



SESSIONS EUCOP6_ 2023

Session title: Permafrost and Society: how do changes in permafrost systems interact with social and cultural dynamics, economies, industries, and food systems

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Summary: Near-surface permafrost degradation entails cascading effects, often with a severe impact on ecosystems and communities. Simultaneously, permafrost degradation is influenced by changes in vegetation, key animal species, and diverse human activities. While research efforts on geocryological and biophysical changes in permafrost systems are intensive, less is known on how these changes modify livelihoods, social and cultural dynamics, economies, industries, and food systems. In addition, we need to ask how economic activities – among them agriculture, animal husbandry, and extractive industries – have and are modifying permafrost landscapes. Transdisciplinary approaches are needed to understand how these systems interact, and how different processes aggravate or mitigate each other. This session aims to bring together scientists spanning multiple disciplines, e.g., physical, and social sciences, engineering, and life sciences, to come to a more nuanced understanding of the nexus of permafrost and land use in different regions of the northern hemisphere. Topics of interest in the context of changing permafrost systems include but are not limited to:

- The history and future of permafrost landscapes as cultural landscapes
- Settlements, buildings, infrastructure, engineering, architecture, and material culture
- Food systems for commerce and/or subsistence, including permafrost-agroecosystems based on farming, horticulture, floriculture, pastoralism (animal husbandry and reindeer herding), hunting and food-gathering activities
- Perceptions of environmental and socio-economic change in permafrost areas, and strategies of future land use
- Other economic activities, including local businesses as well as large-scale industrial activities of national and global economic significance

We welcome contributions using a range of methodological approaches including field-based observations, interviews, surveys, remote sensing, GIS, and modelling. Central to this endeavor is co-production of knowledge with Indigenous and local communities and scholars in all fields of science.