

South Pacific Tuna fishing — a changing scene

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The long line fishery for deep swimming oceanic tunas and other pelagic species was introduced by the Japanese after the second World War, as was the technique of floating 'baskets' or sections of lines suspended between bamboo adequately buoyed, from which branch lines are attached with cotton covered traces and hooks. This operation is a particularly labour intensive one. It is arduous, requiring almost non-stop working round the clock for periods up to 3 months or more, depending on the fuel and refrigerated capacity and size of the tuna long liners.

The very labour intensity of the operation has caused its own problems, and Japan has had difficulties finding sufficient young crew prepared to tolerate these conditions. With improved labour and working conditions in Japan itself, the problems have been compounded. The less developed countries such as Korea, and, to a lesser extent, Taiwan, have, during the past few years been providing crews for the oceanic long-liners. Japan has progressively become more involved in marketing, and in financing infrastructure such as processing plants and bases and providing technical manpower for these bases.

Recent technical innovations in this fishery have greatly improved catch rates; in particular, the use of a deeper long line fishing to a depth of 300 metres has resulted in appreciably higher catch rates, particularly of Big-eye tuna, than the standard tuna long-line which fishes only to a depth of 170 metres. The deeper line is wider spaced between buoys and carries as many as 12 hooks on each section or 'basket'. It is, of course, much heavier and requires a specially built line hauler, capable of hauling the heavier line.

The new technique has been suc-

cessfully used in the Indian Ocean, mainly by Korean vessels; and now by vessels fishing the South West and Central Pacific Ocean and converting to this new gear. Complete automation of the long-line operation has also been introduced resulting in a much smaller crew requirement and a speedier fishing operation. The tuna long-line fishing vessels of Japan have been active in the Pacific Ocean south of the equator since the completion of the peace treaty with the United States in 1952. Large shore based facilities have been constructed in Pago Pago (American Samoa) in Pallicola (New Hebrides), in New Caledonia, and within the past 10 years, in Levuka (Fiji).

These bases have been of considerable economic and social consequence to the Pacific Islands. The effect of Asian crews on a Polynesian society was less socially destructive than initially feared. Though as many as 100 long-line vessels operate from the Pago Pago base, the time crew spend on shore for rest and recreation is usually limited. The, usually, Korean crews return to their own country on the completion of their contract to the processing companies; the shore based technicians live in well contained housing units within the processing complex. Recreational facilities, Canteens, Cinema, etc. are incorporated in the complex — somewhat typical of an army base. The canning plants run on a 24-hour basis.

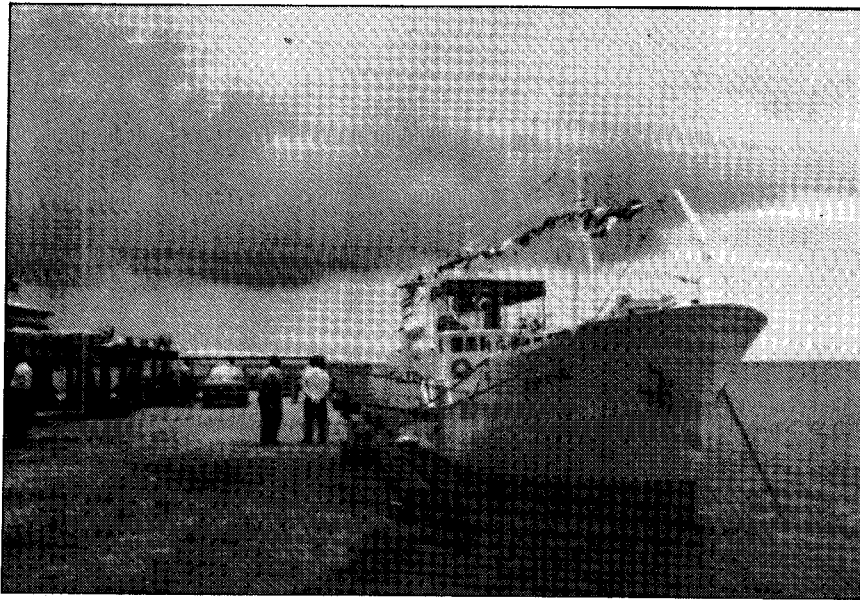
The processing plants in Pago Pago are, not surprisingly dominated by two large American multi-nationals: Van Camp and Star Kist of California. Though an initial attempt was made to train Samoan crews this has not proved successful. Good fishermen and seamen as they traditionally are, they do not relish the long, tedious, working hours required on board a tuna long liner for two to three

months at a stretch.

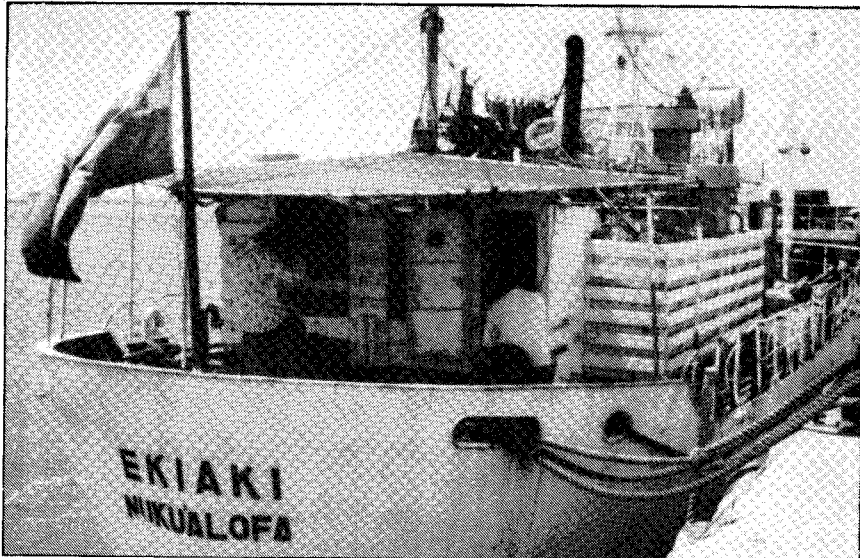
In Levuka, Fiji, the shore processing facilities are, again, Japanese owned and managed. The Fiji Government initially had a small 'token' equity investment in the plant. This is changing and Fiji has now established its own fishing corporation and is rightfully acquiring a larger share in the processing operations. Fiji has built its own pole and line fishing vessel, bought a second hand pole and line vessel from Japan, and is chartering similar vessels from a Japanese company. The results have been very encouraging and catch rates have ranged from 5-30 tonnes of skipjack a day, which are sold directly to the canning plant on Levuka. The value of the exported catch has risen to F\$9,341,000.

In the nearby Kingdom of Tonga, the Government owns and operates its own oceanic long-liners, entirely manned by Tongan nationals. This is the only Pacific territory which has shown initiative in developing the tuna fishery in its own right; both vessels have had a good year's fishing and a regular export trade in whole frozen Albacore has materially increased the Kingdom's foreign exchange earnings. A 200-ton tuna cold store is planned in Nuku'alofa to be funded from the European Development Fund. This will enable larger consignments of frozen tuna to be stored before export. It is a good beginning for this small Island nation.

The implications of the 200-mile extended economic zones of sovereign jurisdiction, which many Pacific countries and territories are establishing unilaterally, must clearly affect the oceanic longliners of Japan, Taiwan and Korea, currently operating in the South Pacific region. As elsewhere in the world, fisheries have taken on a fresh significance in the South Pacific; it is a changing scene. Hopefully, the proposed Fisheries Agency will assist towards the emergence of a more rational approach to management of the highly



Two vessels operating the long-line tuna fishery in the Pacific.



migratory tuna stocks. The U.S. contention — so clearly stated at the many Law-of-the-Sea meetings — is that highly migratory species such as the oceanic tunas must not be managed by sovereign states due to the tuna's ability to move from one zone to another; any management must be at an international level. Clearly, this may well be the reef on which the regional agency concept may indeed founder, as small Pacific territories, having recently achieved jurisdiction over valuable sea resources, may well be reluctant to relinquish this to any outside Agency — no matter how well-intentioned and motivated.

For the future, the world's

production of tuna is not expected to keep pace with the market demand as the major producing areas are already fully exploited. National jurisdiction to 200 miles will cause countries like Japan to be excluded from traditional fishing grounds. In the next few years, there will be major changes in who produces the fish; this combination of factors, plus the anticipated demand growth will cause the price of fish to escalate.

The Pacific Island territories and smaller maritime nations are well placed to take advantage of this and materially increase their fish production and subsequently to improve employment, revenue

and an improved standard to living for the people of this vast region. □

Meeting recommends regional co-operation in forestry

The need for more regional co-operation in forestry was stressed by a Regional Meeting on Forestry Management and Development jointly organised by the South Pacific Commission and the Government of New Zealand in Suva, Fiji, from 31st October to 6th November.

The meeting urged Pacific Island governments to establish forest policies that will take into account the important role forests can play in land conservation, preservation of genetic resources, recreation, production for domestic needs and, in some cases, export trade.

It recommended that Pacific Island countries collaborate in the exchange of forestry information, the exchange and sale of seeds and forestry research. It also recommended that common standards and specifications for logs and timbers be adopted throughout the region, and that the possibility of a regional approach to the marketing of forestry products be investigated.

The Meeting noted that the possible role of forests in meeting the energy needs of each country and territory should be studied. It recommended that regional statistics and economic data on forest resources, production, trade and labour productivity be compiled and circulated.

A number of recommendations were made for improvements in training of forestry workers.

Participants from American Samoa, Fiji, French Polynesia, Guam, New Caledonia, the New Hebrides, Solomon Islands, Tonga, the Trust Territory of the Pacific Islands and Western Samoa attended the Meeting.

Mr J. Sopena of New Caledonia's Forest conservation Service and forestry experts from New Zealand were consultants to the Meeting, which was directed on behalf of SPC by Mr M. Lambert, Tropical Agriculturalist. □