International Association of Geomorphologists (I.A.G.)
Association Internationale des Géomorphologues (A.I.G.)

Working Group on Sediment Budgets in Cold Environments (SEDIBUD)
http://www.geomorph.org/wg/wgsb.html

7th SEDIBUD Workshop

Towards an integrated analysis of environmental drivers and rates of contemporary solute and sedimentary fluxes in changing cold climate environments

From coordinated field data generation to integration and modelling

and

SEDIBUD Summer School for Doctoral Students

Quantitative analysis of geomorphologic processes: Field methods, experimental techniques and modelling

September 10 – 17, 2012:
Trondheim (September 10 – 13, 2012) and
Loen / Nordfjord (September 13 – 17, 2012)
Norway

- First Circular (December 15, 2011) -

Dear all,

We would like to invite you to participate in the 7th Workshop of the I.A.G./A.I.G. Working Group SEDIBUD (Sediment Budgets in Cold Environments), which will take place in Trondheim (Geological Survey of Norway, NGU) and Loen / Nordfjord (Sande-Camping Loen), Norway, September 10 – 17, 2012.
The 7th SEDIBUD Workshop will be combined with a SEDIBUD Summer School designed for Doctoral Students. We therefore particularly invite also doctoral students and other young scientists to participate in this event.

Background:

Amplified climate change and ecological sensitivity of high-latitude and high-altitude cold climate environments has been highlighted as a key global environmental issue. Projected climate change in cold regions is expected to alter melt season duration and intensity, along with the number of extreme rainfall events, total annual precipitation and the balance between snowfall and rainfall. Similarly, changes to the thermal balance are expected to reduce the extent of permafrost and seasonal ground frost and increase active layer depths. These effects will undoubtedly change surface environments in cold regions and alter the fluxes of sediments, nutrients and solutes, but the absence of quantitative data and coordinated process monitoring and analysis to understand the sensitivity of the Earth surface environment is acute in cold climate environments.
The *SEDIBUD (Sediment Budgets in Cold Environments)* Programme of the International Association of Geomorphologists (I.A.G. / A.I.G.) was formed in 2005 to address this key knowledge gap.
The central research question of this global group of scientists is to
Assess and model the contemporary sedimentary fluxes in cold climates, with emphasis on both particulate and dissolved components.
Initially formed as European Science Foundation (ESF) Network SEDIFLUX (2004-2006), SEDIBUD has further expanded to a global group of researchers with field research sites located in polar and alpine regions in the northern and southern hemisphere. Research carried out at each site varies by programme, logistics and

available resources, but typically represent interdisciplinary collaborations of geomorphologists, hydrologists, ecologists, permafrost scientists and glaciologists. SEDIBUD has developed a key set of primary surface process monitoring and research data requirements to incorporate results from these diverse projects and allow coordinated quantitative analysis across the programme. SEDIBUD Key Test Sites provide data on annual climate conditions, total discharge and particulate and dissolved fluxes as well as information on other relevant surface processes. A number of selected Key Test Sites is providing high-resolution data on climate conditions, runoff and sedimentary fluxes, which in addition to the annual data contribute to the SEDIBUD Metadata Database which is currently developed. To support these coordinated efforts, the SEDIFLUX Manual has been produced to establish common methods and data standards. In addition, a first framework paper for characterizing fluvial sediment fluxes from source to sink in cold environments has been published by the group. Comparable datasets from different SEDIBUD Key Test Sites are analysed to address key research questions of the SEDIBUD Programme as defined in the SEDIBUD Working Group Objective (available online at the SEDIBUD Website, see below).

SEDIBUD currently has identified 44 SEDIBUD Key Test Sites worldwide with the goal to further extend this network to about 50 sites that cover the widest range of cold environments possible. Additionally, it is expected that collaboration within the group will act as a catalyst to develop new sites in underrepresented regions. The frequently updated SEDIBUD Key Test Site Database and the SEDIBUD Fact Sheets Volume provide significant information on SEDIBUD Key Test Sites. SEDIBUD is open for proposals for possible additional SEDIBUD Key Test Sites to be included in the programme.

Defined SEDIBUD Key Tasks for the coming years include:

- The continued generation and compilation of comparable longer-term datasets on contemporary sedimentary fluxes and sediment yields from SEDIBUD Key Test Sites worldwide
- The continued extension of the SEDIBUD Metadata Database with these datasets

- The testing of defined SEDIBUD Hypotheses (available online at the SEDIBUD Website, see below) by using the datasets continuously compiled in the SEDIBUD Metadata Database

Detailed information on the I.A.G. / A.I.G. SEDIBUD Programme, SEDIBUD Publications and SEDIBUD Online Documents and Database is available at the SEDIBUD Website under http://www.geomorph.org/wg/wgsb.html.

Programme:

September 10, 2012: Arrival of participants in Trondheim, welcome and joint dinner in the evening
September 11 - 12, 2012: SEDIBUD Workshop at NGU: Talks and poster presentations, Discussion rounds, SEDIBUD business meeting; joint lunches at NGU and joint dinners in Trondheim city in the evenings
September 13, 2012: Field trip from Trondheim to Loen / Nordfjord, western Norway, arrival in the evening at Sande-Camping in Loen, joint dinner in the evening; stay at Sande-Camping until September 17, 2012
September 14 – 16, 2012: Field trips and field presentations in Nordfjord, western Norway; Summer school lectures and discussion rounds in Loen (Sande-Camping), joint lunches (either in field or at Sande-Camping) and joint dinners at Sande-Camping in the evenings
September 17, 2012: Departure of participants from Sande-Camping (Loen / Nordfjord) in the morning

Speakers and topics:

Invited key lectures:

Bernd Etzelmüller (Oslo): Climate change, mountain permafrost and slope stability
Atle Nesje (Bergen): Holocene climate change in Scandinavia with implications for hydrology and sediment transport

Summer school lectures (selection):

Achim A. Beylich (Trondheim): Towards a coordinated and integrated analysis of environmental drivers and rates of contemporary solute and sedimentary fluxes in changing cold climate environments – the SEDIBUD programme as an approach
Armelle Decaulne (Clermont-Ferrand): Visible versus invisible tales in geomorphology: What does field investigation tell?
John C. Dixon (Arkansas): Weathering field experiments in periglacial environments
Reginald Hermanns (Trondheim): Rockslides and rock-slope stability in steep environments (invited lecture)
Ruth Hindshaw (Trondheim): Glaciers, weathering and isotopes (invited lecture)
Thierry Oppikofer (Trondheim): Terrestrial laser scanning and slope processes (invited lecture)
Anders Schomacker (Trondheim): Time-series of digital elevation models for quantification of changes in modern glacial environments (invited lecture)
Þorsteinn Sæmundsson (Saudarkrokur): Morphological mapping of sediments transported with snow avalanches
Zbigniew Zwolinski (Poznan): Styles of dissolved and suspended flux from Arctic and Antarctic catchments

Field presentations in Nordfjord, western Norway:

Achim A. Beylich, Katja Laute & Susan Liermann (Trondheim): Monitoring and quantitative analysis of contemporary denudative surface processes and mass fluxes
Armelle Decaulne (Clermont-Ferrand): Dendrogeomorphology and process geomorphology
Thorsteinn Sæmundsson (Saudarkrokur): Mapping of sediment transport by snow avalanches

Registration:

Participants are kindly asked to register by **April 30, 2012**.

If you are interested to participate please send an email indicating whether you wish to participate only in the Workshop in Trondheim (September 10 – 13, 2012) or in both the Workshop in Trondheim plus Field Trips in Loen / Nordfjord // Summer School (September 10 – 17, 2012) to Achim A. Beylich (achim.beylich@ngu.no).
The Summer School for Doctoral Students includes both the Workshop in Trondheim and the Field Trips plus Summer School Lectures in Loen / Nordfjord and lasts accordingly from September 10 to September 17, 2012.

Abstract submission:

Participants will be asked to submit scientific abstracts of one to two pages (word document) to Katja Laute (katja.laute@ngu.no). The deadline for abstract submission will be **July 15, 2012**. Please indicate if you prefer talk or a poster presentation when submitting your abstract(s).
Doctoral students participating in the SEDIBUD Summer School will be asked to present their scientific work as talk during the SEDIBUD Workshop at NGU.
Only abstracts received by July 15, 2012 will be considered for inclusion in the abstract volume.

Costs:

Only Workshop in Trondheim, September 10 – 13, 2012:
There will be no workshop fee. Participants will instead be asked to book and pay individually their accommodation in Trondheim city and to pay individually for all lunches at NGU and dinners in Trondheim city they wish to join. The costs for accommodation are accordingly flexible and depend on the type of accommodation (all kinds of accommodation from youth hostel to high standard hotel do exist in Trondheim city, see details under http://www.trondheim.no/accommodation/), which

participants will choose for themselves. The costs for joint meals will be approximately 50 NOK (6 Euros) per person for one lunch at NGU and about 250 NOK (30 Euros) per person for one dinner in Trondheim city. Coffee breaks, abstract volume and other workshop materials will be provided by NGU and will be free of costs.

Workshop in Trondheim plus Field Trips in Loen / Nordfjord // Summer School:
Participants are asked to register (by email to Achim A. Beylich, achim.beylich@ngu.no, see above) by **April 30, 2012**.
Bookings for accommodation and all meals in Loen / Nordfjord (Sande-Camping) will be arranged for participants, which have registered by this deadline. Participants, which decide after April 30, 2012 that they want to participate in the Field Trips / Summer School, will have to arrange bookings in Loen / Nordfjord by themselves. Participants will be asked to pay individually at Sande-Camping in Loen for their accommodation and all meals in Loen. The complete costs for accommodation and all meals at Sande-Camping in Loen for the period September 13 – 17, 2012, will be approximately 2000 NOK (250 Euros) per person.
The costs for the drive from Trondheim to Loen (September 13, 2012) and for local field trips in Nordfjord (September 14 – 16, 2012) will be 500 NOK (ca. 60 Euros) per person in total and have to be paid by participants participating in this part of the event (September 13 – 17, 2012) when they receive their workshop materials at NGU in Trondheim in the morning of September 11, 2012.

Travel information:

Trondheim in Norway can be easily reached by plane, train or bus. Detailed information on how to travel to Trondheim is found under http://www.trondheim.no/howtogethere/.
Travelling from Loen / Nordfjord is possible by bus and detailed information on how to travel by bus from Loen / Nordfjord to Trondheim, Oslo or Bergen will be provided in the Second Circular in early May 2012.

Contact:

Achim A. Beylich, Geological Survey of Norway (NGU), Trondheim, Norway
Email contact: achim.beylich@ngu.no

Second Circular:

The Second Circular will be distributed in early May 2012.

Please forward this information to colleagues and students that might be interested to participate.

We are looking forward to welcoming you in Trondheim.

With best regards,

Achim A. Beylich (Trondheim) (organiser)
Katja Laute (Trondheim) (co-organiser)
Armelle Decaulne (Clermont-Ferrand) (co-organiser)