



ADAPTATION
AT ALTITUDE

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Taking Action in the Mountains

Inter- and transdisciplinary mountain data across the Andes: Identifying user requirements and access preferences

A joint GEO Mountains & CONDESAN Workshop



CONDESAN
Consortio para el Desarrollo Sostenible
de la Ecorregión Andina

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Key Words: *mountain observations and data; interdisciplinary, in situ; remote sensing; GEO Mountains; information gaps*

Abstract:

The discoverability, accessibility, and usability of a wide range of environmental and socio-economic data are crucial prerequisites to both the advancement of science and a range of more practical applications related to sustainable development, climate change adaptation, and natural hazard mitigation in the world's mountainous regions.

By drawing upon the contributions of regional experts including research scientists, practitioners, local and regional authorities, and other stakeholders, and acknowledging all previous and ongoing efforts and initiatives in the region, this workshop sought to develop a broad, interdisciplinary, and systematic understanding of the current "data situation" across a range of relevant disciplines in the Andean region. It was co-convened by the Mountain Research Initiative (MRI), GEO Mountains, and CONDESAN under the umbrella of the Swiss Agency for Development and Cooperation's Adaptation at Altitude Programme.

Following three introductory presentations, the principal objective of the workshop was addressed initially via open discussion. The following questions were of particular interest:

- 1) What requirements do users of mountain data have with respect to online database(s)/portal(s) through which mountain data is made searchable and downloadable?
- 2) Which organizations and institutions are major providers of relevant data in the region?
- 3) What disciplines / regions currently benefit from a good or satisfactory coverage and availability of data (i.e. examples of good practice)?
- 4) What are the major gaps in terms of data discoverability, accessibility, and usability that are currently experienced by data users?

Thereafter, attendees were invited to complete a survey to allow information to be captured in a more systematic fashion. Since this workshop was one of a series that GEO Mountains is conducting across the world's mountains in conjunction with regional partners, the survey element specifically intends to ensure that comparisons can be made between these regions. This should ultimately enable us to target our subsequent efforts to improve the situation most appropriately, i.e., by focussing on disciplines / regions where critical information is most lacking.

More generally, through the dialogue, crucial data-dependent applications and efforts were

identified and strengthened. For instance, participants helped GEO Mountains expand our data and resource inventories (currently under development) with contributions from the region and identify opportunities for collaborations and exchanges that support the overlapping objectives of local stakeholders, the MRI, GEO Mountains, and CONDESAN.

Agenda:

<i>Welcome and introductions</i>	MRI, GEO Mountains, & CONDESAN
<i>Generating a set of environmental and social indicators a continental scale in the Andes</i>	Carolina Tovar; Carmen Ponce, Group for the Analysis of Development
<i>Socio-environmental monitoring in the Andes; data availability and long-term efforts</i>	Julieta Carilla, Instituto de Ecología Regional, Universidad Nacional de Tucumán - CONICET
<i>Reflections from AmeriGEO</i>	Albert DeGarmo, AmeriGEO
<i>A brief look at the GEO Mountains data inventories</i>	James Thornton, MRI & GEO Mountains
<i>Open discussion of the questions</i>	All
<i>Make a start on the survey</i>	All
<i>Wrap-up</i>	All

Registrants: 108

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Key points from discussion:

- The Andean region needs more open and widely available data (not just metadata) and increased data sharing among researchers, institutions, and policymakers.
- Biological data tends to be overrepresented, while social data is underrepresented.
- Given the Andes' remoteness and high elevations, gaining access to and maintaining equipment for long-term monitoring is costly and requires more sustainable funding mechanisms.
- Another important need is to standardize equipment, measurement protocols, and data reporting to make comparisons among the different areas of the Andes.

Outputs:

Participants responded to the question "What do you consider to be the main barrier(s) to the wider generating, sharing, and re-use of interdisciplinary data across the Andes?" [interactively](#).

Since the concept of Essential Mountain Climate Variables (EMCVs) could help with regional standardization efforts, participants were invited to complete GEO Mountains' [EMCVs survey](#).

Data collection for the regional data needs survey, [Inter- and transdisciplinary mountain data across the Andes: Identifying user requirements and access preferences](#), is ongoing. Survey results will be appended in due course.

News articles on the GEO Mountains and MRI websites describe the workshop in greater detail.

A recording of the workshop is available on request. Please contact geomountains@mountainresearchinitiative.org.