

- RUDDLE, K. & T. AKIMICHI. (1984). Introduction. In: Maritime Institutions in the Western Pacific. Eds. K. Ruddle & T. Akimichi. Senri Ethnological Studies, 17. National Museum of Ethnology, Osaka. 1–10
- RUTTLEY, H.L. (1987). Analysis of replies to a questionnaire on customary fishing rights in the Solomon Islands. Fisheries Law Advisory Programme, Western Pacific and South China Sea Region TCP/SOI/6601 (A) FL/WPSCS/87/16. FAO, Rome.
- SCHNEIDER, D. (1974). Depopulation in the Yap **tabinaw**. In: Social organization and applications in anthropology—essays in honor of Lauriston Sharp. Ed. R.J. Smith. Cornell University Press, Ithaca. 94–113.
- SCHUG, D. M. (1995a). The marine realm and sense of place among Papua New Guinean communities of the Torres Strait. Ph.D. diss., Department of Geography, University of Hawaii, Honolulu.
- SCHUG, D. M. (1995b). The marine realm and the Papua New Guinean inhabitants of the Torres Strait. Traditional Marine Resource Management and Knowledge 5: 16–23.
- TEIWAKI, R. (1988). Management of marine resources in Kiribati. Atoll Research Unit and Institute of Pacific Studies, University of the South Pacific, Suva.
- USHIJIMA, I. (1982) The control of reefs and lagoon: Some aspects of the political structure of Ulithi Atoll. In: Islanders and Their World: a Report of Cultural Anthropological Research in the Caroline Islands of Micronesia in 1980–81. Ed. M. Aoyagi. St. Paul's (Rikkyo) University, Tokyo. 35–75.



SPC runs fisheries management workshop

by Tim Adams

A Workshop on the Management of Pacific Island Inshore Fisheries was held between 26 June and 7 July at SPC headquarters. The workshop was mainly for the benefit of Government fisheries and marine resources managers in SPC member countries, but was also an opportunity for specialists from many parts of the world to discuss the current status of this discipline. The management of coral reef fisheries, particularly invertebrate fisheries, is a subject that is particularly prone to differing interpretations at the present time.

This was an attempt to provide Pacific Island fisheries managers with a clearer vision of the current options, advantages and pitfalls of the various management tools available to them.

For example, marine protected areas are widely promoted by some people for the maintenance of sustainable fisheries in adjacent areas, whilst others claim that individual transferable quotas are the universal panacea.

What measures are most relevant to Pacific Island social systems and fishery resources?

The workshop was organised by the SPC's UK-funded Integrated Coastal Fisheries Management Project. Pacific Island national nominees' attendance costs were covered by the UNDP Regional Fisheries Support and National Capacity Building Programme, jointly administered by SPC and FFA.

Additional participants were funded through SPC by the Australian Centre for International Agricultural Research and the Government of France.

SPC is further greatly indebted to all the organisations and individuals who were able to arrange their own participation in the meeting. In total, over 100 people took part over the two weeks, tabling over 100 original papers.

It cannot be claimed that the workshop achieved its ultimate goal of completely clarifying the types of management measure that should be applied to different Pacific Island fisheries, but it was certainly a very worthwhile exercise for all concerned.

Far more information was submitted than had originally been imagined possible, and discussion was always vigorous, but it almost requires another workshop to draw firm conclusions from the various topics considered.

However, the workshop succeeded in its aim of bringing together the new generation of Pacific Island fisheries managers to learn from each others' experiences and assess the relative strength of the ideas of different experts.

It will have great relevance for the direction of future fisheries management-related research and development in the region.

SPC was able to hear the views of its member countries and territories, both individually and regionally, and now has a better idea of where to concentrate its fisheries management advisory efforts.

The papers tabled at the workshop will be published with minimal editing, as a limited number of manuscript volumes, for the benefit of SPC's list of deposit libraries.

The keynote addresses on each management option covered by the agenda will be revised and edited into a somewhat slimmer volume for wider distribution. Although the workshop was not intended to formally agree any priorities for regional

action, a number of points that arose during the meeting were endorsed in the final session:

1. A special interest group and newsletter on live fish export fisheries (including both fish for food and organisms for aquaria) will be set up under the SPC Fisheries Information Project. Bob Johannes and SPC will collaborate to edit the first issue;
2. One of the priorities for research in support of the improved management of live serranid export fisheries is a practical estimate of the percentage of the stock that can be sustainably harvested;
3. In view of the likely dependency of recruitment and replenishment of some reefs and reef-fisheries from distant areas, the regional importance of different 'sinks' and 'sources' of larvae needs to be assessed on a national basis;
4. A priority for research is the development of rapid appraisal techniques to assess the potential and status of coastal fisheries stocks in general. The following are major needs:
 - (a) The development of basic estimates of the area of fishing grounds ('suitable habitat' or 'biotope') for different species in each Pacific island;
 - (b) The collection of existing and new information on catch rates and yields of different species under different levels of fishing pressure, using different gear, in different areas, to improve indicative base-line information on the way that stocks respond to exploitation;
5. All marine species introductions and transfers to or from Pacific Islands should be based on the guidelines agreed by SPC member countries and territories at the 1994 Regional Technical Meeting on Fisheries and endorsed by the 34th South Pacific Conference (and available from SPC). In all cases the precautionary principle should guide decisions, and in all cases the onus should be on the introducer to meet all the costs incurred by the national Government in making a decision whether or not to allow an introduction;
6. For largely export fisheries, such as trochus and beche-de-mer, a comprehensive and up-to-date source of intelligence is needed on the status and forecast for their markets, particularly in East and South-East Asia. This trade seems to be

too small for international agencies to devote much effort to it, but is extremely significant to many of the small nations of the Pacific and thus to regional agencies;

7. There is a need for a regional organisation to consider maintaining a register of international entrepreneurs and operators engaged in exporting marine products from the Pacific Islands, to improve the ability of national fisheries managers to appraise the likely compliance of companies engaged in commercial coastal fisheries;

8. The possibility of developing a set of regional seafood quality standards should be investigated, and an appropriate plan of action for introducing modern quality assurance procedures for Pacific Island exports, such as Hazard Analysis and Critical Control Point (HACCP) or Quality Management Program (QMP) should be developed;

9. When the sustainable management and development of coastal fisheries are being addressed, the broader management aspects need also to be taken into consideration, preferably within the general framework of the integrated coastal management concept. Some of these broader aspects include, but are not limited to:

- (a) Habitat degradation or destruction;
- (b) Coordination and cooperation with other sectors (including Government, the private sector and local communities);
- (c) The major role that women play in carrying out coastal fisheries in the Pacific Islands,

and thus the need to assess their catches, take into account their impacts, and harness their knowledge and community decision-making potential;

(d) The concepts of co-management and governance;

10. Pacific Island fisheries managers should always consider the possibility of including the complete ban in their armoury of management tools, particularly if pre-emptive action can be taken in time to stop people investing in equipment. Types of ban might include:

- (a) A ban on the use of any kind of underwater breathing apparatus for certain types of fishing;
- (b) Banning the use of fishing methods that damage or reduce the carrying capacity of the environment;
- (c) A ban on certain commercial export fisheries, particularly those that take the same species as a local food fishery. Local subsistence nutrition, and the development of foreign exchange earnings through non-extractive uses of resources, may be a better national economic option.

The SPC Integrated Coastal Fisheries Management Project wishes to thank all those who took part in the workshop, with special gratitude to those who came from the other tropical small-island regions—the Caribbean and the Maldives.

