COMMUNITY FISHERIES MANAGEMENT

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Keywords: co-management, community-based management, community rights, incentives, transactions costs

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Summary

Fishing communities have a clear economic interest in fishery management. This interest has been expressed traditionally as community control over fishing in nearshore space. Many communities now are challenged to preserve their traditions, livelihoods and fishing infrastructure as their populations grow and economies diversify. One way for communities to maintaining their economic interest in fisheries is to take a more active role in fishery management. There is now widespread recognition that the failure of fishery governance to achieve core management objectives is at the root of the sustainability problem in fisheries. These objectives are to sustain resource productivity over time, generate benefits from the use of resources, allocate the distribution of benefits, contain costs, accommodate uncertainty, and adapt to change. The structure of community involvement in fishery management takes three basic forms: co-management, community-based management and community rights. These three forms fall along a spectrum of community control, with co-management representing the least

degree of community control and community property rights the greatest. The performance of community fishery management depends, like any other form of management, on the effectiveness and efficiency with which it conducts basic management functions. These basic functions are the control of extraction, the coordination of users, the collection of information and the enforcement of rules. The question of integrating fishing communities into fishery management is one of how to avoid some of the more extreme problems of economic organization that plague these basic functions in fisheries that are managed at larger scales: structural inertia, mismatched incentives and transactions costs. The future role of fishing communities in fishery management will depend in large part on the effectiveness with which communities can address the classic organizational problems.

1. Introduction

There is growing interest in strengthening the involvement of fishing communities in fishery management. Communities have always had a clear economic interest in fishery management as it affects their short-run and long-run prosperity. Fishing communities are historically dynamic, adapting to changes in fish populations, seafood markets, and fishery management. But many fishing communities are now facing challenges of preserving their traditions, livelihoods and infrastructure of commercial fishing as their populations grow and economies diversify. One way for communities to maintaining their economic interest in fisheries is to take a more active role in fishery management through co-management, community-based management, or community rights.

The idea of involving communities in fishery management is not a new one. In the past, the primary integration of communities and fishery management has taken place in small-scale developing fisheries. Now the scope of the integration is broadening to include fishing communities in large-scale developed fisheries. Against the background of this global trend, questions are raised as to how best to integrate fishing communities and fishery management. This paper discusses some of the key economic issues of community integration with management. It views the evolving economic relationship between communities and fisheries through the lens of the economics of organization.

The question of community integration in fishery management is addressed by first identifying the various perspectives on fishing communities and describing the economic interests which communities have in fisheries. The task of developing governance to promote sustainability is described. Key types of community involvement in fishery management are categorized as co-management, community-based management, and community rights. Key performance elements of fishery management organization are described as structural inertia, incentive problems and transactions costs. Finally, future trends in the integration of communities with fishery management are identified.

2. Perspectives on Community

There are many different perspectives on the meaning of community.

In the U.S., federal fishery management law – the Magnuson—Stevens Fishery Conservation and Management Act (MSFCMA) - defines a fishing community as "a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs: fishing vessel owners, operators, crew, fish processors…", This definition of fishing community is place-based, referring to a specific geographic location like a port, and emphasizes the degree of fishery importance to economic and social well-being.

Another type of community that fishery managers and fishery scientists often consider is a community of interest, sometimes called a virtual community. A community of interest is a group of people sharing common interests or values that may not be associated with a specific location. This type of community may be based on a common fishing gear, such as users of seine gear catching sardines along the West Coast. It may comprise a group of quota-share holders, such owners of Bering Sea halibut individual transferable quotas. It may be a group that shares a single allocation of fish quota, such as the Pacific Whiting Cooperative, a group of at-sea catcher-processor vessels.

Still another perspective is a fishing community as a source of identity, attachment and belonging among its members. This emotional definition may be based in a particular place or a shared gear type or any other unifying theme. It becomes relevant to fishery management when the identity and attachment influence commitment to fishery regulations.

Any of the three types of community are relevant to the emerging interest in community management of fisheries. The economic organizational factors that influence performance of community management pertain to each.

3. The Economic Interest of Fishing Communities

Fishing communities have an obvious economic interest in fishery management as it affects their short-run and long-run prosperity. This interest has been expressed traditionally as community control over fishing in nearshore space. Traditional tenure systems such as those for Japanese coastal fisheries, Pacific Island nations coastal fisheries, Lofoten Islands, Norway cod, and Maine soft-shell clams have all been community based.

Community economic interests are also represented in a variety of indirect ways in fishery management. Community members serve as members of decision bodies and public advisory bodies. The emphasis of this participation is on anticipating and mitigating impacts of fishery regulation. In the U.S., the Magnuson-Stevens Fishery Conservation and Management Act requires that the fishery regulations take into account the importance of fishery resources for fishing communities in order to minimize adverse impacts and provide for their sustained participation in fisheries. This accounting cannot override the conservation requirements to prevent overfishing and rebuild overfished stocks, but it does elevate fishing communities to an important place in fishery management considerations.

Some important issues framing the economic interests of fishing communities are fishery dependence, community boundaries, and community scale. Fishery dependence reflects the extent to which marine resources are used to generate economic value through consumption or used in a non-consumptive way to support tourist industries or to provide an aesthetic backdrop to local economies.

The definition of community boundaries becomes important in the specification of community membership and participation in management. Boundaries for "place-based" definitions of community are a management factor through the degree to which political and resource boundaries coincide. In practice, boundaries of communities and ecosystems seldom coincide, and management is usually implemented at a broader level than the community. For communities of interest or identity with no distinct geographic boundaries and shifting membership, the question of boundaries may be even more challenging,

The economic interests of communities are also affected by scale. The fact that communities vary greatly in scale, are often internally complex, and may be divided by class, religion, or ethnicity make the question of economic interest a more complicated and less homogeneous concept than might initially appear.

4. Communities and the Sustainability Problem

There is now widespread recognition that failures of fishery governance are at the root of the sustainability problem in fisheries. A 2001 FAO conference identified a list of fishery management factors working against sustainability, all of which are directly related to the way fisheries are managed. These include insecure rights to resource users; inappropriate incentives; insufficient management capacity; poor integration of ecological and human dimensions; weak implementation of international instruments at the national and regional levels; lack of political will; inadequate enforcement.

The fishery governance task centers on the ability to achieve a set of core management objectives. These objectives take on more specific form for particular management scales and types of fishery, but they apply in general form to management at all scales and fishery types. These core management objectives are to sustain resource productivity over time, generate benefits from the use of resources, allocate the distribution of benefits, contain costs, accommodate uncertainty, and adapt to change.

Beyond these core objectives, benefits that are often anticipated for community management relate to the reduction in scale and devolution of responsibility. The costs and benefits of management functions are internalized to users. Local knowledge of marine ecosystems is brought to the fore. The design of regulations is more likely to be consistent with fishing operations. Social capital is developed and used. Equity aspects are collectively defined to reflect local norms. Community participation and internal negotiations create legitimacy and improved compliance. Free riding is reduced, and monitoring is improved.

The ability to achieve these benefits rests on the effectiveness of community management. Management effectiveness is determined by the extent to which extraction can be controlled, users coordinated, and rules enforced in the achievement of

management objectives. Management efficiency reflects how or how well effectiveness is achieved: in general, it addresses the reality that management resources (money, time, skill, information) are limited, there are competing demands for their use, and their use should ideally generate more benefits than costs.

The determinants of fishery management effectiveness and efficiency are multidimensional. They rest on four core considerations: the characteristics of the ecological and human systems; the objectives for the fisheries; the social capital brought to these objectives; the benefits, costs and incentives of organizational alternatives. These considerations are the same for community management as for private rights or government control.

5. Structure of Community Fishery Management

The structure of community involvement in fishery management takes three basic forms: co-management, community-based management and community rights. These three forms fall along a spectrum of community control, with co-management representing the least degree of community control and community property rights the greatest.

5.1. Co-Management

Fishery co-management is the sharing of authority and responsibility among government and stakeholders. It brings fishermen, processors, environmental organizations and other user groups into the management process in roles that rang from advisors to co-equal decisionmakers with government agencies. The idea behind co-management is that having people directly involved in planning and decisionmaking is more likely to result in fishery regulations that have better design greater buy-in, and improved compliance.

Co-management carries particular appeal in small-scale fisheries that are usually conducted in near-shore coastal areas. These fisheries tend to be vulnerable to pollution and loss of habitat caused by coastal development.

They can also be harmed by large-scale offshore fisheries when fleets are displaced from their usual fishing grounds and enter nearshore waters, causing crowding, gear conflicts and localized depletions. Nearshore fisheries also have a practical benefit of being relatively easy to monitor, lending themselves to active roles for community members.

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Biographical Sketch

Susan Hanna is Professor of Marine Economics in the Department of Agricultural and Resource Economics at Oregon State University USA, affiliated with the Coastal Oregon Marine Experiment Station and Oregon Sea Grant. Her research and publications are in the area of marine economics and policy with a focus on the institutional economics of fishery management. Areas of expertise include economic performance and impact of fishery management, economics of ecosystem-based fishery management, economics of property rights, application of incentive-based tools to fishery management; institutional evolution in U.S. fisheries management, and institutional design. She has served as a scientific advisor to a number of ocean policy bodies, including the U.S. Commission on Ocean Policy, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, National Research Council, Pacific Fishery Management Council, Northwest Power and Conservation Council, and Oregon Ocean Policy Advisory Council. She has served on several National Research Council Committees, including the Committee on Protection and Management of Pacific Northwest Anadromous Salmonids and the Committee to Review Individual Quotas in Fisheries.