

**MAPPING OF LANDSLIDE SUSCEPTIBILITY LEVELS
AT MAJAKSINGI VILLAGE BOROBUDUR SUBDISTRICT
MAGELANG REGENCY**

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ABSTRACT

Majaksingi Village is one of the villages in Borobudur Sub-district of Magelang Regency that frequently experiences landslides. In the last 8 years, there have been 18 landslides that hit Majaksingi Village. This is because Majaksingi Village has a geographical condition of peaks/slopes with a rather steep average slope. Landslides that often occur in Majaksingi Village are translational landslides. Therefore, a map of landslide vulnerability level is needed. This research aims to determine the distribution and map of landslide vulnerability level in Majaksingi Village. This research was conducted using quantitative descriptive method. Primary data was obtained from survey data collection including soil sampling, and laboratory analysis. Secondary data collected were soil type map, slope map, and land use map. Data analysis used Analytical Hierarchy Process (AHP) method (weighting) of each parameter. To calculate the level of landslide vulnerability using LPI (Landslide Potential Index) method based on the number of weights multiplied by the score of each parameter. The map of landslide vulnerability level in Majaksingi Village consists of low, medium and high vulnerability classes. Landslide vulnerability in low class shows a land area of 17.13 ha (3.64%). Medium class vulnerability shows a land area of 239.83 ha (51.03%). High vulnerability class shows a land area of 85.65 ha (18.22%). Based on AHP weighting and IPL calculation, the main causes of landslides in Majaksingi Village are rainfall, slope and permeability.

Keywords: AHP, LPI, landslide, landslide susceptibility