GEO Mountains Task Group 2.3

GEO MOUNTAINS
Observing Mountain Environments

MOUNTAIN RESEARCH INITIATIVE

ISAC

ADAPTATION AT ALTITUDE
Taking Action in the Mountains

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Housekeeping

- ❑ Kindly mute yourselves when not speaking
- ❑ Please “raise your hand” to request the floor
- ❑ The meeting is being recorded
- ❑ Brief notes will be circulated afterwards

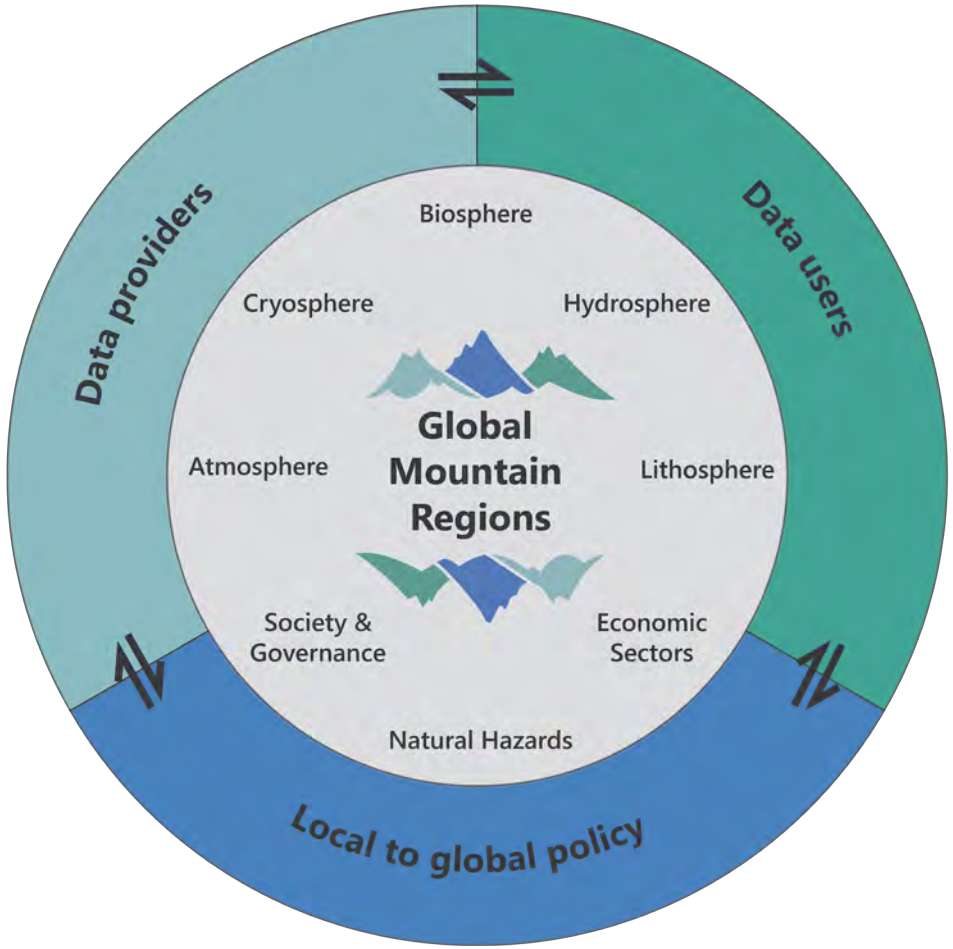
GEO Mountains: an introduction

The Global Network for Observations and Information in Mountain Environments

An Initiative of the Group on Earth Observations (GEO) co-lead by the Mountain Research Initiative (MRI) & the National Research Council of Italy

Objectives:

- ❑ To identify and satisfy the data and information needs of a diverse range stakeholders operating in the mountain sphere
- ❑ To improve monitoring and understanding of mountain processes and phenomena, especially under change
- ❑ To build, connect, and communicate with the community of mountain researchers, practitioners, and policy makers
- ❑ To develop collective reporting capacity that responds to pre-identified assessment and policy needs



Task Groups

Number	Description	Number of participants
1.1a	Develop, maintain, and share a list of relevant datasets	31
1.1b	Develop and maintain a list of interdisciplinary in situ mountain observational infrastructure and associated datasets	20
1.2	Contribute to our series of regional workshops / consultations into data portal requirements and main data needs / gaps	24
1.4	Contribute Knowledge Packages via GEO Mountains to the GEO Knowledge Hub	20
2.1	Analyse the extent to which data from mountain observatories are freely available, and which measurement protocols are followed	14
2.2	Contribute to the MRI's existing Mountain Observatories (MOs) and Elevation Dependent Climate Change (EDCC) Working Groups	24
2.3	Contribute to a GEO Mountains workshop to identify Essential Mountain Societal / Socio-Economic Variables	34
2.4	Develop a global spatial dataset related to mountain socio-economics	20
2.5	Establish links with the paleoscience community to help ensure that paleodata pertaining to mountains are discoverable, accessible, and usable	8
3.4	Develop educational, training, and capacity development materials related to the drivers, processes, and impacts of environmental, ecological, and societal change in mountains	27
3.5	Identify areas in which / how existing resources can be applied to respond to pre-identified policy needs	28

20 YEARS
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Previous related activities

- Workshop (2019) and publication (2021): "Essential Mountain Climate Variables"
- Workshop (2020) and publication (in prep): "Essential Biodiversity Variables in mountains"
- Regional consultations into data needs in key mountain focus regions conducted by GEO Mountains under the Adaptation at Altitude Programme
  - Socio-economic data often identified as a particular challenge / lacking

Main TG objective and scope

- To **help plan, conduct, contribute to, and write up** a workshop on identifying **critical societal variables** that should be **monitored / obtained as priorities** in order to **track, understand, and better predict the impacts of change** (both climatic and societal) on **mountain socio-ecological systems** in **an integrated sense**

- Variables influencing climate change adaptation and natural hazard vulnerability, exposure, and risk mitigation (amongst others) are expected to feature prominently

- Having defined such a set of variables, the workshop may proceed to consider the specific attributes that those data / measurements should have (e.g. spatial resolution, temporal coverage, accuracy, etc.) to be useful for general applications in mountains terrain

- And furthermore analyze the extent to which these needs can be presently met by existing data sources

- Also, ensure that societal data are sufficiently represented in the GEO Mountains data inventories

Expected outcomes

- A proposed consensus set of societal variables and associated (minimum) attributes to be prioritized for obtaining in a reasonably consistent fashion across the world's mountains
- Identification of the most critical socio-economic data gaps in relation to climate and other change impacts in mountains
- Recommendations for improving the situation
- **Scientific publication**

Practicalities

- ❑ We are looking for an individual or a small group to lead this task (please do consider volunteering)
- ❑ Possibility to hold the workshop as a side event at the International Mountain Conference 2022 (Innsbruck), or at some later date
- ❑ We have funding available to support the workshop (e.g. room hire, catering, etc.) and some attendance (e.g. from less developed countries, ERCs, etc.)
- ❑ Some funding may also be made available to support the support the co-leads (dedicated to specific tasks, e.g. workshop design)

Follow on activities

- Task 2.4 – *Develop a global spatial dataset related to mountain socio-economics*
  - Idea to develop a novel spatial data layer, potentially integrating many of the newly defined “essential” or “high priority” societal variables (e.g. in the form of an index)
  - Will be heavily informed by the outcomes of the workshop
  - Many of you may also like to get involved in this Task Group; if this applies, please just write to me!

Discussion: questions / comments / ideas?

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Many thanks for your interest and contributions!

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