

Moch. Afif Baharudin. The Mapping Of Landslide Susceptibility In Paseban Village, Bayat Subdistrict, Klaten Regency, Central Java. Under guidance: S. Setyo Wardoyo and Lanjar Sudarto

ABSTRACT

Landslide disaster causes material damage and fatality. Recently, the existence of farmland and green open terrain in the slope of mountain decrease by the expansion of the settlement area. This research aims to identify the landslide potential early zone physically, understand the causal factors of the landslide, and estimate the landslide susceptibility level all at once map the landslide susceptibility level in the research area. Generally, the influencing factors of the landslide are caused by human and natural factors. This research was conducted on June – September 2014 in Paseban Village, Bayat Subdistrict, Klaten regency. The method used in this research was the survey method. The research of the sample was done purposively based on the map overlay of the mountain's slope, land-use map, and geology map or rocks map so it will get 22 LMU (Land Mapping Unit). The sample's points used are 28 points. Each point was described accord with the research parameter. The determinant of landslide susceptibility level was done under weight method. The result shows that Paseban Village has three zones of landslide susceptibility areas; low susceptibility, medium susceptibility, and high susceptibility. The influencing factors of landslides in the research place; slope, soil texture, thickness of soil, land use, soil permeability, precipitation, rock weathering, and the depth of water table. The low susceptibility by 63.222 Hectares (21.2778%), the medium susceptibility by 19.908 hectares (72.021%), and high susceptibility level by 19.908 hectares (6.701%).

Keywords: landslide, landslide susceptibility, weight method