



INTISARI

Gerakan tanah merupakan salah satu bencana alam yang sering terjadi di Indonesia. Rayapan tanah menjadi salah satu jenis tanah longsor yang dapat menyebabkan pohon, dan tiang listrik miring ke arah lereng bawah, rumah dan bangunan yang retak. Lokasi penelitian di Dusun Kedondong, Desa Ngasinan, Kecamatan Bener, Kabupaten Purworejo memiliki tipe gerakan massa berupa rayapan tanah (*creep*). Penelitian bertujuan untuk mengidentifikasi karakteristik wilayah penelitian, mengidentifikasi faktor statis dan dinamis, mengetahui fluktuasi sifat fisika tanah terusik akibat longsor, menganalisis karakteristik tanah yang menyebabkan rayapan tanah, dan seberapa besar rayapan tanah berpotensi mengalami reaktivasi longsor di daerah penelitian. Penentuan titik sampel tanah menggunakan metode *stratified random sampling*. Pengumpulan data penelitian dilakukan dengan pengamatan, pengukuran, dan pengambilan contoh tanah di lapangan. Penyajian hasil ditampilkan dalam bentuk tabulasi dan grafik. Penyajian data dalam bentuk tabel digunakan untuk menyajikan perbedaan karakteristik sifat fisika tanah pada setiap titik dan kedalamannya. Hasil dibahas secara deskriptif kualitatif berdasarkan data yang didapatkan. Hasil penelitian menunjukkan morfologi permukaan berbentuk perbukitan dan lembah memiliki kelerengan 47° dengan tutupan vegetasi besar, faktor penyebab rayapan tanah adalah pedogenesis bekas longsor beban statis dan dinamis, karakteristik tanah masih fluktuatif akibat pasca longsor, rayapan terjadi akibat tanah mengalami kembang kerut, beban statis dan dinamis ditambah dengan sifat tanah mengembang, mengerut, dan melumpur menyebabkan rayapan tanah dan berpotensi terjadinya reaktivasi tanah longsor. Kesimpulan penelitian sifat fisika pada bekas longsor masih fluktuatif akibat bekas longor masa lampau dan pedogenesis belum sepenuhnya berjalan. Bekas longsor masih mengalami gerakan tanah berupa rayapan tanah dan berpotensi terjadinya reaktivasi longsor.

Kata kunci: nendatan, rayapan, longsor, karakteristik tanah, kembang kerut.



ABSTRACT

Land movement is one of the natural disasters that often occurs in Indonesia. Soil creep is a type of landslide that can cause trees, and power pole to tilt towards the downslope, cracked houses and buildings. The research location in Kedondong Hamlet, Ngasinan Village, Bener District, Purworejo Regency has a type of mass movement in the form of creeps. The aims of the study were to identify the characteristics of the study area, identify static and dynamic factors, determine fluctuations in the physical properties of the soil disturbed by landslides, analyze the characteristics of the soil that cause soil creep, and how much soil creep has the potential to experience landslide reactivation in the study area. Determination of soil sample points using stratified random sampling method. Research data collection was carried out by observing, measuring, and taking soil samples in the field. Presentation of results is displayed in the form of tabulations and graphs. Presentation of data in tabular form is used to present the differences in the characteristics of the physical properties of the soil at each point and its depth. The results are discussed in a qualitative descriptive manner based on the data obtained. The results showed that the surface morphology in the form of hills and valleys has a slope of 47° with large vegetation cover, the causes of soil creep are pedogenesis of former landslides static and dynamic loads, soil characteristics are still fluctuating due to post-slide, creep occurs due to soil experiencing swelling, static and dynamic loads coupled with the nature of the soil expands, contracts, and silt causes soil creep and has the potential for reactivation of landslides. The conclusion of the research on the physical properties of landslides is still fluctuating due to past landslides and pedogenesis has not been fully implemented. The former landslide is still experiencing ground movement in the form of soil creep and has the potential for landslide reactivation.

Keywords: slump, creep, landslide, soil characteristics, shrink and swelling.