



The German Landslide Database: A Tool to Analyze Infrastructure Exposure

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The Federal Republic of Germany has long been among the few European countries that lack a national landslide database. Systematic collection and inventory of landslide data over broad geographic areas and for different types of critical infrastructures was thus widely exceptional up until today. This has changed in recent years with the launch of a database initiative aimed at closing the data gap existing at national level.

The present contribution reports on this database project that is focused on the development of a comprehensive pool of landslide data for systematic analysis of landslide hazard impacts in Germany. Major purpose of the database is to store and provide detailed scientific data on all types of landslides affecting critical infrastructures (transportation systems, industrial facilities, etc.) and urban areas. The database evolved over the last 15 years to a database covering large parts of Germany and offers a collection of data sets for more than 4,200 landslides with over 13,000 single data files. Data collection is based on a bottom-up approach that involves in-depth archive works and acquisition of data by close collaboration with infrastructure agencies and municipal offices. This enables to develop a database that stores geospatial landslide information and detailed data sets on landslide causes and impacts as well as hazard mitigation. The database is currently migrated to a spatial database system in PostgreSQL/PostGIS.

This contribution gives an overview of the database content and its application in landslide impact research. It deals with the underlying strategy of data collection and presents the types of data and their quality to perform damage statistics and analyses of infrastructure exposure. The contribution refers to different case studies and regional investigations in the German Central Uplands.