KAJIAN RISIKO TANAH LONGSOR
DI KOTA SEMARANG PROVINSI JAWA TENGAH

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ABSTRACT

This research was carried out in Semarang district, where landslide constitutes one of the main problems affecting not only the landscape but also human development. The objective of this research is to prepare landslide risk map of Semarang district area, that include susceptibility factor and vulnerability factor. The preparation of this landslide risk map is a major step forward in landslide disaster management in Semarang district.

Landslide risk map in this research is prepared by Geographic Information System (GIS), based qualitative and quantitative techniques, to analyze the relationship between landslide and their influencing parameters. The parameters considered include susceptibility parameters (slope, geomorphology, geology, technical geology, soil, rainfall, elevation, distance from crack, distance from river and slope aspect) and vulnerability parameters (landuse, distance from road and population density). Scoring and weighting of factors that influence landslide was applied to determine the grade of landslide risk.

The result of this research is map of landslide risk of Semarang district that was divide into five class of landslide risk, namely extremely low risk, low risk, medium risk, high risk and extremely high risk. Compared with the results of field investigation, most of landslide occurrence located in the zones of medium risk, high risk and extremely high risk. The high risk and extremely high risk class areas are mostly distributed in Gunungpati, Tembalang, Banyumanik, Mijen and Gajahmungkur area. Those class also distributed on some areas of Candisari, West Semarang and South Semarang. It is hoped that this research has made some notable contributions to help the governmental agencies to identify areas with landslide problems and take adequate action.

Keyword :
landslide map, susceptibility, vulnerability and risk