

Demonstration:	Three
Project Title:	Integrated Management of Codrington Lagoon and Planning the Sustainable Development of the waterfront (Barbuda)
Objective:	To devise a management strategy to control all activities occurring within and around the Codrington Lagoon, thus ensuring that this conservation and sustainable use of biodiversity.
Integrated Issues	Conservation of biological diversity, Planning Water Resources, Waste Disposal
Time Frame	Barbuda Council - in close collaboration with the Environment Division of Ministry of Works, Transportation and Environment

Linkage to National Priorities and Programmes

Antigua & Barbuda has ratified the Convention on Biodiversity and the Convention to combat Desertification, and has met all other eligibility requirements. This demonstration project is consistent with the National Environmental Management Strategy (NEMS) which is an OECS initiative that seeks to establish national mechanism for the implementation of the Barbados Plan of Action for SIDS. The NEMS is a commitment to the St Georges Declaration and this project is consistent with Principle X of the NEMS.

The proposal is consistent with the following additional International Regional Multilateral Agreements to which Antigua and Barbuda is a signatory:

- Convention of Biological Diversity
- The Ramsar Convention on Wetlands
- The Cartagena Convention and Protocols
- Convention for the Prevention of Marine Pollution
- St Georges Declaration of Principles for Environmental Sustainability in the OECS.

Project Objectives and Activities:

Background & Justification

Codrington Lagoon is the most significant component of Barbuda's coastal zones. It extends for 12 km north to south and 4 km wide. The lagoon occupies an area approximately 18 km² depths ranging from <0.5m to 4 m. The lagoon is one of the largest in the Lesser Antilles and serves as a habitat for a range of marine species due to the extensive fringing mangroves and sea-grass beds. It is an important nursery for juvenile fish and crustaceans that are harvested for commercial use. The lagoon also supports one of the world's largest colonies of Frigate birds (*Fregata magnificens*). The Frigate Bird Sanctuary was established to conserve this globally important colonies and it has become a prized tourist attraction.

The lagoon is used for a number of activities, which can be categorized as follows:

1. Fishing (pots, lines, diving, and net fishing).
2. Tourism (visits to the Bird Sanctuary, use of beaches on the west coast)
3. Leisure and Recreation (harbour for small fishing vessels; swimming by locals around the wharf area; bathing of domestic animals; occasional sailboat racing; parties and fund raising events such as fish fries around the wharf area; water skiing, other future water sporting activities (kayaking, paddle boats, glass bottom boats) and designated National Park

The diversity of resource use activities demonstrates the importance of the Codrington Lagoon both to the economy and culture of Barbuda. The lagoon has suffered hurricane damage, over harvesting of marine resources, cutting of mangroves for charcoal production,

and garbage dumping near the coastline. It is however in a relatively healthy state due to the relatively low levels of development.

The owners of land on the waterfront on the outskirts of Codrington Village are making efforts to develop such lands for residential purposes. A number of requests have been made by Barbudans wishing to obtain these previously undeveloped lands for business purposes such as restaurants, and tour operations. The close proximity of these lands to the Lagoon, their exposure to storm surges, and the current lack of a central sewage system on the island are areas of concern which must be addressed if any development of these lands will be allowed. Measures to properly zone these and other areas must be undertaken immediately.

If the Codrington Lagoon is to remain in its current healthy state any development along the waterfront should be carefully planned, particularly regarding accessibility to water and proper liquid and solid waste disposal to preserve and protect this fragile marine ecosystem. This therefore warrants the need for a detailed management plan to govern activities in and around the Lagoon and regulations in place to guide the development of the waterfront.

Key issues

- Sensitive and critical habitat
- Multiple resource use patterns
- Unregulated development

Pilot Site Objectives and Deliverables:

Objective A: Participatory Management Plan and sustainability for the Codrington Lagoon

- A.1. Establishment of a functional participatory co-management authority
- A.2. Identification and engagement of management and planning stakeholder groups
- A.3. Determine carrying capacities for commercial activities within the Park
- A.4. Financial needs and options assessment
- A.5. Establishment of user fees and Park Trust Fund as appropriate along with the establishment of the 'Friends of Barbuda' programme
- A.6. Preparation of a draft Management Plan (including a Disaster Management section) for the Park
- A.7. Stakeholder meetings to approve Management Plan prior to gazetting
- A.8. Public Awareness strategy and campaign to educate community and visitors as well as policy-makers on function of Park

Objective B: Assessment and mapping of resources associated with Codrington Lagoon

- B.1. Management Planning Resource Group identified and briefed
- B.2. Training for Resource Use Inventory and Mapping
- B.3. Baseline inventory of resources and ecosystem functions within the lagoon
- B.4. Completion of resource and zoning Maps
- B.5. Establishment of a long-term monitoring approach within the Park

Objective C: Alternative and sustainable livelihoods study

- C.1. Undertake an alternative livelihoods and community incomes assessment and feasibility study
- C.2. Develop strategy for promoting economically viable and environmentally sustainable livelihoods within the Park

C.4. Develop and promote private-public partnerships for ecotourism focusing on micro-financing schemes and development of small businesses

Objective D: Park infrastructure and capacity support

- D.1. Determine infrastructure requirements in relation to carrying capacities
- D.2. Procurement and installation of supportive infrastructure related to tourism and parks management
- D.3. Recruitment of Parks personnel (Rangers and Maintenance)
- D.4. Training exercises and workshops for Park Rangers, community wardens, tour guides and other stakeholders

Stakeholder Involvement and Intended Beneficiaries:

The following stakeholder groups have been identified for involvement in the activities developed for this project. They include:

- 1. Fishermen
 - a. Pot fishers
 - b. Scuba divers
 - c. Free divers
 - d. Net fishers
- 2. The Barbuda Council
 - a. Barbuda Tourism Board
 - b. Fisheries Committee
 - c. Fisheries Department
 - d. Sea Wardens
- 3. Boat Operators/Guides
- 4. Barbuda Day Tour Operators
- 5. Lobster Exporters
- 6. Hotels
- 7. Restaurants
- 8. Handicraft Sellers
- 9. All Barbudans
- 10. Antigua Tour Operators
- 11. Fisheries Department (Antigua)
- 12. Antigua Lobster Fishermen

Long term Sustainability Strategy

The activities associated with this project have been designed to ensure the long-term sustainability of the project, particularly through stakeholder (and general community) involvement. Stakeholder involvement throughout the life of the project is deemed crucial to its success.

Replicability

Lessons and Best Practices established by the Demonstration will be reviewed and captured through Activities 4.5.5 and 4.5.6 of the Full Project. These activities will identify suitable areas and appropriate technologies/methodologies for replication. Lessons and Best Practices pertinent to the overall Antigua and Barbuda 5 Year SIRM Plan, legislative and institutional reform, monitoring strategies, etc will also be replicated through the SIRM and associated reforms.

Monitoring and Evaluation Process

Through the M&E Plan adopted by the Full Project and through a cross-sectoral Steering Group which will report to the Full Project Coordinator/Director on a quarterly basis

WORKPLAN FOR DEMONSTRATION THREE

DEMO OBJECTIVE	DELIVERABLE		YEAR 1			YEAR 2		
A. Management and sustainability of the Codrington Lagoon	A.1	Establishment of a functional participatory co-management authority	X					
	A.2	Identification and engagement of management and planning stakeholder groups	X					
	A.3	Determine carrying capacities for commercial activities within the Park	X	X				
	A.4	Financial needs and options assessment		X	X			
	A.5	Establishment of user fees and Park Trust Fund as appropriate along with the establishment of the 'Friends of Barbuda' programme				X		
	A.6	Preparation of a draft Management Plan (including a Disaster Management section) for the Park				X	X	X
	A.7	Stakeholder meetings to approve Management Plan prior to gazetting					X	
	A.8	Public Awareness strategy and campaign to educate community and visitors as well as policy-makers on function of Park				X	X	X
B. Assessment and mapping of resources	B.1	Management Planning Resource Group identified and training for Resource Use Inventory and Mapping	X					
	B.2	Baseline inventory of resources and ecosystem functions within the lagoon		X	X			
	B.3	Completion of resource and zoning Maps				X		
	B.4	Establishment of a long-term monitoring approach within the Park					X	X
C. Alternative and sustainable livelihoods study	C.1	Undertake an alternative livelihoods and community incomes assessment and feasibility study		X				
	C.2	Develop strategy for promoting economically viable and environmentally sustainable livelihoods within the Park		X	X			
	C.3	Develop and promote private-public partnerships for ecotourism focusing on micro-financing schemes and development of small businesses			X	X	X	X
D. Park infrastructure and capacity support	D.1	Determine infrastructure requirements in relation to carrying capacities		X				
	D.2	Procurement and installation of supportive infrastructure related to tourism and parks management		X	X			X

	D.3	Recruitment of Parks personnel (Rangers and Maintenance)			X				
	D.4	Training exercises and workshops for Park Rangers, community wardens, tour guides and other stakeholders					X	X	