

## **The Fisheries of St. Lucia: Some Socio-Economic Considerations**

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### **ABSTRACT**

This paper presents preliminary results of a survey carried out by the Department of Fisheries of St. Lucia in 1989. This survey was seen as providing information on some of the socio-economic aspects of St. Lucia's fishing industry. Marine resource users were interviewed at fish landing sites. The significance of any apparent socio-economic interrelationships was analysed statistically. Fishing status (full-time/part-time) was found to be independent of marital status (*i.e.*, married/single/separated/divorced) and gear ownership (owns gear/does not own gear). Membership in a fishermen's co-operative was found to be dependent on ownership of a fishing boat.

### **INTRODUCTION**

Fisheries development and management involve and affect primarily fishermen. It is therefore necessary to consider their values, motivations and attitudes, and to examine the distribution of benefits between and among fishermen in light of their socio-economic conditions. Undoubtedly the understanding of trends in the fisheries sector is vital for economic and infrastructural planning and forecasting. This is especially true where there is the possibility of introducing new technology and methods.

Murray *et al.* (1992) have noted that St. Lucian part-time fishermen, when not engaged in fishing, have occupations related to the banana industry. As has been implied by Murray *et al.* (1992) the pattern of fish recruitment in the St. Lucian fisheries could very well be functions of the seasonal concentration of the fisherman's effort. The socio-economic situation of the fisherman can thus impinge on the variations in fishing effort, and in keeping with this, the socio-economic aspects must not be overlooked in the assessment of the future potential of the fisheries.

McGoodwin (1984) attempted, *inter alia*, to describe the socio-economic, attitudinal, and cultural characteristics of participants in the fishing industry, and to assess the incentives and disincentives related to the role and function of fisheries co-operatives. McGoodwin (1984) estimated that there were 1,997 primary participants working in St. Lucia's fishing industry. Though urban-dwellers in St. Lucia often assert that fishing is a young man's job, McGoodwin (1984) found that, within a range of 18 to 63 years, the mean age of

fishermen (defined by him as persons who go to sea to fish but own no share in a boat) was 34 years of age, having been in this occupation for an average of 15 years.

In the period August to September of 1989, the Department of Fisheries of the St. Lucia Ministry of Agriculture, Lands, Fisheries and Co-operatives (DOF), carried out a marine resource user survey. This survey was seen as providing information on some of the socio-economic aspects of the industry.

#### METHODS

Members of staff of the DOF interviewed marine resource users, herein called fishermen whether they owned boats or not, at previously announced times and places. The interview venues were essentially landing areas which served as the bases of operations of at least five fishing canoes. A standard form was used as the basis of the interview.

Information gathered was entered into a LOTUS 1-2-3 spreadsheet and then imported into R:BASE for DOS for summation.

Statistical analyses were done to determine the nature of any interrelationships that might exist between the socio-economic factors.

#### RESULTS

Table 1 shows the summary results of the survey collated on an islandwide basis.

Fishing status was found to be independent of both marital status ( $\chi^2_{0.05,3} = 7.815$ ;  $\chi^2_{\text{calc}} = 4.24$ ), and gear ownership ( $\chi^2_{0.05,1} = 3.841$ ;  $\chi^2_{\text{calc}} = 3.35$ ).

Membership in a fishermen's co-operative was found to be dependent on the ownership of a boat ( $\chi^2_{0.001,1} = 10.828$ ;  $\chi^2_{\text{calc}} = 78.808$ ).

#### DISCUSSION

Family obligation is apparently not a major factor in determining the fishing status of St. Lucian fishermen. In other words, it is not the need to maintain a wife that determines whether or not a fisherman fishes full-time or otherwise. The factors which would probably have more of an effect in this regard are likely to include catch levels and seasonality of target species, land tenure and the opportunity cost of fishing. Panayotou (1982) has suggested that when there is considerable unemployment, fishing wages do not reflect the true opportunity cost of labour. He opines that if, because of widespread unemployment, fishermen have no alternative to fishing, their opportunity cost is close to zero, and thus little or no societal sacrifice is made in keeping them in the fishery.

Mahon *et al.* (1990) have suggested that investment in boat and gear tend to commit the fisherman to fishing full-time. The results obtained herein do not support this view, at least from the perspective of gear ownership, the two factors having been found to be independent of each other.

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**Table 1.** Summarised results of fisherman's survey collated on an islandwide basis.

Age Range:	15-24	25-34	35-44	45+					
No.:	48	73	64	145					
Fishing Status:	Full-time	Part-time							
No.:	260	72							
Marital Status:	Married	Single	Separated	Divorced					
No.:	105	218	7	2					
Gear owner:	Yes	No							
No.:	268	63							
Gear owned:	trol	sgun	bsne	cnet	dive	gnet	hlin	llin	mult pots
No.:	6	16	6	2	4	1	2	1	201 34
Boat Owner:	Yes	No							
No.:	148	184							
Co-op Member:	Yes	No							
No.:	116	216							
Av. # Dependents:	4		Av. # Yrs Fishing: 22						
Key:	trol = trolling lines	sgun = spear gun							
	bsne = beach seine	cnet = cast net							
	dive = diving gear	gnet = gill net							
	hlin = hand line	llin = long line							
	mult = multiple gear	pots = fish traps							

The relationship between boat ownership and whether or not a fisherman is a member of a co-operative is based on the fact that, up to this time, the major benefit provided to members of fishermen's co-operatives is a duty refund on fuel used for fishing. Since the boat owner is responsible for the purchase of fuel, he is entitled to the full refund. Other incentives to the industry such as rebates on the import duty on fishing gear, given to co-operative members, also accrue to the boat owner. The average, non-boat-owning fisherman, therefore, does not see the co-operative as being able to provide him with any real benefits. Both Gardner (1975) and McGoodwin (1984) note that the reasons for non-involvement in co-operatives include a misapprehension that co-operatives are solely for boat owners. They also both suggest that participation by

non-boat-owning fishermen will continue to be minimal until the relevant co-operatives are more effectively run. The fishermen's co-operative movement still needs to be developed to enhance the well-being of all fishermen whether or not they are boat owners.

The second Organisation of Eastern Caribbean States workshop on Fisheries Management and Development, held in St. Lucia from May 7 to May 11, 1990, recognised that there was a need to examine existing social security mechanisms in place for fishermen, their use and effectiveness. McGoodwin (1984) notes that fishermen accorded high priority to the provision of accident, medical, life insurance, and retirement plans. If such schemes were to be organised in some form through the co-operatives, this might encourage more fishermen to become members of co-operatives whether or not they are boat owners. McGoodwin (1984) has pointed out that the key to maximising benefits to primary producers is to widen the extent of boat ownership in the fisheries sector so as to achieve a more equitable distribution of fishing income. While it would appear that the mechanism for achieving this should be through the co-operatives, as long as they remain primarily boat-owners organisations without providing benefits to the non-boat-owning fishermen, this maximisation of benefits is not likely to occur in the near future.

#### LITERATURE CITED

- Gardner, C.M. 1975. Survey on Fishing Industry in St. Lucia. MS.
- Mahon, R., F. Murphy, P. Murray, J. Rennie, and S. Willoughby, 1990. Temporal variability of catch and effort in pelagic fisheries in Barbados, Grenada, St. Lucia, and St. Vincent: with particular reference to the problems of low catches in 1989. FI/TCP/RLA/8963 Field Document 2. FAO. 74 pp.
- McGoodwin, J.R. 1984. Study on the Socio-economic and Cultural Aspects of the Fishing Industry in St. Lucia. FAO Project Report GCP/STL/004/NOR. 118 pp.
- Murray, P.A., L.E. Chinnery, and E.A. Moore. 1992. Recruitment of the Queen Snapper, *Etelis oculatus*, into the St. Lucian fishery: recruitment of fish and fishermen. *Proc. Gulf Carib. Fish. Instit.* 41:297-303.
- Panayotou, T. 1982. Management concepts for small-scale fisheries: economic and social aspects. *FAO Fish. Tech. Pap.* 228: 53 pp.