

## Overview of the Commercial Fishery of Antigua and Barbuda

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The commercial fishery of Antigua and Barbuda is based almost entirely upon the exploitation of demersal or reef species from the extensive reef areas between Antigua and Barbuda. Virtually no effort is made to harvest pelagic species such as tuna, kingfish or dolphin. This is in contrast to the Leeward Islands where pelagic fishing predominates because these other islands do not have large shallow areas off their coast. The fishery resources of Antigua and Barbuda have not yet been harvested to their maximum sustainable yields although indications of overfishing have been noticed for some of our traditional fishing grounds. Hence, it is necessary to explore and operate from fishing grounds within our territory that have not yet been fully utilized.

Government's Policies.--The Government of Antigua and Barbuda has recently implemented a fishery policy that takes into consideration the importance of the artisanal fishery towards the development of the fishing industry. Government policies with respect to fisheries are consistent with that adopted at the sixth meeting of the committee of regional Agricultural Planners and further presented to the regional Agricultural Minister's Conference held in St. Kitts in 1982. That policy recognizes the importance of developing the fishing industry so that Antigua and Barbuda can obtain the maximum benefits from its fishing resources. To this end, we are managing to improve the fishing effort, storage facilities and marketing. Establishing a processing unit is consistent with the goals of this policy.

Fisheries Statistical Information.--Annual fish landings estimated at about 3.3 million were fairly constant until about 1979. A gradual decrease of about 22% annually has been recorded over the last 2 years. This decrease in catch could be a result of a decrease in the population of our reef fish stocks or the lack of efficient technology to harvest this resource. A proper monitoring system is needed to effectively manage the demersal and pelagic resources.

The main landing sites are St. John's, Valley Church Bay and Old Road Bay. There are also numerous beaches around the islands where small inshore boats land and sell their catch locally. All the larger boats land their catch in St. John's. For 1982, the amount of fish landed was 1.993 million lb, while that for 1981 was 1.876 million lb. This is an increase in 1 year of 117,074 lb or 6.2%. For the 3 years prior to 1982 decreases in the annual landings have been noted.

While the amount of fish landed has decreased significantly, the total export has increased over the same period. Several factors account for this: (1) A lucrative market exists in the neighboring French territories; (2) The controlled prices of fresh fish in Antigua are far below the price obtainable for exported fish; (3) Government has restrictions on export trade because of the foreign exchange that is derived from it. The quantity of fish exported last year was just over 1 million lb at an average price of \$3.00 U.S./lb. The same fish is sold on the local market at an average price of \$2.50 E.C. Fresh and fish products (with the exception of lobsters) still remain the cheapest source of protein in Antigua and Barbuda and there is a great demand for it both by domestic consumers and hotels.

Resource Uses.--The Antiguan fishery is comprised of an estimated 800 fishermen who operate some 230 boats ranging from small, inshore, row boats to 55- ft vessels. Though the majority of the boats are of the inshore type, there are about 100 open motor boats powered with outboard motors or small inboard diesel engines. Another 65, rather modern decked boats, range from 25 feet to 55 feet in length and are powered by marine diesel engines. These craft fish with the traditional thatch or wire fish pots. Most fishing is done on a daily basis, pulling pots generally 2 or 3 days a week. Some of the larger vessels stay at sea for 3 days fishing pots and lines.

Marketing of fish is a very acute problem in Antigua. Fishermen land their catch at the main landing sites where the catch is sold directly to fish traders (the middleman who exports it to overseas markets). Sometimes the entire catch of a fisherman is bought by the middleman. At other times, only the choice species are bought and the fisherman is left to sell the remainder of the catch to local consumers. Sales are made directly from the fishing boat. Fish is sold in the fish market only if there is a relatively high average catch at anyone time. This is seldom the case; hence, consumers are faced with a very inadequate marketing situation.

Management.--The Fisheries Department has a staff of 10 persons. Their positions and responsibilities are: Fisheries Officer, Management of the Fisheries Department and the fisheries resources of Antigua and Barbuda, including the planning and implementation of fisheries projects; Senior Clerk, Administrative functions; Storekeeper, Operation of stores; Cashier, Collect funds from the sales of ice and store items; Typist; Cleaner, General cleaning of office; Labor Foreman, Management of ice plant; Petty Officer, General office duties; Ice Plant Assistants (2).

A number of laws and regulations directly and indirectly affect the fishing industry: (1) Laws govern the type of fishing gear that can be used by fishermen, prohibiting the use of explosive devices and establishing size of fish pot wire mesh, and mesh size of nets; (2) Restrictions on the size of fish and other marine products that can be caught; (3) Registration of fishermen and (4) General conduct at sea.

Fishermen are required to register with the Fisheries

Department on an annual basis. An identification card is issued to them which is their means of showing that they are registered fishermen. Also all boat owners are required to register with the Port Authority of Antigua and Barbuda.

Ocean going vessels are prohibited from dumping wastes, such as petroleum and other toxic materials within Antigua territorial waters.

Future Government Plans for Fisheries.--Presently, there is no training program in operation. This department is in need of trained personnel in the area of statistical analysis, to analyse data relating the quantity of fish landed to stock density. Training is needed in the area of extension service personnel so that we can provide adequate service to fishermen in modern fishing techniques and general improvement in the industry.

Government has plans for setting up more comprehensive fishery regulations and the basis for enforcement. A research unit is proposed for the Fishery Department which will produce fishery statistical information more efficiently and reliably. Eventually, with the improvement in staffing at the Fisheries Department, the management of fishery resources would be more organized. This will bring about a high level of efficiency in terms of predicting and monitoring stock abundance for heavily exploited species. Another aspect of resource management, that the Government will be concentrating on in the future, is the problem of the exploitation of our fishery resources by foreign fishing vessels. The Government will be introducing legislation that will protect our marine resources from foreign exploitation without permission from Antigua and Barbuda.

Planning for Mariculture Projects.--There is presently a number of mariculture projects being planned and one small pilot scale project of private concern is in operation. Of the planned mariculture projects, two are likely to commence operation during this year: (1) The culture of snappers and groupers in floating net cages and (2) The culture of tilapia in floating cages in the marine environment. The culture of groupers and snappers will be conducted by the Fisheries Department, while that for tilapia culture will be undertaken by a private company. Presently, a private enterprise has started a small shrimp culture project which (if successful) will be developed into a large scale shrimp culture industry.

Policy in Regard to the International Law of the Sea.--The Government is presently introducing legislation that will enable Antigua and Barbuda to extend its territorial limit to the 200-mile Exclusive Economic Zone. The Fisheries Department has already made a contribution to this new legislation. A position paper, dealing with the aspects of the EEZ that relate to our fishing resources, has been presented and recommendations have been made as to ways we should administer these resources.

Conclusions.--The development of the fisheries resources is very important, contributing to the general well being of the economy

of Antigua and Barbuda which is currently, largely based on agriculture and tourism. The fishing industry can play a significant role towards food production, not only in Antigua and Barbuda but within the region as a whole. To achieve this the management and exploitation of the fisheries resources must have a scientific basis. Quantitative and qualitative analysis of this resource should be of top priority, as this would enable the determination of the method and degree of exploitation that can be accommodated by a particular fishery.

Fishermen need to upgrade their equipment, so that they can realize a higher yield from their efforts. The use and maintenance of modern fishing gear should be an area that is given top priority as far as extension training and other assistance programs to fishermen are concerned.

An adequate marketing system must be provided to accommodate fishermen when they land their catch. Fishermen should be relieved of the problem of marketing their catch after spending long hours at sea. Alternatively, a system should be set up where their catch could be sold to a Central Market, after which it could be redistributed throughout the island.

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