



GOVERNMENT OF TONGA

REPORT

of the

MINISTER

OF

AGRICULTURE

for the year

1981

14. FISHERIES DIVISIONA. Government Fishing Vessels14.1 MFV Tavake

14.1.1 This 200 GT tuna longliner continued to operate at a loss in 1981.

14.1.2 Cabinet decided in August to transfer this vessel from MAFF and place it under the management of the Shipping Corporation of Polynesia to be operated as a passenger/cargo vessel. By the end of the year this transfer was not yet effective.

14.2 MFV Takuo

14.2.1 This vessel continued to do skipjack fishing except during out of season periods when she was involved in bottom fishing.

14.2.2 From July to October, "Takuo" made a total of 5 trips, 2 to Minerva reef and 3 to the Ha'apai group. Out of these 5 trips, she landed 12.6 metric tonnes of fish and 1.26 tonnes of clams, accounting to \$11 245.75 revenue.

14.2.3 Unfortunately, "Takuo" was deployed from October on, to survey work conducted by the Royal Australian Army.

14.3 MFV Kahikahi

14.3.1 "Kahikahi" was on charter to local fisherman during the year. Each fisherman on board had to half his total catch with the vessel and pay a net of \$5 per fishing day. This system was satisfactory to the fishermen involved, but the vessel made very little profit from each trip.

14.3.2 This vessel was also deployed to survey work from October to the end of the year.

14.4 MFV Lofa

14.4.1 This new 150 GT longliner arrived from Japan on 26th December. She can carry 70 tonnes of fish which is 75% more capacity than MFV Tavake. This vessel which was specifically designed for Tonga is equipped with the most up-to-date fishing equipment and is expected to have a 30% higher daily catch rate than MFV "Tavake".

14.5 MFV Albacore

14.5.1 This 13m purse seiner arrived from Japan in October fully equipped.

14.5.2 A Japanese Technical Officer spent three weeks training the Tongan crew on this new type of fishing. During the first week trial at Vava'u, "Albacore" landed a total of 1.26 tonnes of fish. By October, she was completely in the control of the Tongan crew.

- 14.5.3 This type of fishing is done at night. Light is provided by a smaller boat, attracting fish like sardine and mackerel. Both boats then circle with the nets, close both ends and are finally hauled onboard. The average catch is 0.25 tonnes per night.

B. Other Projects

14.6 Boatbuilding

- 14.6.1 The fully equipped Government boatyard at Sopa established under FAO/UNDP project in 1979 is well underway.
- 14.6.2 Modifications to the original FAO designs were introduced to suit the conditions of Tonga.
- 14.6.3 A senior naval architect from FAO Fisheries Department in Rome visited in September to ensure that these new designs did not deviate from acceptable technical safety and seaworthiness standard.
- 14.6.4 By the end of the year, 5 boats of different sizes were completed.
- a) A 10 transom - sterned catamaran with 25 sqm. of deckspace and sleeping accommodation for four. It was built for the Government of Tuvalu under the FAO/UNDP Development and Training Scheme. She was sailed by her own sailing power to Funafuti, Tuvalu.
 - b) Two 7m Vee-bottomed boats of FAO design were built and sold to local customers during the year. One is an open deck fishing boat powered by 15Hp outboard and the other is powered by a 10Hp diesel inboard with cabin.
 - c) Two 10m Vee-bottomed boats of FAO design with deck layout designed specifically for owner preference. Both boats are powered by inboard diesel engines, one by a 30Hp and the other by 20Hp engine.

14.7 Demonstration Artisanal Fisheries

Section 14.7 of the 1980 Annual Report described this project in some detail.

- 14.7.1 To recap, this scheme aims at training local fishermen in bottom fishing and trolling techniques. Furthermore, the fishermen involved are encouraged through savings to subsequently own a bottom fishing boat.
- 14.7.2 With boats bigger than 6m, powered by inboard diesel engines and equipped with ice boxes, the fishermen could fish and trolley further out from the coastal reef areas.

14.7.3 In this scheme, one third of the nett earnings of each trip is given to the fishermen who work on board. Two thirds is deposited in a Bank of Tonga account as savings towards a 25% deposit for a loan on a similar vessel through the Tonga Development Bank.

14.7.4 The status of this project at the end of the year are as follows:

- a) Vava'u: 1979-1980 - Two 9m boats one each year were imported from Western Samoa both powered by 20 Hp inboard diesel engines and with ice-boxes. With 3 crews each and under supervision of a Fisheries Extension Officer, they have been very successful right from the start.

1980 - A new 8m round-bilged boat powered by a 20 Hp inboard, built by the divisions boatyard and funded by Foundation for the South Pacific, joined the scheme in Vava'u, and proved very successful.

1981 - Two new boats, 9m and 8m powered by inboard 14 Hp and 10 Hp engines respectively and both equipped with iceboxes and depth sounds joined the scheme.

One demonstration boat in Vava'u landed 4 tonnes of skipjack with accounts to \$3 000 value at the end of the skipjack season, April. This is good considering a short season due to cold and bad weather. During the first few weeks, one boat landed 400 skipjacks in one day with average weight of 1.5kg.

- b) Ha'apai: 1981 - A 9m boat powered by a 20 Hp inboard engine with iceboxes, imported from Western Samoa started the scheme in the Ha'apai group.

- c) Tongatapu: 1981 - A 10m sailing catamaran with auxillary power provided by a 30 Hp outboard engine was introduced.

14.7.5 The Demonstration Artisanal Fisheries scheme is being strengthened by the divisions boatbuilding activities. Fully equipped boatyards, one each for Vava'u and Ha'apai are planned for 1982 and will further extend this scheme.

14.7.6 The total skipjack landings of all demonstration boats during the year was 3.2 tonnes.

14.8 Fishing Aggregation Device (FAD)

14.8.1 Two buoys (FAD) purchased from Fiji were deployed during 1981, one at 'Atata at the coordinates 20°.599, 175°.14 and the other off Vava'u.

14.8.2 The Vava'u FAD was dragged from its site by the MV Kao on November 29th and through an agreement with Shipping Corporation of Polynesia will be deployed again in 1982.

14.8.3 The Tongatapu FAD was fished. There was positive indications that commercial species like Tunnus albacores, Katsuwonus plecanis (skipjack) and Corypaena Hippurus dolphins were present. Fishing in this FAD was cut short when the appendage was severed from the buoy. A new appendage was made and fishing started around the FAD towards the end of the year.

14.9 Feasibility Study - Seaweed Project

14.9.1 Dr J. Courtney from Coastal Biological Corporation visited the Kingdom in August under CFTC funding. He conducted a preliminary survey on the feasibility of growing seaweed commercially in Tonga. Dr Courtney recommended that seaweed expert Dr David Luxton should visit and locate sites suitable for trial plots.

14.9.2 Dr Luxton subsequently visited. He identified possible sites, although after surveying 21 sites, he reported that the total area of suitable habitat was not as much as expected.