# Arahan Konservasi Berwawasan Lingkungan Berbasis Pendugaan Erosi (Suatu Kasus di Sub Das Lesti, Kabupaten Malang) = Environmental-Oriented Conservation Directive Based on Erosion Estimation (A Case in Lesti Subwatershed, Malang District).

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Abstrak

Berkurangnya fungsi Waduk Sengguruh karena erosi di hulu Sungai Brantas (kawasan sub DAS Lesti) menggangu perannya dalam pengendalian banjir, pasokan air untuk irigasi dan pasokan sebagian besar tenaga listrik tenaga air di Provinsi Jawa Timur. Penelitian ini bertujuan untuk melakukan pendugaan erosi, menganalisis keterkaitan faktor-faktor penyebabnya serta memberikan arahan konservasi berwawasan lingkungan. Metode penelitian menggunakan metode gabungan (mixed methods). Metode kuantitatif laju erosi dilakukan dengan perhitungan Modify Universal Soil Loss Equation yang didukung dengan tools SIG. Metode kualitatif dilaksanakan dengan kuisioner dan wawancara di kawasan sub DAS Lesti. Hasil penelitian menunjukkan bahwa laju erosi terkini dalam setiap ha lahan (laju erosi rata-rata) di Sub DAS Lesti adalah 153,868 ton/ha/tahun (melebihi laju erosi yang dapat ditoleransi yaitu 30 ton/ha/tahun). Laju erosi di sub DAS Lesti selalu naik dalam 14 tahun terakhir. Dari 12 kecamatan di DAS Lesti, sebanyak 6 kecamatan diidentifikasi memiliki Tingkat Bahaya Erosi tinggi sehingga menjadi prioritas untuk ditangani, yaitu di Kecamatan Wajak, Tirtoyudo, Dampit, Sumbermanjing Wetan, Gedangan dan Bantur. Kecamatan Dampit, Kecamatan Turen dan Kecamatan Gondanglegi juga menghadapi masalah perilaku dan tekanan penduduk yang tinggi dibanding kecamatan lainnya. Penelitian juga menunjukkan ada keterkaitan antara erosi dengan pengetahuan, sikap dan perilaku masyarakat dalam bentuk tekanan penduduk dan pola penggunaan lahan. Arahan konservasi berwawasan lingkungan disarankan untuk difokuskan pada 6 kecamatan ini melalui penerapan konservasi tanah dan air. Hasil analisis spasial pada lokasi prioritas menyarankan tindakan konservasi berupa penegakan hukum atau penyuluhan, dan pemberdayaan masyarakat untuk meningkatkan kemampuan dan kemandirian masyarakat melalui pemberian akses terhadap sumberdaya, pendidikan, dan pelatihan.

.....The reduced function of the erosion of the Sengguruh Reservoir at the headwaters of the Brantas River (Lesti Subwatershed area) has disrupted its role in flood control, water supply for irrigation and the supply of most of the hydroelectric power in East Java Province. This study aims to estimate erosion, analyze the interrelation of the causal factors and provide environmental conservation direction.The research method uses mixed methods. The quantitative method of erosion rates is done by calculating Modify Universal Soil Loss Equation which is supported by GIS tools. The qualitative method was carried out with questionnaires and interviews in the Lesti Subwatershed area. The results showed that the current erosion rate in each hectare of land (average erosion rate) in the Lesti Subwatershed was 153,868 tons/ha/year (exceeding the tolerable erosion rate of 30 tons/ha/year). The rate of erosion in the Lesti Subwatershed has always increased in the last 14 years. Of the 12 Subdistricts in the Lesti Subwatershed, as many as 6 Subdistricts were identified as having high levels of Erosion Hazard so they were a priority to be addressed, namely in the Wajak, Tirtoyudo, Dampit, Sumbermanjing Wetan, Gedangan and Bantur Subdistricts. Dampit Subdistrict, Turen Subdistrict and Gondanglegi Subdistrict also face behavioral problems and high population pressure

compared to other Subdistricts. Research also shows that there is a relationship between erosion and knowledge, attitude and community behavior in the form of population pressure and land use patterns. It is recommended that environmental directives for conservation be focused on these 6 Subdistricts through the application of vegetative soil and water conservation. The results of spatial analysis at this priority location also require conservation such as law enforcement or counseling, and community empowerment to increase the ability and independence of the community through providing access to resources, education, and training.