

The primary objective of this Service Contract is to establish state-of-the-art and context-adapted demonstration sites for Integrated Multi-Trophic Aquaculture (IMTA) in Africa and Asia.

Background

International Center for Living Aquatic Resources Management (ICLARM), Also known as WorldFish, is an international organization working to transform aquatic food systems to reduce hunger, malnutrition, and poverty. It collaborates with international, regional and national partners to co-develop and deliver scientific innovations, evidence for policy and knowledge to enable equitable and inclusive impact for millions who depend on fish for their livelihoods. As a member of CGIAR, WorldFish contributes in building a food-and nutrition-secure future and restoring natural resources. Headquartered in Penang, Malaysia, with country offices across Africa, Asia and the Pacific, WorldFish strives to create resilient and inclusive food systems for shared prosperity

Overview

We are seeking proposals from qualified vendors to design, construct, and equip demonstration sites for an Integrated Multi-Trophic Aquaculture (IMTA) system. The project includes both indoor and outdoor facilities designed to cultivate various species through an environmentally sustainable method.

Project Objective

Develop demonstration sites for different combinations of finfish-bivalve-seaweed production in Bangladesh and Kenya. Environmental, farmer, and market assessment data will be used to determine the appropriate combinations to pilot in each country. For instance, while WorldFish has experience with mussel-seaweed combinations in Asia, this may not necessarily be suitable for Bangladesh or Kenya. Each country has different species of bivalves, finfish, and seaweed, as well as differing consumption patterns and tolerances. The optimal species mix will be selected after careful analysis of all assessments to ensure that the IMTA species are:

1. Environmentally benign
2. Socially acceptable
3. Economically viable
4. Aligned with the principles of IMTA (by-product/waste produced by one species serves as input for the others)

Scope of Work

1. Outdoor Facility

- Surface Area: 300 to 500 square meters
- Tank Material Options: Concrete or Fiberglass
- Requirements:
 - Durable and weather-resistant materials
 - Easy access for maintenance and monitoring
 - Proper drainage and waste management systems
 - Suitable for cultivating multiple aquatic species

2. Indoor Facility

- Surface Area: Approximately 150 square meters
- System: Recirculating Aquaculture System (RAS)
- Requirements:
 - Climate control for optimal growing conditions
 - Efficient filtration and water quality management
 - Energy-efficient lighting and heating
 - Automation for feeding and monitoring

3. IMTA Demonstration site

- Requirements:
 - Cages for finfish: Seabass (Bangladesh), Rabbitfish and Mullet (Kenya) or any other relevant species
 - Shellfish cultivation area
 - Mud Crab cultivation area
 - Seaweed cultivation area
 - Adequate space and equipment for breeding and growing
 - Optimal water quality and flow management
 - Secure and durable cage structures
 - Provision for species-specific needs

4. Monitoring

Prepare a monitoring plan for medium-term monitoring and possibly upgrade the facilities.

5. Training

Train local partners on the operation, maintenance, and management of the IMTA systems established in their communities.

6. Local Materials and Manpower

In alignment with our commitment to sustainability and community development, this project emphasizes the utilization of local materials and manpower wherever appropriate. By sourcing materials locally, we aim to reduce the environmental footprint associated with transportation and support the local economy. Furthermore, engaging local manpower not only provides employment opportunities but also ensures that the knowledge and skills necessary for the operation, maintenance, and management of the IMTA systems are embedded within the community. This approach is intended to foster a sense of ownership and long-term sustainability of the aquaculture systems, ensuring that the benefits of this project are realized and maintained within the local context.

Deliverables

- 1. Blueprints and Design Documents**
 - Detailed architectural and engineering blueprints for the indoor and outdoor facilities
 - Design specifications for the Recirculating Aquaculture System (RAS)
 - Layout plans for the fish hatcheries, including seabass, marine finfish, and mud crab hatcheries
 - Layout of demonstration site for IMTA
- 2. Construction Plans**
 - Comprehensive construction plans including timelines, materials lists, and labor requirements
 - Environmental impact assessments and mitigation strategies
- 3. Construction of Facilities**
 - Complete construction of the indoor facility (150 square meters) with RAS
 - Complete construction of the outdoor facility (300 to 500 square meters) with appropriate tanks
 - Establishment of demonstration site for IMTA with cages
- 4. Installation of Systems**
 - Installation of all necessary systems, including climate control, filtration, lighting, and automation for the RAS
 - Setup of tanks and cages for the various species in the outdoor facility
- 5. Training Programs**
 - Development and delivery of training programs for local partners on the operation, maintenance, and management of the IMTA systems
 - Comprehensive training for local partners on the construction, operation, maintenance, and management of the fish hatcheries
- 6. Operational Manuals**
 - Detailed manuals and documentation for the operation and maintenance of the IMTA systems and hatcheries
 - Guidelines for monitoring and upgrading the facilities
- 7. Monitoring Plan**
 - A medium-term monitoring plan to ensure the systems are functioning correctly and efficiently
 - Recommendations for potential upgrades and improvements based on the monitoring results
- 8. Final Report**
 - A comprehensive final report summarizing the project, including design and construction details, training outcomes, and initial operational performance
 - Recommendations for future improvements and scalability of the IMTA systems in Bangladesh and Kenya

Evaluation

1. Cover Letter
 - Introduction to the vendor
 - Summary of qualifications and experience
2. Company Overview
 - A brief history of the company, including years in business and core areas of expertise
 - Organizational structure, including key management and technical staff
 - Mission, vision, and values of the company
3. Technical Proposal
 - Detailed description of the project management methodology to be used
 - Key personnel assigned to the project, their roles, and qualifications
 - Detailed design and construction plan for both indoor and outdoor facilities
 - Description of materials and equipment to be used
 - Timeline for project completion
 - Outline of RAS system specifics and advantages
 - Outline of the specifics of the demonstration site and advantages
 - Approach to health, safety, and environmental management
 - Strategies for engaging with local communities and using local materials and manpower
4. Financial Proposal
 - Itemized cost breakdown for all project components
 - Payment schedule and terms
 - Warranty and maintenance terms
5. References
 - At least three references from previous clients
 - Description of similar projects completed

Submission details

The bidders must submit One (1) copy of each of the Technical and Financial proposal in 2 (two) separate files clearly marked on the document title as “TECHNICAL PROPOSAL” and “FINANCIAL PROPOSAL”. Please mention “**RFP IMTA Demo Site – [Company Name]**” as subject line of the email by **30th September 2024 before 5:00pm (GMT+8)** to wfprocurementfx@cgjar.org.

Tax & Vat

The Financial Proposal shall specify a total delivery amount (in USD) including taxes & Vat. Tax and VAT shall be deducted from the contract amount according to the Government Rules and Regulations.

Questions and Clarifications

All questions and/or clarifications regarding this RFP must be submitted via email to wf.procurement@cgjar.org no later than **24th September 2024 before 12:00pm (GMT+8)**. All correspondence and/or inquiries regarding this solicitation shall reference the RFP number in the subject line. No phone calls or in-person inquiries will be entertained; all questions and inquiries must be in writing.