

# Elinor Ostrom's Contributions and Fisheries Management Scholarship

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The concepts underlying approaches to fisheries management have undergone very extensive changes in the last two decades. This has been driven by a series of collapses of major fish stocks, beginning most spectacularly with the Northern Cod in Canada, and the resulting perception of a crisis in the condition of globally fisheries. Elinor Ostrom's thought has had an important influence on the direction of these changes.

Within fisheries social science two major fisheries management paradigms have been competing, particularly but not entirely in temperate fisheries. One, stemming from mainstream economics, has defined lack of private property as the problem and recommended the implementation of pseudo-privatization techniques as the solution. This discourse has been until recently a fairly strident one, insisting that "high quality" rights are the answer to both the economic and biological problems of overfishing. High quality in this case means individual rights that are transferable, secure and permanent. The ideal form of such rights is the Individual Transferable Quota (ITQ), which in North America people have begun to refer to as "cap and trade" for fisheries. ITQs, particularly those that can be widely traded, can be destructive to communities through a loss of local control of the resource. Proponents of ITQs have fairly consistently blamed the problems within the fishery on "common property" and in some cases been very dismissive of "community" concerns. One proponent of ITQs actually blamed the collapse of the Northern Cod on decision makers worrying about fishing as a lifestyle and a community activity, rather than purely as a business.

The other, less powerful discourse promotes fisheries "co-management" in which the fishing industry and the government work together to manage a fishery as a commons. Co-management is often, but not always, community-based. Proponents of this discourse are mainly anthropologists and sociologists, and they are the ones who have drawn most directly on Ostrom in discussions of management approaches. Fisheries social science seems to be moving much more toward a consensus position. The respect given Ostrom's work by the mainstream economists has been an important part of that shift. Her work, especially her use of the language of incentives, has spoken to people trained in a Hardin/privatization paradigm in a way that has led to greater appreciation of more complex arguments about the commons. It has become very common to hear economists and other proponents of ITQs give less emphasis to the ideal "high quality rights" and argue more generally about rights-based management in which they explicitly recognize that forms of group rights can bring many of the benefits of individual privatization while avoiding many of its problems. Proponents of co-management have also noticed that a number of community and/or industry-based fisheries co-management regimes have decided on their own initiative to use ITQ-type approaches as a key internal management measure. This has also contributed to a convergence of perspectives, one in which Ostrom's work provides commonly accepted concepts.

It has clearly been *Governing the Commons* and the design principles that have had the most influence on the fisheries community. The idea of "clearly defined boundaries" and its relative the "nested

system”, have both appealed to and challenged fisheries scholars. Fisheries are a fugitive resource within a marine environment which makes the clear definition of boundaries extremely difficult. It is more than just a stock moving from one place to another; the energetic characteristics of the marine environment make pulsating blooms and busts across time and space a common pattern for marine organisms. Drawing boundaries in these circumstances is always a difficult and tentative activity. Much recent commons scholarship in fisheries has adopted the idea of cross-scale institutional linkages, in which boundaries depend on both geography and issue, and nesting looks more like a network than it does a hierarchy. Exactly where the characteristics of the resource make the direct application of the design principle difficult the principles have helped to catalyze new sets of concepts.

Another area where Ostrom’s work has been applied has been in complex commons situations in developing countries where household strategies rely on access to several common pool resources. In Africa this is often a floodplain that may include fisheries, grasslands and forests. This situation sometimes leads to commoners dealing with multiple commons management agencies and/or village committees. In this case her concept of the “co production of goods and services” which guides the analysis of the resources, rules and commitments, and incentives of users and organizations related to a complex commons. These ideas help us relate fisheries to a broader commons.

A short Digest article can only point at a few the many ways that Ostrom’s work has influenced fisheries scholarship. It has made a large difference, not least in finding ways to relate aquatic commons to terrestrial ones both for academic and practical purposes.