

770±220 ka, seismic data suggest that lacustrine deposits may cover up to seven glacial cycles. This calls for a much larger scientific endeavor that can only be accomplished within the framework of the International Continental Scientific Drilling Program (ICDP). Thus, the research initiative "Potrok Aike Maar Lake Sediment Archive Drilling Project" (PASADO) was developed, with the goal to get the GLAD800 coring system to Patagonia.

The four-day ICDP PASADO workshop, consisting of 46 talks organized into 10 sessions, was convened in the Conference Hall at the Complejo Cultural Santa Cruz in Río Gallegos, Argentina from 15-19 March 2006, bringing together 52 participants from 11 countries (Fig. 1).

The first two sessions introduced participants to the study area. Attendees were impressed with the data presented and felt that Laguna Potrok Aike should be recommended as an appropriate target for future ICDP deep drilling because it is not only a unique site for terrestrial climate reconstruction in the southern hemisphere but also for investigation into the formation of a relatively young mid-Pleistocene phreatomagmatic crater. A fieldtrip during the workshop presented an overview of the lake and the surrounding catchment area from a prominent basalt escarpment, and focused on technical and logistical issues, as well as on volcanic evidence and records of



Figure 1: Participants of the PASADO workshop in Río Gallegos.

environmental change in the field. The day ended with an "asado", a famous Argentine-style barbeque, on the premises of the INTA field station Potrok Aike.

The concluding day was devoted to break-out groups on four major topics related to technical aspects of scientific drilling and on volcanological, inorganic and organic aspects of sediment core analysis. During a final plenary discussion, all the ideas and suggestions were pooled.

The ICDP PASADO workshop proved to be very successful, both in terms of scientific collaboration, as well as technical and logistical issues. Participants actively fine-tuned analytical strategies, focused on improving cooperation and coordination between scientific groups, and developed the timeframe and outline for the full ICDP deep drilling proposal. The science plan that was established already serves as a basis for international cooperation,

and several proposals have been developed and submitted to national funding agencies in support of PASADO. However, although the first milestone has passed, there are still plenty of opportunities to expand the scientific community involved through international collaboration.

The scientific program, list of participants, abstracts of presentations and excursion guide were published as *Terra Nostra* 1/2006. Further information can be obtained from [www.salsa.uni-bremen.de](http://www.salsa.uni-bremen.de).

#### ACKNOWLEDGEMENTS

The PASADO workshop was organized by the team of GEOPOLAR (Institute of Geography, University of Bremen) and hosted by the Universidad Nacional de la Patagonia Austral (Río Gallegos). It was supported logistically by the Government of Santa Cruz and the Instituto Nacional de Tecnología Agropecuaria (INTA), and financially by ICDP.

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## Climate change: A multi-dimensional challenge

LUND, SWEDEN; 26-28 OCTOBER 2005

As part of the British Council's program International Networking for Young Scientists (INYS) a British-Swedish-Danish workshop was organized by the Swedish Meteorological and Hydrological Institute, the Geological Survey of Denmark and Greenland, the Climate Research Unit at the University of East Anglia, and the Hadley Centre (part of the Meteorological Office). A principal aim of the workshop, which brought together 19 young scientists, was to promote interaction between people who generate reconstructions of past climates from paleo-data, those who

work with instrumental time series and those who work on climate modeling. Six keynote lectures were given and these included topics such as projections of climate change over the next few decades, the usefulness of global climate models, the added value of regional modeling, and the nature of the geological data that form the basis of a reconstruction of a widespread cooling event at approx. 8200 years ago.

A highlight of the workshop was Professor Bert Bolin's keynote lecture "To use scientific knowledge on climate change in politics." Bert

was a founding Chair of the Intergovernmental Panel on Climate Change (IPCC) and was instrumental in the initial formulation of the World Climate Research Programme (WCRP). In his 80th year, he captivated a full audience with his personal and often revealing insight into how the scientific community must relay their concerns about climate change to the public and politicians. His message was clear; there is a great deal of knowledge on climate and, notwithstanding the remaining uncertainties (Fig. 1), urgent measures must

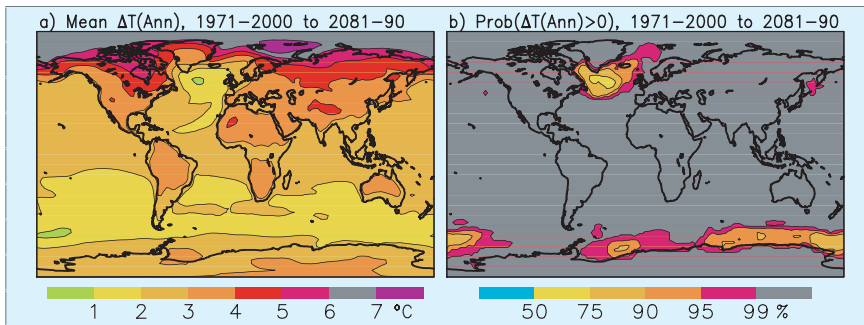


Figure 1: **A)** Annual mean temperature change from 1971-2000 to 2081-2090, as averaged over 21 models forced with the SRES A1B emissions scenario. **B)** Estimated probability that temperature change exceeds zero. The relatively low probability in the northern North Atlantic is a result of models that simulate cooling due to changes in ocean circulation (Räisänen and Ruokolainen, 2006, *Tellus A*, 58).

be taken to curb human influence on the properties of the atmosphere.

A parallel program was also scheduled for approx. 50 high school students. These students were taken to a local peat bog where they were given an introduction to palaeoclimatology, which included the coring

of peat, lake and marine sediments. This fieldtrip was followed by a "climate panel debate", in which the students were given the opportunity to ask scientists at the GeoBiosphere Science Centre about past, present and future climates. Lund is located only 20 km from the recently opened

road-rail link to Copenhagen. It was, therefore, appropriate that the workshop ended with a visit to the Niels Bohr Institute to see the ice cores recovered from the Greenland ice sheet.

#### ACKNOWLEDGEMENTS

The organizers are grateful to the British Council for their financial support and for the efficient management of the workshop by Ki Andersson (Sweden) and Michael Sorensen-Jones (Denmark). We thank the participants and keynote lecturers for an intellectually intense and stimulating few days, and Sune Olander Rasmussen for his guided tour of the Niels Bohr Institute.

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## New trends in Geomorphology – systems-based understanding of long term man-landscape interactions

LUCIFS WORKSHOP, MUENZENBERG, GERMANY; 11-14 MAY 2006

LUCIFS is a constitutive part of PAGES Focus 5 "Past Ecosystem Processes and Human-Environment Interactions". The LUCIFS research explores past to present responses of fluvial systems to climate change and human activities. After 2000, the LUCIFS group organized a second major workshop open to all interested members of the research community. The workshop focused on man-environment interactions, particularly on geomorphological and sedimentological perspectives on mid- to long-term quantitative sediment fluxes.

The meeting was convened in Muenzenberg near Frankfurt, Germany from 11-14 May 2006. The LUCIFS leader, Richard Dikau (Univ. Bonn, Germany), and the local organizers, Peter Houben (Univ. Frankfurt, Germany), Lothar Schrott (Univ. Salzburg, Austria) and Jürgen Wunderlich (Univ. Frankfurt, Germany) were very pleased to welcome 41 participants from 5 continents and 14 countries (Fig. 1). The workshop provided a stimulating working atmosphere with high-profile talks. The tight schedule consisted of 19 oral and 11 poster presentations, of



Figure 1: Participants of the LUCIFS 2006 workshop in Muenzenberg, Germany.

which 5 keynote talks considered the state of the art in various fields of man-environment research. All contributions were of outstanding quality and sparked animated discussions.

The workshop program was supplemented by a pre-workshop fieldtrip led by Peter Houben. During the fieldtrip, the methodical approach and results of a Holocene sediment budget study for Rockenberg catchment were presented. One of the main messages there was that in this area, the spatial pattern of erosion and redeposition, the routing of sediments and the changes in rates of flux and delivery along the sediment cascade have been chiefly controlled by human actions.

On Saturday afternoon, small working groups elaborated on selected topics of Holocene human-environment interactions. The 4 thematic foci were:

- Systems-based understanding of earth surface change with respect to Holocene sediment flux.
- Evaluating quantitatively human impact on earth surface systems.
- Exploring the sedimentary record: cross-cutting approaches to catchment-scale sediment flux.
- Coupling changing pressures of anthropogenic and natural drivers with modeling approaches.

Structured discussions helped to identify key issues for further re-