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0.1 Landslide susceptibility maps evaluation

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Different approaches of landslide susceptibility mapping have been used to study the spatial distribution of slope deformations of the major landslide event registered in the Czech Republic in July 1997. The susceptibility mapping methods ranged from the very basic ones (historical landslide inventory maps, slope maps) towards more complex including bi-variety statistical and deterministic methods. The resulting susceptibility maps were validated by different techniques (Chung and Fabbri 2003). The evaluation of the susceptibility maps included calculation of landslide densities and predictive power for each susceptibility class. The results of susceptibility mapping, along with the detailed knowledge of the local geomorphologic conditions, were used to outline the best practice for landslide susceptibility mapping of the studied area. This methodology includes definitions of landslide susceptibility classes and landslide classification schemes modified for the use of local governments.

The results showed, that the field mapping of landslides is the only methods able to produce reliable basis for further analyses in the environment of the highly forested highlands with complex flysh geology. Aerial photo interpretation may be used only as supplementary technique which gives reasonable outcomes just for specific types of landslides with the most strongly pronounced morphology. Validation of the landslide susceptibility maps showed that the most successful prediction map was the historical inventory map based on several archive sources and detailed field work.

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