

2020 Annual report of the GAPHAZ Scientific Standing Group

(by D.Quincey - former chair, Marta Chiarle, Michele Koppes, Holger Frey)



After the positive evaluation of the first 8 years of activity in 2019, the Glacier and Permafrost Hazards in Mountains (GAPHAZ) Scientific Standing Group continues to play an active role in advancing knowledge of mountain hazards and their impact on downstream communities, and in maintaining an active international community on these topics. The group now stands at more than 120 members, including scientists, practitioners, policy makers and representatives of the private sector. In 2020, the main activities have comprised online conference organisation and participation, lobbying and influencing on policy-related matters, particularly in the build-up to COP26, generating publications both in the mainstream and grey literature on mountain hazard themes, and signposting information to agencies in the face of emerging hazardous events.

In particular, GAPHAZ members have made major contributions to both EGU Online in May (in particular to session CR3.1 “Risks from a changing cryosphere”), and AGU Online in December (via the “Cryospheric Hazards” session, among others) as well as in the Andes Online Conference, which took place over two days in July. There have been informative and productive online discussions about emerging events in Pakistan (the outburst of Shisper ice-dammed lake), Peru (Salcantay landslide and resulting extreme debris-flow), Canada (a massive landslide impacting the Taku River in British Columbia), and the U.S. (another major landslide at Haines, Alaska).

The previously published Technical Guidance document on the assessment of Glacier and Permafrost Hazards in Mountain Regions has now been made more widely available following its Russian translation and inclusion on the GAPHAZ website (www.gaphaz.org). This document, which focusses on hazards that are directly conditioned or triggered by contemporary changes in mountain glaciers and permafrost, is also available in English and Spanish, and is designed to be a key resource for international and national agencies, responsible authorities and private companies charged with assessing hazard development, mitigation and remediation.

Since 2019, GAPHAZ members have been involved in the development of Guidelines on the Management of Glacial Lake Outburst Floods (GLOFs) for India. This process was led by the National Disaster Management Authority (NDMA) of India, within the framework of a mandate by the Swiss Agency for Collaboration and Development (SDC) to ensure scientific state-of-the-art and to benefit from feedback from the international scientific community represented by GAPHAZ. In November 2020 these guidelines and a related Summary for policymakers were published by NDMA (<https://ndma.gov.in/images/guidelines/Guidelines-on-Management-of-GLOFs.pdf>, <https://ndma.gov.in/images/guidelines/Summary-for-Policy-Makers-on-Guidelines-on-Management-of-GLOFs.pdf>).

GAPHAZ has recently completed its bi-annual rotation of Officers, and is pleased to welcome Holger Frey (University of Zurich) into the position of Secretary, with Michele Koppes (University of British Columbia) and Marta Chiarle (Italian National Research Council) moving to vice-Chair and Chair, respectively.

Funding request for 2021

As mentioned in the annual report, the *Technical Guidance document on the assessment of Glacier and Permafrost Hazards in Mountain Regions* is available in digital format on the GAPHAZ website. However, we believe that a printed version of this key document could represent a further tool for disseminating GAPHAZ's issues, in particular among policy makers and decision makers. COP26 scheduled for November 2021 in Glasgow could be an excellent first opportunity to distribute prints of the document. For this reason, we ask IACS to fund the printing of 300 copies of the report, for a total estimated cost of 1500 €.