

SLOPE INSTABILITY SUSCEPTIBILITY MAPS IN SPAIN

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Slope instabilities are an important process in Spain. Because of the relief and climatic conditions variety, all instability types have place along the country. In order to evaluate their spatial distribution there is an investigation project (CICYT Ref. AMB97-1091-C06-02) which main objective is to make a terrain susceptibility automatic cartography of slope instability. There are six investigation groups (Universities and others investigation centres) each one of them studies one region and a type of mass movement. One of these groups is the Natural Hazard Department of Geomining and Technological Institute of Spain (ITGE). We are studying two different processes in two different places: Rock-fall in natural granitic cliffs in the north of Madrid and landslides in a Tertiary relief in Guadalajara province. Each type of movement takes place under concrete conditions and the object is to know which ones are those conditions. There are many parameters that can be regionalized and Geographical Information Systems are basic tools to automate the cartography of them. With the aid of the GIS, the aim is to know the territory surface where favourable conditions (determinant and triggering factors) are present. At the moment we are preparing a rock-fall susceptibility map in order to check it in other granitic relieves. Even we have the landslides map from Guadalajara area and we are analysing the parameters that have influence in their triggering, to be able to extrapolate them to other zones.