

Variasi Spasial Permeabilitas Tanah di DAS Cirasea Kabupaten Bandung, Provinsi Jawa Barat = Spatial Variation of Soil Permeability in Cirasea Watershed Bandung Regency, West Java Province

Rifqoh Mardliyan, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20509476&lokasi=lokal>

Abstrak

DAS Cirasea memiliki aktivitas pertanian yang intensif dan kondisi fisik berupa topografi dan penggunaan lahan yang bervariasi. Namun, aktivitas pertanian intensif dapat menurunkan kemampuan daya dukung lahan akibat ketidaksesuaian pengolahan lahan pertanian, sehingga menyebabkan kekritisian lahan dan erosi di DAS Cirasea. Analisis spasial variasi permeabilitas tanah merupakan salah satu upaya untuk mengetahui kemampuan tanah. Studi ini bertujuan untuk mendeskripsikan variasi spasial permeabilitas tanah dan hubungannya dengan sifat fisik tanah, serta menganalisis hubungan permeabilitas dengan topografi dan penggunaan lahan di DAS Cirasea Kabupaten Bandung. Survei lapangan dilakukan dengan pengambilan sampel tidak terganggu. Penetapan sifat permeabilitas tanah berdasarkan metode *constan head*. Hasil menunjukkan permeabilitas tanah di DAS Cirasea bervariasi mulai dari kelas permeabilitas 0,5 – 2,0 cm/jam (agak lambat) sampai >25,5 cm/jam (sangat cepat). Variasi permeabilitas tanah ini terutama disebabkan oleh adanya hubungan faktor sifat fisik tanah berupa pori drainase cepat. Secara spasial terdapat hubungan antara penggunaan lahan dan topografi dengan permeabilitas di wilayah dengan karakteristik tertentu. Topografi yang landai dan penggunaan lahan yang mengalami pengolahan tanah yang intensif dapat menurunkan laju permeabilitas.

Cirasea watershed has intensive agricultural activities and physical conditions in the form of varied topography and land use. However, intensive agricultural activities can reduce the carrying capacity of the land due to the mismatch of agricultural land processing, resulting criticality land and erosion in the Cirasea Watershed. The spatial analysis of soil permeability variation is an effort to determine soil capability. This study aims to describe the spatial variation of soil permeability and its relationship with soil physical properties, as well as to analyze the relationship between permeability and topography and land use in the Cirasea Watershed, Bandung Regency. The field survey was conducted with undisturbed sampling. Determination of soil permeability based on the *constan head* method. The results showed that soil permeability in the Cirasea Watershed varied from permeability class 0,5 - 2,0 cm/hour (slightly slow) to >25,5 cm/hour (very fast). This variation in soil permeability is mainly due to the relationship between the physical properties of the soil in the form of rapid drainage pores. Spatially there is a relationship between land use and topography with permeability in areas with certain characteristics. Sloping topography and land use with intensive tillage can reduce permeability.