Collective Action and Property Rights for Sustainable Development

Collective Action and Property Rights in Fisheries Management

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Until the late 1960s, villagers on the island of San Salvador in the Philippines enjoyed open and unrestricted access to an abundance of coastal resources. In the early 1970s an influx of migrants, combined with the integration of the village economy into the international market for aquarium fish and a shift to destructive fishing operations, ruined the local fishing grounds, and conflicts erupted. Government claims of full control over the use and protection of marine and coastal resources did not stop the depletion or degradation of the resource.

The developing world presents many similar examples where central government management of fisheries resources is unable to either reduce overfishing or counteract destructive fishing methods. The state often lacks the capacity to enforce property rights and regulations on resource use.

Fisheries 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.

COLLECTIVE ACTION IN FISHERIES

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 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 nondestructive fishing methods in the marine reserve. The local municipal council passed an ordinance providing legal 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, 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, nongovernmental organizations (NGOs), organized fishers' groups, and other stakeholders in management decisions. It can help build cross-institutional collective action. It represents a more democratic governance system than state management because users are more involved in determining the 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.

AN EXAMPLE OF SUCCESSFUL CO-MANAGEMENT

Fisheries management involves multiple natural and human settings. San Miguel Bay in the Philippines is a multispecies, multigear bay surrounded by 3 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.

Here in the 1990s the WorldFish Center conducted an issue-based, multisectoral, and multidisciplinary analysis (including ecological, economic, social, political, and administrative perspectives) that led to the production of a coastal environmental profile, a technical report detailing the status of fisheries, and an integrated fisheries management plan. The management plan included financing and monitoring schemes, participatory implementation plans involving diverse organizations and institutional levels, and the establishment of the San Miguel Bay Fisheries Management Council, composed of provincial and municipal government representatives, NGOs, academic institutions, and various local organizations.

San Miguel's experience highlights (1) the critical role of an appropriate human perception of the situation; (2) the importance of collective action and stakeholder participation at key stages of research, planning, and implementation; (3) the useful-

ness of structured decision methods for research, planning, and associated debates; and (4) the efficacy of research combined with planning efforts to ensure its utilization and relevance on the one hand and to provide a scientific basis for management planning on the other.

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. But effective co-management requires government to devolve real and substantial rights and responsibilities to representatives of fishing industry organizations or groups of harvesters 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 capacity to deal with co-management processes in several communities simultaneously. Such changes may require reorienting mindsets both in government organizations and in communities.

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. 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 decisionmaking 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. ■

For further reading see M. Ahmed, A. D. Capistrano, and M. Hossain, "Experiences of Partnership Models for the Co-Management of Bangladesh Fisheries," *Fisheries Management and Ecology* 4 (3): 233–248; B. Katon, R. S. Pomeroy, and A. Salamanca, "The Marine Conservation Project for San Salvador: A Case Study of Fisheries Co-Management in the Philippines," Working Paper No. 23 (Manila: International Center for Living Aquatic Resources Management, 1997); K. Kuperan Viswanathan and M. Ahmed, "Communities and Institutions for Common Property," *Fisheries Co-Management News*, No. 10 (Penang, Malaysia: WorldFish Center, 2002); G. T. Silvestre, *Integrated Management of Coastal Fisheries: Lessons from Initiatives in San Miguel Bay, Philippines* (Manila: International Center for Living Aquatic Resources Management, 1996); and K. Kuperan Viswanathan, J. Raakjaer Nielsen, P. Degnbol, M. Ahmed, M. Hara, and N. Mustapha Raja Abdullah, "Fisheries Co-Management—Findings from a Worldwide Study: A Policy Brief" (Manila: WorldFish Center, 2003).

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