

The GEWEX High Mountain Activities and Its Relevance to the Andean Region

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Invited Presentation in CL2.10 – Recent progress in understanding the hydro-climate system of the Andes: Physical processes and resources for Andean populations

- GEWEX is the Global Energy and Water EXchanges Program part of the World Climate Research Programme
- ANDEX is a GEWEX Regional Hydroclimate Project that focusses on Climate, Water and Energy research in the Andean region of South America

Why is this important to GEWEX and its community?

- The Andes Mountains are a unique environment both in geographical sense as well as socio-economically
- For GEWEX program ANDEX would fill a gap in geographical coverage
- High Mountains are a research priority at WMO but in particular for GEWEX (see the next slide)
- Build a South America community that connects with GEWEX and WCRP
- Large observational network gaps yet many opportunities
- Opportunity for capacity development – computational, infrastructure
- Support for Early Career Scientists working in South America

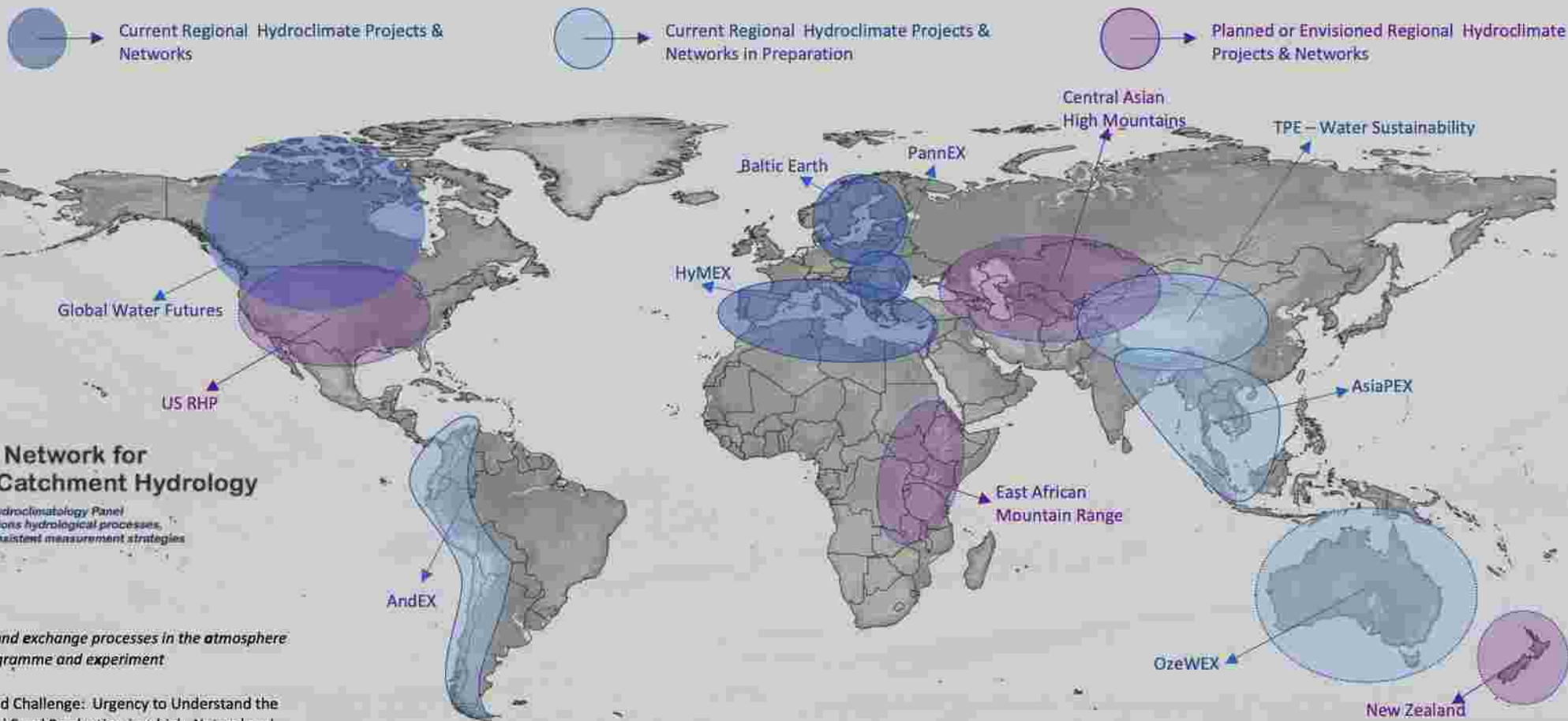
High resolution convection permitting modeling central to this effort!

GEWEX Activities in High Mountain Regions



HTTP://WWW.GEWEX.ORG

- Regional Hydroclimate Projects (RHPs) & Networks
 - Modeling, Observations, Predictions and Projections, Impacts studies etc.
- Crosscutting Activities
 - TeamX (new), Mounterrain (new), INTENSE, Near 0°C Precipitation, INARCH
- Global Observational Data Sets Assessments and Analyses <-> e.g. with International Precipitation Working Group
- Process Studies -> "PROES" – Process Evaluation Studies
- Regional Observational Campaigns (short and long term) -> e.g. LIAISE



The International Network for Alpine Research Catchment Hydrology

A cross-cut project of the GEWEX Hydroclimatology Panel to better understand alpine cold regions hydrological processes, improve their prediction and find consistent measurement strategies



Multi-scale transport and exchange processes in the atmosphere over mountains – programme and experiment

Water for the Food Baskets Grand Challenge: Urgency to Understand the New State of the Water Cycle and Food Production in which Natural and Anthropogenic Processes Interact

