

## **ADJUSTING TO A NEW WAY OF LIFE**

### **Marine Management Areas and Fishers**

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#### **Introduction**

The town of Soufriere, located midway along St. Lucia's west coast, is a picturesque community known for its famous twin volcanic peaks (the Pitons), waterfall (Diamond Falls), drive in volcano (the Sulphur Springs), old growth rainforest and spectacular coral reefs. Soufriere's population stands at 8,500 with about 150 fishers operating here from just over 100 fishing vessels. According to Department of Fisheries statistics, these craft comprise: 51 wooden canoes, 30 fiberglass pirogues, and 35 smaller transoms and 'shaloops'. The fishers are mostly full-time (59 part-time and 91 full-time) and they land over 80 tons of fish annually. In contrast to many of the other fish landing sites, Soufriere's catch mainly comprises coastal pelagics such as jacks, balao and sardines as well as reef species and flyingfish.

Soufriere fishers have traditionally engaged in nearshore fishing, including pot and seine fishing, while fishing communities to the northwest, east and south of the island have become focussed on offshore fishing for migratory pelagics (e.g., tunas, kingfish and dolphinfish), particularly during the first half of the year. Soufriere has been slow to follow this trend due its location furthest from the migratory routes of the valuable pelagics. The significant distance that fishers need to travel to access such resources leads to additional time and operational costs (fuel) and demands investment in high-powered engines and improved gear and methods. Such factors have discouraged the majority of Soufriere fishers from making the transition into offshore fishing.

In addition to the above constraints, Soufriere fishers have had to contend with the rapid growth in the tourism sector, particularly in the areas of yachting, diving, snorkeling and coastal sightseeing. While the benefits of such tourism accrues to the local restaurateurs, hoteliers, taxi operators (water and land based), dive operators, charter boat companies and sightseeing operations, there has been little direct benefit of tourism expansion to the Soufriere fishers. In fact, prior to the formation of the Soufriere Marine Management Area (SMMA), fishers often found themselves in conflict with these visitors: -

- yachtsmen and fishers competed for the use of marine space for both anchoring and seining activities respectively;

- divers were often accused of deliberately damaging fish pots found during dive expeditions, especially in extensive areas that had been declared marine reserves (no-fishing zones) since 1984 but had never been demarcated;
- tourism related vessels were known to interrupt fishing and damage fishing gear by passing too close to fishing activities or passing directly in the path of deployed fishing gear;

Thus, Soufriere fishers seem to have been disadvantaged not only by their location, but also having suffered additional difficulties as a result of tourism expansion. The official establishment of the Soufriere Marine Management Area in 1995 has brought with it several benefits to fishers: representation on the SMMS's technical advisory committee, adjustment of marine reserve boundaries and the establishment of more fishing priority areas catering to the seine fishing activities. Yet the initial disadvantages were far more evident, particularly in loss of many of their prime reef fishing areas. Fishers will need to wait several years in order to benefit significantly from the formation of new, actively protected reserve areas as a "spill over" effect is anticipated, i.e., increased fish production in marine reserves leading to emigration of fish to fishing priority and multiple use areas. In the meantime, fishers have to "feed their families".

### **Easing the Growing Pains**

In an effort to alleviate the constraints faced by Soufriere fishers, largely promulgated by their loss of prime fishing grounds, and help reduce fishing pressure on the nearshore resources, the Government of St. Lucia, through the Department of Fisheries and the Soufriere Marine Management Area, embarked on several initiatives in the Soufriere area: -

#### **A Temporary Stipend for Traditional Fishers**

In 1997, the SMMA went through difficult times. The closure of two major sources of land-based employment, the Jalousie Plantation Resort and the Copra Factory, left a definite imprint on the SMMA and served to illustrate the integral relationship which exists between businesses in Soufriere, the local community and the SMMA. The competition among traditional fishers and "temporary (out of work) fishers" led to an upsurge of undesirable fishing activity in marine reserve areas. The situation was alleviated through Cabinet Conclusion 783 of November 6<sup>th</sup>, 1997, through which Government granted a monthly stipend of EC\$400 to twenty (20) of the original displaced fishers for a period of one year. This stipend supplemented the meager income of fisher families who were disadvantaged by the increased fishing competition brought about by newcomers.

Based on information obtained from fishers regarding revenue derived from reef fishing, the above figure was considered reasonable. The concept at that time was to discourage fishers from trying to earn a living by illegally fishing in the marine reserves. Any repeat offenders would be fined, their gear confiscated and the stipend stopped. It was also the

intention that the Government of St. Lucia and other relevant agencies would seek to find or create alternative opportunities for the non-fishers who had lost their jobs. Fortunately, both the Copra Factory and the Jalousie Hotel re-opened prior to cessation of the stipend alleviating the pressure on the nearshore resources.

### **Selective Access Granted to the Grand Caille Marine Reserve**

Due to the perceived “marginalization” of the traditional fishers through the active protection of most quality reef areas (as marine reserves) and then as a result of the competition among traditional fishers and newcomers temporarily out of work, selected dependent pot fishers were granted limited fishing access to the southern half of the Grande Caille Marine Reserve. This was done via Cabinet Conclusion No. 947 of December 4<sup>th</sup>, 1997. As a result of the destructive nature of bottom gillnets, the latter were not to be used in the said area. In addition, upon the request of the fishers who strongly felt that marine reserves should in fact be left completely undisturbed, diving and snorkeling (which are usually allowed within marine reserves) were prohibited in the Gros Piton Marine Reserve, with only authorised research being permitted.

### **Fonds Francias pour l’ Environnment Mondial (the FFEM Project)**

#### *What is the FFEM about?*

The FFEM project is an initiative between the Government of St. Lucia and France that focuses specifically on conservation and sustainable use of marine resources in the Soufriere district. The following sub-projects have been conducted, with financial assistance from the French Government: -

#### *Construction of a Jetty*

Upon the request of the fishers, a jetty was constructed in 1998 near the filling station in Soufriere in order to facilitate direct fuelling by fishers prior to fishing expeditions. The jetty also facilitates off-loading following fishing trips, since it is located in close proximity to the fish market. It was felt that, should more fishers invest in larger fiberglass pirogues for offshore fishing, a jetty and market facility would be required for landing and selling their catches.

#### *Gillnet Buy-back Scheme*

In previous discussions with Soufriere fishers, the majority agreed that gillnets were the main “culprits” accounting for significant damage to coral reefs within the SMMA. Thus a joint decision was made to prohibited their use within the SMMA. Nineteen (19) existing gillnets were then purchased from fishers and effective August 17<sup>th</sup>, 1998, the use of bottom gillnets was prohibited within the SMMA.

#### *Provision of an Ice Machine*

Access to ice is a significant problem facing fishers islandwide, where catches of coastal pelagic fish species (such as jacks, balao and sardines) can be unpredictably large. This “handicap” causes unnecessary wastage and loss of income to fishers due to poor prices

during glut periods. Upon the request of the fishers of Soufriere, an ice machine was purchased for fishers which now can facilitate the temporary storage of fish. Such a facility will also be a valuable asset for dealing with bumper catches from the highly seasonal offshore pelagic fishery, should this become a focus for some of the vessels.

#### *Introduction of Fish Aggregating Devices (FADs)*

In a continued effort to enhance fish catches and, in particular, to encourage west coast fishers to change their focus to offshore fishing, the Department of Fisheries with the involvement of local fishers, built and deployed several Fish Aggregating Devices (FADs) off the west coast of the island.

FADs are designed to act as fixed shelters for migrating pelagic fish, thus reducing the time and cost of hunting for fish offshore. Small fish are known to congregate around FADs in search of food and shelter and larger predatory fish are then attracted to the FADs. These structures have been particularly successful in encouraging traditional nearshore fishers to engage in offshore fishing and have also provided as source of offshore fish catch during the second half of the year when the migratory pelagics are scarce and fishing effort has tended to focus on nearshore demersal fish species such as reef fishes.

The fishers of Soufriere have been obtaining large catches from their FAD and have requested that additional ones be deployed in the area. A earlier FAD had been deliberately destroyed by fishers as result of insufficient public awareness activities prior to deployment. However, with the recent approach and enthusiasm over the current FADs it is hoped that these structures can continue to ease fishing pressure on the nearshore.

#### *An Investment Fund*

This fund was devised so as to assist fishermen in obtaining loans for engaging in activities other than coastal demersal fishing (e.g, deep sea fishing activity, tourism-related activities). Fishers are provided a grant comprising 20% of the funds required for an investment, but the amount granted must not exceed EC\$6000. A number of fishers have submitted projects for this form of assistance, but funds have not yet become accessible.

#### *Other Assistance*

The FFEM project has also helped in a number of other ways less directly related to the fishers: - construction of an office for the operation of the SMMA; provision of training in accounts for SMMA staff; purchase of office, dive equipment and souvenir items for sale at the SMMA shop; provision of equipment for monitoring of the marine environment; supporting community activities such as sponsorship of the local basketball team and carnival band; sponsorship of a “kids safari” environmental education programme; funding of a small-scale watershed management programme; and funding of an institutional review process for the development of a more effective and efficient SMMA.

### **Longline Training**

A Longline Training Project was devised and implemented during the first quarter of 1999. This provided the opportunity for Soufriere fishers to learn to construct and operate tuna longlines suitable for longlining vessels and the larger pirogues. The project, funded by the French Government, is to extend over a two-year period and caters to fishers islandwide. Initially, the project focused on Soufriere fishers to enable traditionally nearshore fishers to acquire theoretical and practical skills for offshore fishing in hope that a change of focus might reduce the level of overfishing on nearshore reef resources.

### **Where we Stand Now**

Despite the setbacks commonly associated with the establishment of marine parks and marine management areas, the formation of the SMMA has been very beneficial to the Soufriere community and St. Lucia as a whole. These benefits include:

- Resolution of conflicts among users through a consultative and participatory process leading to apportioning access of the coastal zone; this has facilitated the more harmonious coexistence of users and will likely increase economic activity over the longer term through the conservation and sustainable use of resources and more equitable sharing of benefits.
- Improvement in the status of coral reefs, especially branching corals, through the provision of mooring buoys for yachts and dive boats; previously these corals suffered physical damage particularly from anchorage (Roberts et al, 1997).
- Increase in fish stocks in marine reserves and fishing priority areas (Roberts et al 1997). The annual fish census indicates that fish biomass in marine reserves has increased significantly and in some cases has as much as tripled.
- Collaborative management of the area through the formation of a multi-sectoral technical advisory committee (TAC) comprising users, as well as relevant governmental and non-governmental agencies; this has created greater ownership of the SMMA initiative and facilitated broad-based involvement in management of the resources of the area.
- High awareness about coastal marine management issues through the efforts of the SMMA, Department of Fisheries and other associated groups.
- Provision of a valuable area for scientific study because of the presence of congruent marine reserves, multiple use and fishing priority areas; this value is complemented by the unique process leading to the establishment and management of the SMMA;
- Increased use of the SMMA by yachters and divers, generating income for the SMMA (through user permits) and for the Soufriere community at large (e.g., through visitors patronising local bars and restaurants and purchasing handicraft items)

- Support to community activities, such as sponsorship of a local basketball team and carnival band, fishermen's feast;
- Capacity building for previously poorly organized groups, facilitating a more viable business environment e.g., the case of the Soufriere Water Taxi Association.
- Generation of user fees, and "friends of the SMMA" foundation led to near self-sufficient financing of the marine area management.
- International recognition for conservation efforts by the SMMA, which received the 1997 British Airways Tourism for Tomorrow IUCN Special Awards for National Parks and Protected Areas.

### **Conclusion**

It is clear that the aspect most difficult to accept with respect to marine management area establishment has been the formation of marine reserves. This is especially so for fishers, who lose prime fishing grounds and must wait several years for benefits of the reserves to accrue.

In the case of the SMMA, the increase in fish stocks is already evident within the unfished populations but does not yet appear evident within fish landings from fished zones. Thus, the gains made to date are still weak and are heavily dependent on a complete lack of fishing in reserves and a reduction in the degree of nutrient and sediment being released into the marine environment from anthropogenic land-based sources.

In 1997, the widespread violation of marine reserve regulations was reflected in fish abundance, where the number and biomass of fish in two long-standing marine reserves fell compared to 1996. If rules are not adhered to and the marine reserves are not respected, all efforts will go to waste. It is with this in mind that the Government of St. Lucia has procured such an array of activities focused on assisting the displaced fishers during the period of transition, until the benefits of the reserves become evident to this group.