

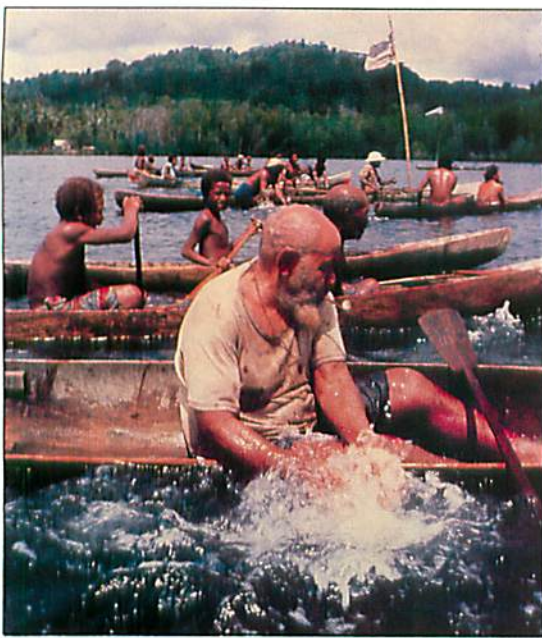


Traditional Institutions and Their Role in the Contemporary Coastal Resource Management in the Pacific Islands

EDVARD HVIDING

Many long-established biological approaches in fisheries management have largely ignored the role of fishing people, considering them to be somewhat alien elements in otherwise well-ordered statistical models. It goes without saying, however, that people, both those who fish and those otherwise involved in fisheries, contribute directly and importantly to the fisheries systems themselves. More recent ecological or "bioeconomic" approaches to fisheries clearly recognize this. Still, there has been a tendency to give a rather static role to people, most notably in the form of analysis that takes for granted the eventual destruction of fish stocks by fishermen, the so-called "Tragedy of the Commons".

However, research by social scientists and marine biologists during the past 15 years has documented the widespread existence of local, traditional systems



Porpoise-hunting at Fanalei, Malaita, Solomon Islands. (Photo by Sarah K. Meltzoff)

of marine tenure, where defined areas of inshore seas and reefs are owned or otherwise controlled by local communities. By regulating the access to and use of marine resources, such systems function as fisheries management systems. A particularly large variety of marine tenure systems is found in the Pacific Islands. More often than not in this region, coastal villagers claim and exercise strong traditional rights over nearshore fishing grounds within recognized marine boundaries. Such institutions of customary marine tenure (CMT) regulate fishing in a number of ways: by limiting access to resource areas, by restricting the use of various fishing methods, and by regulating the capture of certain species. Co-existing in Pacific Islands societies with often highly sophisticated local knowledge of the marine environment, customary marine tenure systems guide and constrain villagers regarding where they *may* go fishing and how they may do so; whereas environmental knowledge tells them where and how they *ought* to fish to obtain the best catches.

Only a few of an increasing number of documented CMT systems in Oceania can be mentioned here. On Yap in Micronesia, trespassers who fish without permission in an area not controlled by their own group are stopped and punished by clan leaders. Such conflicts and requirements to ask permission before entering the fishing grounds of others, are very common throughout the island

Pacific. On the remote atoll of Ontong Java, in the Solomon Islands, the local council has devised a system where stocks of trochus shell and *bêche-de-mer* are tabooed for one year at the time in an alternating fashion. In the large lagoon of Marovo, also in the Solomon Islands, local clans variously enforce a number of prohibitions on the use of technologies that involve nylon gill nets, plant poisons, dynamite and even underwater spearguns. Certain prime fishing locations where reef fish aggregate are subject to temporary closures.

These examples are far from unique. A comparative research project being carried out at the

University of Bergen by the author in collaboration with Kenneth Ruddle and R.E. Johannes has compiled and synthesized information on CMT systems in more than 100 locations throughout the Pacific Basin. Several of the cases mentioned above involve challenges of a contemporary nature, such as the intensified exploitation of marine resources through commercialization, and the introduction of new technologies. Increasingly, it is being asked whether CMT systems may form a practical basis for achieving sustainable development and management of inshore fisheries in the Pacific Islands. These issues were the focus of a workshop at the South Pacific Commission's 23rd Regional Technical Meeting on Fisheries in August 1991, and this paper is based on a presentation made there.

A strong awareness of CMT systems and their relevance is to be expected in a region where most national fisheries officers have themselves grown up in coastal villages. This awareness concerns the need to include customary marine tenure, and traditional environmental knowledge, as important factors in inshore fisheries development. Indeed, CMT in the Pacific Islands may be considered an inescapable factor, in that it is so deeply embedded in the wider aspects of cultural identity and social life. Consider that, unlike the European legalist concept of ownership, where property is private and alienable, fishing grounds contained within Pacific Island CMT

systems are generally communally-held property, inherited as ancestral title through generations, and cannot simply be sold or otherwise transferred to outsiders. This close association between groups of people and their resource areas, and the resulting social and political initiatives and mechanisms, has profound implications for the development of fisheries and coastal aquaculture and for the licensing of larger-scale resource development enterprises, and can hardly be escaped by those who wish to develop and manage a fishery subject to customary marine tenure. On the contrary, it can be argued that CMT systems have considerable potential for furthering locally appropriate development, decentralized and sustainable management, participatory planning, and other such popular goals of the present development debate.

Marovo Lagoon

In many ways, the CMT system of Marovo Lagoon, Western Solomon Islands, involving a local population of some 8,000 people, and 700 km² of reef and lagoon, is typical of traditional resource management systems in Oceania in that a number of defined clans control resource use within defined areas of land and sea. Thus, the tasks of village resource managers are not confined to fishing, but closely integrate the domains of land and sea through complementary systems of land and marine tenure. Such traditional, integrated land-and-sea estates are known from many parts of Oceania, including Fiji, Yap and Hawaii. The situation in the Marovo Lagoon is of considerable interest in that traditional resource managers increasingly occupy themselves with a variety of large-scale issues relating to contemporary development. Lately, commercial fishing enterprises, tuna baitfishing, coastal aquaculture, tourism, and even land-based activities, such as logging and mining, have all involved the Marovo CMT system. At the same time, inter-village regulations on access, technologies and species continue to unfold and adapt to changing economic and ecological circumstances.

Among Marovo villagers, a number

of requirements to ask permission before entering fishing grounds other than one's own apply. Often, artisanal commercial fishing by villagers is subject to stronger restrictions than is subsistence fishing. A number of fishing methods are subject to a variety of prohibitions and restrictions, and varying restrictions apply to the exploitation of resources like trochus, pearl shell, *bêche-de-mer* and other commercial marine products, as well as to turtles, crayfish, giant clams, important reef fishes in spawning aggregations, and even freshwater eels.

During the 1980s, the people of Marovo engaged in negotiation and conflict with representatives of a diverse number of outside commercial enterprises. Among them were a Taiwanese vessel catching giant clams, originally invited into the Lagoon through a joint venture with an urban Marovo entrepreneur, but quickly expelled by village resource managers. In a subsequent case, a development enterprise initiated by the Seventh Day Adventist Church, involving a fish freezer and at first having somewhat narrowly defined goals in terms of increasing the flow of tithe money from villagers to the church, was greatly modified after confrontation with traditional resource managers. These modifications, all stemming from local initiatives, included: a more equitable sharing of decisionmaking power; quotas on certain easily depletable fish; a prohibition on purchasing fish caught by dynamiting; accommodation of seasonality in fishing intensity; explicit roles given to women's groups and youth groups; and a division of responsibility whereby each reef-holding clan would enforce appropriate management measures whereas the development project would provide infrastructure not provided for by the CMT system, such as storage, transport and marketing facilities.

Throughout the 1980s and until today, the intensive use by the Solomon Islands' industrial tuna fishery of the Marovo Lagoon as a major source of live baitfish has been subject to much heated discussion. Some sections of the Lagoon have at various times been declared off-limits for the tuna catcher boats. Issues at stake have been the distribution and amount of royalty payments to reef-holding groups, social conflict with

tuna boat crews, and concerns over ecological consequences of baitfishing.

The modest development of diving-based tourism in the area has increasingly involved local demands that expatriate diving operators seek permission and pay fees for entering reef areas, and foreign yachts sailing through the Lagoon have repeatedly been told not to anchor in certain areas, partly because these areas may have a traditionally sacred status and should not be disturbed, and partly because tourists were suspected of the uncontrolled gathering of rare shells and precious coral.

Large-scale commercial logging operations in the Marovo area ceased in 1987, after a prolonged conflict that partly involved local concerns over reef sedimentation from soil erosion in logged areas. Those same concerns have repeatedly prevented mineral prospecting by foreign companies in the steep valleys and mountains facing the Lagoon.

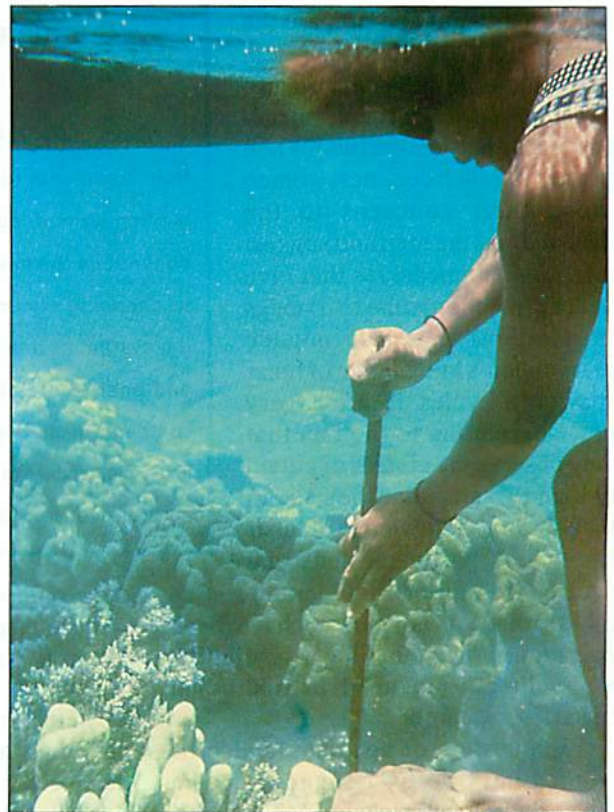
It is important to note here that the conflicts between Marovo resource managers and outside parties have not necessarily ended up stopping or altogether prohibiting the activities of the latter. In a number of instances, such as tuna baitfishing, tourism and commercial fishing, the local initiatives carried through the CMT system have led to mutual accommodation by both parties, and often to a type of commercial development considered more in line with local preferences. In many ways, the local insistence on autonomy in deciding on development issues involving the Lagoon and its resources has led to a form of participatory planning, where local communities play a major role in the continuous process of formulating goals, organizing activities and monitoring consequences.

It is also notable that local initiatives involving reefs and marine resources in some instances come prior

to any concrete negotiations with outside parties, basically being fishermen's responses to new, perceived possibilities. A fairly recent issue, that of giant clam and seaweed farming, has produced a variety of new marine tenure arrangements from reef-holding clan leaders, involving the zoning of reefs and allocation of blocks to individual families, from the assumption that aquaculture will be adopted in the near future. Also, in early 1991 the leaders of one clan proposed that an ecologically complex barrier reef passage controlled by them be closed to most fishing and set aside for purposes of scientific research.

Age and Gender Issues

It may seem as if traditional fisheries management is the sole privilege of chiefs and other elderly men. This interpretation should be treated with caution. Whereas the traditional division of labor often dictates that men spend more time fishing than women do, neither



Clamshelling, one of the traditional fishing methods in Marovo, is subject to restriction. The participation of women in fishing is significant. (Photo by Sarah K. Meltzoff)

fishing nor gardening is usually the exclusive domain of either gender. Women certainly fish, though frequently closer to the village and with less visually impressive technology than men do. And, in the highly important reef-gleaning for shellfish and other invertebrates, often supplying a major proportion of protein in household diets, Pacific Island women are undisputed masters of both knowledge and practice. This intensive use of coastal shallow waters by women and children, both girls and boys, is much more significant to the wider issues of customary marine tenure than may be apparent at first sight.

In the Marovo Lagoon, it is the women who often voice the strongest concerns over pollution of reefs and mangroves by land-based logging and mining. So in the daily local discourses that lead to decisionmaking and initiatives in the enforcement of marine resource management, women tend to play a major role in focusing on the future well-being of the entire coastal zone. Further, decline in quality or mean size or abundance of food fish is quickly commented on by Marovo women, who usually gut and prepare the fish brought ashore by the men, as is common in the Pacific Islands. (This is a much-neglected, village-level post-harvest sector.) When perceiving such declines, women voice their concerns to the decisionmaking men and suggest management measures that give better protection to the fish stocks in question. It is also notable that women's knowledge of lunar spawning cycles is often very precise, relating to the fact that they observe the gonads of gutted fish and relate what they see to their intimate knowledge of lunar stages tied partly to menstrual cycles. This important potential source of information appears to have been overlooked even by most, including those directly engaged in traditional fisheries research.

The question of age should also be pointed out briefly. I suggest that, in a majority of Pacific Island CMT systems, it is the young men who are usually the more active and far-ranging fishers, and who thereby monitor stocks, confront

trespassers, and handle traditional fisheries regulations on a day-to-day basis. The experience of younger generations, then, informs and strongly influences the management decisions made by senior men.

Broader Context of CMT

CMT systems are not just institutions involved with traditional village fishing; they constitute part of Pacific Islanders' mechanisms for handling the wider world in economic and political terms. The ecological integration and the economic complementarity of land and sea resources are cornerstones of indigenous world views. Also, it is clear that fisheries management and marine tenure have to be seen in relation to land resource management and land tenure. It should be pointed out that in Oceania, there are few fishing villages as such, most coastal villagers leading a lifestyle where fishing and agriculture are combined.

In project designs, however, fisheries

Customary Marine Tenure (CMT)

"Customary" refers to a system that emerges from traditional roots, constitutes part of what is often termed "customary law", and which has continuous links with local history as it adapts to changing circumstances; "marine" refers to the system as dealing with reefs, lagoon, coast, and open sea and including islands and islets contained in this overall seaspace; "tenure" refers to a social process of interacting activities concerning control over territory and access to resources.

development often is considered as something separate from the wider concept of rural development. The case just described from the Solomons of participatory planning in a development project is an example where villagers themselves insist on a more integrated rural development approach.

CMT systems do not exist in a political or legal vacuum. On the contrary, their capacity for handling emerging

development issues is subject to some level of government recognition of traditional rights. In their government policies, a number of Pacific Island nations state in various ways that tradition and "custom" must be given due attention in matters of development. Such recognition is important for promoting decentralized village-level handling of important issues involving the sea and its resources. In the case of the Solomon Islands, for example, the devolution of power from national government to provinces facilitates initiatives by customary resource managers through the Area Councils.

Although CMT in the Pacific may be referred to as systems of "traditional resource management" based on "customary law", this does not mean that tradition is something static, rigid and changeless. Rather, "tradition", as it exists in the rapidly changing worlds of indigenous peoples, is a system of knowledge and rules which, on the one hand, has strong roots in local history and experience, and on the other is unwritten and not codified, thereby allowing for flexibility in adapting to changing social, political, economic or ecological circumstances. Thus, far from being overwhelmed by commercialization and resource scarcity, many CMT systems in Oceania appear to have considerable capacity for handling and adapting to new circumstances, thereby becoming potentially important tools in the contemporary management of fisheries and of the coastal zone in general.

Further Reading

- Hviding, E. 1989. All things in our sea: the dynamics of customary marine tenure, Marovo Lagoon, Solomon Islands. Papua New Guinea National Research Institute, Special Publication No. 13. Boroko, Papua New Guinea.
- Ruddle, K. and R.E. Johannes. 1990. Traditional coastal resource management in the Pacific basin: an anthology. UNESCO/ROSTSEA, Jakarta.

E. HVIDING has been researching traditional institutions in the Pacific for a number of years. He is based in the Centre for Development Studies, University of Bergen, N-5007 Bergen, Norway.