

especially into mainland China in the next few years, and the probable vulnerability of such a large and long-living reef fish to overfishing, the fall in population was projected to continue or worsen. Declines in catches and sightings of the fish were reported from countries and territories

such as American Samoa, Malaysia, Indonesia, French Polynesia and Palau. In Fiji the species has virtually disappeared from some places. In other places there were records of declining catches, and in some areas there has not been a recorded catch of humphead wrasse for the last 10–15 years.

## Community-based fisheries management in Niue

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The Coastal Fisheries Management Section of the Secretariat of the Pacific Community (SPC) worked with the Niue Fisheries Department to introduce community-based fisheries management in Niue in 2004. This collaboration was sparked by the Fisheries Department's interest in involving communities in the management of their own fisheries resources. Before work began, preliminary assessments were conducted in discussions with different stakeholders.

The work in Niue is part of SPC's assistance to countries to put in place coastal fisheries management initiatives that involve the resource owners. Given the resource owners' traditional user rights and ownership of fisheries resources that exist in most Pacific Island countries, participation of the people is not only practical but necessary. This approach to management, which is also used by non-governmental organisations and other institutions in the Pacific, requires people in communities and villages to make decisions and plans relating to their resources. The thinking behind this approach is that, for long-term resource management, the people who use, own and have access to resources must have some say in their development and management. In addition, limitations in human and financial resources of fisheries agencies in the Pacific make it difficult for the government alone to manage, monitor and enforce the use of these resources.

Niue consists of a single uplifted coral atoll, with an elevated rugged coastline. The narrow fringing reef that surrounds the island is accessible and utilised for fishing activities more on the western coast of the island than on the east. The preference for the west

is largely due to the huge waves and swells on the eastern coast, which limit fishing to seasonal activities for reef fishing and to the few spells of calm weather when fishing is feasible during the year. As a result, fishers from the eastern villages fish regularly within the fishing areas of the western villages. The shared use of resources has to be taken into account when traditional arrangements and resource use principles are retained.



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Women fish within the narrow reef areas, while men fish from canoes, dinghies and powered boats beyond. Women's fishing activities involve gleaning for shellfish, collecting crabs and other seafood, and using rods and line to catch reef fish along the reef edges. Men mainly troll for pelagic fish, especially the migratory tuna species. The installation of fish aggregating devices has helped to extend men's fishing activities beyond the immediate reef areas.

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Each of the 14 villages in Niue has an elected village council, whose total membership depends on the village population. The village council holds the decision-making authority in each village. The villages also form 14 of the 18 parliamentary constituencies, with the four other parliamentary members elected under common roll. The village councils are responsible for environmental and development issues and provide the link between the government and the people.

Most natural resources are customarily owned. Land is family owned, and cannot be bought or sold but can be leased under long-term agreements. Fisheries resources are under general government jurisdiction, but there exist unwritten rules of fisheries resource jurisdiction and use that people have followed for generations. Coastal areas directly beyond a village are considered to "belong to that village" and, under traditional resource use understandings, people seek permission to fish in village fishing areas from the village elders or the village council. Fishing access agreements allowing use of these areas are not specified under any of the existing regulations. The lack of formal arrangements could be an area of conflict when individual villages take management initiatives such as developing bylaws or measures to limit entry or use by others. At a discussion with women from a village on the western coast, concerns on fishing activities of "other races" in Niue were raised. If such concerns are not addressed now, in the future villages with more accessible and favourable fishing areas could find themselves in conflict over use of their resources.



Steep cliffs from the village sites to the shoreline are the common coastal feature of Niue. Most of the buildings that used to be on this side of the island were blown down by Cyclone Heta in 2004.

As indicated before, the village councils oversee activities at the community level. Their current powers allow them to make decisions on resource use and management. For example, when the striped goatfish (kalowama) is in season from December through to February, village councils can impose bans on swimming in certain areas when the fish is around. There are also bans placed on certain reef or fishing areas following the death of a prominent person. Bans on other species or fishing methods can also be imposed. Implementation of such bans is usually announced on the radio for the general public's benefit.

The majority of the people on Niue lead a traditional subsistence lifestyle, although in discussions most stated that they were not fishing as often as they used to. This view was confirmed by women from Avatele and Alofi South, who said that they rely on the subsistence fishery less than before. Fishing is still a usual occupation for many, but targets the species in season. Older people especially are familiar with the moons, tides, winds and how these determine fishing activities. Moreover, some community members believe that the loss of traditional knowledge is caused by the reluctance of older people to share fishing knowledge. Younger people are less interested in fishing; the increasing reliance on readily available modern foods is seen as a major contributing factor to this change.

Traditional knowledge and skills are still used by fishers who usually go out during certain moon phases, tides and winds. Seasonal occurrences of species such as kalowama and other reef fishes, whales, shellfish and other marine species are well known. Traditional mechanisms for communal food exchange or rituals are still followed. Some customary activities such as hair-cutting and ear-piercing ceremonies require a large amount of fish and other food. Food exchange is not confined to Niue as most of these activities are conducted with relatives in New Zealand. Traditional management mechanisms such as the fono (ban) on swimming areas during the kalowama season are still respected. After a village council declares a fono, it informs those stakeholders who do not reside in the community. Small-scale business operations are dominated by fishers with boats and canoes, who sell to shops, restaurants and hotels on the island. Small-scale fishing for deep-sea fishes is popular and is a major source of food and income for many families.

The International Waters Programme (funded by the Pacific Regional Environment Programme, SPREP), which conducted intensive consultation and information gathering in the 14 villages in Niue in 2001, highlighted concerns and issues from the different villages. Amongst the many identified, the three main issues were:

- the decline and degradation of marine resources (degradation may in this case refer to degradation of habitats);
- declining resources, specifically certain shellfish types and some fin fish species; and
- coastal pollution and fish poisoning.

Cyclone Heta, which devastated the western coast of the island in early 2004, could have major ongoing impacts on the reef and inshore fisheries. Alofi South, Alofi North, Makefu and Avatele, which are the island's more popular fishing areas, suffered badly from the cyclone. A scientific baseline survey conducted by David Fisk (2004) highlighted the damage to coral reefs in these areas and also alluded to the possible loss of fish and other marine species. Thus the cyclone has worsened the existing situation.

In their work together, the SPC Coastal Fisheries Management Section and the Niue Fisheries

Department have developed a management model that is tailored to suit the social context. This model, which can be modified and changed, will be used for work in all the communities of Niue.

A national training of trainers workshop has also been conducted. Through the training activities, fisheries officers, government representatives and community leaders were made aware of the project and their own roles as facilitators in community-based management. Thereafter, meetings and discussions were held in the first community that showed an interest in adopting the programme, which led to the development of a village management plan for Alofi South. Fisheries Department staff will next work on the training of community leaders and the development of village management plans for the other villages in Niue.

### Reference

- Fisk, D. 2004. Niue Sustainable Coastal Fisheries Pilot Project. Marine Baseline Survey. International Waters Project. SPREP.



What used to be the hospital in Niue. In the background are the remains of the Niue Hotel after Cyclone Heta.