

ANALISIS TINGKAT KERUSAKAN LINGKUNGAN BEKAS GALIAN TANAH UNTUK BATU BATA DI DESA POTORONO BANGUNTAPAN BANTUL

Oleh: Nisa Nurhidayati Effendi

Dibimbing oleh: R. Agus Widodo dan Miseri Roeslan Afany

ABSTRAK

Penambangan tanah untuk industri batu bata disamping akan merusak tata air juga akan terjadi kehilangan lapisan tanah bagian atas (*top soil*) yang relatif lebih subur, dan meninggalkan lapisan tanah bawahan (*sub soil*) yang kurang subur dan berpotensi merusak lingkungan. Penelitian ini bertujuan untuk menganalisis tingkat kerusakan lingkungan akibat aktivitas penambangan batu bata, mengetahui dampak aktivitas penambangan batu bata terhadap sifat kimia tanah dan memberikan saran perbaikan lingkungan yang baik. Metode penelitian yang digunakan adalah metode survei dan penentuan titik sampel secara purposif. Analisis tingkat kerusakan merujuk pada Keputusan Gubernur Propinsi Daerah Istimewa Yogyakarta No. 63 Tahun 2003 tentang Kriteria Baku Kerusakan Lingkungan Bagi Usaha dan/atau Kegiatan Penambangan Bahan Galian Golongan C di Wilayah Propinsi Daerah Istimewa Yogyakarta. Penelitian ini dilakukan di Desa Potorono Kapanewon Banguntapan Kabupaten Bantul, Yogyakarta. Parameter penelitian yang digunakan meliputi batas kedalaman galian, batas penggalian, kemiringan dasar galian, tinggi dinding galian, tekstur tanah, tutupan vegetasi, dan produktivitas serta analisis sifat kimia tanah berupa pH, kandungan C-Organik, N total, P tersedia, dan K tersedia dengan jumlah 12 titik sampel dan 1 titik kontrol. Hasil penelitian menunjukkan tingkat kerusakan lingkungan lahan bekas industri batu bata di Desa Potorono yaitu, titik sampel XIII dan XII dengan tingkat kerusakan rendah, titik sampel II, III, IV, V, VI, VII, IX, X, dan XI dengan tingkat kerusakan sedang, dan titik sampel I dengan tingkat kerusakan tinggi. Hasil analisis sifat kimia menunjukkan bahwa aktivitas penambangan batu bata berdampak menurunkan kadar bahan organik tanah namun tidak menurunkan kandungan unsur hara N, P, K serta pH tanah. Saran perbaikan lahan pasca tambang batu bata di Desa Potorono Bantul adalah melakukan pemulihan lahan dan usulan peraturan pemerintah. Pemanfaatan lahan bekas tambang dapat dilakukan dengan revegetasi tanaman pangan, budidaya ikan, dan juga pembuatan fasilitas umum bagi warga setempat.

Kata kunci : batu bata , kerusakan lingkungan, sifat kimia tanah

ANALYSIS OF THE ENVIRONMENTAL DAMAGE LEVEL FROM THE EXCAVATED SOIL FOR BRICK INDUSTRY IN POTORONO BANGUNTAPAN BANTUL

By: Nisa Nurhidayati Effendi
Supervised by: R. Agus Widodo dan Miseri Roeslan Afany

ABSTRACT

Mining soil for the brick industry will not only damage the water system but will also occur to loss of the topsoil layer which is relatively more fertile, and leave a subsoil layer that is less fertile and potentially damage the environment. This study aims to analyze the level of environmental damage due to soil mining activities for the brick industry, determine the impact of brick mining activities on soil chemical properties, and provide suggestions for good environmental improvements. The method used in this research was Survey Method and the sample points were determined purposively with a total of 12 sample points. The analysis of the level of damage refers to the Decree of the Governor of the Special Region of Yogyakarta No. 63 of 2003 concerning The Standard Criteria for Environmental Damage for Businesses and/or Mining Activities of Group C Mining Materials in the Province of Yogyakarta Special Region. The parameters used include the depth limit of the excavation, the limit of excavation, the slope of the excavation base, the height of the excavation wall, soil texture, vegetation cover, and productivity as well as an analysis of the chemical properties of the soil such as soil pH, C-Organic content, total N, available P, and available K. The results showed the levels of environmental damage former brick industry land in Potorono Village, namely, sample points VIII and XII with a low damage rate, sample points II, III, IV, V, VI, VII, IX, X, and XI with moderate damage level, and sample point I with high damage rate. The results of the analysis of chemical properties showed that the activity of mining bricks had an impact on reducing soil organic matter content but had no impact on the nutrient content of N, P, K, and soil pH. Suggestions for improving post-mining land in Potorono Village are to restore land and propose government regulations. Utilization of ex-mining land can be done by revegetating food crops, fish cultivation, and also making public facilities for local residents.

Keyword: bricks, environmental damage, soil chemical properties