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SOUTH PACIFIC COMMISSIONNINTH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 24 - 28 January 1977)COUNTRY STATEMENT - SOLOMON ISLANDS

by

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SUMMARY

The Fisheries Sector in the Solomon Islands economy has seen many far-reaching changes and developments in the last five years. Before 1971 fish provided a food subsistence industry which was to a small degree only complemented by traditional marine products which injected much needed cash into the rural economy.

In 1973 a joint venture agreement was signed between the Taiyo Fishery Company of Japan and the Solomon Islands Government based on a skipjack fishery. This has flourished and now has two shore bases with freezers, smoke factories plus one cannery. Plans are approved for a further two shore bases and one extra cannery. In 1976 this industry was the largest single production unit (by sector) in the country worth in exports some \$A7.5 million.

Since 1975 the Fisheries Division has fostered local development of fishing and fish marketing and in an import substitution programme this has resulted in a local trade worth \$A250,000 in 1976. Urban areas are now fully supplied with fresh fish. Fishery management work has also proceeded in conjunction with the development work.

The future is seen as a challenge for further development progress and the Division's ambition is to maintain the fisheries sector as the top production sector on a managed basis to the benefit of the Solomon Islands.

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INTRODUCTION

As stated in the National Development Plan 1975-1979 the aims of the Ministry of Natural Resources and Government in Fisheries are :-

1. Management of the Marine Resources of the Solomon Islands and preservation of the Marine Environment.
2. Improved availability of locally caught fish protein throughout the country and substitution of processed fish imports.
3. Increased employment in the Fishing Industry.
4. Increased Government revenues through fishing.
5. Increased economic activity generally.
6. Increased control and management participation in the fishing industry by Solomon Islanders.

The methods and targets as set down in the National Development Plan have all been met and in general development has exceeded expectation.

The fisheries of the Solomon Islands are probably the major untapped resource which as yet has hardly been touched. The advent of a 200 mile economic zone over which the Solomon Islands will have effective control will increase vastly the potential of this resources.

It is therefore a government priority to assist the development of Fisheries in the Solomon Islands by maintaining a strong Fisheries Division and supporting it with appropriate aid.

Development has been late starting; only in 1973 was the first commercial fishery started under a Joint Venture Agreement and the Fisheries Division has been functioning as an effective unit outside the control of Agricultural Interests only since late 1974.

The overall development plan involves the progressive development and control of offshore fisheries through the Joint Venture Company (Solomon Taiyo Limited) and the development on similar lines of longshore fisheries and fish marketing to a point where both industries are complementary and will eventually merge.

LOCAL FISHERIES DEVELOPMENT

Starting with a pilot scheme late in 1975 using a small ice plant to distribute ice to fishermen in various areas using insulated boxes this scheme has met with instant success. Expansion was achieved in August 1976 when the Taiyo Fishery Company of Japan donated two commercial block ice plants, one of which was installed in Honiara and the other in Auki.

Using scheduled shipping, private shipping and where needs exist road transport, the ice is distributed and fish/ice returned to the market centres. Recruitment of volunteer extension officers has been necessary to manage the scheme initially, particularly in the field of quality control. The original insulated boxes (broken refrigerator casings) are being replaced by aluminium boxes locally made and injected with poly-urethane insulation. This has extended the carriage period of ice for up to a week although various experimentation is still proceeding to produce the optimum design.

Local marketing is as yet a problem as the "industry" has developed in advance of marketing infra-structure but with appropriate injection of aid funds expected in 1977 it is hoped to evolve a logical market structure and only then to boost production probably to a stage where further export of locally caught fish is probable in 1977.

At present 8 tonnes of fish is entering Honiara per week through either the direct assistance of the project or as a parallel development using project facilities and methods.

The formation of a marketing organisation on which to base this business also is creating a body under which to develop further fisheries development. Such products as rock lobster which are at present marketed locally on a customer/division/producer link will benefit. Local oyster, crab, prawns and other edible marine products are showing signs of being exploited for cash now the necessary infrastructure is being built.

The volunteer extension service is an interim measure whilst local Fishery Officers undergo training and is in many ways the key to overall development. Much emphasis is being put on the further exploitation of traditional products such as Beche-de-mer, Trochus etc as with a minimal input products can be produced which command at present a very strong market. Although values are low in context of the overall economy it must be remembered that in real terms the money is a direct input into rural areas where money requirement is limited and earning capacity generally even more so.

The SPC have been funding a project in the Solomons since June 1975 aimed at assessing the management parameters of a developing lobster fishery and to define workable live storage methods. In 1977 the overall fish marketing project can capitalise on this research and will continue the work in rural development.

Although marketing is the key to present development some investigations are being carried out at various levels into new fishing techniques which will have a full commercial base rather than on artisanal base.

A gem coral fishing survey was completed through its preliminary stages by March 1976 and whilst initial results are inconclusive a further survey is planned. However the associated offshore deep water line fishing has shown very good results and it appears likely this could form an alternative fishery to skipjack poling or gem coral fishing. Using a converted 20 metre catcher boat with eight reel fishing stations the survey started in August 1976 and after a preliminary unproductive spell catches of several tonnes per day were being recorded by October. Development plans will probably be associated with the Joint Venture Company initially using local crews but relying on company expertise for overseas marketing of the main species *EPIELIS MARSHI* (JENKINS).

A smaller scale survey is at present being attempted to exploit the same stocks but initial results are disappointing due to the differential of scale and potential using smaller vessels. However, some advances are being made with bottom long-lining, tangle netting and work is due to start early in 1977 on the possibilities of a shrimp/prawn fishery. This project ties in directly with local marketing development and local fishermen are already displaying a keen interest in the new techniques.

The SPC artisanal fishing project is due to be based in Gizo, Western Solomons from March 1977 and it is hoped this might assist overall development on the same lines in that area.

A project aimed at local development was the processing of waste fish from the Solomon Taiyo cannery into animal feed. A silage/preservation technique has been developed (see report included in conference papers) and it is at present being produced and sold to local pig farms. Extension work is required to foster further pig production based on this feed which may be seen as a breakthrough in pig husbandry technique. Export enquiries have been received for the feed for which we have a potential production of 8 tonnes per day.

Since November 1975 Fisheries Division has supported a Turtle programme aimed at stock management. Five species have been identified in the Solomon Islands, Hawksbill Turtle (Eretmochelys imbricata) Greenback Turtle (Chelonia mydas) Leathery Turtle (Dermochelys coriacea) Olive Ridley (Lepidochelys olivacea) and Loggerhead (Caretta caretta). The first three species are known to nest extensively in the Solomons and the discovery of several Leatheryback rookeries is of major significance. Most work has however been done on the Hawksbill turtle and a sanctuary has been declared on a group of islands forming a major nesting centre.

Localisation of bait fisheries is a concept still central to bait fishery development but the programme has taken a set-back with the return of the former project leader to the UK. However viable village based bait-fisheries had been developed and demonstrated and it now awaits further work by a project team to capitalise on this work.

Local fisheries development is at an early stage as yet but progress has been swift with a very real financial base and hopes are high for further progress in 1977.

JOINT VENTURE COMPANY COMMERCIAL DEVELOPMENT

Fisheries Division continue to work closely with Solomon Taiyo Ltd to achieve meaningful development. 1976 has proved to be a most successful year after a disappointing performance in 1975.

The company performance has shown a meteoric rise since 1973 still based on a fleet of only 14 catcher boats. From 1971-2 a feasibility survey was launched based on mother-ship operation throughout the Solomon Islands. Subsequently a Joint Venture Agreement was signed in 1972 (effective March 1973) and in 1973 operations commenced. The first shore base was built at Tulagi on the Nggela Islands with cold stores, freezers, cannery and smoking factory. In January 1975 a second shore base was opened at Noro in Western District with cold stores, freezers and a smoking factory.

Plans for the company now involve a further expansion with two more shore bases due to open in 1977 and 1978 - a new cannery to be built at Noro and the fleet to be expanded by both day boats and longer distance boats with refrigeration designed to fish the more remote areas of the Solomons. The company activities are controlled through the original Joint Venture Agreement. Appendix I contains historical performance data of the company. Appendix II is the original Joint Venture Agreement.

The company are involving in the development of the deep line offshore fishery mentioned before of which we have hopes for a full scale fishery in 1977. Recently Solomon Taiyo Ltd have also sponsored a long-line survey designed to evaluate the Solomon Islands domestic (200 mile) potential using local base and crews. The preliminary results are most encouraging with the survey showing a commercial profit and the local crew (16 against 5 Japanese) attaining full efficiency (2000+ hooks fished per day) after 35 days operations. Full records of operations and comparisons with other fisheries have been provided preparatory to the negotiation of a Joint Venture long-line fishery in March 1977.

For the purpose of these negotiations a full overseas consultancy team is expected in January 1977 who will also advise on 200 mile fishing limit implications which the Solomons fully anticipate utilising on a local development basis in conjunction with the existing Joint Venture Company.

FISHERIES MANAGEMENT

In conjunction with Fisheries Development the other aspects of a Fisheries Division responsibilities are expanding.

The monitoring and collection of data from the skipjack fishery has proceeded since 1973 and historic data is also available from the company survey in 1971 and 1972. The information is part-processed locally but in the spirit of regional co-operation it is shared with neighbouring countries and pooled through the SPC into the Honolulu laboratory computer. To date no feedback on data has been received and in consequence the Division is expanding its management activities to collect all the information it requires.

A skipjack tagging programme is to be launched in 1977 and with sample collection will be the most immediate expansion of effort.

However more effort is now being put into the collection and interpretation of long-line data which previously did not form a fishery in the Solomon Islands.

The migratory species fishery management will probably prove the most difficult to effect and regional activity is required. To this end the Fisheries Division has been keeping in close touch with Pacific developments through Law of the Sea regional meetings and is extending relationships with near neighbours.

Whilst Tuna species will form the basis of most regional management work it is interesting to note that other species such as Turtle will fall into this category.

Local fishery management data has been collected and processed since 1974 where it is possible to monitor such activity. With the expansion of local fishery development this aspect of management work is expanding in conjunction. As the infra-structure and fishery develops so it becomes easier to collect relevant data from which some assessment of productivity and dynamics can be made.

In conjunction with the above activities such projects as SPC Lobster project and our own Turtle project have possibly more management than development impact. Through these projects and routine work listed above it is intended to formulate legislation in 1977 to supplement existing legislation and control the developing industry.

Included in the Management brief is the responsibility for pollution and conservation control. At present problems can be dealt with on a one off basis as the pressures are not excessive. However legislation is at present being framed to tighten control and the Division is building up a capability to monitor activities and advise where necessary any control.

DIVISIONAL DEVELOPMENTS

The Fisheries Division of the Ministry of Natural Resources is central to much of the work listed above which is a fairly ambitious development programme which has only recently started.

Divisional staffing has increased from one full-time professional officer to four in 1977 but the Division has called on the services of Volunteers, Technical Assistants, Fishery Trainees and such free labour as it can find. This puts the true establishment for 1977 up to 15 professional staff which will be supplanted when Solomon Islanders at present in training become qualified. The USP Fisheries Diploma course has been found very useful but extra regional fisheries training for degree and certificate level students is an obvious requirement for the Solomons' needs.

As staff have increased so facilities have been slower in development. However a comprehensive building programme is planned in 1977 and by the end of the Development Plan period it is hoped a fully functional Division will be equipped and well positioned for localisation.

HISTORY OF THE COMPANY

Taiyo Fishery Company of Japan put proposals to the Solomon Islands Government in 1971 for a fisheries survey of the Solomons including a feasibility study into a skipjack fishery. The survey continued until November 1972 when it was completed and subsequently a Joint Venture Agreement was signed and a Joint Venture Company (Solomon Taiyo Limited) was formed.

Company operations commenced in March 1973 and built up through the year. A freezer-cold store base was opened in May 1973 to replace the mother ship base. A cannery opened in October 1973 and a smoke factory in January 1974 all at Tulagi.

The JVA contains most details of operational basis and has been largely adhered to. Two omissions are:-

- 1 Bait fish compensation paid to reef owners as a local customary compensation at the rate of \$A2 per boat per night.
- 2 Purchase of Mangrove wood from villagers at \$A25 for 6'x6'x6' measure.

Export duty of 10% on Fresh/frozen exports applies and taxation of employees and goods raises considerable revenue.

A second shore base was opened in Noro (Western District) in January 1975 with shore freezer/cold store and smoking factory.

Future plans are for similar third and fourth bases before 1978 - an up-grading of the Tulagi cannery and a new cannery at Noro.

C/S Tulagi 600 tonnes freezing 60 tonnes per day

C/S Noro 600 tonnes freezing 60 tonnes per day

Cannery Tulagi 600 cases (48x7 oz) in oil per day

Proposed cannery Noro 1500 cases (48x7 oz) in brine per day

Smoking Tulagi 25 man factory

Smoking Noro 50 man factory

In general we are very pleased with the progress of our Joint Venture and have found the Japanese management co-operative. Grossings for the company for 1976 are estimated at \$A4 million and the contribution to the economy is of major significance.

The pole and line vessels on charter are of Okinawan origin and we have a good on-board employment record. Moves are being made to localise the fleet and formalised training of crew is now planned.

A long-line survey is now in hand with to date better than expected results and we hope for a supplement to the Joint Venture Agreement to be negotiated March 1977 to include long-lining in the Agreement on similar terms to the present JVA.

Catch Records

1971 for 6 months max 6 boats 4711.4 tonnes
 Survey catch/day/boat 5.75 tonnes
 1972 for 12 months max 15 boats 8005.6 tonnes
 catch/day/boat 3.39 tonnes
 1973 for 10 months max 12 boats 6508.3 tonnes
 catch/day/boat 3.35 tonnes
 1974 for 12 months max 10 boats 10,331 tonnes
 catch/day/boat 4.68 tonnes
 1975 for 12 months max 12 boats 7168 tonnes
 catch/day/boat 2.95 tonnes
 1976 for 9 months max 14 boats 11,300 tonnes
 catch/day/boat 4.29 tonnes

Catch Utilisation in Tonnes Input

| | Frozen Total | Smoke Total | Can Total | Local Total |
|------|-----------------------------|----------------|--------------|----------------|
| 1973 | 4169 | | 320 | 90 |
| 1974 | 8399 | 429 | 1836 | 248 |
| 1975 | 3640 | 1005 | 2618 | 171 |
| 1976 | Total Catch 15,000 tonnes + | | | |

The above figures do not correspond to catches due to non-accounting for stock inventories at year ends.

| <u>Staffing</u> | 1975 | | 1976 | |
|-----------------|------|-----|------|-----|
| | J | SI | J | SI |
| Catcher boats | 124 | 127 | 163 | 180 |
| Other ships | 42 | 21 | 0 | 12 |
| Shore | 16 | 348 | 16 | 366 |

Export Duty

| | | | |
|------|------------|-----------|-------------|
| 1973 | \$A 97,706 | 1974 | \$A186,270 |
| 1975 | \$A105,000 | 1976(est) | \$A500,000+ |

Sales

| | | | |
|------|-----------|-----------|-----------|
| 1973 | 1,608,716 | 1974 | 3,821,537 |
| 1975 | 3,083,000 | 1976(est) | 7,000,000 |

The operations of the Joint Venture Company are under the Joint Venture Agreement and in this provision is made for the provision of local fishing boats operating to the company. In September the first locally built catcher boat was launched. Named Bonito she is built of ferro-cement is 70' LWL and about 140GRT.

This concept of locally built and locally owned catcher vessels is now the cornerstone of JVC development. The Asian Development Bank is at present evaluating the project to provide a further 10 such vessels which initially will complement the Okinawan charter vessels later to replace them.

As part of the overall development a formalised Fisherman's Training School is due to open in 1977/78 aimed initially at producing local pole and line fishermen to man the local boats and later to produce deep sea fishermen of other disciplines leading it is hoped to a multi-disciplinary fishery fully localised and fishing the 200 mile economic zone to optimum utilisation.
