

## **Pengukuran Infiltrasi Pada Berbagai Objek Wisata Di Hutan Pendidikan Wanagama I**

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### **Abstrak**

Hutan Pendidikan Wanagama I terus berkembang dan menjelma menjadi objek wisata yang dikunjungi oleh masyarakat yang tertarik dengan keindahannya. Objek wisata yang umumnya dikunjungi adalah Wanagama 1000 selfie, Wanagama Paksi, Jembatan Wanagama, dan *Camping Ground*. Kegiatan wisata di Wanagama menyebabkan perubahan pada pemadatan tanah yang berpengaruh pada infiltrasi. Kapasitas infiltrasi menentukan kemampuan tanah dalam menyerap air. Pengukuran infiltrasi perlu dilakukan karena digunakan sebagai informasi penting bagi perencanaan dan pengelolaan pada kawasan tersebut. Penelitian di Wanagama I ini bertujuan untuk mengetahui kapasitas infiltrasi di setiap objek wisata.

Pengukuran infiltrasi dan pengambilan sampel tanah dilakukan pada setiap obyek wisata dengan 3 kali ulangan untuk setiap satuan lereng. Data infiltrasi diambil dengan menggunakan alat *double ring infiltrometer*. Sampel tanah diambil dengan menggunakan *soil ring sampel*. Data kegiatan wisata diambil dengan pengamatan langsung di lapangan. Adapun analisis data infiltrasi dilakukan dengan metode Horton dengan pembanding lokasi kontrol. Analisis fisik dan kimia tanah dilakukan di Laboratorium Tanah Fakultas Teknologi Pertanian dan Laboratorium Geomorfologi Lingkungan dan Mitigasi Bencana Fakultas Geografi, Universitas Gadjah Mada. Analisis kegiatan wisata dilakukan secara deskriptif.

Hasil penelitian menunjukkan bahwa kapasitas infiltrasi pada Wanagama 1000 Selfie sebesar 112 mm/jam, Wanagama Paksi sebesar 76 mm/jam, sekitar Jembatan Wanagama sebesar 52 mm/jam, *Camping Ground* sebesar 36 mm/jam, dan kontrol sebesar 368 mm/jam. Sifat fisik dan kimia tanah tidak berpengaruh signifikan terhadap kapasitas infiltrasi. Kapasitas infiltrasi pada keempat obyek wisata dan control mempunyai perbedaan yang signifikan.

Kata Kunci : *Infiltrasi, Tanah, Wisata, Wanagama*

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## **Infiltration Measurement At Various Tourist Attraction Areas in Wanagama I Education Forest**

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### **Abstract**

Wanagama Education Forest I continues to develop so that it has some tourist attractions visited by people who are interested in its beauty. Tourist attractions that are commonly visited are Wanagama 1000 selfies, Wanagama Paksi, Wanagama Bridge, and Camping Ground. Tourism activities in Wanagama causes changes in soil compaction which impacts on infiltration. Infiltration capacity determines the soil capacity in absorbing the water. Measuring infiltration is very important as a base for planning and management of the area. The research in Wanagama I aims to determine infiltration capacity in each tourist attraction area.

Infiltration measurement and soil samples were taken at each tourist attraction areas with 3 replications for every slopes unit. Infiltration data was taken by using a double ring infiltrometer. Soil samples were taken with soil ring samples. Data on tourism activities was taken by observing the object directly in the field. Then, the infiltration data was analysed by using the Horton method with a comparison of the control location. Physical and chemical analysis of soil was carried out at the Soil Laboratory of the Agricultural Technology Faculty and the Environmental Geomorphology and Disaster Mitigation Laboratory of the Geography Faculty in Gadjah Mada University. Analysis of tourism activities was carried out descriptively.

Based on the results of the study, it was concluded that infiltration capacity in Wanagama 1000 Selfies was 112 mm / hour, Wanagama Paksi was 76 mm / hour, around Wanagama Bridge was 52 mm / hour, Camping Ground was 36 mm / hour, and controls was 368 mm / hour. The physical and chemical properties of the soil do not significantly influence the infiltration capacity. However, the infiltration capacity of the tourist activities areas in Wanagama and the control area were significantly different.

**Keywords:** *Infiltration, Land, Tourism, Wanagama*

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