

The Aspen Institute Commission on Arctic Climate Change believes that existing frameworks can be enhanced and new frameworks can be established to improve governance and strengthen resilience in the Arctic marine environment in response to climate change impacts and the need for adaptation readiness. The Commission developed its recommendations against the backdrop of at least three observable strategies currently discussed internationally to strengthen the Arctic Council; expand and strengthen the existing system of bilateral and multilateral agreements; and/or establish a new Framework Convention for Arctic governance.

Aspen Commission Recommendations

This report focuses on several major Commission recommendations as follows:

- 1. Arctic governments should take immediate steps to begin developing an Arctic Marine Conservation and Sustainable Development Plan by 2012, in collaboration with civil society and other interested parties.**

An Arctic Marine Conservation and Sustainable Development Plan should integrate ecosystem-based management to preserve ecosystem resilience and support sustainable development in the Arctic. The key features of this approach should include a consideration of multiple scales (e.g., temporal and spatial, sectors and activities, etc.), a long-term perspective, the recognition that humans are an integral part of ecosystems, an adaptive management perspective, and a concern for sustaining natural goods and services. The Plan should articulate shared objectives within and across multiple sovereign territories and national boundaries, and be implemented by a combination of civil society actors, the private sector, and governments. This Plan should provide the umbrella that coordinates national and international planning and stewardship to balance competing economic interests, while maximizing the resilience of natural ecosystems in the region. Once the plan is initiated, it should be reviewed at sufficiently regular intervals by the Arctic Council, civil society entities, affected constituencies, government agencies, and/or other international bodies.

An Arctic Marine Conservation and Sustainable Development plan should:

- a.** Develop a coordinated approach that emphasizes science-based management; integrated marine spatial planning covering all relevant sectors of activity; participation of and benefits to Indigenous Peoples, local communities and civil society; and application of the precautionary¹ and ecosystem-based approaches;
- b.** Identify, within each nation's jurisdiction, sensitive marine areas (including areas of high productivity and fragile or vulnerable areas, etc.), protect such areas through appropriate national means, and share information regarding these areas to enable coordinated networks of inter-territorial marine protection; and,
- c.** Designate the high seas of the Central Arctic Ocean as a zone of international scientific cooperation. The lack of basic scientific information regarding the ecological characteristics of the high Arctic Ocean means that informed, science based decisions on whether and where extractive and polluting activities can take place is virtually impossible. The Aspen Commission recommendations therefore call for an agreement to protect the waters of the High Arctic, beyond the Arctic coastal nations' respective exclusive economic zones, as a zone of international scientific cooperation.

¹As per the *Final Report of the US Commission on Ocean Policy*, a balanced precautionary approach applies "judicious and responsible" management practices, based on the best available science and on "proactive, rather than reactive, policies." See ENDNOTE 19

2. Arctic governments, independently and collectively, should implement an integrated ecosystem-based management approach in the Arctic marine environment utilizing appropriate marine spatial planning, as well as regulatory rules and standards, that address the special conditions of the Arctic region.

Ecosystem-based management is an integrated approach to management that considers the entire ecosystem. The approach differs from current management procedures that usually focus on a single sector, activity or concern. Rather, it considers the cumulative impacts of different sectors. Marine spatial planning is an innovative tool to implement and measure the success of ecosystem-based management across sectors. It is a public process that collects, analyzes, and identifies where human activities occur in time and space to achieve agreed upon ecological, economic and social goals.

Although several marine spatial planning efforts are underway in the Arctic, there are areas where marine spatial planning has not begun. Both marine spatial planning and regulatory standards should be used to achieve sustainable economic development, along with environmental conservation and marine area protection. Part II of this report introduces many of the preliminary steps and activities that should be considered as part of a cooperative regional initiative to develop a conservation and sustainable development plan for the Arctic marine environment.

3. In addition to an Arctic marine conservation and sustainable development plan, a number of specific actions should be initiated through the development of agreements or standards that foster consistent implementation among and across Arctic governments.
 - **Fisheries:** In accordance with a precautionary approach to new or expanded commercial fishing in the Arctic, the Commission calls on all countries to refrain from authorizing their vessels to take fish in the high seas of the central Arctic Ocean where no cross-border regional fishing management organization or agreements exist, until sufficient scientific information is available on the impacts of potential new fisheries on target and non-target species, habitats, ecological relationships, and human communities. Regional Fishing Management Organization agreements should be developed for those areas of the Arctic where none currently exist.
 - **Uniform Offshore Oil and Gas Standards and Spill Response:** The Commission calls for the development of a framework for the staged implementation of performance-based standards governing Arctic offshore oil and gas exploration, development, production, and transportation (including oil spill response), which take into consideration the special nature and challenges of the Arctic environment, and enable compliance integrated with regulatory arrangements.
 - **Environmental Impact Assessments:** Pursuant to Article 206 of the Law of the Sea Convention, the Commission recommends conducting environmental impact assessments of individual and cumulative environmental impacts of human activities in the Arctic marine environment, including those that may have trans-boundary effects.² The Arctic Council should be encouraged to review the assessments and make recommendations.
 - **Marine Shipping:** The Commission supports the development of a mandatory polar shipping code and recommends its swift adoption and implementation.
 - **Marine Tourism:** As tourism is likely to grow with new waters opening up as ice cover diminishes, there is a clear need

²UNCLOS Article 206: Assessment of potential effects of activities: “When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205.”

to establish protocols that take safety, environmental protection and quality of experience issues into consideration. Participatory discussions that include international regulatory bodies and industry need to begin as soon as possible in order to limit accidents going forward.

4. An open-source Arctic network, focused on ecosystem-based management, should be developed through the Arctic Council and used to complement the existing system of national and international governance mechanisms in the Arctic.

Any new governance strategy and plan for Arctic marine conservation and sustainable development should recognize the region's challenges are not limited to national concerns. Given the complex economic and ecological forces affecting the Arctic marine environment, and the interwoven fabric of communities and public and private interests at stake, international cooperation, innovative ideas, and greater inclusion of interested stakeholders should be mobilized to supplement national governmental action.

As noted above, the Commission advocates development of a Conservation and Sustainable Development Plan for the Arctic marine environment. This plan would optimize the use of linked policy and community networks and the development of an open, electronic information environment through which stakeholders and institutions can exchange information needed for Arctic management and effective long-term governance. Well-structured and dynamic reporting and information-sharing networks involving public and private institutions and stakeholder groups, can be a critical element of strengthening management in the Arctic, provided that it is guided by a defined set of economic, ecological and scientific and cultural objectives, with a recognized monitoring, evaluation and reporting process to monitor ecosystem resilience, climate-induced ecological changes, and human activity as well as planning goals and conservation objectives.

A prototypical model of an open-source Arctic network should be created and implemented to identify, record, and track existing and newly emerging transnational ecological priorities in the Arctic marine environment. An Arctic marine network (or system of networks) should be based on existing structures (such as the University of the Arctic), provide opportunities for involvement by all parties who have an interest in governance and management in the Arctic, and should be designed to provide appropriate civil society access to influence governmental decisions.

The development of an open-source network should be led by the Arctic Council and Arctic governments in partnership with industry, universities and other civil society and scientific entities (as well other international bodies such as the IMO and the UNEP). It should be developed as an inclusive and cooperative international undertaking to allow open participation in information gathering and sharing, leading to better governance choices and management decisions in the Arctic. Participation in Arctic networks should be structured in a way that maximizes the use of information technologies for collection and distribution of information and data analysis, as well as embody a communication strategy that includes the implications for public policy decisions.

5. Arctic governments should call for a special diplomatic conference in 2012, which includes participation by Indigenous Peoples and the eight Arctic nations, to establish a timetable for designing and implementing the preceding recommendations.

Diplomatic conferences have historically played a key role in Arctic governance. In 1996, for example, the Ottawa Declaration established the Arctic Council as a high intergovernmental level forum focused on environmental protection of the Arctic. Since 1996, climate change and world economic forces have presented new challenges in the Arctic and led many Arctic policy-makers to begin rethinking the direction of governance in the region. The Commission envisions that a new diplomatic conference can both promote the importance of the Arctic and seek ways to strengthen the safeguards needed to protect sensitive ecosystems and highly productive marine habitats.

6. All Arctic residents, including Indigenous Peoples, should play a pivotal role in planning the future of the Arctic and should share in the benefits of its resources as well as responsibility for its sustainable future.

Arctic governance decision-making should build upon the Permanent Participants' strong engagement in the Arctic Council through a networked structure that: 1) recognizes the existing complex institutional arrangements at local, national and international levels; 2) brings the diverse and traditional knowledge and expertise of Arctic residents, including indigenous peoples, to the forefront where their perspectives can inform and advise Arctic-wide ecosystems-based management; and 3) works to alleviate the procedural and resource constraints that limit indigenous organizations' full and effective participation.

All states should therefore recognize the unique rights of Indigenous Peoples over development of their traditional lands and waters, and provide them with the necessary technical and financial support they need to participate in key policy venues affecting their futures, as avowed in the United Nations Declaration on the Rights of Indigenous Peoples, adopted by General Assembly Resolution 61/295 on 13 September 2007, Article 32, 2 says the following:

“States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.”³

In building the capacity for Arctic residents to participate in Arctic governance, communication protocols and technological infrastructure must be expanded and improved to effectively share information to and from Arctic communities. The benefits of economic development in Arctic marine environment should also be invested in organizations and communities to sustainably support the engagement of Arctic communities and develop leadership among their youth.

7. An Arctic science program should be implemented and integrated as part of the Arctic Marine Conservation and Sustainable Development Plan using an open-source information network.

The program should contain the following minimum areas of focus:

- Designating the high seas of the Central Arctic Ocean as a zone of international scientific cooperation.
- The Sustaining Arctic Observation Networks (SAON) should be expanded to maintain observing systems in the Arctic, improve coordination between multidisciplinary networks, and facilitate data acquisition, access and dissemination.
- The effects of climate change on the Arctic marine and terrestrial environments, including the potential release of

³United Nations Declaration on the Rights of Indigenous Peoples Adopted by General Assembly Resolution 61/295 on 13 September 2007, Article 32. UNDRIP is a Declaration adopted by the General Assembly of the United Nations; a Declaration adopted by the General Assembly reflects the collective views of the United Nations but is not subject to ratification and does not have legally binding status.

methane and other greenhouse gases due to melting permafrost.

- Access to research data and data sharing should be improved, and issuance of research permits should be expanded in Arctic countries.
- Environmental and development challenges facing the Arctic should drive the development of scientific questions and the collection of scientific data that inform the decisions of policy makers.
- Education, recruitment and retention of key personnel at educational facilities, such as the University of the Arctic and others, should be supported in order to encourage a culture of understanding across boundaries and disciplines.
- The International Polar Year’s scientific data and information should contribute to future assessments by the Intergovernmental Panel on Climate Change, as well as other efforts to address climate change. In particular, there is a need to utilize local and traditional knowledge and observation as part of the scientific process. Arctic residents should also be kept abreast of the results of Arctic scientific findings and conclusions.
- Encourage a series of bilateral memoranda of understanding (MOUs) among Arctic nations to support common scientific research. These MOUs would provide a predetermined means of transferring or sharing resources such as scientific instruments, personnel and data, and would perform services like contracting mechanisms to facilitate execution of scientific support activities. Scientific MOUs would likely be between corresponding agencies of each country (i.e. NOAA-to-NOAA counterparts).

8. The Commission urges that the Arctic Council be reinforced as an effective, multilateral organization for the region and that it be given the resources and a revised architecture to ensure that the planning, participation, management and accountability recommendations put forward in this report are implemented.

The short-term and practical way to successfully implement the Commission’s proposed recommendations is to build on the existing framework and activities of the Arctic Council, which provides a forum for effective, cooperative management of the circumpolar region with due recognition of the rights of its people. In the interest of good stewardship in the Arctic the Commission recommends:

- Member states should commit to full cooperation in the development of a new conservation and sustainable development plan, similar in purpose to the level of coordination around search and rescue.
- The Arctic Council should be given a full-time secretariat and sufficient funds to produce strong results from its working groups. A sustainable source of funding is provided for the participation of Indigenous Peoples’ Organizations.
- Governments should recommit to the spirit of the Arctic Council as a true partnership between Arctic states and Indigenous Peoples. Six Indigenous Peoples⁴ are considered “permanent participants” at the Council. Their active inclusion in all future deliberations on Arctic governance is paramount.
- Arctic nations should participate in the Arctic Council through senior or ministerial-level officials who are empowered to make significant commitments and decisions for their governments.

⁴The six permanent participants of the Arctic Council are: the Aleut International Association, Arctic Athabaskan Council, Gwich’in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North (RAIPON), and the Sami Council.