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Brief Bio
Session Leader(s)

Holger Frey: Research associate University of Zurich, PhD in glacier and glacier lake mapping and analyses with GIS and remote sensing. Working experience in research and cooperation projects on climate impact in Peru and India; expertise in glacier hazards and risks.

Christian Huggel: Senior researcher and group leader at University of Zurich; long-standing track record of research and projects in climate change impacts, risks and adaptation with a focus on mountains in several regions worldwide. Lead-author of IPCC AR5 WGII.

Abstract
Short description, including alignment with conference themes and objectives

Early Warning Systems (EWS) have become more and more important for disaster risk reduction and climate change adaptation in recent years, and this trend is expected to continue in the future. EWS aim at predicting or detecting hazardous processes by collecting and analyzing data and providing information for decision making to responsible authorities.

A successful implementation requires not only detailed process understanding and adequate sensor and communication infrastructure, but also close collaboration and communication with authorities and the population. This requires geoscientific expertise and modeling skills, knowledge of juristic and institutional rules and regulations, and awareness of the local knowledge and risk perception. EWS are thus highly complex systems that involve scientific, technical, institutional, and social aspects.

Description
Proposed discussion focus

In this session we address presentations on examples of and experiences with designing and implementing Early Warning Systems, focusing on but not limiting to mountain areas. Contributions on practical applications are welcome as well as inputs on specific aspects of early warning. Besides technical descriptions, abstracts on collaborations and capacity building with local communities in the context of early warning and risk prevention are explicitly encouraged.

Objectives
Justification and expected impact during and after the conference

We expect to get a panorama on different EWS types regarding hazardous processes looked at, types of systems, and complexities of both the sensor infrastructure and the warning, alerting and alarming procedures. We want to summarize the lessons learnt from different applications and implementations in various World regions, and finally outline good practices for future EWS implementations.

Target Audience Scientists, practitioners, engineers, governmental and non-governmental organizations.