

Workshop Output WS 2.3.A

Title of workshop: Mountain socio-hydrology in a changing climate

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Despite socio-hydrology is not a completely new and recent discipline and it is considered of high relevance, publications and projects in the field are challenging to get approved. We identified among the main reasons the lack of a common culture (including language and research paradigms) different backgrounds of the reviewers needed for the evaluation and the understanding of socio-hydrological research topics. Although on both sides a strong methodology was developed to address integrated water resources management (IWRM) and eco-hydrology, tools for coupling hydrological and social science methods and data are still in their infancy. Instead of integration between the two disciplines (e.g., hydrologists that apply social sciences methods or social scientist that apply hydrological tools) a collaboration and true integration is needed. However, several success stories have been shared among the participants where the identified gaps have been partially addressed already.

The big challenges in the discipline for the next years have been identified in:

1. Developing a common language to establish a more robust communication between the fields
2. Enhancing the cooperation between the disciplines instead of a “one fits all” approach
3. Creating common awareness that socio-hydrology as an integrative approach to tackle challenges in water management
4. Improved coupling between methodological approaches typical of social sciences and hydrological sciences has to be achieved
5. Translating new mathematical tools into applicable software to provide reliable quantitative predictions useful for decision makers
6. Considering that not only quantitative approaches are necessary to explain past and present challenges in integrated water resources management (IWRM)
7. Better communicating the motivations of socio-hydrology (justice and inequalities, improve governance and decision making)
8. Welcoming a new generation of open-minded scientists that overcome the boundaries between disciplines to approach the topic
9. Bridging the gap between the research paradigms of the different worlds (natural, social and engineering sciences), tolerance, curiosity, respect allowing new research approaches and questions, and methods with interfaces.