## SOUTH PACIFIC COMMISSION

## THIRD TECHNICAL MEETING ON FISHERIES

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# FISHERMEN TRAINING IN THE PACIFIC ISLANDS - FIJI

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#### ABSTRACT

One of the main impediments to the development of fisheries in the Pacific Islands has been the lack of suitable training facilities for the fishermen. Training schemes organised by external agencies have invariably leaned toward the introduction of the more advanced fisheries such as tuna long-lining and have failed to take into consideration the fact that the island people in general are ill-equipped in fishing experience and with finance to cope with the more advanced fishing operations. This paper discusses the many problems found in the Colony of Fiji and in other Island Territories, and proposes a training programme which accepts the limitations mentioned and promotes rational development consistent with the experience and within the financial capabilities of the fishermen.

# 1. INTRODUCTION

Recognizing the inability of the fishermen in the Colony of Fiji and other Pacific Territories to compete in the highly organised and heavily capitalised ocean fisheries, and accepting the limitations of the existing fishing fleets: The training programme proposed is designed to encourage local fishermen to take part in the work of the Fisheries Service and as result of their participation give them the opportunity to accumulate funds for the purchase of better boats and gear, and to provide finance for the setting up of shore based holding facilities for the catch.

The training programme introduces elements of boat-handling, fishing and fish-handling, preservation and transportation of the catch, co-operative fishing and marketing techniques and familiarises the fishermen with the essential business transactions found in the industry.

It gives them the opportunity to observe modern fish searching and detection instruments in operation, and provides on-the-job training in the operation of advanced gear landling machinery and fishing equipment.

The marine industries of Fiji are important to the economy and social welfare of the Colony: The rapidly expanding population of 3.4% makes it mandatory that new developments be found to boost the economy and supply employment opportunities for young people.

With the exception of the highly organised and heavily capitalised Japanese fishing operations, fishing in Fiji and other Island territories is in the main unorganised, sporadic and a little more than subsistence in character. In Fiji there are about 375 persons engaged in the industry in a more or less professional capacity, and another 650 poorly paid semiskilled and unskilled workers who man and assist with the working of about 380 registered fishing craft. Of the fishing craft, none are capable of sustained fishing in distant waters and the majority are unsuitable for off-shore fishing in near waters.

About 90% of the fishing craft are punts in the 14-25 foot range which limits their operation to sheltered inshore waters.

A large proportion of the marine resource such as shell fish and crabs are taken by hand. In many cases this is essentially a gleaning operation during which the surface rocks and coral are overturned on dried out reefs at low water. All types of edible marine animals are gathered for the pot. In fact almost as much energy is expended in gathering the catch as is recovered in the way of food. The only difference being that the carbohydrate energy is replaced by fish protein.

In some cases smoking and sun-drying is attempted with varying success in an effort to delay spoilage, but the bulk of the catch is handled in a most perfunctory manner. There is invariably a delay in butchering, in far too frequent instances extending to 5 or 6 hours and generally until the catching operation has ceased or until the catch is landed at the market centres. There is a pronounced lack of care at all stages.

Transportation of the catch to the main market centres is generally effected by the use of public transport or in the boats. When the former method is used the fish are brought to the terminals in sacks and stowed without the benefit of ice with other produce and luggage in the luggage compartments. There is often a delay of 8-10 hours between the time of catching and landing at the market.

The marketing facilities are with few exceptions inadequate and lacking in the most elementary conveniences for the preservation and hygienic handling of the catch. Fish are sold by the bundle (sometimes 5 sometimes 12 depending on the class of fish) rather than by weight and consequently prices are higher than the local people can afford to pay.

In the distant islands the catch is consumed by the fishermen themselves or by the communities to which they belong.

While there is a traditional leaning toward community effort on village projects, no effective steps have been taken to channel this leaning into an organised fishing and marketing association, neither is the influence of the powerful traditional leaders used to advantage in promoting fishing and marketing schemes.

# 3. DEVELOPMENT

Consideration of prospective development in the light of this situation suggested that steps ought to be taken to promote a small scale fishing industry to exploit the inshore stocks, bottom and pelagic fish in near waters, consistent with the ability and within the financial capabilities of the fishermen.

There is no real body of skilled fishermen to take the lead in developing the industry, and it is necessary for Government to give some indication as to what development might be attempted.

It was proposed that fairly rapid development of a small scale fishing unit project might be achieved with the introduction of small insulated carried vessels, such as 30-32 foot Beqa class punts, designed to operate in a mother-ship capacity with the existing fishing craft, and by the installation of ice silos in the islands and districts poorly situated for transport and fish handling facilities.

The proposal is to locate ice silos in the remote areas, and to service them with the Government fisheries vessels in the initial stages, and later as the project gets under way it is expected that this would be taken over by the island trading vessels or by standard type fishing vessels which could be introduced as finance becomes available. In conjunction with this project it is planned to station an insulated carried vessel at each of the silos and for this vessel to take ice from the silo and to accompany the small island fishing craft to the fishing grounds, where it would receive the catch for icing and transport to the silo for storage and eventual shipment to the main marketing centres.

In the early stages pilot projects are proposed at two or three of the more remote centres and to use Government fisheries vessels to service the silos and carry the fish back to the markets.

It is confidently expected that this programme will double the fish landings in the Port of Suva within the first year.

Since it is planned to develop this project on a wide front it is essential to consider ways to finance the operation. It is obvious that the industry is not able to do so and this leads to the following training proposal.

#### 4. TRAINING

The combined development and training programme has been incorporated in the work programme of the Fisheries Service in Fiji in 1968 and provides opportunities not normally available to fishermen even in the more advanced fishing nations. In this scheme the fishermen are taken on board Government fisheries vessels as part of the crew and share the normal day-to-day duties with Fisheries field workers. This includes preparing the vessels for sea, taking on board ice and fishing equipment, and at sea assisting with the steering of the vessels, preparing and setting fishing gear, recovering the gear, cleaning and icing down the catch, repairing gear and the many other jobs encountered in a day's work on a fishing vessel.

The trainees are nominated by the village leaders. The only Government stipulation being that they are licensed fishermen. (This condition can be waived in the most distant islands, until the small scale unit project is established).

The initial training is aimed at familiarising the trainees with modern aids to fishing, such as radar, echo sounders and fish detection instruments, this is followed by on-the-job training in compass and wheel and elementary seamanship.

Particular emphasis is placed on the cleaning and storage of the catch at the outset, and it is considered essential to set the highest possible standards of hygiene and quality, and to set and maintain these from the outset.

The catches are weighed and equal shares allocated to each of the trainees, the Fisheries field worker issuing a docket for the total weight credited to each at the end of each day's operation.

In the early stages the transportation to the markets is being handled by Government fisheries vessels, and to carry the training into the marketing field the trainees are brought into the selling transactions at every stage. They are present at the market, and sell the catch under the supervision of trained field assistants, and accompany the supervising officers on delivery runs when sales are conducted on a wholesale basis. It is proposed to introduce fish boxes into the scheme at an early date and this will carry the marketing process a step further away from the old method of selling by the bundle.

To convey an understanding of the advantages to be gained in co-operative fishing and marketing, village groups are encouraged to take part in the fishing exercise and the proceeds from the sale are credited to trust accounts for use in improving the existing conditions in the fishing facilities of that group. It is proposed that at a later stage all the groups will be amalgamated in one central fishing co-operative association.

To introduce training in the essential business transactions met with in the industry, the fishermen are required to pay a service fee to Government for the provision of ice and fuel, and for the use of nets and other fishing gear, to pay the market charges and transport costs between the ship and the market. In many cases the last charge is borne by the buyers who prefer to collect the fish from the vessels.

Sufficient evidence is available at this stage to indicate that the plan is working effectively, and in fact two fishing groups have accumulated sufficient funds in a few days fishing, to make the acquisition of a small carrier vessel a distinct possibility in a matter of a few weeks. When this stage is reached it is planned to go ahead with the silo project and make the groups independent of transportation and storage problems. It is not, of course, proposed that the extension work of the Fisheries Service will cease at that point, since the successful completion of the programme will depend on continuing technical assistance to the groups for some considerable time to come. and the second s

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