

# ARCTIC CLIMATE IMPACT ASSESSMENT



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## Preface

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Earth's climate is changing, with the global temperature now rising at a rate unprecedented in the experience of modern human society. These climate changes, including increases in ultraviolet radiation, are being experienced particularly intensely in the Arctic. Because the Arctic plays a special role in global climate, these changes in the Arctic will also affect the rest of the world. It is thus essential that decision makers have the latest and best information available regarding ongoing changes in the Arctic and their global implications.

The Arctic Council called for this assessment and charged two of its working groups, the Arctic Monitoring and Assessment Programme (AMAP) and the Conservation of Arctic Flora and Fauna (CAFF), along with the International Arctic Science Committee (IASC), with its implementation. An Assessment Steering Committee (see page iv) was charged with the responsibility for scientific oversight and coordination of all work related to the preparation of the assessment reports.

This assessment was prepared over the past five years by an international team of over 300 scientists, other experts, and knowledgeable members of the indigenous communities. The lead authors were selected from open nominations provided by AMAP, CAFF, IASC, the Indigenous Peoples Secretariat, the Assessment Steering Committee, and several national and international scientific organizations. A similar nomination process was used by ACIA to select international experts who independently reviewed this report. The report has been comprehensively researched, is fully referenced, and provides the first comprehensive evaluation of arctic climate change, changes in ultraviolet radiation, and their impacts for the region and for the world. Written certification has been obtained from the ACIA leadership and all lead authors to the effect that the final scientific report fully reflects their expert views.

The scientific results reported herein provided the scientific foundations for the ACIA synthesis report, entitled "Impacts of a Warming Arctic", released in November 2004. This English language report is the only official document containing the comprehensive scientific assessment of the ACIA.

Recognizing the central importance of the Arctic and this information to society as it contemplates responses to the growing global challenge of climate change, the cooperating organizations are pleased to forward this report to the Arctic Council, the international science community, and others around the world.

Financial support for the ACIA Secretariat was provided by the U.S. National Science Foundation and National Oceanic and Atmospheric Administration. Support for ACIA-related workshops, participation of scientists and experts, and the production of this report was provided by the governments of the eight Arctic nations, several other governments, and the Secretariats of AMAP, CAFF, and IASC.

### **The Arctic Council**

The Arctic Council is a high-level intergovernmental forum that provides a mechanism to address the common concerns and challenges faced by arctic people and governments. It is comprised of the eight arctic nations (Canada, Denmark/Greenland/Faroe Islands, Finland, Iceland, Norway, Russia, Sweden, and the United States of America), six Indigenous Peoples organizations (Permanent Participants: Aleut International Association, Arctic Athabaskan Council, Gwich'in Council International, Inuit Circumpolar Conference, Russian Association of Indigenous Peoples of the North, and Saami Council), and official observers (including France, Germany, the Netherlands, Poland, United Kingdom, non-governmental organizations, and scientific and other international bodies).

### **The International Arctic Science Committee**

The International Arctic Science Committee is a non-governmental organization whose aim is to encourage and facilitate cooperation in all aspects of arctic research among scientists and institutions of countries with active arctic research programs. IASC's members are national scientific organizations, generally academies of science, which seek to identify priority research needs, and provide a venue for project development and implementation.

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