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Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) Project

Terms of Reference for a Coral Reef Report Card Consultant

1. Introduction

Funding for this consultancy is provided by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) through the Climate-Resilient Eastern Caribbean Marine Managed Areas Network (ECMMAN) project to the Nature Conservancy (Conservancy). It focuses on WORK PACKAGE 3 of this project and the associated activities, with the goal to improve and update “an Eastern Caribbean Decision Support System” (ECDSS) that will provide accessible decision making tools and incorporates current ecological, socio-economic, and climate change data.

The “Caribbean Decision Support System” (CDSS), a term coined during the biodiversity assessment of the insular Caribbean, is simply a framework on the use of specific data and tools to aid conservation planning and decision making. The data component of this framework consists of a detailed database housing vast geospatial information managed by the Conservancy’s Caribbean Program and shared with partners upon request: <https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/Caribbean/science/planning/Pages/default.aspx>).

The tools component consists of a geographic information system (GIS) based tool, called PAT for “protected area tools” and is maintained in partnership by the Conservancy’s Caribbean Program and The University of Southern Mississippi (<http://maps.usm.edu/pat>). WORK PACKAGE 3 aims to add to the current geospatial information holdings and improve how this information is accessed and viewed.

The “Eastern Caribbean Decision Support System (ECDSS)” could be considered a sub-regional section of the larger Caribbean Decision Support System (CDSS) using the same tools and data. Currently, spatial data is available related to protected area boundaries, impacts to conservation and habitat extent. However this data is incomplete and needs to be complemented. This project will improve the ECDSS by incorporating critical information identified by stakeholders, such as coral health and management effectiveness of marine managed areas (MMA) and will point to the best opportunities for new MMAs to fill fundamental gaps related to representation of ecologically valuable habitats, ecosystem services, ecological and social vulnerability, disaster risk reduction and climate change resilience.

Mapping the condition of habitats has been identified as a top data gap to be filled for the 6 beneficiary countries under the ECMMAN project: St. Kitts and Nevis, Antigua and Barbuda, Dominica, Saint Lucia, Grenada and St. Vincent and the Grenadines. Coral reefs are one of the key marine habitats in this region; but, coral reef assessments only currently exist for around half of the coral reefs across the 6 countries. Additionally, the available data is not being used to make better decisions at the local level, because assessment reports are either not created or structured in a way to support decision making. The available information has not been compiled and aggregated for use at national and regional scales either.

Filling the data gaps on coral reef habitats using existing data to update the ECDSS is a priority. Using available data to update the ECDSS will enable long-term use of the data. Producing a product or tool which enables decision makers to easily understand indicators of habitat health at multiple scales, will allow for the use of

existing data to support relevant management decisions. The combination of these activities will enable informed decision making regarding the addition of the new MMAs to the regional network, create recommendations for targeted actions to improve overall management of MMAs, and inform where gaps in monitoring exist. The reporting communication tool can be in the form of an assessment report card and accompanying maps.

2. Consultancy Objectives

The purpose of this consultancy is to assist the Conservancy with the implementation of WORK PACKAGE 3 of the ECMMAN project as it relates to assessing existing coral reef ecological, spatial, condition/status, and raw data into a decision support system that is meeting the needs of MMA managers, planners, government decision makers and international donors. The consultancy will also help identify data gaps, monitoring gaps, and prioritize where new monitoring efforts should be focused.

The consultant will work with the Conservancy and stakeholders to carry out the tasks associated with two specific activities in the ECMMAN grant document. Specifically, these are 3.1: Incorporate existing spatially explicit data in the existing ECDSS as it relates to the coral reef habitat (e.g. AGRRA, FORCE, Reef Check) and 3.3 Produce a suite of user friendly tools that will help inform coral reef monitoring activities under other outputs, explore options, and help guide investments of project funding.

The consultant will also work to guide the development of a coral reef assessment report(s) for the 6 beneficiary countries. The coral reef assessment report(s) will be the major consultancy deliverable intended for governments, MMA managers and donors, and should provide the current status of coral reefs based on an assessment of the data that exists at present. This information will feed directly into the spatial aspect of the decision support system and static maps. The coral reef assessment report should also identify where coral reefs haven't been monitored at all or in the last 5 years and help prioritize where additional monitoring should be focused.

Prioritized recommendations for in water assessment locations to fill these monitoring gaps, or monitor sites where there has been a monitoring lag, should be delivered by the consultant.

3. Scope of Work – Activities

To accomplish the above-referenced objectives, the consultant will work in coordination with the Conservancy and stakeholders in each of the six participating countries to complete the following activities:

Activity 1 – Work plan

- Develop a detailed work plan to be reviewed and approved by the Conservancy on how the objectives of the consultancy will be accomplished.

Activity 2 – Review existing coral reef assessment datasets

- Review existing coral reef assessment datasets collected both by the Conservancy and the Consultant to ensure that the correct information is being gathered from partners and assist in answering questions about how coral reef assessment data should be packaged when delivered by sources of the raw data.
- Assist the Conservancy in determining whether all coral reef assessment data have been collected for the 6 countries.

Activity 3 – Compile and format data for regional and individual country assessment reports

- Work with the Conservancy to take the existing coral reef assessment datasets and format the raw datasets into a set of numerical indicators of various measures pre-identified by the “Five-Country Eastern Caribbean Regional Marine Protected Area Monitoring and Evaluation Plan” (coral cover, coral algal ratio, coral disease, coral diversity, fish diversity, herbivorous fish abundance, conch abundance, etc.).
- Work with the Conservancy to determine the appropriate thresholds for categorical bins for indicator values (Very Good, Good, Fair, Poor etc.).
- Work with the Conservancy to develop the framework and maps for how the indicators can be displayed spatially.

Activity 4 – Map showing recommendations

- Create map with prioritized recommendations for in water assessment locations to fill monitoring gaps or repeat monitoring at sites where there has been a monitoring lag.
- Work with the Conservancy to determine final locations for in water assessments.

Activity 5 – Draft individual country assessment reports

- Work with the Conservancy to prepare draft individual country assessment reports with displays of coral indicators for where data has been collected, and identify monitoring gaps and conservation approaches and recommendations.

Activity 6 – Prepare draft regional summary report

- Work with the Conservancy to prepare draft regional summary report, also to include displays of coral indicators for where data has been collected, and identify monitoring gaps and conservation approaches and recommendations.

Activity 7 – Deliver final individual country assessment reports

Activity 8 – Deliver final regional summary report

4. Qualifications

- a) An in-depth knowledge of coral reef ecology and Caribbean shallow marine ecosystems.
- b) A demonstrated ability to work with diverse stakeholders in collaborative data collection fashion.
- c) A graduate degree with relevant work experience of 5 or more years, or a certification and undergraduate degree in a relevant area in biology, ecology, environmental management or other related field with more than 10 years of experience.
- d) Experience with marine field conditions and a variety of coral reef monitoring methods.
- e) A working knowledge of how ecological information can be packaged into useful formats for decision makers and protected area managers.
- f) Experience working on similar types of projects (e.g. determining a set of options for indicator visualizations, threshold setting and report card development).
- g) An ability to effectively interact and communicate with government officials, regional, intergovernmental organizations, and the multi-lateral donor community in the Eastern Caribbean.
- h) Excellent organizational, written, and verbal communication skills in English.
- i) Ability to work independently and be a team player.
- j) Ability to communicate on a regular basis via email and phone.
- k) This recruitment is open to regional and international consultants; with preference given to a consulting firm or relevant registered business entity.

5. Length of Contract

This first consultancy will last for five months from the date of execution of the contract.

6. Indications of Interest

Individuals interested in providing the services described above should send letters of interest and curricula vitae via e-mail to Dr. Sherry Constantine, Eastern Caribbean Program Manager, The Nature Conservancy at (sconstantine@tnc.org).

Indications of interest and associated information are to reach The Conservancy no later than August 30, 2014