RINGKASAN

Penelitian dilakukan pada lahan reklamasi *In Pit Dump* tahun 2016 PT. Karya Bumi Baratama, yang berlokasi di Kabupaten Sarolangun, Provinsi Jambi dengan tujuan penelitian menganalisis pengaruh sifat fisik tanah terhadap laju erosi, dan menghitung laju erosi pada lahan yang telah direklamasi setelah adanya evaluasi.

Sifat fisik tanah diperoleh dari hasil pengujian sampel tanah di laboratorium meliputi, tekstur, kandungan C-organik, permeabilitas tanah. Faktor erosivitas hujan diambil dari data sekunder data curah hujan 2011 sampai 2017. Faktor erodibilitas dianalisis berdasarkan hasil sifat fisik tanah. Faktor panjang dan kecuraman lereng diambil berdasarkan peta topografi dan titik sampel di lapangan. Faktor tanaman dan tindakan konservasi khusus diambil berdasarkan umur tanaman dan pengamatan di lapangan. Laju erosi dianalisis menggunakan persamaan USLE.

Dari hasil penelitian diperoleh bahwa laju erosi dipengaruhi oleh sifat fisik tanah (tekstur tanah berkorelasi positif dengan $R^2 = 0,74$; pasir berkorelasi negatif dengan $R^2 = 0,74$; lanau berkorelasi positif dengan $R^2 = 0,19$; lempung berkorelasi negatif dengan $R^2 = 0,05$; permeabilitas berkorelasi negatif dengan $R^2 = 0,16$; dan C-organik berkorelasi positif dengan $R^2 = 0,22$). Tindakan konservasi yang dilakukan untuk menurunkan laju erosi ialah dengan menggunakan konservasi mekanik yaitu teras bangku dan teras guludan dengan nilai laju erosi antara 4,69 sampai 367,64 ton/ha/tahun dengan tingkat normal sampai berat.

ABSTRACT

The research was conducted on In Pit Dump reclamation field in 2016 PT. Karya Bumi Baratama, located in Sarolangun Regency, Jambi Province with the purpose of research analyze the effect of soil physical properties on erosion rate, and calculated the rate of erosion on the reclaimed land after evaluation.

The physical properties of the soil obtained from the test results of soil samples in the laboratory include, texture, organic C-content, soil permeability. The rainfall erosivity factor is derived from secondary data of rainfall data from 2011 to 2017. The erodibility factor is analyzed based on the result of soil physical properties. Long factor and steep slopes are based on topographic maps and sample points in the field. Plant factors and special conservation measures are taken based on plant age and field observations. The erosion rate was analyzed using USLE equation.

From the results of the study it was found that erosion rate is affected by physical properties of soil (soil texture positively correlated with $R^2 = 0,74$; sand negatively correlated with $R^2 = 0,74$; silt positively correlated with $R^2 = 0,19$; clay negatively correlated with $R^2 = 0,05$; permeability negatively correlated with $R^2 = 0,16$; dan C-organic positively correlated with $R^2 = 0,22$). Conservation actions taken to reduce the rate of erosion are by using mechanical conservation namely bench terraces and mounds with an erosion rate between 4.69 to 367.64 tons / ha / year with normal to heavy levels.