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SPC/FTM/Tech.6
22 January 1962

SOUTH PACIFIC COMMISSION
FISHERIES TECHNICAL MEETING
(Noumea, 5 - 13 February 1962)

THE ACTIVITIES OF THE SOUTH PACIFIC COMMISSION
IN THE FIELD OF FISHERIES

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INTRODUCTION

Although the Canberra agreement creating the South Pacific Commission mentioned in 1947 that the promotion of Fisheries in the South Pacific Area would be part of the Commission work program, several factors prevented the initiation of the fisheries project until the beginning of 1952.

A conference of experts convened at Noumea from 14 to 22 May, 1952, and produced 9 recommendations of which the most important was: Recommendation 9 "In order to achieve the stated objects of this Conference, a fisheries specialist should be engaged by the Commission. For this purpose the following should be included among his duties:-

- (a) compiling and collating information on the fisheries and fisheries programme of the area;
- (b) providing a channel through which information on fisheries matters would be conveyed to fisheries workers of the region;
- (c) providing co-ordination of fisheries developmental projects in the region;
- (d) advising on the prosecution of governmental fisheries programmes;

- (e) at the request of member of Governments, carrying out specific survey and other tasks;
- (f) watching closely the results of tests of equipment for commercial fishing in the region with a view to the guidance of other territories. He should note especially the acceptability of new gear and methods by the local people, and the practicability of means of distributing the increased production;
- (g) supporting and encouraging measures for the standardization of the scientific nomenclature of the most important fish species of the region, and promoting uniformity, where possible, of research methods in common use".

The report of the Fisheries Conference was adopted by the Commission at its 10th Session in October 1952 as the programme for its fisheries project.

Activities under the Fisheries project commenced in July 1954 with the nomination of Mr. H. van PEL to the post of Fisheries Officer, which he held until 16th June, 1961 when his health compelled him to retire.

In March, 1957 I was appointed Assistant Fisheries Officer to second Mr. van PEL in his task.

Implementation of the Conference's Recommendations

(a) Territorial Surveys

In the seven and a half years since the inception of the project, the Fisheries Officer and his Assistant have made 30 field trips covering fourteen territories in the South Pacific Area and the Kingdom of Tonga. In addition, the Headquarters of the South Pacific Commission being established in Noumea, New Caledonia has received constant attention in connection with Fisheries problems.

A report was prepared on each territorial visit made, describing in summary form the existing fisheries resources and activities of the territory concerned, and formulating recommendations for their improvement.

The subjects dealt with in the course of these territorial surveys included gear technology, fisheries management, marketing and processing of fish, inland fisheries management, fish culture and fish introductions, the organization of fisheries services, conservation of resources, as well as subjects directly or indirectly related to fisheries, such as saltmaking, boatbuilding, manufacture of ice, etc...

(b) Dissemination of Information

Information in connection with fisheries and related subjects has been disseminated at irregular intervals through various media: direct communication, articles in the South Pacific Bulletin, Technical Papers, extension booklets, distribution of reports on territorial surveys mentioned above.

Since the Commission became active in the field of fisheries in July 1954, no less than seventy six articles on fisheries and related subjects have been published in the South Pacific Bulletin. The range of subjects covered is quite wide, from sport fishing to commercial Tuna longlining, from fish preservation to boatbuilding.

Three extension booklets, dealing respectively with simple methods of fish preservation, building and maintenance of tilapia ponds, and the care to be given to fishing nets, have been published and have been quite well received in the area.

Finally, two technical papers: "A Selected Annotated Bibliography of Trochus" and "Tuna Trolling and Longlining" have been produced.

Before leaving the Commission, Mr. van PEL prepared the draft of "A guide to South Pacific Fisheries", which is being used as one of the background papers for this Meeting.

Correspondence with Territorial Fisheries Officers, Administrations, and private individuals is an important part of the South Pacific Commission's activities in the field of fisheries and considerable information is spread in that way.

(c) Support given to Territorial projects

A grant was made to the "Institut Français d'Océanie" in 1954 to assist in the equipment of a research vessel.

Direct support in the form of a subsidy has been given to the Cook Islands for a biological study of Pinctada margaritifera, the Blacklip pearl-shell. In this instance, the Commission negotiated with the C.S.I.R.O., Cronulla, to obtain the services of Mr. J. S. Hynd, a marine biologist specializing in research on mother of pearl oysters, to carry out a three month survey of the Manihiki shell beds, and to organize follow-up work which is carried out at regular intervals by the Resident Agent, Manihiki.

Direct financial support has been provided to ensure that the statistical data assembled during Mr. Hynd's survey and in the course of the follow up work will be processed as soon as possible.

(d) Training Facilities

Three training courses have been organized by the South Pacific Commission during the period under review: two Fisheries Training Centres of short duration, and one boatbuilding Training Centre. A second Boatbuilding Course is scheduled to begin in 1963.

The first Fisheries Training Course was held at Noumea, 19th November, 1956 - 20th February, 1957, with the assistance of FAO. It was designed to train junior fisheries personnel and covered the following subjects:

- Knowledge of fish and their behaviour
- Elementary knowledge of the sea
- Fishing gear
- Fishing operations
- Handling, transport and marketing of fisheries products
- Fish processing
- Fish culture
- Conservation and protection of resources
- Fishing craft
- Problems of management

Both practical and theoretical instruction was given.

The purpose of this course was to train selected men who would eventually be capable, in their own territories, of implementing recommendations made by visiting fisheries experts.

The second training course was held at Tulagi, British Solomon Islands Protectorate, from August 23rd to November 6th, 1961, with the assistance of FAO and the participation of the Protectorate Administration. While the first course had been designed to train Junior fisheries personnel, the second laid emphasis on the training of fishermen in new and improved methods of fishing and the handling of small mechanized fishing boats.

The subjects covered at this second training course were:

Construction maintenance and practical exercises in:

- Deep handlines
- Multiple trolling gear
- Floating and bottom set gill nets
- Floating and bottom set longlines (including Japanese longline gear)
- Bottom traps
- Fixed shore traps
- Surrounding nets
- Beach seines
- Elementary navigation (theory and practice)
- Handling of small motor ships
- Sailing
- Routine maintenance of diesel engines

A two year course in practical boatbuilding opened in July 1960 at Auki, British Solomon Islands Protectorate. This course was organized by the South Pacific Commission with the assistance of the United Nations' Bureau of Technical Assistance Operations.

In this course, the emphasis is laid on practical work throughout. There is no theoretical teaching, and the trainees are led, step by step, through the construction of actual, sea-going craft. A first series of three 25' boats was finished on 28 August, 1961 and used at the Tulagi Fisheries Training Centre mentioned above. These craft were extremely well built and seaworthy. Another series of four boats of similar design is on the stocks. These boats had been designed for the South Pacific Commission as a type suitable for a number of different fishing methods and the plans made available in the area at cost price.

A second boatbuilding course is being planned with United Nations' B.T.A.O. assistance and should commence at Noumea, New Caledonia, in 1963, while the Auki Boatbuilding Course is expected to be continued for another two years.

(c) Miscellaneous Activities

The South Pacific Commission was represented at the regular meetings of the Indo-Pacific Fisheries Council, from 1954 to date, either by the Fisheries Officer or by an observer.

The Fisheries Officer attended, in October, 1957 the International Fishing Gear Congress organized at Hamburg by FAO.

Throughout the period under review, the Fisheries Officer and his Assistant have maintained contacts with various research institutions and individual workers in and outside the area.

CONCLUSIONS

Recommendation 9 of the first Fisheries Conference has been implemented to the best of the Fisheries Officer's and his Assistant's abilities, often with very limited time and facilities at their disposal.

It seems evident that the cycle of general territorial surveys is closed with the possible exception of a few of the smaller territories, such as Niue and the Line Islands for instance. From now on Territorial visits should be made for very definite and limited purposes only. Such visits should be planned carefully, and all necessary equipment and other facilities should be made available, by the South Pacific Commission and/or the territories concerned, to ensure that the fullest possible use is made of the visiting officer's time and qualifications.

As progress takes place in the South Pacific Territories, the requests become more specialized, and in a number of cases, it would be preferable for the Commission to secure the services of specialists to cover the specific needs expressed in each request. A very good precedent has been set by the biological survey of pearl oysters in the Cook Islands, carried out by Mr. J.S. Hynd and mentioned earlier in this paper.

Among the methods, gear and craft considered over a period of seven and a half years, only a few have proved to be of regional application, and a majority of these would be of interest chiefly in connection with commercial fisheries (for the supply of local markets or for export). Improvements in connection with subsistence fisheries, where necessary, are best considered on a territorial or even a restricted local basis.

The Japanese longline on a reduced scale, deep lines adapted from the Polynesian method, driftnets and bottom-set gillnets, represent the most useful gear for the promotion of commercial fisheries and in a few cases, live-bait tuna fishing and its corollary purse-seining for bait, can be added. Depending on the demands of local markets and on the availability of trolling fish, multiple trolling can also be advocated, chiefly as a seasonal activity.

To each of these methods corresponds a different type of ideal craft. However, a fishing boat well suited to operate with one type of gear can usually be adapted to serve reasonably well with any other gear in this limited list.

Territorial Fisheries Services, where they exist in the area, have proved in general to be the only agencies capable of implementing the recommendations of visiting Fisheries Specialists, whether they come from the South Pacific Commission or from metropolitan or local institutions. As things stand, less than half of the territories

in the South Pacific Commission Area have established Fisheries Services, and in some cases, these consist in a Fisheries Officer with little or no staff. Recruitment of suitable staff is often very difficult.

The organization of Fisheries Services seems to be one of the fields where the South Pacific Commission could be of considerable assistance to territories. Training of junior fisheries extension personnel appears to be a logical ramification of this assistance, and this introduces the training facilities which the Commission could usefully provide in the area.

The training course in boatbuilding which has already been operating at Auki for over eighteen months has proved its usefulness and the value of the pattern adopted.

The results of the two fisheries courses are definitely not in the same class and a revision of the Commission's outlook in regard to this category of training facilities may be necessary.

The first factor involved is time. One of the two courses lasted thirteen weeks, the other ten weeks. While it is difficult to assess with any degree of precision the time necessary to give satisfactory training in the various subjects covered in each of these two instances, it has become painfully obvious that such brief courses do not actually reach their goals.

The second most important factor is indeed the programme of such courses. While it would most likely be possible, even in such a short time, to impart to the trainees sufficient knowledge of one main method and its accessory techniques (e.g. longlining and the accessory gill-netting for bait) programmes such as those of the two above-mentioned courses appear to be much too ambitious. Repeated practice sessions are necessary for the smooth operation of hitherto unfamiliar gear. They become impossible when, in addition to the operation of numerous types of gear, the trainees must be taught to construct the gear itself.

It seems therefore that training courses should either be much more restricted in scope or much less restricted in time. In view of past experience, it is felt that even if limited to one or two methods, training courses should continue for not less than twelve weeks.

Last, but not least important is the composition of the trainees' corps, and its numerical importance. In regional or sub-regional courses, the number of trainees is usually set at the maximum which it is possible for the available instructor (s) to handle. This also permits the representation of a maximum number of territories at one time. Under such

circumstances, the level of the course is automatically set by the average degree of intelligence, education and adaptability of the trainees. Also, language barriers are often encountered in such mixed groups.

One possible solution to this problem might be the organization of territorial demonstrations, rather than training courses, the territory involved selecting a small group of trainees with particular regard to the homogeneity of education, intelligence, age, etc... and providing in addition one group leader, rather more educated than the trainees, who would become the local counterpart of the instructor provided by the Commission. Under such conditions, it is felt that basic training restricted to one main method could be achieved in a matter of weeks.

Another solution, in connection with sub-regional courses of limited scope, would be a more stringent selection of trainees, to ensure greater uniformity of education, language, and intelligence. To give one example, several of the trainees at Tulagi were illiterate, and a few had reached advanced primary or early secondary education. Such differences are quite sufficient to create considerable difficulties in training.

Personally, I would favour the system of territorial demonstrations, limited to one main method and accessory techniques, with a maximum of twelve trainees and one local group leader. If properly organized in advance, such demonstrations could be carried out in six to eight weeks effective working time.

S U M M A R Y

1. Territorial visits should be organized for definite and limited purposes only. Careful planning is essential. In cases where the request presented by a territory involves specialized research, the assistance of an expert on loan from an institution, or on short term appointment, should be obtained.
2. A limited list of commercial methods should be adopted for promotion in the Commission's area, including longlining (reduced scale), gill-netting (drift and bottom), deep lining, and trolling, with the possible addition of live-bait fishing in certain cases.
3. Attention should be given to the organization of territorial Fisheries Services.
4. Training centres or courses should be either much more restricted in scope or much less restricted in time.

5. Consideration should be given to territorial demonstrations, with a maximum of 12 trainees and 1 local group leader. Such demonstrations should not cover more than one major fishing method and should last from six to eight weeks.

Original Text : English