

GLOVER'S REEF MARINE RESERVE SOCIOECONOMIC SURVEY RESULTS: SARTENEJA 2004

In June 2004, Wildlife Conservation Society (WCS) conducted a socioeconomic survey in Sarteneja, focusing on the fishermen who use the resources of the Glover's Reef Marine Reserve. The objective of the survey was to help strengthen the management of the Reserve by conducting planning that is responsive to the needs and priorities of the community, while encouraging community support for the conservation of the Glover's Reef Atoll. Similar surveys were conducted in Dangriga and Hopkins, communities that also depend on the Atoll's resources. The surveys followed the method described in the SocMon guidelines developed for the Caribbean.



Glover's Reef is one of the most important fishing areas for Sarteneja fishermen. Based on a recent census of boats, eight sailboats with 7 to 14 dories are currently active at Glover's. Twenty fishermen (8 captains and 12 crew) were interviewed. The survey covered information on demographics, coastal and marine activities, attitudes and perceptions, threats and problems, solutions, and material style of life.

Results – Demographics

All fishers were males. Fishing was the primary occupation for all respondents, with only seven fishermen also having a secondary occupation. This demonstrates their strong dependence on fishing the resources of Glover's Reef.

Average age	34
Average household size	5
No. with primary education	19
No. with secondary education	1
No. with family members involved in income-generating activities	8
No. member of a fishing co-operative	17



Coastal and Marine Activities

Almost half the fishermen interviewed have fished Glover's for more than 10 years, and the majority received 76% to 100% of their catch from the atoll. Most made 10 to 25 fishing trips per year, and the average length of a trip was 8 days. All were divers, fishing for lobster and conch and also taking finfish such as hog fish, grouper, snapper and rockfish. Almost all respondents sold 100% of their catch to a cooperative, either Northern or National. Only two fishers sold 25% and 50%, respectively, of their catch locally.

Attitudes & Perceptions

Virtually all respondents felt the condition of the resources was worse than five years ago. The reasons stated for this decline were the establishment of the marine reserve, hurricanes, more fishermen using the area, and illegal fishing.

The results also demonstrated the following:

- 65% agreed the Conservation Zone was helping to sustain fisheries
- 95% felt more of the Conservation Zone should be opened to fishing
- 55% felt penalties should not be increased
- 70% agreed that enforcement was not adequate
- 60% felt most fishermen do not respect the reserve regulations
- 55% supported protection of the mangroves at Glover's
- 100% wished to participate in decision-making.



About half the respondents felt they were not well represented on the Glover's Reef Advisory Committee, and the majority did not support joint management of the reserve by government and a NGO or co-operative. On the other hand, the majority supported co-management of the resources between fishermen and the government. **Significantly, the majority agreed that the marine reserve is important for protecting the atoll's coral reef system.**

All fishermen were aware of the Glover's Reef Marine Reserve and its management zones. They were also familiar with the regulations for commercial and sport fishing, and for the protection of mangroves. The majority, however, were not familiar with regulations for resort development and tourism (e.g. snorkeling and diving). Most respondents were willing to change to another occupation, e.g. tour guiding, and they would choose an occupation other than fishing for their children. Fishermen were mainly interested in education for their children.

Threats, Problems and Solutions

Respondents identified the following as the main threats and problems facing the reserve:

- Overfishing and illegal fishing
- Caye owners are allowed to fish in the Conservation Zone
- Reserve staff are biased
- Area is too large to patrol adequately

They recommended the following solutions to address these concerns:

- Increase area open to fishing
- Enforce the laws
- Conduct more patrols and appoint more rangers
- Install new marker buoys
- Issue no special licenses to fish in the Conservation Zone

Material Style of Life

Most fishermen (60%) owned their house and 70% owned their lot; in addition, 30% owned farmland. All owned a dorey, bicycle, stove, washer and stereo equipment, and almost all had a TV. The majority also owned a VCR, refrigerator, and telephone.

Most of the homes were built of cement (85%), with wooden windows (60%), cement floors (90%) and zinc roofs (85%).

WCS is grateful to all the fishermen who took part in the survey and to the villagers who assisted with the study. We are also grateful to NOAA who funded the study.

