

SOUFRIERE MARINE MANAGEMENT AREA

P.O. Box 305, 3 Bay Street, Soufriere, St. Lucia, West Indies

☎ (758) 459-5500 Fax: (758) 459-7799 Email: smma@candw.lc

Internet Web-site: <http://www.smma.org.lc>

CONFLICT RESOLUTION AND PARTICIPATORY PLANNING: THE CASE OF THE SOUFRIERE MARINE MANAGEMENT AREA

TABLE OF CONTENTS:

- 1. BACKGROUND**
- 2. THE CREATION OF THE SOUFRIERE MARINE MANAGEMENT AREA (SMMA)**
- 3. THE IMPLEMENTATION OF THE AGREEMENT**
 - a) Overview
 - b) Resource monitoring
 - c) Development of the fisheries sector
 - d) Mitigation of impacts
- 4. THE FUTURE**
 - a) New institutional arrangements
 - b) Communications plan
- 5. RESULTS AND LESSONS LEARNED**
 - a) Institutional strengthening
 - b) Conflict management
 - c) Communication and public sensitization
 - d) Involvement/support of self-regulating user groups/institutions
- 6. DOCUMENTATION USED IN THE COMPILATION OF THIS PAPER**
- 7. APPENDIX**
 - I) SMMA zoning map



1. BACKGROUND

Soufriere is a picturesque rural town, located on the southwest coast of the island of St. Lucia. This area is remarkable for the richness and diversity of its landscapes and natural resources, including mountains, rainforest, rivers, active volcanism and coral reefs. The area of coastline hereinafter described extends over 12 kilometers and presents a succession of beaches and cliffs, with the Soufriere bay at the center. The town of Soufriere lies within that bay.

Because of its topography and relative isolation, the Soufriere region has not been part of the main transformations which have affected the rural economy of St. Lucia over the past few decades. Its agriculture therefore remains characterized by mixed crops produced on small to medium size estates. In the more recent past, Soufriere has witnessed radical changes provoked by the growth of tourism in the coastal zone.

Because the coast plays a central part in the life and economy of Soufriere, the main settlements and infrastructures are located near the shore and the beaches are extensively used for recreation.

There are approximately 150 registered fishers, from which two-thirds fish on a full-time basis. The main gears are nets, lines and pots.

Over the past two decades, tourism has grown significantly, with two large resorts, four smaller hotels, and a number of guesthouses and restaurants, many of them focussing on the diving and the yachting sectors.

Maritime transportation remains important and an increasing number of day charter boats and water taxis bring large numbers of visitors from the northern, better-developed part of the island to Soufriere.

In the late 1980s and early 1990s, the multiplicity of uses and growing demand for scarce and fragile resources generated critical impacts and conflicts. The main environmental problems prior to the establishment of the SMMA can be summarized as follows:

- Degradation of coastal water quality, with direct implications for human health and for the protection of the reef ecosystem;
- Depletion of near-shore fisheries resources;
- Loss of the economic, scientific and recreational potential of coral reefs, particularly in the context of diving tourism;
- Degradation of landscapes and general environment quality, notably on or near beaches,
- Pollution generated by solid waste disposal in ravines or directly in the sea.

Problems of resource management in turn manifested themselves in growing conflicts among users of the resource, particularly the following:

- Conflicts between commercial dive operators and fishermen over the use of, and the perception of impact on, the coral reefs;
- Conflicts between yachts and fishermen because of anchoring in fishing areas;
- Conflicts between the local community and hoteliers over the access to beaches;
- Conflicts between fishermen and authorities at both the local and national levels over the location of a jetty in a fishing priority area;
- Conflicts between fishermen and hoteliers over the use of the beaches for commercial fishing or recreational, tourism oriented activities.

Over the past decade, relevant institutions, notably the Department of Fisheries in the Ministry of Agriculture, have been aware of these issues, and have initiated a number of programs and measures aimed at addressing them.

These efforts included the legal establishment of Marine Reserves and Fishing Priority Areas, the provisions of support to the local Fishermen's Cooperative, the delivery of training and extension services, and enforcement of national regulations following the adoption of the new Fisheries Act in 1984. Due to lack of funds for demarcation and proper enforcement, and the fact that delimitation of reserves was based on resource distribution with too little consideration for the socio-economic consequences for the fishers, conflicts continued to increase.

2. THE CREATION OF THE SOUFRIERE MARINE MANAGEMENT AREA (SMMA)

It is against this background that a conflict resolution process was initiated, in July 1992, to attempt to address the many issues affecting users of marine and coastal resources in Soufriere.

These issues were considered severe, because they resulted in a rapid degradation of the natural resource base, and because they affected resource users in several ways.

The decision of engaging in such a process was taken at a meeting convened by the St. Lucia National Trust as part of its national consultation on the formulation of a plan for a System of Protected Areas for St. Lucia. The participants recommended that a process of consultation be started in Soufriere. The need for consultation was reinforced by the USAID funded ENCORE project which, in considering a proposal for demarcation of the existing Marine Reserves and Fishing Priority Areas submitted by the Department of Fisheries, recognized that delimitation could not be undertaken in the present climate of conflict and resource degradation.

In late 1992, the Soufriere Regional Development Foundation (a community based non governmental organization involved in facilitating development activities in Soufriere), having identified all involved parties, initiated a planning process stipulating the following objectives:

- to elaborate a detailed marine resource use map and plan, which would complement the land use plan prepared by the Ministry of Planning,
- to resolve major marine resource use conflicts and to arrive at a consensus on use location and priorities.

It was agreed that the process should be fully independent and participatory. The experimental nature of the exercise and its potential usefulness to other parts of the country and the Caribbean region was also recognized.

In response, a series of consultations was conducted, jointly facilitated by the Department of Fisheries and the Caribbean Natural Resources Institute (CANARI). The first meeting, which brought together over sixty persons, representing twenty-five different sectors or institutions, was convened with the following objectives:

- to establish a consensus on the need for resolution of marine resource use conflicts in the Soufriere region;
- to create the conditions for negotiation and settlement of any dispute;
- to define issues affecting marine and coastal resource management;
- to locate areas of potential and existing conflict and to define the boundaries of the various resource uses.

It was made clear to the participants that all previous decisions and all management arrangements were subject to discussion and review.

During a boat trip the participants had the task of mapping the resources, their uses and the location of conflicts as they traveled along the coast. The discussions held on the boat trip led to the agreement within the group that zoning was not the only management instrument and that the plan produced as a result of this exercise should be much broader in its identification of measures and solutions. The information gathered during the boat trip was then compiled into a large colored map.

At a second meeting the participants were asked to confirm the information on resources, current uses and location of conflicts which had been established during the previous session and to reach agreement on all areas and issues for which agreement appeared relatively easy to reach.

Issues and options that had been identified earlier, namely, the control and development of yachting; the establishment and management of marine reserves; the development of the fishing sector; and the management of the land based sources of pollution were explored in greater depth.

The most critical and severe conflicts, which required additional negotiation and which could not be solved with the information and resources available, were identified with the understanding that they would be addressed after the meeting.

Time between the meetings was also used to hold individual discussions with some groups and persons involved, particularly as it related to the sites of major conflict. The Department of Fisheries held discussions with major hotels and with the dive operators, to explore possible solutions to competing uses of reef resources. Anbaglo, St. Lucia's Diving Association, which was particularly active during that period, held consultations with its members, to enhance their understanding of the position of fishermen, to confirm their willingness to participate in management, and to help them articulate their position on the introduction of a user fee structure. The Soufriere Foundation held informal discussions with key players in the community, including some business interests, which had major stakes in the eventual outcome of the negotiation process.

In a meeting of March 1993 the Department of Fisheries presented draft recommendations on zoning and regulations, which were discussed, modified and approved, save for the issues which had been delayed for later consideration. A number of issues were discussed in much greater detail, with options presented. Decisions were arrived at on all but two.

In conclusion, the meeting mandated a small working group to examine in more detail the outstanding matters, to conduct negotiation with all concerned parties, and to formulate recommendations.

It was further agreed that all recommendations would be contained in an agreement, which would be drafted by one of the facilitators and submitted to all participants for final review.

Negotiations on the critical issues were carried out and a draft agreement was prepared and circulated. Several institutions provided written comments, which were integrated in the subsequent versions of the document.

The Soufriere Foundation convened a meeting with a small number of institutions to examine in greater detail the legal and institutional arrangements for the implementation of that agreement. On the basis of the recommendations of that meeting, a final section of the agreement was drafted.

The agreement contained details of a proposed Zoning Agreement (and included maps showing the extent of proposed marine reserves, fishing priority areas, multiple use areas, recreational areas, and yacht mooring sites), legal provisions needed to manage individual activities such as fishing, diving, yachting, marine transportation, demarcation requirements, materials for user information, and training needs.

Details of the proposed implementation process were also outlined (including institutional arrangements, legal instruments, infrastructure, financing, staffing, and avenues for community participation).

The proposed area was called the Soufriere Marine Management Area (SMMA), to be managed by the Soufriere Foundation with technical support from the Department of Fisheries, under the guidance of a Technical Advisory Committee (TAC) comprising key management authorities and user groups. The Soufriere Foundation was selected to serve as secretary to the TAC and the Department of Fisheries as the Chair.

Throughout the process, efforts were made to inform the public about the purpose of the exercise and to create interest in the expected outcomes.

In November and December 1993, the agreement was presented to both the Ministers of Agriculture and Tourism, as well as the District Representative for the Soufriere area. In consultation with all parties, it was agreed that the Minister of Tourism would submit the agreement to the Cabinet of Ministers for endorsement. This was done in February 1994.

On the basis of Cabinet's decision, the Soufriere Foundation and the Department of Fisheries took the lead in ensuring the implementation of the agreement, with work focusing on three main directions:

- the setting up of appropriate institutional arrangements, centered around the creation and operation of the Technical Advisory Committee (TAC);
- the preparation of a management plan;
- the search for financial and technical support, notably through the French Mission for Technical Cooperation and the ENCORE project of the Ministry of Planning of the Government of St. Lucia.

The Agreement was presented to the Soufriere community, to governmental institutions, and to other interested parties, in the presence of the Minister of Tourism and the District Representative, at an outdoor public forum held on the Soufriere waterfront on 11 June 1994.

3. THE IMPLEMENTATION OF THE AGREEMENT

a) Overview

The first meeting of the TAC recognized that detailed operational mechanisms for the Agreement (including budgetary matters) were now required to ensure effective implementation and operation of the SMMA.

The TAC created a Technical Working group (TWG) comprising the SMMA Manager, the Department of Fisheries, the Caribbean Natural Resources Institute (CANARI), with other technical experts co-opted as necessary.

This small group provided the impetus for implementation of the Agreement, generating workplans and budgetary information for approval of the TAC, and evaluating the implementation process.

Following the general consultation the Department of Fisheries (with some assistance from local dive operators) undertook a descriptive assessment of the entire SMMA up to a depth of 70 feet. Through this exercise the exact limits for delimitation of the marine reserves and fishing priority areas specified by the Agreement were identified, given the distribution and condition of underwater substrates.

The TWG recommended that a workshop be held to generate a management plan for the SMMA. This event took place over a three day period in September 1994. TAC members, along with other local experts and a small number of regional experts actively involved in marine park management, participated in the event. Funding agencies already involved in supporting the SMMA were also present.

The management plan produced defines the institutional arrangements and responsibilities, revenue sources (including specific fees to be charged for various categories of users, systems of fee payment and collection), job responsibilities and skills required for four area wardens and the SMMA manager, specifics of infrastructure needed (demarcation and mooring buoys, demarcation signs), systems for monitoring the resource base and levels of resource use, surveillance, maintenance, and public awareness needs.

In addition to the funding provided by the USAID ENCORE Project for demarcation of all marine reserves within the SMMA, the French government through the French Mission for Co-operation provided funds for moorings, a patrol boat and communications equipment for the SMMA office, and salaries for the manager and wardens for an initial three month period. The French also provided the services of a national service volunteer for a period of sixteen months.

The Caribbean Conservation Association, through a regional marine park development programme, contributed to marine resource monitoring and public awareness literature. All three agencies and the local government contributed to the SMMA brochure, moorings flyer, and video.

It was envisaged that this initial inflow of external funding would allow the SMMA to establish a firm foundation upon which user fees, purchase of souvenirs, and other donations would make it self-sustaining.

The TAC has met regularly each quarter and indeed has grown from its original 13 membership (Department of Fisheries, Soufriere Foundation, Air and Sea Ports Authority, fishermen's representatives, Ministries of Planning and Tourism, Parks and Beaches Commission, St. Lucia Tourist Board, Marine Police Unit, yachting representative, Customs Department, dive association, and water taxi association) to one of 19, to which the two large hotel operations, two small hoteliers/restaurateur representatives, the Charter Boat Association, and the Hotels and Tourism Association were added

In terms of infrastructure and staffing, 42 mooring buoys and 22 demarcation and local dive buoys were installed in December of 1994. The signs were put in place in February of 1995. The Management Agreement was published and a color brochure describing the purpose and rules for use of the SMMA was printed in early 1995. In addition, a brochure detailing the mooring buoy system was produced.

Coral reef monitoring activities which were already being undertaken by CANARI (with assistance from Soufriere based dive operators) were gradually expanded to take into account the need to commence monitoring in all marine reserves and multiple use areas.

The SMMA was ready for official launching in June of 1995. The event took place in Soufriere and highlighted the objectives and operations within the SMMA.

With funding support through the FFEM (Fond Francais pour l'Environnement Mondial) project, SMMA offices and a boutique are presently being constructed on the second floor of the Soufriere Arts and Crafts Market, to secure financial sustainability beyond the collection of resource usage fees from yachters and divers, which only cover the basic operational costs.

b) Research and Resource Monitoring

Presently undertaken in the SMMA are the following monitoring activities:

- Sedimentation rates: biweekly by CANARI and the SMMA rangers;
- Water Clarity: daily Secchi disk measurements by the SMMA rangers;
- Water Salinity: daily refractometer measurements by the SMMA rangers;
- Analysis of photo quadrates by CANARI monitoring the coral growth/mortality on an semi annually basis;
- Participation in the ReefCheck programme: twice annually by CANARI, dive operators and the SMMA rangers;
- Fish-landings in Soufriere by the Department of Fisheries on a permanent basis.

In addition, two major studies were undertaken by a scientific team led by Dr. Callum Roberts from the University of York, England and a cooperate research venture under the direction of Dr. Bruce Hatcher from CFRAMP (CARICOM Fisheries Resource Assessment and Management Programme)/Dalhousie University, Nova Scotia, Canada, Dr. Wayne Hunte, McGill University, Canada and Dr. Hazel Oxenford, University of the West Indies, Barbados. Both studies are investigating the role of marine reserves in reef fishery sustainability.

Dr. Roberts has been monitoring fish stocks annually from 1994 to 1998 in reserves and fishing areas. After the third annual census of the status of coral reefs within the SMMA, overall findings showed increases in stocks of commercially important species across the board, with especially strong increases in marine reserves, suggesting that management efforts are beginning to pay off. (Roberts et al, 1997)

Additionally, Dr. Roberts team was looking at the impact of sediment pollution from the Soufriere river on both, coral and reef fish communities, as well as the recent spread of coral diseases at the Anse Chastanet and Grand Caille reefs. (Nugues 1998)

As part of the Soufrière Experiment in Reef Fisheries Sustainability (SERFS), the team of Hatcher, Hunte and Oxenford has undertaken experiments to test the mechanisms by which marine reserves export post settlement (adult) fishes to adjacent non-reserve areas (Hatcher et al 1995). In 1995 and 1996 this team collected the baseline data of fish movement in the SMMA. In this study a total of 2301 fishes from 10 families were tagged and their movements recorded using visual tagging methodologies. Mean dispersal distance was found to be only 50 meters (Coreless et al 1996). These results showed that there was negligible export of potential fish biomass from reserve areas at the time. What remained to be seen was how mean displacement (movement) would change as density within the SMMA increase. The experiment led by Hunte and Oxenford has lead to the introduction of acoustic transmitters in an attempt to accurately measure the export of two commercially important fish species found in the SMMA. Results should be available in late 1999.

In September 1999, a research project funded by the Natural Resource Management Program of the University of the West Indies (UWI), commenced in the SMMA. A preliminary comparison of the larvae supply of coral reef fishes in protected and unprotected marine areas is presently being undertaken by Mr. Henri Valles, Masters student at UWI. By utilizing specially designed light-traps to capture fish larvae, the project will attempt to assess the spatial and temporal distribution of larvae supply and to correlate it to the recruitment of certain coral reef fish species. The project will shed some light on the characteristics of larvae supply to coral reefs, a critical stage in reef fish population dynamics, and on the role that marine reserves may play at that level.

In October 1999, CANARI conducted a regional reef-monitoring workshop in Soufriere, as part of an ongoing programme sponsored by the United Nations Environment Programme (UNEP). The purpose of the workshop was to train individuals in the ReefCheck and video methods for measuring changes in the coral community and in key populations of fish and invertebrates found in the reef habitats.

Though the monitoring programme of the SMMA has not yet been finalized, a digital video camera and an underwater housing were acquired through the FFEM project and the methods learned during the workshop are expected to be applied in the final programme, which will be linked with related marine protected areas in the region.

c) Development of the fishing sector

As was agreed, five fishing priority areas have been established and demarcated by land-based signs. These areas include the northern two thirds of the Anse Chastanet Bay, the northern end of the Soufriere Bay (from Hummingbird Beach Resort to the Soufriere River), south Soufriere Bay (from the southern jetty to the end of the rubble beach), Malgretoute (north and south of a central yacht mooring area), Anse des Pitons (Jalousie Bay), and the entire Anse L'lvrogne Bay. Implementation of the Agreement involved major changes for both the yachting and fisheries user groups.

Due to the serious animosity which had developed between these two groups (prior to the consultation), particularly over the placement of a yachting jetty centrally in the Soufriere bay and lost catches due to yachts moored in the northern corner of the bay, known as the Hummingbird area, the negotiation process had to settle for physical separation of seining and yacht mooring areas. Thus yachts were relocated from traditional anchorages (such as the Hummingbird Resort area) to alternative mooring sites provided in places such as Malgretoute and north of Anse Chastanet. This arrangement was based on the SMMA ensuring that adequate security and support facilities were provided in the new mooring sites. Thus yachts and other boats were no longer a hindrance to the fishers operating in the fishing priority areas. The changes have however proven detrimental to the yachting community and the local tourism businesses which depend heavily on the presence of this user group.

During the later part of 1995 pot and bottom net fishers operating within the new management system started complaining of severe declines in their catches as they could effectively only set these gears in multiple use areas. The multiple use areas mainly comprised sand, reef patch, and boulder substrates with very little concentrated reef habitat. As a result of this, the fishers were encroaching further into marine reserve areas. The steep slope of Soufrière's submarine shelf resulted in severely limiting the distance from shore for installation of the demarcation buoys. These, due to decompression limits facing the divers undertaking installation, could only be placed in water depths up to 80 feet. Despite the "understanding" that the buoys merely marked the extent of the reserve along the coast, not their seaward limit (which was the outermost extent of the reef habitat) and the fact that fishers had been instructed by SMMA officers that they could fish up to 300 feet from the buoyed boundaries, this proved to be an extremely arbitrary limit which posed serious problems for both fishers and enforcement agencies.

An attempt to mitigate the situation by allowing a select number of fishers (who are heavily dependent on this type of fishing for food or income generation) access to specific parts of two of the reserves, and use of limited number of their gears, failed.

In December 1997, however, the Cabinet of Ministers decided to open part of the Grand Caille Marine Reserve for pot fishing only. In the same conclusion a monthly stipend of EC\$ 400.00 for a group of 20 pot- and gillnet fishers was granted for the period of one year.

With funding from the French Mission for Technical Cooperation a fish landing site was constructed jointly by the Soufriere Foundation and the Government of St. Lucia. Even though not fully operational, the facility was inaugurated in September 1996. A long process, including better involvement of the fishermen in the planning process and continued improvement of the facility, led to its final acceptance by the fishermen in May 1998.

As part of the FFEM project, a jetty adjacent to the fish landing site was constructed and an ice-machine was purchased and installed in 1998 to further strengthen the Fishermen's Cooperative.

Under the same scheme, funds were provided for the purchase of all gillnets in the Soufriere area. Gillnets are presumed to be destructive to the coral reef habitat, hence gillnets were banned in the SMMA in August 1998.

Recognizing the disadvantage of the Soufriere fishermen, being furthest away from migratory routes of coastal pelagics, two Fish Aggregating Devices (FADs) were installed a few miles off Grand Caille Point and Gros Piton Point in depths between 1000 and 1500 meters. Only a couple of days later the devices were lost. Because too little effort was undertaken in educating the fishermen about the FADs, it is suspected that suspicious individuals cut the devices. Following a comprehensive public awareness campaign to sensitize the fishermen about their benefits, which included community meetings, radio and TV programmes, and the production of signs and flyers, the FADs were replaced. Because of their recent success, new conflicts over the use of the FADs occurred between commercial fishermen, sport fishers and divers.

To initiate a progressive shift from near-shore to deep-sea fishing, arrangements are also presently being finalized to provide easy accessible loans for the Soufriere fishermen for the purchase of appropriate vessels, outboard engines and deep-sea fishing gear.

d) Mitigation of impacts

In addition, the SMMA is also engaged in ongoing management activities related to the control and mitigation of impacts from land-based activities.

For example, there have been two important incidents in the past two years, involving a Soufriere based copra factory which released harmful waste substances into the river just 500 meters upstream the Soufriere Bay. The media was informed and assisted greatly in raising public awareness. In the second of these instances, the company responsible was fined under the Fisheries Act., following an enquiry led by the Ministry of Health and the Caribbean Environmental Health Institute (CEHI).

Problems caused by sedimentation are also severe. In late 1996 an unnamed storm caused flooding and severe sedimentation threatening the reef at Rchette Point. In 1994, after tropical storm Debbie, when the town of Soufriere also was flooded, the government attempted to prevent future flooding by straitening the river and constructing retaining walls at both sides. Unfortunately, the natural river bends which before acted as natural sediment traps were removed. Therefore, the problem of sedimentation in the bay of Soufriere during the 1996 flooding became much more intense.

The big barrel sponges especially suffered because of the lack of mechanisms to remove the heavy load of sedimentation. With assistance from CANARI and a dive-operator, simple airlifts were converted into "underwater vacuum cleaners" to clean sponges and coral. The SMMA rangers continued the cleaning efforts over a period of three weeks. It is believed that because of these efforts, parts of the reef habitat could be saved from suffocation through sedimentation.

More and more often, the SMMA is being asked to review relevant environmental and developmental programmes/projects of affiliated government and non-government institutions.

4. THE FUTURE

a) New Institutional Arrangements

Rationale

In 1997 and early 1998, the SMMA went through a period of relative instability, as some provisions of the original agreement were being questioned, and as conflicting needs and demands were being expressed by the parties involved.

To a large extent, these problems confirmed that the institutional arrangements which were originally put in place were not fully adequate, and that there was need for a systematic review, in order to identify options and solutions. In response the TAC asked CANARI to facilitate an institutional review.

Analysis of issues and problems

The review concluded that the following issues have contributed to the problems that the SMMA was facing:

- Neither the original “Agreement” nor the management plan prepared in 1994 indicated the purpose and goals of the SMMA, and it appears that there has never been any clear consensus on the matter. This lack of common understanding and vision is likely to have contributed substantially to the disagreements and misunderstandings that have occurred among the different stakeholders.
- The Fisheries Act and Cabinet conclusions do not provide an adequate legislative basis for management and regulation
- The Agreement was meant to address conflicts through the zoning of uses. However, the Agreement is not a formal contract and therefore not binding upon the parties involved. Furthermore, the lack of established structures for its review and revisions have invited ad hoc proposals and adjustments. Because of the deficiencies in the policy framework, the stakeholder groups have increasingly turned to the political directorate for assistance in resolving conflicts
- The management plan of the SMMA, although approved in principle by Cabinet in November 1995, was never regularly used as a management tool, and not all members of the TAC were fully familiar with its contents.
- The TAC has evolved over time into a body that is too large to function effectively in the role it was originally given. It has also proven to be an ineffective forum to equitable stakeholder representation, as indicated by the many negotiations that have taken place among various parties outside of it.
- The internal changes of the Soufriere Foundation have upset the balance between government and the community in the management of the SMMA, and there is some uncertainty about roles of both the Department of Fisheries and the Soufriere Foundation.
- The SMMA has affected a number of user groups, both negatively and positively, to differing extents, but there is no process to weigh and balance these against environmental impacts in order to make creative management decisions.

During this process, the stakeholders developed a consensus on how the SMMA should be structured and should operate:

- It should be guided by a clear mission that includes management of marine and coastal resources in the Soufriere area for sustainable use equitable distribution of benefits, participation of stakeholders, and ongoing management of conflicts.
- Its legal base should be clear and strong, and should cover all its management functions.
- Its management structure should be transparent and politically, institutionally, and financially autonomous.
- Management objectives and programmes should be oriented towards development and promotion.
- Government agencies should retain their statutory authority and responsibilities when operating within or providing support to the SMMA.
- There should be active collaboration with relevant institutions and provisions for ongoing stakeholder consultation in decision making.
- Day to day management and enforcement should be locally based.

Mission statement

The SMMA has adopted a new mission statement as follows:

The mission of the Soufriere Marine Management Area is to contribute to national and local development, particularly in the fisheries and tourism sectors through management of the Soufriere coastal zone based on the principles of sustainable use, cooperation among resource users, institutional collaboration, active and enlightened participation, and equitable sharing of benefits and responsibilities among stakeholders.

Legal basis and new institutional arrangements

As a result of this review, new arrangements are being put in place, with the following features:

- the Soufriere Marine Management Area remains the portion of coast between Anse l'Ivrogne in the south and Anse Mamin in the north, from the shore to a depth of seventy-five meters;
- this area will be established as a Local Fisheries Management Area under the provisions of the Fisheries Act;
- the management of the area will be governed by a new agreement, which has been negotiated among the members of the TAC, and which defines the vision, mission, objectives, regulations, zoning, programmes and institutional arrangements of the SMMA;
- current zoning and regulations will be maintained, and a detailed map identifying all zones forms part of the proposed new agreement;
- the coordination of management will be the responsibility of a new organisation, called the Soufriere Marine Management Association, a not-for-profit company created under the Companies Act. This Association will be comprised of all the agencies which have a demonstrated management function in the Area.

Its members will therefore be, initially, five community and non-governmental organisations (the St. Lucia Dive Association, the Hotel and Tourism Association, the Soufriere Fishermen's Cooperative, the Soufriere Regional Development Foundation and the Soufriere Water Taxi Association), five government agencies (the Ministries of Planning, Fisheries and Tourism, the National Conservation Commission, and the Air and Sea Ports Authority), and one or two individuals nominated by the District Representative and the Cabinet of Ministers. It will be made a Local Fisheries Management Authority under the provisions of the Fisheries Act.

One important provision of the new arrangement will be the establishment of Stakeholder Committee, a broad-based advisory body which will provide a forum for all stakeholders to express their needs, views and concerns. This Committee will meet at least once per quarter, and will be an essential component of the new SMMA, as it will be the place where the views of all parties will be heard.

Enforcement

Unclear and inefficient structures for the enforcement of regulations within the SMMA are an important concern to users of the Area and institutions involved in management. There is general agreement that local response to incidents must be improved. The problem stems from the current manpower and equipment constraints of the Marine Police and the Soufriere police. There is a lack of consensus over the role that the wardens can and should play in enforcement: one view is that their role should largely be preventive, while others see the need for the rangers to have greater enforcement authority, including the powers of arrest.

More detailed discussions will soon be held on this issue between the major parties involved (Attorney General's Chambers, Marine Police, Soufriere Police, SMMA, Water Taxi Association, Department of Fisheries) to determine a structure for law enforcement that addresses the current problems, specifies respective roles and authorities, and identifies additional resources that may be required.

b) Communications Plan

A September 1995 assessment of communication within the SMMA and a July 1996 survey of perceptions of the SMMA revealed that poor information flows contribute to a lack of compliance with the Area's regulations and to mistrust of authorities and their motives by members of the wider Soufriere and St. Lucia communities.

The following six issues were identified as the main communication problems facing the SMMA:

- 1) Lack of understanding of the SMMA and its purpose and goals by members of the various user groups, including the following: dive operators, hoteliers, the yachting sector (local and foreign), law enforcement agencies and officers (marine police, police force, immigration), and the general public, particularly the residents of the greater Soufriere area.
- 2) Lack of understanding of the need for and significance of boundaries within the SMMA, by commercial and recreational users, including: fishermen, especially pot fishermen and local recreational fishers, including spear fishers, local recreational boaters, yachting and diving sectors, water-taxi operators, and beach boys.
- 3) Poor information flows between the management of the SMMA and the surrounding communities, including the town of Soufriere, partly because representatives of the various sectors on the Technical Advisory Committee (TAC) do not function as such.

- 4) Lack of understanding by the Soufriere community and the general public in St. Lucia, of the ecological and economic benefits of coastal resources and the marine environment.
- 5) Insufficient flow of scientific and research data to the Soufriere community, the schools, the management of the SMMA and the general public in St. Lucia.
- 6) Soufriere, and St. Lucia as a whole, are receiving bad publicity internationally, notably in the yachting sector, because of harassment and crime.

A communication plan was developed for the SMMA to address specific communication deficiencies that were identified during the September 1995 assessment. The plan outlines recommends steps and approaches (target audiences, messages, media and/or actions) to address them.

While a number of communication activities have taken place over the past four years, financial constraints have prevented the full implementation of the SMMA Communication Plan and key sectors remain insufficiently mobilized to support the objectives of the SMMA and comply with its rules and regulations. These include representatives of user groups (fishermen, yacht charter and dive operators), relevant government agencies (customs, immigration, district- and marine-police) and the general public.

5. RESULTS AND LESSONS LEARNED

a) Institutional strengthening

Over the past four years of initial operations, the SMMA has proven to work as long as the principles of participatory planning were followed. Political circumstances threatening the survival of the institution could be dealt with because of the strong commitment among the various stakeholders.

Since the existence of the SMMA was originally only based on a series of Cabinet conclusions, the institution was very vulnerable to outside interference, thus the new institutional arrangements which are currently being put in place. As soon as this is done, there will be need to operationalise this new arrangement.

Initially the SMMA was also designed too much around certain leadership personalities and thus failed to clearly define the management responsibilities of the relevant institutions, which resulted in a "responsibility vacuum".

However, the high level of transparency and a focused agenda is believed to be the reason that most of the stakeholder meetings are very well attended, although continuity by some members is missing, causing misrepresentation of relevant sectors at times.

The creation of a number of subcommittee to ease off the workload of the SMMA staff has proved not to be workable, because of the complexity of their setup making it difficult to convene regular meetings.

The implementation of the recommendations derived out of the institutional review and the communications plan has to be the main priority to continue with the progress made and to stabilize and strengthen the SMMA.

b) Conflict management

Key to the SMMA's success in managing conflicts on an on-going basis is the very close contact which exists among user groups, and between them and SMMA management. The SMMA lays the role of a facilitating link between the user groups and not an enforcement agency.

For of a variety of reasons, it sometimes becomes necessary for the SMMA to assist one group in formalizing or vocalizing its concerns, but it is essential for the SMMA to remain fair, and perceived as fair.

The SMMA has shown that two essential conditions for conflict management are:

1. Direct participation of resource users, because community institutions do not always provide adequate representation and because stakes/interests often vary from individual to individual.
2. Direct communication among stakeholder groups, for example, by allowing fishers to directly address conflicting interests to others, such as divers, or yachts people.

c) Communication and public sensitization

Although considerable progress has been made (e.g. balancing between enforcement of rules and regulations and public relations, establishment of newsletter, internet web-site, etc.), effective communication between stakeholders, community groups and other involved parties remains critical. Therefore it is essential that the enforcement staff continues the sensitization efforts for the user groups. The implementation of the communications plan remains a high priority.

d) Involvement/support of self-regulating user groups/institutions

Further support needs to be given to strengthen local, self regulating institutions namely the Fishermen's Cooperative, St. Lucia's dive association Anbaglo and the Water Taxi Association, the latter being particularly dependent on better recognition by government authorities. The role of true representation of their sectors can not always be fulfilled.

6. DOCUMENTATION USED IN THE COMPILATION OF THIS PAPER:

CANARI, 1998. Report on the Institutional Review of the Soufriere Marine Management Area, November 1997 – March 1998. Saint Lucia

Brown, N. 1997. Devolution of authority over the management of natural resources: the Soufriere Marine Management Area, St. Lucia. CARICAD and CANARI. 22p.

CANARI, 1995. Soufriere Marine Management Area (SMMA) Communication Plan, October 1995. Saint Lucia

George S., 1996. A review of the creation, implementation and initial operation of the Soufriere Marine Management Area. Department of Fisheries, Saint Lucia.

Hatcher B.G. 1995. Testing Mechanisms by which Marine Protected Areas Export Fish to Adjacent Habitats: The Soufriere Experiment in Reef Fisheries Sustainability (SERFS).

Nugues M., 1998. The impact of the white-band disease epizootic on coral communities in St. Lucia: What and how much has been lost?

Renard Y., 1996. Conflict resolution and participatory planning: the case of the Soufriere Marine Management Area, Case History July 1992 – June 1994. CANARI, Saint Lucia.

Roberts C., Nugues M., Hawkins J., 1997. Report on the 1997 survey of coral reefs of the Soufriere Marine Management Area and Anse la Raye. Saint Lucia.