



## ICSU Statement

# Universality of Science in the Polar Regions

The International Polar Year (IPY) 2007-2008 brought together tens of thousands of scientists, educators, and data specialists from more than 60 nations in a two-year internationally coordinated campaign of multidisciplinary polar research and outreach. Sponsored by the International Council for Science (ICSU) and the World Meteorological Organization, IPY demonstrates the enormous value of coordinated international collaboration among present and emerging generations of polar researchers in the biological, geophysical, and social sciences, and of access for researchers to the Antarctic and Arctic. IPY also highlights the value and importance of long-term full and open access to data and information from monitoring and research activities in the polar regions.

To build on the international collaborative spirit witnessed during IPY, and for the global population to benefit from the improved understanding of changes and influence of the polar regions that this spirit enables, ICSU calls on all parties conducting or influencing polar research to support the principle of Universality of Science in general, and specifically to support:

1. continued and responsible access to all areas of the Arctic and Antarctic for research purposes;
2. full, open, and timely access to polar research data and information for research and educational purposes and for sustainable development of polar regions;
3. continued development of international research capacity, coordination, and collaboration, including sharing of data and information and pooling of national research capabilities;
4. development of and adherence to policies, procedures, and regulations—and provision of resources—to ensure the long-term effectiveness of the mechanisms that are necessary to deliver 1-3; and
5. continued recognition among polar scientists of their responsibilities toward sharing and stewardship of data and information.

## Background

Collaboration, sharing, and access are the fundamental building blocks of scientific progress as described in ICSU's core principle of the Universality of Science. This principle embodies freedom of movement, association, expression, and communication for scientists, as well as equitable access to data, information, and research materials. Such freedoms or rights are cherished by the scientific community and have historically been widely recognized by governments and policy makers. For a variety of reasons elaborated below, now is a critical time to re-assert the Universality of Science in the polar regions and to reinforce the application of this principle.

The IPY coincided with rapid changes in polar environments and communities, and a re-awakening of political and economic interests in these regions. These diverse interests include territorial claims, development of resources, opening of new transport routes, combating pollution, and global action on curbing greenhouse gas emissions. It is now clear that environmental changes in the polar regions are not only indicators of the effects of human activities elsewhere on Earth, but also that these changes will have profound effects on human society around the world if they continue. Observation, understanding, and sustainable management of the polar regions are therefore in the common interest of all humanity. As was the case half a century ago at the end of the International Geophysical Year (IGY), the open conduct of polar science and accessibility of scientific data and results will be a cornerstone of informed progress on the major polar challenges facing the global populace.

The IGY of 1957-1958 was a global scientific research campaign involving similarly impressive numbers of scientists and nations as in IPY. In the polar regions, application of the Universality principle has been facilitated by policies, mechanisms, and infrastructure that emerged from the IGY. For example, networks of World Data Centers and Services were established 50 years ago to ensure the long-term availability of scientific data and information. Recognizing the immediate needs and opportunities presented by the IPY in 2007-2008, the 2008 ICSU General Assembly urged its 117 National Members and 30 International Scientific Union Members to support formal stewardship and long-term preservation of IPY data. To promote this, ICSU is fostering the concept of an open polar information commons and is refreshing its approach to data stewardship by building a new, state-of-the-art World Data System.



Dedicated scientific coordinating bodies for Antarctic and oceanic research also arose out of IGY and were subsequently joined by similar groups to coordinate Arctic research<sup>1</sup>. These bodies, which maintain close ties with ICSU and each other, played a vital role in implementing IPY and should be equally important in ensuring its legacy.

If properly supported, these bodies should in turn provide sustained coordination for the interdisciplinary polar research and emerging observation networks that are essential for monitoring, understanding, and managing the polar regions in the long-term.

And if all nations embrace the Universality principle and build on progress made during IPY, scientists and society will have at their fingertips the information needed to improve understanding and decisions on the many polar-related issues that now confront humanity.

Finally, with these freedoms of access to regions and data come responsibilities for polar scientists including willingness to share data and promote, facilitate, and reward stewardship of data and information.

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#### About this statement

This statement is endorsed by the Executive Board of the International Council for Science (ICSU) and its Committee on Freedom and Responsibility in the conduct of Science. For more information and ICSU statements, visit the resource centre at: [www.icsu.org](http://www.icsu.org)

<sup>1</sup> Scientific Committee on Antarctic Research (SCAR), Scientific Committee on Oceanic Research (SCOR), and International Arctic Science Committee (IASC).

