and pelagic stocks in the EEZ;
- b) To build and enhance capacity of DoF and relevant public research agencies to conduct science-based stock conservation and management to promote Blue Economy;
- c) To develop mechanisms for effective implementation of Monitoring Control and Surveillance(MCS) for the artisanal and industrial fisheries;
- d) To develop infrastructure and create production facilities for coastal belt fisheries (capture and culture);
- e) To up-scale cluster farming for shrimp to disseminate best lessons learned from cluster farming approaches;
- f) To strengthen community led fisheries management and transform livelihoods in poor fishing communities by access to recovering fish stocks and reducing dependence on fishing;
- g) To develop National Marine Fisheries Management Plans for sustainable harvest of fisheries resources.

Project Components

The SCMFP Phase I project components will support GoB in designing, establishing, and effectively operating fisheries management systems for sustainable utilization of coastal and marine fisheries resources. Phase I project has four components as outlined below.

Proposed Project Components	Proposed Sub-components
COMPONENT 1: Enabling Sustainable Fisheries Sector Investments and Growth	<ul style="list-style-type: none"> ▪ Subcomponent 1.1: Stock assessment and development of national fisheries management plans ▪ Subcomponent 1.2: Enabling sustainable fisheries sector investment and growth ▪ Subcomponent 1.3: MCS development for IUU reduction
COMPONENT 2: Improving Infrastructure and Production Practices	<ul style="list-style-type: none"> ▪ Subcomponent 2.1: Infrastructure improvements for coastal belt capture and culture fisheries ▪ Subcomponent 2.2: Value chain and food safety ▪ Subcomponent 2.3: Boosting coastal aquaculture productivity
COMPONENT 3: Community Empowerment and Livelihoods	<ul style="list-style-type: none"> ▪ Subcomponent 3.1 Fishing community institutions and alternative livelihoods development ▪ Subcomponent 3.2 Business development and market

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	linkages for alternative livelihoods.
COMPONENT 4: Project Management and Monitoring	

Project Beneficiaries

The primary target group of direct project beneficiaries are the fishers' and poor fisheries-dependent households and smallholder aquaculture producers in 16 coastal districts. The project will support the establishment and empowerment of community co-management associations that can make decisions on fisheries management and enable the fisheries-dependent poor to adopt supplementary and alternative livelihoods. The project will also directly benefit GoB agencies that will use the MCS systems financed by it (DoF, Coast Guard, Chittagong Port Authority, Bangladesh Police, and Bangladesh Customs). Dedicated attention is given to supporting women and youth empowerment as a precondition for the interventions' success and sustainability. Increased institutional capacity and sector investments are designed to enable gender sensitive and socially inclusive growth.

Moreover, attention to environmental sustainability and climate change impacts in the fisheries sector is limited and has not been translated into practical adaptation and livelihood transformation solutions. Yet, climate change can adversely impact the productivity of marine and coastal fisheries, affecting future catch levels and rates of recovery for fisheries, due to shifts in the availability of food, habitat, and appropriate ocean conditions for fish stocks. Given these potential impacts, sector growth models should incorporate climate change variables into management and financing priorities. In parallel, climate adaptation and resilience measures are needed to support the most vulnerable communities in their transition from the highest risk areas and unsustainable fishing practices into alternative, more resilient livelihoods.

To this end, the Fisheries Management Adviser (FMA) will explore greater economic opportunity from coastal and marine fisheries resources, while promoting sustainable management of fisheries stocks and environment to reduce poverty and improve livelihoods of the coastal community.

2. Objective of the Assignment

The overall objective of this assignment is to assist the PMU, SCMFP for overall support in planning, management, co-ordination for successful implementation of the project activities in achieving the objectives as stipulated in Phase 1 of the project under component 1. The objective of the Fisheries Management Adviser (FMA) is to support and advise the PD/PMU, SCMFP with specific responsibility for the overall delivery of Component 1, making synergy with component 3 in achieving project's goal. The major focus will be on improving marine and coastal fisheries management for healthy fish stocks and food security while enabling economic growth.

3. Scope of services and Tasks

1. Advice to DoF and all participating JMC agencies in the establishment and operations of MCS systems including VMS, patrol and inspection at sea, harbour surveillance and reporting systems. Training of JMC staff in inspection of fishing vessels, installation and supervision of observers and fishing gear inspections for compliance with laws and rules, collection of evidence of infractions and preparation of cases for prosecution under the law
2. Advice to legal prosecuting counsel on progressing prosecution cases
3. Advice and support to DoF and Mercantile Marine Department on registration of fishing vessels, safety inspections, data capture and storage, integration with DoF licensing for fishing vessels, installation and management of vessel tracking and support services
4. Advice to DoF on establishment of replacement digital data collection system for fish catch

data, registration of fishermen, fishing vessels and fishing gears. Support to system design, procurement and planning for implementation. Provision of training of trainers in data collection at fish landing sites and district and regional fisheries offices.

5. Advice to DoF and participating research institutions in the establishment of fisheries management plans for industrial and mechanized fishing fleets, initially based on precautionary principles with increasing input from catch data and research findings.
6. Advice to DoF on revision of licensing system for industrial fishing to provide for limits of fishing effort within sustainable yields and the scope of fisheries management planning. To include advice on conservation measures required for fish stock recovery including fishing gear modifications, closed areas, closed seasons and limits to fishing hours monitored by VMS and vessel inspections at sea.
7. Advice to DoF and selected research institutions on objectives of fisheries research for management purposes, support to manage targeted research programs.
8. Planning
Consultant to define an implementation plan for the scope of services identifying deliverables and schedule of activities with reporting and other milestones for the duration of the assignment.

4. Profile of the Consultant

(i) Required qualifications:

- Graduate Degree in Fisheries Science / Marine Fisheries/ Environmental science or other relevant field.
- Fifteen (15) years experience in developing and implementing fisheries management plans for tropical water and fisheries resources appraisal, ;
- 10 years international working experience with coastal fisheries management, preferably in Asia region in the area of Coastal & marine fisheries sector;
- Expert would need to be technically competent in fisheries governance, policies, regulations, EAFM, best practices in stock concept, approach and execution of MCS.

(ii) Preferred qualifications

- Candidates having PhD Degree or longer and more advanced international working experience implementing coastal fisheries governance, legal, and management reforms for fisheries of similar complexity will get preference.
- Very good inter-personal skills and demonstrated ability to engage and work with local communities;
- Excellent working knowledge of English & Proficiency in computer application and information technology;
- Experience of implementing GoB/donor/World Bank funded projects will be added qualification.

4. Contribution in deliverables:

- Prepare required training and communication materials in consultation with PMU, DoF, national MFME and communication specialist;
- Submit inception report with details work plan.
- Contribution to draft comprehensive fisheries management plans for the pilot fisheries.
- The consultant will be responsible for training and capacity building activities relevant to



- component 1 including periodic progress reports are prepared and submitted in time to PD;
- Elaborate a baseline report describing the current environmental, socio-economic and governance situation of the fisheries;
 - Support in developing a comprehensive plan of action (POA) on MCS implementation for IUU reduction;
 - Develop well-defined monitoring framework with major indicators based on project outcome/output;
 - Prepare ToR for On-board Observer and enumerator (data collector) for catch and effort monitoring;
 - Contribute in the exit plan of project's the component 1 and 3 to ensure sustainability of the developed capacity of the DoF through different project activities and functional system developed and retention of trained resources for continuation of project support;
 - Establish a group of trainers from marine wing of DoF to deliver training and organize seminars/workshops/awareness campaign with support from PMU, DoF and project's field offices.

5. Selection Method

The Specialist 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.

6. Duration of Assignment

The duration of this contract will be for 18 months. However, the duration of the assignment can be extended according to the availability of the Specialist, project needs and budget.

7. Data, Personnel, Facilities and Local Services to be Provided by the Client

The consultant is responsible to familiarise her/himself with the project immediately upon commencement of the assignment and work with the Project Director, PMU, WB supervision team, and any other relevant partners to generate all necessary information to fulfil this assignment. Office space and necessary travel and other logistical supports will be provided from the project. Domestic and International travels necessary for the exigencies of services to achieve the desired project objectives, may be undertaken with prior authorization from the Project Director, PMU and in such cases daily subsistence allowance (DSA) as per contract signed and the actual costs for travel will be reimbursed.

8. Institutional Arrangement

The Fisheries Management Specialist (FMA) will be based at the PMU, SCMFP in Dhaka and will report directly to the Project Director. The incumbent will work closely with other consultants working at the PMU and departmental officials. The consultant is expected to undertake the activities (scope of services) mentioned in the ToR in order to achieve the stated objectives. Under this consultancy travels are being envisaged.

The deliverables will be submitted on time by the consultant to the PD, SCMFP Project, DoF, Matshya Bhaban, Dhaka-1000, Bangladesh.

