

Terms of Reference

for

Conducting a baseline and establishing a monitoring methodology for coral reefs and seagrass meadows in Total Conservation Areas (TCAs) of the Primeiras and Segundas Environmental Protected Area (PSEPA)

1. Background

WWF and CARE have been working in an alliance to promote coastal and marine conservation in the Primeiras and Segundas Environmental Protected Area (PSEPA) since 2008. The Alliance advocated for and was involved in the creation of PSEPA in 2012, as well as the development of the Protected Area Management Plan, which was approved by Government of Mozambique in June of 2017. Since then, efforts have been underway for the Government to establish an administrative structure for the protected area, and the current conservation context in the country seems to be supportive of this in order to secure the conservation of this highly biodiverse and productive coastal and marine area.

In October 2018, WWF initiated a new project, as a follow up on the work by the CARE-WWF Alliance, funded by Blue Action Fund through WWF Germany (WWF DE) and WWF US, called *Safeguarding PSEPA - Precious Seas Effectively Protected and Administered*. The main objective of the project is to improve the management of PSEPA, and its no-take and sustainable use zones, in close cooperation with relevant stakeholders. This will be achieved through:

- Setting up a PSEPA administration
- Developing instruments and capacities to support PSEPA management
- Establishing a surveillance and control system
- Improving knowledge of marine and coastal natural resources
- Improving artisanal fisheries co-management
- Strengthening fisheries and natural resources community organization
- Supporting participatory management of community no-take zones
- Improving mangrove community management
- Supporting sustainable livelihoods and promoting food security in target communities.

In order to improve knowledge of marine and coastal resources, the project intends to establish and implement a baseline and monitoring program for the health of key indicator species in Community Conservation Areas (CCAs) and Total Conservation Areas (TCAs) of PSEPA. Biological monitoring is essential to assess the project's effect on improving conditions of critical habitats, restoring fisheries resources stocks and protecting endangered species, and to inform management decisions. Although some data and recent studies exist, a baseline needs to be established to update existing data and to provide baseline values for a robust and consistent monitoring program. This will be complemented by a compilation of



existing studies on coastal and marine biodiversity of PSEPA. On the TCAs, Coral reefs and Seagrass meadows are biological components important to the PSEPA, and the baseline and monitoring programme will have to provide a methodology for the following components: biomass of indicator species on TCAs; Coral reef health; and Seagrass meadow health.

2. Objective of the consultancy

The main objective of the consultancy is to conduct a baseline and establish a monitoring methodology for coral reefs and seagrass meadows in five TCAs (Epidendron, Fogo, Caldeira, Mafamede and Puga-Puga) of the PSEPA.

The specific objectives are as follows:

1. Design seagrass and coral monitoring methodology and system for PSEPA.
2. Estimate the biomass (g/m^2) of major fish trophic groups in coral reefs and seagrass meadows.
3. Determine the percentage of live coral cover, coral genus diversity and a substrate composition diversity Index.
4. Estimate the reef fish biomass, diversity and density.
5. Determine the percentage of seagrass cover, seagrass density and species composition.
6. Estimate the seagrass fish biomass, diversity and density.
7. Present results of the assessment to WWF.

3. Scope of Work and Methodology

The consultant(s) are expected to propose a methodology for the execution of the assignment that will include a combination of desk analyses of available data, studies, GIS and mappings of the Islands and their coral and seagrass habitats and field work for coral reef and seagrass surveys. The desk analyses of available information must be used to refine the methodology, define the sampling sites/stations and organize field work. Also, where possible, the available information will be used to compare or to support the findings of the study. Data collection must include a briefing and training session in Angoche for project and partner staff that will be involved. The consultant is expected to propose reef structure/fish and seagrass structure/fish data collection methods/tools that will be usable in monitoring the habitats, but also they have to align with methodologies used in PSEPA and other Marine Protected Areas in Mozambique. This will allow for some standardization of data and also for comparisons to understand the improvements on coral reefs and seagrass meadows. Any innovative technologies that can improve the quality or provide additional important information should also be included in the proposal. Since the project work will be carried out in total protected areas (Epidendron, Fogo, Caldeira, Mafamede and Puga-Puga TCAs), non-destructive methods (such as visual census) should be considered a priority. Any destructive method that has to be carried out should be done in a way to avoid any unnecessary killing of species, destruction of habitat and should not kill any Endangered, Threatened and Protected species. Finally, the consultant(s)' methodology must include the analysis of data collected (such as images, GIS data, sampling results and fish counts) as well as confirming the identification of species. Data should be summarized in tables, graphs, images and maps in the report, clearly showing the results aligned with objectives of the



assignment. At the start of field work, the consultant must provide a two-day training to WWF field staff.

4. Deliverables/Expected Outputs

The consultancy is expected to produce/deliver the following outputs:

- (a) A defined coral reef and seagrass monitoring methodology for the PSEPA with well-established/defined sampling stations.
- (b) Baseline Report based the assessment in both Portuguese and English. Please note that both draft and revised/final reports will be have to be reviewed and approved by WWF. The report should cover:
 - Introduction
 - Objectives
 - Methodology highlight any limitations
 - Maps indicating specific sampling sites and work areas and Updated coral reefs and seagrass maps for PSEPA
 - Tables and graphs summarizing the results
 - Lessons learned and challenges encountered during the fieldwork
 - Main findings and recommendations for improving the next monitoring events
- (c) A presentation of the results of the assessment in Microsoft PowerPoint format to be presented to WWF in a workshop – to be done in english;
- (d) All data, photographs and videos made within the scope of this study must be submitted to WWF in electronic format and on disk or USB flash drive.

5. Duration and Timing

The consultancy should be conducted and concluded within a maximum period of two months with the following indicative timeframe:

Task	W1	W2	W3	W4	W5	W6	W7	W8
Signing of the agreement	X							
Desktop analysis of available information	X							
Field work		X	X					
Data analysis				X	X			
Draft report in English						X		
Presentation of assessment to WWF							X	
Review of the draft report by WWF							X	
Final report in English and Portuguese								X

6. Logistical support

WWF will provide all the necessary support for this activity including costs and logistics for transport (air, land and sea), perdiems and accommodation during field activities. WWF will facilitate contacts with partners and local communities. WWF will also support with the provision of all the information instrumental for the execution of the assignment namely:



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- Rapid Assessment of the Primeiras and Segundas Archipelago (2008);
- Benthic Habitat Mapping and Biodiversity Analysis in Primeiras and Segundas (2015);
- Conservation status assessment of the seagrass meadows of Primeiras and Segundas Environmental Protected Area, (2017).

7. Assignment Work Station

The assignment will be carried out from home base, in Maputo and in the Primeiras and Segundas Environmental Protected Area (PSEPA) districts of Angoche, Larde, Moma and Pebane.

8. Qualifications and Eligibility

The consultant(s) should have the following qualifications, skills and attributes:

- Advanced degree in marine biology or a related subject;
- Demonstrable experience in coral reefs and seagrass habitat and fish assessments, technical aspects of geographical data management and utilization;
- Knowledge and demonstrable experience about data processing, evaluation and organizing the collection, storage, usage and visualization of geographic data;
- Proficiency with GIS software and tools (ArcGIS and Quantum GIS);
- Experience in diving, preferably in remote areas in Mozambique;
- Good interpersonal communication and coordination skills;
- Good organization with strong analytical skills, paying attention to details and understanding the environment and respect for the local culture;
- Excellent written and verbal communication skills, in Portuguese and English.
- Ability to adhere to deadlines and flexibility.

9. Application

Interested candidates should submit the following by email to: concursos@wwf.org.mz with name of consultancy in subject line or via hardcopies delivered to WWF Office in Maputo, at Rua Faralay N°. 108 by **xx/xx/2019 at midnight Maputo time**:

- Technical Application/Proposal** – responding to the TORs and demonstrating at least: a solid understanding and ability to deliver the requirements of the assignment, suitability for the assignment (e.g. institutional/consultant capacity and expertise including at least three examples of past relevant experience and CVs of key personnel highlighting previous relevant work), and an outline of the methodology they would use to execute the assignment.
- Financial proposal** – highlighting costs to execute the assignment including daily rates used for calculations and justifications. Costs should be quoted in US\$. The financial proposal shall be submitted in a separate document from the technical



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proposal. Please note WWF cannot be charged for the consultant(s)' costs related to the preparation and submission of their proposal.

All proposals should be submitted in English.

10. Evaluation of Applications

Applications will be evaluated according to the following criteria: (i) understanding and technical soundness and merit of methodology to execute the assignment (40 points); organizational/consultant capacity and expertise to execute the assignment (30 points); past performance relevant to the assignment (20 points); and financial offer (10 points).