

Introduction

Fiji's tuna industry has been recognised as a growing income earner in the nation's economy structure. Increase in production had been markedly shown in the longline fleet, which is raking in substantial amount of dollars for the last five years. This had been recorded in Fiji's business magazine printed in the first quarter of this year. Unlike other fishery commodity, tuna fishery with its vast resource base would certainly be the draw card in the nation's future fishery investment.

This paper illustrate and describe the status of tuna and tuna like species in Fiji for the 1995 era and the first six months of 1996. Data were collected from local longliners from the two major outlets in Fiji (Fiji Fish and Feeders). Also discussed in this paper are the current status of other tuna fishery or by catches which comprises over 25% of longliner's (sashimi) export. (OFP Report 7, 1994)

Tuna Fishery

Since the growth of the industry from the latter half of 1980's, and consultation work funded by FAO TCP, tuna fishery had increased prominently in comparison to other fishery. Offshore and EEZ license are now established. With them the Total Allowable Catch (TAC) for major tuna species and limited number of vessels (Effort) allowable in Fiji waters had also been established. Vessel limits were only set for longline fishery while the other two (pole and line, purseine) had either decline in size and never being approached. Or likely to approach the limit or with vessels not currently licensed in Fiji, but under international arrangement such as the USMLT.

Longline Fishery

In 1995 there were marked increase in tuna production in Fiji, as shown in Table 1. An increase in over 600 metric tonnes from 1994 (2,423 t) to 1995's (3068 t). This may be accounted by the increase in number of vessels (from 37 to 48). For the first half of 1996 there is a marked increase in percentage of catch for tuna species compared to billfishes and other species.

Table 1: Catches (metric tonnes) and percentage of total catch for local longliners in Fiji

Year	Months	Vessels Active	Alb		BE		YF		BIL		OT		Tot
			Catch	%	Catch	%	Catch	%	Catch	%	Catch	%	
1995	Jan - Dec	48	702	23	377.67	12	949.2	31	567.5	18	472.2	15	3068.51
1996	Jan - Jun	38	431.9	26	263.95	16	587.5	36	156.2	10	194.5	12	1634.07

However, when TAC and (LNV) Limited Number of Vessels) is brought into picture noticeable is the low total catch for the longliners in Fiji, as shown in Table 2.

Table 2: Catches (m. tonnes) compared to TAC and LNV for local longliners in Fiji

Year	Months	LNV	Vessels Active	TAV	Alb		BE		YF		Total		%
					TAC	Catch	TAC	Catch	TAC	Catch	TAC	Catch	
1995	Jan - Dec	80	48	60	3000	702	2000	378	2000	949.2	7000	2021.9	29
1996	Jan - Jun	80	38	60	3000	432	2000	264	2000	587.5	7000	1283.5	18

OFF's report (1996) on Fiji showed that in 1994, of the 37 longliners the total tuna catch was 1716 metric tonnes which was about 25% of TAC. In 1995 as shown, and increase of the 3%. From the first half of 1996 figure, there would be a definite increase in tuna production in Fiji when the year end.

When compared to the tuna unloaded at PAFCO by the Taiwanese vessels, there is a vast difference in the tuna landing (Table 3). The percentage difference attributed to the variation in fishing methods and efforts. The 1996 catches for the first six month is too low as shown and consequently it had an impact on the canning industry as a whole during this period.

Table 3: Taiwanese longliners catches (m. tonnes) compared to TAC

YEAR	MONTHS	LNV	ACTIVE VESSELS	TAV	ALB		BE		YF		TOTAL		%
					TAC	CATCH	TAC	CATCH	TAC	CATCH	TAC	CATCH	
1995	JAN-DEC	80	14	20	3000	3961	2000	28	2000	128	7000	4117	59
1996	JAN-JUN	80	17	20	3000	1229	2000	16	2000	167	7000	1412	20

Totaling tables 2 and 3 for longline fishery in Fiji to be accounted against TAC and LNV, Table 4 shows the increase in landings as predicted for 1995 and 1996.

Table 4: TAC and LNV for longlining fishery in Fiji for 1995-96

Year	Months	LNV	Vessels Active	Alb		BE		YF		Total		%
				TAC	Catch	TAC	Catch	TAC	Catch	TAC	Catch	
1995	Jan - Dec	80	62	3000	4663	2000	406	2000	1077	7000	6146	87.8
1996	Jan - Jun	80	55	3000	1661	2000	280	2000	754	7000	2695	38.5

Total albacore catches for 1995 had supersede TAC with the other two species catch less than half the nominal TAC for tuna fishery.

The TAC's established are probably conservative/precautionary (described in OFF Report on Fiji, 1996), particularly in the case of albacore. This TAC was established when there was some concern over the condition of the South Pacific albacore stock. This concern which was later lifted as further data had become available and analysis were carried out by SPC. The present TAC (3000t) could conceivably increased to possibly 4,000 t.

The yellowfin and albacore status appears to be underfished, although they provide bulk of the longline catch. Bigeye stock seemed to be uncertain from the data

collected, however, the Fiji longline catch will always be minor relative to the overall Pacific catch i.e., 2000 TAC as against the total of 130,000t (OFP, 1996).

Pole and Line Fishery

PAFCO's existence was the result of the boom of pole and line fishery in Fiji in the 1970's. After the withdrawal of the Japanese from the Pacific in the 1980's, pole and line fishery began to decline. In Fiji the Ika Vessels, which were specially built for this fishery faced huge financial loss due the failure of this method of tuna fishery. Concentrated to particular sea areas of Fiji with low catch rate, had led some of these vessels to longlining fishery.

Baitfish is also another hurdles for pole and line, and it will continue to be a sore thumb to this fishery in future because of the customary fishing laws.

Table 5 illustrate that in 1995 the total catch was 4885 tonnes, 1596 tonnes more than the 1994 total catch (OFP -Report 1996), an increase in more than 48% of 1994.

Table 5: Catches (metric tonnes) for Pole and Line Fishery in Fiji

Year	Month	Vessel Nos.	YF			BE		SKJ			TOTAL		
			TAC	Catch	%	Catch	%	TAC	Catch	%	TAC	Catch	%
1995	Jan-Dec	9	1500	558	37	8	0.2	8500	4319	51	10000	4885	49
1996	Jan-Jun	7	1500	97	6	0	0.0	8500	2684	32	10000	2781	28

TAC for Pole and Line fishery in Fiji is 10,000 metric tonnes, for yellowfin and skipjack. Total Fiji catch had reached more than 50% of TAC way back in 1981 and 1985 only.

Being part of the Western Pacific stocks, skipjack and yellowfin caught in Fiji's pole and line catches, may have been the result of sea conditions or tuna's response to lures or bait. It can not be a clear indicator of the stock in Fiji because tuna aggregates rather than disperse throughout the ocean (SPC Report, 1994). Therefore an increase in effort to this method can not affect tuna resource in Fiji and the region as a whole.

Purseine Fishery

Of the TAC set at 10,000 metric tonnes, Fiji have not entertain this method for the last ten years, after the New Zealand purse seiners left in 1985 and 1989 for the Phillipinos. US purse seiners were occasionally fishing in the northern (SPC -OFP, 1996) part of the EEZ zone, usually catching more than several hundred tonnes of tuna. After the *El Nino* effect, the 1995 catch for this method in Fiji was very rare, because most of the purseiners were either at the Eastern Pacific or at the coastal western region. Other purseiners were also transshipping in Suva but catches were from other zones.

FAD Fishery

Artisanal fisherman in the urban areas of Suva are catching minor quantities of tunas of approximately 100 tonnes per year. Length frequency data are collected on a fortnightly basis from the fishers. The main purpose for this exercise was to monitor the FAD users and also to derive the catch and effort for management decision on it's viability.

The Government had allocated funds for FAD's that were deployed last year (5 in total), while 6 more will be deployed this year in the Fiji's offshore areas, of which 2 had already been deployed during the first six month of this year. Pole and line vessels are the main users of the FAD in Fiji, however, longliners had been observed fishing around FAD's.

Marketing of Catches

Sashimi markets for local longliners are shipped via airline to Japan and the USA, while damaged or other catches are packed in containers and shipped to either Pagopago or PAFCO in Levuka. Other catches are also sold locally fresh to supermarkets and restaurants.

PAFCO had been faced with low supply of raw materials and it has reached a stage that it may import or increase the number of vessels to its fleet.

Billfishes had been flooding the local market at Fiji Fish and Feeders for the locals. The supply had been continuous since the establishment of longline in Fiji, and there is a concern that these fishes are neglected from our monitoring program, and the stock could not be determine because information's are not available.

Problem of securing cost effective importers had been a major problem, however this can be rectified if local markets are utilised or processing to other products could be established.

Onshore Developments

Purse seiners that unload in Suva sometimes sold their products to local business man for further processing This applies to sharkfins and other billfishes that are processed as fish cakes and other products. These products are exported to Australia and New Zealand and American markets.

A few processing plant in Fiji are located near the capital Suva because of the availability of raw materials and export facilities.

Transshipment of tuna in Fiji is becoming an occasion now, as purse seiners are using the port as replenishment of supplies and as well as offloading. New crews also board the boat at Suva and old crews flew back home via Nadi. This exercise would benefit Fiji in so many ways and it will certainly be another source of income to the nation.

Future Prospects

The observer program to be implemented to the local fleets in Fiji would serve the purpose of surveillance, training and data collection that would further enhance awareness in tuna as a leading economic earner for the future.

More investment had been put forward by foreign investors with new proposals for new boats etc., for consideration to fish in Fiji waters, a clear sign of the prospect of the industry in future.

To have an ongoing fishing industry in Fiji for the future a training institution should be established to cater for the human resources in all facets.

Above all, there needs to be a review of the industry before new or continuous development is implemented.