

# RELATIONSHIP BETWEEN TRADITIONAL/LOCAL KNOWLEDGE AND SCIENTIFIC/TECHNOLOGICAL KNOWLEDGE

## CUSTOMARY MANAGEMENT SYSTEMS IN SAMOA: A FUTURE FOR CULTURE-BASED CONSERVATION

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### INTRODUCTION

In Samoa, the great majority of the population reside in and around coastal areas and have maintained a traditional way of life as subsistence farmer/fisher folk. Samoan culture and traditions are very strong and alive despite the conflicts between traditional and modern practices. The [subsistence fishery](#) continues to be crucially important to the majority of those living in rural areas.

Samoa is largely lacking in exploitable natural resources. The main industry, copra, failed in the 1980s because of the collapse in export demand. The economy of Samoa was severely affected by severe cyclones in 1990 and 1991. A catastrophic fungal blight in 1992 destroyed the nation's staple food crop, taro. The cultivation of taro is still not possible without the use of fungicides.

The basic social unit in a village, the aiga (extended family), is headed by the matai (chief). Like most others in Polynesia, Samoan society had no central political authority or government. Political organization rests largely upon the village council in which the heads of the extended families and their chiefs join in dealing with local problems and order.

### TRADITIONAL FISHING PRACTICES

Equitable fishing resource sharing is at the heart of traditional practices involving the whole or most of the community. Utilization of most resources was carefully controlled and protected by taboos and folklore. The socio-cultural conditions in the coastal communities were such that custom and tradition were strong enough to support and enforce management practices. This has declined, however, as the fisher now thinks more of his personal gains. For example, palolo (sea worm) is a Samoan delicacy; knowledge and information about it are passed on from generation to generation. Traditionally palolo was not to be sold for money but today it is available in the markets.

### PRESENT CHANGES

Rapid population growth, urbanization, more effective techniques for fishing and storage, use of destructive fishing techniques such as explosives and poisons, the introduction of commercial fisheries and loss of essential fisheries habitat have placed considerable pressures on Samoa's inshore fisheries, rendering them unsustainable. Many mangrove swamps and marshes, which are important nurseries for many species of fish such as the mullet, trevallies and crab, have been drained and reclaimed. Clearing of mountain slopes

and forests has created serious soil erosion problems with disastrous effects on inshore reefs. Significant areas of coral reefs and lagoons have been degraded by destructive fishing practices.

Today's fisheries management is being undermined by such factors as the emphasis on production, participation in the modern economy, an increased capacity for fishing, a lack of information on which to base management and the destabilising effect of the cash economy. The knowledge that took centuries to accumulate is rapidly discarded as people adopt more contemporary ways of using their marine resources. There is little chance for the future generations to enjoy a healthy marine environment and plentiful seafood unless effective sustainable management plans are put in place.

## GOVERNMENT'S RESPONSES

The Government, through its policy initiatives and institutional measures, has shown its commitment to the conservation and protection of the local environments (e.g. Lands, Surveys and Environment Act, Fisheries Act, World Conventions and Treaties).

The Fisheries Act allows some village regulations to be made into by-laws. It gives government recognition to these laws and enables the village to prosecute and punish offenders accordingly. Many of the laws set by the Government are hard to enforce and monitor. By-laws, on the other hand, are created by people with a real interest in the management and conservation of fishery resources. The village will therefore be more inclined to act on breaches of these laws.

The Village Fisheries Extension Programme, developed by the Department of Agriculture, Forest and Fisheries, assists village communities to carefully examine their situation, and to plan actions that will allow lagoons and reefs to recover, and eventually fish catches to improve. It seeks to establish community fishing practices which result in the maximum productivity and sustainability of marine resources. This programme is different in that it acknowledges that the real solution to the problem lies in the hands of village people and their Fonos (Village councils).

The village decides what its major concerns are, and what action needs to be taken. The Fisheries Division assists the village to assess its marine environment, and to decide on practical ways to make improvements. It provides technical support for the village to draw up its own "Village Fisheries Management Plan".

Education helps create awareness of mismanagement. An integrated approach is used to teach relevant environmental issues at various age levels. Schools are encouraged to participate in various national awareness campaigns. A multi-sectoral approach is often used in organising and co-ordinating such activities. A UNESCO project in marine science curriculum materials for South Pacific Schools through support from AIDAB produced six student text books and their teachers' guides. Inservice training workshops were run in 1997 for about 40 teachers from various secondary schools and a set of books were supplied to each secondary school. These books were well received by the teachers.

## CONCLUSION

“Sustainable development – everyone talks about it with authority, yet no one can provide a clear way of achieving it. It has become a “pie in the sky” which everyone strives for. It is clear that for Pacific Island countries to achieve sustainable development, cultural aspects and traditional practices must be woven into the approach and planning of relevant activities” (Vili A. Fuivao, Director, South Pacific Regional Environment Programme). One of the greatest challenges the Pacific island nations have to face, at the approach of the twenty-first century is to ensure that the limited natural resources on which they depend continue to be available in acceptable quantities.