



Codrington Lagoon National park

Infrastructure and Capacity Development Proposal

Project Title: Infrastructure and Capacity Development of the Codrington Lagoon National Park

Objective: To further enhance the ability of the Codrington Lagoon National Park to protect the ecological diversity of the national park and further develop the necessary tools to ensure the sustainability of the Park.

Key Issues: Ecosystem/biodiversity management, Infrastructure Development, Sustainability of the National Park

Executing Agency: Environment Division, Barbuda Council & National Parks Authority

Time Frame: 24 Mths

Cost of Project: US625,000.00

Link to National Priorities:

This demonstration project is consistent with the priorities identified within the National Environmental Management Strategy developed as a commitment to the St Georges Declaration. The development of the NEMs is an Organization of Eastern Caribbean States (OECS) initiative that seeks to establish a national mechanism for the implementation of the Barbados Plan of Action for Small Island Developing States (SIDS). Having been approved by Cabinet for implementation, the NEMS is a critical document in identifying the country's environmental priorities and the activities that will be implemented to meet these goals.

This project is consistent with the following Principles of the NEMS.

- Principle 1: Foster Improvement in the Quality Of Life
- Principle 5: Ensure meaningful participation by the Private Sector
- Principle 6: Use of economic instruments for sustainable environmental management.
- Principle 13: Protect and conserve Biological Diversity

The proposal also seeks to address existing issues under the following additional International and Regional Multilateral Environmental Agreements (MEAs) to which Antigua and Barbuda is a signatory:

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

Project Objectives and Activities

Background:

The biological diversity found in Antigua and Barbuda is of enormous value to both the country and the surrounding region. Because of its small size, its vulnerability to natural hazards like hurricanes, and the density of its human settlements, Antigua and Barbuda's environment is generally fragile. Ecosystems range from evergreen forests, xerophytic forests, scrublands and grasslands to mangrove forests, herbaceous swamps, salt ponds, sandy beaches, rocky shores, coastal lagoons, sea grass beds, coral reefs and oceanic islands. Vegetation inventories suggest that a large proportion of plant species is classified as rare or endangered, and habitat fragmentation has resulted in many terrestrial species becoming rare, endangered or extinct. Antigua and Barbuda's marine biodiversity is increasingly threatened by habitat destruction, overexploitation, and destructive fishing methods. Mangroves that function as nurseries, breeding grounds and habitats for both marine and terrestrial wildlife, are being destroyed for coastal development, especially those associated with the tourist sector. Coral reefs are in very poor condition, stressed by high sedimentation, and activities like over-fishing, destruction by the anchoring of boats, improper placement of fish traps, garbage, breakage by recreational diving, and the release of partly treated sewage from coastal holiday developments directly into the sea. Additionally, Antigua and Barbuda is an essential stop on the migratory routes of a number of species of birds that would be adversely affected if these migratory habitats are not effectively protected.

Antigua and Barbuda has many industries that depend on its natural resources, these primarily include tourism and fishing. The Codrington Lagoon is the largest wetland in the state of Antigua and Barbuda. It is also recognized as the nesting site of the second largest colony of Magnificent Frigate Birds in the western hemisphere. The island of Barbuda has the potential to be a substantial tourist destination; however, its pristine beaches, lagoon and bird sanctuary constitute some of the most environmentally sensitive areas of Antigua and Barbuda. It is therefore essential to ensure that the much needed economic development of Barbuda can be achieved not only without endangering the environment but also by enhancing the same. To do this, an integrated management system was developed with significant focus on eco – tourism. It is on this basis that this project was formulated to further enhance the preservation and management of the lagoon. This project is seen as the continuation of a process which began with the declaration of the Codrington Lagoon as a national Park on 31st March 2005 and continued with the development and elaboration of a Park management system and management plan.

Actively protecting the vulnerable areas will help to promote the development of both the fishing and tourism industries within the country and Barbuda in particular, in a number of ways. For example, the fishing industry in Barbuda provides over 50% of the income earned by 60% of its population either directly or indirectly. The development of the infrastructure and supporting natural barriers to natural and man-made disasters will help to protect valuable nurseries for the sustainability of this industry. In recent years, fishermen have complained of the noticeable decrease in stock being observed from season to season. This has resulted from non-existing close seasons for certain species, the overfishing of various fishing groups from within and outside of the country's jurisdiction and the inadequate

legislations that exists. Without this industry, up to 50% of the population in Barbuda and at least 30% of the population in Antigua would either directly or indirectly be financially affected.

The Codrington Lagoon is an ecologically diverse feature of Antigua and Barbuda's environment. Besides being a functioning mangrove and bird sanctuary as pointed out above, it contains significant aquatic life. The Lagoon is also an important means of the system of natural protection of most of the human settlement in Barbuda from direct contact with storm surge and other such natural disasters.

The need to develop the infrastructure for the recently established Park Management Authority to effectively manage the resources of the national park in a sustainable way as well as promote the continued economic value of the park's resources, has become more urgent as the economic conditions in the country worsen. The implementation of the identified activities below will complement without overlap the work presently being carried out under other donor funded. The area needs to be effectively managed as in addition to the wealth of Biodiversity found there the area offers outstanding scenic beauty. These characteristics enhance its potential for a developing ecotourism industry, outdoor recreation, and outdoor classroom and laboratory.

Thus, the objective of the project is to help the Government of Antigua and Barbuda achieve a more sustainable national park within Barbuda by focusing on:

- (1) The development of the physical infrastructure in the park
- (2) The development of the capacity of the staff to implement the necessary activities of the park
- (3) Re-establishing the natural protective barriers from natural disasters around the park.

Due to the overwhelming tasks that would need to be undertaken to ensure the development of a sustainable national park system for Barbuda, the identified outcomes will be achieved over the next four years. It is anticipated that through the project threats such as the intrusion of invasive species which have threatened the fishing industry, unsustainable development, pollution (particularly sewage) and lack of necessary infrastructure will be addressed. The project has two distinct objectives; to enhance the management of the codrington lagoon and the protection of the biodiversity of the National Park through the development of necessary infrastructure and the elimination of threats from natural disasters through the reestablishment of the natural barriers within the park.

Objectives and Deliverables

(1) Objective A. The development of the physical infrastructure in the CLNP

- A.1. Using the survey which has been developed for the CLNP as a guide, identify the roads and trails for development within the national park and make suggestions as to other areas which may need roads and trails to be developed.

- A.2. Having determined the development needs for roads and trails within the CLNP, develop a quantity survey report on the materials that would need to be purchased for the completion of the development work.
- A.3. Prepare drawings and relevant documentation as necessary to show the work to be completed.
- A.4. Complete the development/upgrade of roads and trails within the CLNP so as to allow ease of access to critical areas in the park for recreational and educational activities.
- A.5. Construct visitor Information posts at the River Doc
- A.6. Construction of an Activity Center for Cottage Industry within the Park

(2) Objective B: The development of the capacity of the staff to implement the necessary activities of the park

- B.1. Purchase of Transportation Equipment to assist with the management of the park.
- B.2. Hiring of Staff to assist in the management of the activities within the national park
- B.3. Purchase of Equipment for the effective management of the national park
- B. 4 Training and the development of training manuals and guide books for the park

(3) Objective C: Re-establishing the natural protective barriers from natural disasters around the park

- C.1. Commission a study on the surrounding sand dunes in Palmetto Point which have been removed through unsustainable sand mining practices.
- C.2. Based on the study determine the best methods available for the rehabilitation of the sand dunes to ensure protection of the Codrington National Park.
- C.3. Prepare technical drawings and a cost estimate of the rehabilitation project
- C.4. Prepare project proposal for funding the rehabilitation of the Sand Dunes

End of Project Landscape (Outcomes)

The expected project outcomes are:

- Installation of critical infrastructure needed for the continued sustainable development of the CLNP.

- Improved capacity for the management team to effectively manage the CLNP.
- Development of a system for the rehabilitation of the sand dunes protecting the CLNP and a proposal to seek funding for the implementation of this system.

Stakeholders and Beneficiaries

The Stakeholders or beneficiaries of the biological resources of the CLNP include all the inhabitants of Barbuda. This community has historical and cultural links to the CLNP which has supplied food, fuel-wood, economic opportunities, as well as recreational facilities. In light of this, stakeholder participation is key to achieving success in any management system being implemented as they both benefit from and impact the resources. These groups have already been involved in the process of developing the management system and need to be encouraged to continue to participate in the development process through the continued development of the park and its programs.

It is envisioned that the project would be administered through the Environment Division with the assistance of the Park Management Authority which has been established to ensure the proper management and conservation of the Park. Both organizations will be supported by the Barbuda Council.

All stakeholders including the beneficiaries will participate throughout the life cycle of the project. Beneficiaries include the following groups/organizations/entities:

- The Barbuda Council
- Fishermen
- Hotel owners
- Tour guides/boat operators
- Tourism industry
- The Environment Division
- The Machesney George High School

Long term Sustainability Strategy

Tourism and the Fishing Industries have been the leading economic sectors and will remain so for the foreseeable future. The Codrington lagoon has demonstrated its potential for eco-tourism activities, which is the fastest growing segment of the tourism industry. It is anticipated that this project will help to ensure the development and sustainability of this aspect of the industry which will in turn assist with the financial sustainability of the park.

The sustainability of this project is envisioned to come from the collection of Park fees (as areas currently inaccessible due to lack of roads and trail will be opened up for camping, nature walks, bird watching) and through sale of eco-tourism paraphernalia, the development of a park trust fund,

assistance through project development funds and the development of sustainable livelihood activities within the park.

Project Budget

OUTPUT	RELATED ACTIVITIES	JUSTIFICATION	COST	
			Donor Agency	GAB
<p>The development of the physical infrastructure in the CLNP</p>	<p>A.1. Using the survey which has been developed for the CLNP as a guide, identify the roads and trails for development within the national park and make suggestions as to other areas which may need roads and trails to be developed.</p> <p>A.2. Having determined the development needs for roads and trails within the CLNP, develop a quantity survey report on the materials that would need to be purchased for the completion of the development work</p> <p>A.3. Prepare drawings and relevant documentation as necessary to show the work to be completed</p> <p>A.4 Complete the development/upgrade of roads and trails within the CLNP so as to allow ease of access to critical areas in the park for</p>	<p>The CLNP has the potential to develop its economic viability through the offering of camping trips and guided excursions throughout the park. This however is not possible in the present situation as the park does not have proper access to the areas which can be used for camp sites and excursions.</p>	200,000	

	<p>recreational and educational activities</p> <p>A.5. Construct visitor Information posts at the River Doc</p> <p>A.6. Construction of an Activity Center for Cottage Industry within the Park.</p>	<p>The River Doc is another point of entry to the CLNP. There are no information centre there to capture the attention and interest of the visitors arriving by boat and going to the Eastern section of the island. This information post would assist in bringing more visitors to the park and as such more user fees.</p> <p>The CLNP could benefit greatly through the development of cottage industries within the park. Such industries can lead to additional user fees for the park and encourage the development of greater relationships between the park and the stakeholders.</p>	<p>20,000</p> <p>120,000</p>	
<p>Enhance the ability of the CLNP management authority to effectively manage the national park</p>	<p>B.1. Purchase of Transportation Equipment to assist with the management of the park</p> <p>B.2. Hiring of Staff to assist in the management of the activities within the national park</p>	<p>The park currently occupies one third of the island of Barbuda. As a result of this, patrolling the park required both marine and terrestrial transportation. In order to effectively manage the park therefore there is need for a boat and a vehicle.</p> <p>To effectively manage the park there is need to have an effective staff complement. Included in this is the need to hire an accountant to</p>	<p>75,000</p> <p>120,000</p>	

	<p>B.3. Purchase of Equipment for the effective management of the national park</p> <p>B. 4 Training and the development of training manuals and guide books for the park</p>	<p>manage the accounts of the park, a marine biologist and four more park rangers.</p> <p>To function effectively, the park staff need to have adequate equipment to work with. Such equipment includes items such as monitoring and sampling equipment, computers, GPS locators etc.</p> <p>Based on the infancy of the national park, there is still need for a lot of training for the staff and surrounding community. One way of doing this is to train the staff and create manuals for training and information guides to distribute to persons interested in the park.</p>	<p>30,000</p> <p>10,000</p>	
<p>(1) Re-establishing the natural protective barriers from natural disasters around the park</p>	<p>C.1. Commission a study on the surrounding sand dunes in Palmetto Point which have been removed through unsustainable sand mining practices.</p> <p>C.2. Based on the study determine the best methods available for the rehabilitation of the sand dunes to ensure protection of the Codrington National Park</p>	<p>The sand dunes in Palmetto point that would normally protect the CLNP have been destroyed through sand mining. As a result, the CLNP and more specifically the lagoon and the Codrington village are in danger of being flooded during natural disasters. This is particularly distressing as the number of biological species that would be affected in the park are great. Since most of the population for Barbuda is located within the environs</p>	<p>30,000</p>	

	<p>C.3. Prepare technical drawings and a cost estimate of the rehabilitation project</p> <p>C.4. Prepare project proposal for funding the rehabilitation of the Sand Dunes</p>	<p>of the park their vulnerability is also of great importance.</p>	<p>20,000</p>	
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Total donor contribution: **USD\$625.000.**

Total GAB contribution: **USD\$750,000.00**