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Study of the Landslide using GIS

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SUMMARY

GIS is a database designed to work with map data. The applicability of such system is very wide and in our case this system will be applied to the landslide study. The studied area is that of Chinteni Valley included in hydrographic basin of Somesul Mic river. The entire characterization of the interest area was made by our team in previous paper (Budiu *et al*., 2008). Using ArcInfo software the system developed was started with data collected from terrain using GPS technology and map of the area at scale 1:1000 that was georefenciated and digitized using personal geodatabase. The information connected with landslide was collected for three years for seven points using marks positions. All these information were included into the *chinteni.mdb* geodatabase and process using SQL queries. The results are illustrated in Fig. 1, and the soil exposed to landslide is situated between the ravine and the border of interested area. The table attached emphasizes the horizontal movement and the chart shows the vertical movement of the marks: Vertical Bar movement between 2007 and 2008, Vertical Bar 2 movement between 2008 and 2009 and Vertical Bar 3 movement between 2007 and 2009. The name and the position of the marks are fixed on the map using small triangles.

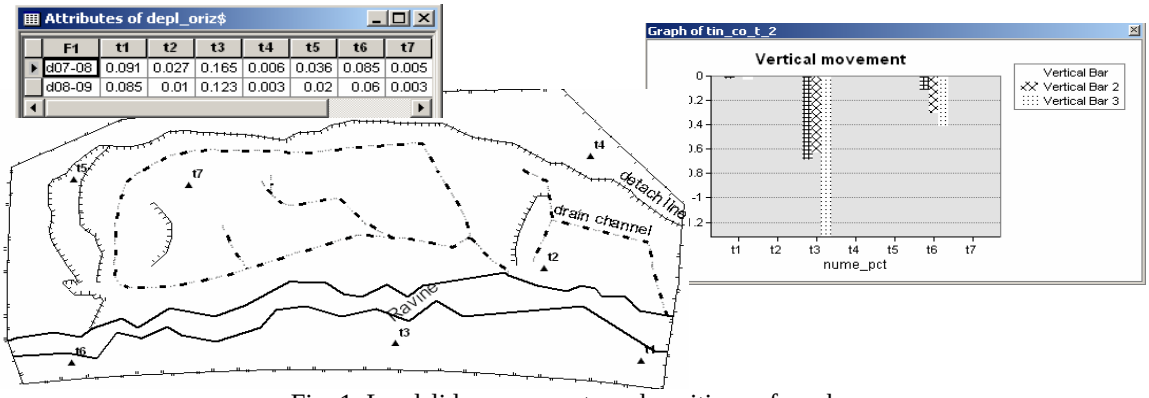

Fig. 1. Landslide movements and positions of marks.

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Keywords: GIS, ArcInfo, landslide.

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