

FIJI'S INSHORE FISHERIES RESOURCES AND MANAGEMENT STRATEGIES

by

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1. Introduction

(1) Background

The development of the inshore and (offshore) fisheries resources have played an important part in the social and economic development of the people of Fiji. During the 1970s and 1980s, fisheries development efforts have concentrated mainly on increased production for imports substitution. However, for the development of the fisheries sector in the 1990s, Government's fisheries development policy shifted from that of import substitution to that of an export oriented economy, with specific objectives : to provide employment opportunities from the exploitation, and processing of marine products; to increase production to satisfy local demands; to increase value-added fisheries products for export; and to manage and control the exploitation of inshore finfish and non-fish resources. Recently, Government priorities have been directed to the management and control of the inshore fisheries resources (IFR), with increased involvement of owners (chiefs) of the customary fishing rights areas (CFRAs) or "qoliqolis", the encouragement of fishermen to exploit offshore resources, the development of exports, mainly chilled tuna and good quality miscellaneous marine products and the development of aquaculture and mariculture.

(2) Importance of the Inshore Fisheries Sector to the Fiji Economy

The inshore fisheries resources (fish and non-fish) are those that are currently being exploited by the subsistence, artisanal (small-scale) and commercial fisheries sectors. The resources are found mainly in the coastal (inshore) waters, lagoons, estuaries, inland rivers and mangrove areas. Aquacultural and maricultural activities in the marine and inland freshwater areas have also produced inshore fisheries products (fish and non-fish)

The IFR sector has been the major source of employment and income for coastal communities, and has played an important part in the development of Fiji's economy. Recent statistics indicating the importance of the IFR are:

1994 fish production : 4796 mt (fish) and 2531 mt (non-fish) valued at \$23.9 million; 1995 production : \$21 million involving 1774 commercial fishermen.

2. Current Inshore Coastal Resource Management Issues

In Fiji prior to the 19th century each traditional coastal community had its own system to manage its fishing grounds. When Fiji was ceded to Great Britain in 1874 the rights over land and water were lost but later returned in different forms. The water rights have since been controlled under a dual system.

The “dual management system” in Fiji consists of management by the formal governmental management system as well as by the local traditional management system. This “dual management system” consists of the following relevant acts, regulations, and customary fishing rights.

The Current Inshore Resource Management System

(1) Governmental System

Fisheries Act (Laws of Fiji, Chapter 158, Fisheries)

Authority and responsible agency : Ministry of Agriculture, Forests and Fisheries

In terms of the inshore resource management, the Act describes the following:

- state fisheries regulations;
- state license to take fish;
- traditional fishing areas and customary fishing rights (CFR);
- the responsibility of the Native Fisheries Commission to protect the CFR; and;
- the control fishing activities by Fijian vessels (Fijian Government 1991).

Fisheries Regulations

Authority and responsible agency : Ministry of Agriculture, Forests and Fisheries

In terms of inshore fisheries, these regulations addresses the following concerns:

- inappropriate fishing methods (i.e. fishing using poison) and areas;
- the mesh limitations for catching various species;
- minimum size limits for certain species; and;

- protection for certain vulnerable species.

Marine Spaces Act (Laws of Fiji, Chapter 158A)

Authority and responsibility : Officer of the Prime Minister

This Act describes the following items

- fishing by foreign fishing vessels within Fiji's 200 miles Exclusive Economic Zone; and;
- licensing quotas and reporting procedures

(2) Traditional Management System

Ownership of Fishing Rights

In 1881, Great Britain returned the traditional fishing grounds and rights of the Fijian people to the "matagali" (sub-clan) or division that owned them prior to cession. From that time, on the Fijian traditional fishing rights were communally owned, not individually owned. Currently, ownership of each traditional fishing right is allocated to tribal group such "matagali" (sub-clan), "Yavusa" (clan) and "Vanua" (province)

Customary Fishing Rights (CFR)

The Fisheries Division has the authority for all fisheries management and development activities in Fiji based on the above-mentioned regulations. On the other hand, all reefs and lagoons in Fiji are subject to Fijian CFR. There are 411 different CFR areas devised by the Native Lands and Fisheries Commission, basically covering all of the inshore water of Fiji (waters from the shore to the outside edge of the barrier reef). Each is under a separate jurisdiction.

Jurisdiction by the Local Chief

In Fiji, each local chief still has the following powers and rights:

- restrict the number of licenses issued to commercial fishermen in the CFR area;
- prevent fishing for certain species or in certain areas;
- prevent the use of certain types of fishing gear;
- protect the fisheries for the benefit of his own people's subsistence needs; and

- deal with “sedentary” fishery resources (including lobster, giant clam, crab, reef fish, beche-de-mer etc.) by the jurisdiction (Cavuilati, 1993).

3. The Human Ecology of Inshore Fisheries

The management of the inshore fisheries is actually under governmental bodies such as the Fisheries Division as well as the Customary Fishing Rights (CFR) system. The complicated relationships between the governmental system and the CFR are shown on Figure. This “dual management system” consists of the following relevant organizations, resource users and other stockholders.

(1) Governmental System

Ministry of Agriculture, Forests and Fisheries

This ministry has the authority for all fishing management and development

Ministry of Fijian Affairs

The ministry has the authority for all native economic and social activities.

Fisheries Division

The Fisheries Division is given responsibility to manage all fishing activities in Fiji. The Division has many tasks and responsibilities such as licensing and regulatory activities; advisory services; giving practical demonstrations to fishing groups; ice and fishing gear sales; enforcing the laws; and carrying out Environmental Impact Assessment for the extraction of the commercially valuable species.

The marine resources of Fiji stretch from the coral reefs and mangroves that fringe their shores to the stocks of commercial species that inhabit the open waters of their exclusive economic zone (EEZ).

District Commission

The District Commissioner, a governmental representative since independence, has the power to veto the CFR system’s decision, made by the local chief.

Local Cooperative Department

The role of the cooperative is to promote and develop the effective income generations activities for the members in the community. This body tries to promote the socio-economic development and improvement of the business skills of the community.

(2) The Customary Fishing Rights (CFR) System

The following organizations and actors are involved in the inshore resource management in the local fishing villages in Fiji:

The Native Lands and Fisheries Commission : *independent body, responsible for the demarcation of each C.F.R and settlement of any related dispute.*

This commission is responsible for all affairs of the native fishing.

Local Traditional Chiefs - stakeholder

The chief has jurisdiction enforced through the authority to grant permission for licensing. The chief also has the power, in consultation with the Fisheries Division, to restrict the number of licenses issued to native and outside commercial fishermen.

Custodians - stakeholder

The custodians are in charge of each of the CFR areas. They question why all revenue from the license goes to the government. They have demonstrated that they have a wide knowledge of the marine environment. The owners of some CFR areas have shown concern about conserving stocks, and have implemented some management regions.

Local Fishermen - direct users

The local fishermen claim that their own CFR area is an exclusive fishing ground. They are also wary of the outside commercial fishermen who go past their fishing ground. They suspect many illegal fishing activities by the outside commercial fishermen.

Outside Commercial Fishermen - Direct users/mainly Indians and other non-Fijian Commercial Fishermen

The outside commercial fishermen, who are mainly Indians and Chinese are legal to use inshore waters as free fishing ground. Some of the outside commercial fishermen are conducting illegal fishing such as full-gear dive fishing, off season fishing, and small-size mesh gill net fishing.

Issues for Management of Resource:

- The resources are accessible to the fisheries and are subject to heavy fishing pressure:

- About 2000 vessels (full and part-time) are currently targeting the stocks, using a variety of fishing techniques, including gillnets, handlines, poison and dynamites.
- The increasing population depend on these stocks for subsistence and income generation.
- The absence of restrictions on the mesh sizes of nets being imported. The current restrictions only apply to the use of the size nets.

Existing Management Regulations:

- The 1989 prohibitions or “chiefly bans” imposed in 1990 in the combined qoliqoli of Dreketi, Macuata, Seas, and Mali (Macuata Provincial, Vanua Levu) covered : (1) the use of gillnets; (2) the use of SCUBA diving gear for spearfishing, and (3) fishing on Sundays.

Gillnets have also been banned in the Burenitu fishing rights area(in Bva Province) and include the islands of Lekutu, Galoa, Tavea, and Yagaga, where the commercial fishermen are mostly Indian.

- The imposition of the bans have been successful. This was confirmed by the recent SPC/FD fisheries resources assessment (March 1996) of the Macuata fishing grounds, which indicated that since the ban was imposed (1) the catches of coastal fish stocks have improved; (2) the fishing time taken to achieve good catches of the food fishes (salala, kanace) was also reduced.
- Decree No. 46 of 1991, s3 amended the section of the Fisheries Act concerned with dynamite fishing and imposed fines of F45000 (third offence) and mandatory jail terms for all offences, if successfully convicted for dynamite fishing.
- Despite the above decree and the high fines, fishermen, particularly those in the Western Division (Tavua), continued to use explosives for fishing activities.

Proposed Management Measures:

(1) Institute a sound fisheries management system involving an appropriate harvesting regime, which is socially, culturally and biologically acceptable. Such a system might involve:

For Subsistence Fisheries:

- Imposing no restrictions on the use of gillnets by subsistence fishermen; allow gillnet fishing subject to approval in writing from the owners of the qoliqoli in close consultation with FD.

For Artisanal Fisheries:

- Lifting the current ban on gillnets for a year and at the same time impose the following controls for gillnets use: restrict and discourage the use of 2 inches mesh or if using restrict and discourage the use of 2 inches mesh or if using 2 inches mesh to restrict the dimensions to 100 m length and 50 m mesh depth; and allow the use of 3 inches mesh (as recommended by the recent FD/SPC gillnet survey (March 1996)).
 - Regulating the above controls through the chiefs with assistance from Fisheries Division extension staff (monitor the resources : collect catch/effort data and provide information on fishing effort).
- (2) The customary fishing rights areas (CFRAs-qoliqoli) have now been demarcated by the Native Lands and Fisheries commission, and the areas (square km) for each qoliqoli have now been estimated. FD should attempt to estimate the potential finfish annual yields (metric tons) for all the qoliqoli. Using these estimates; FD should:
- (i) Monitor the catches by areas (qoliqoli) and ensure the catches are kept below the estimated yields;
 - (ii) Advise the qoliqoli owners: when the catches are approaching the estimated yields;
 - (iii) Advise the qoliqoli owners of the number of fisheries to be licensed, and number of boats to allow to operate in each of the qoliqoli.
- (3) Establish marine reserves in selected areas. FD should initiate surveys to select and confirm the sites and size of the reserves, in consultation with the qoliqoli owners. With the increase in population, it is likely the fishing efforts will increase and providing pressure on the finfish resources. Establishing marine reserves inside the qoliqoli would serve as a means to replenish the finfish stocks.
- (4) Initiate a cooperative management approach to manage the finfish resources, for example: for mullets (kanace) : FD to enforce the regulation minimum size length of 200 mm and at the same time the qoliqoli owners ensure no fishing is carried out during the breeding season (traditional control). FD to continue to provide the scientific information and advice to chiefs or local leaders who have imposed bans on gillnets including those proposing to impose gillnet bans.
- It is suggested that cooperative management might be an appropriate approach for managing the finfish resources in the Western and Northern Divisions, where the reefs are extensive, and also where most of the licensed commercial fishermen operate.
- (5) Rotational harvesting of areas (area closures) and allocation of time closures (sharing of fishing areas) should also be considered as possible management measures

appropriate for the management of finfish stocks. To implement the measures however, require a combination of goodwill on the part of the industry to continue providing the fishing data, and FD to evaluate the information in order to safeguard the resources.

Impacts Assessment :

- (1) Imposing no restrictions on the use of gillnets for subsistence purposes will result in increased supplies for community and individual homes consumption.
- (2) Lifting the ban on commercial gillnetting might encourage some current handline fishers to revert to gillnet operations, thus increasing the fish supplies for the subsistence and artisanal fisheries.
- (3) The costs involved in participating in a particular fishery could determine fishermen' participation in that fishery. As such, with the proposed lifting of the gillnet ban, fishermen will not change overnight from their current handling operation to gillnetting. The economics of engaging in a fishery is one possible management tool for some finfish stocks.
- (4) Allowing the use of additional gear under the subsistence and artisanal fishing activities, while imposing the restrictions (proposed), plus the chiefly bans at the same time, reduces the pressure on any one stock of finfish. More fishermen become employed in the fishing and marketing operations resulting in increased income to the fishermen and traders.