Seaflower Biosphere Reserve

Country: COLUMBIA

Project Overview

Columbia declared the archipelago of San Andres, Old Providence, and Santa Catalina a biosphere reserve called the Seaflower Biosphere Reserve. In the year 2000, the reserve became one of the UNESCO’s World Network of Biosphere Reserves. CORALINA, the archipelago’s environment authority, was formed with the mandate of biosphere reserve planning and implementation. Covering a total area of approximately 65 000km² the largest Caribbean MPA was formed by the Columbian government in January 2005. The factor distinguishing this biosphere reserve from a traditional protected area is that it not only encompasses the natural ecosystem but also the villages and its inhabitants. CORALINA acts as the management authority and is responsible for ensuring that the archipelago’s inhabitants and environment receive continuing benefit from the biosphere reserve.

Objectives

The objectives of the biosphere reserve management plan are:

- conservation of strategic areas to protect the biological and cultural diversity of the archipelago

- creation of a model of territorial development and a site for testing methods of sustainable development

- to set aside areas for research, observation, education and capacity building of residents and visitors

- to apply the concepts of the World Network of Biosphere Reserves

Outcomes

Many projects and activities were executed in response to the environmental problems identified in the management plan. These projects include, but are not limited to: coral recovery projects; coral reef monitoring; education and research; general environmental education programmes in schools and in the community; solid waste management programmes; and projects aimed at promoting sustainable agriculture and tourism. There has also been the development of an integrated environment systems model; the implementation of the Integrated Groundwater Management Plan; establishment of three national parks and the establishment and management of the Seaflower Marine Protected
Area. Under the principles of the biosphere reserve, community involvement is vital. Local communities have been actively involved in setting up the administrative structure of the biosphere programme by which they have placed an emphasis on ecotourism and made decisions to significantly change current artisanal fishing and agricultural practices.

**Lessons Learned and Best Practices**

*Project and biosphere management*

Rather than being an isolated park, the reserve encompasses an entire community and its environs. Therefore site-specific alternative systems of management, monitoring, communication, information management, participation, etc. must be developed and implemented. This requires an overarching programme to clearly coordinate and manage the many site-specific programmes and activities, having clearly defined channels of communication. This will help to maintain the focus and goals of the programme. Further, a consistent and well-defined framework will better enable stakeholder communities to comprehend and participate in project activities.

An obvious physical presence is beneficial to project implementation. A visible, staffed office within the community for Corporation for the Sustainable Development of the Archipelago of San Andres, Old Providence and Santa Catalina (CORALINA) explicitly associated with the reserve is a place for stakeholders to visit and learn about the reserve.

*Zoning*

As the coastal area is small and densely populated, conflicts over resource use are bound to be rampant. On the other hand, the large open ocean area surrounding the islands that fall within its jurisdiction also needs to be managed and protected. Therefore, the project sought to address this issue through the implementation of a zoning structure. The Seaflower Marine Protected Area (MPA) was divided into five zones:

- no-entry – only research and monitoring activities
- no-take zones – incorporates other non-extractive uses
- artisanal fishing zones – only to be used by traditional fishers
- special uses – shipping lanes, ports, marinas and watersports
- general use – minimal restrictions allowing activities that are in line with the conservation goals of the MPA

Stakeholder participation and collaboration were at the core of the zoning process. The MPA objectives, external boundaries, zoning and the design of the management structure were all formed through the participatory planning process, where stakeholders were given the opportunity to make key decisions. The project also went about improving
management, legislation, partnerships, monitoring and enforcement in other key ecosystem areas such as the Old Point Regional Mangrove Park, San Andres Bay Reserve and Cove Valley watershed and the Old Providence McBean Lagoon National Park.

**Stakeholder participation and governance**

Promoting community involvement in management and implementation is a solution for sites lacking adequate human and financial capital. This will also build local capacity, promote human and economic development, empower stakeholders and promote participation in conservation activities. A focus on community-based conservation cognisant of traditional values, rights, livelihoods and tenures will help the locals reap benefits from the work conducted in and through the reserve. This aligns with Seaflower’s goal to achieve sustainable development within the reserve, with a key focus on the generation of local benefits.

All of the CORALINA (the agency responsible for the Biosphere) activities in the area involved the local community. Before the reserve was established, stakeholders were extensively consulted and were actively involved in the planning stage. As aforementioned, stakeholders were active in the delineation of zones and the management framework of the MPAs. They were also instrumental through volunteering for community based reef monitoring (e.g. ReefCheck, turtle, reef and other beach monitoring programmes), “adopt-a-beach” programmes, youth environmental awareness projects and coastal clean ups. They were also instrumental with surveillance and soft enforcement in the MPAs by reporting infractions and educating potential offenders.

With respect to the entire biosphere reserve, stakeholder representatives make up a significant portion of the CORALINA board of directors. Residents also made up a significant portion of the governing and advisory committees. The MPA Stakeholder Advisory Committee was made up of volunteer artisanal fishers, professional divers and other watersport operators, marinas, the tourism sector and the indigenous community. This group is consulted with regards to most of the management decisions of the MPA. It is hoped that the Seaflower MPA will have a semi-autonomous co-management structure where the community continues to be actively involved in management.

**Environmental education**

CORALINA has placed a lot of effort into environmental education, with the biosphere reserve now having widespread household recognition. Biosphere reserve information has been successfully incorporated into the school curriculum and more significantly, a programme was created whereby persons can obtain a technical degree in tropical coastal and marine resource management. The aim of this programme was to build technical capacity amongst the local residents so they can adequately manage the biosphere reserve. Of the first 18 students graduating from the class in December 2005, five are employed at CORALINA and others are working with other organizations within the reserve. Other programmes include sustainable tourism; improving dive operations;
SCUBA training for fishers and students; greening hotels and businesses; and training of trainers in community-based monitoring and MPA management.

Part of the education programme involved trips to other countries to compare the environment and conservation practices to other sites. Artisanal fishers traveled to Jamaica to observe the environmental degradation so that the fishers could visualize the outcome of mismanagement and become more committed to the conservation work locally. MPA team members journeyed to the Florida Keys National Marine Sanctuary, Bonaire and Saba Marine Parks to learn from their management practices. Also, dive operators went to Bonaire Marine Park for training in more sustainable dive tourism.

**Institutional strengthening, linkages and capacity building**

Since 2004, CORALINA made institutional strengthening a priority. This was accomplished through the development of partnerships and activities to improve collaborative efforts. These agencies include the Ocean Conservancy, Island Resources Foundation, the Global Environment Facility (GEF), World Bank, European Union, United Nations Environment Programme (UNEP), U.S. National Ocean Service, National Oceanic and Atmospheric Administration (NOAA) and the Caribbean Fishery Council. With these partnerships, CORALINA was able to obtain training for their MPA project team, economists, and GIS specialists. They have also contributed to the funding of the organisation and the MPA. This has led to many donor-driven activities within the MPA.

Other partnerships were forged and developed so that the objectives of the project could be furthered. An example of this was the training of navy personnel in seabird biology and conservation. Additionally, the maritime authority and the environmental authority shaped a formal agreement with CORALINA which provided a mandate and a strong legal foundation for the conservation and management of the remote areas of the MPA.

Regarding local agencies, CORALINA provided training for resource managers, joint initiatives for MPA enforcement and monitoring, partnership projects and community empowerment programmes. An example was the establishment of an inter-sectoral, interdisciplinary environmental education committee which was responsible for a significant portion of the reserve’s educational programmes.

To further improve their work, the community must be made aware of the concepts, programmes and projects relating to the biosphere reserve and their roles as residents. This should also apply to all personnel, especially new staff, and they themselves should be capable of communicating concepts and information to the stakeholders.

**Sustainable financing**

A financial sustainability plan is critical for long term management and implementation of the biosphere reserve. Without financial autonomy, the biosphere reserve’s activities become donor or project driven which can hinder the execution of daily operations and detract from the main project framework. The management plan has outlined some financial options for CORALINA such as conservation levies for projects that will
negatively impact the environment, a trust fund, entrance and user fees, and licenses and permits. Being part of the World Network of Biosphere Reserves makes CORALINA eligible to receive grants and participate in international conferences. This in turn allows networking with other Man and Biosphere agencies.