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FACT SHEET to the research project SedInOut

SHORT TITLE / ACRONYM

SedInOut

LONG TITLE

Development of a methodology for risk management by standardized estimation of the sediment input of mass movements in mountainous areas

DESCRIPTION

Landslides and mudflows are a threat to residential areas and infrastructure, causing widespread destabilization in alpine stream channels, also in relation to ongoing climatic changes. Although hillslope sediment supply represents a critical factor for stream channel stability during heavy rainstorms, there is a general lack of procedures for quantifying sediment availability and composition. Moreover, we lack validated empirical models for estimating hillslope sediment flux to the drainage network as a function of meteorological forcing. This gap is mainly due to the high variability of existing topographic and geological data across regions, as well as to a deficit in transnational networking. SedInOut, through a joint international effort, aims to develop methodologies for the quantification and characterization of sediment on the hillslopes, towards a sustainable land management that values geo-risk mitigation.

The investigated area will be a debris fan of the Wasserradkopf in Carinthia. Based on the data collected there, which will be done both by UAV and mapping, numerical models can be created and the results validated accordingly.

PROJECT COORDINATOR

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