

**Pemetaan Tingkat Bahaya Erosi Berdasarkan Metode USLE
dengan Studi Kasus Simulasi Berbagai Tanaman di Desa Tambi Kabupaten
Wonosobo**

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ABSTRAK

Desa Tambi merupakan wilayah dengan potensi erosi yang tinggi karena adanya faktor iklim, kondisi tanah, dan tindakan konservasi yang belum dilakukan secara optimal. Penelitian ini bertujuan untuk (a) mengetahui laju erosi tanah dan klasifikasi tingkat bahaya erosi (TBE) di Desa Tambi (b) mengetahui pengaruh simulasi berbagai macam tanaman terhadap tingkat bahaya erosi (TBE) di Desa Tambi. Metode yang digunakan adalah metode survey, pengambilan sampel menggunakan metode *purposive sampling*, dan pendugaan laju erosi menggunakan metode USLE. Simulasi tingkat bahaya erosi (TBE) dilakukan menggunakan 4 jenis tanaman yaitu kacang jogo, kentang searah lereng, kentang searah kontur, dan teh. Peta informasi dibuat menggunakan *software Arcgis 10.2*. Titik pengambilan sampel ditentukan berdasarkan Peta Sistem Lahan yang merupakan hasil *overlay* Peta Tata Guna Lahan dan Peta Kemiringan Lereng. Titik sampel dalam penelitian ini ditentukan sebanyak 11 titik. Parameter yang diamati yaitu erosivitas hujan (R), erodibilitas tanah (K) yang meliputi tekstur, struktur, permeabilitas dan bahan organik tanah, panjang lereng dan kemiringan lereng (LS), vegetasi penutup (C), pengolahan lahan (P), serta kedalaman solum tanah. Hasil penelitian menunjukkan laju erosi yang tertinggi sebesar 561,19 ton/ha/th yaitu seluas 9,56 ha (6,01%), sedangkan terendah sebesar 0,5 ton/ha/th yaitu seluas 13,30 ha (8,36%). Klasifikasi TBE ringan yaitu seluas 22,66 ha (14,24%), kelas TBE sedang seluas 99,18 ha (62,36%), kelas TBE berat seluas 7,30 ha (4,59%), dan kelas TBE sangat berat seluas 29,91 ha (18,18). Hasil simulasi dari berbagai macam tanaman memiliki pengaruh terhadap laju erosi maupun klasifikasi tingkat bahaya erosi (TBE). Persebaran kelas TBE disajikan dalam tampilan peta.

Kata kunci : Erosi, Pemetaan, Simulasi Tambi, TBE, USLE

**Mapping The Level of Erosion Hazard Based on USLE Method
with Case Study Of Various Plants Simulation in Tambi Village Wonosobo
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ABSTRACT

Tambi Village is an area that has high potential for erosion because of its climate, soil condition, and not optimal conservation. This research aims to (a.) know the soil erosion rate and the erosion hazard in Tambi Village and (b.) to know the effects of the various plants simulation of the erosion hazard in Tambi Village. The methods used in this research are the survey method, with a purposive sampling method as the sampling method, and the USLE method to estimate the erosion rate. The simulation of erosion hazard used 4 kinds of plants, they are Jogo Beans, Potato, Tea, and Albizia. The maps were created by using a software named Arcgis 10.2. The sampling points obtained by overlaying land system maps such as land use map and slope map. This research obtained 11 sampling points. The parameter that used in this research were erosivity of rain (R), soil erodibility (K) including texture, structure, permeability, and the organic matter of soil, the length and the steepness of slope (LS), the surface plants (C), the land management (P), and the depth of solum. The result of this research has shown that the highest rate of erosion is 561,19 ton/ha/year which has an area of 9,56 ha (6,01%), meanwhile the lowest rate of erosion is 0,5 ton/ha/year which has an area of 13,30 ha (8,36%). Tambi Village has 22,66 hectares of low erosion level, 99,18 hectares of moderate erosion level, 7,3 hectares of heavy erosion level, and 29,91 hectares of very heavy erosion level. The result of the various plants simulation affects both the erosion rate and erosion hazard classification. The class distribution displayed as an informational map.

Keyword: Erosion, Hazard, Map, Simulation, Tambi, USLE