



The need for a centre for the study of indigenous fishers' knowledge

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Source: Wise coastal practices for sustainable human development – forum of discussion².

There have been more than 200 communications in this forum on Wise Coastal Practices for Sustainable Human Development. Many of them emphasise the importance of co-management — the collaboration between indigenous coastal communities on one hand, and outside institutions such as government departments, non-governmental organisations and aid agencies on the other. Many contributors discuss ways of pursuing this collaboration (Kallie <http://www.csiwisepractices.org/?read=46>). Yet there is a key ingredient that seems to be almost completely missing from these discussions — that of gaining and putting to use the knowledge of these communities about their natural resources. The importance of understanding local fishing practices has been mentioned in some communications (Voi <http://www.csiwisepractices.org/?read=3>; Diouf <http://www.csiwisepractices.org/?read=48>; Wiener <http://www.csiwisepractices.org/?read=131>), and this is important. But it is not the same as understanding local fishing knowledge.

Indigenous fishers often possess unique and important knowledge about their local marine environments and its inhabitants. In areas where the same cultures have been fishing for generations, this knowledge can be encyclopaedic. Fishers often know, for example, the timing and location of important, and especially vulnerable, life history events such as migratory and spawning aggregations, recruitment and nursery areas, or the locations of rare or endangered species.

How can we design effective boundaries for marine protected areas in developing countries in the absence of such knowledge? Yet how many marine protected area planners have seriously canvassed it?

For fisheries managers, for whom knowing the history of a fishery is essential for its management, the elders in these communities are often the only repositories of such information, including knowl-

edge of once abundant species that are now almost gone. Without such information the biologist arriving on the scene to help is liable to assume that such species are unimportant locally and ignore them, rather than determine what depleted them and how the process might be reversed. Yet how many biologists have seriously solicited this knowledge?

For social scientists, fishers can provide knowledge of how this information is implemented in organising their fisheries by means of formal or informal systems of resource allocation. Fishers can also teach us about human impediments to purely biological solutions to resource management problems. For example, simply passing laws against destructive practices is futile if endemic police, military or political corruption renders them ineffective — a point that has been overlooked on countless occasions by those working to improve coastal resource management in developing countries.

We can also learn from fishers whether their communities possess a basic conservation ethic. Sometimes they do, sometimes they don't. This makes a big difference in how education for conservation should be approached. Where a conservation ethic exists, the relevant concepts need to be studied and used as the foundation for local conservation education. Where they do not exist, conservation education is much harder for it has to start from scratch.

So why has there been so little emphasis on indigenous fishers' *knowledge* in this forum? Answers include: 1) Most biologists working on coastal management projects are too busy gathering statistics, their usual stock and trade. They find asking unlettered people about their marine biological knowledge too humbling, too unstructured and too unsuitable for statistical analysis. 2) Social scientists working in co-management projects often don't have the biological training necessary for the effec-

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tive collection and application of indigenous knowledge about natural resources.

As fisheries biologist Frederick Ommaney said almost forty years ago, the indigenous fisher 'has forgotten more about how to catch fish in his waters than we shall ever know'. How can we generate enthusiasm in local fishers for collaborating with us, and how can we function as plausible and useful advisors if we don't first assimilate this local knowledge, test it where practical, and integrate it with our own?

Fishers and outsiders who pursue co-management are both experts. Each group has specialised relevant knowledge that the other does not. Both must be harnessed to improve local fisheries management.

The time is thus overdue for the establishment of centres for the study of the indigenous knowledge of fishers and other coastal resource users. Their invaluable knowledge is vanishing at an accelerating rate as its possessors die and their children no longer show interest in learning it. Of 37 formal institutions established worldwide to study indigenous knowledge, none focuses on marine knowledge.

Institutions are urgently needed to train people to help stem this loss. The demand is there; graduate and post-doctoral students regularly ask me where they should go to get the training to do research in this area. (The young seem much more eager to tackle unconventional interdisciplinary projects like this than previous generations.) But sadly I don't know what to tell them.

Such a centre must be truly interdisciplinary. Social and biological science must both play important roles. Traditional ecological knowledge is best understood, and local resource management best pursued, in a cultural context. Biologists need to comprehend the implications of this for their work. Social scientists need some training in marine biology and marine resource management in order to fully appreciate the practical significance of the information they obtain. Ethical issues regarding the use of fishers' ecological knowledge need to be better defined.

For charitable institutions, universities, aid organisations and agencies concerned with environmental issues and looking for an empty niche to fill, here is one to consider.



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