

## Meeting/Workshop Reports

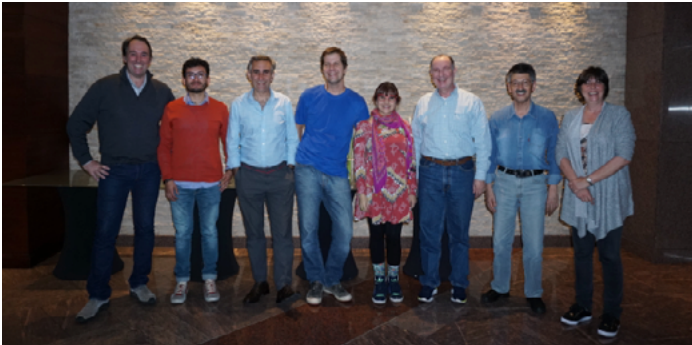
### Third ANDEX Workshop

Quito, Ecuador  
21–24 April 2019

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Participants of the 3<sup>rd</sup> ANDEX Workshop in Quito. Left to right: P. van Oevelen, J.C. Espinoza, R. Garreaud, M. Masiokas, P.A. Arias, G. Poveda, J.D. Pabón and F. Vervoort

ANDEX is a prospective Regional Hydroclimate Project (RHP) of the GEWEX Hydroclimatology Panel (GHP). It aims to improve our understanding and prediction of climate and hydrology along the Andes cordillera. Three regional meetings have been held with the goals of identifying the research community, constructing a scientific agenda and defining preparatory implementation steps. The first meeting took place in Medellín, Colombia, from 4–6 December 2017. The main outcome of this meeting was to define a White Book with chapters focused on diverse hydroclimatic aspects of the Andes cordillera:

**Chapter 1.** Introduction

**Chapter 2.** Geographical Context of the Andes

**Chapter 3.** Hydroclimate of the Andes

**Chapter 4.** Cryosphere of the Andes

**Chapter 5.** High Impact Events in the Andes

**Chapter 6.** Observed and Projected Hydroclimatic Changes in the Andes

**Chapter 7.** Observations and Data in the Andes

**Chapter 8.** Science Underpinning Sustainable Development of the Andes

**Chapter 9.** Challenges and Opportunities

The first ANDEX scientific workshop was held in Santiago, Chile, from 22–26 October 2018, and partly consisted of the joint ANDEX-GHP-International Network for Alpine Catchment Hydrology (INARCH) meeting. Scientists from all three events joined to discuss subjects of common interest, enhancing transregional scientific collaboration on mountainous terrain topics in manner consistent with the overall objectives of GHP. The first ANDEX workshop aimed specifically

to: (1) review the status of the ANDEX White Book; (2) identify overarching themes and major scientific questions; and (3) provide a first approach to an implementation plan.

The third meeting was held in Quito, Ecuador, from 21–24 April 2019, bringing together the lead authors of different chapters of the ANDEX White Book (R. Garreaud, G. Poveda, J.C. Espinoza, M. Masiokas, P. Arias, J.D. Pabón) and representatives of the International GEWEX Project Office (Peter van Oevelen and Fernande Vervoort). The main objective of this meeting was to assess the advancement of the White Book, entitled “ANDEX—A Regional Hydroclimate Project (RHP) on the Andes. Scientific Context, Challenges and Opportunities”. After an in-depth review on the status of the White Book, a timeline was defined with the first version of the book chapters prepared for peer-review on September 1, 2019. Other issues and further implementation steps were discussed during the Quito meeting, including:

1. Submission of a session proposal to the American Geophysical Union (AGU) Fall Meeting 2019, entitled “The Hydro-climate of the Andes: Current Understanding and Future Challenges”, convened by René Garreaud, Germán Poveda, Mathias Vuille and Ana P. Barros. The proposal was approved (session ID#: 78709) and 25 abstracts were received. Session details can be seen at <https://agu.confex.com/agu/fm19/webprogrampreliminary/Session78709.html>.
2. The planned submission of a session proposal to the 2020 European Geosciences Union (EGU) meeting
3. Discussion of initial ideas on setting up an ANDEX Open Scientific Conference for 200–300 participants in austral spring 2020
4. Design and construction of the ANDEX webpage and logo
5. Definition of the governance structure of ANDEX. The participants decided to start with a small coordinating and planning committee of dedicated individuals who will lead alongside the current co-chairs, G. Poveda and R. Garreaud. During the implementation phase, the final governance structure will be defined.
6. Submission of several chapters of the White Book as review papers to high-impact journals
7. Status of the ANDEX survey (<https://es.surveymonkey.com/r/XMHPRRM>). Responses are still welcome! If you would like to take the survey, please contact R. Garreaud ([rgarreau@dgf.uchile.cl](mailto:rgarreau@dgf.uchile.cl)).

The general consensus among the participants after this third workshop is that ANDEX is advancing at a good pace towards its establishment as a full GEWEX RHP. Ever since its inception in 2017, the ANDEX core group has identified and engaged a broad, diverse research network of scientists working in the seven Andean countries and relevant groups in North America and Europe. The ANDEX White Book will contain our current knowledge of the water and energy cycles along the Andes, and will conduct an in-depth analysis to identify the many gaps hindering our capacity to diagnose, model and predict the hydroclimate along this formidable mountain range. This will constitute a sound basis towards an implementation plan to be developed in the 2020–2025 timeframe.