

# ARCTIC CLIMATE IMPACT ASSESSMENT



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**AMAP Secretariat**  
P.O. Box 8100 Dep.  
N-0032 Oslo, Norway  
Tel: +47 23 24 16 30  
Fax: +47 22 67 67 06  
<http://www.amap.no>

**CAFF International Secretariat**  
Hafnarstraeti 97  
600 Akureyri, Iceland  
Tel: +354 461-3352  
Fax: +354 462-3390  
<http://www.caff.is>

**IASC Secretariat**  
Middelthuns gate 29  
P.O. Box 5156 Majorstua  
N-0302 Oslo, Norway  
Tel: +47 2295 9900  
Fax: +47 2295 9901  
<http://www.iasc.no>

### Authors

Listed in each individual chapter

### Project Production and Graphic Design

Paul Grabhorn, Joshua Weybright, Clifford Grabhorn (Cartography)

### Editing

Carolyn Symon (lead editor), Lelani Arris, Bill Heal

### Photography

Bryan and Cherry Alexander (Cover and Chapter 1)

### Assessment Integration Team

|                          |  |
|--------------------------|--|
| Robert Corell, Chair     | American Meteorological Society, USA               |
| Pål Prestrud, Vice Chair | Centre for Climate Research in Oslo, Norway        |
| Patricia A. Anderson     | University of Alaska Fairbanks, USA                |
| Snorri Baldursson        | Liaison for the Arctic Council, Iceland            |
| Elizabeth Bush           | Environment Canada, Canada                         |
| Terry V. Callaghan       | Abisko Scientific Research Station, Sweden         |
|                          | Sheffield Centre for Arctic Ecology, UK            |
| Paul Grabhorn            | Grabhorn Studio, Inc., USA                         |
| Susan Joy Hassol         | Independent Scholar and Science Writer, USA        |
| Gordon McBean            | University of Western Ontario, Canada              |
| Michael MacCracken       | Climate Institute, USA                             |
| Lars-Otto Reiersen       | Arctic Monitoring and Assessment Programme, Norway |
| Jan Idar Solbakken       | Permanent Participants, Norway                     |
| Gunter Weller            | University of Alaska Fairbanks, USA                |

### ACIA Secretariat

Gunter Weller, Executive Director  
Patricia A. Anderson, Deputy Executive Director  
Barb Hameister, Sherry Lynch  
International Arctic Research Center  
University of Alaska Fairbanks  
Fairbanks, AK 99775-7740, USA  
Tel: +907 474 5818  
Fax +907 474 6722  
<http://www.acia.uaf.edu>

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<http://www.acia.uaf.edu>

## 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.

## Assessment Steering Committee

### Representatives of Organizations

|                                       |   |
|---------------------------------------|---|
| Robert Corell, Chair                  | International Arctic Science Committee, USA         |
| Pål Prestrud, Vice-Chair              | Conservation of Arctic Flora and Fauna, Norway      |
| Snorri Baldursson (to Aug. 2000)      | Conservation of Arctic Flora and Fauna, Iceland     |
| Gordon McBean (from Aug. 2000)        | Conservation of Arctic Flora and Fauna, Canada      |
| Lars-Otto Reiersen                    | Arctic Monitoring and Assessment Programme, Norway  |
| Hanne Petersen (to Sept. 2001)        | Arctic Monitoring and Assessment Programme, Denmark |
| Yuri Tsaturov (from Sept. 2001)       | Arctic Monitoring and Assessment Programme, Russia  |
| Bert Bolin (to July 2000)             | International Arctic Science Committee, Sweden      |
| Rögnvaldur Hannesson (from July 2000) | International Arctic Science Committee, Norway      |
| Terry Fenge                           | Permanent Participants, Canada                      |
| Jan-Idar Solbakken                    | Permanent Participants, Norway                      |
| Cindy Dickson (from July 2002)        | Permanent Participants, Canada                      |

### ACIA Secretariat

|                                   |                       |
|-----------------------------------|-----------------------|
| Gunter Weller, Executive Director | ACIA Secretariat, USA |
| Patricia A. Anderson              | ACIA Secretariat, USA |

### Lead Authors\*

|                                     |   |
|-------------------------------------|---|
| Jim Berner                          | Alaska Native Tribal Health Consortium, USA |
| Terry V. Callaghan                  | Abisko Scientific Research Station, Sweden  |
| Henry Huntington                    | Sheffield Centre for Arctic Ecology, UK     |
| Arne Instanes                       | Huntington Consulting, USA                  |
| Glenn P. Juday                      | Instanes Consulting Engineers, Norway       |
| Erland Källén                       | University of Alaska Fairbanks, USA         |
| Vladimir M. Kattsov                 | Stockholm University, Sweden                |
| David R. Klein                      | Voikov Main Geophysical Observatory, Russia |
| Harald Loeng                        | University of Alaska Fairbanks, USA         |
| Gordon McBean                       | Institute of Marine Research, Norway        |
| James J. McCarthy                   | University of Western Ontario, Canada       |
| Mark Nuttall                        | Harvard University, USA                     |
| James D. Reist (to June 2002)       | University of Aberdeen, Scotland, UK        |
| Frederick J. Wrona (from June 2002) | University of Alberta, Canada               |
| Petteri Taalas (to March 2003)      | Fisheries and Oceans Canada, Canada         |
| Aapo Tanskanen (from March 2003)    | National Water Research Institute, Canada   |
| Hjálmar Vilhjálmsson                | Finnish Meteorological Institute, Finland   |
| John E. Walsh                       | Finnish Meteorological Institute, Finland   |
| Betsy Weatherhead                   | Marine Research Institute, Iceland          |
|                                     | University of Alaska Fairbanks, USA         |
|                                     | University of Colorado at Boulder, USA      |

### Liaisons

|  |  |
|--|--|
| Snorri Baldursson (Aug. 2000 - Sept. 2002)   | Conservation of Arctic Flora and Fauna, Iceland      |
| Magdalena Muir (Sept. 2002 – May 2004)       | Conservation of Arctic Flora and Fauna, Iceland      |
| Maria Victoria Gunnarsdottir (from May 2004) | Conservation of Arctic Flora and Fauna, Iceland      |
| Snorri Baldursson (from Sept. 2002)          | Arctic Council, Iceland                              |
| Odd Rogne                                    | International Arctic Science Committee, Norway       |
| Bert Bolin (to July 2000)                    | Intergovernmental Panel on Climate Change, Sweden    |
| James J. McCarthy (June 2001 – April 2003)   | Intergovernmental Panel on Climate Change, USA       |
| John Stone (from April 2003)                 | Intergovernmental Panel on Climate Change, Canada    |
| John Calder                                  | National Oceanic and Atmospheric Administration, USA |
| Karl Erb                                     | National Science Foundation, USA                     |
| Hanne Petersen (from Sept. 2001)             | Denmark  |

\*Not all lead authors are members of the Assessment Steering Committee. For a full list of authors see Appendix A.

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