

For submission to Coastal Zone Management 2011, Chicago , July 17-21, 2011

Title: Decision-Making in Coastal Management and a Collaborative Governance Framework

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Over half of the US population lives in coastal watersheds, creating a regional pressure for coastal ecosystems to provide a broad spectrum of services while continuing to support healthy communities and economies. The National Ocean Policy, issued in 2010, and Coastal and Marine Spatial Planning recommendations, lay out a vision and goals to move towards balanced use and governance of these critically important and heavily utilized regions. Implementation of the identified actions will require creation of new collaborations, increased compliance with protective regulations, alignment of community priorities, and innovative new approaches. Conceptual frameworks that specify decision processes and participants, and that allow evaluation of components of adaptive management, can be useful in strengthening the capacity for stewardship as implementation proceeds.

Three frameworks will be discussed in the context of coastal management and spatial planning. The *Decision Support Framework*¹, supports a paradigm shift from single-issue decisions to decision-making for complex problems, decisions using systems thinking, and decisions that inform, enable, and empower sustainable solutions. Developed by EPA's Ecosystem Services Research Program, *Decision Analysis for a Sustainable Environment, Economy, and Society (DASEES)*, leads participants through steps to 1) Understand the Decision Context, 2) Define Objectives, 3) Develop Options, 4) Evaluate Options, and 5) Take Action (implement, monitor, adapt.) In the analysis, decision-makers and stakeholders collaboratively populate on-line tools and templates for: exploring the decision landscape, incorporating existing knowledge, and considering values, objectives, options, and trade-offs, thus creating shared learning. These activities support decision-making that is responsive to management objectives, uncertainty, and triple-bottom-line goals.

The second framework, *Collaborative Governance*, was developed to better understand the relationship between components of collaborative governance and enabling greater adaptive capacity in the face of environmental change. This framework integrates procedural, structural, and substantive variables, and considers their impacts in the field and on the adaptation generated. It is designed to encompass the contributions and interactions of leaders and participants in cooperation; shared capacity (including motivation, structural mechanisms, resources, and knowledge); and processes of collaborative engagement (including joint definition, deliberation, and determination), along with the articulation of implementing actions, system impacts, and governance adaptation.

The *Decision Support Framework* and the *Collaborative Governance Framework* are being used in pilot projects that address challenges of restoring healthy estuaries and watersheds and understanding values and needs for sustainable communities and resilient ecosystems. In the context of adaptive management, these frameworks allow decision participants to consider how decisions interact with other parts of the system and use shared learning to enhance shared and sustainable solutions. These two frameworks, for Decision Analysis and for Collaborative Governance, are incorporated into a third framework, *Adaptive Ecosystem Management*, whereby they allow inspection of successful processes and indicate points for increasing effectiveness of coastal and marine management strategies.

¹ Vega, A. M., T. Canfield, B. Faulkner, P. Bradley, H. Fredrickson, A. Rehr, M. Small, T. Stockton, M. ten Brink, V. Hansen, D. Pilant, K. Black, D. Burden, and W. Fisher. Decision Support Framework (DSF) Team Research Implementation Plan. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/104, 2009.

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<http://www.doi.gov/initiatives/CZ11/form/index.htm>

Panel/Session name: 'Ocean Social Science and Governance: A Federal Perspective'

Panel Chairs: John Primo (BOEM) and Marilyn ten Brink (EPA), Interagency Working Group on Ocean Social Science

Theme selected: Planning for Resilient Coasts, Great Lakes, and Ecosystems

Focus Area selected:

Governance and Policy - Implementation of the U.S. National Ocean Policy and International Policy Initiatives

Intro

Rodney Cluck: Opening comments, introduction to Ocean Social Science and its use in decision-making, the relevance of social science to CMSP.

Draft of session content

Examples of Ocean Social Science Research

Chris Ellis: 2010 Coastal Needs Survey

John Primo: Gulf of Mexico Project?

Applying Social Science to Decision-making

Marilyn ten Brink: Decision-Making in Coastal Management and a Collaborative Governance Framework

Tom Fish: HD.gov
