LAJU EROSI PADA BEKAS JALAN SARAD SISTEM SILVIKULTUR TEBANG PILIH TANAM JALUR DI PT. SARI BUMI KUSUMA KALIMANTAN TENGAH

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INTISARI

PT. Sari Bumi Kusuma Kalimantan Tengah terletak di dekat garis khatulistiwa sehingga hujan bisa terjadi sepanjang tahun. Kegiatan produksi melalui pembukaan wilayah hutan juga dilakukan setiap tahun sehingga potensi terjadinya erosi akan tinggi. Potensi terjadinya erosi akan semakin besar pada kegiatan penyaradan yang dilakukan dengan alat berat seperti *skidder*. Penelitian ini bertujuan untuk mengetahui laju erosi, nilai aliran permukaan, koefisien aliran permukaan, pengaruh curah hujan dan aliran permukaan terhadap erosi, serta hubungan antara curah hujan dengan erosi yang terjadi pada areal bekas jalan sarad pada sistem silvikultur Tebang Pilih Tanam Jalur di PT. Sari Bumi Kusuma Kalimantan Tengah.

Penelitian dilaksanakan pada bulan April hingga Mei 2016 pada bekas jalan sarad Petak S.49B sistem silvikultur TPTJ Blok RKT 2012 di PT. Sari Bumi Kusuma Kalimantan Tengah. Data yang diambil berupa data suspensi, aliran permukaan, tebal hujan, vegetasi dan sampel tanah. Uji statistika menggunakan *software Sigma Plot.*

Hasil penelitian menunjukkan laju erosi dengan metode tongkat pada kelas kelerengan datar (0%-15%) sebesar 19,073 ton/ha/tahun dan sebesar 22,408 ton/ha/tahun pada kelas kelerengan curam (>25%). Sedangkan laju erosi dengan metode plot kecil (22 m x 2 m) diperoleh laju erosi sebesar 0,956 ton/ha/tahun pada kelas kelerengan datar dan sebesar 46,891 ton/ha/tahun pada kelas kelerengan curam. Laju erosi yang diperoleh dengan dua metode tersebut memiliki indeks bahaya erosi kategori rendah. Nilai aliran permukaan dan koefisien aliran permukaan pada kelas kelerengan datar berturut-turut sebesar 38,65 mm dan 0,62% pada kelas kelerengan datar sedangkan pada kelas kelerengan curam sebesar 85,03 mm dan 2,1%. Adapun pengaruh curah hujan dan aliran permukaan terhadap laju erosi menunjukkan hasil yang signifikan dengan nilai determinasi 0,886 serta terdapat hubungan positif yang sangat kuat antara curah hujan dengan laju erosi pada kelas kelerengan datar yang ditunjukkan dengan nilai koefisien korelasi sebesar 0,941 dan hubungan positif yang sedang sebesar 0,546 pada kelas kelerengan curam.

Kata kunci: *laju erosi, jalan sarad, tongkat, plot kecil, tebal hujan, kelerengan*

EROSION RATE ON EX SKIDDING ROAD OF SELECTION CUTTING LINE PLANTING SILVICULTURAL SYSTEM IN PT. SARI BUMI KUSUMA CENTRAL KALIMANTAN

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ABSTRACT

PT. Sari Bumi Kusuma Central Kalimantan is located near equator line and the rainfalls along the year. Production activity by forest area clearing is also done yearly, therefore the probability of occured erosion will be high. The probability of occured erosion will be higher on skidding activity that is done by heavy machines such as skidder. This research aimed to know the erosion rate, run-off value, run-off coefficient, the influence of rainfall depth and run-off value to erosion, and correlation between rainfall depth and erosion which was happening on ex skidding road area of selection cutting line planting silvicultural system in PT. Sari Bumi Kusuma Central Kalimantan.

The research was done from April to May 2016 on ex skidding road Compartment S.49B selection cutting line planting silvicultural system RKT Block 2012 in PT. Sari Bumi Kusuma Central Kalimantan. The obtained data were data of suspension, run-off, rainfall depth, vegetation, and soil sample. Sigma Plot software was applied for statistical analysis.

The results showed that erosion rate using stick method on the slope class of flat (0% - 15%) was 19,073 ton/ha/year and erosion rate of 22,408 ton/ha/year was found on the slope class of steep (>25%). Whereas erosion rate using small plot method (22m x 2m) was valued of 0,956 ton/ha/year on the slope class of flat and 46,891 ton/ha/year of erosion rate was found on the slope class of steep. Erosion rates which were obtained by both methods indicated erosion danger prediction level in low category. Run-off value and run-off coefficient respectively were 38,65 mm and 0,62% on the slope class of flat, whereas on the slope class of steep the value and coefficient were 85,03 mm and 2,10%. On the other hand, the influence of rainfall depth and run-off value to erosion showed significant result proven by determination value 0,886 and there were very high of positive correlation between rainfall depth and erosion rate proven by correlation coefficent 0,941 on the slope class of flat and medium of positive correlation between rainfall depth and erosion rate proven by correlation coefficent 0,546 on the slope class of steep.

Keywords: *erosion rate*, *skidding road*, *stick*, *small plot*, *rainfall depth*, *slope*