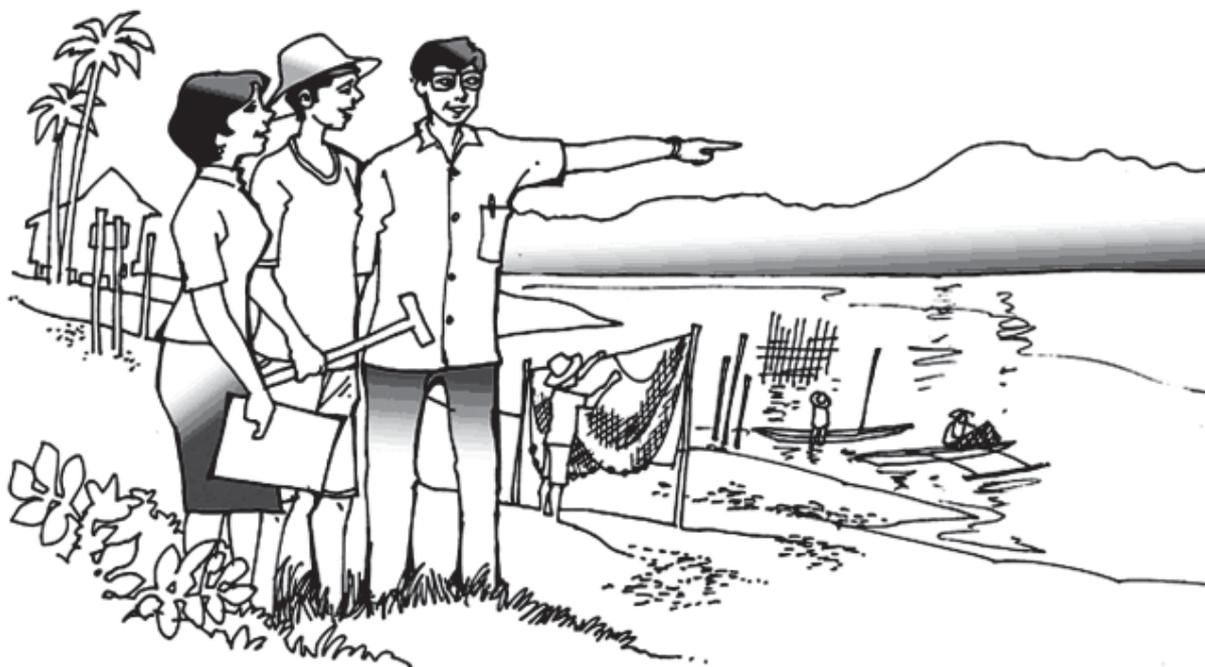


# Co-Managing Fishery Resources



**F**isheries are complex and interdependent ecological and social systems that require integrated management approaches. The actions of one person or group of users affect the availability of the resource for others. Managing such common pool resources requires conscious efforts by a broad range of stakeholders to organize and craft rules enabling equitable and sustainable use of the resources for everyone's benefit. Collective action is often a prerequisite for the development of community-based institutions and the devolution of authority that is required from central to local authorities.

#### SOURCE:

Ahmed, M., K. Kuperan Viswanathan and R.A. Valmonte-Santos. 2004, 2020 Focus Brief 11, International Food Policy Research Institute. Washington, D.C.

## Collective Action in Fisheries: Examples from the Philippines and Bangladesh

There is extensive evidence that communities can improve the conditions of the shared resources on which they depend. Over the past decade, the community of San Salvador in the Philippines has organized and established, with the help of government intervention, a marine sanctuary and reserve. An arrangement for community-based management of coastal resources fostered collective action by forming and strengthening local organizations. These organizations became responsible for marine resource management and income-generating projects, and they reduced overfishing and other destructive practices.

A local ordinance banned fishing within the sanctuary and allowed only non-destructive fishing methods in the marine reserve. The local municipal council passed an ordinance providing legal



**Co-management. The approach ensures sustainable management of fishery resources.**

protection for the sanctuary. From 1988 to 1996, the average fish catch increased, and living coral cover and the number of coral species doubled.

But not all efforts to establish collective action in fisheries are successful. Research in Bangladesh suggests that the boundaries of the bodies of water, the scale of the resource, and the type of fishery all play a significant role in determining whether efforts to foster collective action succeed. Existing property rights also influenced the types of new institutions for collective action that could be established. One community in Bangladesh was unable to regulate access to the closed fishing grounds where leaseholders had historically controlled access to and stocking of carp, even after community-based fisheries management was introduced and individual leasing was discontinued. Only through successful collective action was it possible to protect group rights over individual ones.

## **Property Rights Arrangements**

Private, state, or community control each has its own limitations in fisheries management. Private ownership often has prohibitively expensive enforcement costs and unequal distributional outcomes. Direct state control has high information costs and often lacks monitoring mechanisms, trained personnel, or financial resources. In some cases, community control excludes the poorest people from access to a common property resource, thus increasing inequality. Combining state, private, and community control over fisheries in imaginative ways can offer more efficient, equitable, and sustainable management. This combination is often referred to as co-management.

Co-management in fisheries involves the active participation and cooperation of government, non-governmental organizations (NGOs), organized fishers' groups, and other stakeholders in

management decisions. It can help build cross-institutional collective action, and represents a more democratic governance system than state management because users are more involved in determining rights over the fishery and in sharing decision-making authority. It improves management efficacy by drawing on local knowledge and securing higher compliance with rules.

## Empowering Communities

Unfortunately, governments rarely undertake co-management as a means of empowering fishing communities and increasing democracy. Instead, governments often consider co-management an instrument to achieve their objectives more efficiently by involving fishing communities in the implementation process. Part of the problem is that the organizational structures of government departments have not adapted to the new co-management concept. Most fisheries departments are still staffed with natural scientists and are almost exclusively focused on resource conservation rather than on fishing communities' livelihoods.

Collective action can help to empower poor communities, as the example of San Salvador Island shows. However, effective co-management requires government to devolve real and substantial rights and responsibilities to representatives of fishing industry organizations or groups of harvesters in order to achieve sustainable resource management. Moreover, devolution of rights is generally not successful without collective action.

For collective action to succeed, governments and fishers should meet to discuss problems and their possible solutions and to develop arrangements for management. Fishers should be asked to express their concerns and ideas and be given an opportunity to develop their own organizations, networks, and coalitions.

The government's role is to provide legitimacy and accountability for local organizations and help develop collective action institutions such as community-based and co-management organizations. Successful long-standing arrangements for marine fishery co-management, such as in Japan and Norway, all have a legal foundation.

Where authorities do not devolve some of their powers, governments can abuse co-management arrangements to extend control where it was previously absent. Government agencies need to supplement department staffing with new professional skills and develop enough capacity to deal with co-management processes in several communities simultaneously. Such changes may require reorienting mindsets both in government organizations and in communities.

### An Example of Successful Co-Management

Fisheries management involves multiple natural and human settings. San Miguel Bay in the Philippines is a multi-species, multi-gear bay surrounded by three cities and 74 coastal villages whose major livelihood is fishing. Since the 1980s, conventional fisheries management problems—overfishing, distributional inequity, and limited economic opportunities—and negative impacts from various coastal and land-based sectors have been evident.

In the 1990s, the World Fish Center conducted an issue-based, multi-sectoral, and multidisciplinary analysis (including ecological, economic, social, political, and administrative perspectives) that led to the production of a coastal environmental profile. The technical report detailed the status of fisheries, and included an integrated fisheries management plan describing financing and monitoring schemes, participatory implementation plans involving diverse organizations and institutional levels, and the establishment of the San Miguel Bay Fisheries Management Council.

San Miguel's experience highlights:

- the critical role of an appropriate human perception of the situation;
- the importance of collective action and stakeholder participation at key stages of research, planning, and implementation;
- the usefulness of structured decision methods for research, planning, and associated debates; and
- the efficacy of research combined with planning efforts to ensure its utilization and relevance on one hand and to provide a scientific basis for management planning on the other.

## The Challenges Ahead

Despite progress in achieving collective action and co-management for fisheries, a number of challenges remain:

- **Developing co-management institutions on a larger scale.** Many of the problems and issues facing fisheries can be solved only on provincial, national, or even international levels, as fishery resources are generally too large to be entirely within the control of a few communities. In these cases, it is imperative to provide for representation of fishery groups at different levels.
- **Reconciling local and global agendas.** Often international agreements on fisheries and local environmental management contradict each other. The government needs to meet its double obligation of attending to international agreements while sharing decision-making power for fisheries management with communities.
- **Identifying a management knowledge base acceptable to stakeholders.** To maintain scientific validity and achieve wide acceptance, co-management systems need to reconcile both formal scientific knowledge and fishers' knowledge. One approach may be to identify science-based indicators of the status of the resource system that also reflect fishers' observations.
- **Developing approaches to manage conflicts.** Management arrangements may require access rights to be limited to some resource users and to exclude others, often resulting in conflicts. Participatory approaches for managing such conflicts are crucial for successful co-management.
- **Reforming existing institutions to empower local communities to participate in determining management objectives.** This step may require substantial changes in governmental fisheries management agencies and in stakeholders' perceptions of their respective roles.

These issues must be addressed in practical experiments with collective action and co-management. The results need to be documented and the experiences communicated to others who may be in the process of establishing or developing collective action capacity among fishers.

## Suggested Readings

- Ahmed, A., A.D. Capistrano and M. Hossain. 2004. *Experiences of Partnership Models for the Co-Management of Bangladesh Fisheries*. Fisheries Management and Ecology 4 (3): 233–248.
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