

# The sociological impacts of catch shares on the west coast groundfish fishery: a community-based approach

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## **Research Topic Introduction and Background**

Fisheries have traditionally been managed as a commons, accessible to all members of society, all of whom must follow government regulations pertaining to the resource – similar to the way California beaches are managed below the high tide line: we can all use the beach, but there are some things we can't take home with us. Regulations often include gear restrictions, seasonal closures, and limits on the size or number of fishing vessels. Because of this laissez-faire management style, fisheries have historically been viewed as a classic case of the Tragedy of the Commons. This “tragedy”, first outlined by William Forest Lloyd in 1833 to address overgrazing and popularized in 1968 by Garret Hardin in his analysis of overpopulation, predicts that commonly held resources will always be depleted because it is in every individual's best interest to take as much as possible for himself or herself. For example, every fisherman individually makes more profit per fish caught, while the cost of overfishing is shared amongst all fishermen.

Growing concern about overfishing and the rapid decline of valuable marine species has led to recent innovations in fisheries management that seek to solve the problem of the Tragedy of the Commons. One of the most ecologically successful of these methods, when properly enforced, has been individual fishing quotas (IFQs), or “catch shares”. IFQs privatize the fisheries commons by issuing a limited number of fishing permits for a given fishery. Managing bodies set a total allowable catch (TAC) limit for all vessels and distribute individual quotas according to percentage of past years' catch. For example, if management determines a TAC of 100 fish and my vessel caught 20% of the catch for the last several years, I would be allowed to catch 20 fish (even if in years past I was catching 2000 fish). IFQs purport to place more

decision-making power in the hands of captains and crew by allowing them to fish only when conditions are good because they are not in a race to catch as many fish as possible before the season closes. Because fishing is better planned and less hurried, bycatch (non-target species accidentally caught) also tends to decrease. They also offer a much more direct control over the number of fish caught than do simple input restrictions, using a scientifically-determined maximum sustainable yield (MSY) to calculate the TAC for the fishery every season. From a purely environmental standpoint, catch shares provide a good model for most fisheries.

However, when assessed from a socioeconomic standpoint, catch shares gather warranted criticism. While IFQs are generally economically beneficial to permit-holders, this system threatens to push out small-scale fishing operations and tie-up permits in the hands of a wealthy few corporations. Unemployment and economic depression of fishing communities is often associated with the adoption of catch shares. These issues are exacerbated by the fact that most fishermen are born into fishing families and have been fishing all their lives, with little or no training for alternative employment. From a community or welfare economics perspective, IFQs may not be the best solution – and may, in fact, be more harmful than traditional management schemes. Some critics have argued that the proliferation of IFQs in the United States comes as a result not of eco-consciousness, but of the lobbying efforts of the private sector.

In 2011, the west coast groundfish fishery, which includes sole, cod, rockfish, and flounder, among other, less popular species, adopted IFQs in an attempt to better manage stocks. This regulation change, like all fisheries management decisions, was passed through regional councils comprised primarily of fishermen and policy makers, where it was decided that community fishing associations (CFAs) would be formed and tasked with distributing the permits equitably. Fishermen believed they would have an opportunity to create regulations

limiting the power of corporations and of non-fishermen to buy these permits, which would assure they remained in the hands of the commercial fishermen themselves. Fair distribution of IFQ permits is crucial not just to social equity and community economics, but also to environmental sustainability. Fishermen have are accountable to their resource – they are hugely dependent upon its long-term viability, so they are likely to be the best stewards of it.

Based on my discussions with fishermen and fishing family advocates, I'm interested in assessing the socioeconomic impact of this transition, in partnership with affected fishermen and fishing communities on the California, Washington, and Oregon coasts. This study might asses changes in the distribution of profits from landings, the rate of employment in the fishing industry, the rate of non-fishing employment in the community, the distribution of permits among fishermen versus non-fishing individuals or corporations, and quality of life of fishing families, among other concerns voiced by community members.

### **Background of Partner Organization: PCFFA**

Because fishermen are considered “managers” by the US government, they are not allowed to unionize. The Pacific Coast Federation of Fishermen’s Associations (PCFFA) is an umbrella organization that acts as a union for fishermen on the west coast. According to the PCFFA website, it is “by far the largest and most active trade association of commercial fishermen on the west coast” (PCFFA.org). The federation oversees and partners with three types of fisheries groups: 1) port organizations, 2) vessel owners’ associations, and 3) marketing associations. These divisions are often in competition with one another, so the joining together of seemingly disparate bodies was a great leap forward for fishing communities across the west coast in recognizing that they share common interests, including healthy ecosystems, responsible coastal development, and equal access. PCFFA primarily acts as an advocacy organization, with an

average 30 cases in litigation at any time. These suits are predominantly Clean Water Act, Endangered Species Act, and other environmental violations. For example, the organization is now working to remove dams that interfere with crucial salmon runs in Washington and Oregon. They are also suing central California agriculture organizations for drainage of salmon streams in California.

PCFFA is a truly grassroots organization. Typically, the elected presidents of regional organizations come together at PCFFA meetings to discuss issues facing the coast broadly and return to their regional organizations to disseminate knowledge locally. Often environmental groups and government entities are also present at these meetings, which are informal ways for fishermen to affect policy.

In recognition of the importance of research to their work, PCFFA founded a companion research organization, the Institute for Fisheries Resources (IFR). As legal counsel Glen Spain explained to me, “fishermen are more environmentally-dependent than anyone else in the world, and we pay a high price if a resource is misused or overused.” Thus, much of the research at IFR is ecological, in an attempt to understand short- and long-term fluctuations in fish stocks and how these might translate to better fisheries regulations. Spain expressed to me that the most pressing concern at IFR now is the socioeconomic impact of catch shares. From an economist’s perspective, he told me, catch shares maximize economic efficiency, “but the real world doesn’t play out like economic models.” IFR is interested in maximized public good. Whereas having a few large boats on the water, as happens with catch shares, maximizes economic efficiency, their hunch is that having instead many small boats would maximize the public good.

Through IFR and other research groups, fishermen are involved at least peripherally in most fisheries research already. “The greatest challenge of ocean research,” Spain told me, “is

finding a platform.” Fishermen’s boats provide a platform, and crewing their vessels for researchers is how many fishermen stay employed in off seasons. Fishermen’s ship logs and catch figures are also used in fisheries assessments, but qualitative data is rarely gathered from the fishermen themselves. Many in the fishing community on the west coast are concerned about poor data collection and interpretation on the part of governing bodies, which typically survey only once every three years. Miscalculations in stock assessments can lead to an artificially high TAC, which can result in fisheries collapse. IFR hopes to avoid collapses in the future by properly assessing and managing stocks.

### **Incorporation of CBR Principles and Practices**

Through regional associations, as well as larger organizations like PCFFA and IFR, fishermen already have the means to come together to discuss issues facing their livelihoods and their communities. However, deeper engagement of fishing families in both research and policy advocacy would result not only in empowerment, but also likely in more accurate and pertinent research findings. Because fishermen live and work on the water everyday, they already have an excellent understanding of the ecology and health of stocks in their regions. Beyond simply providing the platform for research, they can be knowledgeable co-researchers. This research question (What are the socioeconomic impacts of catch shares in the west coast groundfish fishery?) is one that can be best addressed with a CBPR approach, from question formation to dissemination of findings.

#### *An Asset-Based Approach*

If I am to avoid the traps of need-based research outlined in Julia Dinsmore’s poem, “My Name Is Not ‘Those People’,” I believe a critical first step is to complete an asset map, with the help of community contacts I have already made (Dinsmore 2007). Within the fishing community,

associations as local as port towns and as centralized as national fisheries councils already provide a platform for fishermen to voice their concerns. Fishermen have identified key areas of interest already, and their intimate knowledge in many of these research areas is an asset that cannot be overstated. Education and training in ecological and social research and analysis would supplement this asset and will be integral to this project. Building the capacity for fishermen to be full co-researchers during the off season, rather than simply the captains of research vessels, would lead to better data collection. Fishermen know if “the fish are biting” or if the sea condition is unusual, and controlling for these variables is something truly best left to the fishermen themselves. Additionally, fishermen’s families – their wives and husbands – are an excellent asset for social data collection because they are trusted members of the community and are often managers of household and community finances. Families might be especially helpful in the dissemination of research findings. In addition to scientific publications, policy memos, and presentations at regional councils, dissemination might take the form of town hall meetings, articles in local newspapers, or simply conversations at the dinner table (Dyrness, 33).

### *Researcher Identity*

Because government bodies, non-profit environmental organizations, and academic researchers have wronged fishing communities in the past, they are skeptical of speaking with outsiders about matters as personal as household income, health access, and unemployment.

Acknowledging that I am an outsider, and working with insiders to best navigate these concerns, will be essential to the success of this project. It is my hope that in working with these communities over the long-term, I will be able to build trust with fishermen and fishing families over time. Additionally, as Geraldine Pratt illustrated in her work with Filipino women, people “inhabit many worlds, only some of which are visible to the researcher” (Pratt, 100).

### *Research as Social Change*

As Andrea Dyrness demonstrates in her paper “Research for Change versus Research as Change: Lessons from a Mujerista Participatory Research Team,” research itself can be a powerful force for social change. The act of engaging and empowering community members to take command over their lives and circumstances grants them the potential to *free themselves* from oppressive societal structures. This participatory model is different from the activist model promoted by Charles Hale and others, under which a community remains dependent upon the privilege and “expertise” of the “researcher” (Hale 2006); instead, “community members themselves are the agents of change” (Dyrness, 24). The capacity-building that occurs in the participatory research model is essential to the sustainability of a movement, and the community’s engagement is critical for the accuracy and authenticity of the research. By empowering fishermen to control the research and dissemination of their communities, the project can itself be a force for social change.

### **Benefits and Challenges**

As is true of any CBPR study, training and capacity-building takes time, in addition to the extra time required for community input and participation at every stage of the project. Applying this approach will be time intensive for me, for partner organizations, and also for fishing community members. During the season, fishermen have very little time to spare, but during the off-season, they are often on research vessels already, in a non-participatory capacity. By engaging fishermen and their families through local councils and non-profits, such as the Newport Fishermen’s Wives, I believe we will be able to overcome the frustration sometimes associated with time-consuming research and dissemination.

Spain also expressed to me PCFFA's concern that policy often doesn't listen to science. Part of the challenge of policy applications is the difficult navigation of political channels. For this reason, this project is a good candidate for the creation of a Policy Advisory Board, similar to that formed for the Grandparent Caregiver's Study (Roe et al. 1995). This board might include lobbyists, experienced activists, economists, and attorneys, in addition to fishermen and fishing families.

### **Concluding Thoughts**

This project is best approached using CBPR methodologies and principles. By asking the questions fishermen most want answered, engaging the community as full co-researchers, and disseminating findings in multi-faceted and relevant ways, we can not only empower fishing communities, but actually improve the accuracy and potency of our results.

### Works Cited

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