

SOUTH PACIFIC COMMISSION

FOURTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 2-6 August 1982)

COUNTRY STATEMENT - FIJI

INTRODUCTION

1. Fisheries are continuing to play an increasingly important role in the cash and subsistence economies of Fiji. Fish exports now rank second to sugar, and earned F\$20 million in foreign exchange in 1981. Subsistence fishing activities accounted for an estimated 14,000 tonnes of marine produce in the same year, and this constitutes a major protein source for coastal communities.
2. A number of constraints hinder effective development of fishery resources. These are identified as a lack of infrastructure and support services for fishery activities, a shortage of trained or experienced personnel for industry to draw on, lack of investment capital, poor incentives to join the industry, and uncertainty as to the extent to which the resource can withstand increased exploitation.
3. The Fisheries Division of the Ministry of Agriculture and Fisheries is charged with the task of overcoming these constraints by a variety of activities in the fields of fisheries development and monitoring. To this end, the Division conducts research and extension projects in marine and freshwater fishery activities, and collects data pertaining to the many aspects of the industry. The Division's resources consist of 112 staff, fourteen vehicles and four vessels, distributed in nine stations throughout Fiji. Substantial quantities of aid-in-kind, and a number of officers working under technical co-operation programmes, complement the Division's own resources, particularly in the development of industrial fisheries.

FISHERY STATISTICS

4. The following figures are derived from a number of sources, and many, particularly those concerning subsistence and local commercial fishing activities, should be regarded as estimates only.

THE TUNA FISHERY

5. Total tuna landings were 9,820 tonnes, an 18.6 per cent increase on 1980. The pole-and-line fishery contributed 5,829 tonnes (59%), which constitutes a 134 per cent increase on its last years landings and the best pole-and-line season in Fiji since the inception of the fishery in 1974. Longliners landings were 3,219 tonnes (32% of total) which is only 56 per cent of their 1980 landings, and is at least partly associated with the reduced number of longliners landing to Fiji (see paragraph 8).

6. Industrial Tuna Landings (tonnes)

	<u>Albacore</u>	<u>Yellowfin</u>	<u>Skipjack and other</u>	<u>Total</u>
Pole-and-line	-	599	5,230	5,829
Longline	2,297	521	401	3,219
Purse seine	-	247	525	772
	2,297	1,367	6,156	9,820

7. Tuna Sales

Canned Tuna (Export)	662,206 ctns*	F\$ 16,597,733
Canned Tuna (Local)	6,662 ctns	F\$ 88,245
Frozen Tuna (Export)	1,668 tonnes	F\$ 2,785,700
Fish Meal (Local)	640 tonnes	F\$ 279,334
		19,545,832

* Standard Carton = 48 x 7 oz cans. Export values are C.I.F.

8. Tuna Fleet Composition

<u>Vessel</u>	<u>1980</u>		<u>1981</u>	
	<u>Vessel-months</u>	<u>No. of Landings</u>	<u>Vessel-months</u>	<u>No. of Landings</u>
Taiwan longline	293	60	221	43
Korea longline	52	14	35	10
Fiji pole-and-line	N/A	N/A	102	301
NZ purse seine	0	0	10	10

9. Local Commercial Fishing Activities

1,283 commercial fishing licenses were issued in 1981, and 1,391 fishing vessels were registered. It is likely that most of these represent part-time fishing operations only, and it is equally likely that much unlicensed commercial fishing still continues.

10. Local Fish Sales

	<u>Quantity (tonnes)</u>	<u>Value (F\$ x 1,000)</u>
Municipal markets:		
- fish	1,133	2,022
- other aquatic produce	1,093	719
Other outlets		
- fish	1,433	3,458
- other aquatic produce	39*	145*
Rural producers		
- fish	99	184
Total	3,797	6,528

* Includes some imported items.

11. Exports of Fishery Products

	<u>Quantity</u>	<u>Value (F\$ x 1,000)</u>
Tuna (canned)	662,206 ctns	16,598
Tuna 'frozen)	1,668 tonnes	2,786
Shark fins	42 "	208
Beche-de-Mer	16 "	190
Trochus shells	183 "	110
Mother of Pearl shells	17 "	26
Frozen local fish	5 "	24
Frozen crab	4 "	21
		<u>19,963</u>

12. Imports of Fishery Products

11,257 tonnes of fishery products valued at F\$13,800,715 were imported as follows:-

	<u>Quantity</u> (tonnes)	<u>Value (F\$ x 1,000)</u>
Fish - fresh, chilled, frozen	3,718	5,661
Fish - canned, salted, smoked, etc.	7,471	7,658
Other	68	482
	<u>11,257</u>	<u>13,801</u>

13. Subsistence Fishing Activities

Subsistence fishery production was estimated in 1979 to be around 14,000 tonnes per annum. This very approximate estimate is still felt to be representative of subsistence catches.

DEVELOPMENT ACTIVITIES

14. The work of the Fisheries Division falls into the three broad and frequently overlapping categories of Administration, Research and Extension. Administrative activities relate to the internal day-to-day operations of the Division, and activities such as the procurement and disposal of funds and equipment (including aid). The Research section is involved in the development of new and improved techniques of fish harvesting, handling, processing and marketing, the acquisition of data pertaining to fishery-related activities nationally and internationally, and liaison with other research organisations. The Extension section deals with the transfer of existing and novel technology and techniques to both the industrial and subsistence fisheries, and maintains those already established services such as ice production, engine and vessel repair facilities, etc.

15. The more important projects and activities of 1981 in these three fields are briefly outlined below.

Baitfish Resource Assessment

16. The system of data reporting from the pole-and-line fleet was improved and biological studies of two major bait species commenced, as well as regular bait sampling by research vessel. The trend of diminishing catch/bouke-ami set seen over the past three seasons reversed, indicating that apparent changes in abundance were unlikely to be fishery-induced. A film aimed at increasing public awareness of bait-fishing was shown in areas where holders of customary fishing rights had complained about baiting activities.

Tuna Resource Assessment

17. Twelve pole-and-line, two purse seine, and some twenty-five longline vessels operated in Fiji during 1981. Pole-and-line catch rates were the highest ever, averaging 4.4 tonnes/fishing day over the season. Analysis of catch returns has enabled broad trends in the distribution of the catch, geographically and seasonally, to be detected, and a change in fishing strategies was noted. Purse seiners took moderate catches of 13.7 tonnes/set, mostly around fish aggregation devices (FADs) deployed by the various tuna fishing organisations. High initial FAD loss rates were followed by many variations in design aimed at reducing losses. Conflicts arose over the use of FADs, and ultimately some elements of the fleet were restricted in their access to these. Pole-and-line catches were about 91 per cent skipjack, 9 per cent yellowfin: purse seiners took 32 per cent yellowfin and substantial amounts of mahimahi, frigate tuna and rainbow runner. Collection of daily catch data for longline vessels commenced in December 1981 but has yet to be thoroughly analysed. Landings by species from longliners has, however, been regularly supplied by the cannery.

Small-Scale Fishery Resource Surveys

18. Two consultancies were carried out by overseas fishermen funded through UNDP, one on the coastal pelagic resource available to troll fishing, the other on small-scale techniques for the exploitation of surface schooling tunas, with particular reference to FADs. Both surveys demonstrated the availability of resources which would withstand increased exploitation, although a great deal still remains to be done in perfecting techniques and accumulating specific local knowledge. In addition, the SPC Deep Sea Fisheries Development project operated in Fiji for the second time, thus contributing to the wider adoption of deep sea snapper fishing techniques and adding to the growing body of knowledge of Fiji's snapper resources.

Other Resource Surveys

19. A number of additional resource survey programmes were initiated or continued. These included:

- a consultancy on the potential for a specimen shell industry in Fiji, which gave encouraging results;

- an ongoing experimental squid-jigging programme, which showed little promise for hopes of commercial squid operations;
- a discussion workshop on Fiji's most important bivalve mollusc, the "Kai" (Batissa violacea), aimed at disseminating information and increasing awareness of the resource;
- a survey to provide baseline data on the fish species of the Rewa river and a consultancy aimed at identifying suitable freshwater species for stocking hydro-electric dams;
- initiation of a programme of research into fishery-related aspects of mangrove wetlands, aimed at assessing the true impact of fisheries of mangrove reclamations.

Market Surveys

20. The Division's own data statistics collection team continued to log and analyse fishery-related statistics and produce summaries of fishery activities (including those in paragraphs 6 to 13). In addition, two consultancies were undertaken on behalf of the Division; one, a review of Fiji's fish marketing and distribution system, and the other a survey of potential markets for Fijian canned tuna. The former critically reviewed the current roles of those bodies involved in post-harvest aspects of fisheries, and made recommendations as to the ways in which these could be improved, including the establishment of a nationwide chill chain, vertical integration of fishing businesses and the institution of a collection system servicing remote areas. The second consultancy surveyed the canned tuna markets of North America and Europe and made recommendations as to the marketing strategies to be employed in exporting Fijian canned tunas.

Aquaculture and Mariculture

21. A number of projects were undertaken or continued. Two consultancies reviewed the aquaculture potential of the country as a whole, and of hydro-electric developments respectively. Both were optimistic as to prospects, and made recommendations on suitable species for stocking, management regimes, etc. The Division's ongoing Chinese carp, oyster and mussel programmes continued, and new projects involving experimental culture of Macrobrachium rosenbergii and Penaeus monodon were initiated, both with encouraging initial results.

Rural Fishing Activities

22. The Fish Processing Unit continued its work of demonstrating and assisting in the production of beche-de-mer and salted and smoked fish in 22 locations during 1981, and handled over \$100,000 worth of produce from these sites.

Twenty-four rural fishing groups operated during the year, with advice and technical assistance from the Fisheries Division, which also ran its fishermen's training course for nineteen nominees from rural areas. These nominees completed six months training in all aspects of fishing as a business, and returned to their homes with 28-foot fishing vessels built by the Division. A programme of follow-up work was initiated in order to monitor the performance of, and facilitate technical assistance to, these vessels. Additionally, eight one-week training courses on aspects of fishing and business management were held at rural centres. The Fiji Government also participated in an FAO-ESCAP project entitled "Improving the Socio-Economic Role of Women in Fisheries" by conducting survey work aimed at identifying the role of women in Fiji's fishery activities.

Service to Fishermen

23. The Division's boat-building scheme produced thirty-two 28-foot wooden monohull fishing boats, thirteen of which were sold to commercial fishermen at cost (F\$8,200) and nineteen used in the Fishermen's Training Course (paragraph 22). The Division continued to vet loan applications for fishing purposes on behalf of the Fiji Development Bank and give technical advice to fishermen on all aspects of fishing activities. One thousand eight hundred tonnes of ice were produced for use by fishermen, and almost \$20,000 worth of imported commercial fishing gear was sold at cost at four fisheries centres.

REGULATORY ACTIVITIES

24. The Fiji Government formally declared its 200-mile EEZ on 1 December 1981, and thereby claimed the right to exploit, conserve and manage the natural resources, including fishery resources, within that zone. Some thirty-five foreign fishing vessels are now licensed to fish within the zone, and three prosecutions of foreign vessels have been made for illegal fishing, resulting in two confiscations and one fine.
