

TERMS OF REFERENCE

BACKGROUND

Marine Coastal Ecosystems Biodiversity and Services in a Changing World (MaCoBioS) is an EU funded project with a main objective to ensure efficient and integrated management and conservation strategies for European marine coastal ecosystems to face climate change. To this end, MaCoBioS has assembled a multidisciplinary team of experts to fill the lack of knowledge on the impacts of climate on the most important marine coastal ecosystems (seagrass beds, coral reefs, mangroves, coralligenous and calcareous bio-concretion assemblages, salt marshes and kelp forests).

UWI-CERMES is part of the project team, which is a consortium of 16 universities and organisations, led by the University of Portsmouth. The Principal Investigators representing UWI-CERMES on MaCoBioS are Dr. Hugh Sealy and Prof. Hazel Oxenford. UWI-CERMES' involvement in the project is being managed by the Projects Office at UWI St Augustine.

The role of UWI-CERMES focuses on nature-based solutions in Barbados, with an overall objective to determine the feasibility of nature-based approaches to preserve and enhance the health of the coral reef ecosystem along the west and south coast of Barbados. It is expected that this work should benefit from other regional work being conducted by partners.

The total duration of the MaCoBioS project is four years which began in June 2020.

SCOPE OF SERVICES

The overall objective is to determine the feasibility of nature-based approaches to preserve and enhance the health of the coral reef ecosystem along the west and south coast of Barbados.

The Contractor will undertake the following tasks:

- I. Follow developments in and assist in all work packages of MaCoBioS as relevant to this key research focus in Barbados
- II. Desk-based review (supported by limited field reconnaissance to determine the best sites for deployment) of the range of established and emerging nature-based solutions/technologies that may be beneficial in mitigating the current key drivers of coral reef ecosystem decline in Barbados. This would include both terrestrial and marine options.
- III. Conduct a situational analysis in Barbados to fully understand the context for, and likely benefits of, adopting nature-based solutions for improving the long-term health of the island's critical coastal ecosystems (e.g. coral reefs, seagrasses and mangroves). This will include synergies with other on-going projects and government policies.
- IV. Assemble and analyse all relevant spatial datasets and information (terrestrial and marine) in Barbados that will assist in understanding the current situation and potential future scenarios, and in so doing, also define any critical data gaps.
- V. Determine if any data gaps may be filled within available budgets and schedules, and undertake the work to do so, with field assistance if required.
- VI. Undertake a detailed feasibility assessment for use of nature-based solutions for improving the health of critical coral reef ecosystems in Barbados.

- VII. Liaise with the MaCoBios Consortium team members as required, including provision of data and information as requested and participation in relevant virtual meetings, conference calls and workshops.

EXPECTED OUTPUTS/ DELIVERABLES

The expected outputs of this assignment are as follows

- Monthly progress reports
- Sub-annual progress reports to supervisor(s) as required by Project Management team at the University of Portsmouth.
- The following Technical Memoranda:
 - Inventory of Nature-Based Solutions
 - Barbados Situational Analysis
 - Relevant Spatial Datasets
- A progress report at the end of the one-year contract, which summarises the tasks completed towards the development of a feasibility report. The feasibility report, which will take approximately 3 years to complete, will present and rate all relevant nature-based approaches and suggest recommended deployment of preferred options geo-spatially. Some attempt should be made to estimate capital and operating costs (at the feasibility level) of the preferred alternatives and to estimate/quantify the potential benefits. It is anticipated that during year 1, the contractor will conduct the required initial work on all tasks listed above, except for Task VI.

DURATION OF THE ASSIGNMENT

The current contract covers the period of one year from April 1 2021 – March 31, 2021.

SUPERVISION

The Contractor shall be responsible to the Director, Centre for Resource Management and Environmental Studies (CERMES) for the satisfactory discharge of the stated duties.

The Contractor shall coordinate as necessary with the UWI staff directly responsible for the **MaCoBioS** Project as outlined previously.

TERMS OF WORK

This is a full-time (flexible hours) position with a minimum expected time commitment of 5 days per week.

The Contractor is responsible for travel to and from UWI Cave Hill Campus and fieldwork locations if/as required for the provision of agreed services.

The contractor is expected to spend the majority of the contract period physically in Barbados.

In addition to the remuneration specified in the Service Contract, UWI-CERMES will reimburse the Contractor for select pre-approved direct expenses incurred in the provision of agreed services.

QUALIFICATIONS AND EXPERIENCE

The Contractor is expected to be an individual with:

- a post graduate degree in a natural science or coastal engineering
- at least 10 years of relevant work experience, for example in ecosystem based adaption, nature based solutions, coastal management in similar tropical environments
- demonstrated knowledge of relevant coastal and watershed management projects in Barbados
- proven ability to search for and assemble spatial data sets
- proven ability to produce high quality technical reports
- proven ability to aggregate data and assemble and review overall concepts
- experience in project feasibility assessment