

INTISARI

Kajian karakteristik fisika tanah pada wilayah rawan longsor telah banyak dilakukan, namun belum banyak yang membahas karakteristik pori tanah pada morfologi longsor secara khusus. Penelitian ini bertujuan untuk: (1) mengkarakterisasi longsor di daerah penelitian berdasarkan pengamatan lapangan; (2) mengkaji karakteristik tanah yang berpengaruh terhadap proses longsor; dan (3) menilai karakteristik pori di setiap bagian longsor. Penelitian diawali dengan pengumpulan data yang dilakukan melalui survei lapangan dan analisis laboratorium. Penentuan titik sampel ditetapkan berdasarkan tingkat keaktifan longsor aktif dan dormant. Pengambilan sampel tanah dilakukan di bagian mahkota, badan dan kaki longsor pada setiap aktivitas longsor. Sampel tanah yang diambil adalah sampel tanah tak terusik dan sampel tanah terusik pada 3 kedalaman, yaitu kedalaman 0-30 cm, 30-60 cm dan 60-90 cm. Data hasil pengukuran dianalisis melalui Ms Excel dan disajikan dalam bentuk tabel dan gambar. Hasil data pengamatan, pengukuran dan pengujian lapangan maupun laboratorium dibahas secara deskriptif kualitatif. Hasil penelitian menunjukkan bahwa terdapat perbedaan karakteristik sifat tanah terutama karakteristik pori tanah pada longsor aktif dan dormant. Longsor aktif memiliki persentase kadar lengas, berat jenis, porositas, dan klei yang lebih besar dibanding longsor dormant, sedangkan untuk persentase berat volume dan bahan organik pada longsor aktif justru lebih kecil dibanding pada longsor dormant. Hal ini mendukung hasil karakteristik pori pada longsor aktif yang didominasi oleh pori drainase lambat (PDL), sedangkan longsor dormant didominasi oleh pori air drainase (PAD), pori drainase cepat (PDC), dan pori air tersedia (PAT).

Kata kunci: drainase, longsor aktif, longsor dormant, pori tanah.

ABSTRACT

Many studies have been carried out on the physical characteristics of soil in landslide-prone areas, but not much has been discussed about the pore characteristics of the soil in terms of landslide morphology specifically. This study aims to: (1) characterize landslides in the study area based on field observations; (2) examine the characteristics of the soil that affect the landslide process; and (3) assessing the pore characteristics in each part of the slide. The research was started by collecting data through field surveys and laboratory analysis. Determination of sample points is determined based on the activity level of active and dormant landslides. Soil sampling was carried out at the crown, body and foot of the landslide at each landslide activity. The soil samples taken were undisturbed and disturbed soil samples at 3 depths, namely 0-30 cm, 30-60 cm and 60-90 cm. Measurement results data were analyzed through Ms Excel and presented in the form of tables and figures. The results of observational data, measurements and field and laboratory tests are discussed in a descriptive qualitative manner. The results showed that there were differences in the characteristics of the soil properties, especially the pore characteristics of the soil during active and dormant landslides. Active landslides have a greater percentage of moisture content, specific gravity, porosity, and clay than dormant landslides, while the percentage of volume weight and organic matter in active landslides is smaller than dormant landslides. This supports the results of pore characteristics in active landslides which are dominated by slow drainage pores (PDL), while dormant landslides are dominated by drainage water pores (PAD), fast drainage pores (PDC), and available water pores (PAT).

Keywords: *drainage, active landslides, dormant landslides, soil pores.*