SUITABLE LANDFILL SITE SELECTION IN ALBANIA USING GIS

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The implemented model for site selection using the GIS techniques is based on the classification of geological formation model. This model aims in conservation of the earth's crust including groundwater. Having into account that the geology plays a basic role in providing scientific and practical solutions the model takes into account the groups of phenomena in the classification of the geological formation in terms of its suitability. There are nine groups of phenomena, which affect to the suitability site selection: Geomorphological conditions Vertical and horizontal homogeneity of a rock body Mineralogical and petrographic composition : Pyrite content Granulometric and soil mechanical characteristics (compactness, porosity, permeability) Macrostructural parameters (stratification, fracturing, void volume) Tectonic conditions (seismecity, geodynamics) Surface stability The presence of a mineral deposit in the subsoil of the study area or its neighbourhood Hydrogeological conditions.The classification is based on a pointing system ranking from 0 (completely unsuitable) to 5 (perfectly suitable).For implementation of the model in Divjaka region are used the following data layers: topography, contours, streams, roads, settlements, geology, mineralogy, petrography, rocks, soil mechanics, types of the soil, hydrogeology. All those data are captured from paper maps through a digitising system. They are then all georefernced, geocoded, harmonized and geomodeled using a pointing system. the intermediate products were: digital elevationmodel of the region, slope and aspect.The types of soils and soil mechanics were produced through the surface interpolation of the samples taken in the field. All those layers were then overlaid using the set of rules established by the model itself. Taking into account that the proposed model is an additive one a special care was criteria and is further examined in the field.The model seems to be suitable one for similar sites in Albania.