Workshop on Arctic Governance: Drawing Lessons from the Antarctic Experience

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This daylong workshop, convened 3 December 2009, provided an opportunity for informal discussion among approximately 40 participants in the Antarctic Treaty Summit focusing on insights from experience with Antarctic governance over the last 50 years that have current and legacy value for all humanity and particularly for those concerned with the transformative change now occurring in the Arctic.

The objectives of the workshop were to examine parallel or differing experiences regarding the development and implementation of the Antarctic Treaty System and Arctic governance systems, lessons learned from Antarctic governance that may be applicable to current efforts to deal with governance needs in the Arctic, and any other inferences to be drawn from the political, legal, or ecological management of the Antarctic that are relevant to Arctic governance.

The workshop included four separate sessions, each starting with several speakers invited to initiate the discussion by offering reflections derived from the presentations and discussion at the summit:

1. general insights from the Antarctic Treaty Summit: Robert Corell, Vladimir Golitsyn, and Marie Jacobsson;
2. the relevance of the Antarctic experience with regulatory measures in addressing emerging Arctic issues: Peiqing Guo and John Hocevar;
3. the role of monitoring, reporting, and verification systems in the Antarctic as they pertain to the Arctic: Anders Karlquist and Yeadong Kim; and
4. lessons from the Antarctic experience that may help to strengthen the science/policy interface in the Arctic: Fred Roots and Paul Berkman.

Session 1 began with a synthesis of the summit presentations made earlier that week. History played a crucial role in the development of policy in the Antarctic. The 1959 Antarctic Treaty, for example, was influenced by the cold war, leading signatories to find common ground in the importance of science. History also played a role in the Arctic, but it did not culminate in the signing of an Arctic Treaty. More recent developments, including climate change and globalization, are now affecting Arctic policy.

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History is not the only factor that differentiates the two polar regions with regard to governance. There are significant geographical, political, and social differences. The Arctic is an ocean surrounded by land; the Antarctic is a continent surrounded by an ocean. Governance in the High Arctic is an extension of the sovereign jurisdictions of five coastal states; governance in the Antarctic features a multilateral treaty that does not support specific sovereign claims. The Antarctic has no permanent residents; the Arctic has significant numbers of culturally distinct indigenous peoples as well as long-term settlers. Another major difference between the poles involves matters of security. By treaty, the Antarctic is demilitarized and denuclearized. In contrast, Arctic nations have significant security interests that extend into the Arctic. These differences, summarized in Table 1, make it essential to exercise extreme care in seeking to transfer experience regarding governance from one polar region to the other.

Session 2 extended these general findings through a more focused discussion of regulatory issues in the polar regions. The Antarctic Treaty System has grown into a comprehensive governance system in the Antarctic. It promotes the use of Antarctica exclusively for peaceful purposes and emphasizes the role of scientific investigation. This has resulted in a dramatic expansion of regional research and in insights leading to historic advances in environmental protection, such as the response to the discovery of the ozone hole through the development of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. Antarctic science also has fostered efforts to achieve the common good rather than promoting the interests of individual nations. The conduct of science has promoted international cooperation and the development of shared infrastructure; it has provided a venue for states to work together outside the constraints of national policies. Participants in the workshop recommended that science play a similar role in the Arctic in the future, providing a mechanism to focus on global priorities in addition to national interests. In the next 50 years, the Arctic will experience massive physical and social changes, which will make it critical to ensure that scientific knowledge is incorporated into decision-making processes and that the interaction among science, law, and policy is strengthened.

TABLE 1. Polar contrasts relevant to governance.

The Antarctic	The Arctic
A continent surrounded by ocean	An ocean surrounded by land
No permanent residents	Many permanent residents
Jurisdictional status frozen	Multinational jurisdiction
No large-scale industry	World-class industry
Demilitarized	Highly militarized
Denuclearized	Nuclearized

Session 3 explored the role of monitoring, reporting, and verification systems in the Antarctic and the relevance of this experience to the Arctic. Discussion focused on the success of the Antarctic's practice of sharing data and information. In the face of anticipated changes due to climate change, the Arctic nations should adopt similar practices as data integration and comparability become increasingly critical to understanding the health of the Earth's socioecological systems.

In Antarctica, science has given rise to practices in areas such as environmental assessment and data management that allow a common approach to regional monitoring, reporting, and verification. Development of similar standardized data collection, management, and analysis procedures among the Arctic nations will be needed to integrate, interpret, and feed this information into policy-making processes in the future. Similar procedures will prove beneficial to assessments carried out by the Arctic Council's Working Groups.

Session 4 of the workshop focused on whether the Antarctic experience can suggest ways to strengthen the science-policy interface in the Arctic. The growth of a common scientific "culture" in the Antarctic has contributed to the development of informal consultative practices and a less-hierarchical approach than is typical in national or multilateral governmental forums. In addition, this approach has contributed to progress by encouraging open discussions in which parties emphasize "consent" rather than consensus. Environmental nongovernmental organizations have also played an important role in the Antarctic, increasing decision-making capacity and advancing goals outside the formal structures of governance.

There may be a lesson here regarding the role of informal governmental structures as Arctic stakeholders strive to find common ground, define the common good, and achieve compromises. Future challenges in the Arctic will be transnational and often region-wide in scope. In some cases, the effects of decisions regarding Arctic issues will be felt at the global level and vice versa. The global dimensions of Arctic governance will challenge the capacity and the authority of Arctic states to exclude others from participating in decision-making regarding Arctic issues. The Arctic will require adaptive management strategies to meet future challenges, especially in the case of climate change.

Economic development, increasing in both polar regions, is a major concern in the Arctic. It is important to consider adopting substantive arrangements in the Arctic, similar to those developed in the Antarctic for activities like tourism and bioprospecting. Similarly, Arctic nations and the Arctic Council will need to work closely with international organizations like the International Maritime Organization to develop regionally appropriate regulations for matters like shipping, search and rescue, and emergency response.

The International Polar Year (IPY) was successful in bringing significant investments in science involving both polar regions. Participants in the workshop recommended that ways be found to continue IPY efforts, perhaps through the extension of the IPY to an International Polar Decade.

The designation of marine and terrestrial protected areas is emerging in the Antarctic as an important mechanism to promote both environmental protection and scientific research. The Arctic can benefit from this experience through an effort to achieve international agreement to identify and designate sensitive areas for protection and further research.

Antarctica has captured the interest and the imagination of the public through the exploits of famous explorers, the plight of charismatic species (e.g., whales and penguins), and the impact on popular thinking of dramatic events like the discovery of the ozone hole. This high profile has produced tremendous public support for international cooperation in the Antarctic and should become a model for those concerned with the Arctic.

Workshop participants concluded that over the course of the next 50 years there will be a need to adapt Arctic governance systems to address impacts arising from the interaction of climate change and globalization and to promote the achievement of sustainable development and social justice for Arctic residents. The region will experience environmental change resulting from melting ice, a seasonally ice-free ocean, and thawing permafrost along with increasing pressure to develop natural resources.

In the Antarctic, by contrast, the impacts of these forces will not be as profound. As the Arctic changes, we should continue to look for lessons in both polar regions. The Arctic will remain vulnerable to environmental degradation attributable to activities occurring in other parts of the world. There is a need for increased public understanding about how changes in the polar regions will exacerbate climate change and greatly impact global systems. This workshop provided a venue to consider the importance of the polar regions, to look to them for lessons of broader significance, and to stress the need to continue to learn about and protect these regions for their own value as well as for the roles they play in maintaining planetary systems.

Acknowledgments

The Aspen Commission on Arctic Climate Change and the Arctic Governance Project cosponsored this workshop. David Monsma of the Aspen Institute and Oran Young of the Arctic Governance Project served as cochairs. Francesca Cava of the Aspen Institute was the rapporteur.