



TERMS OF REFERENCE

Project title	Towards a Blue Future in the Tanga-Pemba Seascape
Position title	Consultant/organization to pilot a multitrophic mariculture model at the Tanga-Pemba Seascape.
Post level	Consultant/Institution
Office	IUCN – Tanzania Country Office
Location	Tanga – Pemba Seascape Corridor
Languages Required	English and Kiswahili
Estimated start date	5 th February 2022
Assignment duration	8 months

1. Project Description

The IUCN Eastern and Southern Africa Regional Office (ESARO) operates in twenty-four countries in the Western Indian Ocean (WIO). The ESARO Programme focuses on biodiversity conservation through a diverse portfolio of projects and programmatic initiatives ranging from activities at the level of individual protected areas to shaping regional policy on biodiversity conservation. Program and project implementation are done in collaboration with IUCN members, commissions and other strategic partners.

IUCN has received funding from the Irish Embassy in Dar es Salaam-Tanzania to implement a 12-month pilot project called, “**Towards a Blue Future in the Tanga-Pemba Seascape Initiative**”. This builds on more than four decades of operations in Tanzania working with many partners and stakeholders to implement a large and diverse portfolio of conservation projects ranging from management of protected areas, forest ecosystems, coastal and marine resources, aquatic ecosystems and climate change resilience. A program approach is adopted in the implementation of this initiative and builds on the IUCN Eastern and Southern Africa’s [Blue Resilience Framework](#), composed of 3 key pillars: *Blue Planet*, *Blue People* and *Blue Partnerships*.

Project Goal

Unlock and support the development of a blue economy while contributing to long-term effective, equitable and inclusive conservation of coastal and marine biodiversity and ecosystem services in the Tanga-Pemba seascape. Ideally, this is aimed at supporting the

establishment and operationalisation of a regenerative and productive seascape in the Tanga-Pemba Seascape Corridor.

Project Expected Outcomes

The project has four expected outcomes:

1. Locally-relevant governance frameworks strengthened at the seascape level.
2. Improved knowledge and awareness among key stakeholders in Tanga-Pemba Seascape and the Western Indian Ocean regional.
3. Improved livelihoods and socio-economic status in the Tanga-Pemba Seascape Corridor.
4. Enhanced advocacy in blue economy and conservation of coastal & marine resources and ecosystem services in the Tanga-Pemba Seascape.

Project Expected Outputs

In order to achieve the expected project outcomes, this initiative operates under four main components, namely (i) Governance, (ii) Knowledge, (iii) Action and (iv) Advocacy.

- (i) **Governance component:** An enhanced locally-relevant multi-stakeholder governance framework is developed and promoted to support equity and effectiveness in the decision-making, management and benefit sharing in the Tanga-Pemba Seascape
- (ii) **Knowledge component:** Relevant knowledge and awareness products are developed and disseminated among local communities, civil society, private sector and governments in the Tanga-Pemba Seascape and at the Western Indian Ocean regional level.
- (iii) **Action component:** Sustainable and resilient blue livelihoods are promoted, catalysed and supported in the Tanga-Pemba Seascape in order to efficiently conserve its blue natural capital and unlock its socio-economic development potential.
- (iv) **Advocacy component:** National and/or sub-national blue economy development strategies and are strengthened through evidence-based advocacy efforts.

2. Objective of the consultancy

The objective of this consultancy is to support IUCN to achieve **action component** of the project “**Towards a Blue Future in the Tanga-Pemba Seascape Initiative**” that is to ensure; *Sustainable and resilient blue livelihoods are promoted, catalysed and supported around the Tanga-Pemba Seascape corridor in order to efficiently conserve its blue natural capital and unlock its socio-economic development potential.*

3. Scope of work

The consultant/institution is expected to pilot Integrated Multitrophic Aquaculture (IMTA) model in Pemba within Tanga-Pemba seascape corridor (within/around Pemba Channel Conservation Area).

Specifically the consultant/institution is expected to:

- a) Establish and operationalize a local community marine hatchery to ensure constant supply of fish/sea cucumber larvae for a self-sustaining system.
- b) Conduct a site suitability assessment for the establishment of integrated seaweed-sea cucumber mariculture before piloting.
- c) Establish an integrated seaweed-sea cucumber mariculture farm with close collaboration with local community and monitor crop performance during the production period.
- d) Evaluate community perceptions of this IMTA model.
- e) Generate scientific data and report on the integrated system and disseminate to seaweed farming groups within the Tanga-Pemba seascape.
- f) Design a plan to upscale and out scale the model farm including recommendations to develop regulations for IMTA.

About multitrophic mariculture model idea

This model is designed to integrate the farming of multiple aquatic species from different trophic levels. Combination of species that require feed input with non-fed/extractive species allows uneaten feed and wastes, nutrients and by-products from one species to be recaptured and converted into fertilizer, feed and energy for another species (especially aquatic plants). Non-fed species require zero feed input, include macroalgae/seaweed that extract inorganic waste from the water column and species such as shellfish or sea cucumber that extract organic waste. This minimizes waste load from open-sea fish farming and the model has the potential for transforming marine aquaculture into a more sustainable and profitable undertaking while enhancing environmental sustainability.

Seaweed farming is a common economic activity within the Tanga-Pemba Seascape, and thus presents a good opportunity to integrate with other aquaculture activities. The sector faces challenges of crop failure due to changing sea-surface temperatures and other ecological challenges, putting seaweed farmers, most of whom women at risk. Introducing IMTA models that integrate two or more aquaculture crops such as finfish and organic extractive species such as shellfish in one farm area will minimize the susceptibility of these communities to changing ocean dynamics that might be as a result of climate change. The pilot IMTA model system will therefore be anchored in the already existing seaweed farms. A local community hatchery will be established to ensure constant supply of fish/ sea cucumber larvae for a self-sustaining system. Crop diversification will therefore increase the resilience of seaweed farmers, who are mostly women, and the model will be replicated in other sites within the seascape and beyond. Intensive monitoring mechanisms will also be put in place to determine the economic viability of the system that will inform upscaling.

4. Qualification and selection criteria

The following criteria will be used to select the consultant/institution to undertake this assignment;

- a) Experience in establishing and successfully managing mariculture interventions in Tanzania.
- b) Experience of building community capacity in designing and managing mariculture interventions in Tanzania especially within Tanga-Pemba Seascape Corridor.
- c) Ongoing mariculture interventions in Pemba with Tanga-Pemba Seascape Corridor that can be modified to IMTA model.
- d) Clear sustainability and scale-up plan for the proposed IMTA intervention including how community will be involved and benefit from the intervention.
- e) Proof of having technical and financial capacity to manage the intervention.
- f) The Project Leader must have an advanced degree (Master or PhD) with expertise in the area of marine biology, mariculture production systems, fishery resources management, natural resources management or related area focusing on Blue Economy Value Chains such as Seaweed, Sea Cucumber and Small pelagic.

5. Eligibility

This opportunity is available for organization (NGOs, CBOs), enterprises, independent consultants and/or consulting firms with experience of supporting mariculture related interventions in areas within or adjacent to Tanga-Pemba Seascape corridor. High priority will be given to institutions/consultants currently with related interventions at the Tanga-Pemba Seascape corridor.

6. Deliverables and Schedule of Payments

This assignment is expected to be conducted for a maximum of 8 months. The timeline and payment schedule is as described in the table below: The payments will be subject to withholding tax deduction of 5% for Tanzania residents and 15% for international consultants as per Tanzania tax regulations

Deliverables	Estimated duration to complete	Payment structure
Submission of full project proposal.	2 weeks after the proposal is approved	50%
Submission of the 1 st quarter project progress report.	3 months after signing contract	30%
Submission of final project report.	8 months after signing contract	20%

7. Management arrangement for the consultancy

The representative from IUCN Tanzania Country Office will be a Focal Point for this consultancy and will have the overall coordination and monitoring role. The Focal Point will regularly consult with institutions responsible for marine conservation areas/marine protected areas on both Mainland Tanzania and Zanzibar.

8. How to apply

Interested consultants/ organizations are requested to submit their application including both technical and financial proposals. The technical proposal should clearly demonstrate how you meet the qualification and selection criteria stipulated by these terms of references. The technical proposal should also include a detailed work plan.

Applications should be sent electronically (email) to **info.esaro@iucn.org** no later than 5.00 p.m. EAT, January 15th, 2022. Any need for clarifications on the Terms of Reference should be directed to **elinasi.monga@iucn.org**