

Traditional Beliefs and Fisheries Management in Oceania

The island dwellers of Oceania have traditionally relied on seafood for the bulk of their animal protein and are often preoccupied with their sea life and fisheries. There are three ways in which this involvement manifests itself among islanders, and all are important to the Pacific island fisheries manager.

The first and most obvious manifestation is in their *knowledge* concerning the local marine environment and its inhabitants. This knowledge can be very extensive and accurate and is the subject of increasing scientific study. The second, which is the focus of this note, is in their *beliefs* concerning fish and fishing. Like most beliefs, theirs reflect reality somewhat less consistently than does their knowledge. The third manifestation is in their fishing *customs*, which are influenced by their beliefs underlying these customs in order to design fisheries management measures and present them to islanders in ways that elicit their understanding and cooperation.

In many Pacific island fishing cultures there exists a longstanding belief that marine resource availability is dependent upon fishing pressure. To a contemporary western reader this assertion may seem unremarkable. But such complacency may be dispelled when it is pointed out that this awareness arose centuries earlier in Oceania than it did among most westerners and other continental peoples. This is probably because marine resources around small islands are much easier to deplete than they are over continental shelves, and the consequences of overfishing became obvious to island fishermen much earlier than they did along continental coastlines. As a result, all of the basic marine management measures employed beginning in the early 20th century in western countries (i.e., closed seasons, size limits, catch limits, closed areas, limited entry, gear restrictions) have been used in parts of Oceania for centuries.

This is an example of empirical knowledge ("the harder we fish, the fewer fish there are") leading to the formation of a belief ("if we fish too hard for too long we'll no longer have enough fish") which prompts the development of adaptive fishing customs ("in order to prevent this depletion we must devise ways of regu-

R.E. JOHANNES

Division of Fisheries Research
Marine Biological Laboratories
Box 1358 Hobart, Tasmania
Australia



A young fisherman from Solomon Islands.

lating our fishing activities"). People in societies such as these, in which it is believed that marine resources have practical limits, tend to sympathize with the objectives of the fisheries manager -- indeed, in the past they often employed fishing chiefs in their villages, whose specific job it was to regulate fishing. And in these societies, therefore, it behooves the fisheries manager to pattern management as much as possible after local customs and beliefs in order to elicit public support.

But in some parts of Oceania there apparently never was a well developed marine conservation ethic. On some of the larger islands in Melanesia, for example, there was no perceived relationship between fishing pressure and availability of marine resources. This is probably because there was no obvious relationship; relatively low population densities and comparatively rich terrestrial sources of animal protein meant that

marine resources were never in short supply.

Today, with burgeoning populations and expanding seafood exports, overfishing is becoming a major problem for which there are no cultural precedents on many such islands. And here, when it is suggested to local fishermen that they should regulate their fishing effort, the response is likely to be, "Why should we? There have always been enough fish around here. Some of them seem to have moved away at the moment, but they will come back."

In some island societies the depletion of seafood stocks is attributed to supernatural causes. Locally prescribed methods for improving fishing may focus on propitiating spirits or counteracting the effects of sorcery. And on some islands where the traditional conservation ethic was once strong, this ethic is being replaced by an imported western "ethic" of unlimited exploitation.

Local beliefs in such societies concerning what, if anything, limits marine resources will be of little value to the fisheries manager, so he must try to create new ones. His fisheries regulations are liable to be misunderstood, resented and ignored unless they are backed up by sustained, culturally sensitive education.

He should not only try to educate fishermen, but, more importantly in the long run, he should also help to ensure that the island's young people are made environmentally aware. In societies which lack a sound system of beliefs concerning the need for conservation of natural resources, the remedy must come from outside the traditional culture; that is, from the schools. In Oceania and elsewhere, managers of fisheries and other natural resources should help ensure that teachers are aware of and responding to this need.* If they do not, management efforts are liable to be in vain. ●

* The South Pacific Regional Environmental Programme (SPREP) has recognized the need for the teaching of conservation in the schools in Oceania. They help develop and disseminate environmental teaching materials designed specifically for the cultural and environmental conditions prevailing in the Pacific Islands. For information on their environmental education resources, contact the Information Project Officer, SPREP Secretariat, B.P. D5, Noumea, New Caledonia.