

Special Session SS-6-23

- **Title**

Building climate-resilience of mountain communities.

- **Organiser**

Organisation: IWRA

Representative: IWRA - Mountains and Plains Working Group of the IWRA Task Force on Climate Change

E-mail: charlottelroehm@gmail.com

- **Co-organiser**

None

- **Potential Presenter**

1. Presenter: Paula Pacheco

Affiliation: Co-Chair

Organisation: IWRA

2. Presenter: David Molden

Affiliation: Task Force Chair

Organisation: IWRA

- **Alignment with Congress**

6. 6. Innovation for Water Governance and Management

- **Session description**

Mountains cover one quarter of the Earth's land surface and host natural resources, biodiversity and they provide essential ecosystem functions and freshwater supplies for drinking, agriculture, industry, and the environment. Rising temperatures and changing precipitation regimes are affecting mountain ecosystems, worsening natural hazards and therefore threatening livelihoods in different regions of the world. An important question is, how to direct climate change adaptation strategies for mountainous regions, in terms of financing, ecosystems-based strategies, community-based actions, knowledge strengthening, policy building and integrated regional work? The special session will introduce the water-related climate-induced vulnerabilities and risks faced by mountain watersheds and present a system-thinking integrated framework that brings together the human system, ecosystems, and governance approaches to address complex and diverse adaptation strategies. Examples of the implementation of such approaches in mountainous watersheds will be presented, including discussions on the scalability and transferability of the framework to other systems. This special session wishes to bring together a panel of experts to discuss current vulnerabilities and risks, and present a systems-thinking framework for climate change adaptation strategies that bring together nature-based and human-centered solutions to build resilience in communities in mountainous watersheds. The intent is to open up discussion on more holistic, integrated, and transferable management strategies for climate-change adaptation. The proposed outcome of this session is a whitepaper that addresses strategies to reduce risk, and leverage

opportunities to develop and implement an integrated systems-thinking framework to build climate resilient communities. The session will directly meet the key objectives of this conference, namely to “facilitate knowledge and experience sharing, focusing on investigating the relationship between water, humans and nature, identifying and reconciling all water-related factors in a coordinated manner, and making and implementing water management strategies and policies using systematic approaches.” This special session is proposed under: Sub-theme 6: Innovation for Water Governance and Management 6-3: Adaptive water management 6-4: Integrated river basin management This special session panel will be organized as follows: Moderator and three expert panelists: 0-10 mins: Introduction and Context of Climate Related Water Impacts in Mountainous Watersheds (moderator introduction to topic). 10-30 mins: Part 1: Discussion of current frameworks for adaptation; (10 mins panelist (1) presentation and 10 mins of moderator mediated questions and answers with panelists (2) & (3)). 30-50 mins: Part 2: Presentation and discussion of integrated systems-thinking framework (10 mins panelist (2) presentation and 10 mins of moderator mediated questions and answers with panelists (1) & (3)). 50-70 mins: Part 3: Mountain-community specific examples of implementation strategies of framework. (10 mins panelist (3) presentation and 10 mins of moderator mediated questions and answers with panelists (1) & (2)). 70-90 mins: Open Discussion with congress participants (moderator led).