

SOUTH PACIFIC COMMISSION

FOURTH TECHNICAL MEETING ON FISHERIES

Noumea, New Caledonia

(21 - 29 October 1970)

FISHERIES PROGRAMME FOR THE COOK ISLANDS

In the development of a fisheries programme, it would seem logical to first determine just what end results are desired. Then, using the report of the Fisheries Review Committee as a guide, develop the programme to achieve these results.

The results desired could be stated as follows:

1. To provide a degree of self-sufficiency to the economy of the Cook Islands by providing a high protein food, in sufficient quantity, at a low price, from local resources.
2. To provide employment, and hereby improve the economy of a segment of the population, not only in Rarotonga, but in many of the outer islands as well.
3. To provide the basic research and guidance necessary to develop a commercial fisheries on a sound financial basis.

To implement such a programme, a considerable capital expenditure will be necessary.

As has been stressed in the Budget Report already submitted to the Government, the key to a successful fisheries programme is that the financial aid to proceed with all phases of the programme at the same time be readily available. These various phases and a comprehensive programme to tap all feasible natural resources of the sea, as they pertain to the well being and economic structure of the Cook Islands follows.

There are so many factors necessary in a successful fisheries programme that we must arbitrarily pick one as a starting point and proceed from there. In this case the vessel to be fished will be our point of departure.

It is proposed that twelve (12) vessels will be purchased and sold to local Owner/Captains as outlined later. These vessels will be of Ferro-cement construction and be of 28 to 30 feet in length. In hull configuration they will approximate the Tahitian bonita boats that are successfully fishing in French Polynesia. The vessels will be powered by Lees Marine diesel engines and be capable of obtaining a maximum speed of 20 knots. This is an important factor in chasing schools of fish.

It is of equal importance that the power plants of all the boats be of a standardized make and power so that a mechanic can be trained in their repair and maintenance and that spare parts can be stocked. A standby engine is visualized so that it may be exchanged for a faulty engine in any boat, while that engine is being repaired. (The Aitutaki barge and new launch are both powered by Lees Marine engines, which is the FordCo Marine engine).

These fishing craft would be fitted with lifting rings so that in the event of a hurricane warning they could easily be lifted from the water by one of the Priestman cranes.

A first order of six (6) vessels would be made and as these boats are repaid an additional six vessels will be ordered so that a full twelve vessels would be employed by 1972. It is planned that 9 vessels would be employed out of Rarotonga and 3 would be fishing out of Aitutaki.

The scheme under which local men would purchase the vessels is as follows:

1. A downpayment of 10% (or less if special cases warrant).
2. Repayment made on the basis of 25% of the gross wholesale sale of fish.
3. An interest charge (as yet to be set) on the unpaid balance.
4. The Owner/Captain pays for all the upkeep, maintenance and operating costs under the direction of the Fisheries Section.

A course in navigation, radio and radio direction finder operation, maintenance and modern fishing methods will be given to those selected to be Owner/Captains. Such a course would be under the direction of the Fisheries Section and would begin as soon as the first orders for boats are made.

Proper safety regulations would be made and each boat, before turning over to the Owner/Captain, would be fully equipped.

The next step in the development of the programme is the conversion of the present boat shed at Avatiu Harbour into a fish handling plant with freezer facilities and a retail fish store. Also space would be provided for a Fishermen's Co-op headquarters and for the Cook Islands Gamefishing Club. An ample area must be set aside for a shop for the repair and maintenance of the fishing fleet. Except for equipment, the physical changes are slight and do not require a large outlay in capital.

Machinery to be investigated are fish meal plants, fish cookers, sausage makers, and packaging machines. As docking facilities are completed weighing in and conveyor systems will be installed.

At the same time the Avatiu Harbour facility is being developed, freezer and fish handling units will be developed, purchased and erected on Penrhyn, Aitutaki, Manihiki and Palmerston Islands. These will be ten ton units, and with the estimated four pick up trips per year, each island will contribute 40 tons of fish for market. In conjunction with these facilities, portable freezer units must be developed to be carried on the inter-island ships. These will be of approximately 2 ton capacity each and will be self-contained. These units, and the freezers placed on the islands, could provide for meats and dairy products to be shipped to these areas to improve the diet of the Islanders. Under this programme, the Manihiki - Rakahanga area would be scheduled for a fish meal plant installation in 1973 to utilize the great number of shark in these waters. These facilities, as well as the Avatiu Harbour plant, will be leased to the Fishermen's Co-Op by the Government.

In conjunction with these first two items, a Fishermen's Co-Op Society would be foremen, comprised of approximately 35 members in Rarotonga, 25 members in Aitutaki, and 20 members each in Penrhyn, Manihiki, and Palmerston Islands, giving a total of 100 members in the Co-Op. These would be persons actively engaged in commercial fishing.

The Government, through the Fisheries Section, would operate the Co-Op until such time as it becomes fully operational. This is forecast to be December 1971. The Government will retain a 10% interest in the Co-Op after it is turned over to its members for operation. This would be in return for the financial and technical assistance rendered.

Research should begin at once, and to this end depth recording and thermocline instruments should be obtained, either by purchase or on lease if possible. These instruments would be installed on the "Ravakai" and charting of the sea mount areas and determination of the thermocline would be undertaken. Also pilot projects in oyster farming, cultured pearls, Mother of Pearl farming, crayfish breeding and trochus transplants should be started.

The present reef area used by the Tereora College for instruction in Marine Biology, should be enlarged and a long term 'Rahui', of at least ten years, placed on it. An area on the shore adjacent to the reef area, of at least one acre, should be obtained for the eventual erection of an aquarium and laboratory facilities, not only for the use of local interests and students, but for the eventual use of scientists from world wide. In this regard, the Cook Islands could very easily become the scientific centre for marine research in the South Pacific, not only to the benefit of the scientific community, but to the greater benefit of the people of the Cook Islands.

Under research would be included market research as to pearl shell, trochus, and the sale of fish products overseas. The pearl shell market research would be requested through the South Pacific Commission, as would be technical help in fishing methods, etc.

In regard to the G.F.V. "Ravakai" it is suggested that the vessel be used at present in research projects such as the charting of sea mounts and thermocline, surveys of bait fish, and resources of the lagoon areas of the other islands. As the programme develops, the "Ravakai" would be leased to the Co-Op as a mother ship to assist the fishing fleet when overnight trips are undertaken to offshore fishing areas. The vessel would be available to both the Fisheries Section and to a Marine Research Centre for any work necessary by these departments.

It is the considered opinion of the many people queried that the "Ravakai" cannot engage profitably in a commercial fishing operation, and it is not felt that the Government should engage in an operation in competition with private interests.

The "Ravakai" is not of sufficient size nor can she carry a large enough cargo to be considered a carrier between the islands; this is best left to the inter-island shipping. Further, the "Ravakai" would be available to make emergency runs between the islands of the Southern Group if the need arises.

The "Ravakai" is one of the best constructed vessels operating in the Pacific, and is a credit to her builder, Ioaba Marsters, and to all the people of the Cook Islands, and should not be disposed of without due consideration of the many uses to which it could be put in the Cook Islands.

The use of outside sources, both financial and technical, should be investigated and these sources utilized, when and if necessary. Under this heading could be included the use of the U.S. Peace Corps for an ecology study of the lagoon areas, the use of FAO technical facilities in developing and utilizing areas of our marine resources, and the help of research organizations and Universities world wide in setting up a Marine Research Centre.

The threat of the Crown-of-Thorns Starfish (*Taramea*) in the Cook Islands seems to be somewhat overstated, but a full assessment of all the islands must be made and suitable arrangements made to deal with the conditions found.

A permanent fisheries Review Committee should be formed to advise the Fisheries Section in the development and implementation of this programme.

This committee should be made up as follows:

1. Member from Government Ministry of Economic Development, (Secretary).
2. Member appointed by the Commercial Fishermen.
3. Member appointed by Sports Fishing interests.
4. Fisheries Officer.

Conservation measures must be established and means of enforcement devised, and this area will be the subject of a future report.

The Assistant Fisheries Officer, Mr I. Marsters, should be retained by the Mother of Pearl Control Board as Technical Advisor and Safety Inspector, and should be consulted in the operation of Mother of Pearl Shell taking in all the lagoon areas.

Note should be taken as to the nutritional benefit of fish in respect to the general health of the people of the Cook Islands. Fish meal especially is one of the highest sources of protein, and it is suggested that a programme, under the direction of the Health Department, be instituted to mix fish meal with fresh orange juice to be given to school children to help overcome any nutritional deficiency.

Fish meal production would prove beneficial in the development of chicken and cattle farming by providing a high protein feed when mixed with copra by-product. To this end a copra processing plant should be constructed by the Agriculture Department.

Consideration must be given to assistance to the Cook Islands Gamefishing Club. Sportsfishing could become one of the largest drawing cards in the Cook Islands quest for a share of the tourist industry. Cook Islands waters abound with gamefish and it is only a matter of time before world record fish are taken here. Assistance should follow the lines of providing space in the boat shed at Avatiu Harbour, technical help in obtaining sportsfishing vessels and weighing-in facilities at dockside.

With Cabinet adoption of the foregoing programme, the ground work could commence immediately, and the programme become fully operational by 1972.

A great deal of work is necessary by many people, but it is felt that with this vital Government in the Cook Islands, and with the necessary co-operation between departments, this programme can fulfil the results desired.

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Original text: English