Geophysical Research Abstracts, Vol. 5, 12692, 2003 © European Geophysical Society 2003



## NATIONAL LANDSLIDE SUSCEPTIBILITY MAP FOR GERMANY

T. Glade, R. Dikau and R. Bell

Department of Geography, University of Bonn, Germany (thomas.glade@uni-bonn.de / Fax: +49-228-739099)

Landslide susceptibility is generally based on historical data and field mapping, Resulting maps usually cover regions ranging between local and regional scales. However, also national scale analysis is important to delineate regions most prone to landsliding. Herein it is crucial to define the parameters, which are most important within this scale, and indeed, which can be derived from national data sets. This study aims to demonstrate a method on how to obtain national scale landslide susceptibility maps.

In this study, German landslide literature was extensively reviewed. Due to the varying nature of the different sources and publications, only the information on lithology and slope angle was compiled. To include local knowledge, returned questionnaires send to experts in landslide research were evaluated and respective information summarized. For regions with no information, generalized geotechnical properties for existing lithology were applied. Additionally, a geological map at a scale of 1:1.000.000 and a nationwide digital terrain model with a resolution of 25 m x 25 m were available. The combination of slope angle and lithology was qualitatively classified in negligible, minor, moderate and high landslide susceptibility classes and applied to the data. Due to the resolution of the geology map, the 25 m resolution has been aggregated to 150 m, which seemed appropriate considering the extend of most of the landslides. Coastal landslide susceptibility has been derived from an existing data set.

The map delineates areas of different landslide susceptibilities. The regions include cuestas, steep slopes in rolling midland topography and in the Alps, as well as slopes of deeply dissected rivers. Work in progress includes an evaluation of the calculated landslide susceptibility map using regional data sets. Although it is a preliminary

result, this study presents the potential of such maps for planning and management purposes.