INTISARI

Kabupaten Magelang menjadi salah satu kabupaten dengan risiko tinggi kejadian longsor. Kecamatan Salaman Kabupaten Magelang selama tahun 2020 telah mengalami 55 kali kejadian tanah longsor. Salah satu faktor penyebab tingginya angka kejadian tanah longsor Kabupaten Magelang yaitu memiliki topografi curam hingga sangat curam. Tujuan penelitian ini yaitu untuk mengidentifikasi bidang gelincir penyebab longsor dan menganalisis mitigasi berdasarkan identifikasi fisik longsor. Penampang bidang gelincir diperoleh melalui metode geolistrik konfigurasi dipole-dipole pada dua titik longsor. Terdapat 6 lintasan dengan panjang 80-240 meter. Hasil dari penelitian ini menyatakan material penyusun longsoran pada titik 1 dan 2 yaitu material permukaan, lempung dan breksi alterasi. Hasil identifikasi bidang gelincir pada titik longsoran 1 memiliki tipe longsoran rotasi, jarak luncur massa longsoran 41,2 m, volume potensi longsoran 32.375, 9 m^3 dengan elemen berisiko perkebunan dan pemukiman. Titik longsoran 2 tipe longsorannya rotasi, jarak luncur massa longsoran 113,4 m, volume potensi longsoran 1.698.729, 9 m^3 dengan elemen berisiko jalan penghubung desa, perkebunan serta persawahan. Berdasarkan analisis bidang gelincir tersebut maka dapat dilakukan analisis mitigasi yang tepat diantaranya pada titik longsoran 1 dan 2 dapat dilakukan strategi mitigasi berupa pembatasan guna lahan, metode tanam, pembangunan dinding penahan tanah, penguatan saluran drainase dan penempatan sistem peringatan dini khusus titik penelitian satu karena memiliki elemen berisiko pemukiman. Hasil strategi mitigasi selanjutnya dibentuk dalam sistem manajemen koordinasi mitigasi untuk pemetaan pendampingan perencanaan mitigasi.

Kata Kunci: Longsor;Mitigasi;Geolistrik;Manajemen Mitigasi.

ABSTRACT

Magelang Regency is one of the districts with a high risk of landslides. Salaman District, Magelang Regency during 2020 has experienced 55 landslides. One of the factors causing the high number of landslides in Magelang Regency is that it has a steep to very steep topography. The purpose of this study is to identify the slip planes that cause landslides and to analyze mitigation based on the physical identification of landslides. The slip plane cross section was obtained by the geoelectrical method of dipole-dipole configuration at two slip points. There are 6 tracks with a length of 80-240 meters. The results of this study stated that the materials making up the avalanches at points 1 and 2 were surface material, clay, and alteration breccias. The results of the identification of the slip plane at slide point 1 have a rotational type of slide, the sliding distance of the slide mass is 41.2 m, and the potential volume of the slide is 32,375.9 m3 with plantation and residential risk elements. Avalanche point 2 is rotational avalanche type, with a mass sliding distance of 113.4 m, and a potential volume of avalanches of 1,698,729.9 m3 with risky elements of roads connecting villages, plantations, and rice fields. Based on the analysis of the slip plane, an appropriate mitigation analysis can be carried out, including at landslide points 1 and 2, mitigation strategies can be carried out in the form of limiting land use, planting methods, building retaining walls, strengthening drainage channels and placing an early warning system specifically for research point one because it has residential risk elements. The results of the mitigation strategy are then formed in the mitigation coordination management system for mapping mitigation planning assistance.

***Keywords**: Landslide; Mitigation; Geoelectric; Mitigation Management*