



**CARIBBEAN NATURAL RESOURCES INSTITUTE
(CANARI)**

**CASE STUDY OF THE FOLKESTONE
MARINE PARK AND RESERVE, BARBADOS**

**Janice Cumberbatch
2001**

CANARI Technical Report N° 281

Credits

This case study is one of the products of a research project entitled “Synthesizing the Caribbean experience in stakeholder analysis for participatory natural resource management”. The project consisted of three major activities:

- the preparation of six case studies from Barbados, the Dominican Republic, Jamaica, St. Lucia and Trinidad and Tobago, and their preliminary analysis by leading actors in each case;
- the convening, in collaboration with the Jamaica Conservation and Development Trust, in April 2000, of a four-day seminar to present and analyse the cases, to identify common themes and concepts related to stakeholder approaches in the Caribbean, and to develop selected principles and skills relevant to the Caribbean context;
- the preparation of a publication presenting the results of the analysis in the form of guidelines for Caribbean practitioners, the six case studies, and an annotated bibliography.

The preparation and editing of the six case studies were supported by the University of the West Indies Centre for Environment and Development, as part of its project entitled *Caribbean Capacity-Building for Environmental Management*, and by the International Development Research Centre of Canada, under the framework of the project entitled *Community-Based Coastal Resources Management in the Caribbean*.

Case Study of the Folkestone Park and Marine Reserve, Barbados

Janice Cumberbatch¹

1. Background and project description

This case study examines the stakeholder identification and analysis process that was used to include stakeholders in making recommendations for the upgrading of the Folkestone Park and Marine Reserve in Barbados. This process was part of a study sponsored by the Government of Barbados to determine the feasibility of upgrading and enhancing the facilities at Folkestone as a recreational park and marine reserve.

The Folkestone Park and Marine Reserve (FPMR) had been established in 1981 by the *Designation of Restricted Areas Order 1981*, and the *Marine Areas (Preservation and Enhancement) (Barbados Marine Reserve) Regulation 1981*. At the time of the feasibility study the FPMR was being managed by the National Conservation Commission (NCC), the government agency responsible for the management of marine protected areas in Barbados.

2. The resource

The Park and Reserve are located on the West Coast of Barbados (see Figure 1). The Reserve stretches a total distance of 2.2 km and extends a distance offshore of 950m at its widest point and 660m at its narrowest. The Reserve consists of four zones, namely:

Scientific Zone	Designated for marine research. <i>No motor power craft access unless permitted for research or enforcement, and then speeds are limited to 5 knots.</i>
Northern and Southern Water Sports Zones	Designated for fast speed watercraft use. <i>All motorised watercraft must operate at speeds less than 5 knots/no wake within 75m from shore, and speed boats can operate at higher speeds within 75 - 200m from shore. Jet skis must maintain speeds of less than 5 knots within 200m of shore and can operate at higher speeds beyond 200m from shore.</i>
Recreational Zone	Designated for recreation, including swimming and snorkelling <i>There are no restrictions on watercraft entry, however, speed restrictions apply.</i>

¹Executive Director of Social and Environmental Management Services Inc., SEMS, the agency responsible for the stakeholder participation process during the Feasibility Study for the Folkestone Park and Marine Reserve.



Within the Reserve there are four well-developed fringing reefs, several patch reefs and an offshore bank reef. The fish abundance is low due to historical over-fishing, poor habitat quality and a severe disease that targeted reef fish in 1994. Sand areas separate the three reef types within and beyond the boundaries of the Reserve. Benthic fauna in these areas include worms (*Bispira variegata*) and occasional urchins (*Tripneustes ventricosus*).

Ironically, the foreshore area along the length of the Reserve does not fall under the management authority of the FPMR. The foreshore area of the FPMR is situated in a low-lying flat coastal area that has been modified extensively from its natural state and is subjected to extensive human use. In fact, the

West Coast is Barbados's premier tourism zone, noted for its up-market hotel facilities and the attendant commercial activities. There is also substantial residential development.

Within the Reserve there is an extensive area of intertidal sandy beach habitat with the associated interstitial fauna, i.e. oligochaetes, harpacticoids, archianellids and nematodes. Some terrestrial wildlife communities, while not resident, frequent the area. These include the hawksbill turtle, the green vervet monkey, the mongoose, the green lizard and bats. Several bird species, local and migratory, have also been observed in the area. Of particular importance is the roost of cattle egrets in a small remnant stand of white mangrove in the area. There is little natural vegetation along the foreshore. Most of the vegetation communities that do exist comprise mainly non-native species that were introduced to the island. The remaining mangrove lagoon has been highly modified and disturbed. What exists is merely a remnant of a habitat type that once dominated the area, and one of the few remaining mangrove lagoons in Barbados. White mangrove (*Laguncularia racemosa*), mahoe (*Thespesia populnea*), casuarina (*Casuarina equisetifolia*), clammy cherry (*Cordia obliqua*), castor oil (*Ricinus communis*), mimosa (*Mimosa pudica*) and at least 45 other plant species are relatively common. The faunal composition is diverse, and includes several species of crabs, insects, spiders, snails, birds (at least fifteen species), fish, reptiles and mammals. In addition, there are a few other existing mangrove fragments in the area.

The actual land component of the FPMR extends only a few hundred metres north-south along the western coastline, and in the west-east direction the Park contains the area lying between the high water mark and the highway. The terrestrial site at the Park covers 1.9 hectares in a roughly wedge-shaped land parcel owned by the government. The Park provides a variety of recreational opportunities for local residents and visitors and is a major public access to the beaches along that portion of the coastline. The facilities offered -- parking lot, free tennis and basket ball courts, children's play area, a picnic area, restrooms and changing rooms -- make the Park a very attractive recreation area. There is also a visitors' centre which houses the Marine Interpretive Centre, including a small theatre providing reef and tidal video presentations; several interpretive displays; a gift and souvenir shop; offices for Park staff; and a new scuba and snorkel shop.

3. Issues to be addressed

One of the primary reasons for initiating the study in 1997 was that the FPMR was not functioning as an effective protected area. The reefs were in a state of deterioration, fish abundance was low and there were also a number of user related conflicts.

An analysis of the situation based on the baseline data suggested that there were a number of issues to be addressed. These were:

- *The size of the reserve*

The Marine Reserve covers approximately 11 percent of the length of the West Coast of the island and has a total area of 2.1 square kilometres. The percentage of coastline within the reserve is lower than that typically suggested as necessary to be effective as a marine reserve. The size is of even greater concern with regard to the relative proportions allocated for the scientific versus the water sports and recreational zones. As it stands, the scientific zone is one-eighth of the entire area. The impact of water

sports vehicles and users in the remaining seven-eighths of the Reserve is therefore of considerable concern.

- *The external impacts on the reserve*

While fishing was strictly restricted in the Reserve, and there were limitations on water sports and users in the scientific zone, there are a number of other land-based impacts that have not been adequately controlled over the years. For example, groundwater feeding into the Marine Reserve is contaminated with domestic waste from local suck wells, and with chemicals from fertilisers and pesticides used in the agriculture and golf course activities within the watershed.

- *The management focus*

There has been a considerable emphasis on the recreational aspects of the FPMR over the years, as opposed to the conservation objectives. The mission statement posted at the Visitor Centre indicates that:

Folkestone's mission statement is to provide high quality recreational activities for Barbadians and visitors that will educate and entertain them. We believe in sustaining the natural marine environment and exposing our guests to its beauty.

Our service will provide for family oriented entertainment utilising modern technology and provide for a financially strong park that the nation will be proud of.

Unfortunately, this emphasis on recreation is not accompanied by any substantial information to users regarding acceptable uses and environmentally sustainable activities and behaviours, and frequently individuals can be seen engaging in damaging acts such as standing, sitting or walking on the crest of the fringing reefs.

- *Management capacity*

The FPMR has suffered from limitations in funding and maintenance over the years. There has never been any mechanism for the collection of user fees and the park has had to rely on government funding as part of the overall NCC budget, which covers, among other things, land-based parks, cleaning of foreshore areas, and life guard services. Needless to say, the demarcation buoys, the markers of the snorkeling trail and most of the other infrastructure common in marine parks have been destroyed as a result of storms, corrosion, theft and vandalism. Moreover, the staffing of the Park -- management, park naturalists, and rangers -- have mostly lacked formal training in marine park management.

- *Enforcement*

Enforcement of regulations in the FPMR has been very ineffective and inconsistent. The Barbados Coast Guard, the Barbados Police Force and the NCC park rangers all share responsibility for enforcement in the FPMR. Unfortunately, the rangers have not been trained in the relevant areas such as regulations, legislation or enforcement techniques. There is a small vessel to allow patrolling of the Reserve, but most of the rangers operate from the foreshore. The enforcement is primarily the responsibility of the Coast Guard, but as can be expected, the Coast Guard has a large number of other

nation-wide responsibilities. In addition, the Coast Guard base is located in Bridgetown, some miles away from the FPMR.

- *Inclusion of the stakeholders in the planning and management processes*

When the FPMR was established many of the major stakeholders were not consulted, and there was no public awareness, or education programme. Indeed, it appears that the first attempt at public consultation occurred six months after the 1981 Restricted Order had come into effect. The fishers in particular were excluded, not only from the consultation, but from fishing in the area. This has led to deep-seated feelings of resentment and mistrust towards the FPMR management and the enforcement officers.

- *Conflict among user groups*

The major source of conflict emanates from the use of jet skis. Complaints from other users included:

- Violating the speed restrictions
- Weekly near misses with other watercraft and the occasional accident
- Jet skis being ridden by unskilled visitors.

In order to ensure the safety of their guests from the watercraft, a number of hotels in the area received permission from the Harbour Master to place buoys in the water thereby creating safe swimming areas. This has created two problems. Firstly, it has limited access of watersports operators to potential clients. Secondly, in the absence of demarcation buoys for the FPMR, the swim zone buoys have created the impression that the boundaries of the Park and Reserve have been extended, especially since one of the hotels is on the boundary of the park. Needless to say the latter situation is of significant concern to the fishers, as the Coast Guard has, on occasion, apprehended and charged fishers even when they were not within the Reserve. This lack of clarity with regard to boundaries is problematic and it is alleged that some fishers continued to fish illegally in the Reserve in the early morning and late evening, outside the working hours of the Park staff.

In the past, divers were accused of spear fishing and of destroying reefs to collect coral for souvenirs. More recently, there have been incidents of cutting or damaging the pots of fishers to release the fish.

The NCC has a system for registering and licensing beach vendors. However, many individuals walk along the foreshore peddling their wares. This led to a number of complaints from hoteliers, commercial enterprise agents and watersports operators who suggested that these individuals actually harassed visitors. They were also concerned about the lack of control over the items being sold and the prices at which they are being sold.

Visitor crowding is also a serious problem especially at peak times of the day (10:00 a.m. to 2:00 p.m.) and on cruise ship days.

As a result of these management issues, each user group was creating some inconvenience to the others and to the marine environment, which, if left unchecked, would eventually destroy the resource. Disregard of the Park regulations by visitors, in many cases because of a lack of knowledge, is another issue of concern for the management.

4. Stakeholder groups

The following table identifies the various stakeholders and interest groups.

Planning and Enforcement	Housing and settlement	Resource Users/Affiliates: Tourism	Resource Users/Affiliates: Fisheries
The Harbour Master, Barbados Port Authority	Ministry of Public Works and Transport	Barbados Tourism Authority	Weston Fisherfolk Association
Town and Country Planning Department	Sandy Lane Property Owners Association	Barbados National Trust	Mount Standfast Fisherfolk Marine Preservation Association
Coastal Zone Management Unit	Sunset Crest Property Owners Association	Barbados Tourism Investment Corporation	Barbados National Union of Fisherfolk Organisations
Folkestone Park and Marine Reserve	Community Development Department	Atlantis Submarines	
The Attorney General	Paynes Bay Community	The Cruisers	
The Sanitation Service Authority		Professional Association of Dive Operators	
The Barbados Coast Guard		Jet skis	
Environmental Engineering Division		The Barbados Museum	
Ministry of Environment, Energy and Natural Resources		The Ministry of Tourism	
Bellairs Research Institute		The Barbados Hotel and Tourism Association	
Ministry of Education		Underwater Barbados (dive operator)	
Fisheries Division			
CERMES UWI			
National Conservation Commission			
The Barbados Police Force			
Barbados Investment and Development Corporation			

5. Stakeholder identification

Experiences from across the Caribbean and elsewhere clearly indicate that marine park management is fundamentally about the control of human use and the creative resolution of conflicts among user groups. It was therefore decided that the only way to effectively enhance and improve the FPMR would be to include the stakeholders in the process that would determine how the resource would be managed.

Two other significant project decisions included the expansion of the study area from that prescribed in the Terms of Reference to include a larger proportion of the West Coast. This, it was felt, would offer increased opportunities for conservation of the marine resources and the management of human uses. The other decision pertained to the changing of the focus from a Park and Marine Reserve to a marine managed area, which more generically describes the range of activities -- conservation, recreation, education, etc. -- that would take place in the area. These changes had implications for stakeholder identification.

The first task was the identification of the stakeholders. This was a challenge, since Folkestone is a public area and the entire population of the island, theoretically, has an interest in it. It was determined that the primary stakeholders would be those directly affected by or who impact most directly on the FPMR. This process of identifying these stakeholders involved three main activities:

1. *Discussions with the FPMR staff.* The FPMR staff members interact directly on a daily basis with the users of the park and have been doing so for a number of years. They therefore proved to be a valuable source of information on who would be a stakeholder in the project.
2. *A review of literature on the FPMR and other marine parks.* In addition to the advice of the local Park staff, a comparative analysis of the situation in other marine parks provided information that served at a minimum to confirm potential stakeholders. It also highlighted the circumstances under which other types of individuals and groups could be considered for participation in the project.
3. *The advertisement of the project in the local newspapers, through the use of flyers and by attending meetings and events in the projects area.* To ensure that everyone with a potential stake was included in the planning process, widespread use was made of a range of media and advertising activities. This afforded the general public opportunities to learn about the project and to become involved.

As a result of these activities, the primary stakeholders were determined to be:

- Residents and businesses, including hotels located on the foreshore
- The watersports operators
- The fishers
- The government agencies with responsibility for the area
- The beach users -- locals and tourists.

6. Stakeholder analysis

Once the primary stakeholders were identified, surveys were conducted with these groups using structured questionnaires to gather detailed baseline data on their interaction with the resource. During this period, the project staff also continued to attend activities planned by any of these groups in the area and mounted exhibitions on the project.

During this phase, one of the main events undertaken by the project team in collaboration with the Fisheries Division was a boat trip along the entire West Coast of the island to discuss the Marine Reserve and other user issues with the fishers and divers. This helped to highlight a number of concerns which were critical to the resolution of conflicts and the efficient management of the FPMR.

In addition, because it was recognised that the fishers had been severely marginalised during the establishment of the FPMR, it was decided that a team member would be assigned to mobilise this group to ensure its participation. This necessitated daily visits to fish landing sites and conversations with the group to overcome their reticence and to assure them that their participation was genuinely required and that their concerns would be justly represented in the report.

Based on the information collected from the primary stakeholders, a number of marine and foreshore management options were designed. These options were presented to the stakeholders in a series of sectoral meetings and this led to the development of a preferred option for further elaboration.

This process allowed the consultants and the stakeholders to have a good understanding of the interests and needs of each group. The process was not considered at the time to have been one of stakeholder analysis, but rather data gathering and information sharing. However, in retrospect, it proved to be a very effective period of stakeholder analysis, which was continued and extended as the process evolved.

7. Strategies in stakeholder participation

Following the consultations with the primary stakeholders, the scope of the discussions was broadened to ensure that the wider population, the secondary stakeholders, got a chance to become more involved in the process. To this end, public meetings were advertised in the local media and letters of invitation were hand-delivered to all the residents along the West Coast.

The Minister of Environment, Energy and Natural Resources, Hon. Rawle Eastmond, who was also the Parliamentary Representative for the area, addressed the first meeting. All those present were invited to share their concerns. These were noted to be addressed in subsequent phases. The meeting was then asked to confirm the primary and secondary stakeholder groups who would participate in the more in-depth roundtable process.

The roundtable process was initiated to engage the stakeholders in a series of mediated discussions to resolve conflicts and to formulate management plans for the FPMR. Each of the stakeholder groups was

represented and the individuals present were expected to share information with their respective group. The team facilitated this by providing minutes of each meeting, as well as copies of the information used during the process.

These roundtables were the mechanisms through which the preferred options were investigated and fine-tuned and recommendations formulated for the final report to be submitted to the Government of Barbados. Mr. Yves Renard of the Caribbean Natural Resources Institute and a facilitator of the process to establish the Soufriere Marine Management Area in St. Lucia was invited to mediate the roundtable process.

The roundtable process was the most consistent and long lasting process of public consultations for any feasibility study in Barbados. Along with two public meetings, seven roundtable meetings were held and a range of topics discussed.

This intensive process has gone a long way towards creating awareness among the stakeholders of the issues of marine park management and has created and strengthened linkages among the groups. It offered an on-going opportunity for stakeholder analysis, both by the consultants and also among the user groups

The Government of Barbados is now reviewing the final report, which includes the perspective of the stakeholders. It is hoped that implementation of the recommended changes will occur shortly to ensure the longevity of the resource and its sustainable use by the various users.

8. The lessons learnt

Numerous lessons were learnt and existing knowledge re-affirmed by this process.

The participatory approach to stakeholder analysis takes considerable time and financial resources but can provide valuable insights.

It is impossible to determine ahead of time how long a participatory process will take. Mobilisation of stakeholders and gaining the confidence of groups, especially those that have been aggrieved, are critical and the process should not be rushed. As observed in this case, it allows the consultants and the groups to understand the needs and issues of each stakeholder group. However, projects have time lines, and deadlines and budgets are not limitless. Consequently there is an unending quest for compromise.

Stakeholders have justifiable concerns that must be aired and addressed even if they appear to bear little relation to the project's focus.

In most resource management processes it is important that the issues faced by the primary stakeholders are aired and resolved, even if they are not totally central to the project's focus. This demonstration of interest in the holistic environment helps considerably to win the confidence of stakeholders and ultimately gains credibility for the project team.

Participatory processes are very human-intensive.

It is difficult to quantify time and other resource requirements not taken into account during the project design phase. These include phone calls, as well as the informal and formal meetings that all require a human face. Unfortunately the participatory process is still under-valued compared with more quantitative work requiring sophisticated and expensive machinery for which quantifiable invoicing is more easily obtained.

Non-organised groups are difficult to engage in these processes.

The jet-skiers were of considerable concern to the users. Unfortunately, they are not an organised group and it was very difficult to identify a single individual who could presume to speak on their behalf. Considerable mobilisation and information is required to ensure that such groups' concerns are included in the discussions.

Time lags are inevitable but problematic.

The review process is lengthy, and during this time the impression is often created that nothing more is being or will be done. This frequently leads to disenchantment on the part of the stakeholders. It is useful to factor into the project some additional resources for the implementation of pilot projects that can be on-going during the down periods to maintain the interest of key players and to reaffirm the commitment of the government or lead agency to the continuation of the project.

It is not always possible or feasible to have all stakeholders represented.

Despite the most thorough and costly attempts to ensure full stakeholder participation, there will always be those who come into the process late and complain about being left out. There will also be those who choose not to get involved. In addition, there will be those who are inadvertently left out through lack of information available to the project team.

Access to, and perceptions of, power and influence directly affect stakeholders' interest and willingness to come to the negotiating table.

Groups that perceive that they have nothing to gain or too much to lose are difficult to engage. In this case the fishers were aggrieved based on their previous experience, and much work had to be done to assure them that their interests would be genuinely represented. On the other hand, the hotel sector felt reasonably confident of its lobby within the national context and therefore could see little benefit in investing the time to attend the meetings.

9. References

This document drew heavily on the unpublished and yet to be accepted *Draft Final Report of the Feasibility Study of the Folkestone Marine Management Area*, which has been prepared for the Ministry of Environment, Energy and Natural Resources, Environmental Special Projects Unit. The lead consultants on the project were Axys Consulting (Barbados) Ltd., which worked in collaboration with a range of local consultants. The Environmental Special Projects Unit must be thanked for allowing the preparation of this case study at this phase of the project.