Acknowledging the Human Dimension And Engaging Stakeholders in MPA Design and Management

A Social Science Strategy for MPAs

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not humans

humans
Who Cares About Those Messy Humans Anyway?

• Socioeconomic impact evaluations are legally required by most MPA statutes
  – If you don’t do it, do it wrong, or do it too late, the MPA may be challenged or ineffective, or both
• People are really the key actors in marine ecosystems
  – “We really manage people, not fish”
• People’s use of, and attitudes toward, the ocean are complex, variable and profoundly important to successful MPAs
But Everyone Loves MPAs, Right?
When Is Social Science Important for MPAs?

• Planning Phase
  – Understanding human uses, values, communities, and institutions
  – Designing and running an effective designation process
  – Ensuring sustained community engagement and support

• Management Phase
  – Recognizing, evaluating and adapting to emerging uses
  – Regular input from local advisory groups

• Evaluation Phase
  – Understanding the effects of the MPA on human uses and values
Challenges In Applying Social Science to MPAs

• Overshadowed by ecological concerns
• Focused largely on consumptive users
• Very little baseline data anywhere
• Minimal integration with natural science

• Not always considered a ‘real science’
• Confused w/ public outreach + education
• Marginalized: too little and too late
• Little cohesion or coordination w/in Soc Sci

• Minimal funding, esp. compared to Nat Sci
• Few social scientists working on MPAs
Filling The Knowledge Gap: The National MPA Center’s Social Science Research Strategy

- **Purpose**: to strengthen the human dimension in MPA design, management and evaluation

- **How**: increase allocation of resources and effort toward MPA social science and capacity building
  - National strategy focused on high level issues
  - Regional research priorities created locally

- **Targets**: agencies, funders, Congress and academia
Priority Social Science Themes for MPAs

- Use patterns
- Economics of MPAs
- Attitudes, perceptions and beliefs
- Community organization
- Governance and institutional structure
- Cultural heritage and resources
Ocean Uses

• Definition:
  – The way stakeholders use resources in MPAs, currently and historically

• Research Topics:
  – Baseline data on patterns of use
  – Drivers and consequences of use
  – Conflicts and compatibilities among uses
Economics of MPAs

Definition:
- Economic conditions and trends associated with MPAs and their resources

Research Topics:
- Baseline information
- Cost benefit analysis
- Non-market values (use and non-use)
- Variability and economic theory and tools
Attitudes, Perceptions and Beliefs

• Definition
  – Underlying motivations that influence human preferences, choices and actions

• Research Topics:
  – Natural world and state of the environment
  – Uncertainty and attribution
  – Aesthetics
  – Environmental ethics
  – Traditional ecological knowledge
Community Organization

• Definition:
  – Characteristics and function of social and geographic communities

• Research Topics:
  – Socio-economic conditions
  – Capacity and skills
  – Information flow and use among communities
  – Management structures and processes
  – Historic social construction of MPAs
Governance and Institutional Structure

• **Definition:**
  
  - Capacity, funding sources, jurisdiction, management and interactions of institutions that manage MPAs

• **Research Topics:**
  
  - Jurisdictional structure
  
  - Institutional analysis
  
  - Public participation and stewardship
  
  - Planning and establishment
  
  - Management and evaluation
Cultural Heritage and Resources

• Definition:
  – Historical and submerged cultural resources of MPAs

• Research Topics:
  – Protection
  – Characterization
Cross-Cutting Needs and Issues

- Baseline data
- Monitoring (long and short-term)
- Evaluation
- Data management
Impacts of the Strategy to Date

• Highlighted importance of soc sci in MPAs
• Stimulated and justified research
• Enhanced cohesion w/in research community
• Catalyzed MPA Center’s work on ocean uses

• Much remains to be done!