University of Hawai'i at Mānoa

Ocean Policy and Management

OEST 735/SOCS 735 **Wed, 12 to 2:45 pm**
Spring, 2009 Saunders Hall 443B

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Course overview: This course explores the current state-of-the-art in managing human uses of the oceans, focusing on three major themes: ocean governance, economic analysis of marine policy instruments, and marine spatial planning. In the past decade, a consensus has emerged that the oceans' health is in decline, losing their capacity to provide essential ecosystem services. Many calls for reform assert that uncoordinated or fragmented governance, mismatched spatially with marine ecosystems, is largely to blame for this decline, not an insufficient understanding of how the oceans work (e.g., Crowder et al. 2006). Likewise, many analyses conclude that institutional and individual incentives must be better aligned with marine ecosystems. Clearly, every nation must improve its ocean management to increase ecosystem resilience in the face of climate change. But, there is no consensus on how these institutional changes can be accomplished. How can we, if indeed we must, transform the commonly-used sectoral approach to ocean governance into a comprehensive and fully-integrated policy process based upon knowledge of marine ecosystems and their linkage with social systems?

The course will begin with a consideration of the sectoral approach to marine governance, using the recent history of U.S. marine policy as a case study, as presented in Cicin-Sain and Knecht (2001). After we consider some basics of ocean governance, including key elements of institutional design, policy capacity, and the policy framework, as analyzed in Haward and Vince, (2008), we will explore the factors that shape and constrain ocean governance, including the timing and content of scientific advice, public perceptions of the oceans and social values (Dallmeyer, 2003), and the influence of international institutions. We will also consider proposals for reforming the U.S. ocean policy framework that emerged from the two ocean commissions in 2003 (Pew Oceans Commission, 2003) and 2004 (U.S. COP, 2004), a critique of the regional governance proposals that resulted from these reviews (e.g., Eagle, 2006), and the progress of regional efforts to date, as illustrated by the ocean planning programs in California, Massachusetts, Hawaii (Hawaii, 2006) and other U.S. states. We will compare ocean policy reforms in the U.S. with those in other nations with similar and contrasting constitutional structures, including Australia, New Zealand, and Canada.

The course will next turn to an examination of marine policy instruments that some consider to be particularly well-suited to management on an ecosystem basis: transferable fishing quotas and other market-based measures (e.g., Costello et al., 2008; Griffith, 2008; Kearney, 2001) and marine spatial planning (Douvere and Ehler, 2008), and the potential interplay of these policy approaches (e.g., Yandle, 2006).

Readings: Readings will be drawn from the materials cited below as well as additional readings identified by class participants.

Requirements: Classes will involve student-led discussion of assigned readings, guest lectures, and presentations of student research projects. In addition to leading class discussion and identifying additional readings for selected classes, each student will be required to research and present two papers to the class. To help us understand the nature of the challenges in ocean policy and management, the first assignment will be to select one issue, activity, or problem in ocean policy from the list below and present a detailed assessment of it, including its brief environmental history, an analysis of current policy approaches to this issue (in a jurisdiction of your choice), and a discussion of how ocean policy reforms and/or new policy instruments would improve its management. Depending on class size, these may be group projects or a second topic may also be assigned. One week before the presentation, the student will assign one scientific and one policy-related reading on the issue. Extra credit will be awarded for students who identify and arrange a guest speaker with experience or management responsibility for the topic in Hawaii or elsewhere in the Pacific. Other topic proposals will be considered.

Offshore aquaculture
Ocean-based alternative energy resources (wind, wave, OTEC, etc)
Marine debris
Marine invasive species mitigation and prevention
Offshore oil and gas development
Sustainable fisheries (recreational and industrial)
Conservation of marine wildlife
Seafood quality and human health
Sea use conflicts

The second assignment will be to develop the rationale for and details of a policy instrument that could address one or more of the above ocean use issues and a 'road map' or plan for how this instrument could be considered, adopted and implemented in a particular jurisdiction. For example, a deposit on fishing nets could be introduced to reduce derelict fishing gear, or a bounty offered for their recovery from critical marine habitats. Alternatively, you could present a plan for the introduction of a marine spatial planning process to a jurisdiction of your choice.

Grades will be based on class participation (10%) and the two individual assignments: the topic presentation (30%) and a presentation of your policy instrument or planning product (60%).

Schedule of Classes and Assignments

Jan. 14	introduction to state of the oceans; the 'fragmented governance' critique; "Troubled Waters," *The Economist* Jan 3, 2009; Crowder et al. 2006; first 2 chs. Cicin-Sain and Knecht, 2000.
Jan. 21	history of U.S. marine policy: next 3 chs. in Cicin-Sain and Knecht, 2000.
Jan. 28	key elements: institutional design, policy capacity and framework: remainder of Cicin-Sain and Knecht, 2000; first 3 chapters of Haward and Vince, 2008.
Feb. 4	marine environmental values & policy: selected readings in Dallmeyer, 2003.
Feb. 11	fisheries economics: why people overfish: Iudicello et al. 1999.
Feb. 18	market and incentives-based instruments for managing fisheries Assignment: Costello et al, 2008; Griffith, 2008; Kearney 2001; Yandle, 2006.

Feb. 25	valuation of marine resources: damage assessment as policy tool; Exxon Valdez oil spill and Hawaii coral reef case studies.
Mar. 4	economics of marine reserves: Smith and Wilen, 2003.
Mar. 11	proposals to reform US ocean policy: Pew Oceans Commn, 2003; US COP, 2 004; Eagle, 2006.
Mar. 18	ocean policies in Australia, Canada, & New Zealand: Haward & Vince, 2008.
Apr. 1	critiques of national reforms; state and region-level programs in CA, RI, MA, HI.
Apr. 8	marine spatial planning: Douvere and Ehler, 2008.
Apr. 15	marine spatial planning: case studies from Douvere and Ehler, 2008.
Apr. 22	marine spatial planning: applications in the Pacific.
Apr. 29	Student presentations of policy instruments and planning proposals
May 6	Student presentations

References and Readings

Cicin-Sain, B. and R.W. Knecht, 2000. *The Future of U.S. Ocean Policy: Choices for the New Century* (Island Press).

Costello, C., S. Gaines, and J. Lynham, 2008. Can Catch Shares Prevent Fisheries Collapse?, *Science* 321:1678-81.

Crowder, L.B. et al., 2006. Resolving Mismatches in US Ocean Governance, *Science* 313:617-8.

Dallmeyer, D. ed., 2003. *Values at Sea: Ethics for the Marine Environment* (U. Georgia Press).

Douvere, F. and C. Ehler, eds, 2008. Special Theme Issue: The Role of Marine Spatial Planning in Implementing Ecosystem-based, Sea Use Planning, *Marine Policy* 32(5): 759-844.

Eagle, Josh, 2006. Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity, *Duke Envt'l L. & Policy Forum* 16:143-177.

Economist, The, 2009. Special issue: "Troubled waters," Jan. 3, 2009.

Griffith, D.R., 2008. The ecological implications of individual fishing quotas and harvest cooperatives, *Frontiers in Ecol. & Envt* 6(4): 191-98.

Hawaii, Office of Planning, Dep't. of Business, Economic Dev't, and Tourism, 2006. Hawaii Ocean Resources Management Plan, available online at www.hawaii.gov/dbedt/czm/ormp/

Haward, M. and J. Vince, 2008. *Ocean Governance in the 21st Century: Managing the Blue Planet* (Edward Elgar Publ., Ltd.).

Iudicello, S., M. Weber, and R. Wyland, 1999. *Fish, Markets and Fishermen: The Economics of Overfishing* (Island Press).

Kearney, R.E., 2001. Fisheries property rights and recreational/commercial conflict: implications of policy developments in Australia and New Zealand, *Marine Policy* 25(1): 49-59.

Pew Oceans Commission, 2003. *America's Living Oceans: Charting a Course for a Sea Change*, available online at www.pewoceans.org.

Smith and J. Wilen, 2003. Economic impacts of marine reserves: the importance of spatial behavior, *J. Envtl Economics & Mgt.*

U.S. Commission on Ocean Policy, 2004. *An Ocean Blueprint for the 21st Century*, available online at

Yandle, T., 2006. Property Rights and Ocean Governance, *Science* 314:593-594.