



The purpose of these Policy Briefs is to ensure effective dissemination of information collected and generated as a result of the World Bank-funded Study of Good Management Practice in Sustainable Fisheries, the ACP Fish II Feasibility Study (EC), and a Workshop on Fiscal Reform in Fisheries (DFID and GTZ).

#### **World Bank Study**

During 2003, the project 'Study of Good Management Practice in Sustainable Fisheries' was undertaken by SIFAR with funding from the World Bank. This resulted in an initial (brief) report followed by the substantive report which have contributed to a recent internal World Bank process aimed at justifying future investments in fisheries sector development.

#### EC ACP Fish II Feasibility Study

During 2002/2003 SIFAR/ FAO undertook a feasibility study on behalf of the European Commission (European Aid Cooperation Office - AIDCO). This comprised an extensive consultation process with fisheries sector participants from over 60 ACP countries, together with the preparation of a range of major project proposals covering capacity building for more effective fisheries management in Africa, the Caribbean and the Pacific.

# 7. Dealing with complexity and change in fisheries management: The case of small-scale fisheries in Andhra Pradesh, India (Draft)

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Overview

Fisheries, like other sectors, are often located within complex societal systems with particular social, economic and institutional arrangements. Increasingly these systems are also subject to the impact of change, which can have major effects on people's livelihoods. Fisheries management planning must take account of this wider context and design appropriate management systems which can cope with change. However, in many parts of the world, there is still a need to gain a better understanding of the underlying relationships involved at all levels and in all policy domains (e.g. community, sectoral and society).

### Case study<sup>(1)</sup>

The state of Andhra Pradesh has 900 km of coastline on the east coast of India and an estimated 870,000 fishers living mainly in fishing communities. The communities vary widely with distinctive fishing systems, fish disposal and marketing systems, and social and political organisation. Amongst the many villages are two that provide interesting examples of how traditional community-based fisheries management systems (TCBMS) can regulate fishing practices successfully: Uppada and Boddu Chinna Venkataya Palem (BCV Palem).

Uppada is a sea fishing community of around 13,000 inhabitants. The community has changed considerably over time: technological advances have influenced the types of boats used and the variety of fishing gear, and coastal erosion has seen the village move several times. The increasing globalisation of the fishing industry – particularly the advent of shrimp fishing, has impacted upon Uppada (e.g. affecting catch prices). Alternative communal resources are limited in Uppada.

BCV Palem, in contrast is a riverine fishing community of just 4,000 people. Because of the nature of creek fishing in shallow waters, technology has had little impact here and the levels of rent generated by the fishery are much smaller. However, the community does have access to considerable sources of alternative communal resources (e.g. extensive tracts of mangrove).

Fisheries in both communities are managed through TCBMS, which are rarely sector-specific to fishing, but provide a framework for managing livelihoods and the community as a whole. As such they generally encompass the socio-cultural, religious, political, administrative and economic aspect of the community organisation and within this context, fishing activity is also managed.

In Uppada and BCV Palem, the well-developed TCBMS operate through the traditional Indian village management system known as Panchayats. Panchayat literally refers to the system of village-level organisation with five elders (*Pancha* ' meaning five in Sanskrit) and they are often formed around castes. The institution of caste provides the basis for codifying and ensuring effective enforcement of the customary laws in the form of 'Caste Codes', the most severe punishment for transgression being ostracism from the caste.

The specific nature of TCBMS varies between fisheries. In BCV Palem, where fishing activities are carried out by a number of fishing systems confined to the creeks and the backwaters, the traditional systems of management and control related to fisheries and fishing are elaborate and have an

#### DFID Fiscal Reform in Fisheries Workshop

In October 2003, SIFAR organised a Workshop and Exchange of Views on Fiscal Reform in Fisheries - to 'promote growth, poverty eradication and sustainable management'. This took place in the context of a wider OECD-DAC Initiative, promoted through the UK Department for International Development (DFID), examining issues related to environmental fiscal reform.



SIFAR - Support unit for International Fisheries and Aquatic Research

April 2004

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important economic function. In Uppada, on the other hand, where there is often considerable competition for space for beach seining which often requires large groups of people, there is a greater emphasis on social issues and relationships.

By ensuring the widest possible coverage, the caste Panchayat ensures that the social fabric of the village is not threatened in any way. The community-based nature of fishing occupations in Uppada seems to be a reason for the inclusive nature of its membership. Shore seines, boat launching and lifting, are all more or less dependent on the involvement of a large number of people in the activity. The fact that the Panchayat largely depends upon the donations of the members, and does not have an overt role in controlling fishing, means that the more people that could join the Panchayat, the more income it earns. The predominance of small pelagics in the catches means that during certain parts of the year, the entire community has to work as one unit to be able to dispose of the fish properly. Membership of the Panchayat is not exclusive and outsiders are able to join.

In BCV Palem, where fishing pressure in the shallow creek waters was higher and boundary conflicts more likely, the existence of use rights that are shared equally amongst the members has meant that there are more incentives to keep people *out* than *in*.

In both villages, the Panchayats serve an important welfare and equity function. The monies generated from renting out or otherwise making use of the village commons are shared amongst all members of the community. The amount generated in BCV Palem is much larger than in Uppada but any surplus generated from leasing/renting out of these lands is distributed to members of the Panchayat. Considering the benefits, which cover important aspects of their life and livelihoods, people have little difficulty in willingly and implicitly followed the caste code. Another important source of income to the Panchayat is the revenue generated from fines. In BCV Palem, the income from fines takes care of the elders' time, because they share the amount equally amongst themselves. In Uppada, this may have been the most important source of income to the Panchayat, which lacks any other productive sources.

Though the villages were largely homogeneous in social and economic terms, they were by no means peaceful, and there were always disputes – most of them petty. The foremost activity of the village Panchayat was settling the village disputes related to fishing: boundary disputes, disputes concerning transactions between boat owners and their crew and conflicts concerning outsiders. The Panchayat thus acted as a link between the community and the external world, taking the community grievances to the government functionaries, who generally resided elsewhere, and acting as the first point of contact for anyone visiting the village from outside.

So why have TCBMS survived in Andhra Pradesh and why have they been so successful at managing fishing activity? First, they are directly connected to the specific conditions of natural and social environment in the area and so are flexible enough to cope with change and locally relevant so as to engender support. Panchayats are holistic and cross-sectoral – they develop systems that emphasise secure, sustainable and equitable access to resources and do this through the integrated and holistic nature of the systems of governance concerning resource allocation. Finally, the decision-making process is participatory.

## Lessons learned

This case-study looks at community-based management in two locations. The experience of these supports a number of hypotheses concerning success in management.

First, the dynamic nature of the whole fisheries environment (resource, habitat, markets etc.) highlights the need to design resilient systems that can cope with change. Second, the need to integrate fishery management systems into the wider socio-economic environment, either at regional or national macroeconomic levels. Third, the issue of appropriate scale: locally-based community management systems work well provided that the national (or regional) authorities play their role of

overseeing the whole system. Such local initiatives are vulnerable to activities beyond their scope. The scale of the management system must be commensurate with the scale of the resource. Fourth, the case-study also demonstrates that the participation of stakeholders enhances respect for institutions and increases compliance, making the enforcement problem more tractable. Stakeholders participation and sustainability will be influenced by the degree of equity within the management system and the level of security of rights.

### Key literature

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(1) This account is based on the work of Salagrama, V. (2003).

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