



## **The susceptibility assessment of shallow landslides in the Panatau Basin (The Buzau Subcarpathians), Romania**

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The Panatau basin is located in the Buzau Subcarpathians (Romania). The basin has a surface of 25,42 km<sup>2</sup> and is built by sarmatian and meotian sands, clays and marls. The relief energy is of 150-250 m and the drainage density has values of 5,7-5,9 km/km<sup>2</sup>. Landslides occur mainly on slopes with declivities of 6°-12° and 12°-24°. The average amount of precipitations in the region is 635,8 mm. Heavy rainfall and the snow-melting have an important role in landslide triggering. The present-day relief modelling is very active, landslides playing a very important role. The main types of landslides in the basin are: shallow landslides, medium-deep landslides and deep landslides. Shallow landslides have a depth of 1,5 m and a volume of 10-104m<sup>3</sup>. The shallow landslides were mapped by field survey and aerial photos analysis. For the landslides susceptibility assessment were utilized the geological map, declivities map and landslide distribution map (scale 1:5,000). The software utilized was ArcGIS 9.2 with Spatial Analyst. Bivariate and multivariate analysis were applied for landslide susceptibility assessment.