

# Ocean's Bounty

**The fishers of India's Gulf of Mannar are getting together to ensure sustainable management of the area's resources**

The fishing community in the Gulf of Mannar (GOM), in the southern Indian State of Tamil Nadu, has been at odds with the government over access to marine resources after the declaration of about 560 sq km as the Gulf of Mannar (Marine) National Park in 1986 under the Wildlife Protection Act (WLPA) of 1972. As a result, entry into the National Park and use of any natural resource from the area is prohibited. However, strict implementation of regulations began only in 2000. The National Park lies off two districts (Ramanathapuram and Thoothukudi) where the density of fishing village is high.

The GOM fishing community has earlier called for more community involvement in decisionmaking, and has been engaged with the government agencies at different forums, such as the workshops organized by the International Collective in Support of Fishworkers (ICSF) in 2009 and 2012. However, there has not been much progress in working on community-led management systems until now. Resource management continues to be a government-led process.

With this in mind, the ICSF, with support from the Bay of Bengal Large Marine Ecosystem Project (BOBLME), organized training programmes at two locations (Pamban and Ramanathapuram) in the GOM in October 2013. The objectives were to enhance the capacity of the community, drawing on their traditional and experiential knowledge and institutions, to relate their knowledge systems with an ecosystem approach to fisheries; explore and propose ways of enhancing sustainable and

equitable resource use, and the role that communities can play; and engage with the functionaries responsible for fisheries and the environment, towards developing a common vision and convergence in perspectives for achieving conservation and sustainable use of resources.

In the GOM, the ICSF has been working for several years with the Ramnad district Fishworker's Trade Union (RFTU), and People's Action for Development (PAD), a civil society organization, on resource management. The fishing community

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in the area, despite being scattered geographically, is politically and socially cohesive; the issues and problems were thus quite well-known to all the participants. The focus of the programme was on developing community-led proposals for resource management.

## **Rich biodiversity**

The GOM is a shallow bay with coral reefs and seagrass beds, and includes coastal waters and 21 uninhabited islands. The Gulf is a biodiversity-rich area and is estimated to have the largest dugong population in Indian waters. It is also home to sea turtles and sea cucumbers. The waters around the islands support several species of seaweed, some of which are collected by women from the fishing community and sold to

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local traders and thence to factories where agar is extracted.

There are about 125 fishing villages (31 villages in Thoothukudi District and 94 villages in Ramanathapuram District) and 35,000 active fishers (including women seaweed collectors) and some 4,500 divers in the GOM. The fishing community here, as in the other maritime States of India, is not homogenous; members belong to various castes. These

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communities have distinct social and cultural governance structures and traditional practices. Community institutions are mostly organized along caste, kinship or religious lines and play an important role in resolving conflicts, regulating and allocating resource use, enabling equitable access to resources and providing some form of social insurance. Besides the traditional organization of fishing communities, members are also organized into craft and gear groups.

The two training programmes attracted 187 participants. They were divided into groups according to their livelihood activities. In the first location, the groups were fishers and seaweed collectors and in the second, sea cucumber divers, in addition to the other two categories.

Participants were provided with a set of framework questions on their desires for the area's resources; the kind of regulations required; how these can be communicated, monitored, evaluated, and complied with; and the type of dispute-resolution mechanism needed. At the outset, Robert Panipilla, an independent researcher who is currently preparing the first marine biodiversity register for the Kerala State Biodiversity Board, made a presentation on his research documenting the traditional knowledge of fishing communities in

the south Indian State of Kerala. B Johnson, a fisheries scientist from the State-run Central Marine Fisheries Research Institute (CMFRI) spoke on the concept of an ecosystem approach to fisheries. A third presentation on sea cucumbers was made in Ramnad by P S Asha of the same institute.

Following the presentations, discussions within the three groups—fishers, sea cucumber and seaweed—began. The fisheries group consisted of those who do not collect/harvest seaweed or sea cucumbers. Each group used the framework questions as a basis for their brainstorming sessions and discussions on various issues like access to the islands, duration of the fishing ban, the kinds of fishing gear used, protection for endangered species, and the value of community regulations. Discussions culminated in each group presenting its management proposals. The resolutions/proposals from the communities were grouped under various subheads such as 'regulations', 'compliance', 'monitoring', 'conflict resolution' and 'review of plans'.

The fishers group had intense discussions on the variety of gear currently used and their impact on marine resources. There was a general acceptance that some gear, such as *kedai valai* (a set net, with no mesh size regulation, left overnight in the sea), adversely impact the marine ecosystem. There was a great deal of discussion on why such gear is used even though their negative impacts are widely known. One participant said that it was one thing to point fingers at the government but quite another to get the community to look inward for self-analysis; so many things are 'easy' to do, which is why *rettai madi* (pair trawl) and *surukku madi* (ring seine) are common. But do they actually help the community?

### **Self-enforcement**

An outright ban on such gear is difficult as it would affect the community's livelihood. Therefore, it was agreed that, to start with, the use of such gear must be reduced in a

self-enforced manner (that is, by the community). The fishers group also listed the various bans imposed by the State and wondered whether they are required or not. The consensus was that some bans, like those related to accessing the islands and collecting sea cucumbers, need to be lifted.

The fishers group hastened to add that access to these resources must be regulated. The community has always protected the resources in and around the islands as the importance of these spaces is recognized. Non-fishery threats to the marine and coastal ecosystems, such as industrial pollution (in Thoothukudi district), were also highlighted, and the government was called upon to counter these.

The sea cucumber divers group wanted three species—*Holothuria atra*, *H. scabra* and *Bohadschia marmorata*—to be delisted from Schedule 1 of the WLPA, and some system of regulated collection (licensing) with government support, similar to *chank* collection was done in colonial times, be permitted. Under the WLPA, species can be listed in one of several Schedules, which provide a range of protection for the species. Schedule 1 species have the highest level of protection and include sea cucumbers. Sea cucumber does not have a local market in India, and is meant for export.

Seaweed collection, a livelihood opportunity introduced by the State that the women of the GOM have been following for a few decades, is not illegal but the islands where the seaweed grow are now off-limits. However, the women continue to collect seaweed, running the risk of encountering Forest Department patrols. The women seaweed collectors noted that, for the past five years, they have had in place several self-regulation measures; nonetheless, they admit to being amenable to discussing how they can ensure more sustainable collection of seaweed.

Over the years, the women said, the number of families collecting seaweed has increased, which is reason enough for regulation. The

number of collection days has been reduced from 30 to 12 per month, allowing time for the seaweed to regenerate.

Sometimes the women miss a day or two in the designated 12 days because of illness or other family-related matters; yet, they do not compensate for such missed days. In addition, they do not use metal scrapers to collect seaweed. They use their hands.

The flipside of this is that the dead corals cut the women's hands, said a participant pointing to old scars on her fingers. So the women now tie rags around their fingers before collecting the seaweed.

The seaweed group also discussed at length the feasibility of setting up infrastructure for adding value to the seaweed by producing agar. A resource person detailed what this would entail—a shed, large containers for the seaweed, electricity, water and labour. After much discussion, the women decided that this was not a doable option as freshwater is a limiting factor.

All the groups highlighted the existing community regulations such as the ban on use of dynamite and poisons, and the initiative of the women of Chinnapalam village to collect seaweed only 12 days a month (instead of almost every day, as was the norm earlier). They also noted

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Women seaweed collectors at ICSF-BOBLME training programme at Ramanathapuram, Tamil Nadu, India

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Women seaweed collectors of Bharathi Nagar fishing village in Ramanathapuram, Tamil Nadu, India

designated persons within the village. However, for scientific inputs, they would approach researchers. It was felt, for instance, that it would be useful to monitor fish catches, for which research organizations could devise a simple protocol that the community can follow. The women seaweed collectors were also willing to discuss with scientists how to modify collection so as to ensure regeneration. Officials from the Forest and Fisheries Departments also attended the final session of the training programme and responded positively to the demands and management plans proposed by the community.

The GOM fishing community now plans to enter into a dialogue with the State, armed with the proposals for resource management and governance that were suggested at the training programmes. In preparation for discussions with the State, the community is currently holding intensive, village level discussions on the outcomes of the training programme so as to ensure that the proposals are truly community-led—namely, that all members of the community support the proposals and are aware of them. 3

that new regulations must come from within the community, particularly at the hamlet level (and not at the revenue village level) as the community's traditional governance systems can enforce these regulations effectively. For monitoring, implementation and evaluation of regulations, committees at various levels—hamlet, *panchayat*, district, etc.—need to be formed.

There was much debate on whether the union, the RFTU, should spearhead these moves. It was, however, decided that the union was not the appropriate platform as not everyone in the community are members. The hamlet and its traditional institutions would be ideal, participants felt. The groups noted that in case of inter-village problems, a dialogue would be entered into, and for larger issues, the State would be called on to intervene, if needed. For all the groups, a common complaint was the lack of access to the 21 islands. Records indicate that the community has been using the islands at least since the early 20th century. Participants shared memories and stories of families camping and fishing off the islands. Mention was also made of leases given to community members to harvest coconuts or other produce.

The groups decided that monitoring too would be done by

#### For more

[mpa.icsf.net/en/page/633-India.html](http://mpa.icsf.net/en/page/633-India.html)

**Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?, Chennai, 2009**

[mpa.icsf.net/en/page/989-India%202012.html](http://mpa.icsf.net/en/page/989-India%202012.html)

**Fishery-dependent Livelihoods, Conservation and Sustainable Use of Biodiversity: The Case of Marine and Coastal Protected Areas in India, New Delhi, 2012**

[www.icsf.net/en/cds-videos/EN/article/20-women-seaweed-c.html?limitstart=0](http://www.icsf.net/en/cds-videos/EN/article/20-women-seaweed-c.html?limitstart=0)

**Shifting Undercurrents: Women Seaweed Collectors of Gulf of Mannar, India**