



## Regional scale landslide susceptibility maps: strengths and weaknesses

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Landslides are among the most dangerous natural hazards impacting on human life claiming lives and affecting economy and society. For this reason, the cost of the repeated occurrence of landslides could become unsustainable for a country. In this respect, the assessment of the susceptibility to landslide of a region becomes crucial to mitigate the economic and societal implications and to save lives. A typical approach starts from the inventory of landslides by field survey coupled with database consulting. This activity could assess the discriminating and predisposing factors, defining the weight of each of them on the slope stability. Overlaying resulting maps in GIS environment, a susceptibility map of each type of landslide could be produced. At local scale, the field survey allows to identify properly the past events and the factors that contributed to the instability. Unfortunately, sometimes managers and policy makers ask for landslide prediction regarding areas that are too large for a detailed field survey. As a consequence it is necessary to work out methods that start from available database. The main problem is to check the quality of the data and to eliminate possible errors. Starting from a classical susceptibility analysis based on landslide inventory derived from field survey, we propose a modified method applicable to database on regional scale area. In detail, we check the quality of the database with respect to landslide locations eliminating improper sites according to hillslope interval or rock-type, i.e. the two main discriminating factors. Our results show how this kind of approach allows to produce maps that are useful for general landscape management indicating the areas susceptible to each type of landslide. These preliminary maps are the basis for identifying the areas where more detailed studies are needed.