

# **KAJIAN TINGKAT EROSI LAHAN PADA SUB SUB DAS LENGKUKAM SUB DAS LEMATANG KABUPATEN MUARA ENIM PROVINSI SUMATERA SELATAN**

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## **ABSTRACT**

The development of dry land agricultural regions that are dominantly (82%) oil palm plantation in Lengkokam river sub – sub basins in Muara Enim Regency in South Sumatera Province is a proof of high pressure and significant shift of land usage, causing the sheet erosion rate in the region to increase with years (BPDAS Musi Palembang). Further impacts of plantation inundation by Lengkokam River overflow indicates that land erosion in Lengkokam river sub sub basins disturbed the balance of the river's overall hydrological and morphological cycle.

The method used in this study is the Universal Soil Loss Equation (USLE), a method of measurement to predict the rate of eroded land with the classification of several affecting physical parameters, that are R (rain erosivity), K (land erodibility), L (slope length), S (slope steepness), C (land-covering vegetation factor and vegetation management) and P (special measures for land conservation factor).

Measurement result shows the actual erosion rates in Lengkokam river sub sub basin reached 1,585,045 m<sup>3</sup>/year or 6.98 mm/year and exceeded the erosion tolerance limit (T) of 2.0 mm/year (sediment specific gravity assumption of 1.8 ton/ m<sup>3</sup>). Erosion hazard level of land unit are 16.33 %, classified heavy, 73.33 % classified medium, and 10.35% classified very light. Measurement result of erosion control shows that it was able to slow down erosion rate to 240,283.06 m<sup>3</sup>/year or 1.06 mm/year and erosion hazard level from actual condition of 16.33 % classified as heavy, 73.33 % classified medium can be reduced to be light (89,65%) and 10.35% very light.

**Keywords** : *Sheet Erosion, Erosion Level, Erosion Control*