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SOUTH PACIFIC COMMISSION

SIXTEENTH REGIONAL TECHNICAL MEETING ON FISHERIES

(Noumea, New Caledonia, 13-17 August 1984)

COUNTRY REPORT - TUVALU

SUMMARY

Like most of her Pacific Island neighbours, Tuvalu looks to fishing activities for a substantial portion of its subsistence needs, and increasingly as a means of developing the domestic economy. With the development of a commercial tuna venture, and the continuous sale of access rights to foreign fishing vessels to fish within her fishing zone, Tuvalu looks to the fisheries sector as the main foreign exchange earner in the near future. In (accordance with) this development, the Fisheries Division of the Ministry of Commerce and Natural Resources plays the role of upgrading small-scale fisheries to meet local demand for fish and to generate exportable surplus; licensing of foreign fishing vessels in the country's 200 miles fishing zone, monitoring their activities and developing a commercial tuna fishery for export, in co-ordination with the National Fishing Corporation of Tuvalu (NAFICOT). In addition, specific objectives exist for the Fisheries Division to achieve with regards to the development of the three Fisheries sectors. The development of these fisheries faces various constraints, both internal and external. The development projects under the fisheries sector incorporates the development strategies aiming at achieving the fisheries objectives as well as producing answers to the various fisheries problems, within the Development Plan period.

1. Recent Developments

During the Second Development Plan period (1980-83), considerable progress was made on each of the three areas of activity.

(a) Small-scale fisheries

(i) Commercial trials of inshore fishing boats

The Fisheries Division carried out trials using diesel powered boats from boatyards in Fiji (28' launch; 20 h.p.), W. Samoa (28' Monohull, 20 h.p.) and Tonga (34' Catamaran), and compared the results with those for an outboard powered skiff. The results of the trials confirmed the economy of the diesel power, and enabled the Division to specify the most suitable design for future artisanal fisheries development under local conditions.

The trials also yielded worthwhile amounts of revenue and helped stabilise the supply and price of fish on the capital.

(ii) Resource assessment

The Division monitored catches by private fishermen, as well as recording the size and composition of catches from its own boats during the period. During the period, no seasonal pattern was apparent in the catches of the main pelagic species, but considerable variations in the catches were noted. An evaluation of the deep bottom fish resources of the outer-reef slope of Funafuti yielded promising results; the method used was demonstrated on several of the outer islands. A second visit by the SPC Deep Sea Fishing Project in late 1983 for a three months period, continued the evaluation of the bottom fish resources of three of the outer islands; Nukulaelae, Nukufetau and Vaitupu. Similar activities were carried out on Funafuti. During the visit, the SPC master fisherman trained interested local fishermen on the deep sea fishing techniques, improved methods of handling and processing fish etc. Plans were made to continue the assessment programme to the northern group by staff of the Fisheries Division.

(iii) Fish Aggregation Devices

Limited funds were available initially for this project. In June 1983, one deep water FAD was installed in Funafuti but was destroyed by storms in August the same year. However, the device was effective during its limited period of operation. Additional funds have now been approved (by UNDP and other aid donors) for the installation of more devices, which are now under construction in the capital. High priority is given to the placement of additional FADs around the capital and the outer islands during the Plan period (1984-87).

(iv) Marketing of fisheries produce

Due to technical and administrative reasons, the construction of the Funafuti Fish Market was not possible during the Plan period (1980-83). New designs for the Market have now been completed and submitted, together with an Economic Evaluation of the project prepared by the Forum Fisheries Agency, to the British Government for approval. In view of the various delays, the Market is now expected to be in operation in 1985.

As an interim measure, the Fisheries Division converted one existing building into a Fish Shop, for the sale of catches from its own boats. Another retail outlet was also established in the Co-operative Store in the centre of the village. Through these outlets, the Division marketed fresh and iced fish, small quantities of dried fish, salted fish, and locally smoked fish. The Division also exported beche-de-mer and small quantities of sharkfins on behalf of the fishermen. Further investigations are necessary regarding the collection and export of sharkfins.

(v) Processing

The Division first introduced the use of ice for the storage of catches from its own fishing boats during the period of the Second Development Plan (1980-83). However, quantities of ice were sold to the public for fishing and for domestic use. Trials of smoked fish products were made; hot smoked tuna fillets proved very acceptable and are now produced on a regular basis. Other species of fish, including shark, were also smoked for the local market. The salting of bottom fishes was carried out and produced highly acceptable products locally. Further investigations are necessary regarding the improved methods of fish-drying when processing for overseas markets becomes a priority.

(vi) Sale of fishing gear

One major problem in the development of small-scale fisheries was the lack of cheap fishing gear. Consequently, the Fisheries Division began, during the period 1980-83, to sell fishing tackle to the public. Proceeds from the sales were deposited into a revolving fund for the purchase of more tackle. The service will be expanded in the period 1984-87 to include small boat chandlery, paints, sail-cloth, ropes, etc. Since the service was introduced, private fishermen have fully utilised the service, and some have requested the Division to make available specific fishing gear.

(vii) Boat safety

Small-boat fishermen, presently operating in the open ocean, are always at risk in the event of engine failure etc. In an attempt to minimise the danger, the Division distributed quantities of distress flares to the boat-owners. Additional flares and distress radio-beacons and radio-telephones have been ordered, for hire by boat-owners in future.

(viii) Other activities

The Division also provided advice to members of the public on business opportunities in fisheries. The enquiries varied and included fishing tackle retailing, local marketing of crayfish, sale of precious shells, and export of aquarium fish.

(ix) Shell-resources survey

An SPC shell expert paid a brief visit to Tuvalu in late 1983, following a request from the Tuvalu Government. The draft of the survey report has now been received for comments. The final report is expected in Tuvalu soon. The possibility of a trochus industry in Tuvalu was investigated in the survey and should be well documented in the final survey report.

(b) Licensing of foreign fishing vessels

In 1980, the Tuvalu Government concluded a fisheries access agreement with the Government of the Republic of Korea (Master Agreement) and the Korean Deep Sea Fisheries Association (Subsidiary Agreement). In 1981, similar agreements were reached with the Government of the Republic of China and the Taiwan Deep Sea Tuna Boat Owners and Exporters Association. Both agreements related to fleets of longline vessels, supplying the canneries in Pago Pago. The master agreements were of 3 years duration and the subsidiary agreements have to be renegotiated each year. From 1980-1982, a total of A\$228,352.00 was received in license fees from both agreements.

In August 1983, Tuvalu joined other Polynesian countries, Western Samoa, Tokelau and Niue in signing a sub-regional access agreement with the American Tuna Boat Association (ATA). The agreement yielded limited revenue for Tuvalu in 1983 but should return higher revenue in 1984 and 1985. Consequently, the total revenues from access fees for all access agreements reached with the Tuvalu Government in 1983 alone was estimated to be A\$200,000.00.

For many years now, the Tuvalu Government has sought an access agreement with the Japanese Government and vessel operators. Draft agreements have been submitted and negotiations are awaited and scheduled for late 1984 or early 1985.

The Tuvalu Government supported the regional move to harmonise the terms and conditions of access agreements and to improve monitoring and enforcement. Tuvalu lacks the physical surveillance infrastructure, vessels, etc.; it has to depend on co-operation with neighbouring Pacific countries as well as the assistance of the regional bodies like the Forum Fisheries Agency (FFA) in the co-ordination of future surveillance efforts.

(c) Commercial tuna fishery

In March 1982, one 170 GRT fisheries training vessel 'Te Tautai', provided under Japanese aid, was delivered to Tuvalu. The vessel was essentially a pole-and-line vessel, but equipped with longline gear.

Government took a decision before the vessel was delivered, to operate the vessel commercially. The National Fishing Corporation of Tuvalu (NAFICOT) was established accordingly by Statute and given the responsibility to manage the vessel. Owing to the difficulties of establishing supporting facilities in Tuvalu for commercial operations, as well as limited working capital and the uncertainty over the live-bait resources (from results of surveys in 1981), it was decided to negotiate an agreement with the Ika Corporation of Fiji. The vessel joined the Ika fleet and operated in Fiji waters under a management agreement between the two corporations. The vessel has operated in Fiji waters since April 1982, apart from brief lay-up periods during the off-seasons, during which limited fishing trials were undertaken in Tuvalu waters.

Under the pole-and-line venture, employment and training has been provided for a crew of 26 Tuvaluans. Japanese fisheries advisers were employed as Master, Master Fisherman and Chief Engineer, with Tuvaluan counterparts.

NAFICOT faced financial difficulties in the 1982 and 1983 fishing seasons; there was a severe decline in the price paid for tuna at the Levuka Cannery from US\$1100 per tonne when the vessel was commissioned, to US\$720 per tonne in mid-1983, as seen in the following tabulations of catch tonnage and value for 1982 and 1983 seasons:-

MFV 'Te Tautai' - Catches/Values

| <u>1982</u> | <u>Tonnage Landed</u> | <u>Value F\$</u> |
|-------------|---------------------------|----------------------|
| April - May | 56.370 | 180,803 |
| June | 67.208 | |
| July | 86.644 | |
| Aug - Sept | 12.856 (closed season) | |
| Oct | 10.196 " " | 7,750 |
| Nov | NIL " " | |
| Dec | 3.902 " " | 2,094 |
| TOTAL | 236.576 | 190,647 |

| <u>1983</u> | <u>Tonnage Landed</u> | <u>Value F\$</u> |
|-------------|---------------------------|----------------------|
| January | 38.538 | 26,558 |
| February | 60.260 | 40,871 |
| March | 63.256 | 45,121 |
| April | 73.902 | 55,834 |
| May | 54.944 | 42,478 |
| June | - | - |
| July - Aug | 2.533 | 2,850 |
| TOTAL | 293.433 | 213,712 |

2. Development Strategy

(a) Small-scale fisheries development

The handling and marketing of fish will be improved to provide a guaranteed market to fishermen for their catches, together with landing facilities. Refrigerated storage will be provided to even out supply to meet the local demand as well as stocking consignments of high quality fish and fish products for export. The quality of fish will be improved by the provision of ice and refrigeration. Improved processing methods will be used to increase the range of fish products available.

The costs of fish production will be reduced to achieve import substitution and to compete in export markets. This will be achieved by: improving supplies of fishing gear for sale at reasonable prices; providing duty free fuel; introduction of small diesel-powered boats; provision of facilities for shipping, maintenance and repair, and provision of spare parts for engines, boats, etc. As a long-term measure, trials of fishing methods suitable to vessels in the 30-60 foot class will be carried out.

One important feature in the provision of these services to the outer islands is through a Fisheries Extension Programme. A fisheries extension vessel is essential and will act as a mobile Fisheries Department and as a fish collection boat, as well as having a search and rescue role.

(b) Licensing of foreign vessels

One major programme during the 1984-87 Plan period will be the delineation and declaration of a 200 mile Exclusive Economic Zone which will be done in four stages:-

- (1) declaration of the 200 mile EEZ in accordance with the provisions of the Law of the Sea;
- (2) accurate positioning of islands of Tuvalu in the World Geodetic System;
- (3) bilateral negotiations with each of neighbouring countries with continuous zones i.e. Kiribati, Fiji and Wallis and Futuna;
- (4) cartographic and printing work. Technical and legal assistance will be required.

High priority will continue to be given to licensing foreign fishing vessels.

Cost effective surveillance techniques will be sought and to include a limited surveillance programme for a trial period, with the possible involvement of private companies. An observer programme is one possibility.

Tuvalu will continue to support the regional organisations in the management of the tuna and billfish resources of the Western Pacific, and will endeavour to increase the participation of nationals in future meetings.

(c) Commercial tuna fisheries

The operation of one pole-and-line fishing vessel 'Te Tautai' is the one focus in the development of the tuna fishery. Future operating strategy for the vessel's operation will be reviewed in the Third Plan period (1984-87) and will include an assessment of the fisheries resources within Tuvalu's Fishery Zone and an intensive investigation of the viable alternatives or possibilities of developing commercial fishery in the Tuvalu Zone.

A survey of the Tuvalu Zone is being planned for late 1984. In the longer term, a second pole and the boat could complement the range and capacity of 'Te Tautai'. It is expected that by the end of the Plan period (1984-87), freezer storage and other onshore facilities would be provided for the commercial tuna fishery.

3. Fisheries Development Programme

Major developments, within the Third Development Plan period (1984-87), are expected as follows:

- 1984: Funafuti Fish Marketing and Processing Centre under construction; fisheries jetty and slipway completed
 - : Installation of more FADs (10)
 - : Declaration of Exclusive Economic Zone
 - : Satellite position fixing operational for Tuvalu islands
 - : Tuna and baitfish surveys in Tuvalu
 - : Construction of maintenance and workshop facilities
- 1985/86: Fish Marketing and Processing Centre operational
 - : Trials of collection of iced fish from outer islands
 - : Introduction of small fleet of diesel-powered vessel
 - : Trials of exporting frozen fish to Fiji
 - : Commissioning of fisheries extension vessel
 - : Provision of additional freezer storage for exports
 - : Trials for aerial surveillance programme
 - : Feasibility study for two boat pole-and-line operation
 - : Trial boat-building project for small diesel-powered vessels
- 1986/87: Fisheries extension vessel operating exploratory fishing programme
 - : Replacement of FADs deployed
 - : Charts of Exclusive Economic Zone completed
 - : Trial observer programme on foreign fishing vessels
 - : Commissioning of second pole-and-line vessel of 30-60 GRT

- 1987: Possible introduction of medium size inshore vessels transport
- : Freezer transport capacity to Fiji fully utilised
 - : Boat-building workshop established to meet local requirements
 - : Review of aquaculture possibilities
 - : Evaluation of surveillance and monitoring of foreign fishing vessels
 - : Possible establishment of freezer storage and other onshore facilities for commercial tuna fishery
 - : Projects differed from earlier years implemented.

As can be seen, these ambitious plans will, if successful, contribute greatly to reducing the current constraints on Tuvalu's fishing industry. Much of the proposed work in this field relies, and will continue to rely, on aid funds donated by various international organisations and by capital provided under joint ventures, licensing and other schemes.
