The Analysis of Landslide Susceptibility Level in Pajangan District Bantul Regency

By: Faris Muflih Alifudin

Supervised By:
Ir. Dyah Arbiwati, MP and M. Kundarto SP.,MP

ABSTRACT

Landslides are the third most common type of disaster occurring in Indonesia after floods and tornadoes. Typically, the landslide occurs in mountainous areas or areas with hilly, sloping, and impermeable layers topography and high intensity of rainfall. It may naturally occur or due to human activities that damage the ecosystem. This study aims to investigate factors affecting landslides susceptibility and to design a map of landslide susceptibility level in Pajangan District, Bantul Regency.

The study applied survey methods to find the general condition of the areas. It applied the purposive sampling technique by taking soil samples at the selected location based on the Land System Map made by overlaying the Geological Map, Land Use Map, and Slope Maps. The parameters used in this study covered slope, soil thickness, soil texture, soil permeability, liquid limit, rock type, land use, the faults, infrastructure (slope cutting), and rainfall/year.

The maps of Landslide Susceptibility Level showed that the Pajangan District with an area of 8228,039 ha, had two susceptibility levels, low and medium. The size of the low susceptibility level reached 4.609.98 ha, the areas in low susceptibility level were a small portion of Triwidadi Village and a large portion of Sendangsari Village and Guwosari Village. While the size of the medium susceptibility level was 3.168.06 ha, the areas with medium susceptibility level covered most of Triwidadi Village and a small portion of Guwosari Village and Sendangsari Villages.

Keywords: *Pajangan Subdistrict, Susceptibility, Landslides.*