Paper P16

Flux of nutrients and heavy metals to Tasik Chini through erosion from Sungai Melai sub-catchment, Chini, Pahang

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This study was conducted to determine the flu of nutrients and heavy metals from Sg. Melai catchments to Lake Chini through erosion. For this purpose several soil physical properties such as particle size, organic content, true and bulk density, clay dispersion coefficient aggregate stability and soil hydraulic conductivity was determined. Chemical properties determined were pH, electrical conductivity, available nutrients, dissolved nutrients and heavy metals. Indicators of erosion determined in water were total suspended solids, dissolved nutrients and heavy metals. It was found that the texture of the soil in the study area is clay, silty clay, clayey loam and sandy silt loam. Organic matter content is in the range of 3.40 to 9.92%, while the percentage of clay dispersion is between 3.20 to 15.83%. Rainfall erosivity value was 1658.7 Mg mm ha^{-1} h^{-1}. Soil erodibility ranged from 0.06 to 0.26 ton/J and the slope factor, LS range from 7.63 to 18.33. Predicted rate of soil loss was low at 18.93 $tonha^{-1}$ yr^{-1} to very low (0.0028 tan ha^{-1} yr^{-1}). Flow of nutrients and heavy metals into the lake through erosion from Sg. Melai catchment was low based on the low rates of erosion.

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