IDENTIFICATION RATE OF LAND DEGRADATION DUE TO MINING ACTIVITY PUMICE IN GODEAN ORCHARD SENDANG VILLAGE WONOGIRI SUB DISTRICT THE DISTRICT OF WONOGIRI MIDDLE JAVA PROVINCE

ABSTRACT

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The mining of exploration material commodity rocks is one of the open mining activities that can potentially degraded the physical environment. Wonogiri district is one of the region with plenty of exploration material. Godean orchard that located in Sendang village Wonogiri sub district is one among other areas in Wonogiri regency where the mining, especially pumice mining takes place. The mining process in this area is done traditionally by inhabitant. These mining activities can bring some bad impact to the physical environment of the area. The purpose of this research is to determine how deep the rate of land degradation due to mining pumice and the appropriate way to manage the land after mining process.

Methods conducted in this research were survey and cartography to collect primary and secondary datas. Nine points of observation were establish by adjusting the physical condition of the research area with purpossive sampling technique. Parameters measured in the fieldwere theboundary of excavation, the baserelief of excavation, the cliffslope, the height of excavationwall, the vegetation cover dan the road condition. Data processing was conducted by scoring method. The scoring results then sumed up to obtain the impact of the mining to physical environment.

Based on the methods above, average, score and classification of each parameters are the following. Wall exploration height's average is 16.32 m, with score 3 and classified Bad. Slope average value is 94% with score 3 and classified Bad. Vegetation cover is < 30% with score 3 and classified Bad. Road condition is scored 3 and classified Good. The edge of the excavation is 24.7 m with score 1 and classified Good. Average value of base exploration relief is 2.34 m with score 3 and classified Bad. Total value of all the parameters is 14 and was classified as Moderate.

Keyword: Mining, Pumice, physical environment and scoring.