


FISHERY AND AQUACULTURE COUNTRY PROFILE	Food and Agriculture Organization of the United Nations	FID/CP/FJI
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RESUMEN INFORMATIVO SOBRE LA PESCA Y ACUICULTURA POR PAÍSES	Organización de las Naciones Unidas para la Agricultura y la Alimentación	October 2009

NATIONAL FISHERY SECTOR OVERVIEW

FIJI

1. GENERAL GEOGRAPHIC AND ECONOMIC DATA

Area :	18 376 km ²
Water area:	1 290 000 km ²
Shelf area:	(no continental shelf)
Length of continental coastline:	5 010 km (length of the coast of islands)
Population (July 2007):	834 278
GDP at purchaser's value (2007):	USD 3.29 billion ¹
GDP per head (2007) :	USD 3 945
Agricultural GDP (2007) :	USD 389 million ²
Fisheries GDP (2007):	USD 56.2 million ³

2. FISHERIES DATA

2005	Production	Imports	Exports	Total Supply	Per Caput Supply
	tonnes liveweight				kg/year
Fish for consumption by residents ⁴	15 098	41 149	25 768	30 479	36.8
Fish for consumption by non-residents	23 000				n.a.
Fish for animal feed and other purposes	2 001	2 870	4 745	126	

¹ 2007 average exchange rate: USD 1= FJD 1.60; GDP source: Fiji Islands Bureau of Statistics, unpublished data; GDP at current market price.

² The contribution to GDP of agriculture, forestry and fisheries

³ Fishing contribution to GDP; From Gillett (2009). The Contribution of Fisheries to the Economies of Pacific Island countries and Territories.

⁴ Data from FAO food balance sheet of fish and fishery products (in live weight)

Estimated Employment (2005):	
(i) Primary sector (including aquaculture):	6 900 ⁵
(ii) Secondary sector:	1 900 ⁶
Gross value of fisheries output (2007):	USD 103.4 million ⁷
Trade (2007):	
Value of fisheries imports:	USD 34.3 million
Value of fisheries exports:	USD 68.8 million

3. FISHERY SECTOR STRUCTURE

3.1 Overall fishery sector

Fish and fishing are extremely important to the economy of Fiji. A large number of people are employed in the fisheries sector and fish makes an important contribution to the diet of local residents. In addition, fishing is cherished for its recreational and social aspects. In relative terms, fisheries is the third largest natural resource sector, behind sugar and "other crops". Also important in Fiji is tourism, which has an important relationship to the fisheries sector.

The country's fisheries can be placed into six categories. These categories and the associated production in 2007 are:

	Coastal Commercial	Coastal Subsistence	Offshore Locally- Based	Offshore Foreign- Based ⁸	Freshwater	Aquaculture	
						Tonnes	Pieces
Volume of Production (metric tonnes or pieces) ⁹	9 500 t	17 400 t	13 744 t	492 t	4 146 t	247	48 100
Value of production (USD)	33 750 000	33 812 500	29 293 750	527 500	4 287 500	1 749 375	

Source: Gillett (2009). The figures include production of non-food organisms.

3.2 Marine sub-sector

The marine fisheries have two very distinct components, offshore and coastal:

- Offshore fisheries consist almost exclusively of tuna longlining, from vessels that are both local and foreign based.
- Coastal fishing is carried out for subsistence purposes, for sale in local markets, and for export. The distinction between subsistence and commercial fishing in the larger, less isolated islands is often blurred as the fishing activity is becoming increasingly monetized in those areas.

3.2.1 Marine Catch profile

The annual catch from locally-based offshore fisheries has ranged in recent years between about 12 000 and 22 000 metric tonnes. About 80% of the catch is tuna, with various species of bycatch making up the remainder. The foreign-based offshore fleet fishing in Fiji's waters usually catches annually between 100 and 1 000 tonnes of tuna and bycatch.

⁵ From ADB (2005); includes employment in the offshore fishery, inshore artisanal, subsistence marine aquarium, aquaculture, and game fishing

⁶ From ADB (2005); This figure is for employment in post-harvest aspects of fisheries

⁷ From Gillett (2009); includes the six fishery production categories: (2) coastal commercial fishing, (2) coastal subsistence fishing, (3) locally-based offshore fishing, (4) foreign-based offshore fishing, (5) freshwater fishing, and (6) aquaculture

⁸ This is the catch in the Fiji zone by vessels based outside the country

⁹ The production of the most important aquaculture product, black pearls, is measured in pieces (individual pearls) rather than in weight.

Estimates of catches from the coastal fisheries vary widely. The Fisheries Department statistics reported to FAO on coastal commercial fishing are estimated from a statistical system that only covers a portion of the commercial catch and the Fisheries Department estimates of subsistence catch are based on a crude 1979 small-scale fishing survey which only covered the main island. Using various sources of data (including non-fishery surveys), it has been recently estimated that Fiji's coastal fishery production consists of about 17 400 tonnes by subsistence fishing and 9 500 tonnes by commercial fishing. Subsistence fishing is greatest away from the urban centers, while the commercial fishing is geared at supplying urban food markets and for export. The exports consist of both food items (e.g. finfish) and non-food commodities (e.g. trochus for buttons, aquarium fish).

3.2.2 Marine landing sites

All locally-based offshore vessels unload their catch in Suva, the capital and largest urban area. The foreign-based offshore vessels dispose of their catch either at their home port (mainly in Asia), at the tuna cannery in Levuka (located on the island of Ovalau, near Suva), or is trans-shipped at Suva or a port outside the country.

Landings from the coastal commercial fishery are made mostly at population centers. It is estimated that the three main urban areas (Suva, Lautoka, Labasa) are the landing points for two-thirds of the coastal commercial production of the country. The Suva urban area receives nearly half of the total commercial landings, or about 4 500 tonnes per year.

Subsistence fishery landings occur at villages throughout the coastal areas of the country, roughly in proportion to the distribution of the population.

3.2.3. Marine fishing production means

Virtually all the production from the offshore fisheries is by longline gear. Locally-based longliners usually undertake fishing trips from 5 to 15 days in length, using ice to preserve the catch. In recent years the fleet size has ranged from 40 to 100 operational vessels, with 58 vessels licensed to fish in 2007. Most of the local longline vessels are between 20 and 35 metres in length. Almost all the catch by foreign-based vessels is by longline gear, using mechanical refrigeration to freeze the catch during voyages that can last up to several months. A small amount of tuna purse seining by American vessels occurs sporadically in the northern part of the Fiji's zone.

Coastal fishing uses a wide variety of fishing techniques, and involves about 1 300 mainly small outboard-powered vessels¹⁰. The most common commercial means are gillnetting, hook-and-line fishing, and spearfishing. Some of the commercial fisheries use highly specialized techniques, such as for the capture of aquarium fish. A single fishing trip by a commercial operation often involves the use of several types of gear.

Subsistence fishing revolves around reef gleaning, hook-and-line fishing, and spearfishing. It has been estimated that 50 percent of all rural households are involved in some form of subsistence fishing.

3.2.4 Main resources

The main offshore resources are four species of tuna and several species of bycatch, including swordfish, marlins, dolphinfish, wahoo, and sharks. The catches in recent years are:

¹⁰ Fisheries Department (2008). 2007 Annual Report of the Fisheries Department.

Total Catch by the Locally-Based Offshore Fleet in Fiji

	Albacore	Bigeye	Yellowfin	Total Tuna	Bycatch ¹¹
2003	6 881	889	2 482	10 252	2 062
2004	11 290	1 254	4 164	16 708	5 579
2005	8 901	423	1 989	11 313	4 182
2006	11 802	771	2 231	14 804	5 903
2007	9 395	839	2 852	13 086	2 995

Units: metric tonnes

The coastal fisheries catch a large number of finfish and invertebrate species. Over 100 species of finfish and 50 species of invertebrates are included in Fiji's fish market statistics. The catch from the coastal subsistence fisheries is even more diverse. According to recent reports from the Fisheries Department, the most commonly targeted food finfish are *Lethrinidae* (emperors), *Serranidae* (groupers), *Carangidae* (trevallies), *Lutjanidae* (snappers), *Mugilidae* (mulletts), *Scombridae* (tunas), *Acanthuridae* (surgeonfishes), *Scaridae* (parrotfishes) and *Sphyrnidae* (barracudas). The common invertebrates are bivalve molluscs, sea cucumbers, seaweeds, prawns and lobsters and octopus.

Harvests of freshwater finfish and invertebrates in Fiji consist mainly of freshwater clams (*Batissa violacea*), eels, various species of freshwater crustaceans, and introduced fish such as tilapia and carps.

Aquaculture produces (in descending order of 2007 production value) pearls, tilapia, freshwater shrimps, brackishwater shrimps, and seaweed.

3.2.5 Management applied to main fisheries

3.2.5.1 Management Objectives

The objectives of fisheries management in Fiji do not appear in the fisheries legislation, and therefore the objectives must be obtained or inferred from other sources:

The broad objectives of management interventions in the fisheries sector are suggested in the mission statement of the Fisheries Department: "to provide sustainable management and development of the nation's fishery with the aim to create employment, increase foreign exchange earnings, and improve the standards of the rural people through capture fisheries development and a well-coordinated support service program".

For the offshore fisheries, management objectives are given in the "Fiji Tuna Development and Management Plan" that was adopted in 2002 and is still in force. The plan states: "The objectives of the Plan are to provide for maximum sustainable benefits to Fiji from the resource. This implies setting the harvest levels that will not damage the stock and putting into practice a licensing policy that will ensure the maximum benefits from fishing are enjoyed by Fijians. The government has also taken the opportunity to use the Plan to help improve the disparity within the segments of the Fijian population by providing preferential criteria for indigenous Fijians to have access to licences." From 2007 onwards the objective of indigenous promotion has been less prominent.

For the coastal fisheries, there are no formal objectives in the legislation or management plans, but judging by past activities of the Fisheries Department, the management objectives are to promote sustainability of resources, maximize economic returns, and assure that these commercial fisheries do not negatively interact with subsistence fisheries.

For the subsistence fisheries, there are no formal objectives for most of the 406 traditional management areas, but subsistence fisheries are managed generally for the protection of

¹¹ From Amoe (2008)

village food supplies. Recent initiatives sponsored by international NGOs involve promotion of biodiversity conservation as a management objective in the management of village resources.

For aquaculture no formal objectives have been established but it is evident that increasing aquaculture production, especially by village level operations, has been the government's primary objective in the sub-sector. Various policy documents indicate that the increased production is intended to improve the nutritional status of rural populations, generate supplementary income, diversify activities, stem the flow of migration from rural to urban areas, and reduce inshore fishing pressure.

3.2.5.2 Measures and institutional arrangements

The Fisheries Department has the mandate to manage the country's fisheries.

The management measures and institutional arrangements for the offshore fisheries are detailed in the "Fiji Tuna Development and Management Plan". The plan specifies a total allowable catch, a limit on the number of licences to be issued, and criteria for distributing available licences among applicants. One of the management measures (subsidies to indigenous operators) was an important component of the management system until early 2007 when it was discontinued by the new government.

In 2002 Cabinet established an inter-departmental committee to review specific applications for licences. This committee is made up of the Permanent Secretaries of Fisheries and Forests, Finance, Home Affairs, Foreign Affairs and National Planning.

For the coastal commercial fisheries, there are no formal management plans and therefore the management measures and institutional arrangements are less clear. The Department has an advisory role to the customary fishing rights owners and is responsible for legislation and enforcement and to provide support as regards commercial viability. The Department issues and regulates licences to fish in customary fishing areas upon prior approval of the head of the designated ownership unit.

Under the Fisheries Act, the Minister responsible for fisheries is given wide powers to make regulations, including input and output measures. The process whereby an issue is developed into a regulation is not formally specified, but it is often triggered by a crisis or resource depletion. In practice, licensing, the most important management measure for coastal commercial fishing, involves procedures that are different for fishing inside demarcated areas (customary fishing rights areas, involves negotiation with traditional authorities) and outside demarcated areas (involves negotiation with government authorities). Apart from licensing, other important management measures are area restrictions, minimum size requirements, bans on destructive fishing, restrictions on taking some species, restrictions on exports, and restrictions on fishing gear.

Measures for the management of the subsistence fisheries are diverse. Traditional authorities, usually a single hereditary chief, in each of the 406 fisheries management areas characteristically make management decisions after considering the views of their resident stakeholders. The measures often involve limiting access by outsiders to the fishing areas and various types of input restrictions on the fishing activities of local residents. Common restrictions include bans on the use of gillnets, commercial fishing on Sunday, and diving compressors. A recent trend is for some of the areas to have an external partner (such as the local branch of an international NGO) who assists in management activities, often by promoting the concept of marine protected areas. In recent years communities and management partners have been formalized into a network, the Fiji Locally Managed Marine Areas (FLMMA).

Measures for aquaculture management are not well-developed. Various promotion schemes, many that involve subsidies, are used to attain the objective of increasing small-scale aquaculture production. A recent review of aquaculture in Fiji recommended that the management of aquaculture needs to shift towards the control of environmental impacts.

3.2.6 Fishermen communities

The concept of “fishermen communities” is not very relevant to Fiji. Those individuals that are involved in the offshore fisheries do not live in separate communities, but rather are widely dispersed around where the vessels are based, the Suva urban area. Coastal commercial fishers are found in all urban areas, but they do not reside in specific communities. Nearly all households in coastal villages are involved in coastal fishing activities. It could therefore be stated that all villages in Fiji that are rural and coastal are ‘fishing communities’. Most of the small-scale aquaculture ponds are in the inland part of the two largest islands, but that is an artifact of the promotion activities of the Fisheries Department, rather than a congregation of households interested in aquaculture.

3.3 Inland sub-sector

Compared to the marine fisheries of Fiji, the production from inland fisheries is quite small. Inland fishing is mainly for home consumption, with some market and roadside sales. Recent studies indicate that inland fishery production is about 4 000 tonnes.

Most of the inland catch comes from the two largest islands, Viti Levu and Vanua Levu. Inland fishing is most important for villages that are isolated from the coast and those that are located next to rivers.

The most important species by weight is the freshwater mussel (*Batissa violacea*). *Batissa* fishing is carried out by women and takes place in the shallow parts of rivers, where the shells are located by hands and feet. Surveys by the Fisheries Department in the mid-2000s show that about 2 500 tonnes of *Batissa* is marketed annually.

Other significant inland fishery resources are eels, various freshwater crustaceans, and introduced fish such as tilapia and carps. Flagtails (*Kulia* spp.) and a number of gobi species were formerly important for interior villages, but abundance has decreased in recent years.

All inland fishing is carried out with very small-scale gear. This consists of baited lines, spears, a variety of traditional woven traps, hollow poles and cane knives. With the exception of *Batissa*, the typical fishing and landing areas are small streams near villages.

3.4 Aquaculture sub-sector

There has been considerable aquaculture work in Fiji (marine, brackishwater, freshwater) stretching over a long period and covering a large variety of species. The Fiji Government and donors have made a substantial investment in aquaculture. The current annual aquaculture production of the country is, however, quite small.

Recent aquaculture efforts in Fiji have included tilapia, freshwater prawns, carps, saltwater shrimp, milkfish, seaweed, giant clams, trochus, pearl oysters, bêche-de-mer, sponges, turtles, mud crab, and corals. The primary focus of the Fisheries Department in the last few years has been on pearl oysters, tilapia, shrimp, seaweed, and giant clams.

Recent reports from the Fisheries Department show that in 2007 the following was produced: 143 tonnes of tilapia, 24 tonnes of giant freshwater prawn, 13 tonnes of giant tiger shrimp, and 67 tonnes of *Eucheuma* seaweed. About 50 000 black pearls were harvested and sold. The total value of the 2007 Fiji’s aquaculture production has been estimated to be USD 1.7 million, of which about 38% was from pearls.

About 90 percent of the 2007 pearl production came from one commercial farm off the island of Vanua Levu. Although there were four commercial brackishwater shrimp farms in Fiji in 2007, all 2007 production of these shrimp came from one operation on the island of Viti Levu. Most of the tilapia and seaweed production is from village-level operations.

4. POST-HARVEST USE

Offshore fishing in Fiji is export oriented. The main target markets for the tuna catch are Japan and the USA. The 2007 Annual Report of the Fisheries Department states that Fiji exported

51% of sashimi grade tuna (yellowfin and bigeye) to Japan and America, with the remaining 49% sent to destinations such as China, Australia, New Zealand, and the European Union. In May 2008, a directive came into effect that banned the export of fishery products from Fiji to the European Union. The albacore landed in Fiji is sent to canneries, primarily the PAFCO cannery in Fiji and those in American Samoa. Much of the non-sashimi tuna and the bycatch is marketed in Fiji. Industry participants indicate that about 12.5% of the production from Fiji's locally-based offshore fisheries is not exported, but rather marketed domestically in the greater Suva area. This equates to an annual supply of fish to Suva residents from the local offshore fleet of about 10.4 kg per capita.

The catch from coastal commercial fisheries is for both local consumption and export:

- Domestic sales mainly involve finfish (both pelagic and reef-associated) and invertebrates and take place either in (a) municipal markets, (b) non-municipal markets (fish shops, butchers and supermarkets and hotels), or occur by the roadside. There are 16 municipal markets in the Fiji, seven in the central division, four in the western division, and five in the northern division.
- The major export commodities include bêche-de-mer (to Asia), aquarium fish (USA), deepslope bottomfish (USA), and trochus shells (Asia, Europe), with sporadic exports of live food fish (China).

The subsistence fisheries, as the name implies, are focused on production of food for home use. Significant amounts of fish are, however, given away to friends and relatives. Often attempts are made to market any of the valuable species captured - if a market exists (e.g. lobster to a resort).

5. FISHERY SECTOR PERFORMANCE

5.1 Economic role of fisheries in the national economy

A recent study by the Asian Development Bank attempted to quantify the fishery-related benefits received by Fiji in various categories. The study gave the available information (focused on 2007) on the contribution of fishing/fisheries to GDP, exports, government revenue, and employment. The results can be summarized as:

- Official estimates show that fishing in 2007 was responsible for 1.9% of Fiji's GDP. A recalculation shows it to be 1.7%.
- Exports of fishery products are about 9.1 % of all exports
- Access fees paid by foreign fishing vessels represent 0.03% of all government revenue
- Jobs directly related to fisheries represent about 3.8 % of the total number of jobs in Fiji (wage, salaried, self-employed).

From the above it can be seen that fisheries make a relatively important contribution to exports and employment.

5.2 Demand

The per capita consumption of fish in Fiji, based on the 2005 FAO food balance sheet, is 36.8 kg. Various other studies have made estimates ranging between 44.0 and 62.0 kg¹². Considering Fiji's population, 40 kg of fish consumption per capita translates into a 2010 demand for 34 200 tonnes of fish.

Factors influencing the future demand for fish are a rising population, an increase in the price of fish (over-exploitation of inshore areas, devaluation of the Fiji currency, fuel cost increases), and relative cost of fish substitutes.

5.3 Supply

The government has several strategies to increase the national fish supply. This involves facilitating private sector growth, promotion of aquaculture, encouraging the harvesting of

¹² The estimate of fish consumption in Fiji is complicated by re-exports of fish, poor estimates of subsistence production, and fish consumption by the large tourist population.

tuna resources by small-scale fishers, and supporting the marketing of fishery products landed in remote parts of the country.

Major factors affecting the local supply of fish are over-fishing, siltation, destructive fishing, transport links to the outer islands, the availability of FADs, the production of non-export grades of fish by the offshore fleet. In the past an important factor was the taxation of fish imports.

5.4. Trade

The Reserve Bank of Fiji publishes information on the values of fishery exports. These are shown in the table.

Fishery Exports of Fiji, 2004-2007

	Value of Fishery Exports USD millions)	Value all Fiji Exports (USD millions)	Fishery Exports as % of Total Exports
2004	49.1	696.2	7.1%
2005	50.9	705.5	7.2%
2006	56.9	694.2	8.2%
2007	63.3	518.0	12.2%

Most of the fishery exports of the country are the targets or bycatch of offshore fishing. In the mid-2000s the composition of the exports was about 60% tuna/bycatch, 18% aquarium items, 10% bêche-de-mer, and 2% trochus, with a large number of other fishery products making up the remainder.

5.5 Food security

Fish, both local and imported, is an important element of food security in Fiji. The results of the 2004 Fiji National Nutrition Survey¹³ show a high frequency of seafood consumption. Daily consumption of fresh fish in indigenous Fijian households was shown to be 23.4%. Consumption of imported fish (mainly canned mackerel, tuna, and sardine) is high.

Another aspect of food security is the role of fish in post-disaster periods. Fiji is prone to natural disasters, especially cyclones and floods, which can devastate food crops. The effects on fishery resources are much less and the food production from fisheries in recovery periods is quite important.

5.6 Employment

There have been several studies of employment in Fiji's fisheries. Most of the studies have been focused on specific sub-sectors, but there was a comprehensive study of fisheries employment in 2004 by the Asian Development Bank:

Estimate of Fisheries Employment in 2004¹⁴

Category	Employment (full time equivalents)
Offshore fishery	510
Inshore artisanal	2 137
Subsistence	3 000
Marine aquarium	650
Aquaculture	550
Game & charter fishing	60
Tuna cannery	800
Other fish processors	639

¹³ NFNC (2007). 2004 Fiji National Nutrition Survey. National Food and Nutrition Centre, Suva.

¹⁴ ADB (2005). Republic of the Fiji Islands: Fisheries Sector Review. Asian Development Bank, Manila, 95 pages

Input suppliers	185
Fish markets	340
Department of Fisheries	243
Slipways/ports	30
Total	9 144

Combining the above fishery employment estimates with a national employment study of all economic sectors indicates that the estimated 9 144 fisheries jobs represent about 3.8% of the total number of jobs in Fiji (wage, salaried, self-employed).

An important component of fisheries employment in Fiji are those jobs related to offshore fishing. A study by the Forum Fisheries Agency tracked the number of Fiji citizens employed in Fiji's offshore fishing industry (both onboard and in processing plants) over a seven-year period:

Employment in Fiji's Tuna Industry¹⁵

	2002	2006	2008
Local Jobs on Vessels	893	330	150
Local Jobs in Shore Facilities	1 496	2 200	1 250
Total	2 389	2 530	1 400

These results indicate that employment in Fiji's offshore fishing industry is important but highly variable.

5.7 Rural development

An important aspect of the government's fishery development programme is to enhance the livelihoods of fishers in the more isolated parts of the country. The main strategy for doing this is through the establishment of rural fishery service centers. The concept is that the centers provide the necessary infrastructure to catalyze commercial fishing operations in rural areas. This includes the provision of ice plants, jetties, and slipways, mechanical workshops, and vehicles for transportation of fish and fisheries products to markets. Centers have been recently established in Wainikoro in Macuata, Levuka in Lomaiviti, Kavala in Kadavu, and two centers in Lau (Vanua balavu and Lakeba).

Aquaculture development is also associated with rural development. Fiji's "Freshwater Aquaculture Sector Plan, 2005-2010" states that the objective of promoting aquaculture in the country includes improving the nutritional status of rural populations and stemming the flow of migration from rural to urban areas. In practice, the effects of aquaculture on rural livelihoods are most noticeable in the interior of the two largest islands.

6. FISHERY SECTOR DEVELOPMENT

A major fisheries development issue facing Fiji, and many other governments of the Pacific Islands region, is reconciling the government's need and desire to secure more benefits from the fisheries sector with the reality that most accessible fisheries resources are fully exploited.

6.1 Constraints and opportunities

Some of the major constraints of the fisheries sector are:

- Fully-exploited nature of many of the inshore resources, especially those close to the urban markets.
- Difficulties for small-scale fishers in accessing the offshore fishery resources.

¹⁵ Gillett, R. (2008). A Study of Tuna Industry Development Aspirations of FFA Member Countries. Forum Fisheries Agency. Honiara, 70 pages

- Difficulties associated with marketing products from the remote areas where abundance is greatest to the urban areas where the marketing opportunities are greatest.
- Competition by offshore vessels for access to limited infrastructure and services.
- Fuel cost increases which have a disproportionate effect on the small-scale motorized fisheries.
- Slow development of aquaculture for contribution to domestic food supply.
- Competition from more efficient foreign producers of fishery and aquaculture products.
- Lack of awareness on the part of coastal communities of the development limitations and the consequences of over-exploitation.
- Limited dialogue and understanding between the Fisheries Department and the tuna industry

The opportunities in the fisheries sector include:

- Value-adding to the fishery products, for both domestic consumption and for export.
- Greater linkages to the expanding tourism industry
- Expansion of the marine aquarium fishery
- Exploitation of the offshore resources outside of the Fiji EEZ
- Greater use of fish aggregating devices to promote offshore fishing by small-scale fishers
- Greater use of management partnerships (community, government, NGO) in the management of coastal fisheries
- Increasing the effectiveness of the Fisheries Department by enhancing stakeholder input.

6.2 Government and private sector policies and development strategies

Judging by recent activities, the Fisheries Department sees considerable fisheries development potential in several areas. This includes expanding fisheries production in the more remote areas of the country - to be developed using rural service centers. Also perceived to be important is (a) aquaculture production – to be developed by support to small-scale aquaculture operations- and (b) harvesting of tuna by small-scale fishers – to be developed by a more active program of fish aggregation devices and subsidies for boats.

Recent reviews of Fiji's fisheries sector emphasize the growing role that management should play in preserving current benefits from fisheries – and a decreasing role for efforts in expanding fishing production.

For coastal commercial fishing, the private sector activities are driven to a large extent by the short-term interplay between market prices (both local and export) and production costs, with little emphasis by fishery participants on long-term formal strategies. For offshore fishing, the private sector sees little potential for further development through fleet expansion, but rather believe the participation in the fishery should be limited through the strict adherence to policies and measures in the government-approved tuna management plan.

6.3 Research

A large amount of fisheries research has been undertaken in Fiji over the years. Much of that is listed in the Fiji Fisheries Bibliography¹⁶ and the research carried out on 44 of the main fishery resources in Fiji is summarized in the Fiji Fisheries Resources Profiles¹⁷. More recent research projects by the Fisheries Department are given in the annual reports. Presently, the Department has significant involvement in research dealing with inshore fisheries, offshore fisheries, and aquaculture. This work is supported by both the Department's budget, and external funding.

The main aim of the Fisheries Department's Research Division is, according to the Department's latest annual report, "to promote applied fisheries research and conservation". The Division has 4 major components: (1) Marine Resource Inventory Survey Section, (2)

¹⁶ McDowell, R. (1993). Fiji Fisheries Bibliography. Pacific Islands Marine Resources Information Network, University of the South Pacific.

¹⁷ Richards, A. (1994). Fiji Fisheries Resources Profiles. Report No. 94/4. Forum Fisheries Agency, Honiara.

Pearl Oyster Project, (3) Fiji Locally Managed Marine Area Network, and (4) Makogai Mariculture Research Station.

Research needs for Fiji's offshore tuna fisheries are very different from those for inshore fisheries or aquaculture. Due to the regional nature of the tuna resources, the great expense of tuna research and the high level of expertise required for data analysis, much of the research on tuna is undertaken in collaboration with the Oceanic Fisheries Programme of the Secretariat of the Pacific Community, a regional organization located in New Caledonia.

The University of the South Pacific (located in Suva) also regularly undertakes marine research activities in Fiji, often focusing on commercially important species. The University has undertaken biological studies on sea cucumbers, deep-water shrimps and marine algae, and also carries out social, economic and post-harvest research relevant to fisheries.

6.4 Education

Education related to fisheries in Fiji is undertaken in a variety of institutions:

- Academic training in biological, economic and other aspects of fisheries is given at the University of the South Pacific in Suva.
- Practical aspects of fisheries and certification of vessel officers is undertaken at the Fiji Institute of Technology in Suva.
- Training courses are frequently organized by the following regional organizations: the Secretariat of the Pacific Community in New Caledonia and the Forum Fisheries Agency in the Solomon Islands.
- Courses and workshops are also given by NGOs and by bilateral donors, such as those by Japan.
- Many government fisheries officers and academics in Fiji have received advanced degrees in fishery-related subjects at overseas universities, especially those in Australia, Japan, and the United Kingdom.

6.5 Foreign aid

Fiji receives technical assistance in the fisheries sector from a number of bilateral donors including Japan, Australia, New Zealand, the United Kingdom, and the European Union. Assistance is also obtained from the international organisations of which Fiji is a member, including FAO and other United Nation agencies. The regional organisations serving Pacific Island countries, including the Forum Fisheries Agency, the Secretariat of the Pacific Community, the South Pacific Regional Environment Programme, the Forum Secretariat, and the South Pacific Applied Geoscience Commission have also been active in supporting Fiji's fisheries sector. International NGOs, such as the Worldwide Fund for Nature and the Wildlife Conservation Society, also have programs in Fiji.

The major areas receiving donor support in recent years are aquaculture, fisheries wharves, community-based management, rural service centers, turtle conservation, tuna data management, and marine biodiversity conservation.

A significant amount of donor assistance to Fiji, including that related to fisheries, was suspended following the military coup in December 2006.

7. FISHERY SECTOR INSTITUTIONS

The Ministry of Primary Industries has four departments, one of which is the Fisheries Department. This department is further divided into several divisions. These are:

- Administration and Finance
- Training and Education
- Fisheries Research
- Management Services Tuna
- Fleet and Technical Services
- Capture Fisheries Extension
- Aquaculture Extension

The Fisheries Department is headed by the Director of Fisheries. According to the latest annual report, the Fisheries Department has a total of 162 posts (119 salaried, 43 wage) in the approved establishment. About half of the staff are based in Lami on the outskirts of Suva.

Fisheries stakeholders are extremely fragmented. There is no grouping that represents the interests of small-scale fishers in the country. For the offshore fisheries, there are two competing associations, creating difficulties for an effective government-industry dialogue.

Some of the important internet links related to fisheries in Fiji are:

- www.fisheries.gov.fj - Details of the Fiji government's Fisheries Division
- www.spc.int/Coastfish/Countries/fiji/fiji.htm - Information on Fiji's fisheries, links to other sites concerning Fiji and its fisheries, and some SPC reports on Fiji's fisheries.
- www.paclii.org/cgi-paclii - Text of Fiji's fishery legislation

8. GENERAL LEGAL FRAMEWORK

The laws governing the use of marine resources in Fiji are set out in Chapters 158 and 158A of the Laws of Fiji. Chapter 158 is also known as the Fisheries Act. The main features of the Act are that it:

- Defines the Fiji's fisheries waters as all internal waters, archipelagic waters, territorial seas and all waters within the exclusive economic zone
- Establishes a Native Fisheries Commission charged with the duty of ascertaining the customary fishing rights in each province of the Fiji
- Prohibits the taking of fish in Fiji's fisheries waters by way of trade or business without a licence
- States that every licence granted under the Act terminates on the 31st December next after the day of issue, licences are personal to the holder and not transferable
- Empowers any licensing officer, police officer, customs officer, honorary fish warden and any other officer empowered by the Minister to enforce the Act
- Empowers the Minister to appoint honorary fish wardens whose duties shall be the prevention and detection of offences

The law also empowers the Minister to make regulations (a) prohibiting any practices or methods, or employment of equipment or devices or materials, which are likely to be injurious to the maintenance and development of a stock of fish; (b) prescribing areas and seasons within which the taking of fish is prohibited or restricted, either entirely or with reference to a named species; (c) prescribing limits to the size and weight of fish of named species which may be taken; (d) prescribing limits to the size of nets or the mesh of nets which may be employed in taking fish either in Fiji's fisheries waters or in any specified part thereof; (e) regulating the procedure relating to the issue of and cancellation of licences and the registration of fishing boats, and prescribing the forms of applications and licences and the conditions to be attached; (f) prescribing "the fees to be charged upon the issue of licences, and the registration of fishing vessels which fees may differ as between British subjects and others"; (g) regulating any other matter relating to the conservation, protection and maintenance of a stock of fish which may be deemed requisite.

Several fisheries regulations have been made under the Fisheries Act. These have been consolidated into the Fisheries Regulations 1992. The regulations cover licences/registration, prohibited fishing methods, mesh limitations, size limits, and exemptions. These regulations were modified twice in 1997. (Notices 17/97, and 65/97)

The Marine Spaces Act (Cap. 158A) establishes the archipelagic waters of Fiji and a twelve nautical mile territorial sea. The Act also establishes a 200 nautical mile exclusive economic zone over which Fiji has sovereign rights for the purposes of exploring and exploiting, conserving and managing the natural resources of the seabed, subsoil and superjacent waters.

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