

SPC  
639.2094  
WOR

SPC/Inshore Fish. Res./BP46  
10 March 1988

ORIGINAL: ENGLISH

**SOUTH PACIFIC COMMISSION**

**WORKSHOP ON PACIFIC INSHORE FISHERY RESOURCES**

(Noumea, New Caledonia, 14 - 25 March 1988)

**TRADITIONAL PACIFIC ISLANDER MANAGEMENT OF  
INSHORE FISHERIES: THE SOPACOAST INITIATIVE.**

by  
G.B.K. Baines  
Co-ordinator, SOPACOAST  
Box 393, Honiara  
Solomon Islands.

1. SOPACOAST seeks to encourage and support investigations which explore the nature of traditional resource management systems to assist in identifying means by which they may be incorporated into the modern development context. This theme is given support in SOPACOAST's two site specific projects, a high island situation at Morovo lagoon in the Solomon Islands and a low island situation at Pukapuka in the Cook Islands.

2. It is anticipated that the results of these two studies will have regional application. For example one aspect that has important relevance to inshore fisheries involves the preparation of a manual to assist those people working with traditional fishing communities, approach the problem of accommodating traditional practices in present day resource management programmes. In order to promote this approach, regional workshops and international meetings to be held in the near future make provision for discussion of the implications of this initiative.

South Pacific Commission

Workshop on Pacific Inshore Fishery Resources

March 14-25, 1988  
Noumea, New Caledonia

Traditional Pacific Islander Management  
of Inshore Fisheries : the SOPACOAST initiative

G.B.K. Baines  
Coordinator, SOPACOAST  
PO Box 393  
Honiara  
SOLOMON ISLANDS

SOPACOAST and Traditional Resource Management

One of the regional themes of SOPACOAST, the South Pacific Coastal Zone Management Programme, is traditional resource management -- terrestrial and marine. This theme is also given expression in SOPACOAST's two site-specific projects -- "high island" (Marovo lagoon, Solomon Islands), and "low islands" (Northern Cook Islands).

The initiative has been taken through SOPACOAST to encourage and arrange support for investigations which explore the nature of traditional resource management systems so as to identify ways of accomodating them in a modern development context. Many governments of the region embrace policies of respect and recognition for traditional rights. However, this poses for them a dilemma since these rights are expressions of complex and not easily understood social systems, they vary greatly even within a country, and it is difficult to reconcile the "western" models of economic development and resource management which prevail in the region with these traditional systems.

SOPACOAST is a modest regional programme in coastal area management conceived as a Commonwealth Science Council (CSC) contribution towards the South Pacific Regional Environment Programme (SPREP) and drawing funds from a wide variety of sources. It is a programme and not an institution. It is operated according to SPREP philosophy and objectives, cooperating with existing institutions -- national, regional and international -- in areas of shared interest. It emphasises rural community participation in the application of science and technology to coastal area management, and the importance of traditional resource management systems and knowledge in addressing contemporary coastal resource management needs.

SOPACOAST is administered on a part-time basis by a Coordinator in Honiara, Solomon Islands, guided by an Advisory Group whose membership of seven includes five citizens of the island region and embraces a range of experience in the scientific, social and administrative aspects of coastal area management. The Coordinator is in regular contact with SPREP Secretariat, South Pacific Forum Fisheries Agency (FFA) and CCOP/SOPAC.

This paper briefly outlines those SOPACOAST activities which directly relate to the inshore fisheries interests of this meeting.

#### Low Island Activities

The tiny, remote atoll community of Pukapuka in the Cook Islands was the first to become involved in SOPACOAST low island activities. A new map of the island has been prepared using local place names for reefs and passages. This was prepared in association with a comprehensive survey of the atoll's reefs and lagoon by Greg Andrews, with assistance from the Australian Institute of Marine Science. Plans are now being laid for the documentation of the community's traditional knowledge of marine environment and resources in relation to their present development needs and aspirations.

Much more SOPACOAST activity is envisaged at Pukapuka and at other atolls of the northern Cook Islands.

#### The High Island Study Area

The high island project of SOPACOAST, in the Solomon Islands -- the Marovo Lagoon Resource Management Project -- is now well underway, and in its third year. A primary focus of attention here has been marine tenure, through an 18 month investigation conducted by Norwegian social anthropologist, Edvard Hviding. Complementary studies on associated traditional knowledge of fish behaviour have been carried out by Bob Johannes of CSIRO Fisheries Laboratory. He was amazed to learn that Marovo fishermen recognised some twenty different types of fish schooling behaviour, each category being ecologically rational -- a far greater number than has been recognised by marine scientists.

An investigation of women in Marovo fisheries is expected to commence soon. It will attempt to reconstruct the pre-Contact role of women in Marovo society as a basis for understanding changes which have since taken place and led to the situation which prevails today. All agree that Marovo women play an important part in marine resource harvesting and that they have an extensive traditional knowledge from which much can be learned for modern inshore fisheries management.

Another project activity of note is one which will involve monitoring by Marovo people of their catches of fish and other marine food resources. The idea is to develop simple methods, train Marovo people in their use, and so prepare the community to monitor its own resources -- in the context of increasing commercial development and of population growth. These methods, while simple, will be designed so as to provide data useful to the professionals of fisheries services. Suggestions and ideas for this work are welcome, as they are for all SOPACOAST activities. Details of this approach, once tested and refined will, of course, be made widely available.

Considerable supplies of the tiny mollusc Nassarius camelus, the "tabu shell" of the Tolai people of Papua New Guinea, still used in traditional transactions and increasingly valuable in economic terms, are obtained from the western Solomons, including Marovo. A significant local business in the harvesting and trading of this shell has built up and, as prices rise, so do harvesting pressures. An investigation of the population biology of this species has been initiated as part of the Marovo Project by Alison Haynes of University of the South Pacific, with the intention of providing resource management advice asked by the community.

Another "species specific" project activity -- involving the mullets -- it is hoped can begin in late 1988. A suitable investigator has been identified; a decision on funding is awaited. The idea here is to open up new insights into the behavioural ecology of these species by learning from Marovo mullet fishermen what they know from their store of traditional fisheries knowledge. This is one of a number of SOPACOAST activities which is being arranged with the support of FFA's Fisheries Development programme.

Traditional knowledge is also being compiled in the form of a Marovo dictionary of marine resources and environment. The current draft of this dictionary contains nearly 400 fish names, some sixty-four different traditional fishing techniques, some forty different terms for reef and lagoon and water column habitats, and is gradually growing with terms for weather, sea state, etc. It is revealing that there is even a word for "red tide".

"Red tide" is one of a number of marine occurrences which is being plotted on a new series of coastal maps based on traditional knowledge. On these are being plotted local language names of reefs and other geographical features, together with distribution data for dugong, turtles and other species -- and "red tide" occurrences. These maps are intended primarily to assist the Marovo community with the management of the areas over which they have traditional authority. They will also be of great value for others.

As background to these investigations of specific inshore fisheries matters, studies of ecological systems and processes are also planned. With the help of CCOP/SOPAC -- and the participation of the Marovo community -- a study of lagoon water circulation is to be undertaken. Discussions are underway, too, regarding a proposed study of mangroves and their ecological roles in lagoon fisheries, and an overall survey of lagoon habitats.

Provision has also been made for remote sensing -- hopefully, to include SPOT satellite images which, once adequately interpreted, will help greatly in understanding the nature and functioning of Marovo Lagoon and the habitats of inshore marine food and trade species.

Through SPREP, a UNEP-assisted pilot project in environment and resources data storage and presentation using sophisticated personal computer technology, including a map plotter, is to be established in Solomons' Western Province. Data from the Marovo Lagoon, now being more detailed than for any other non-urban area of the Solomon Islands, is to be utilised in establishing and proving this system and in providing training for planners and resource managers.

Training is regarded as a very important aspect of SOPACOAST. It is the intention that the Marovo area, about which so much tropical high island knowledge -- both scientific and traditional -- is being obtained, and whose traditional Pacific islander community is closely involved, be available as a venue for educational and training activities; both national and regional. This invitation, in effect, comes from the community itself -- expressed at the annual community workshops which review the Marovo Project progress.

### Across the Region

One of SOPACOAST's regional activities which has important relevance for inshore fisheries involves the preparation of a manual which it is hoped will be useful in guiding those who have the responsibility to work with traditional fishing communities to find ways of accomodating their traditional fishing rights. This manual, entitled "Traditional Fisheries Rights in the South Pacific: a guide to their investigation and application" -- includes sections on characteristics of traditional fisheries in the South Pacific; basic fisheries traditions; boundaries; administrative procedures to accomodate traditional fishing rights; legislation for traditional marine tenure systems; management by rights holders; and traditional islander knowledge of the marine environment. A first draft prepared by the authors ( Baines, G.B.K., Johannes, R.E., Pulea, M., and Ruddle, K. ) is now being edited.

A closely related activity, which is being arranged in association with FFA is a proposed series of three subregional workshops on the theme of "tradition and inshore fisheries development". The first of these it is expected will be organised for the Melanesian subregion, probably late 1988.

Through SOPACOAST arrangements have been made for a special half-day session on "Reef-Lagoon Management by Traditional Island Communities" as part of the 6th International Coral Reef Symposium -- to be held in Townsville, Australia, in August of this year.

### Beyond the Region

SOPACOAST has a "sister" coastal zone management programme in the Lesser Antilles islands of the Caribbean, also initiated by the Commonwealth Science Council, and also with an interest in community-based fisheries. In both regions these fisheries are traditional, though those of the Caribbean have recently evolved among immigrant societies, rather than from the spiritual base which characterises South Pacific island marine tenure systems. Moves are underway to arrange an "Interregional Workshop on Community-based fisheries resource management in the Caribbean and the South Pacific", at a Caribbean venue and possibly in mid 1989.

Cooperation in Inshore Fisheries

SOPACOAST anticipates a productive association with the SPC Inshore Fisheries Research Project. In keeping with its intention of responding to Pacific islander needs and priorities, within the SPREP framework and in line with its own programme document, the SOPACOAST Advisory Group will examine carefully the recommendations and proposed listing of inshore fisheries research priorities which are to come from this workshop, with a view to giving support