State of the Arctic Conference Resolution

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Photo by Dave Brosha

THE CHANGING ARCTIC

The arctic environment is changing rapidly and dramatically. These changes are affecting ecosystems, ecosystem services, and have substantive consequences for arctic residents and nations, with implications for arctic governance and linkages to the rest of the globe. The International Polar Year 2007–2009 successfully focused international research activities on the Arctic and added to a foundation towards a coordinated and interdisciplinary approach to observe, understand, and respond to arctic change. A concerted effort to build on that foundation is now required.

RESOLUTION

With 448 participants from 16 countries, including representatives of Indigenous Peoples' organizations, and over 400 keynote addresses, scientific talks, and poster presentations, four key recommendations emerged from the conference:

1. Develop Responses to Arctic Change and Advance Solution-Driven Science

All entities that make decisions on management of the physical, biological, and human systems of the Arctic should engage in partnerships with the scientific community to develop research that explores solutions to the complex problems of arctic system change. Scientific efforts that inform decision-making should be expanded at all levels.

2. Fully Implement a Coordinated and Multi-Disciplinary Arctic Observing System

Long-term monitoring over many decades is essential to understanding and responding to arctic change. To address gaps in observing and monitoring activities, all national and international bodies that support arctic research should form an alliance to insure the long-term implementation of an internationally coordinated arctic observing system. The participation of operational agencies in this initiative is critical. The observing system must integrate relevant activities across all biological, chemical, physical, and social sciences, and it must involve northern peoples and diverse stakeholder communities.

3. Optimize Existing Efforts for Projecting Future States of the Arctic System

All entities that provide resources for arctic science should continue to support strong basic science in the Arctic, balanced across all biological, physical, and social sciences for improved understanding and projections of change. In addition to new studies, emphasis should be placed on optimizing and synchronizing existing efforts. The results from these activities should inform adaptation and mitigation strategies.

4. Promote Open Access to Arctic Areas and Data

Addressing arctic change requires pan-arctic field research activities, communication, and data sharing. All arctic nations should grant free access to their lands and waters for research purposes, and all nations and organizations should facilitate open access to data in a timely fashion.

The urgency of problems stemming from arctic change, and the immense challenge of understanding the complexity of the arctic system, requires that resources for arctic change science must be strategically and effectively deployed. We have an impressive and growing foundation of scientific knowledge on which to build new efforts. Nations and funding agencies should capitalize on these successes to realize a vision of coordinated arctic science to better understand the Arctic and to enable adaptation to changes now and in the future.

An initial draft of the Resolution was presented at the conference and discussed during the final plenary session. This final draft was developed with input from the final plenary discussion as well as through an e-mail review sent to conference participants.