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Documentation and analysis of the 2005 disaster in Austria caused by floods and mass-movements: Methods and results

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In August 2005 Austria was subject to a series of severe flood disasters. Several provinces (Styria, Tyrol, Vorarlberg) as well as the adjacent countries of Bavaria and Switzerland were hit by intensive precipitation caused by a low-pressure area rotating above the central Alps. Heavy rain falling on soils, already saturated with water, lead to excessive run-off and flood waves in large alpine watersheds. In some regions showers triggered lots of mass-movements on steep slopes (landslides, debris flows) (e.g.

in the region of Gasen/ Styria). Some flood events reached extraordinary dimension, transporting huge amounts of gravel and debris and shaping the morphology of the river bed (e.g. Paznaun Valley/Tyrol). Immediately after the catastrophe the responsible Federal Ministry (BMLFUW) has ordered a comprehensive documentation of the events. This study was the first survey (in the field of torrent control) of a nationwide flood disaster in Austria so far. New standards for disaster documentation concerning the investigation methods, the registration procedure and the data management were introduced. The internationally developed procedure DOMODIS (**Do**cumentation of **Mo**untain **Dis**asters) was successfully used in a regular survey for the first time. The registration of every single event was carried out by means of an online web-portal integrated in the digital torrent and avalanche cadastre. The paper gives an overview of the procedures and results of the 2005 disaster documentation in Austria and summarizes the strategic consequences for future natural hazard protection. It will be a major goal to integrate disaster documentation as a standard procedure into the crisis management immediately after torrent and avalanche disasters in Austria.