

GEOLOGICAL HAZARDS AND SOCIETAL RESILIENCE: NATURAL DISASTERS, RISK AND SOCIETY SESSION

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Natural processes such as earthquakes, landslides, floods, and extreme weather events, combined today with the global climate crisis and uncontrolled urbanization, exert transformative pressures on societal structures and ecosystems. The losses experienced clearly reveal that the way to prevent geological hazards from turning into disasters is to transition from reactive crisis management to preventive risk management and mitigation strategies.

The construction of disaster-resilient settlements and sustainable societies requires integrating geoscientific data into administrative, legal, and socio-economic policies, moving beyond merely understanding the mechanism of natural events. Indeed, the International Union of Geological Sciences (IUGS) also emphasizes that sustainable strategies are only possible through geoscience-based risk analyses.

In line with this objective, our session offers a multidisciplinary environment encompassing the identification and modeling of geological hazards, early warning systems, resilient infrastructure design, and nature-based solutions, as well as risk communication, disaster governance, and community-based risk mitigation approaches. The session aims to discuss the societal resilience dimension of geological processes from theoretical, applied, and methodological perspectives.

We invite all disciplines contributing to this process, particularly geoscientists, urban planners, and decision-makers, to our session to share current research findings, innovative case studies, and solution proposals aimed at reducing natural disaster risks. We look forward to your participation, believing that the scientific outputs to be produced through collective intelligence will guide a disaster-resilient future.