

Final Progress Report

Sustainability Science Program

September 1, 2008 – August 31, 2009

Name: Patricia Pinto da Silva

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Fields: Co-management of marine resources, human dimensions of marine ecosystem based management, social policy

Program: Sustainability Science Fellow 08/09

Faculty Host: Dr. William Clark, Director Sustainability Science Program

Research activity:

Social Capital and Fisheries Co-Management: An Evaluation of the Social Foundations for Collaborative Management in the New England Groundfish Fishery: The approach to the management of the ground fish stocks in New England is changing dramatically. Until recently, fishermen were largely on the receiving end of management decisions made at a regional level by a council of appointed individuals from the fishing industry, state governments and environmental organizations. Catch shares are being introduced in many fisheries across the United States in the hopes of realigning incentives for participants with conservation goals. In New England, the most prominent catch share program involves the devolution of decision-making to groups of self selecting fishermen who are allocated a portion of the quota (based on historical landings) to govern based on rules that they develop themselves.

This new approach to management is a unique and large scale case study of the potential for common property resource management. Research carried out with staff from the Northeast Fisheries Science Center and the Gulf of Maine Research Institute will examine, via surveys and interviews, current levels of social capital among groundfish fishery participants to test the hypothesis that groups with higher levels of social capital will be more able to achieve their stated goals under the sector model than those with less. This research will also help understand the factors driving their group membership choices, group expectations as the potential impacts of groundfish sectors on the social land/seascape. In addition to investigating the role of social capital in the long term success/failure of group based catch shares.

Developing a Monitoring and Evaluation Plan for Catch Shares in the Northeast US:

In addition to the above research, work with Andrew Kitts at the Northeast Fisheries Science Center is underway to develop a monitoring and evaluation system for Catch Share programs generally. Catch Shares include both individual and group allocations of quota. Performance Measures for catch shares are currently being developed/defined through a series of workshops with relevant academics as well as with regional stakeholders. Once performance measures are in place, a research agenda (five year plan) will also be defined and implemented.

- Identification of the problem
 - Groundfish fishermen have been given the option to create self selecting groups of permit holders and collectively manage a portion of the quota. However, it is not clear as to whether this group has the necessary social foundations to support these types of initiatives. Additionally, deep distrust exists between fishermen and traditional resource

- managers, will the transition to catch shares improve relationships between fishing groups and between fishing groups and traditional managers?
- Key question?
 - Will high levels of social capital be a determining factor in the success of the catch share/sector program?
 - Will they build the necessary social capital over time?
 - Methods:
 - Interviews have already been conducted with industry leaders and a survey will be implemented this fall.
 - Participant observation (attending relevant meetings, etc..)
 - Literature review
 - Principle literature:
 - Collective action, commons literature, co-management, social capital, ecosystem based management
 - Publications
 - While for some, the fellowship year is a year of numerous publications, for me, it has been a year of planting many seeds for future publications and for beginning a long term research project.
 - Clay, P., L. Colburn, J. Olson, P. Pinto da Silva, S. Smith, A. Westwood, J. Ekstrom. 2009. Fishing Community Profiles of the Northeast Region. NOAA Reference Document. Northeast Fisheries Science Center. Woods Hole, MA.

Principal collaborators outside Harvard (list name and institution):

- Dr. Daniel Holland, Gulf of Maine Research Institute
- Andrew Kitts, Northeast Fisheries Science Center
- Patricia M. Clay – NOAA Fisheries, Silver Spring
- Susan Abbott Jamieson – NOAA Fisheries, Silver Spring

Awards:

- May 15th - \$89,000 – from NOAA Fisheries in support of work on Social Capital and co-management as well as for implementing a pilot baseline survey from which to measure the socio-cultural and economic impacts of the implementation of catch share programs in the NE region. If you are moving to a new position, please list your contact information there.
- 50,000 – to Support Voices from the Fisheries: Oral History Database Project
- \$50,000 – to organize workshops on Catch Share Monitoring and Evaluation
- Cash in a Flash (personal) bonus for contribution to workshop in DC in May on oral histories.

Reactions to the program/my experience:

- Participation in this program has been incredibly challenging for me. As a mid career participant, it was an opportunity to get outside of my intellectual box and interact with a dozen or so incredibly bright, dynamic and talented group of fellows. The initial crash course on Sustainability Science was a great source of inspiration and direction in terms of understanding just where and how all these different projects fit together and how, collectively they contribute to a larger process of moving towards sustainability. While we were encouraged to engage with other fellows and work together on sustainability science related topics (such as the development of a SS curriculum or case studies of

linking knowledge to action) what was more enriching and surprising (in my view) was the myriad ways that the fellows listened to each others research, provided constructive suggestions and generously shared their professional contacts and personal recommendations. I can't count how many job leads and work contacts shared that lead to fruitful collaborations and interviews. Perhaps it's the fact that fellows are all in different stages of their professional life that lead to such a collaborative feeling among the group.

- One of the challenges in the fellowship program (and in sustainability science in general) is how to get beyond our disciplinary 'agendas'. This year's group had political scientists, anthropologists, economists and ecologists among others. Dr. Clark did a great job of drawing from the different disciplines in his comments on presentations at seminars. And, overall, I think it was an opportunity to familiarize ourselves with the strengths and weaknesses of different approaches. While this makes for more challenging debates and discussions, I think the fact that the group is multidisciplinary is a necessary part of what the program is trying to achieve.

Other intellectual or professional advancement activities:

- Drafting a plan to monitor and evaluate the socio cultural and economic impacts of catch share management in the northeast region. This process includes the identification of performance measures which will be developed through a number of workshops with relevant scientists and industry participants/stakeholders. Once performance measures and indicators are developed an associated research and staffing plan will be put in place to implement the monitoring and evaluation process.
- Initiated partnership with the NOAA National Marine Sanctuaries program to help implement international training sessions related to marine protected areas and sustainable fisheries. Participation in workshops will begin in September in Vietnam, Indonesia, Southern Mediterranean and the Americas.
- Co-developed a national database to house oral histories/interviews with fishery stakeholders (including fishermen, scientists, etc..) called the Voices from the Fisheries (voices.nmfs.noaa.gov).
- Continued to serve as project PI on a project collecting oral histories from Mayan fish workers in New Bedford.
- Served on the Fisheries Systems Working Group of ICES.
- Presented papers in multiple professional conferences, reviewed manuscripts for journals and served on the review boards for Sea Grant Proposals and for NOAA Cooperative Research proposals. Provided guidance to masters students from Brown University interested in Fisheries Management issues.
- Served on PhD committee for Fabienne Lord Fonseca, University of New Hampshire.
- Served on Masters committee for Laura Mattison, Brown University.
- Mentored numerous masters levels students interested in fisheries policy/anthropology.

