

REGIONAL OCEAN GOVERNANCE IN THE UNITED STATES: CONCEPT AND REALITY

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I. INTRODUCTION

The concept of regional ocean governance (“ROG”) is gaining traction in ocean and coastal management as a new way of proactively governing cross-jurisdictional ocean uses, resources, and problems. Current ocean and coastal management activities typically take an issue by issue approach, addressing a single issue without addressing other connected issues within an ecosystem. Though it is not a new concept,¹ ROG is experiencing a surge in interest and support at the national, state, and local levels because it offers a way to bring together a wide range of issues and serves as a vehicle for thinking about and utilizing ecosystem-based management.

Two national reports were released in 2003² and 2004³ on the state of our oceans and coasts, policies and practices, and were

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1. ROG has been a popular topic of discussion in the field of marine affairs for some time. In 2002, a workshop was held with national leaders to share definitions and lessons learned from ROG or other regional ocean coordination activities. *See* BILIANA CICIN-SAIN & CHARLES EHLE, *IMPROVING REGIONAL OCEAN GOVERNANCE IN THE UNITED STATES: WORKSHOP PROCEEDINGS* (2002).

2. PEW OCEANS COMM’N, *AMERICA’S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE* (2003) [hereinafter PEW REPORT], http://www.pewtrusts.org/pdf/env_pew_oceans_final_report.pdf.

3. U.S. COMM’N ON OCEAN POLICY, *AN OCEAN BLUEPRINT FOR THE 21ST CENTURY: FINAL REPORT OF THE U.S. COMMISSION ON OCEAN POLICY* (2004) [hereinafter USCOP REPORT], http://www.oceancommission.gov/documents/full_color_rpt/000_ocean_full_report.pdf.

followed by a new U.S. Ocean Action Plan (“USOAP”),⁴ and numerous other federal responses. These two reports, the U.S. Commission on Ocean Policy’s (“USCOP”) *An Ocean Blueprint for the 21st Century* and the Pew Oceans Commission’s (“Pew”) *America’s Living Oceans: Charting a Course for Sea Change*, emphasize new regional approaches in the United States to strengthen our economies, sustain our ecosystem resources, preserve our cultural and biogeophysical treasures, and shore up national security.⁵

Underpinning ROG is the concept of ecosystem-based management (“EBM”), or ecosystem approaches to management, that looks comprehensively at ocean issues connected to one another by the ecosystem inhabitants and processes. While existing examples of regional management of oceans and coasts have in many cases improved the status quo, not all of them reflect the notion of ROG as envisioned by the USCOP or Pew. Many of them are also not embodying the spirit of the ecosystem-based approach recommended for ROG. Many of these activities follow an issue by issue approach at specific scales (for example, state or federal jurisdictions).⁶ Others attempt to use a regional approach tackling a diverse, but not comprehensive set of issues. For example, the Gulf of Maine Council on the Marine Environment successfully coordinates habitat protection, water quality, public education, marine debris, and selected maritime activities on a watershed and ocean ecosystem scale. But it focuses primarily on environmental quality and does not engage in regional economic coordination or other non-environmental objectives (for example, offshore energy).⁷

The purpose of this paper is to provide the reader with a conceptual understanding of ROG based on contemporary definitions and applications as well as to reflect on the reality of its implementation in the U.S. given the current political, social, and economic conditions. Section II discusses and compares the rationale and definitions of ROG from Pew and USCOP to illustrate the basis

4. U.S. OCEAN ACTION PLAN: THE BUSH ADMINISTRATION’S RESPONSE TO THE U.S. COMMISSION ON OCEAN POLICY (Dec. 17, 2004) [hereinafter U.S. OCEAN ACTION PLAN], <http://ocean.ceq.gov/actionplan.pdf>.

5. USCOP REPORT, *supra* note 3, at 24.

6. *See* USCOP REPORT, *supra* note 3.

7. *See, e.g.*, Renewable Natural Resources Foundation, *Congress on Building Capacity for Coastal Solutions*, 43 RENEWABLE RES. J. 23 (2005); A.L. Springer, *North American Transjurisdictional Cooperation: The Gulf of Maine Council on the Marine Environment*, CANADIAN AM. PUB. POL’Y, Apr. 2002, at 15.

and complexities driving the need for a regional approach to ocean management. Section III explores the conceptual underpinnings of ROG drawing from literature addressing the concepts of place, regionalism, governance, oceans, and place-based management. Section IV uses these concepts to identify three key elements of ROG: promoting institutional change, advancing ecosystem-based management, and developing regional stewards. Section V assesses current national, regional, and state level activities that are regional in nature and will influence the development of ROG. The paper concludes with an overall evaluation and forecast for the future of ROG in the U.S., including key barriers to, opportunities for, and steps to be taken to promote ROG development.

II. RATIONALE AND DEFINITIONS OF ROG

A. *Rationale and Structure of ROG Offered by Pew*

One of the major recommendations of Pew is to address ocean and coastal resource problems using a more “comprehensive and coordinated” approach at large regional marine ecosystem and watershed scales.⁸ It stems from the belief that a crisis, caused by policies based on previous beliefs that the ocean resources were unlimited,⁹ is at hand.¹⁰ From this misunderstanding developed a variety of single sector or single resource management laws that ignored the impacts of single activities on overall ecosystem health.¹¹ For example, the management of fisheries historically focused on optimizing economic output of a single species with limited consideration of the impact on other species and the overall ecosystem. Therefore, Pew recommends an ecosystem and regional approach through “comprehensive and coordinated governance of ocean resources and uses at scales appropriate to the problems to be solved.”¹²

The issues to be addressed by regional approaches of this scale include living marine resource management, habitat protection, water quality protection, and managing human activities that affect marine

8. PEW REPORT, *supra* note 2, at x.

9. *Id.* at vii.

10. *See id.* at v.

11. *See id.* at vii-viii.

12. *Id.* at x.

ecosystems, such as non-point source pollution.¹³ At the watershed scale, Pew emphasizes the need for state guided cross-jurisdictional coordination and planning for protecting critical habitat and reduction of the impacts of urbanization on habitat and water quality, particularly from non-point source pollution.¹⁴

To advance these goals, Pew recommends establishing regional ocean ecosystem councils (“Councils”) that would be charged with developing regional ocean governance plans¹⁵ based on national policy and standards as defined by a National Ocean Policy Act, federal approval, and clear statutes.¹⁶ The plans would also be supported by federal consistency requirements through expansion of the Coastal Zone Management Act consistency authority.¹⁷ Federal preemption would be permitted if states do not comply with their own plans and federal court citizen suits.¹⁸ Federally derived regional ocean plans could be imposed if states fail to develop their own plans.¹⁹

The boundaries of the Councils would at first match the boundaries of the existing regional fishery management councils (“FMCs”) but may be adjusted if new information or issues warrant changes.²⁰ In this way, the Councils are flexible to changes in the ecosystem or political climate. Tools to be used by the Councils include Large Marine Ecosystem (“LME”) assessments,²¹ zoning, marine reserves,²² and the use of regional scientific and technical teams, especially when it comes to conservation decisions.²³

B. *Rationale and Structure of ROG Offered by the USCOP*

The USCOP recognizes some of the same problems with the current ocean management regime as outlined by Pew. In addition,

13. *See id.* at 56, 103.

14. *See id.* at 56-58.

15. *See id.* at 33, 103.

16. *See id.* at 33-34, 103.

17. *See id.* at 104.

18. *Id.* at 104.

19. *See id.* at 103-04; 16 U.S.C. § 1456 (2000).

20. PEW REPORT, *supra* note 2, at 104.

21. *Id.* at 94.

22. *Id.* at 34.

23. *See id.* at 47, 104 (Pew also allows for the development of advisory groups for receiving “views and advice” from nonfederal interests, including the usual stakeholders, local governments, and the public.); *see id.* at 34 (But it is unclear how this information would be used in any decisionmaking process.).

the USCOP recognizes the role and value of regional coordination in enhancing economic development, reducing user conflicts, advancing and protecting human health, and sustaining ocean ecosystems.²⁴ USCOP emphasizes the growing and inevitable need for greater coordination caused by new ocean uses that are currently not well managed or regulated. These uses include offshore aquaculture, renewable energy, and bioprospecting.²⁵ Figure 1 illustrates how the USCOP refers to ROG as a tool for management in many chapters of its report.

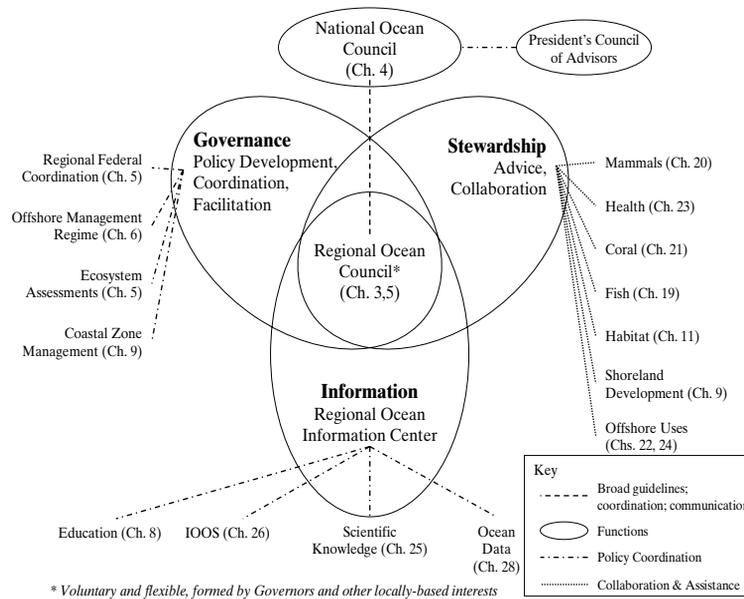


Figure 1. The Regional Ocean Governance concept as envisioned by the USCOP and references to its use in selected chapters of the report.

To develop and implement a regional approach, USCOP calls for the creation of regional ocean councils (“ROCs”) in a flexible and voluntary way which are supported at the national level by the National Ocean Council.²⁶ The ROCs would facilitate cross-jurisdictional and collaborative approaches while leaving existing authorities intact, with their formality and level of organization

24. USCOP REPORT, *supra* note 3, at 4, 8-9.

25. *Id.* at 9.

26. *Id.* at 86.

evolving over time as needed.²⁷ USCOP recommends the ROCs be formed with broad participation from all levels of government including tribes, private and nongovernmental sectors, academia, and the general public and that regional participants should drive the discussion of ROC structure, function, and regional planning.²⁸ USCOP also recommends that the President issue an Executive Order requiring all federal agencies in a region to improve regional coordination of their activities.²⁹

USCOP also recommends that Governors establish Regional Ocean Information Programs (“ROIPs”).³⁰ ROIPs will ensure robust and improved data, collection, and dissemination to all levels for decisionmaking, training, technical assistance, outreach, and education, including strong linkages to existing or developing regional integrated ocean observing systems (“IOOS”).³¹ A key source of valuable information for decisionmaking is regional ecosystem assessments that are conducted by the National Oceanic and Atmospheric Administration (“NOAA”) and the Environmental Protection Agency (“EPA”) using existing federal, state, and local information.³²

Since many of the problems to be addressed by ROCs are well known, regional responses to these problems already exist. USCOP recommends the ROCs assist, enhance, or become the focal point for these existing responses. USCOP also recommends that ROCs should not displace what already exists.³³ The boundaries of ROCs would encompass no less than “the area from the inland extent of coastal watersheds to the offshore boundary of the nation’s exclusive economic zone.”³⁴ Boundaries should aggregate similar adjacent ecosystems or processes and may reflect LME boundaries when appropriate.³⁵

USCOP reports three emerging themes that can be considered the pillars of the USCOP concept of ROG: governance, stewardship, and information (see Figure 1). Governance involves policy

27. *Id.* at 90.

28. *See id.* at 91.

29. *See id.* at 92.

30. *Id.* at 95.

31. *See id.*

32. *Id.* at 96.

33. *Id.* at 91.

34. *Id.*

35. *See id.*

development, coordination, and facilitation through regional federal coordination, coastal zone management at the state level, the offshore management regime, and ecosystem assessments.³⁶ Stewardship involves advice and collaboration on topics such as marine mammals, oceans and human health, coral protection, fish management, habitat protection, shoreland development, and offshore uses.³⁷ Information includes ocean and coastal observing or monitoring, scientific knowledge, education initiatives, and outreach to the public.³⁸

C. Comparison of Pew and USCOP

While both reports support development of ROG and regional coordinating councils, distinct differences affect how the concepts are received and then implemented. Table 1 highlights these differences and several commonalities.

Table 1. Pew and USCOP Concepts of Regional Ocean Governance

PEW	USCOP
Federally driven thru national law and standards	Voluntary and flexible; established by Governors and supported by National Ocean Council
Requires ROG plans to restore and protect ecosystems, manage LME activities; federally imposed if region falters; based on science	Regionally identified issues, goals, priorities; issue specific responses; focus on coordination, regional information services, IOOS
Use marine zoning, MPAs, address water quality, habitat and coastal development	Mechanisms/management measures determined by the issue
Apply federal consistency, allow citizen suits, default plans by federal government if regions do not act	Authority of existing agencies not changed
Council Membership: Federal, state, and tribal authorities	Council Membership: broad and representative of all levels of government
Nongovernmental interests represented through advisory groups	Nongovernmental interests represented through membership or advisory groups

36. *See id.* at 86-106, 150-60.

37. *See id.* at 170-79, 270-329, 331-51.

38. *See id.* at 138-49, 374-411, 428-41.

ROG plans should assess history and state of regional marine ecosystems	Regional ecosystem assessments by EPA and NOAA
Use large marine areas - LME and FMC boundaries	
Extend from coastal watershed to ocean	
Use ecosystem-based management framework	
Cross jurisdictions	
Enhance or assist sub-regional activities	

The Pew approach to ROG follows a more traditional top-down approach using clear legal structure, authority, and accountability.³⁹ The emphasis is on environmental and resource protection and clear tools for accountability, including federal oversight, federal consistency, and access to the courts.⁴⁰ This approach will resonate well with environmentalists and scientists who have been sounding the alarm on the state of the oceans for some time and have been the primary driver for EBM.⁴¹ However, Pew's findings and recommendations do not emphasize a role for local input and action and do not address economic development activities. Overall, the Pew approach to ROG offers a national standards/regulatory controls method of protecting and restoring the oceans and coasts.

The USCOP approach to ROG is more flexible than the Pew approach and provides a balance of support at federal and state levels with development originating at the state and local levels.⁴² Issue coverage is more comprehensive in USCOP and looks beyond current issues to future opportunities. The USCOP provided state Governors opportunity to comment on the draft report and this resulted in greater attention to state and local level interests in the recommendations.⁴³

39. For a detailed discussion of the Pew concept of ROG, see Craig Russell, A Policy Context and Analytical Framework for Advancing Regional Ocean Governance in the United States 7 (2005) (unpublished Master's thesis) (on file with University of Washington Library).

40. See PEW REPORT, *supra* note 2, at 103-05.

41. See AMY MATTHEWS AMOS, MOVING FORWARD: A SNAPSHOT OF U.S. ACTIVITIES IN ECOSYSTEM-BASED FISHERIES MANAGEMENT, A REPORT TO THE LENFEST OCEAN PROGRAM AT THE PEW CHARITABLE TRUSTS 1 (2005), available at http://www.lenfestoceans.org/publications/Moving_Forward_EBFM_Final2-7-05.pdf.

42. USCOP REPORT, *supra* note 3, at 87, 89.

43. See Oceans Act of 2000, Pub. L. No. 106-256, § 3(g)(1)(b), 114 Stat. 644 (2000) (requiring that Governors be given an opportunity to comment on the draft report).

III. CONCEPTUALIZING ROG

Although these national reports provide a rationale and proposed structure for ROG, neither provide the conceptualization needed for a deeper understanding of the values and purposes served by ROG. This section provides an overview of the foundational concepts and key components of a ROG framework. First, we will discuss the origins of the underlying principles of ROG as found in an understanding of place and regionalism, followed by discussion of the literal meaning of regions, oceans, and governance in the ocean and coastal context. Once established, we will describe the three components of a ROG framework: institutional change, ecosystem-based management, and regional stewards.

A. *Place*

The notion of place is perhaps the best-suited notion to launch discussions of ROG. The emphasis and focus on “region” as an organizing unit for ocean governance suggests that the notion of “place” may be helpful in understanding what is meant by “region.” Therefore, we need to draw on knowledge and experience from the fields of geography and land use planning to recognize the functional role of place in society and planning, and to understand how place plays a role in ocean and coastal issues.

Place is a *process* in which space and society are constantly and interdependently transforming one another.⁴⁴ This definition acknowledges the interactions and products of relationships among humans, natural processes, and physical spaces. At a micro level of interaction, the individual level, human activities and places are interdependent and transform one another. Imagine the complexities in the relationships that arise when we also consider other existing social interactions, such as management institutions or additional natural processes, such as inter-decadal climate oscillations or climate change. Thus, if we consider place as a process we must consider not only the physical or natural space but also the human interactions and natural processes within that space and how they interdependently transform one another.

A geographer and philosopher of places synthesize the above quite clearly:

44. See Allan Pred, *Place as Historically Contingent Process: Structuration and the Time-geography of Becoming Places*, 74 ANNALS ASS'N AM. GEOGRAPHERS 279, 279 (1984).

Places are fusions of human and natural order and are the significant centres of our immediate experiences of the world. They are defined less by unique locations, landscape, and communities than by the focusing of experiences and intentions onto particular settings. Places are not abstractions or concepts, but are directly experienced phenomena of the lived-world and hence are full with meanings, with real objects, and with ongoing activities. They are important sources of individual and communal identity, and are often profound centres of human existence to which people have deep emotional and psychological ties. Indeed our relationships with places are just as necessary, varied, and sometimes perhaps just as unpleasant, as our relationships with other people.⁴⁵

With such emotional and psychological ties wrapped around places, they become more difficult to manage by technique—an approach that both the planning and ocean fields are prone to do.

The concept of technique in planning refers to the propensity to see and manage places strictly using objective and quantifiable tools such as efficiency, productivity, economic output, and organization or other numbers and principles that are widely accepted as “best practices.”⁴⁶ Since the oceans are complex places, they cannot be managed by technique alone and require a broader understanding of complex systems and operations. As soon as the first line was drawn on a map, our sense of the interconnectedness and complexity of the oceans began eroding which enabled us to overlook the natural properties and variance below the surface⁴⁷ in a more technical way. Through training, the planner learned to ignore and devalue the existential and intrinsic qualities of a place and see it as uniform and malleable to achieve an intended goal (for example, economic development, slum removal, etc.).⁴⁸

The result of such a practice is often the destruction of places once known by the people that experienced them and a privileging of technical knowledge of a place over local knowledge.⁴⁹ Such a

45. EDWARD RELPH, *PLACE AND PLACELESSNESS* 141 (1976).

46. *See id.* at 87-88.

47. Aldaberto Vallega, *The Regional Approach to the Ocean, the Ocean Regions, and Ocean Regionalization—A Post-modern Dilemma*, 45 *OCEAN & COASTAL MGMT* 721, 730 (2002).

48. RELPH, *supra* note 45, at 87-89.

49. *See id.* at 89. *See also* Antony S. Cheng & Steven E. Daniels, *Examining the Interaction Between Geographic Scale and Ways of Knowing in Ecosystem Management: A Case Study of Place-based Collaborative Planning*, 49 *FOREST SCI.* 841, 843 (2003). Cheng and Daniels delve into this topic further, discussing how the scale of place-based planning greatly affects the success of collaborative processes. *Id.* at 843-44. Local knowledge of place is smaller in scale

technical approach to management of the oceans, for example, in marine reserve design where the goal is to increase quantifiable biomass, inevitably threatens fishermen's sense or knowledge of place. What once was fishing ground for generations and holds significant emotional and psychological value is now relegated to an objective space. Therefore, when making management decisions we should look to not just which *areas* will best achieve our quantifiable goals but which *places* best fit our ecological and societal needs. Doing so requires understanding of the ecological context of a place and also the "uniqueness of places."⁵⁰ Understanding ocean areas as places allows us to be cognizant of the reality of competing ways of knowing place and the interdependencies between humans and the oceans when engaging in large-scale or regional coordinating activities.⁵¹

B. Regionalism

Regionalism has strong roots in land use planning practices where economic, social, transportation, and environmental issues prompt regional coordination.⁵² Regionalism is defined as the:

Tendency to, or practice of, regional systems or methods; localism on a regional basis. Also, on a national or international scale: the theory or practice of regional rather than central systems of administration, or of economic, cultural, or political affiliation; the study of such phenomena as they relate to geographic factors.⁵³

Using terms from the last definition of place in the preceding discussion, a region is a place or collection of interacting places.⁵⁴ Thus, regional-ism is place-ism, or the process of interdependent human-space interactions in a specific place or places. According to Paasi:

Regions . . . are social constructs that are created in political, economic, cultural and administrative practices and discourses. Further, in these practices and discourses regions may become

than the scale of an ecosystem managed under EBM or ROG. Overcoming this disparity requires developing and building shared ways of knowing. *Id.*

50. A.D. Guerry, *Icarus and Daedalus: Conceptual and Tactical Lessons for Marine Ecosystem-based Management*, 3 FRONTIERS ECOLOGY & ENV'T 202, 206 (2005).

51. Cheng & Daniels, *supra* note 49, at 843.

52. ALLIANCE FOR REG'L STEWARDSHIP, REGIONAL STEWARDSHIP: A COMMITMENT TO PLACE, MONOGRAPH SERIES 1, at 3 (2004); see Victoria Basalo, *U.S. Regionalism and Rationality*, 40 URB. STUD. 447, 449 (2003).

53. OXFORD ENGLISH DICTIONARY, <http://dictionary.oed.com/> (search "Find Word" for "regionalism") (last visited Apr. 20, 2006).

54. REFLECTIONS ON REGIONALISM 3 (Bruce Katz ed., 2000).

crucial instruments of power that manifest themselves in shaping the spaces of governance, economy and culture.⁵⁵

Thus, regionalism exists in urban and land use planning for many of the same reasons we are considering regionalism as a way of better managing oceans and coasts. Regionalism is:

a tool for social planning, because it takes into consideration the rights, privileges, and resources of people and areas and stresses self-government and self-development as opposed to coercive centralized power, and also because it offers specific technical workable ways of developing and conserving resources for human use ends.⁵⁶

With the pressures of growing populations, changing urban and environmental landscapes, devolution of government, and inevitability of fluctuating economies, the land use planning field recognized that negative impacts on social and ecological welfare warranted cross-jurisdictional responses.⁵⁷ Regionalism is implemented to advance the common good across jurisdictions, benefiting from economies of scale and reducing negative externalities.⁵⁸ The common good refers to economic growth, enhanced public services, and improved environmental conditions and communities.⁵⁹ Regional leaders collaborate vertically across levels of government and horizontally across different sectors creating “networks of responsibility” that recognize the interdependence of regional economies, environment, and societies.⁶⁰

Four primary benefits of this regional coordination are: (1) developing new economies, (2) making communities livable, (3) creating inclusive community-based regionalism, and (4) reforming government.⁶¹ Other more specific benefits include: sharing and

55. Anssi Paasi, *Europe as Social Process and Discourse: Considerations of Place, Boundaries and Identity*, 8 EUR. URB. & REGIONAL STUD. 7, 16 (2001).

56. Howard W. Odum, *The Promise of Regionalism*, in REGIONALISM IN AMERICA 395, 405 (Merrill Jensen ed., 1951).

57. KATHRYN A. FOSTER, REGIONALISM ON PURPOSE 4 (2001); REFLECTIONS ON REGIONALISM, *supra* note 54, at 3; ALLIANCE FOR REG'L STEWARDSHIP, *supra* note 52, at 4.

58. Elizabeth R. Gerber & Clark C. Gibson, *Balancing Competing Interests in American Regional Governance* 7-8 (Univ. of Mich. Ford Sch. of Pub. Policy, Working Paper, 2005), available at http://americandemocracy.nd.edu/speaker_series/files/GerberPaper.pdf; Lee A. Kimball, DOALOS/UNITAR Briefing on Developments in Ocean Affairs and the Law of the Sea Twenty Years After the Conclusion of the U.N. Convention on the Law of the Sea 2 (Sept. 26, 2002), http://www.un.org/Depts/los/convention_agreements/convention_20years/PresentationLeeKimball.pdf; USCOP REPORT, *supra* note 3, at 87.

59. See ALLIANCE FOR REG'L STEWARDSHIP, *supra* note 52, at 7.

60. See *id.* at 26-27; FOSTER, *supra* note 57, at 16.

61. ALLIANCE FOR REG'L STEWARDSHIP, *supra* note 52, at 14.

learning from others, encouraging economic development by providing the private sector with predictable and consistent policies, and improved coordination for negotiating and dealing with higher levels of government.⁶²

There are several challenges regarding implementing regionalism. The first is defining the region which is a function of social, economic, and political processes and contexts.⁶³ Region definitions tend to describe the region's physical and administrative characteristics,⁶⁴ but understate the social, economic, and political context. Other examples, or hurdles, that must be faced in dealing with regionalism are: overcoming a weak sense of regional identity, finding consensus on political strategies for regional change, forming and benefiting from a "big tent" coalition, overcoming a tendency to shy away from contentious issues, and responding to often inconsistent federal and state policies.⁶⁵ Despite these hurdles, regionalism offers a more comprehensive opportunity to address cross-jurisdictional and cross-sectoral ocean and coastal issues.

C. *Regions*

In geography and metropolitan planning, the geographic scope of regions is variable in scale and reflects the extent of common problems or interests.⁶⁶ In some instances region refers to towns, and in other situations it refers to whole nations.⁶⁷ Regions are derived by the interaction of economic, social, and political forces.⁶⁸ Some of the boundaries are diffuse, such as ecosystem boundaries, whereas others are clearly defined, such as legal jurisdictions.⁶⁹ The same variety

62. Biliana Cicin-Sain et al., *Improving Ocean Management Capacity in the Pacific Coast Region: State and Regional Perspectives*, W-91-004 NAT'L RESOURCES RES. & DEV. INST. 89 (1990).

63. Paasi, *supra* note 55, at 8; Gordon MacLeod, *In What Sense a Region? Place Hybridity, Symbolic Shape, and Institutional Formation in Post-modern Scotland*, 17 POL. GEOGRAPHY 833, 836-37 (1998); Lawrence Juda, *Considerations in Efforts to Effectuate Regional Ocean Governance*, in WORKSHOP ON IMPROVING REGIONAL OCEAN GOVERNANCE IN THE UNITED STATES 23 (Biliana Cicin-Sain & Charles Ehler eds., 2002).

64. Martin Jones & Gordon MacLeod, *Regional Spaces, Spaces of Regionalism: Territory, Insurgent Politics and the English Question*, 29 TRANSACTIONS INST. BRIT. GEOGRAPHERS 433, 435-36 (2004).

65. FOSTER, *supra* note 57, at 24-25.

66. Lancaster Pollard, *The Pacific Northwest*, in REGIONALISM IN AMERICA 187, 206 (Merrill Jensen ed., 1951).

67. MacLeod, *supra* note 63, at 836.

68. Juda, *supra* note 63, at 23; MacLeod, *supra* note 63, at 836-38; Paasi, *supra* note 55, at 8.

69. MacLeod, *supra* note 63, at 837.

exists in ocean and coastal management. In the U.S., researchers have identified seven LMEs⁷⁰ the sizes of which are upwards of 200,000 kilometers squared, with scientifically derived boundaries based on bathymetry, hydrography, productivity, and trophically dependent populations.⁷¹ Watershed management regions delineated by hydrology and topography are also recognized regions.⁷² These are just two of the handful of regional approaches that exist in ocean and coastal management.

In using regions to focus ocean governance, both Pew and USCOP intended to cast a net over a vast range of ocean issues. Driven by the principles of EBM, the underlying rationale for regions is biogeographic and not political or jurisdictional, though as already discussed, the cause for such a rationale is the limitations of political or jurisdictional approaches.⁷³ Attention is given to LMEs for the initial extent of regions,⁷⁴ subject to regional revision, because they cover such large ocean and coastal areas and cross many jurisdictions.⁷⁵ A broad spatial scale such as LMEs is needed to overcome problems with historic development of separate management regimes for ocean and coastal areas⁷⁶ and a lack of integrated policies to address impacts of one use or activity on another.⁷⁷ Since regions cover and cross multiple jurisdictions, states and federal agencies are provided greater opportunity to increase coordination among each other.⁷⁸

70. See Large Marine Ecosystem of the World, <http://www.edc.uri.edu/lme/clickable-map.htm> (last visited Apr. 7, 2007). The seven U.S. LMEs are: East Bering Sea, Gulf of Alaska, California Current, Gulf of California, Gulf of Mexico, Southeast U.S. Continental Shelf, and Northeast U.S. Continental Shelf. *Id.*

71. *Id.*; Kenneth Sherman, *Application of the Large Marine Ecosystem Approach to U.S. Regional Ocean Governance*, in WORKSHOP ON IMPROVING REGIONAL OCEAN GOVERNANCE IN THE U.S., *supra* note 65, at 59.

72. U.S. Env't'l Prot. Agency, What is a Watershed Approach?, <http://www.epa.gov/owow/watershed/framework/ch2.html> (last visited Apr. 7, 2006).

73. Some boundaries, such as the EEZ, cannot be ignored and do limit the scope of coverage, though it does not preclude international cooperation on shared or common issues.

74. PEW REPORT, *supra* note 2, at 94; USCOP REPORT, *supra* note 3, at 91.

75. Sherman, *supra* note 71, at 59; Large Marine Ecosystem of the World, *supra* note 70.

76. Lawrence Juda, *Considerations in Developing a Functional Approach to the Governance of Large Marine Ecosystems*, 30 OCEAN DEV. & INT'L L. 89, 89-90 (1999).

77. BILIANA CICIN-SAIN & ROBERT W. KNECHT, THE FUTURE OF U.S. OCEAN POLICY: CHOICES FOR THE NEW CENTURY 16 (2000).

78. CICIN-SAIN & EHLERS, *supra* note 1, at viii.

D. *Ocean*

Consistent with USCOP recommendations, in the context of ROG, “ocean” is the area from the coastal watersheds seaward to the outer limit of the exclusive economic zone (“EEZ”). Such a large area includes upland watersheds and inland estuaries, shorelines, and state and federal waters. When dealing with upland watersheds, inland estuaries and coastal regions, there exist well established and tested legal regimes, coordinating mechanisms, and leadership for many of the common issues tackled. Federal, state, interstate, and tribal governance arrangements already exist for many inland and coastal areas, driven by issues such as endangered species, urbanization, beach erosion, and many other coastal issues.

However, when dealing with offshore areas of the ocean either at the boundary of state and federal waters or strictly in federal waters, there is an increased recognition of the role of oceans in resource management, hazards, climate change, exploration, and technology that was underappreciated in the past.⁷⁹ Scientists are learning more about the effects of ocean conditions and processes on phenomena such as harmful algal blooms and hypoxic events that impact commercial and recreational fisheries and human health.⁸⁰ Thus, there is greater societal need to focus attention on the ocean areas.

There is also a lack of coordinated offshore management policy for growing activities such as bioprospecting, mariculture, wind farms, wave and current energy, observing systems, and research stations.⁸¹ No comprehensive regulatory authority currently exists for mariculture or bioprospecting. There is an incongruity between the regulatory needs and regulating agencies for wind farms and alternative energy projects.⁸² Thus, there is a regulatory need to extend coordination into the oceans. By adding “ocean” to regional

79. USCOP REPORT, *supra* note 3, at 60-61.

80. See Justic Dubravko et al., *Climatic Influences on Riverine Nitrate Flux: Implications for Coastal Marine Eutrophication and Hypoxia*, 26 ESTUARIES 1 (2003); P. Hoagland et al., *The Economic Effects of Harmful Algal Blooms in the United States: Estimates, Assessment Issues, and Information Needs*, 25 ESTUARIES 819 (2002); Rita A. Horner et al., *Harmful Algal Blooms and Red Tide Problems on the U.S. West Coast*, 42 LIMNOLOGY & OCEANOGRAPHY 1076 (1997).

81. Jeremy Firestone et al., *Regulating Offshore Wind Power and Aquaculture: Messages from Land and Sea*, 14 CORNELL J.L. & PUB. POL’Y 71, 72 (2004). Biliانا Cicin-Sain, *An Overview for Policy Issues and Options for Improved Regional Ocean Governance*, in WORKSHOP ON IMPROVING REGIONAL OCEAN GOVERNANCE IN THE U.S., *supra* note 65, at 2.

82. Firestone et al., *supra* note 81, at 72-73. The Energy Policy Act of 2005 resolves some but not all of these issues. Energy Policy Act of 2005, Pub. L. No. 109-58, 199 Stat. 594 (2005).

approaches in an arena with abundant coastal regional coordination, these new factors are explicitly included.

E. Governance

There exist multiple definitions of governance throughout the field of marine affairs. Table 2 provides five definitions, one of which is specific to ROG. Each of these definitions provides a different perspective.

Table 2. Selected Definitions of Governance

Author(s) <i>Concept</i>	Definition
B. Cicin-Sain & R. Knecht <i>Ocean Governance</i>	“[T]he architecture and makeup of the regime used to govern behavior, public and private, relative to an ocean area and the resources and activities contained therein.” ⁸³
L. Juda <i>Governance</i>	“[T]he formal and informal arrangements, institutions, and mores which determine how resources or an environment are utilized; how the problems and opportunities are evaluated and analyzed; what behavior is deemed acceptable or forbidden; and what rules and sanctions are applied to affect the pattern of resource and environmental use.” ⁸⁴
L. Kimball <i>Regional Ocean Governance</i>	“[T]he international legal and policy frameworks governing ocean use at the regional level and the international organizations active in any particular region.” ⁸⁵

83. CICIN-SAIN & KNECHT, *supra* note 77, at 14.

84. Juda, *supra* note 76, at 90-91.

85. L. KIMBALL, INTERNATIONAL OCEAN GOVERNANCE: USING INTERNATIONAL LAW AND ORGANIZATIONS TO MANAGE MARINE RESOURCES SUSTAINABLY (2002).

J. Rosenau <i>Governance</i>	“[A]ctivities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities and that do not necessarily rely on police powers to overcome defiance and attain compliance[;] . . . a more encompassing phenomenon than government.” ⁸⁶
O. R. Young <i>Governance</i>	“[A] social function whose performance is crucial to the viability of all human societies; it centers on the management of complex interdependencies among actors (whether individual, corporations, interest groups, or public agencies) who are engaged in interactive decisionmaking and, therefore, taking actions that affect each other’s welfare.” ⁸⁷

Kimball⁸⁸ and Cicin-Sain and Knecht⁸⁹ emphasize a legal “regime” approach. Cicin-Sain and Knecht limit the geographic coverage of ocean governance to the territorial sea, EEZ, and depending on the location, parts of the continental shelf, with the ultimate goal of maximizing long-term public benefits; interestingly, there is no mention of including coastal and inland areas.⁹⁰ Juda⁹¹ and Rosenau⁹² are more inclusive of non-legal regimes such as mores and informal institutions. Young⁹³ is most inclusive of all types of regimes and players in his definition which focuses on the social function of decisionmaking.

The term “governance” must be distinguished from the term “management.” There is clearly no shortage of management of ocean and coastal places. For example, management regimes are in place for

86. Rosenau, *supra* note 92, at 4.

87. Oran R. Young, *The Effectiveness of International Governance Systems*, in GLOBAL ENVIRONMENTAL CHANGE AND INTERNATIONAL GOVERNANCE 2 (Oran R. Young et al. eds., 1996).

88. Kimball, *supra* note 58.

89. CICIN-SAIN & KNECHT, *supra* note 77, at 13-14.

90. *See id.* at 14.

91. Juda, *supra* note 76.

92. James N. Rosenau, *Governance, Order, and Change in World Politics*, in GOVERNANCE WITHOUT GOVERNMENT: ORDER AND CHANGE IN WORLD POLITICS 4 (James N. Rosenau & Ernst-Otto Czempel eds., 1992).

93. *See id.*

National Marine Sanctuaries,⁹⁴ National Estuarine Programs,⁹⁵ Coastal Zone,⁹⁶ Wildlife Refuges,⁹⁷ and many others. Most of these are legally constituted and controlled or managed by rules and regulations. While governance may include rules and regulations for management, it offers the possibility and utility of non-legal measures for influencing behavior through norms,⁹⁸ agreements, and other “soft” or less rigid approaches.

Further, existing management approaches to ocean places may lack a holistic approach described earlier, or are not well positioned or designed to address continued problems or emerging issues. For example, National Marine Sanctuaries only regulate certain activities designated in their management plans and defer to regional FMCs for fishing regulations.⁹⁹ Coastal Zone Management Programs possess the mismatch between ecosystem scale and jurisdictional boundaries.¹⁰⁰ The distinction between ocean management and governance is simple: Most management regimes deal with either managing resources for preferred outcomes or directives¹⁰¹ or with managing a limited set of human activities without regard for impacts on other activities¹⁰² while governance focuses on managing the full spectrum of human activities within the scope and context of the ecosystem,¹⁰³ including consideration of its properties and processes.¹⁰⁴

Generally, there is a move toward governance and away from government led rules and regulations. This is a result of significant adjustments caused by economic and technological changes.¹⁰⁵ Traditional government institutions that had previously focused on process and space planning are no longer capable of keeping up with

94. 16 U.S.C. §§ 1431-1445 (2000).

95. 33 U.S.C. § 1330 (2000).

96. 16 U.S.C. § 1451 (2000).

97. 16 U.S.C. § 668(d) (2000).

98. Edward L. Miles, *The Concept of Ocean Governance: Evolution Toward the 21st Century and the Principle of Sustainable Ocean Use*, 27 COASTAL MGMT. 1, 1-5 (1999).

99. 16 U.S.C. § 1434(a)(4)-(5) (2000).

100. Coastal Zone Management Programs are limited to state jurisdiction, do not extend into the ocean beyond three nautical miles in most cases, and in most cases do not extend upland into coastal watersheds. *Supra* note 98.

101. CICIN-SAIN & KNECHT, *supra* note 77, at 14.

102. CICIN-SAIN & EHLER, *supra* note 1, at 2.

103. *See id.* at vii.

104. *See id.* at x.

105. ALI MADANIPOUR ET AL., *THE GOVERNANCE OF PLACE: SPACE AND PLANNING PROCESSES* 1 (2001).

the ever-distributed network of economic activity and its impacts.¹⁰⁶ The fast flow and access of information has also led to a public that is more informed and skeptical of its authority.¹⁰⁷ The result is a geographic mismatch between government and the activities it governs.

In oceans and coasts, there is greater realization of the geographic mismatch between ecosystem processes, human activities, and traditional jurisdictions. The sources of some of the problems facing the oceans and coasts lie outside the jurisdictions of the coastal zone and ocean political boundaries. Similarly, many ocean activities impact multiple jurisdictions.¹⁰⁸ Fundamentally, governance is needed to better manage human uses and impacts on resources while also managing the resources themselves.

IV. FRAMEWORK FOR CHANGE

Section II of this paper showed the rationale and pressure for change to occur in our ocean management regime. Section III provided more conceptual depth underlying the concept of ROG. This section proposes a framework for change based on needed reform in three areas: promoting institutional change, advancing ecosystem-based management, and developing regional stewards (Figure 2). When combined they form a solid foundation from which to move forward toward regional ocean governance. Section V of this paper highlights some progress in advancing needed changes as of the end of 2005.

106. ALLIANCE FOR REG'L STEWARDSHIP, *supra* note 52, at 3.

107. MADANIPOUR ET AL., *supra* note 105, at 1.

108. CICIN-SAIN & KNECHT, *supra* note 77, at 279.

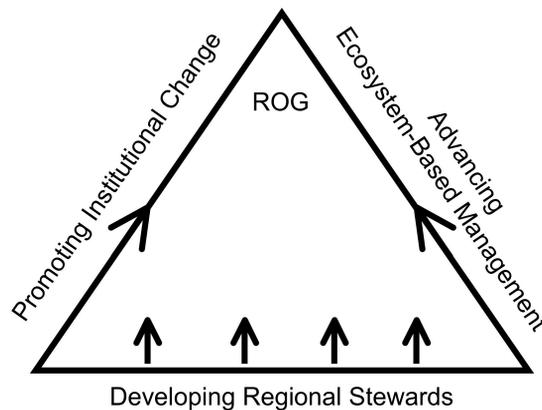


Figure 2. Regional Ocean Governance Framework: Regional stewards promote institutional change and advance ecosystem-based management.

A. *Promoting Institutional Change*

Promoting institutional change is based on the understanding and benefits of regionalism and governance discussed in Section III above.¹⁰⁹ Institutional change reflects the value of regionalism with its emphasis on human interactions and natural processes, and advances a broader concept of governance that guides the full spectrum of human activities within an ecosystem context. The USCOP ROG vision called for institutional change in at least four ways: (1) cooperation among the states, (2) cooperation among federal agencies, (3) cooperation among information generators and providers, and (4) through ecosystem assessments.¹¹⁰ To move forward or reverse ecosystem decline and capitalize on emerging economic benefits of the oceans and coasts, the USCOP premise calls for a change on how business is conducted to ensure that people work together more effectively at all levels.

109. *See supra* Section III.

110. *See supra* Section II.

B. *Advancing Ecosystem-Based Management*

Concepts of place,¹¹¹ ocean,¹¹² and regions¹¹³ suggest the connectivity between natural processes and human activities and the need to design a more holistic ecosystem-based approach to managing ocean resources and activities. EBM provides a focus on information and knowledge, emphasizing how we understand ecosystems, the resources they produce and sustain, and the relationship of human activities to those resources. The way natural resources are viewed must be altered through the use of a more holistic ecosystem concept of natural resources as an organizing unit. Change is also needed to advance research, observation, ecosystem assessments, and characterizations of ocean regions. An additional change relates to improved understanding of historic and contemporary human use of ocean regions to allow governance of a “place,” not simply an area.¹¹⁴ Our premise here is that through continuous and improved understanding of ecosystems, not just selected resources, and human activities, more appropriate decisions can be made to protect and sustain them and their functions, for all to enjoy.

C. *Developing Regional Stewards*

Supported by concepts of regionalism¹¹⁵ and governance,¹¹⁶ developing regional stewards emphasizes the importance of leadership and developing coalitions or networks of leaders to carry regional efforts forward. As discussed, regionalism requires crossing common jurisdictional boundaries and bridging institutions. It is an emerging arena for action and offers a more fluid and adaptive way for people dedicated to a specific place to come together. By identifying, connecting, and developing regional stewards, greater attention can be devoted to the well-being of places in a unique way other than that offered by strategies of institutional change and EBM alone. Therefore, our premise for this component of the framework is that developed networks of regional stewards committed to ecosystems and regions can facilitate and catalyze cooperative and

111. *See supra* notes 46-53 and accompanying text.

112. *See supra* notes 81-84 and accompanying text.

113. *See supra* notes 68-80 and accompanying text.

114. This concept is, in our view, given insufficient attention in both the Pew and USCOP reports.

115. *See supra* notes 54-67 and accompanying text.

116. *See supra* notes 85-110 and accompanying text.

equitable approaches to ensure a healthy environment and communities.

V. RECENT EXPERIENCE PROMOTING REGIONAL OCEAN GOVERNANCE

Over the last two years since the Pew and USCOP reports became available, there has been considerable activity at the national, regional, and state levels furthering regional thinking and approaches. These activities are divided into three levels: national, regional, and state. Those levels are distinguished by their scale and character. National level activity stimulated new regional efforts, conceptual development, and support for information resources. At the regional level there is collaboration among states in a number of large ocean regions. Finally, states are actively upgrading policies and organization structures to better manage state and near shore ocean waters. This section will highlight activities at the three levels.

A. *Significant National Changes*

Preceding and following the USCOP and Pew reports were several national activities that influenced the policy and organizational support of ROG. We can group these activities in two categories: White House and agency level initiatives. White House level activities are those national level activities undertaken by the Council on Environmental Quality, located in the Executive Office of the President. Agency level activities are those implemented by federal agencies, primarily NOAA, either autonomously or under the direction of the White House.

1. U.S. Ocean Action Plan

USOAP is promoting institutional change at the national level through a variety of activities. On December 17, 2004, President George W. Bush announced the USOAP in response to the USCOP report¹¹⁷ and assigned implementation responsibility to the Council on Environmental Quality. Along with the USOAP, the President signed Executive Order 13366 establishing a cabinet level Committee on Ocean Policy “to oversee ocean related policies for the President, advise heads of executive departments, and obtain advice and information from state, local, and tribal representatives.”¹¹⁸ The

117. U.S. OCEAN ACTION PLAN, *supra* note 4.

118. Committee on Ocean Policy, 69 Fed. Reg. 76591 (Dec. 21, 2004).

USOAP calls for improved coordination at the federal level, among the federal, state, tribal, and local governments, and with the private sector, international organizations, and foreign governments.¹¹⁹

Regional ocean governance is among the plethora of ocean and coastal topics covered in both the USOAP and Executive Order 13366. USOAP highlights three existing regional coordination activities: Great Lakes Regional Collaboration, Regional Partnership in the Gulf of Mexico, and the Southeast Aquatic Resources Partnership.¹²⁰ USOAP also establishes the new Subcommittee on Integrated Management of Ocean Resources (“SIMOR”).¹²¹ Among its many tasks, SIMOR addresses statutory and regulatory redundancies at the regional level, resolves conflicts, and recognizes emerging ocean issues for national and regional benefit.¹²² Notable activities so far include promoting the Gulf of Mexico Alliance, ROG in Alaska, ROG in the West coast and New England, and promoting state and regional input for national ocean research priorities plans.¹²³

2. Activities Within NOAA

In addition to White House level activities, NOAA is aggressively pursuing agency responses to USCOP and Pew recommendations. Four activities within NOAA are contributing to the ROG framework: (1) the Ecosystem Goal Team (“EGT”), (2)

119. U.S. OCEAN ACTION PLAN, *supra* note 4, at 4-6. The USOAP has received mixed reactions from the ocean policy community. Some suggest it is a great start. *See, e.g.*, Press Statement, U.S. Comm’n on Ocean Pol’y, Chairman of the U.S. Commission on Ocean Policy Commends President Bush on Initial Step Toward a National Ocean Policy (Dec. 17, 2004), *available at* http://www.oceancommission.gov/newsnotices/dec17_04.html; News Release, Env’tl. Def., Long Awaited Presidential Response to U.S. Commission on Ocean Policy Report (Dec. 17, 2004), *available at* <http://www.environmentaldefense.org/pressrelease.cfm?ContentID=4199>; Press Release, The Ocean Conservancy, President’s Oceans Committee, Advisor is a Positive Step (Dec. 17, 2004), *available at* http://www.oceanconservancy.org/site/PageServer?pagename=press_release041217&autologin=true. Others say it is nothing more than a restatement of mostly existing programs already constrained by tight budgets, and not a sign of additional funding. *See, e.g.*, Press Release, Oceana, Oceana Statement: Bush Response to U.S. Commission on Ocean Policy Recommendations a Missed Opportunity (Dec. 20, 2004), *available at* <http://www.oceana.org/index.php?id=802>. The USOAP statement in support of EBM will likely garner a few more supporters though many are undoubtedly reserving their enthusiasm in wait of action. In all, the impact of the USOAP is uncertain and its supporters vary; yet it will continue to be the current administration’s blueprint for ocean policy developments for the next three years.

120. *See infra* notes 150-154 and accompanying text.

121. U.S. OCEAN ACTION PLAN, *supra* note 4, at 8.

122. *Id.* at 8, 10-11.

123. *See infra* Section V.

fishery management councils, (3) integrated ocean observing systems, and (4) the National Sea Grant College Program.

a. NOAA Ecosystem Goal Team

At the agency level, NOAA is actively leading efforts toward institutional change and advancing EBM through its EGT. Prior to the U.S. Ocean Action Plan and the USCOP and Pew reports, NOAA was developing ecosystem approaches for protection, restoration, and management of specific uses of ocean and coastal resources through the EGT.¹²⁴ NOAA did this through an agency-wide task team composed of representatives from NOAA's ecosystem related programs. The EGT has made considerable progress conceptualizing regional EBM approaches.¹²⁵ Through collaboration with a variety of interests including federal, state, academic, and nongovernmental organizations, NOAA identified ten LMEs to be managed by proposed regional ecosystem councils.¹²⁶ These boundary delineations are consistent with initial boundaries prescribed by Pew¹²⁷ and USCOP.¹²⁸ The EGT plans to achieve their objectives by stimulating voluntary and joint agreements.¹²⁹

b. Fisheries Management Developments

Fisheries management developments are advancing EBM. Fisheries management is a major activity in any new or historic ocean management regime because of its economic productivity and ecosystem impacts. A shift occurred in fisheries management in 1999 after the release of a congressionally mandated study assessing the

124. John H. Dunnigan, Presentation to State Marine Fisheries Directors Meeting: NOAA's Ecosystem Approaches to Management (Apr. 13, 2005), http://ecosystems.noaa.gov/docs/EGT_State_Marine_Fisheries_Directors_04.13.05.ppt.

125. JAMES BURGESS ET AL., ECOSYSTEM GOAL TEAM, NOAA'S ECOSYSTEM APPROACH TO MANAGEMENT (2005), http://ecosystems.noaa.gov/docs/EGT_Oceans_2005_Paper_070105.doc. The EGT's primary goals are to improve ocean and coastal ecosystems for human benefit and develop an active and informed public. Note that these objectives reflect areas in which NOAA has legal authority. Other less resource oriented activities (for example, marine transportation, tourism, etc.) are absent.

126. *Id.*

127. PEW REPORT, *supra* note 2, at 103-04.

128. USCOP REPORT, *supra* note 3, at 90-91.

129. Advocates for the EGT approach are primarily expected to be federal managers and NOAA leadership. Since the EGT is not advocating new powers, existing authorities at the state level are also likely supporters. By adopting an EBM approach, the EGT also is likely to gain support from the environmental nongovernmental organization sector since they have been the primary advocates for EBM. *See* BURGESS, *supra* note 125.

use of ecosystem management principles in fisheries management.¹³⁰ Instigated by the Sustainable Fisheries Act of 1996,¹³¹ the study recommended steps to help FMCs move toward an EBM approach to fisheries management to ensure ecosystem health and sustainability.¹³² One recommendation was for FMCs to develop new Fisheries Ecosystem Plans to provide FMCs with a broader perspective on ecosystem properties and characteristics, including the human dimensions, provide guidance on information use, and establish policies for developing management measures.¹³³

The experience of two FMCs illustrate the response of fisheries management to EBM. The South Atlantic FMC held a series of workshops and coordinated with other providers of data and information on the ecosystem to develop a Fisheries Ecosystem Plan with movement toward EBM of fisheries.¹³⁴ The North Pacific FMC completed a study assessing how the North Pacific FMC fits within the EGT's proposed ecosystem council for Alaska.¹³⁵ In coordination with the state of Alaska, the North Pacific FMC chose the Aleutian Islands ecosystem as a starting point for improved coordination and development of an ecosystem approach through a proposed Aleutian Islands Ecosystem Forum.¹³⁶ There are other related activities underway in fisheries management though most are less developed than the South Atlantic FMC and North Pacific FMC activities.¹³⁷

130. ECOSYSTEM PRINCIPLES ADVISORY PANEL, ECOSYSTEM-BASED FISHERY MANAGEMENT: A REPORT TO CONGRESS BY THE ECOSYSTEM PRINCIPLES ADVISORY PANEL (1999), http://www.st.nmfs.gov/st7/documents/epap_report.pdf.

131. 16 U.S.C. § 1851 (2000).

132. ECOSYSTEM PRINCIPLES ADVISORY PANEL, *supra* note 130, at 1.

133. *Id.* at 2.

134. These and many other steps were laid out in an action plan for moving from single species essential fish habitat plans to fishery ecosystem plans. See S. ATL. FISHERIES MGMT. COUNCIL, ACTION PLAN: ECOSYSTEM-BASED MANAGEMENT, EVOLUTION FROM THE HABITAT PLAN TO A FISHERY ECOSYSTEM PLAN 4-7 (2004), available at http://conserveonline.org/workspaces/tnc_egt_group/FEP12_04.pdf. See AMOS, *supra* note 41, at 35.

135. Memorandum from Diana Evans & Bill Wilson on the Role of the North Pacific Fishery Management Council in the Development of an Ecosystem Approach to Management for the Alaska Large Marine Ecosystems to the N. Pac. Fisheries Mgmt. Council (2005), http://www.fakr.noaa.gov/npfmc/current_issues/ecosystem/EcoMgmt405.pdf.

136. N. Pac. Fishery Mgmt. Council, Ecosystem Committee Minutes (June 2, 2005), available at http://www.fakr.noaa.gov/NorthPacificFMC/current_issues/ecosystem/605Minutes.pdf.

137. AMOS, *supra* note 41, at 32. Fisheries-centric ecosystem approaches to management may limit the equitable consideration of other ocean uses and bring with them existing political conflicts and perceptions. Holistic consideration of all interests should be integrated into a management and decisionmaking framework if new developments in fisheries management are

c. Integrated Ocean Observing Systems

The need for knowledge and information about ocean and coastal ecosystems and human activities is fundamental to EBM because we know so little about oceans. Ocean observation, monitoring, data collection, and research are needed to aid management, as are information products and tools, education, outreach, and training.¹³⁸

Individual regions are developing new or enhancing existing ocean observing systems that will be linked to other regions and a national backbone system.¹³⁹ There are eleven Regional Associations (“RAs”) at different stages of development; some are more evolved and have already established a governance structure and linked information systems, while others are more nascent.¹⁴⁰ RA composition, development, and function seek to be integrative: Information needs are regionally driven and membership is broad and composed of cross-jurisdictional and cross-sectoral users who are involved in RA development and function.¹⁴¹ Another benefit of RAs is increased coordination on data sharing, issue and product

to embody EBM. Tribal interests, other ocean-impacting resource oriented interests (for example, timber, minerals, offshore energy, etc.), and nonresource consumption interests already mentioned in the EGT discussion must also be recognized and included in the process. Proposed stakeholder workshops will help this objective and continue to guide FMCs toward EBM and ecosystem-based fisheries management.

138. USCOP REPORT, *supra* note 3, at 94-95. The USCOP suggested developing regional ocean information programs (“ROIPs”) to fulfill many of these functions and support decision makers at all levels. ROIPs would be central clearinghouses for information and serve as focal points for information coordination, collection, and sharing with all levels of government, stakeholders, and the public. How the ROIPs form is up to each region to decide. Regions may wish to capitalize on existing resources or programs or develop new ones. However they are formed, the USCOP recommends staffing ROIPs with a variety of traditional information and data experts (for example, scientists, agency representatives, tribal representatives, and educators). So far, there is little public discourse on the topic of ROIPs, though it is expected that existing information programs are eyeing ways in which their programs could grow to support these needs. Among countless others that could play a role or become a part of a ROIP are newly developing information programs—integrated ocean observing system regional associations.

139. See Symposium, *Regional Ocean Observing Systems: An Ocean.US SUMMIT* (2003) [hereinafter OCEAN.US Symposium] (summary available at <http://www.ocean.us/documents/docs/Summit-Synthesis-Final1.doc>).

140. See National Federation of Regional Associations Home Page, <http://www.usnra.org> (last visited Mar. 27, 2006). While it is anticipated that RAs will continue to generate new data and meet management and user information needs in the oceans, existing and developing coastal information systems and networks will be required to provide coastal and upland information. Additional linkages must be made with state and local entities engaged in environmental and socioeconomic monitoring or regulation in coastal and upland areas.

141. OCEAN.US Symposium, *supra* note 139, at 3.

identification, standards and protocols development, education and outreach, as well as research and development.¹⁴² RAs also hope to serve as a catalyst for increased federal coordination and alignment on regional priorities.¹⁴³

d. National Sea Grant Program

A final national activity contributes directly to promoting institutional change and advancing EBM. The National Sea Grant College Program administered by NOAA¹⁴⁴ announced a call for proposals for the development of regional research, information planning, and coordination in six regions in 2006 and eleven regions in 2007.¹⁴⁵ The effort is geared toward generating regional research and information plans to support regional management.¹⁴⁶ It will also help identify regional priority problems to be addressed and associated information needs.¹⁴⁷

B. *Regional Responses and Activities*

There is a spurt of activity at the regional level that promotes institutional change and advances EBM. States are looking regionally and are attempting to look at ocean management in a different way by linking with other states. Some states or regions are more advanced in their regional thinking or approach than others.¹⁴⁸ Figure 3 illustrates ROG progress in ten regions. Beginning with the regions

142. *Id.* at 2.

143. Also needed is a more direct connection with ROG activities. Proposed Regional Federal Working Groups for coordinating federal agencies involved with RAs may overlap with existing or proposed regional coordinating groups tackling a broader suite of issues for ROG. In addition, ROG initiatives are potential clients or customers of RAs and could help RAs determine regional priorities as regional plans are developed and a broader suite of issues are addressed. GCOOS-RA Board of Directors Meeting Minutes, app. 8, http://www.ocean.tamu.edu/GCOOS/RA/BOD-1_minutes.pdf (last visited March 14, 2006). *See also* OCEAN.US Symposium, *supra* note 139, at 3-4.

144. 33 U.S.C. § 1123(a) (2000).

145. Notice of Availability of Grant Funds, 70 Fed. Reg. 76,258 (Dec. 23, 2005).

146. *See id.*

147. *See id.*

148. As part of the authors' 2005 National Workshop on Regional Ocean Governance, Coastal Zone 2005 Conference in New Orleans, LA, a background paper was developed and representatives from each of these regions presented the major new developments in their region. *See generally* Craig Russell et. al., *Preliminary Overview of U.S. Regional Ocean Governance Initiatives*, (Univ. of Wash., Working Paper, 2005), *available at* http://courses.washington.edu/oceangov/czdocs/USRegProfiles_Rev1.pdf (presenting the activities of various regions). *See generally* Project of Ocean Governance, http://depts.washington.edu/oceangov/cz05_workshop.html (last visited Apr. 7, 2006).

that are more advanced, three stand out: (1) the Gulf of Maine Council on the Marine Environment was formed in 1989¹⁴⁹ and is one of the leading regional and bi-national ROG efforts; (2) the Great Lakes Regional Collaboration;¹⁵⁰ and (3) the Southeast Aquatic Resources Partnership,¹⁵¹ which received particular attention and support from the USOAP.¹⁵²

149. Gulf of Maine Council on the Marine Environment—About the Council Home Page, <http://www.gulfofmaine.org/council/> (last visited Feb. 7, 2006). The Gulf of Maine Council on the Marine Environment is one of a handful of existing regional ocean governance initiatives in the U.S. and involves coordination with three U.S. states and two Canadian provinces in what is historically one of the world's most productive fishing grounds. Primary drivers of coordination are long-term sustainable management of coastal and marine resources, habitat restoration and conservation, information management, monitoring, and research to support a diverse group of users. *See id.*

150. There are five major efforts underway to encourage regional collaboration in the Great Lakes region: Great Lakes Regional Collaboration, International Joint Commission, Great Lakes Commission, Council of Great Lakes Governors, and Great Lakes Fishery Commission. These efforts range from improving water quality to promoting economic growth, and they are embodied within organizations that have been established by treaty, executive order, and negotiation. The network of governance structures in this region complicates management efforts as two nations, various states and provinces, tribes, and numerous municipal and local governments share oversight of the areas resources (for more detailed profiles of each of these see Russell et al., *supra* note 148).

151. The Southeast Aquatic Resources Partnership (“SARP”) covers the southeast United States. Thirteen states participate: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. Agency partners are the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Gulf States Marine Fisheries Commission, and the Gulf and South Atlantic Fishery Management Councils. The partnership seeks to address issues in inland waters and watersheds, as well as coastal resources. Members “envision a southeastern United States with healthy and diverse aquatic ecosystems that support sustainable public use.” Southeast Aquatic Resources Partnership, SARP White Paper Nov. 2004, <http://www.sarpaquatic.org/SARPWhitepaper1104.pdf>. SARP is a true regional effort, intending to “develop State and Federal partnerships that will extend beyond traditional boundaries of fishery resource management agencies and will establish a commitment to truly work together for the benefit of the resource.” *Id.*

152. U.S. OCEAN ACTION PLAN, *supra* note 119, at 11.

ROG Initiatives	GRL						Regional Ocean Governance
	GoME						
	SARP						
	Alaska						
	GoMex						
	Pac Islands						
	NE						
	West (Ca, Or, Wa)						
	Mid Atl.						
	SE						
Beginning Discussions	Agree to Proceed	Organization Formed	Planning	Project Proposal	Projects Completed, New Projects Underway	ROG	

Progress Towards ROG

Figure 3. Progress toward ROG in ten ocean and coastal regions of the United States.

These activities already exhibit proven success working across institutional boundaries and within their respective ecosystems. Other regions exhibit a slower response or none at all. Discussed earlier, Alaska is working closely with the North Pacific FMC to engage in an Aleutian Islands ecosystem-based management pilot project.¹⁵³ The Gulf of Mexico Alliance,¹⁵⁴ formerly the Regional Partnership in the Gulf of Mexico, and the Pacific Islands Regional Ocean Forum formed organizations to begin regional discussions. The Pacific Islands Regional Ocean Forum met in February 2004 to discuss steps

153. *See supra* notes 137-138 and accompanying text.

154. The Alliance is a regional partnership among the five Gulf States (Alabama, Florida, Mississippi, Louisiana, and Texas) and includes participation by the EPA's Gulf of Mexico Program, NOAA, and the Gulf of Mexico States Accord. *See* Gulf of Mexico Alliance, <http://www.dep.state.fl.us/gulf/default.htm> (last visited Mar. 27, 2006). The Alliance is still in its formative stage, having emerged from Florida Governor Jeb Bush's office in the spring of 2004. Workshop on Regional Governance, Workshop Proceedings 4-5 (July 20, 2005), <http://courses.washington.edu/oceangov/czdocs/ROGWSProceedings.pdf>. As such, the Alliance is still in the process of exploring partnership opportunities. *See id.* Mexico is being considered as a potential international partner. *See id.*

toward implementing the Pacific Islands Regional Ocean Policy.¹⁵⁵ New England Governor's and Eastern Canadian Premiers recently agreed to advance regional ocean management in shared waters of New England and the Gulf of Maine.¹⁵⁶ California, Oregon, and Washington, all within the California Current LME, have developed proposed regional research priorities. They met recently at a Communication Partnership for Science and the Sea ("COMPASS") meeting on EBM to discuss regional coordination initiatives and next steps.¹⁵⁷ The most prominent activities of interstate collaboration in the Mid-Atlantic¹⁵⁸ (Maryland, Delaware, New Jersey, and New York) and the Southeast¹⁵⁹ (North Carolina, South Carolina, Georgia, and Virginia) are the emerging IOOS RAs, MACOORA and SECOORA. New Jersey recently convened a dialog session to explore how to advance more holistic regional coordination in the

155. See Pacific Islands Regional Ocean Policy, <http://www.spc.int/piocean/forum/Newforum.htm> (last visited Mar. 27, 2006).

156. Press Release, Government of Newfoundland and Labrador, Resolution 29-3 Resolution Concerning Oceans (Aug. 29, 2005), <http://www.releases.gov.nl.ca/releases/2005/exec/resolutions/english/PDF/oceans.pdf>.

157. See generally COMPASS 2005 Workshop, Implementing Marine Ecosystem-Based Management: Integrating Perspectives from Science and Management (Dec. 12-13, 2005) (on file with author and available at http://compassonline.org/?q=meetings_and_events/#ime). Three other activities are: a University of Washington Regional Ocean Governance Project, a Nature Conservancy Marine Initiative on Ecoregional Planning, and regional ocean observing systems (NANOOS & PACOOS). There are other regional collaboration or coordinating entities in the Pacific Northwest. Most of these are focused on single issues such as oil spill response, see Oil Spill Task Force, <http://www.oilspilltaskforce.org/> (last visited March 15, 2006); fisheries management, see Pacific Fishery Management Council, <http://www.pcouncil.org/> (last visited Mar. 15, 2006); salmon recovery, see Shared Salmon Strategy, <http://www.sharedsalmonstrategy.org/about.htm> (last visited Mar. 15, 2006); water quality, see Puget Sound Action Team, http://www.psat.wa.gov/Who_we_are/Actionteam.htm (last visited Mar. 15, 2006); and sediment management, see Lower Columbia Solutions Group, <http://www.orsolutions.org/northwest/lcsg.htm> (last visited Mar. 15, 2006).

158. The regional ocean governance activities in the Mid-Atlantic Region include the Chesapeake Bay Program, the Delaware River Basin Commission, and the Mid-Atlantic Coastal Ocean Observing Regional Association ("MACOORA"). In addition to the three regional activities mentioned above, two National Estuarine Research Reserves and the Coastal Zone Management offices from Delaware, Maryland, and Virginia have begun regional meetings to discuss mutually beneficial projects to protect estuaries along the Delmarva Peninsula. *Supra* note 150.

159. The regional ocean governance activities in the Southeast Atlantic are focused thus far on the region's ocean observing system, the South East Atlantic Coastal Ocean Observing System ("SEACOOS"), and its regional association, the South East Coastal Ocean Observations Regional Association ("SECOORA"). These activities provide ocean observation data and information to the Southeast region for weather prediction, satellite imagery, environmental modeling, and ocean data management. Overall, regional coordination beyond that of information resources is limited if not nonexistent. See Russell et al., *supra* note 150.

Mid-Atlantic.¹⁶⁰ In the Southeastern U.S., there is little activity beyond the reach of the Southeast Aquatic Resources Partnership which focuses primarily on aquatic areas.

C. State Initiatives

In addition to the above regional activities, significant efforts are being made at the state level to strengthen management and policy structures.¹⁶¹ Table 3 briefly describes the activities in order of most active to least active states.

Table 3. State Ocean Policy Activities¹⁶²

<p>California</p> <p>California Ocean Protection Council (www.resources.ca.gov/copc/)</p> <p><u>Origin & Membership</u>: Established in 2004 pursuant to the requirements of the California Ocean Protection Act. Members include the Secretary for Resources, Secretary for Environmental Protection, Chair of the State Lands Commission, and two ex-officio legislative members.</p> <p><u>Mission/Goals</u>: Coordinates and improves the protection and management of California's ocean and coastal resources. Implements the Governor's 'Ocean Action Plan' released in October 2004.</p> <p><u>Program/Activities</u>: The council is tasked to coordinate activities of state agencies, coordinate the collection and sharing of scientific data, and identify and recommend changes in state and federal law.</p>
<p>Oregon</p> <p>Oregon Ocean Policy Advisory Council</p> <p><u>Origin & Membership</u>: Reconstituted by the OR legislature in early 2005 (existed previously from 1991-2002). Twenty-three members chaired by the Governor's appointee. Includes the directors of 7 state agencies and 16 other members, who are appointed by the Governor.</p> <p><u>Mission/Goals</u>: Created to give coordinated policy advice to the Governor, state agencies, and others and to prepare a plan for Oregon's Territorial Sea.</p> <p><u>Program/Activities</u>: Has no authority to directly regulate ocean</p>

160. See Kirk Moore, *The Crisis is Now—Sweeping Changes Called for in Coastal, Ocean Protection*, ASBURY PARK PRESS, Oct. 7, 2005, available at http://www.monmouth.edu/news/news_story.asp?iNewsID=3321&strBack=/default.asp (discussing the Urban Coast Institute's symposium).

161. For a more complete picture of regional activities, see Russell et al., *supra* note 148.

162. Modified slightly from the JOINT OCEAN COMM'N INITIATIVE, REGIONAL OCEAN ACTIVITIES SUMMARY (Jan. 18, 2006).

activities, manage resources, or to enforce its plans or policies. However, once its plans and policies are approved by the Land Conservation and Development Commission, state agencies are required to carry them out or act consistently with them.

Massachusetts

Massachusetts Ocean Management Legislation

Origin & Membership: Prompted by the final recommendations of the Massachusetts Ocean Management Task Force.

Mission/Goals: Comprehensive ocean resource assessment, management, and planning.

Program/Activities: Authorizes the development of an ocean management plan to guide development in state waters. Agencies are currently working to lay the groundwork for plan development.

Alaska

Alaska Ocean Policy Cabinet

Origin & Membership: Established by Administrative Order in December 2004. Membership includes four state agency commissioners, the Director of State/Federal Relations, and the governor's fishery policy advisor. Directed by the Department of Fish and Game.

Mission/Goals: To respond to the USCOP recommendations for regional ocean governance.

Program/Activities: Facilitating coordination and communication related to common ocean research and management goals, priorities, and results.

Florida

Florida Oceans and Coastal Resources Council

(www.dep.state.fl.us/oceanscouncil)

Origin & Membership: Established by the state legislature in 2004. Fifteen Council members were appointed in August 2005 from various stakeholder, academic, and government organizations.

Mission/Goals: Develop priorities for ocean and coastal research, establish a statewide ocean research plan, and coordinate public and private ocean research for more effective coastal management.

Program/Activities: Serves as a clearinghouse for information on key ocean and coastal issues facing the state in both the public and private sectors and monitors and publicizes actions related to the oceans and coasts.

Washington

Washington State Ocean Policy Working Group

Origin & Membership: Governor Gregoire provided funding for state

agencies to develop an informal advisory group after failing in the summer of 2005 to pass legislation establishing an ocean council. Twenty members, made up of agency heads, legislative members, the Governor's office, and tribal representatives.

Mission/Goals: Provide advice on six focus areas, Year 1: governance, coastal energy, fisheries, aquaculture, research priorities, and economic development.

Program/Activities: Charged to develop two reports on priority ocean-related topics. The first report, *Action for Washington's Ocean: Initial Steps to Enhance Management of Washington State's Ocean and Outer Coasts*, was released in December 2005.¹⁶³

Hawaii

Hawaii Ocean and Coastal Council¹⁶⁴

Origin & Membership: Created by Governor Lingle in spring 2005. Established in the Department of Land and Natural Resources with twenty-five members from state, federal, and local government, nongovernmental organizations, and academia.

Mission/Goals: Provide advice to guide the Governor's positions on ocean issues.

Program/Activities: n/a

New Jersey

New Jersey Coast 2005 (www.state.nj.us/dep/cmp/czm_zone.html)

Origin & Membership: Governor Codey.

Mission/Goals: Strengthen ocean pollution programs and initiate a new campaign to protect the waters of the NY/NJ Bight, among other things.

Program/Activities: Discussions currently underway among state leaders about forming a state-level ocean council and working on plans for coastal growth management.

Oceans and the Future Symposium

Origin & Membership: Convened September 2005 by Urban Coast Institute at Monmouth University.

Mission/Goals: Bring attention to the two Commissions' reports, the

163. WASH. STATE OCEAN POLICY WORK GROUP, INTERIM REPORT: ACTION FOR WASHINGTON'S OCEAN: INITIAL STEPS TO ENHANCE MANAGEMENT OF WASHINGTON STATE'S OCEAN AND OUT COASTS (Dec. 31, 2005), available at http://courses.washington.edu/oceangov/OPWG_Docs/WashingtonOPWGReport.pdf.

164. Hawaii Governor Lingle recently announced an effort to make the Council permanent. Press Release, Haw. Dep't of Land and Natural Res., Hawaii Ocean and Coastal Council Recommended for Formalization in State Statue (Feb. 2, 2006), <http://www.hawaii.gov/dlnr/chair/pio/HtmlNR/06-N017.htm>.

Administration's Ocean Action Plan, and the Governor's Coast 2005 Initiative. Also, further discussions about improving ocean and coastal management in NJ and the Mid-Atlantic region.

Program/Activities: n/a

New York

New York Ocean Policy Symposium

Origin & Membership: Convened in October 2005 by Governor Pataki.

Mission/Goals: Exploring how to apply the USCOP and Pew Oceans Commission recommendations to NY priorities for ocean management.

Program/Activities: State leaders express interest in ocean policy reform. The NY Legislature has held several oversight hearings on the topic.

Some states responded to the USCOP report by building on existing activities while others developed new activities.¹⁶⁵ State driven initiatives are led by Governors and vary in their approach. Some states are aggressively moving forward with state ocean management change, some are just getting started, and others show signs of initiating institutional or policy changes. California, Massachusetts, and Oregon are considered aggressive in their approach because specific ocean plans and policies have already been promulgated and are presently being achieved. Alaska, Hawaii, Florida, and Washington have new organizations formed but are still setting policy agendas. New York and New Jersey are in the beginning stages of ocean initiatives as they have held initial organizational meetings.

Activities at the state and regional level exhibit a wide range of maturity and coordination and indicate that states will continue to lead the charge for improved regional coordination. They are bolstered by politically potent and active Gubernatorial leadership and nongovernmental organizations. As witnessed at the ROG workshop in July 2005,¹⁶⁶ support for these initiatives is broad and diverse and indicates a ready and willing ROG constituency. As recommended in the USCOP and USOAP, states and regions demonstrate the ability and willingness to chart the course for ROG in the U.S.

165. M. Hershman & J. Hansen, *The U.S. Commission on Ocean Policy: An Historical Overview (1997-2005)*, 20 OCEAN YEARBOOK (forthcoming Spring 2006).

166. See generally Workshop on Regional Ocean Governance, Workshop Proceedings (July 20, 2005), <http://courses.washington.edu/oceangov/czdocs/ROGWSProceedings.pdf> (providing a summary of the workshop).

VI. REALITY CHECK: CONCLUSIONS AND NEXT STEPS

This paper has presented a summary and interpretation of the approaches to Regional Ocean Governance in the United States over the past two years. It also has proposed three themes that underscore this budding “movement:” a move to foster institutional change, advance EBM, and recruit regional stewards. What progress, if any, has been made and what still remains to be done? What recommendations can be offered to assist meeting the goals?

Over the past year a remarkable amount of institutional change occurred at three levels. Much of the change has been fairly bold. The President, NOAA, Governors, and state legislators have taken legal action to initiate or upgrade ocean management organizations and increase attention for the issue of regional governance. As a result there are a growing number of players thinking about the needs, the issues, and the means of implementation. At a minimum these new organizations have established a forum for inter-sectoral, inter-jurisdictional, and integrative discussions about moving the coast and ocean discussions to a broader and more inclusive regional scale. Expectations that change will occur through these new organizations are present. Furthermore, in the case of California, significant new program activities and funds have been applied to a suite of ocean and coastal issues.

There remain, however, questions as to the staying power of these new initiatives. How long will the interest of those engaged be maintained? How long will funding levels continue? A lot of momentum was generated from the two national reports, but continued action and interest is needed. For example, the NOAA EGT made significant progress in conceptualizing regional ecosystem councils, but little progress has been seen in developing these councils. The conceptualization was an important first step, but without follow-up, step one may have to be repeated at a future date.

Positive reinforcement from above is one way to underscore the importance of these beginning steps at the national, regional, and state levels. The White House cabinet level Committee on Ocean Policy and its subgroups, the “Aquabox” consisting of assistant Secretary level officials, and their implementation level subcommittees, the Joint Subcommittee on Ocean Science and Technology and SIMOR, are in a good position to play this proactive role. SIMOR, concerned with the integrated management of ocean resources, could play the role of public cheerleader, reporting on the institutional changes and responses to the USOAP. It could highlight

the importance of multi-agency, multi-sectoral bodies and the importance of the integration of diverse views in ocean affairs. It could organize meetings of regional and state leaders and form a “learning network” to improve the state of the art of regional and state level management of ocean resources.

Congress can also play a pivotal role by providing funding and a general framework to get states and regions to upgrade their work on ocean affairs.¹⁶⁷ Congress could establish a general framework similar to the Coastal Zone Management Act of the 1970s. The Coastal Zone Management Act established a voluntary program that allowed those already active in coastal management institutional change to continue developing their efforts, while also stimulating those states not yet underway to take initial steps. The resulting federal-state-local interaction framework focused on multiple problems, not just selected issues, within a defined “coastal zone.” This could serve as a useful model for integrated ocean management. Congress could pass an enabling law outlining broad objectives, providing seed funding, and clarifying the respective roles of local, state, regional, and federal players.

Similar to the theme of institutional change, the theme of ecosystem-based management is being advanced by many existing organizations and these organizations argue that EBM is a *primary* tool for managing ocean activities. Since the Pew and USCOP reports were released, and in some cases preceding their release, some notable steps have been taken toward “operationalizing” EBM. NOAA’s EGT made a bold attempt to create a regional ecosystem management framework.¹⁶⁸ FMCs also took a strong stance promoting fisheries ecosystem plans¹⁶⁹ and NOAA is looking to its Science Advisory Board to provide recommendations for advancing EBM in

167. The COMPASS meeting came to a similar conclusion. *See infra* note 171-173 and accompanying text.

168. *See supra* notes 126-131 and accompanying text. This approach is a strong step toward incorporating EBM thinking into ocean management. In the ROG context, there are other regional issues or needs that could be added, such as preventing oil spills, promoting marine transportation and port development, or sustainable economic activities such as nonliving resource extraction, tourism, and new offshore energy (for example, wind farms and wave power), and many other non-NOAA issues (for example, national security). Since NOAA lacks the regulatory authority over many of those activities, it is necessary to integrate those interests and jurisdictions in any new ROG approach.

169. *See supra* notes 132-139 and accompanying text.

its agency activities.¹⁷⁰ One area that has not seen much activity is the reports' recommendation for ecosystem assessments.

Additional activity promoting the operationalizing of EBM can be seen in the nongovernmental organization sector. COMPASS, with funding support from the Packard Foundation, recently hosted a workshop on ocean EBM.¹⁷¹ The workshop brought together federal and state agencies, scientists, and select stakeholders to elaborate on the issues and begin discussion of how EBM can be operationalized to support better ocean management. Natural Resources Defense Council, Environmental Defense, and the Ocean Conservancy, also with support from the Packard Foundation, formed the Ocean Policy Project to advocate for agency change.¹⁷² Despite these discussions, there is still no consensus on what EBM means or how behavior has changed on the part of agencies or users. While these discussions were a focus of the COMPASS meeting, there remained a fair amount of uncertainty on how to operationalize EBM, though there remains general agreement as to the usual principles (for example, precautionary, adaptive management, etc.).¹⁷³

There are some concrete EBM driven activities getting started. The NOAA Office of National Marine Sanctuaries is an institutional mechanism that is grabbing hold of this idea of EBM at a sanctuary by sanctuary level as well as across the whole system of marine sanctuaries. Oregon has said it wants a National Marine Sanctuary off its entire coast.¹⁷⁴ If this comes to pass, the west coast will have major marine sanctuaries in all three states facilitating a strategy to understand ecosystem-based issues in the full West coast range. The Point Reyes Bird Observatory nongovernmental organization has adopted an EBM approach for the California Current LME (roughly Baja California in Mexico to the U.S. Canadian border).¹⁷⁵ Alaska is

170. Nat'l Oceanic & Atmospheric Agency Internal Ecosystem Research & Sci. Task Team, Framework for an External Review of NOAA's Ecosystem Research and Science Enterprise, available at http://www.sab.noaa.gov/Doc/Ext_Rev_of_NOAAs_Ecosystem_Research_and_Science_Enterprise_Framework.pdf (last visited Mar. 1, 2006).

171. COMPASS 2005 Workshop, *supra* note 157.

172. Amanda Leland, Ocean Stewardship Through Effective Regional Governance (July 20, 2005) (presentation on file with University of Washington), available at http://courses.washington.edu/oceangov/czdocs/presentations/13_OPP_Leland.pdf.

173. See COMPASS 2005 Workshop, *supra* note 157.

174. Letter from Governor Theodore Kulongoski to Senator Ron Wyden (Dec. 13, 2005), available at http://governor.oregon.gov/Gov/pdf/letters/121305_marine.pdf.

175. Point Reyes Bird Observatory, The California Current Marine Conservation Initiative: Conservation Science and Implementation Framework, <http://www.prbo.org/cms/index.php?mid=231> (last visited Mar. 27, 2006).

also engaging in the Aleutian Islands EBM pilot project.¹⁷⁶ Overall, a shift is occurring toward operationalizing due to the ocean commissions reports.

While there is some progress made in understanding and operationalizing EBM, there is a strong need for case studies or pilot projects that would help our collective understanding of how best to apply EBM principles. Case studies in specific and defined areas that document changes in behavior by both managers and users would lead to better EBM practice. These case studies should be structured so lessons can be drawn from each based on experience on the ground. They should move us toward overcoming institutional barriers such as data formats and sharing, information monitoring systems, and management entities. The Aleutians Pilot project may offer these lessons in due time.

The third theme needed in the development of effective regional ocean governance is the promotion of regional stewards. Regional stewards can play a vital role in getting professionals and advocates organized and active to make ROG happen. At different levels and across sectors, people are arguing for a new regional approach, but their numbers are small. Nevertheless, this small “issue network” can form the beginnings of a forum for regional stewardship. It is imperative for this group to increase its interactions and communication to improve the system. How to achieve this is an important question to be asked. For ocean management to move forward, it will take momentum and action in multiple arenas pushing it in every possible way to change how we think about the oceans.

In conclusion, we urge a national coalition of ocean resource managers to carry the message forward. How it should be formed, and its initial agenda for action, should be decided by the nascent community of ocean stewards. We can already see a national organization emerging from a variety of activities.¹⁷⁷ There exist models on which to form national professional associations such as the Alliance for Regional Stewardship, an organization dedicated to

176. *See supra* notes 135-136 and accompanying text. The North Pacific FMC is using the Aleutian Islands FEP as input into the Aleutian Islands Ecosystem Plan. *See* N. Pac. Fishery Mgmt. Council, Fishery Ecosystem Plan for the Aleutian Islands (Revised Discussion Paper, Feb. 1, 2006).

177. Examples include the work of NOAA's Coastal Services Center which provides training, tools, and communication to coastal managers, the COMPASS group, Coastal Zone conferences, The Coastal Society and Conferences, and the major environmental nongovernmental organizations tracking U.S. ocean policy, and others.

advancing regionalism among metropolitan land use planners and advocates.¹⁷⁸

178. Alliance for Regional Stewardship, <http://www.regionalstewardship.org/> (last visited Mar. 17, 2006).