

SOUTH PACIFIC COMMISSION

A fisheries reconnaissance in Western Samoa

March 17th - 27th 1969

by

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1st May, 1969.

Noumea - New Caledonia.

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SECTION I
INTRODUCTION

The Fisheries Officer of the South Pacific Commission was invited by the Government of Western Samoa to visit that country during the latter half of March 1969 to advise on the following subjects:-

- (a) the general exploitation and promotion of marine resources;
- (b) W. Samoan participation in projects to be managed under the South Pacific Islands Fisheries Development Agency, (a UNDP(SF)/FAO organization with its headquarters at SPC Noumea) with an indication of priorities to be accorded to suitable projects for W. Samoan fisheries development;
- (c) the organization of a Fisheries Division within the Department of Agriculture, Forests and Fisheries;
- (d) the proposed visit of a UNDP(SF)/FAO Tuna Mission, consisting of a group of international experts, to W. Samoa with the purpose of making a primary tuna fisheries reconnaissance, with the possibility of recommending a full-scale feasibility survey on local tuna fisheries development.

SECTION II
ACKNOWLEDGMENTS

Special thanks are due to Mr W. Meredith, Acting Director of Agriculture, Forests and Fisheries for his help, encouragement and advice during this short fisheries reconnaissance. Agriculture Officers, Oliva Maiava, Sam Leung Wai and Pito Malele, in turn gave of their time to conduct the Fisheries Officer around their own districts. Livestock Officer, Va'a Tipi, was a very knowledgeable companion during the field trips in Savai'i Island.

Special gratitude is extended to Laufo Meti, Secretary to Government, and Senior Commissioner for Western Samoa to SPC, for his sincere and appreciative interest in the many points made by the Fisheries Officer during his final interview, and also to Afoafouvale Misimoa for his friendly advice and pleasant hospitality.

SECTION III
TRAVEL DIARY

March 17th: 1. Pago Pago to Apia: bus to town.

March 18th: 2. First call on Mr A. Hixon, UNDP Regional Representative, with mail, etc., from PM(D)/SPIFDA.

3. Programme for visit discussed with Mr W. Meredith, Acting Director of Agriculture, Forests and Fisheries. Met Agriculture Officers Oliva Maiava and Sam Leung Wai, and Livestock Officer, Frank Moors.

4. Discussions with Minister Laufili Time on SPIFDA, Tuna Team visit, local lack of fisheries services, general programme for visit.

5. Visit to Fish Market.

6. Viewed plans for proposed new marketing extension and development.

7. Visited Afoufouvale Misimoa.

March 19th: 8. With Agricultural Officer Oliva Maiava on Eastern circuit of Upolu Island via Fagaloa Bay, Lotofaga, Cape Tapaga to Mutulatele Village, stopping to see local craft and gear where these were in evidence. Returned by same route to Apia.

March 20th: 9. With Agricultural Officer Sam Leung Wai on Western circuit of Upolu Island, via Poutasi village, Safata Bay, Lefaga Bay, and Cape Lefatu, calling on Mr W. Stowers on the return route to Apia, to see Atule fishing preparations.

March 21st: 10. Discussions with Mr W. Meredith on Loan Funds, Fishery Officer Recruitment, Training of Fisheries Staff.

11. Visit to Mr A. Hixon.

12. Interview with Mr R. Taylor, NZ High Commissioner; SPIFDA, Tuna Team Visit. Also Mr Freeman-Greene.

13. Mr Webber and Mr Garnett, also of the NZ H/C Office on the Tokelau Islands.

14. Called on Port Administrator Capt. Benson to view old navigation charts.

15. Interviewed Mr Hunter (Director) and Ofisa Tomane (Draughtsman) of the Lands and Surveys Office.

16. Visited Fish Market.

17. Dinner with Afoafouvale Misimoa and family.

March 22nd: 18. Visits to local stores to see supplies of fish for sale to public.

19. Visited Fish Market.

March 23rd: 20. P.M. Fishing off Apia with Mr Garnett of the NZ High Commissioner's Office.

March 24th: 21. 0330 departure Apia for Mulifanua Wharf and ferry to Salelologa wharf on Savai'i Island.

22. Met by Livestock Officer Va'a Tipi and proceeded to Foalalo Village near Salailua to meet Chief Letele Tanielu, and after customary greetings and presentation of Kava Stick, lunch with the Chief and Matais of the village.

23. Continued on Southern circuit of Island via Satuiatua village (Atule Fishing) and along rocky cliff road to Papa (Peace Corps Fishermen), Vaisala (Tilapia Pools) and finally Asau where we were all very hospitably accommodated by Pita Malele, Agricultural Officer.

March 25th: 24. By north coast of Savai'i Island to Ferry Point, stopping at Vaipouli secondary school, and Ayao to see nylon trammel nets and large powered fishing catamaran, owned by Government Radio Technician S. Ali'ielua. Arrived Apia late p.m.

March 26th: 25. With S. Mulipola Nuualili'i Ma'ilo Vaiala of the Agricultural Department to visit Chief Fuimaono Manulua of Moa'ata'a Village for discussions on problems in local fisheries development.

26. Interview with Laufo Meti, Secretary to Government, and Senior Commissioner for Western Samoa to SPC, on lack of fisheries services in general, desperate need for legislation in face of threatening exploitation of local resources by foreign fishing interests, and briefing on SPIFDA and Tuna Team visit.

27. Dinner with Afafouvale Misimoa.

March 27th: 28. Final round up with Mr Meredith; then Minister of Agriculture, Forests and Fisheries, and Mr A. Hixon.

29. Apia to Pago Pago.

30. Accommodation at Aggie Greys Hotel, Apia.

SECTION IV

GENERAL SITUATION

In 1960, the previous fisheries officer from SPC, Mr H. van Pel, visited Western Samoa and produced a Report on the Sea Fisheries of Western Samoa, containing an assessment of the fisheries existing

have no trace of fish

at that time, and including recommendations for the future of fisheries in Western Samoa, and it is assumed that readers are familiar with the contents of that report. The situation in 1969, nine years later, remains unchanged in relation to the indigenous subsistence fishermen. It has not yet been possible to establish a fisheries service nor to train fisheries staff; no statistics exist; no programme of fisheries exploration and development has been effected; and there is consequently no record of the fisheries development potential of the Western Samoan Islands.

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SECTION V FOREIGN FISHING INTERESTS

It is understood that the Government of Western Samoa is considering the possibility of an agreement with foreign fishing interests, under which a fish processing plant will be set up near Apia for the production of CHIKUWA (Fish paste mixture) and KAMABOKO (fish cake mixture) during 1969-1974, to be followed by a fish canning operation. The production of CHIKUWA and KAMABOKO implies the use of cheap fish to be produced by foreign fishing vessels employed by the managing company, from the shelves which extend from outside the narrow W. Samoan reefs to a distance of 10 miles of shore into a depth of 50 fathoms. From the simple handling experience of indigenous fishermen in Western Samoa it has been shown that there are rich areas of bottom feeding fishes on these shelves, and these are considered to be natural and historical reserves of food for the islands.

Should this be so, no doubt thought will be given to the advisability of legislation to protect and conserve the natural fish resources on the shelves around the islands, from the very efficient and rapacious modern fishing methods which could be unleashed in such an operation. Such legislation would presumably call for limits on the species of fish to be utilized, and their minimum size of capture; a definition of fishing methods, and restrictions on gear, mesh sizes, and size of vessels.

Currently there is a 3-mile territorial limit around the Western Samoan islands. Consideration may well have to be given to the establishment of a fishing limit, and the registration and licensing of foreign fishing vessels wishing to operate within a proscribed fishing limit. It is common procedure in many maritime countries to extend their fishing limit to 12 miles, by a phasing out process, starting at 6 miles and extending to a 12-mile limit over 2/3 years.

Such an arrangement may well be of assistance in protecting the traditional fishing grounds for Western Samoan fishermen until they can obtain improved fishing craft and gear, better marketing facilities and the incentive to develop their own resources and consequent prosperity. It is felt that no sure impetus can be given to such a programme until the establishment of a Government-supported fisheries service, possibly assisted by international fisheries development agencies.

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SECTION VI THE ESTABLISHMENT OF FISHERIES SERVICES

In view of the current fisheries situation, as described briefly in sections IV and V there would appear to be a pressing need for the establishment of a Fisheries Division within the Department of Agriculture, Forests and Fisheries. Such a fisheries service would have a very full programme of work over several years in exploratory and experimental fishing, the introduction of legislation for the conservation of the local stocks of demersal resources within, on, and outside the reefs and lagoons and extending to the limits of the shelves surrounding the Western Samoan Islands. It is recommended that the programme should include the training of Samoan fisheries administrators and technicians, the upgrading of subsistence fishermen through technical training and the introduction of improved fishing vessels and fishing gear. At the same time loan funds might be made available to fishermen's associations for the purchase of gear, engines and improved fishing craft, to be repaid through a central marketing organization located at Apia and supported by a fish collection, storage and marketing service. Items of fishing gear purchased with Government funds on a direct importation basis may be made available to fishermen in the various districts through the established Agricultural Outstations, on a cash basis. Resulting from an experimental fishing programme, the service would be in a position to advise local merchants on the best types of modern synthetic netting for importation. These brief suggestions for the initiation of a basic fisheries programme aimed at upgrading the Samoan fishermen may provide a number of channels for an energetic fisheries officer, who would doubtless see numerous other lines of development. A well-qualified and energetic person has been proposed by the SPC Fisheries Officer for the post of Fisheries Officer in Western Samoa, and it is suggested that every effort should be made to secure the services of this nominee.

Waterside office accommodation, near the Department of Agriculture in Apia can be made available, and the following items are suggested for inclusion in the budget to provide for an initial fisheries service responsible to the Director of Agriculture, Forests and Fisheries:

Personal Emoluments

WS \$

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|--|-------|
| (i) 1 Fisheries Officer (Expatriate) salary (passages, housing and expatriate allowances to be provided) | 4,000 |
| (ii) 2 Fisheries Assistants (Samoan) | 2,000 |
| (iii) 1 Clerk/Typist | 400 |
| (iv) 1 Driver | 300 |
| (v) 3 Boat crew | 1,200 |

Other Charges

- | | |
|--|--------|
| (vi) Transport and Travelling | 1,000 |
| (vii) Maintenance and operation of vessel and vehicle | 1,800 |
| (viii) Replacement of fishing gear (items lost in experimental fishing) | 500 |
| (ix) Office and general (Publications, uniforms, maps, charts, purchase of bait, ice etc.) | 1,000 |
| (x) Purchase of Fishing Vessel complete and ready for sea, with echo sounder, thermistor thermometer, ship-to-shore radio and tender | 12,000 |
| (xi) Purchase of outboard engine and spares | 1,000 |
| (xii) Purchase of fishing gear | 6,000 |
| (xiii) Freezing cabinet (bait holder) | 1,000 |
| (xiv) Vehicle and trailer | 10,000 |
| (xv) Portable ice box for trailer | 1,000 |

A programme of experimental and exploratory fishing to include:

- (1) Gill nets and tangle nets for demersal shelf fishes.
- (2) Crayfish nets.
- (3) Shark tangle nets.

- (4) Anchored trap nets.
- (5) Lamp fishing with surrounding or lift nets.
- (6) Floating tuna longlines.
- (7) Deephandline reels for dropline fishing.
- (8) Raft and encircling net method for dolphin fish.
- (9) Mother-of-Pearl shell lure technique for skipjack tuna.
- (10) Live bait pole and line fishing for skipjack tuna.
- (11) Echo sounder survey of seaward shelves to establish extent and sea floor topography.
- (12) Bottom set longlines.
- (13) Multiple trolling.
- (14) Scad mackerel surrounding nets.

Data from such a comprehensive fisheries programme carefully logged and evaluated will provide a very valuable assessment of the local fish stocks, and catches made will provide worthwhile revenue. The establishment of a pattern of fish movements will result from this basic work, and supplemented by fish market statistics the overall information will be invaluable in planning future development of the fishing industry.

The Fisheries Officer may well find the assistance and advice of a Fisheries Committee very valuable in the various stages of his programme, and this committee could help him in the formulation and adoption of fisheries legislation, and the improvement of fish marketing, for example. Under the chairmanship of the Director of Agriculture the following officers could meet quarterly for discussion with the Fisheries Officer as Secretary:

- The Port Superintendent
- Two leading fishermen
- A representative of the Apia Township Board
- A representative of the Medical Department
- A Legal Adviser
- The Superintendent of Police
- A Wholesale fish dealer.

Other members, or experts could be co-opted as required.

This Fisheries Committee, meeting quarterly, could receive and consider reports from the Fisheries Officer upon the work carried out in the previous three months, and discuss future plans, and also at times whenever circumstances arise requiring immediate

decisions. This would ensure that the fisheries service should have the informed interest of the public, especially of those in administrative positions and those concerned with the optimum utilization of the fisheries resources of Western Samoa.

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SECTION VII ASSISTANCE FROM INTERNATIONAL AGENCIES

To obtain maximum benefit from the services of International Agencies concerned in the development of fisheries, it is considered essential that a fisheries service be established under the direction of a qualified fisheries officer. This is the basic structure through which numerous forms of assistance can be applied. Without a fisheries service it is practically impossible to tap the facilities which can be made available.

The South Pacific Islands Fisheries Development Agency (SPIFDA) approved by the Eighth South Pacific Commission Conference (1968) and funded from UNDP(SF) sources with counterpart contributions from South Pacific Island territories, currently (May 1969) awaits the agreement and final signatures of the Metropolitan Governments, UNDP(SF) and SPC. Once the Plan of Operation is signed, the Work Plan for the Agency, now under preparation, will be formulated for the initial phase of this 3-year project.

Consequently, at this time, the Government of Western Samoa may find it most opportune to seek assistance through SPIFDA in the following suggested items for development:

- (1) Demonstration of the Tahitian pearl shell lure technique for the capture of skipjack tuna.
- (2) Investigation into the feasibility of diversified aquaculture (cultivation of mullet, milkfish, seaweed etc.)
- (3) Demonstration of and instruction in scad mackerel fishing methods to groups of island fishermen.
- (4) A survey of marine turtle resources.
- (5) Advice on the organization of improved methods of fish handling, marketing and distribution.
- (6) Advice on the organization and expansion of the bêche-de-mer (trepang) industry.
- (7) Feasibility study on the cultivation of edible oysters in selected areas.

In the recruitment of experts to carry out project assignments with SPIFDA every consideration will be given to these W/Samoan requirements, but the eventual order of priority in carrying out these assignments will depend on the general consensus of requests as submitted by all the territories concerned. A team of international tuna experts retained by the UNDP and including FAO experts, is currently (May 1969) touring those territories interested in the development of their near water tuna resources, and a group will visit Western Samoa. Depending on their primary assessment of the situation in W. Samoa, they may recommend a full feasibility survey, with international financial assistance, into the prospects of establishing a shore based tuna industry which would employ local Samoan fishermen. This is another opportunity for W. Samoa to take benefit from international assistance.

The Foundation For the Peoples of the South Pacific Inc., with Headquarters in New York, is often willing to give a sympathetic hearing, and tangible financial support, to small development projects at a local primary producers' community level, for the better utilization of natural resources for increased prosperity of the producers themselves. Such assistance could take the form of a Revolving Loan fund for the purchase of nylon crayfish nets and live storage boxes, to establish a Village Crayfish Producers' Association. With the co-operation of, and partial supervision by, the Director of Agriculture in W. Samoa, such a project could, for instance, be sited at Faolalo Village on Savai'i Island. The local district Livestock Officer could also assist and advise the management committee of such an Association in its initial stages. Sales of live crayfish could be made to stores in Apia and Pago Pago, and the loan recovered for re-issue and the expansion of this local development. The SPC Fisheries Officer would be willing to assist in an application to the FPSP following a request from the Director of Agriculture.

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SECTION VIII RECOMMENDATIONS

- (1) Establish a Fisheries Division with associated services, including the collection of statistics.
- (2) Establish Fishing Limits and Legislation to protect and conserve the fisheries resources of Western Samoa.
- (3) Initiate a programme of exploratory and experimental fishing, and record all data to guide future development.

- (4) Make available loan funds for the installation of improved fishing boats and gear.
- (5) Improve present marketing facilities and introduce a system of fresh fish collection for delivery to a central fish market.
- (6) Explore the possibilities of obtaining international assistance for local fisheries development projects.
- (7) Maintain a close watching brief on all fish harvesting and processing operations carried out by foreign interests within the proscribed fishing limits of W. Samoa.

V. T. Hinds

Fisheries Officer

SPC/HQ.

1/5/69

Decisions have been made to proceed with the establishment of a fisheries department.

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However, at this time, the department is still in the planning stage.

Intention is to start the department in the near future.