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ORIGINAL : English

SOUTH PACIFIC COMMISSION

FIFTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES

(Noumea, New Caledonia 1-5 August 1983)

COUNTRY STATEMENT - FIJI

SUMMARY

Exports from Fiji's Fisheries Sector currently rank second only to sugar and in 1982 earned nearly \$ 13 million in foreign exchange.

The Fisheries Division undertakes to increase fishery productivity in the economy. Extension Services and Research programs are carried out to this end.

Pole-and-line, purse seine and longline vessels exploit pelagic resources within Fiji's 200 mile EEZ, and in 1982, 7810.6 tonnes of tuna were caught, which after processing produced \$ 12.49 million in revenue.

Substantial foreign aid-in-kind provided the Fisheries Sector with a fish market distribution support system, which is aimed at increasing small-scale commercial fishing activities. This in turn would decrease the import of fishery products.

Projects undertaken by the Research Section are aimed at developing more efficient methods of fish capture, handling and processing while the Extension Services are charged with the transfer of this technology to user groups. Other services which are available to local fishermen include gear sales, ice and facilities for boat building as well as fishermen training.

With the many support facilities which are available to fishermen and the abundant resources present, there is potential for considerable growth in this sector.

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COUNTRY STATEMENT - FIJI

Introduction

1. The Fiji Fisheries Sector continues to play an increasingly important role in the economy of Fiji. Fishery exports now rank second to sugar and in 1982 \$ 12.95 million were earned in foreign exchange. The small-scale commercial fishery sector produced 4458 tonnes of fishery products worth \$ 8.46 million which were locally consumed, together with the estimated 14,000 tonnes produced by the subsistence fishery sector.
2. A number of constraints hinder effective exploitation of fishery resources. These are identified as a lack of infrastructure and support services for fishery activities, a shortage of qualified and experienced personnel, lack of investment capital, reluctance of the public sector to join the industry and an uncertainty as to the extent to which the resource can withstand increased exploitation.
3. The Fisheries Division of the Ministry of Agriculture and Fisheries undertakes to overcome these constraints using available facilities and resources. Extension support and research projects which include the collection of fishery industry data are undertaken to this end.
4. The Division's resources consist of 109 staff, 9 vessels and 18 vehicles distributed in 9 stations throughout Fiji. Substantial quantities of aid-in-kind, and a number of officers working under Technical Cooperation Programs and Volunteer Programs complement the Division's own resources, particularly in the development of the Fisheries Sector.

Fisheries Statistics

5. An HP9836A desktop minicomputer unit with plotter and printer facilities, provided to Fisheries Division under New Zealand Grant Aid, was installed in the latter half of the year. The unit is utilized for the storage, analysis and graphics presentation of fishery industry data.
6. Fishery statistics are derived from a number of sources, and those concerning subsistence, small-scale commercial fisheries particularly should be regarded as estimates only.

Tuna Fishery

7. Tuna landings totalled 7810.62 in 1982, with pole-and-line vessels contributing 59.7% of the total landings, purse seiners 12.9% and a 27.4% contribution from longline vessels.

Tuna Landings (tonnes)

	<u>Albacore</u>	<u>Yellowfin</u>	<u>Skipjack and others</u>	<u>Total</u>
Pole and line	-	813.98	3850.38	4664.36
Longline	1662.93	281.00	195.6	2139.53
Purse seine	-	343.29	663.44	1006.73
	<u>1662.93</u>	<u>1438.27</u>	<u>4709.42</u>	<u>7810.62</u>

Tuna Sales

	<u>Quantity</u>	<u>Value F\$ (million)</u>
Canned Tuna (Export)*	574,129 ctn.	\$ 11.31
Canned Tuna (Local)	7,691 ctn.	\$ 0.11
Frozen Tuna (Export)	536 tonnes	\$ 0.74
Fish Meal (Local)	717 tonnes	\$ 0.33
		<u>\$ 12.49 million</u>

Local Commercial Fishing Activities

8. 1500 fishing licenses were issued in 1982, and 1572 fishing vessels were registered. 40.5% of these license holders were fishing outside demarcated areas (outside the reef).

Three new ice plants, a fish collection centre, two fish collection vessels and two refrigerated trucks were provided by Japanese Grant Aid to the Fisheries Division. This serves as part of the market distribution support system aimed at increasing commercial fishing activities.

* including canned petfood, standard carton = 48 x 7oz cans
Export values are C.I.F.

Local Fish and Non-Fish Sales

	<u>Quantity(tonnes)</u>	<u>Value (\$x 1000)</u>
Municipal Markets		
- fish	973.71	1832.67
- non-fish	1443.16	2879.10
National Marketing Authority		
- fish	128.47	238.95
- non-fish	-	-
Other outlets		
- fish	1755.76	3265.71
- non-fish	57.1	113.91
Rural producers		
- fish	99.4	133.32
- fish products (smoked salted fish)	48.2	144.60
Total	4505.8	\$ 8608.26

Export of Fishery Products

	<u>Quantity</u>	<u>Value (F\$ x 1000)</u>
Tuna (canned)	574,129 ctn	11,310.00
Tuna (frozen)	536.29 tonnes	736.41
Sharkfin	14.5 "	108.80
Beche-de-mer	34.6 "	346.03
Trochus Shells	219.1 "	328.65
Mother of Pearl Shells	17.1 "	51.10
Frozen Crab	4.26 "	34.08
Frozen local fish	7.50 "	37.50
		\$ 12,952.57

Import of Fishery Products

6656.56 tonnes of fishery products valued at \$ 8.41 million were imported in 1982.

	<u>Quantity</u>	<u>Value (\$)</u>
Live Fish (N°)	124	136.00
Fish and Fish Products	6589.14 tonnes	7,840,773.00
Non-fish Products	67.42 "	572,969.00
		\$ 8,413,878.00

Subsistence Fishery Activities

9. Subsistence fishery production was estimated to be 14,000 tonnes in 1979. This is felt to be a fair estimate of the 1982 catch.

Development Activities

10. The work of the Fisheries Division is sub-divided into three categories. Administration, Research and Extension Services. Administrative activities relate to the internal day-to-day operation of the Division which includes such activities as the procurement and allocation of funds and equipment. Activities of the Research section include the development of new and improved methods for fish capture, fish handling, processing and marketing, as well as the collection of data on the local and international markets for fishery industry products.

11. The Extension Section is involved in the transfer of fishery related information and technology to the Industrial, Commercial and Subsistence Fisheries sector. Other services provided by the Extension Section include ice sales, engine and vessel repair facilities, gear sales and organized rural fishermen's training.

12. The major projects and activities undertaken in 1982 are briefly outlined as follows:

Baitfish Resource Assessment

13. Monthly Baitfish catch data supplied by the pole-and-line vessels are processed to describe bait catch effort statistics (Fig. 1) - baiting locations and species composition. In addition to data supplied by the pole-and-line vessels, 1982 saw the completion and documentation of the results of the biological studies of two species of bait in selected locations.

14. Bait catch in 1982 totalled 80347 buckets (1 bucket : 1.8kg), taken from 2716 sets in 188 nights.

15. A baitfish documentary film aimed at increasing public awareness of the baitfishery was shown at three provincial council meetings where holders of customary fishing rights have complained about baiting activities.

Tuna Resource Assessment

16. Thirteen pole-and-line, two purse seine and fourteen longline vessels operated in Fiji during 1982. Analysis of catch data supplied by the pole-and-line vessels has provided valuable information in tuna catch effort statistics (Fig 2), its distribution trends both seasonally and geographically as well as the percentage of tuna being caught around fish aggregation devices (FADs).

17. Tuna species composition from pole and line vessels were as follows: 82% skipjack, 17% yellowfin and the remaining 1% small bigeye, frigate tuna and others.

18. The purse seine vessels' catch was caught around FADs.

Fish Aggregation Device Deployment Program

19. Many FADs were deployed around coastal waters by the Industrial Fisheries Sector and the Fisheries Division. The Division continued monitoring the effectiveness of FAD's using catch data supplied by pole-and-line vessels.

20. A substantial amount of equipment has been provided by Korean Aid which will enable the Division to construct and deploy 20 FAD units in selected locations throughout Fiji. The deployment of these units is encouraging small-scale commercial fishermen in exploiting pelagic resources, thus shifting fishing pressure away from coastal resources.

Resource Surveys

21. The Division commenced fishery resource assessment surveys in selected areas with views on the evaluation of fishery resource potential and the technology required for its exploitation.

22. The first of these surveys was carried out in the Lau Groups at the request of the Lau Provincial Council. Results are documented and similar surveys will be carried out in Rotuma, Macuata-Bua, Kadavu and Lomaiviti.

Other Resource Surveys

23. A number of other resource surveys were initiated or continued. The Mangrove Survey with its emphasis on biological studies of fish species has been completed. Approximately 87 species of fish belonging to the families have been found in these areas. Field work on the socio-economic condition of women in Fisheries has been completed and documented. A workshop for the presentation and discussion of findings was organized by ESCAP/FAO and held in Fiji in 1982.

24. A follow-up survey on the fishery potential of Monasavu Dam was carried out to assess fishery potential and plans for stocking the reservoir with suitable fish species. In 1982 approximately 5,000 Tilapia nilotica and some hybrids were released at Monasavu Dam.

Market Survey

25. The Division's market survey team continued to collect and analyse data from all municipal market outlets and 85% of other retail outlets. This information is assimilated to monitor gross changes in the pattern of supply and demand of fishery products, its species composition, and price trends.

Aquaculture Development Program

26. The Division's Aquaculture program, funded by Japanese Grant aid, was established in 1982 and aimed at utilizing aquaculture potential in increasing inland fishery productivity. This program has provisions for major improvements at the existing carp station which will become the freshwater finfish station and facilities for a Macrobrachium rosenbergii hatchery as well as mariculture activities. Results from trials on the culture of M. rosenbergii larvae using make-shift hatchery facilities in 1982 proved successful.

27. The Joint Venture Project (France Aquaculture and Fiji Government) continued into its 2nd phase. Phase 1 results were encouraging.

Rural Fishing Activities

28. The Fish Processing Unit continued to transfer modern fish handling and processing techniques to fishermen living in rural areas. In 1982, about 82.8t of beche-de-mer, salted mullet and smoked fish worth \$ 490,630.00 were produced and sold both for local consumption and export.

29. Technical assistance and advice were provided by the Division to the thirty-four rural fishing groups which were in operation in 1982, producing 99.31 tonnes of fish valued at \$ 133,321.

30. Twenty-two trainees, nominees of fishing schemes and village groups, completed six months training in all aspects of fishing as a business and returned to their respective villages with 28-foot fishing vessels constructed by the Division.

31. A program for follow-up work was initiated to monitor the performance of, and to facilitate technical assistance of these vessels. As part of the training and support services a 28-foot demonstration vessel was built and commenced operation in early 1983.

32. In the aftermath of Hurricane Oscar the demonstration vessel and other vessels were used to assist fishermen in areas affected by hurricane. The program was initiated, funded and supported by UNDP and SPC, with extremely good results.

Service to Fishermen

33. The Division's boatbuilding program constructed 34 twenty-eight-foot fishing vessels, eleven of which were equipped with mast and sail (funded by US Aid) in addition to the standard inboard engine. Twenty of these vessels, including those which were equipped with sail and mast were allocated at cost to participants of the 6 months training program, while the remainder were sold to commercial fishermen.

34. The Division continued to vet loan applications for fishing purposes on behalf of the Fiji Development Bank and give advice to fishermen on all aspects of fishing activities.

35. 1771.0 tonnes of ice valued at \$ 90603.00 were produced by the 5 ice plants and sold to fishermen. \$ 13,731.00 worth of fishing gear were sold, to commercial fishermen at cost at the 4 fisheries centres.

Regulatory Activities

36. The Fiji Government formally declared its 200 mile EEZ (Fig 3) on 1 December 1981, and thereby claimed the right to exploit, conserve and manage the natural resources, including fishery resources within that zone. Some 29 fishing vessels were licensed to fish within the zone.

Fig.1: Monthly Baitfish Catch and Effort for 1977-1982 Seasons

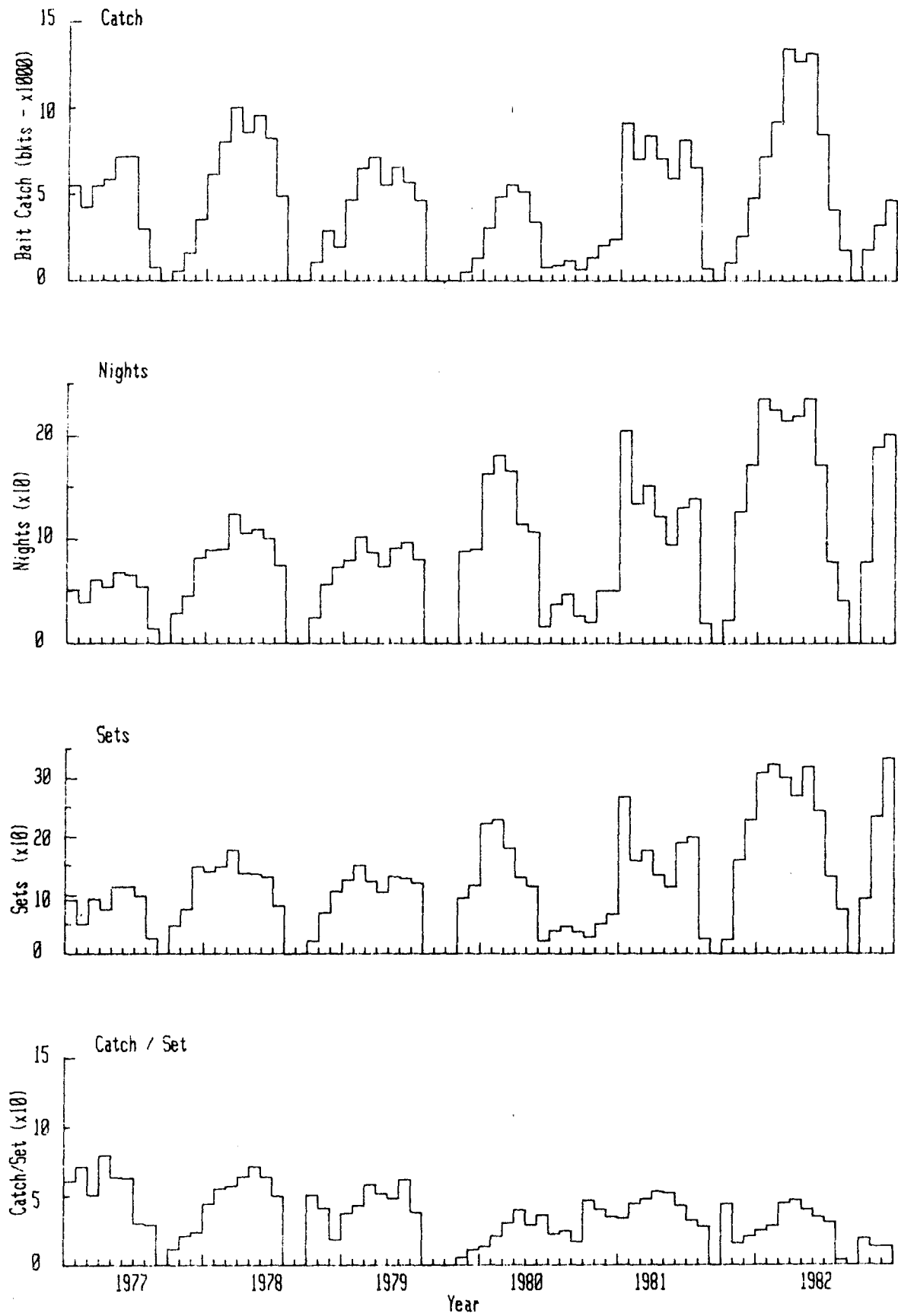
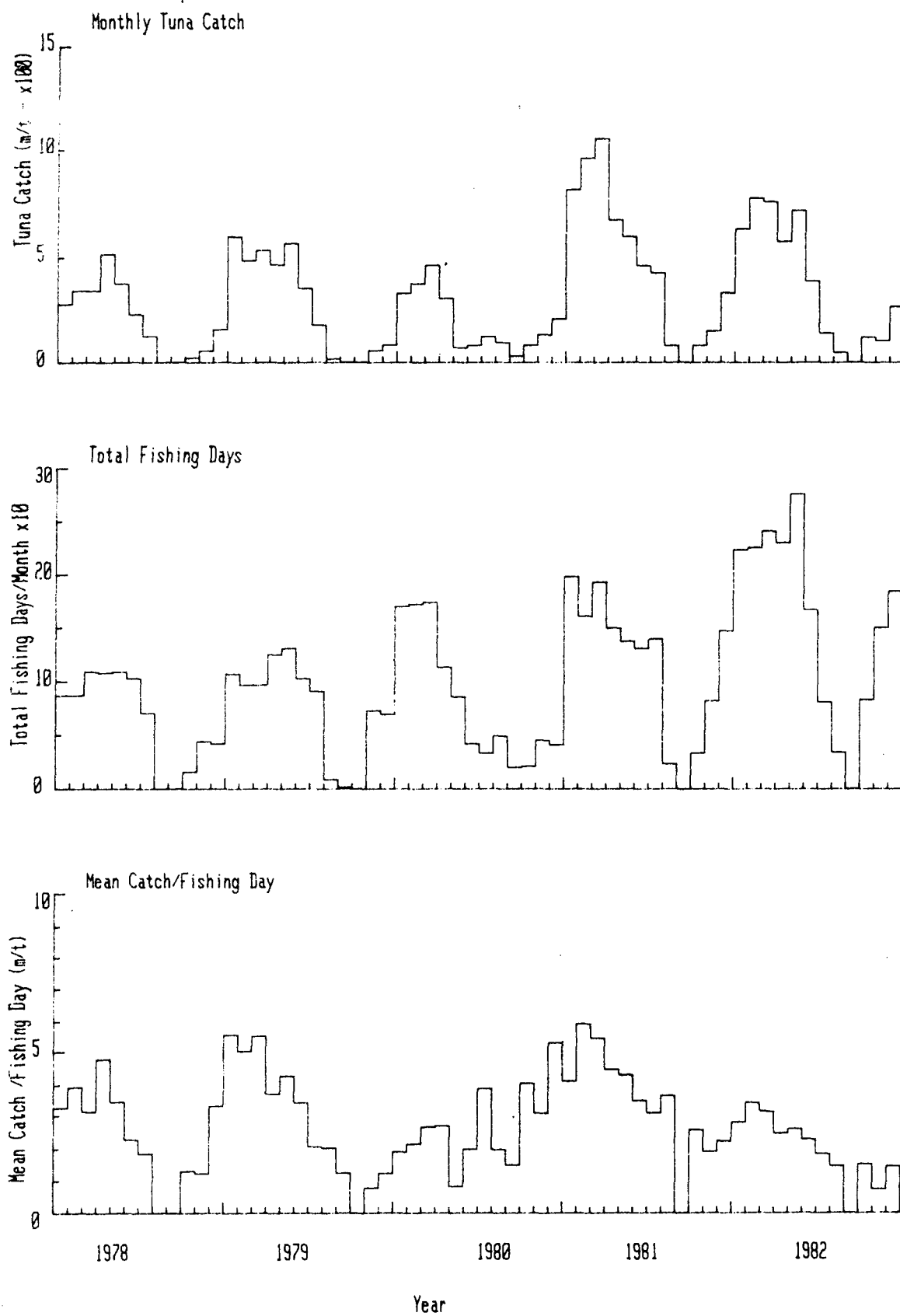


Fig.2: IKA Corporation Estimated Tuna Catch and Effort 1978 - 1982



FIJI ISLANDS

DIAGRAM SHOWING MEDIAN POINT POSITIONS OF
THE 200 NAUTICAL MILE EXCLUSIVE ECONOMIC
ZONE LIMITS.

SCALE 1:3,500,000

PROJECTION: MERCATOR BASED ON WGS 72 DATUM

NOTE:
 a) This chart is illustrative of the coordinates listed on the back.
 b) The coordinates listed are authoritative positions.
 c) North Minerva Reef and South Minerva Reef are claimed by Tonga.

FIJI ISLANDS

DIAGRAM SHOWING MEDIAN POINT POSITIONS OR
THE 200 NAUTICAL MILE EXCLUSIVE ECONOMIC
ZONE LIMITS.

SCALE 1 : 3,500,000

PROJECTION : MERCATOR BASED ON WGS 72 DATUM

NOTE:

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