

Science, Service, Stewardship



Guidance for the Use of Social Science in Fishery Management

Patricia M. Clay, Anthropologist

Patricia.M.Clay@noaa.gov

301-427-8116

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Why include Social Science if we are managing fish?

- Fishery managers don't manage fish; they manage people's access to fish .
- Allocation decisions (from ACLs to ITQs), involve and affect cultural, sociological and economic patterns in society .
- Conflict management requires the use of social science information and analysis.



What is social science?

- The social sciences study the ways that people live and work: who we are, and how we got that way.
- The social sciences are broad: looking at everything from how people use scarce resources for competing needs, how they organize themselves in groups, to their knowledge, values, and ways of viewing and understanding the world.
- What I like about being a social scientist in NMFS is that it allows me to try to bring the voices of fishermen, their families and their communities into the management process.



Where in an EA/EIS do you find social impacts?

➤ Kinds of social analyses

- Social Impact Assessment (SIA)
- Affected Human Environment (AHE) descriptions
- National Standard 8
- Environmental Justice
- Cumulative Impacts

➤ Levels of Analysis

- individual, household, firm,
- community
- diverse participants and
- affected groups



Issues in Social Analysis

- Social and cultural systems are sensitive to change
- Small changes can have large cumulative impacts on fishery participants
- Analysis is comparative to a baseline data set: what if scenarios



Legal Authorities for SIA

- NEPA [40 CFR 1508.14] “human environment”, including “unquantified amenities and values”
- MSA [MSA 303(a)(9)] “fishery impact statement”, covering commercial, recreational, and subsistence fishing, and fishing communities
- MSA [MSA 301(a)(8)] “sustaining fishing communities”, including fishing-related industries located there
- MSA [MSA 303(b)(6) and 303A] “limited access programs” and “Limited Access Privilege Programs”



Categories of Social Factors

- **Size and demographic characteristics of fishery work force and community**
- **Cultural norms, beliefs and values of fishermen, other stakeholders and communities**
- **Social structures and organizations related to fisheries, families and communities**
- **Non-economic aspects of the proposed action**
- **Historical participation in and dependence on the fishery by stakeholders and communities**



Criteria for Social Assessment

- The fishery impact statement “winnows” the issues and factors
- Level of analysis selected must be appropriate to the action considered
- Fishery conflicts, limited access, and environmental justice issues will require a high level of analysis and data inputs



Who is involved?

- Fisherman = any commercial, recreational and/or subsistence fisherman; includes owners, operators, and crew
- Vessel = any commercial, recreational, and/or for-hire vessel
- Fishing industries and/or services = businesses primarily and directly associated with subsistence, commercial, and/or recreational fisheries (e.g., dealers, processors)
- Fishing-related industries and/or services = businesses that provide inputs to fishing industry businesses (e.g., ice providers, chandleries, net makers, boat builders)
- Fishing Community=place-based for NS8, can be interest-based for other analyses (e.g., based on gear, target species, area fished, tribal group, etc.)



An MSA Fishing Community

- Is a geographic place;
- Includes some or all of the participants/entities described above; and
- Is substantially dependent on fishery resources to meet community social and economic needs, and/or
- Is substantially engaged in the harvest and/or processing of fishery resources to meet community social and economic needs
- MSA 3(17) and 301(a)(8)



More on MSA Fishing Communities

- Are there any MSA fishing communities defined yet?
- What information is available to identify fishery engagement, and/or dependence, of a community?
- Is there a standard process for defining MSA fishing communities?



Environmental Justice

➤ EO 12898 mandates all Federal agencies to address disproportionate and adverse effects of agency action on low-income and/or minority groups



➤ Assessment of environmental justice is required regardless of the significance of environmental impacts under NEPA and should be part of every EIS

Cumulative Impacts

➤ NEPA requires an analysis of the proposal's cumulative impacts, including interactions with other fishery or non-fishery-related activities



➤ “the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.”



Current Big Issues with Important Social Science Components

➤ Catch Shares

- Controversial in many Regions

➤ Ecosystem-based Management

- Level of implementation varies by Region

➤ Climate Change

- Assessing social impacts depends on knowing biological impacts

➤ Food systems – a new issue for NMFS

- What happens once it leaves the dock? How do local fisheries connect to food security?



NMFS-wide implementation of social and economic indicators

➤ Fishery Performance Indicators

- Financial Viability
- Distributional Outcomes
- Governance
- Stewardship
- Well-Being

➤ Community Social Vulnerability Indicators

- Social Vulnerability
- Commercial and Recreational Fisheries Engagement and Reliance
- Gentrification Pressure Vulnerability
- Coming soon – climate change vulnerability, social capital, infrastructure

➤ But indicators need context – the importance of ethnography and interviews

