

## Second Circular

# High mountain glaciers and challenges caused by climate change

8-10 June 2009, Tromsø, Norway



<http://hmg.npolar.no>

The Center for Ice, Climate & Ecosystems of the Norwegian Polar Institute is hosting a conference initiated by the *Norwegian Ministry of the Environment* in cooperation with the *United Nations Environment Programme (UNEP)*. Scientists will meet to address the challenges and impacts created by melting glaciers in high-mountain regions, including effects on downstream countries. The conference offers its participants the opportunity to discuss their latest research on high-mountain glacier melts and the consequent effects on downstream areas, and provides the possibility of offering recommendations to policy makers. The meeting takes place in Tromsø, Norway, which hosted the World Environment Day in 2007, where the focus was on melting snow and ice.

### Venue

The Polar Environmental Centre, Tromsø, Norway.

### Aim and Background

The aim of the conference is to bring together scientists studying the cryosphere in the Himalayas and Andes regions with scientists working on the downstream effects of glacier melt as well as with researchers with expertise from other regions. Despite possibly increased sensitivity of high-mountain glaciers to climate change, and the consequent impact on society, glacier observations in high-mountain regions are scarce. Policymakers who must respond to these changes need the best available data to provide workable solutions for the adaptation and mitigation of these impacts. The need for improved hydrologic-process and ice-dynamic models for more accurate predictions, is urgent.

The mountain cryosphere is extremely sensitive to climate change. The effects of global warming such as shrinking glaciers, a shortened snow-cover season, thawing permafrost, etc., are clearly visible in most mountainous regions. Glaciers are the source of water for over half of humanity. Changes in high mountain glaciers have significant social and economic impacts on water supplies, hydropower production and tourism. Recent evidence suggests an acceleration of glacier mass loss in several key regions due to climate change. Regions such as the Andes and the Himalayas face the prospect of increased flooding from more melting and glacial lake outbursts, followed by a decrease in water supplies to large population centres. The adverse impact of these changes is limited not only to the mountainous regions themselves, but the far downstream effects may be disastrous. Glacier and ice-sheet melt in the northern regions contribute substantially to recent sea-level rise and may alter global ocean circulation. Society's response ranges from sophisticated engineering solutions to simple early-warning systems for glacial lake outburst floods.

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### Conference Topics

The programme includes oral presentations by invited speakers, as well as poster sessions to allow presentation of a wide range of relevant research related to the following topics:

**Topic 1:** Climate change in the high mountain regions of the world: Do climate models adequately describe glacier systems?—Similarities and differences between high altitude and high latitude glaciers.

*Keynote:* Georg Kaser, *Institute of Geography, University of Innsbruck, Austria.*

**Topic 2:** Climate change of high altitude glaciers and downstream effects.

*Keynote:* John Reynolds, *Reynolds GEO-Sciences Ltd., Mold, Flintshire, UK.*

**Topic 3:** Impacts and adaptation to climate change.

*Keynote:* Christian Nellemann, *UNEP/GRID-Arendal, Norway*

### Conference Output

Summary of state of knowledge, research- and policy-recommendations will be available as a UNEP publication in due time for the December *COP 15* in Copenhagen.

### Special Travel Grants

Participants from developing countries included in the *DAC List of ODA Recipients* (available from <http://hmg.npolar.no/export/sites/hmg/en/documents/ODA.pdf>), may apply for travel grants. A short application, including the applicant's resume and a recommendation from a senior researcher/advisor or institution representative, may be directed by e-mail to Ms. Anne Marit Aspenes at [aspenes@npolar.no](mailto:aspenes@npolar.no). Young researchers/scientists will be prioritized. **Application deadline: 15 May.**

### Advisory Board

- Kim Holmén, Norwegian Polar Institute (chair)
- Christian Lambrechts, United Nations Environment Programme (UNEP)
- Idunn Eidheim, Norwegian Ministry of the Environment
- Georg Kaser, Institute of Geography, University of Innsbruck, Austria
- John Reynolds, Reynolds GEO-Sciences Ltd., Mold, Flintshire, UK
- Christian Nellemann, GRID-Arendal, Norway

### Local Organisers

- Gunn Sissel Jaklin, Norwegian Polar Institute (chair)
- Nalan Koc, Norwegian Polar Institute (co-chair)
- Kathrine Ivsett Johnsen, UNEP/GRID-Arendal
- Miriam Jackson, Norwegian Water Resource & Energy Directorate
- Elisabeth Isaksson, Norwegian Polar Institute
- Jack Kohler, Norwegian Polar Institute
- Daqing Yang, the International Climate and Cryosphere (CliC) Project Office
- Tordis Villinger, the International Climate and Cryosphere (CliC) Project Office
- Anne Kibsgaard, Norwegian Polar Institute
- Anne Marit Aspenes, Norwegian Polar Institut

### Abstracts and Posters

Invited speakers will give oral presentations. All participants are encouraged to submit posters related to the conference topics. Submitted abstracts will be made available at registration to all participants in the form of a *Book of abstracts*. Poster board size: **70x160 cm** (portrait). More detailed information is available on the conference web site <http://hmg.npolar.no>

### Registration and Fee

The registration fee, NOK 1175 (approx EUR 132/USD168), includes the Ice breaker, conference banquet, lunches, shrimp feast, *Book of abstracts* and administration costs. Please register by **22 May 2009**. More detailed information on the conference, registration, etc., is available from: <http://hmg.npolar.no>.

### Accommodation

Block bookings at special conference rates of NOK 900, including breakfast, have been made with the Scandic hotel Tromsø, about 3 km from downtown Tromsø and 1 km from the airport. We offer transportation between the hotel and the conference venue morning and evenings. To take advantage of the special conference rate, please reserve your accommodations directly with the hotel by **15 May 2009** – at <http://www.scandichotels.com/en/Hotels/Countries/Norway/Tromso/Hotels/Scandic-Tromso/> using one of the following booking codes to ensure the negotiated price: *Norwegian Polar Institute*, OR *npo070609*.

### Social Programmes

Sunday, 7 June: Ice breaker welcoming party at Polaria visitor centre at 1900 hrs [www.polaria.no](http://www.polaria.no).

Monday, 8 June: Conference dinner at Tromsø Scandic Hotel, 1900 hrs.

Tuesday, 9 June: Norwegian shrimp feast\* at “Driv” the student house on the waterfront. Entertainment by local artists.

Important dates	
Travel grant applications .....	15 May 2009
Registration deadline.....	22 May 2009
Deadline for payment.....	22 May 2009
Deadline for full refund.....	15 May 2009
Abstract submission.....	22 May 2009
Deadline hotel reservation.....	15 May 2009
Ice breaker.....	07 June 2009
Conference start.....	08 June 2009
Banquet, Scandic hotel.....	08 June 2009
Shrimp feast*.....	09 June 2009

\*Those who suffer from shellfish allergies will be given other choices.