

**Terms of Reference for  
Marine Protected Area Financing Project  
Antigua & Barbuda  
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**1. BACKGROUND:**

Antigua and Barbuda currently has four declared Marine Protected Areas. The oldest, Diamond Reef and Palaster Reef were declared since 1973 as no-take reserves for the purpose of fisheries conservation. Cades Bay Marine Reserve (CBMR) and the North East Marine Management Area (NEMMA) were declared in 1999 and 2005 respectively as larger, multiple use MPAs that include both coastal systems (wetlands, mudflats and beaches) as well as marine habitats (seagrass beds and coral reefs). All areas fall under the jurisdiction of the Fisheries Division. In addition to these areas, Antigua and Barbuda has several National Parks that also include marine habitats within their boundaries namely; Fort Barrington, the Codrington Lagoon National Park, and the Nelsons Dockyard National Park.

In an effort to further protect the coastal assets of Antigua and Barbuda, the Fisheries Division has also proposed a number of other areas for protection. These are primarily coastal wetlands and or seagrass bays in vulnerable areas, namely; Hanson Bay and the Flashes, Yorks Salt Pond, Valley Church Wetland and Christian Cove Willoughby Bay.

Despite the relative long history of MPA declarations and a strong history of Integrated Coastal Zone Management (ICZM) the full and effective operationalization of these MPAs for ICZM has been lacking. Most of these areas are currently without proper management infrastructure.

The ReefFix Project is an ICZM tool that works with Small Island Developing States (SIDS) to complete stakeholder analysis and socio-economic valuation with a view towards improving oversight of marine resources to meet commitments made by SIDS to increase coverage and effective management. In the framework of ReefFix, the Independent Contractor (hereinafter referred to as “The Consultant”) will develop relevant studies focusing on rapid economic valuation of ES, beneficiary identification and financing instruments for the Marine Protected Areas.

The Independent Contractor (hereinafter referred to as “The Consultant”) will be technically responsible to Mr. Richard Huber from the Department of Sustainable Development (“DSD”) of the General Secretariat of the Organization of American States (“GS/OAS”), for fulfilling the obligations established by the following terms of reference of this contract.

In this context, ReefFix offers a valuable opportunity for SIDS to strengthen their coastal zone management through one or more of the five options below:

1. Apply, when possible, three ecosystem services valuation methodologies on fisheries and/or tourism and/or estimated economic productivity/ha/year
2. Cost effective analysis of most efficient interventions such as sewage treatment vs. watershed management, reforestation or solid waste management
3. Green tax: Cost recovery mechanisms such as hotel bed tax or tourism tax (\$1% tax to protect reasons that tourists come.)
4. Policy and legislation necessary for the implementation of a payments for ecosystem services project
5. System Plan of most representative marine ecosystems to meet Grenada Declaration to put 25 percent of near-shore marine and 25 percent of terrestrial natural resources under effective conservation by 2020 under the Grenada Declaration (Caribbean Challenge)

Since Antigua and Barbuda is not signatory to the 2020 Grenada Declaration (Caribbean Challenge) this component will be replaced by an assessment on the economic feasibility of the proposed areas as marine protected areas.

## **2. OBJECTIVE**

The main objective of the study is to assess the current economic valuation of critical marine ecosystems and determine the potential for long-term financing of the Antigua and Barbuda network of MPAs. The information provided should serve as a baseline for informing financial sustainability plans for the areas under consideration and should be able to feed into future business plans.

## **3. TASKS**

The consultant will conduct the following:

1. Produce a map of each existing and proposed MPA's in Antigua Quantify acres of different ecosystems including mangroves, coral reef, near shore aquatic habitats based on available mapping
2. Conduct an Ecosystem Value Transfer to identify the value of the ecosystem services in the existing and proposed MPA's
3. Examine the range of goods and services within select MPAs
4. Identify and examine the financial needs to allow for effective management of select areas
5. Conduct an analysis of cost recovery mechanisms which include but are not limited to tourist docks, user fees, mooring fee, head tax on divers
6. Conduct a SWOT analysis for the four current Marine Protected Areas
7. Identification of key beneficiaries and key stakeholders that will inform a workshop in 2015
8. Provide general content for the 2015 workshop

## **4. DELIVERABLES**

1. Summary report on existing and proposed MPA's which will be evaluated based on existing management plan

2. Map of existing and proposed MPA's and their ecosystems
3. Report on rapid economic valuation of coastal ecosystem services and beneficiary/ stakeholder identification
4. Final Report on financing instruments - cost recovery mechanisms for existing and proposed MPA's
5. A final report that includes content to inform a stakeholder workshop in 2015 which will include stakeholders from Government, NGOs, Civil Society, and the Private Sector.

## **5. METHODOLOGY**

The Ecosystem Value Transfer (EVT)/Benefit Transfer Method (BTM) will be used for this study. It is effective as values have already been estimated for similar ecosystems and are simply extrapolated to the selected study sites. Valuations have been designed in order to estimate the monetary value of the services that ecosystems provide. Many individuals and institutions from around the world have developed estimates for the values of the wide range of ecosystem services which are provided as well as replacement values. These estimates range from hundreds to trillions of dollars. For this activity a median value of US\$ 550,000 (\$/ha/yr) rate for mangroves, and US\$ 60,000 (\$/ha/yr) rate for coral reefs will be used based on a conservative mid-range average of a low/high of US\$ 200,000/900,000 (\$/ha/yr) for mangroves and US\$ 20,000/100,000 (\$/ha/yr) for coral reefs (Huber, R., OAS 2013).

A financial assessment will then be completed to determine cost recovery techniques for the MPA and a SWOT analysis to determine the feasibility.

## **6. PAYMENT SCHEDULE, DURATION AND OTHER ARRANGEMENTS**

The total amount of this contract is US\$8,000.00. The consultant remuneration will be provided in 3 payments as follows:

<b>Payment</b>	<b>Amount</b>	<b>Payment upon Submission of:</b>
1 <sup>st</sup> Payment	USD\$3,000	Upon signature of the contract and submission of a work plan
2 <sup>nd</sup> Payment	USD\$3,000	Draft of the Report including draft deliverables 1-5
3 <sup>rd</sup> Payment	USD\$2,000	Final Report, including content for 2015 workshop and final deliverables 1-5