

JOINT OCEAN COMMISSION INITIATIVE

U.S. OCEAN POLICY REPORT CARD

2006

Attached is the Joint Ocean Commission Initiative's U.S. Ocean Policy Report Card 2006.

It provides a retrospective assessment of the nation's collective progress during calendar year 2006 toward implementing the recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission. The results of this evaluation are based upon careful monitoring of ocean policy developments over the last year and direct communication with leaders in Congress, the Administration, and the regions and states who are responsible for creating and implementing new and improved policies.

The report card shows that progress on ocean policy reform has been uneven, and the modest progress that has been made is jeopardized by a lack of funding to support the implementation of promising initiatives and plans at all levels of government. Grades are assigned for the same six subjects identified in the Joint Initiative's 2005 report card. For 2006, the overall grade rises very modestly to a "C-," up from a "D+" average in 2005. Using the Guiding Principles for Ocean Policy set forth by the Joint Initiative in 2005, this report card recognizes some improvements and achievements made during 2006, while also highlighting continuing failures to act on critical ocean policy reforms and the lack of funding that are preventing the nation from making significant progress to address the well-documented crises still facing our oceans, coasts, and Great Lakes. The Guiding Principles for Ocean Policy are attached.

During 2007 the Joint Initiative will continue to pursue the governance reform, science, and funding initiatives identified in its June 2006 report to Congress, *From Sea to Shining Sea*.

This report responds to a bipartisan request from the Senate and identifies the top ten actions that need to be taken by Congress, as well as \$750 million in recommended funding priorities. It also provides clear guidance that, if acted upon, will allow the nation to make significant strides toward improving the health, productivity, and sustainability of our oceans, coasts, and Great Lakes.

As the national dialogue on climate change continues, there should be explicit acknowledgment and inclusion of the essential role that oceans play in climate change.

The economic, social, and ecological ramifications associated with climate change are staggering, and a better understanding of ocean-related processes and their associated impacts will be necessary for policy makers and the public to make informed decisions on this issue.

The Joint Initiative remains committed to providing constructive assistance to leaders at all levels of government, as well as nongovernmental organizations, academia, and the private sector, to help move our nation toward implementation of a coordinated, comprehensive, and coherent national ocean policy.

The Joint Ocean Commission Initiative is a collaborative effort of the U.S. Commission on Ocean Policy and the Pew Oceans Commission to catalyze ocean policy reform. The Initiative is guided by a ten-member Task Force, five from each Commission, led by Admiral James D. Watkins (U.S. Navy, Ret.) and the Honorable Leon E. Panetta, chairs of the U.S. Commission and Pew Commission, respectively. A primary goal of the Joint Ocean Commission Initiative is to accelerate the pace of change that results in meaningful ocean policy reform. For more information or a copy of "From Sea to Shining Sea," please visit www.jointoceancommission.org.

JOINT OCEAN COMMISSION INITIATIVE U.S. OCEAN POLICY REPORT CARD

2006

Subject	Grade	Comments Examples below do not reflect full scope of activities upon which final grade is based. See full comments attached.
National Ocean Governance Reform (2005=D+)	C-	Notable Progress - Declaration of Northwestern Hawaiian Islands Marine National Monument - Expanded federal interagency planning and coordination - Increased opportunities for stakeholder input on federal plans - Legislative deliberation on mission, role, and organization of the National Oceanic and Atmospheric Administration (NOAA) Improvements Needed - Enact legislation that would: adopt a statement of national ocean policy; codify a permanent federal coordinating committee for oceans in the White House; reform NOAA; establish a comprehensive offshore management regime; and create a regional ocean governance framework - Expand protection for ecologically or culturally important marine areas
Regional and State Ocean Governance Reform (2005=B-)	A-	Notable Progress - New (2006) regional and state initiatives, including the Gulf of Mexico, West Coast, New York, and Washington - Progress on existing (pre-2006) regional and state initiatives, including the Great Lakes, Northeast, California, Florida, and Massachusetts Improvements Needed - Create a national framework to support regional collaborations and approaches - Implement additional regional and state ocean governance efforts and increase progress on existing initiatives
International Leadership (2005=F)	D-	Notable Progress - Presidential statement calling for an end to destructive fishing practices on the high seas - U.S. leadership on fisheries and whale conservation efforts in the United Nations - Enactment of high seas monitoring and compliance provisions in the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSA) Improvements Needed - Accede to the United Nations Convention on the Law of the Sea
Research, Science, and Education (2005=D)	D+	Notable Progress - Administration's Ocean Research Priorities Plan and Implementation Strategy - Enacted legislation addressing tsunami preparedness and marine debris prevention and reduction - Enhanced role for science-based management in reauthorized MSA - New interagency working group leading development of national strategy on ocean education - Consideration of legislation on ocean exploration, ocean and coastal observing, coral reef conservation, ocean and coastal mapping, ballast water management, and coastal land protection Improvements Needed - Address chronic under-funding of ocean science and education - Increase recognition of the ocean's role in climate change - Reestablish a congressional science and technology advisory entity
Fisheries Management Reform (2005=C+)	B+	Notable Progress - Congressional and Administration support leading to passage of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 Improvements Needed - Provide rulemaking and funding to implement newly enacted provisions
New Funding for Ocean Policy and Programs (2005=F)	F	Notable Progress - Significant Senate funding support for ocean programs in NOAA, National Science Foundation, and National Aeronautics and Space Administration despite overall lack of new federal investment in oceans - Increased state funding for ocean programs in a number of states, such as California Improvements Needed - Develop an integrated budget for federal ocean and coastal programs - Resolve chronic House under-funding of ocean programs and address severe funding reductions and uncertainty associated with Fiscal Year 2007 Continuing Resolution - Include oceans in ongoing initiatives to address climate change and the President's American Competitiveness Initiative - Establish an Ocean Trust Fund to support state and federal programs

National Ocean Governance Reform

2006

Grade: **C-**

Why is national ocean governance reform important? Many of the reasons for declining ocean and coastal ecosystem health are due to failures in our governance approaches and structures, including fragmented laws, confusing and overlapping jurisdictions, and lack of a clear national ocean policy. We must unify our nation around a common goal of protecting and restoring ocean and coastal ecosystems so that they will continue to be healthy and resilient and able to provide the goods and services that people want and need. Furthermore, the Joint Ocean Commission Initiative believes that sound ocean policy requires protecting our oceans and coasts while also understanding the relationships among social, cultural, economic, and ecological factors.

What was done in 2006 to address national ocean governance reform?

- President's designation of the Northwestern Hawaiian Islands Marine National Monument
- Expanded coordination of ocean programs under the President's Committee on Ocean Policy
- Additional opportunities for stakeholder input on federal plans
- House legislation to codify the mission and structure of the National Oceanic and Atmospheric Administration (NOAA), though the bill did not address the agency's resource management responsibilities

The President's designation of the Northwestern Hawaiian Islands Marine National Monument will provide important safeguards to nearly 140,000 square miles of remote and biologically rich islands, submerged lands, and surrounding waters. In addition, the Joint Initiative is encouraged to see greater federal interagency cooperation through the subcommittees established under the President's Committee on Ocean Policy, along with greater opportunities for stakeholder input. An aggressive effort to integrate federal ocean-related science, management, and education activities is a crucial step toward developing a comprehensive national ocean policy. The introduction of bills in both the House and Senate, including legislation transmitted by the Administration, along with congressional hearings addressing the need for ocean governance reform at the national level, were also important.

What remains to be done to improve the grade? To realize the goals of improving the economic and ecological health of our oceans through effective governance structures and mechanisms, we must: develop a national ocean policy; codify and reform NOAA; establish a permanent interagency coordinating structure in the White House; and institute coordinated and comprehensive management of the growing number of activities in offshore waters. In addition, the Joint Initiative clearly recognizes that effective national ocean governance requires not only improved leadership at the national level, but also a strong role played by regional, state, and local decision makers.

Regional and State Ocean Governance Reform

2006

Grade: **A-**

Why is regional and state ocean governance reform important? Both Commissions recommended regional approaches to more effectively manage ocean and coastal resources across jurisdictional boundaries. The Commissions emphasized that regional governance mechanisms, and in many cases multi-state governance initiatives, are needed to achieve a more coordinated, ecosystem-based management approach for improving ocean and coastal health. Such mechanisms enable governments at all levels to work together to develop regional goals and priorities, improve responses to regional needs, and develop and disseminate regionally significant research and information. While the problems facing marine ecosystems must be addressed at the local level, to truly resolve the most pressing problems, additional tools and support that the federal government can provide are also needed. Multi-state and other regional governance mechanisms can strengthen the voice of regional stakeholders in communicating those needs to the federal government.

What was done in 2006 to address regional and state ocean governance reform? Over the last few years, ocean governance efforts have emerged in a number of regions and states. New initiatives or significant developments in 2006 include:

- Gulf of Mexico Governors' Action Plan for Healthy and Resilient Coasts
- Massachusetts Oceans Act (introduced but not passed)
- New York Ocean and Great Lakes Ecosystem Conservation Council
- Puget Sound Partnership
- Washington State Ocean Policy Work Group
- West Coast Governors' Agreement on Ocean Health

Other notable ongoing multi-state regional initiatives include:

- Chesapeake Bay Program
- Great Lakes Regional Collaboration
- Gulf of Maine Council on the Marine Environment
- Long Island Sound Study
- Northeast Regional Ocean Council

Ongoing state initiatives that continue to make strides include:

- Alaska Ocean Policy Cabinet
- California Ocean Protection Council
- Florida Oceans and Coastal Resources Council
- Hawaii Ocean and Coastal Council
- Oregon Ocean Policy Advisory Council

What remains to be done to improve the grade? Many regions and states are organizing from the "bottom up," but to fully address critical issues facing marine ecosystems, adequate support from and coordination with the federal government are also necessary. The federal government should develop a national framework to support regional approaches and collaboration, and more regions and states should develop and implement ocean governance mechanisms.

International Leadership

2006

Grade: **D-**

Why is international leadership on ocean issues important? Oceans and the activities that occur on them, both our own and those of other nations, are vital to our national economy and security, and the declining health of the world's oceans is a global concern. By virtue of having the largest exclusive economic zone of any country, our interests are readily affected by the actions of other nations, and U.S. actions have a significant impact on the world's oceans. Our nation must be a strong leader in international ocean dialogues on all fronts if we are to assert the moral authority necessary to ensure greater protection of marine resources—and our national economic and security interests—by others.

What was done in 2006 to address international leadership on ocean issues?

- President's statement calling for an end to destructive fishing practices on the high seas
- U.S. leadership in international forums on fisheries and whale conservation efforts
- Improved monitoring and compliance of high seas fisheries as provided in the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSA)
- International coordination provisions in the Marine Debris Research, Prevention, and Reduction Act
- Technical assistance and training to international entities to develop a fully functional global tsunami forecast and warning system provided for in the Tsunami Preparedness Act
- Protection of coral reef ecosystems in the Northwest Hawaiian Islands, demonstrating U.S. commitment to the conservation of ocean resources of international importance

What remains to be done to improve the grade? As listed above, some positive steps were taken in 2006 with regard to international leadership on ocean issues. Yet these laudable efforts are overshadowed and compromised by our continued failure to accede to the United Nations Convention on the Law of the Sea. Despite overwhelming bipartisan support from a diverse array of national leaders, the Senate failed to provide its advice and consent to the President to join the Convention. The Convention has been thoroughly reviewed in Senate hearings and public forums, and U.S. accession is supported by a broad coalition of stakeholders. The Administration has clearly voiced its support for the Convention, with the Secretary of State and leaders from the Navy and the Coast Guard stating that joining the Convention will strengthen our ability to defend essential freedoms of navigation and overflight. Major U.S. industries, including offshore energy, shipbuilding, and maritime transportation and commerce support joining the Convention because its provisions help protect U.S. economic interests and provide the certainty and stability crucial for investment in global maritime enterprises. Environmental organizations also strongly support the Convention.

As one of the few remaining nations that is not a party to the Convention, we are unable to participate as a member on key bodies that guide activities in national and international waters, further jeopardizing opportunities to benefit from and protect ocean resources of economic and ecological importance. The Joint Initiative strongly urges the Senate to expeditiously provide its advice and consent to the President for U.S. accession to the Convention. We also strongly encourage President Bush to personally communicate his desire to see the Senate act on the Convention, reiterating that accession supports our vital security, economic, and international leadership interests.

Research, Science, and Education

2006

Grade: **D+**

Why are research, science, and education important? The ocean and coastal waters of the United States cover an area larger than the nation's total land mass. They support diverse ecosystems, provide a vast expanse for commerce and trade, serve as a buffer for national security, and are major drivers of climate processes. Unfortunately, there is no coherent regime for studying these important systems and disseminating information to decision makers and the public. As a result, important public policy decisions are based on inadequate and incomplete information. The deficiency in knowledge about changes in physical and biological ocean processes and their associated socioeconomic impacts is a significant deterrent to implementing an effective national ocean policy.

The Commissions' reports call for an integrated and coordinated framework of governmental and nongovernmental partners contributing to the transition toward ecosystem-based management. Realizing such a vision will require an enhanced understanding of ocean-related processes in the context of the interconnections among land, ocean, atmosphere, and the impact of human activities on these processes. Thus, there is need for a greater commitment to basic and applied research, monitoring and modeling, the infrastructure supporting ocean-related science, and the translation of scientific information into timely products and services that can be used by policy makers and resource managers.

The Commissions' reports also stress the importance of enhancing our nation's commitment to formal and informal education. Building a scientifically literate workforce and a society that has a strong ocean and coastal stewardship ethic will require the incorporation of oceans and coasts into the curriculum of primary and secondary schools and beyond. In addition, a much more aggressive campaign to educate the general public about the importance of oceans to their health and economic well-being is necessary. Given these demands, the ocean community is well positioned to contribute to a national initiative focused on improving American competitiveness and innovation through an increased focus on research and education.

What was done in 2006 to address research, science, and education? The Administration's *Ocean Research Priorities Plan and Implementation Strategy* is intended to provide a national strategy to guide ocean-related research and education activities among governmental, academic, and nongovernmental entities, as well as guide the translation of ocean science into products and information for decision makers. It is a promising first step and provides an important platform to help communicate the science and education needs of a diverse community. However, success will be measured by the level of funding dedicated to implementing the priorities identified in the plan. Other actions in 2006 included:

- Enacted legislation addressing tsunami research and preparedness and marine debris research, prevention, and reduction
- Significantly strengthened role for science-based management in the MSA
- New interagency working group to develop a national strategy on ocean education, initiated at a national conference on ocean literacy
- Congressional consideration of bills related to ocean exploration, ocean and coastal observing, coral reef conservation, ocean and coastal mapping, ballast water management, and coastal land protection
- Increased state funding to support ocean-related science in many states, such as California

What remains to be done to improve the grade? The Administration's *Ocean Research Priorities Plan and Implementation Strategy* provides the nation with a guide to immediately begin the process of enhancing support for ocean science and education, support that is essential to the success of many recommendations made by the Commissions. For example, implementation of an operational Integrated Ocean Observing System, including robust research and outreach components, is crucial to the broader national initiative to better understand our global environment. Nowhere is the need for significant improvements in modeling and monitoring of ocean-related processes more apparent than our need to more fully understand the implications associated with climate change. Improved information on the dynamic relationship between the atmosphere and oceans will allow us to improve our capacity to predict climate variability. More importantly, it will allow us to make appropriate changes in public policy and personal behavior to manage, and potentially help ameliorate, the impacts accompanying climate shifts.

In addition, Congress and the Administration, building on the efforts of the new White House Interagency Working Group on Ocean Education, should establish a national ocean education office with responsibility for enhancing and coordinating federal ocean education efforts. NOAA's authority should also be expanded to include ocean education, as recommended by both Congress and the Administration. Finally, funding for key federal agencies with ocean-related programs that facilitate education partnerships, such as the National Science Foundation's Centers for Ocean Science Education Excellence, should be increased significantly. Similarly, the National Sea Grant College Program should increase the proportion of its resources dedicated to ocean and coastal education and outreach. An educated and informed public will make significant contributions toward increasing the nation's economic competitiveness and fostering a new ocean stewardship ethic.

Congress and the Administration should capitalize on the significant effort that has gone into the development of science-related ocean and coastal legislation that was not passed in 2006 and work with the ocean community to refine and enact these bills into law in 2007. The nation would benefit greatly if Congress reestablished its Office of Technology Assessment or a similar advisory body to provide objective and authoritative scientific and technical guidance on the suite of increasingly complex and contentious issues facing our nation.

Finally, it is impossible to overemphasize the importance of securing additional funding to support the modernization of the ocean science and education enterprise. Without additional funding, the energy and effort going into emerging plans and priorities will have been wasted, and the health and productivity of our oceans and coasts will remain imperiled. Resolving the challenges facing our oceans requires a commitment to significantly more robust ocean science programs and cultivating a new generation of leaders in the ocean community.

Fisheries Management Reform

2006

Grade: **B+**

Why is fisheries management reform important? Fishing is a way of life with a rich heritage that has contributed much to the social, cultural, and economic well-being of the nation. Yet, over the last thirty years the fishing industry has evolved from one with little regulation and seemingly boundless opportunity to one where many fish stocks are overexploited, the industry is highly regulated, and, in many instances, struggling. Our fisheries management regime must be improved if we are to sustain the U.S. fishing industry, maximize economic and social benefits, and sustain living marine resources held in public trust for the benefit of all.

What was done in 2006 to address fisheries management reform?

- Passage of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006

The Joint Initiative is encouraged to see the passage of legislation that extends and revises the MSA, an important step toward more effective management of the nation's fisheries. The bipartisan bill contains a number of improvements, including a stronger role for science in establishing sustainable harvest levels, setting a clear deadline line for ending overfishing, and authorizing the use of market-based approaches in fisheries management. In addition, the reauthorization includes stronger tools to address illegal, unregulated, and unreported fishing in international waters, provides for cooperative enforcement and research, and establishes a trust fund to carry out fishery management activities.

What remains to be done to improve the grade? Reauthorization of the Act is a major accomplishment. The real goal, however, is to see immediate and long-term improvements in the management of domestic and international fish stocks. The new law provides potent tools to achieve sustainable fisheries, but the challenge at the national and regional levels will be to provide the resources and muster the political will to implement and enforce the law consistent with the Joint Initiative's guiding principles for fisheries management reform (attached).

New Funding for Ocean Policy and Programs

2006

Grade: **F**

Why is new funding for ocean policy and programs important? As a major contributor to the U.S. economy, coastal watersheds generate half the nation's Gross Domestic Product. Despite the role oceans and coasts play in supporting our financial well-being, they remain poorly understood and underappreciated. As a consequence, chronic underinvestment has left much of our ocean-related infrastructure in woefully poor condition, management programs struggling to meet the information demands of decision makers, ocean scientists competing for a smaller percentage of the federal research budget, and ocean science virtually absent from the education curriculum. Maintaining the economic and ecological viability of our oceans and coasts will require decision makers to have access to unbiased, credible, and up-to-date information to make informed decisions, a goal that can only be attained by increasing funding for ocean-related science, management, and education.

What was done in 2006 to address new funding for ocean policy and programs?

- Significant Senate funding support for ocean programs in NOAA, the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA), despite overall lack of new federal investment
- Increased state funding for regional and state ocean initiatives

One of the few bright spots in funding for ocean-related programs comes from the increasing support provided by states. California, New York, and Washington increased their financial commitments, with California continuing to outpace other states. A number of states also approved substantial bonds during the fall elections to support the purchase of conservation lands, an increasingly important effort given the relationship between healthy watersheds and coastal water quality.

Progress at the federal level included a healthy increase for ocean research programs in NSF as part of the President's American Competitiveness Initiative and an incremental increase in NOAA's budget as part of the President's Fiscal Year (FY) 2007 budget request. In addition, the Administration has made important progress coordinating and integrating the ocean-related activities of federal agencies. While the benefits of this effort are hard to identify and quantify, the Joint Initiative remains confident that it will bear fruit in the form of new interagency ocean-related funding initiatives. The Joint Initiative is particularly hopeful that the President's FY 2008 budget request will include increased government-wide funding for ocean-related programs.

Finally, despite the failure of the 109th Congress to complete its FY 2007 spending bills, there is considerable promise in the Senate Appropriations Committee's support for the NSF increase and for earth sciences at NASA, as well as a substantial increase for NOAA in its Commerce, Science, and Justice spending bill.

What remains to be done to improve the grade? Despite positive signals, the overall failure to provide a substantive increase in funding for ocean science, management, and education in FY 2006 is particularly disappointing given the overwhelming evidence that the health of our oceans and coasts is poor and subject to continuing degradation. This dire situation is further exacerbated by the failure of Congress to pass its FY 2007 spending bills and a continuing effort by the House of Representatives to cut funding for NOAA, the nation's lead civilian ocean agency, by over \$500 million (13 percent),

further muddying an already uncertain federal funding environment for ocean programs. In addition, despite incremental increases, the President's budget requests for most ocean-related programs for FY 2007 remained well below the annual appropriation level provided by Congress.

Resolving chronic under-funding for ocean programs requires immediate action. First, Congress must pass FY 2007 spending bills that fully fund existing ocean programs across the federal government.

Second, the President's budget request must reflect increased support for the new ocean-related science, management, and education initiatives being developed under the auspices of the White House through the interagency process associated with the Committee on Ocean Policy. Two high-profile initiatives that should be expanded to incorporate oceans include the President's American Competitiveness Initiative and efforts to enhance our understanding of climate change. Of particular benefit will be funding that generates greater federal support for partnerships with state, academic, industry, and other stakeholders. Given the President's recent efforts to protect coral reef ecosystems in the Northwest Hawaiian Islands and his support for domestic and international fisheries conservation, the Joint Initiative believes the potential for a new ocean-focused funding initiative remains high and looks forward to the release of the FY 2008 budget request.

Third, chronic under-funding of ocean programs by the House of Representatives must be resolved. While some funding disparity between the House, Senate, and Administration is to be expected, the substantial and growing funding cuts imposed on NOAA by the House are problematic. There must be a collective effort to develop a funding strategy for ocean programs that addresses this issue and allows the nation to move forward with the process of strengthening ocean-related programs.

Resolution of the issues identified above would be simplified through the development of an integrated ocean budget for federal ocean and coastal programs. An integrated budget incorporating all federal ocean and coastal programs would provide the President with a mechanism to support interagency budget initiatives and Congress with a clearer picture of how ocean-related funding is distributed throughout the federal government. The lack of a clear and coherent picture of federal ocean funding is a fundamental problem that must be addressed immediately.

Finally, strong consideration should be given to establishing an Ocean Trust Fund supported by revenue generated by activities in federal offshore waters as recommended in the Joint Initiative's 2006 report to the Congress, *From Sea to Shining Sea*. This fund should be available to appropriate federal ocean agencies to help fund ocean-related activities and to all coastal states for the conservation and sustainable development of renewable ocean and coastal resources. The 109th Congress missed a number of opportunities to dedicate a portion of federal revenues derived from offshore activities to establish an Ocean Trust Fund. The Joint Initiative has noted that the 110th Congress may soon be considering certain modifications to the offshore oil and gas royalties program that could result in additional revenues being made available to the federal government and provide an opportunity for the new Congress to dedicate a modest portion of those revenues to establish an Ocean Trust Fund. The Joint Initiative stands ready to engage the 110th Congress in an ongoing discussion about the sources and uses of such a fund.

Guiding Principles for Ocean Policy

2006

The Joint Initiative believes the following principles should guide ocean policy reform.

Principles for National Ocean Governance Reform

- ***A National Ocean Policy.*** A national ocean policy is needed to acknowledge the importance of oceans to the nation's economic and ecological health and to protect, maintain, and restore marine ecosystems so that they remain healthy and resilient and able to deliver the services people want and need.
- ***Management Decisions Grounded in an Ecosystem-based Approach.*** In carrying out a national ocean policy, the U.S. government needs to implement an ecosystem-based management approach that examines the links among living and nonliving resources. Instead of managing one issue or resource in isolation, the United States needs to move toward a management approach that considers human activities, their benefits, and their potential impacts within the broader context of interconnected social, economic, and ecological factors.
- ***A Stronger NOAA Capable of Implementing an Ecosystem-based Management Approach.*** NOAA should be codified through passage of an organic act for the agency, and that act should establish NOAA as the lead ocean agency and articulate a core mission of: assessment, prediction, and operations; ecosystem-based management; and science, research, and education. An organic act should also call for reorganization of the agency to better equip it to carry out its core mission and to remain science-based, but with its management programs better connected to make use of that science in decision making.
- ***Federal Agency Coordination and Leadership.*** Eleven cabinet-level departments and four independent agencies have responsibilities for ocean and coastal policy and management. High-level attention to carry out a national ocean policy and improved coordination and communication among ocean agencies would greatly enhance the effectiveness of the management of ocean and coastal resources.
- ***Improved Federal Agency Structures.*** A stronger NOAA and more effective federal agency coordination are essential to improving national ocean governance. However, to truly recognize the connections among the sea, land, air, and all living creatures, the current federal structure should be reconsidered to further strengthen, through reorganizing and consolidating programs where appropriate, the federal government's ability to carry out a national ocean policy.
- ***Coordinated Management of Offshore Waters.*** A coordinated offshore management regime is needed to improve governance of federal waters, avoid and minimize conflicts among users, safeguard human and marine health, and manage offshore waters for the maximum long-term benefit of the nation and all its citizens.
- ***A Fair Return for Use of Offshore Resources.*** Offshore waters are held in the public trust for the benefit of the entire nation. As such, when these publicly owned resources are used by the private sector for private gain, it is appropriate and fair for the public to receive some return for that benefit. Revenue collected from private use of ocean space and resources should be put toward the management and understanding of the oceans.
- ***Regional Approaches and Strong State and Local Role Supported by a National Framework.*** A national framework is needed to support and guide the development and implementation of regional plans and processes that involve federal, state, tribal, and local governments.

Principles for Regional and State Ocean Governance Reform

- ***Collaborative and Coordinated Approaches through Regional Governance Mechanisms.*** Provide support for coordinated, integrated ecosystem-based management that builds on current regional and ecosystem-based efforts and enhances those efforts to enable all ocean and coastal areas to be managed in a way that supports healthy, productive, and resilient marine ecosystems that will benefit current and future generations.
- ***Regional Plans and Processes with Several Elements.***
 - Goals that conserve ecosystem services that support human well-being.
 - Prioritized and coordinated management of activities within a management area.
 - Permitted uses that are compatible in order to minimize conflicts.
 - Consideration of all aspects of an ecosystem—natural, social, and economic—and how these aspects interact with and affect the ecosystem as a whole.
 - Relevant scientific information that is continuously improved and fully utilized.
 - Enhanced public education that is delivered through formal and informal means.
- ***Regional Research and Information.*** Decision makers at all levels, but particularly at the local level, need accurate and timely information about ocean and coastal ecosystems, including how human activities impact those ecosystems.
- ***Regional Ecosystem Assessments.*** Assessments of the natural, cultural, social, and economic attributes in a region would help guide management decisions and improve the process mandated under the National Environmental Policy Act by providing a single science-based regional assessment that can be the basis for individual Environmental Impact Statements.
- ***Enhance Regional Governance Capacity by Improving Federal Coordination in Regions.*** Governmental institutions need to be recalibrated to enable government at all levels to work together more effectively at the regional level. One step toward improved regional coordination is for federal agencies to identify opportunities and further coordinate existing programs and activities to assist and support more effective implementation of regional approaches.

Principles for International Leadership

- ***Living Marine Resources.*** Promote adoption and observance of international standards for the sustainable harvest of coral reef and other living marine resources.
- ***International Trade.*** Negotiate and work with other nations to establish provisions in international trade agreements that are consistent with the recommendations of the U.S. Commission on Ocean Policy and the Pew Oceans Commission.
- ***Implementation and Enforcement.*** Provide adequate funding for full implementation and enforcement of those international conventions and agreements that the United States has ratified.

Principles for Research, Science, and Education

- ***Best Available Science and Information.*** Ocean policy decisions should be based on the best available understanding of the natural, social, and economic processes that affect ocean and coastal environments. Decision makers should be able to obtain and understand quality science and information in a way that supports informed management of ocean and coastal resources.
- ***Ecosystem-based Management.*** Ocean and coastal resources should be managed to reflect the relationships among all ecosystem components, including humans and nonhuman species and the environments in which they live. Applying this principle will require defining relevant geographic management areas based on ecosystem, rather than political, boundaries.
- ***Ocean–Land–Atmosphere Connections.*** Ocean policies should be based on the recognition that the oceans, land, and atmosphere are inextricably intertwined and that actions that affect one earth system component are likely to affect another.
- ***Stewardship.*** The principle of stewardship applies both to the government and to every citizen. The U.S. government holds ocean and coastal resources in the public trust—a special responsibility

that necessitates balancing different uses of those resources for the continued benefit of all Americans. Just as important, every member of the public should recognize the value of the oceans and coasts, supporting appropriate policies and acting responsibly while minimizing negative environmental impacts.

Principles for Fisheries Management Reform

- ***Ecosystem-based Management.*** Fisheries management should be informed and guided by long-term objectives set for both the fishery and the ecosystem, and thereby consider linkages between different living and nonliving components of the sea, land, atmosphere, and the health and vitality of human communities.
- ***Base Management on Independent Science.*** Strengthen the use of science in management by requiring Regional Fishery Management Councils to adhere to allowable biological limitations determined by their Science and Statistical Committee, setting catch limits at or below these limitations, and establishing consistent and independent peer review processes for the science used in decision making.
- ***Fallback Provisions.*** As an incentive toward timely and responsible action to address overfishing and the degradation of essential fish habitat, require fallback provisions to be implemented when management plans are not developed within a required time frame.
- ***Dedicated Access Privileges.*** Authorize fishery managers to use dedicated access privileges as an important tool to better manage fisheries resources. Establish national guidelines that allow for regional implementation that is consistent with those guidelines.
- ***Enforcement.*** Expand cooperative fisheries enforcement programs between federal and state enforcement entities. The programs should clarify the role of the Coast Guard and should emphasize joint training, stronger and more consistent information sharing, and increased use of enforcement technology such as Vessel Monitoring Systems.
- ***Cooperative Research.*** Direct the National Oceanic and Atmospheric Administration to create an expanded, regionally-based collaborative research program that involves the fishing community and federal, state, and academic scientists. Research should benefit from linkages to the Integrated Ocean Observing System. Funds for such cooperative research projects should be awarded on a competitive basis.
- ***Bycatch Reduction.*** Bycatch should be addressed continuously to ensure the sustainability of fisheries and ecosystem services. Fishermen should be allowed to keep fish they catch within conservation limits, rather than be forced to discard and waste one species because it is in a target fishery for another. Bycatch reduction efforts should include accounting for such resources with regard to total allowable catch.
- ***Council Membership.*** Require governors to submit a slate of candidates that represents a broad cross-section of the public as nominees to the Regional Fishery Management Councils.
- ***Training.*** Require training on a variety of topics relevant to fishery management for new Regional Fishery Management Council members and make such training available to representatives from interest groups and industry.
- ***Education.*** Foster public understanding of ocean resources, including the importance of conservation measures aimed at sustaining fisheries and the linkages between human health and the health of oceans.
- ***International Leadership.*** Promote adoption and observance of international standards for the sustainable harvest of coral reef and other living marine resources.

Principles for New Funding for Ocean Policy and Programs

- ***Provide Funding Commensurate to the Challenge.*** Current ocean and coastal funding is insufficient to address current challenges or to begin to anticipate and plan for future challenges.
- ***Share Funding with Nonfederal Partners.*** Many of the actions necessary to improve the health of ocean and coastal waters will be initiated and implemented at the regional, state, and local levels. Federal funding should be available to assist nonfederal governments, as well as the academic community, in meeting these goals.
- ***Require Payment for the Use of a Public Resource.*** The use of a publicly-owned resource by the private sector in federal waters should be contingent on a reasonable return of some portion of the revenues to taxpayers in order to support programs that will help sustain the health and vitality of the nation's oceans and coasts.