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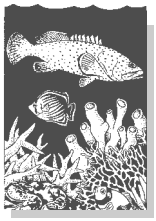
Addendum

Note added in press: Contrary to what we expected based on the fieldwork we did in early December, the reformed LRF company began to operate again in Marovo Lagoon. In early 1999, they once again focussed on spawning aggregations, including the one at Charapoana where two tonnes of fish were caught in January. The traditional ownership of Charapoana has not yet been finalised as we had been led to believe, and the dispute will go to the High Court. (Christian Nielsen, pers. comm.).



Application of the FFA member countries' Fishing Vessel Monitoring System to track live reef fish transport vessels

by Andrew Richards [1]

Introduction

FFA member countries now have the capability of tracking in their Exclusive Economic Zones (EEZs), the position, speed and direction of distant water fishing nation (DWFN) fishing vessels by means of a satellite-based vessel monitoring system (FFA VMS). Increasingly, government fisheries organisations worldwide are adopting such systems to assist in the management of their fisheries resources. In the Pacific, VMSs have been successfully introduced for domestic fishery management in Australia, New Zealand and Hawaii. Other countries, which have recently set up national VMS, include Argentina and Morocco.

Tools with which to achieve compliance

Several compliance measures are already in place in the western and central Pacific, notably air and sea surveillance, observer programmes, the Regional Register of Foreign Fishing Vessels and agreements on cooperation in surveillance between the FFA member countries. The FFA VMS provides a cost-effective tool to enhance these existing compliance measures.

What is a VMS?

A VMS is a technical system, which enables a vessel's position to be reported to a monitoring station, without that station being on board the vessel. Modern VMS use satellite technology to pinpoint a vessel's position and then relay that information to the monitoring station on-shore. The system may be pre-set to determine a vessel's position on a regular basis, or set to 'poll' a vessel thought to be acting suspiciously.

Capabilities of the FFA VMS

The FFA VMS offers a range of capabilities that cannot be readily achieved by other means. The baseline form of the FFA VMS, in accordance with the stated preference of FFA member countries, will enhance the effectiveness of several other measures being implemented to assist with the sustainable development and management of the tuna resources of the western and central Pacific.

The VMS will assist with monitoring the position, speed and direction of DWFN vessels that are fitted with Automatic Location Communicator (ALC) devices.

The VMS is capable of simultaneously monitoring the position, speed and direction of up to 1000 fishing vessels at any one time with the potential to monitor up to 2000 vessels. A computer based at the FFA Secretariat headquarters in Honiara, Solomon Islands, known as the 'VMS Decision Engine' identifies those vessel position reports

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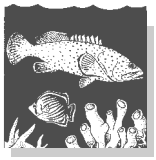
which violate a set of rules stored in the computer. Exception and alert reports are generated accordingly by the computer and sent to the FFA member country in whose EEZ the vessels are operating.

The FFA Secretariat and each FFA member country is equipped with a graphical monitoring facility to view the exception and alert reports and other position data against a display of the member country's defined geographical areas. It is also capable of securely transferring vessel positions to each FFA member country, as required, enabling individual FFA member countries to track the movements of vessels in their EEZs.

Application of the FFA VMS to tracking of live reef fish carrier vessels

Although the FFA VMS was developed for the purpose of tracking tuna fishing vessels, it could easily be applied to tracking other vessels, such as those that transport live reef fish from the western and central Pacific to markets in Hong Kong. This would enable MCS officers in FFA member countries to determine whether such vessels travelled directly from the port where they cleared customs out of the EEZ or whether they stopped off enroute at remote locations, perhaps to illegally take on board extra live reef fish (see Johannes & Lam, this issue, page 8).



Live reef fish operations in Kiribati

by William Sommerville [1] & Derrick Pendle [2]

Negotiations for setting up a live fish venture in Kiribati, selling to Hong Kong, started in early 1996. Since Kiribati is in the middle of nowhere, far from any international port, it is extremely difficult to export marine products that will 1) give a reasonable return to the exporter and 2) give a price to the harvester/fisherman which makes the venture worthwhile.

Many ventures have been started by local and overseas businessmen which have soon foundered with nobody benefiting as a result. The only way to make a profit is from high-value products such as shark fin, and sea cucumber. Exporting live or chilled products usually costs more for the transport than the value of the product on the world market.

Despite the fact that it takes 50 days sailing on a round trip from Hong Kong to Kiribati, plus loading time for fourteen tonnes, because of the relatively high value of live fish, all parties involved in the operation can realise a profit. After looking at potentials and drawbacks for exporting live fish we initiated a small trial, the aims being:

1. To see if the required species of fish were present in Kiribati.
2. To find out if the local fishermen, using their traditional methods, could catch and keep the fish alive.
3. To find out if we could keep the fish alive for two months after we purchased them.

We began the trial in March 1996, and took it through to August 1996. After a few teething problems we discovered that we could keep alive 100 kg of cods, coral trout and wrasse for two months. We soon learnt that the old fishermen remembered that Chinese traders had kept fish in cages for their own consumption prior to World War II and this idea was not new to them.

We reckon that to start our live fish business cost close to AU$ 150 000 including the cost for the first ten tonnes of fish and somewhat more than that before it becomes profitable. We did not have this sort of cash at the time so we tried banks, aid project funds, and venture capitalists. Banks thought it was too risky, aid donors thought it was too environmentally sensitive and venture capitalists wanted too great a share of the profit. We decided, in conjunction with our marketing agents (Asil Group Ltd in New Zealand) to start it alone.

On a wing and a prayer and very short of capital we started in Tab North Island in the Gilbert Group. Apart from the small trial we had no other experience but were forced to start up earlier than originally planned as we found that a Chinese fishing company had just been given a licence to start the same business. Having had ten years experience of Chinese traders in the Pacific, we knew that we had to start before them to prove that such an operation could be environmentally friendly and give a fair return to the fishermen.

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