



Intisari

Hulu bagian barat Sub-DAS Bompon memiliki topografi yang beragam serta telah diolah oleh masyarakat menjadi lahan budidaya pertanian dengan pengolahan intensif. Hal ini dapat mempengaruhi sifat-sifat tanah serta perkembangan tanah di lokasi tersebut. Penelitian ini bertujuan mengamati karakteristik fisika dan kimia tanah serta mengkaji perkembangan tanah dan klasifikasi tanah berdasarkan sistem klasifikasi USDA 2014, FAO/WRB 2014, dan PPT Bogor 2014 di hulu bagian barat Sub-DAS Bompon, Magelang. Penelitian diawali dengan survei lapangan berpedoman foto udara untuk menentukan lokasi pengambilan sampel. Lokasi yang dipilih merupakan sebuah transek menurun lereng dengan penggunaan lahan didominasi tegalan. Pengambilan sampel dilakukan pada profil yang berada di puncak lereng, lereng atas, lereng tengah, dan lereng bawah yang terbagi menjadi zona residual, zona erosional, dan zona deposisional dengan total 8 profil. Analisis sampel berupa analisis fisika dan kimia tanah yang dilaksanakan di Laboratorium Tanah Umum, Laboratorium Kimia dan Kesuburan Tanah, serta Laboratorium Fisika Tanah, Fakultas Pertanian, Universitas Gadjah Mada. Parameter fisika tanah yang diuji meliputi kadar lengas, tekstur, berat volume (BV), berat jenis (BJ), dan porositas tanah. Parameter kimia tanah yang diuji yaitu pH tanah (pH aktual dan pH potensial), kandungan bahan organik tanah, kapasitas pertukaran kation (KPK), kation tertukar, kejenuhan basa, serta N-total. Hasil penelitian menunjukkan tanah di hulu bagian barat Sub-DAS Bompon memiliki karakteristik fisika dan kimia yang beragam serta telah berkembang menjadi tanah dewasa. Berdasarkan klasifikasi USDA 2014 tanah di hulu bagian barat Sub-DAS Bompon, Magelang adalah Ultic Hapludalfs dan Typic Kandudalfs, berdasarkan klasifikasi FAO/WRB 2014 berjenis Haplic Luvisols (Clayic), sedangkan berdasarkan klasifikasi PPT Bogor 2014 adalah Latosol oksik.

Kata kunci: perkembangan tanah, klasifikasi tanah, Sub-DAS Bompon.



Abstract

The upstream western part of the Bompon watershed has a diverse topography and has been processed by the community to become agricultural cultivation land with intensive tillage. This can affect soil properties and soil development in that location. This study aims to observe the physical and chemical characteristics of the soil and assess soil development and soil classification based on the USDA 2014, FAO / WRB 2014, and PPT Bogor 2014 soil classification system in the upstream western part of the Bompon watershed, Magelang. The research was started with a field survey based on aerial photographs to determine the location for sampling. The location chosen is a transect down the slope with land use dominated by moor. Sampling is carried out on profiles that are at the summit, shoulder, backslope, and toeslope which are divided into residual zone, erosional zone, and depositional zone with a total of 8 profiles. The sample analysis was in the form of physical and chemical analysis of soil which was carried out in the General Soil Laboratory, Chemical and Soil Fertility Laboratory, and the Soil Physics Laboratory, Faculty of Agriculture, Universitas Gadjah Mada. Soil physics parameters tested include soil moisture content, texture, bulk density, particle density, and soil porosity. The soil chemical parameters tested were soil pH (actual pH and potential pH), soil organic matter content, cation exchange capacity (CEC), exchangeable cations, base saturation, and total nitrogen. The results showed that the soil in the upstream western part of the Bompon watershed had various physical and chemical characteristics and had developed into mature soils. Based on the 2014 USDA classification, the soil in the upstream western part of the Bompon sub-watershed, Magelang is Ultic Hapludalfs and Typic Kandudalfs, based on the 2014 FAO / WRB classification is Haplic Luvisols (Clayic), while based on the 2014 Bogor PPT classification is Oxic Latosol.

Keywords: soil development, soil classification, Bompon watershed.