
Community-based protected areas in the Small Island States of the Pacific

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Principle: Traditional social mechanisms can form an excellent basis for lasting protection of aquatic biodiversity.

Experience: Community-based management of marine reserves in the Cook Islands, Samoa and Fiji.

Most important lesson learned: Communities are willing to modify traditional systems to effect long term conservation and sustainable use.

Best practice: Incorporation of traditional Cook Islands concept of *Ra'ui*, based on respect of social leaders.

Pacific Island fisheries and their management

There are twenty-one Pacific Island Countries and territories in the tropical west and central Pacific Ocean. All of the Pacific Island Countries rely heavily on their marine resources for food and income. Most of the islands have a barrier or fringing outer reef with an inner lagoon, often with associated seagrass beds and mangroves. It is primarily within this coral reef and lagoon environment that the inshore fishery is carried out. The annual inshore fishery production in Pacific Island Countries is estimated at 108,000 tons, with about 80 per cent of that accounted for by the subsistence fishery. Home fish consumption of marine products is among the highest in the world.

The coral reef and lagoon habitats contain a large number of species of fish, invertebrates, and algae. There has been extinction in some countries or islands of a number of high value and vulnerable species, including coconut crab, giant clam, trochus, green snail, black-lipped pearl oyster and gold-lip pearl oyster. In addition, a number of sea cucumber species (*bêche-de-mer*) have been driven to commercial extinction by overfishing. There is also recent evidence that some of the large, slow-growing reef fishes are becoming locally extinct, even around isolated islands. Marine turtles are considered endangered throughout the Pacific.

The inshore fishery in the Pacific uses a large number of species and families. Invertebrates are very important in the catch in most countries. There is often a gender difference in harvesting. Men generally harvest fish, while women and children harvest shellfish and seaweed. Enforcement of catch effort, even where it is possible, is normally only applied to

the commercial catch. The subsistence fishery is subject to very little formal regulation. It is safe to say that most inshore coastal fisheries in the Pacific are not under any formal management.

Using traditional management to conserve biodiversity

Pacific island communities have practiced traditional management systems for centuries. Recent experiences using traditional management methods indicate that social strictures can be powerful agents in conservation. These experiences include the *Ra'ui* system from Rarotonga, Cook Islands, a Marine Protected Area from Ono, Fiji, and village reserves in Samoa. These fish reserves have been effective in increasing biomass and biodiversity. Community or traditional leaders may select management areas using different criteria than those used by managers and conservationists, and traditional approaches need to be modified to incorporate long term conservation. Nevertheless, local communities have established the reserves, deciding their location, rules and management. NGOs and fisheries departments have acted as facilitators. The reserves allow harvest flexibility to match socio-cultural concerns and are evolving from short-term food banks to longer term closed areas. The village reserves are small, but the network of reserves is significant and increasing.

An approach based on a traditional system has been successful where government management efforts were not. Success depends on the strong support of the traditional leaders and strong community involvement and community enforcement. Compliance is high, and the societal basis for protection varies. Village by-laws are used in Samoa and a simple legal instrument is being developed in Fiji, while in the Cook Islands traditional respect is sufficient.

There appear to be lasting social effects as well as biological ones. In the Cook Islands, for example, there is now a much greater awareness of marine conservation and the role that *ra'ui* can play. A new fishery act is being developed and while not specifically aimed at legalizing *ra'ui* it will legally recognize management plans. These plans can include *ra'ui* as part of the plan. The national biodiversity plan is currently being developed as a bottom-up process with community consultation in problem and solution identification. *Ra'ui* is being identified as a potential tool for solving some conservation problems.

