

**Terms of Reference (ToR)**  
**TCP Symbol: TCP/SOM/4003 (752731), FAO Somalia.**  
**Implementation of Fisheries Stock Assessment Capacity Building, Strategy Development and**  
**Study Tour under the TCP Program Somalia in Collaboration with TAFIRI**

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**Background / Context**

Somalia's fisheries sector holds significant potential to contribute to national food security, employment, and economic growth. With one of the longest coastlines in Africa spanning over 3,300 kilometers in Somalia's marine and coastal ecosystems are home to a wide range of commercially important fish species. However, despite this potential, the sector remains underdeveloped and faces major challenges in effectively assessing, monitoring, and managing its fishery resources.

Currently, there is limited reliable data on fish stock status, catch levels, and fishing effort across Somali waters. This lack of consistent and scientifically grounded information undermines effective policymaking, sustainable resource management, and investment planning. Strengthening the technical and institutional capacity of fisheries authorities to assess and monitor fish stocks is therefore a critical step toward sustainable management and responsible utilization of marine resources.

In response, the Federal Government of Somalia (FGS) through the Ministry of Fisheries and Blue Economy (MoFBE)—in close collaboration with Federal Member States (FMS) and regional counterparts, FAO has initiated Technical Cooperation Programme (TCP) which is titled "Support to Enhancing Fisheries Resource Assessment, Monitoring and Management."

This initiative aims to establish a solid scientific and institutional foundation for fisheries management in Somalia. The project is designed to strengthen national capacity for evidence-based fisheries governance and contribute to the broader Blue Economy and marine resource sustainability agenda supported by the Food and Agriculture Organization (FAO). With the outcome of, enhanced marine ecosystems through the preparation of a stock assessment strategy for Somalia aligned with the requirements of Ecosystem Approach to Fisheries (CPF Outcome: 2), the project will deliver two key outputs:

*Output 1:* Fish Stock Assessment Strategy for Somalia developed and validated This will include the development of a harmonized, practical framework for assessing fish stocks across Somali waters, aligned with international best practices yet tailored to Somalia's data-limited context.

*Output 2:* Capacity of government staff in stock assessment as part of the fisheries management process improved. This output focuses on building the technical competencies of federal and regional fisheries staff through training, mentoring, and technical collaboration with an international academic and research institution specializing in fisheries science.

Through these outputs, the project will enable Somalia to adopt a systematic approach to fisheries assessment and management, improve resource monitoring, enhance policy decision-making, and promote sustainable exploitation of marine resources for the benefit of current and future generations

### ***Objective of the Assignment***

The main objective of this assignment is to consolidate several activities under the TCP program, namely the training on stock assessment methods, the study tour, and participation in onboard research aboard a scientific cruise or vessel. To implement these activities as planned, FAO has identified the Tanzania Fisheries Research Institute (TAFIRI) as the key service provider responsible for facilitating the training, coordinating the study tour, and providing access to the research vessel.

The significance of this intervention is to strengthen the institutional and technical capacity of the Ministry of Fisheries at both federal and state levels through a comprehensive and practical training program on national fish stock assessment methodologies. This program integrates theoretical learning, vessel-based exercises, desk reviews, and strategy development to enhance the Ministry's ability to generate, analyze, and apply fisheries data within a harmonized national framework. Furthermore, the intervention aims to support the establishment and operationalization of fisheries information management systems such as FIMS, in alignment with ongoing initiatives like BADMAL.

### **Specific Objectives**

- To implement a comprehensive training program focused on national fish stock assessment techniques and frameworks, aimed at enhancing the capacity of Ministry of Fisheries staff at both federal and state levels, thereby enabling them to effectively contribute to fisheries information management systems (FIMS) under upcoming projects such as BADMAAL.
- To conduct practical vessel-based exercises that strengthen the technical and analytical capacities of government fisheries staff in stock assessment methodologies, enabling them to generate, interpret, and apply fisheries data for informed resource management and policy formulation.
- To undertake a detailed desk review and develop a well-structured draft of the Somalia Fish Stock Assessment Strategy, providing a foundation for a harmonized national framework to guide data collection, analysis, and management decisions

### **Scope of Work / Tasks**

The scope of this assignment encompasses the planning, delivery, and follow-up of a 10-day intensive training program aimed at building the technical capacity of 16 fisheries officers and ministry staff from both the Federal and State levels plus FAO national staff for facilitating and closely following up with participants welfare. The training will combine theoretical instruction,

practical demonstrations, and hands-on vessel-based exercises to strengthen national fish stock assessment capacities and contribute to the development of Somalia's Fish Stock Assessment Strategy.

The specific tasks to be carried out under this assignment include:

**1. Conduct a Training Needs Assessment; This assessment would be done before the arrival of participants, to know their profile, background scientific information and specific needs for Somalia to be ready for stocks assessment activities (TNA) (Tasks for TAFIRI)**

*Step 1: Gap identification:* It is recommended that a preliminary Training Needs Assessment (TNA) be conducted prior to the commencement of the training in order to inform the design and structure of the training modules. As a starting point, the Capacity Assessment Report prepared by Diress last year could be shared with TAFIRI to provide an overview of the existing institutional and technical capacities within the Ministry. Building on this, the TAFIRI team may engage directly with the approximately 16 identified participants to conduct a focused assessment of their individual competencies, while also reviewing the broader national needs and priorities related to fisheries stock assessment in Somalia.

TAFIRI will design and tailor the training program, accordingly, ensuring that the content and delivery methods are aligned with the existing capacity levels and data realities. Given that the current level of technical expertise and available fisheries data are relatively limited, it is anticipated that the training will emphasize stock assessment methodologies suitable for data-poor environments, thereby making the course both relevant and practical to the Somali fisheries context.

This Training Needs Assessment (TNA) will be conducted virtually, during which technical experts will engage with participants to identify existing gaps and better understand the contextual realities.

**2. Development of the Training plan, Modules and Materials**

Following the completion of the Training Needs Assessment (TNA), the next critical step will be the development of the detailed training plan, modules, and learning materials by the Tanzania Fisheries Research Institute (TAFIRI). This phase will focus on translating the assessment findings into a structured and context-specific capacity-building program tailored to Somalia's fisheries management needs. TAFIRI will prepare a comprehensive Training Implementation Plan that outlines the learning objectives, session structure, schedule, and training methodologies. The plan should also include detailed lecture materials, practical exercises, and case studies reflecting the Somali fisheries context, with emphasis on stock assessment in data-poor environments. The training materials will be designed to enhance the participants' understanding of fish stock assessment principles, data collection protocols, analysis techniques, and reporting standards. This stage will serve as a payment milestone under the letter of agreement, covering the completion and submission of the TNA report, the finalized training plan, and the development

of all related materials and modules. It is anticipated that the FAO Headquarters technical team or an international fisheries assessment consultant will review the draft training plan and modules to ensure alignment with FAO's global standards, technical rigor, and learning objectives.

In parallel, TAFIRI will coordinate logistical arrangements for the training program, including participant mobilization, venue preparation, and the organization of vessel-based practical sessions. These activities will be carried out in close collaboration with relevant Tanzanian authorities and FAO Somalia to ensure smooth implementation and compliance with both institutional and operational requirements

### **3. Deliver a 10 Day Intensive Training Program (Tasks for TAFIRI)**

Conduct a structured and interactive training session (10 days), which must match closely with the approved training program from the previous steps (like activity 2) but will likely include the following components:

#### *Fundamentals of Fish Stock Assessment:*

- Basic concepts, principles, and terminology.
- Importance of stock assessment for sustainable fisheries management. *Detailed direct and indirect methods for data collection on stocks assessment:*
- Fishing effort evaluation, CPUE, Sampling design, catch and effort data, biological sampling, and data quality control: knowledge of terminology, concept and methods of calculation Use regional data sources and available tools.

#### *Modelling Techniques and Software Tools:*

- Introduction to key analytical tools such as R, SPSS, and Excel-based models for fisheries analysis.
- Practical sessions on applying models for simple stock assessments.

#### *Data-Limited and Proxy-Based Assessment Methods:*

- Approaches applicable to contexts with limited or incomplete fisheries data.
- Use of length-based indicators, empirical models, and reference points.

#### *Ecosystem-Based Fisheries Management (EBFM) Integration:*

- Incorporating ecological, social, and economic considerations into assessment and management decisions.
- Linkages between stock assessment results and ecosystem management.

The training shall combine lectures, practical exercises, group discussions, and hands-on simulations to enhance learning and retention

The language of instruction and all materials will be English.

TAFIRI will manage the logistics and coordination of the event. All the components' costs should be reflected in the financial annex as attached in the ToR.

**Practical Session:** Conduct two vessel-based practical exercises to train participants in field sampling, data collection, and application of stock assessment tools

#### 4. Strategy Development by the TAFIRI

- The implementing partner shall carry out a comprehensive desk review of existing fisheries data, national reports, and institutional arrangements related to stock assessment.
- Based on the review and training outputs, the partner will develop the Somalia Fish Stock Assessment Strategy, outlining institutional roles, data-sharing mechanisms, methodologies, and a harmonized national framework for fisheries stock assessment and monitoring.
- Deliver presentations during the Fish Stock Assessment Workshop, involving participants from activities under **Output 2**; specifically, the study tour participants—and integrate the insights and lessons learned from the TAFIRI study visit and related activities
- This activity can be undertaken and prepared, however, at the same time as the training is underway

#### 5. Prepare and Submit an Inception, Technical and Final Technical Report

- TAFIRI should submit a very short Training Report or inception report immediately after (Activity 1) the training confirming the participants.
- Compile and submit a comprehensive Final technical and financial Report summarizing the training process, key outcomes, and participant performance, as per the annexes of the letter of agreement.
- Include an evaluation of training effectiveness, lessons learned, and practical recommendations for future capacity development.
- Provide a strategy implementation roadmap, highlighting steps for institutionalizing stock assessment practices, ensuring data sustainability, and maintaining collaboration with international research institutions.

Deliver all training materials, participant lists, and outputs (e.g., draft strategy framework, case study results, data templates) as part of the final deliverables.

#### Duration of the Assignment and the Participants

The assignment is expected to last 30 days including 10 training days and 1 day for graduation. See the table below. The intended number of participants will be 16, these participants will most probably come from Federal government of Somalia and its member states and FAO fisheries staff in Somalia.

Here below is the table showing the anticipated/estimated work breakdown.

No.	Activity	Description	Duration (Days)
1	Conduct Training Needs Assessment (TNA)	Carry out a rapid assessment of participant capacity levels and training priorities to inform the design of the training modules and plan.	5 days
2	Preparation of Training Manual and Modules	Develop training materials, lecture notes, exercises, and reference guides tailored to Somalia's fisheries context and data environment.	7 days

3	Delivery of Training Program	Implement the comprehensive 10-day training program covering theoretical sessions, practical applications, and two days of onboard vessel exercises. Include hands-on stock assessment practice and initial drafting of the national stock assessment strategy.	10 days
4	Graduation and Closing Session	Conduct a final session to review outcomes, distribute certificates, and discuss next steps for institutionalizing learned skills within the Ministry.	1 day
5	Reporting	Share the drafted stock assessment strategy and the activity final and financial reports	7 days
		Total assignment dates for TAFIRI	30 days

### Expertise and Qualifications Required

The selected Fisheries Research institute /agency should have the following staff.

- 1 staff stock assessment expert: who has proven experience (minimum 10 years) in fisheries stock assessment research and capacity building, demonstrated work in developing countries or small-scale fisheries contexts.
- 1 Expertise in data-limited assessment methods and ecosystem-based approaches and able to develop a fisheries stock assessment strategy in Somalia.
- 2 staff Qualified trainers with advanced degrees (MSc/PhD) in fisheries science, marine biology, or related fields, who have experience collaborating with government ministries and international organizations (e.g., FAO, World Bank). Demonstrated fluency in the English language for all experts.
- CVs/resumes to be included with the Technical Proposal

### Reporting and Coordination

The agency will report directly to the FAO fisheries sector. And later the assignment will be coordinated through the Department of Research and Statistics, in close collaboration with the Department of Planning and Development of the ministry of fisheries and blue economy of Somalia.

### **Budget and Logistics; To be discussed with TAFIRI to know about facilities on accommodation and logistics and costs**

FAO will cover costs related to:

- Trainees DSA and flight tickets
- Accommodation costs

TAFIRI will cover the costs below under letter of agreement (LoA)

- Participants Visa Expenses
- Cost from airport to their hostels/ hotel
- Daily transport costs
- Training venue, refreshments and lunch
- Experts' payment fee
- Training expenses including vessel and practical

### Expected Outcomes

- Participants are equipped with knowledge and skills in stock assessment.
- Prepared a context-specific draft National Stock Assessment Strategy for Somalia.
- Strengthened institutional capacity for evidence-based fisheries management and planning.

N.B: The Fisheries Research Institute is requested to submit a comprehensive technical proposal in response to the above-mentioned ToRs, along with a financial proposal as outlined in Annex II & III via [Abdikarim.Mogeh@fao.org](mailto:Abdikarim.Mogeh@fao.org) and copy [Papa.Ndiaye@fao.org](mailto:Papa.Ndiaye@fao.org)

### Annex I: Work Plan:

### Annex II: Financial Proposal

#### A. Professional Fees

No.	Description	Unit	No. of Units	Unit Cost (USD)	Total (USD)
1	Lead Fisheries Scientist / Team Leader (Preparation, Training & Mentorship)	Person-day			
2	Training Specialist / Co-Trainer/ strategy developer expert for desk review and drafting Somali stock assessment strategy	Person-day			
3	Fisheries Data & Modelling Expert	Person-day			
4	Report Writing & Documentation Expert	Person-day			
5	Admin and logistic offer for on the ground support				
Subtotal A					=SUM

#### B. Travel and Logistics (Training days will be 10 days)

No.	Description	Unit	Quantity	Unit Cost (USD)	Total (USD)
1	Visa Fees	Person	16		
2	In-country Transport (vessel transfers, field visits, local movement)	Lump sum	16		
3	Communication and Coordination Expenses	Lump sum	1		
Subtotal B					=SUM

#### C. Training Implementation Costs

No.	Description	Unit	Quantity	Unit Cost (USD)	Total (USD)
1	Training Venue Rental (including audio/visual setup) (Days) including graduation day	11	16		
2	Stationery, Printing, and Training Materials	Participant	16		
3	Refreshments and Lunch for Participants (Days), 16 participants, days 11 days 10 days for training and one day for graduation	11	16		
4	Honorarium for Guest Speakers from other marine institutes (if applicable), can join 2 days, so it is two sessions	2	2		
Subtotal C					=SUM

*D. Exposure / Sea Visit Component (Fill the table and add, vessel hire, fuel, crew costs, food provision and so on.*

No.	Description	Unit	Quantity	Unit Cost (USD)	Total (USD)
1					
2					
3					
Subtotal D					=SUM

*E. Reporting and Follow-up*

No.	Description	Unit	Quantity	Unit Cost (USD)	Total (USD)
1					
2					
3					
Subtotal E					=SUM
Grand Total					

*Add other missing expenses.*

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