

# **“PERENCANAAN REKLAMASI LAHAN TAMBANG BATU ANDESIT DI DESA ANDONGSILI KECAMATAN MOJOTENGAH KABUPATEN WONOSOBO”**

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## **INTISARI**

Penelitian dilakukan di Desa Andongsili, Kecamatan Mojotengah, Kabupaten Wonosobo, Provinsi Jawa Tengah. Penambangan andesit di Desa Andongsili merupakan penambangan rakyat menggunakan sistem tambang terbuka (*open pit mining*). Tujuan dari penelitian ini yaitu menentukan seberapa besar kerusakan fisik lahan akibat penambangan andesit di lokasi penelitian, dan memberikan perencanaan reklamasi yang sesuai kondisi lingkungan.

Data primer didapatkan dengan metode survei dan pemetaan lapangan. Pengambilan sampel tingkat kerusakan fisik digunakan metode *disproportionate stratified random sampling*, dengan kriteria dari Keputusan Gubernur Daerah Istimewa Yogyakarta No 63 Tahun 2003. Parameter batas tepi galian dilakukan pengukuran batas galian, dengan meteran. Kemiringan dinding galian dilakukan pengukuran kemiringan tebing, dengan kompas. Tinggi dinding galian dilakukan pengukuran tinggi tebing, dengan shunto. Relief dasar galian dilakukan pengukuran relief dasar, dengan meteran. Kondisi jalan dilakukan pengukuran luas jalan, dengan meteran. Tekstur tanah dilakukan pengamatan kondisi tanah. Pengelolaan *top soil* dan *overburden* dilakukan pengamatan kondisi pengelolaan tanah. Kecepatan penambangan dilakukan pengamatan hasil penambangan, danutupan vegetasi dilakukan pengukuran luas vegetasi, dengan meteran. Penilaian kerusakan digunakan metode pengharkatan pada setiap unsur parameter. Penentuan desain teknik rekayasa reklamasi digunakan peraturan RTRW Kabupaten Wonosobo Tahun 2011-2031. Sampel tanah dianalisis laboratorium, didapatkan karakteristik tanah sehingga dapat ditentukan penentuan jenis tanaman yang akan digunakan untuk tahap reklamasi. Sampel batuan dianalisis laboratorium, didapatkan karakteristik batuan sehingga dapat ditentukan nilai faktor keamanan setelah dilakukan reklamasi.

Hasil penelitian dengan klasifikasi tingkat kerusakan disekitar lingkungan Desa Andongsili termasuk dalam kategori berat, dikarenakan proses penambangan menimbulkan dampak negatife terhadap kondisi jalan, tekstur tanah dan luasan lingkungan penambangan. Hasil perencanaan reklamasi perkebunan hortikultura. Model reklamasi teknis yang digunakan teras jenjang, dengan tinggi jenjang 3 meter, lebar teras 6 meter dan kemiringan jenjang tidak lebih dari 45°. Reklamasi biotis digunakan tanaman pepaya, dengan jarak tanam 2 x 2,5 m, dan penanaman *cover crop* rumput vetiver jarak tanam setiap strip 40cm. Proses penataan lahan reklamasi digunakan metode sebaran, dengan tanahnya diambil dari daerah penelitian. Arahan pengelolaan dilakukan, dengan pendekatan sosial, ekonomi dan institusi untuk terwujudnya pembangunan berkelanjutan.

Kata Kunci : Hortikultura, Kerusakan Lingkungan, Penambangan Andesit, Reklamasi,

**“ THE RECLAMATION PLANNING ON ANDESITE ROCK MINE AT  
ANDONGSILI VILLAGE, MOJOTENGAH SUB DISTRICT, WONOSOBO  
REGENCY”**

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**ABSTRACT**

*The research was conducted in Andongsili Village, Mojotengah Sub District, Wonosobo Regency, Central Java Province. Andesite mining in Andongsili Village a community mining using open pit mining system. The purpose of this study to determine how much physical damage to land due to andesite mining in the study sites, and provide reclamation planning in accordance with environmental conditions.*

*Primary data were obtained by survey method and field mapping. Sampling rate of physical damage was used proportionate stratified random sampling method, with criterion from Decision of Governor of Yogyakarta Special Region No. 63 Year 2003. The parameter of excavation boundary was done by measurement of excavation boundary, with meter. The slope of the excavation wall done by measuring the slope of the cliff, with a compass. The height of the excavation wall measured in high cliff, with shunto. The basic relief of excavation done by basic relief measurement, with meter. The road condition measured by road area, with meter. Soil texture observed soil condition. Top soil and overburden management were observed in soil management conditions. Mining speed done by observation of mining result, and vegetation cover measured by vegetation area, with meter. Damage assessments are used in the method of dealing with each parameter element. Determination of reclamation engineering engineering design used by Wonosobo Regency RTRW regulation Year 2011-2031. Soil samples were analyzed by the laboratory, so the characteristics of the soil can be determined to determine the type of plants to be used for the reclamation phase. The rock samples were analyzed by the laboratory, it was found that the characteristics of the rocks can be determined by the value of safety factor after reclamation.*

*Result of research with classification of damage level around environment of Andongsili Village included in heavy category, because mining process causing negative impact to road condition, soil texture and area of mining environment. The results of reclamation planning of horticultural plantations. The technical reclamation model used terraces, with a height of 3 meters, a 6 meter wide terrace and a slope of not more than 45°. Biotic reclamation uses papaya plants, with spacing of 2 x 2.5 m, and planting cover crop grass vetiver spacing each strip 40cm. The process of reclamation land reclamation using the method of distribution, with the soil taken from the study area. Management directives are conducted, with social, economic and institutional approaches to sustainable development.*

*Key Word: Environmental damage, Horticulture plantation, Reclamation, Traditional mining*