

**TECHNICAL RECLAMATION DIRECTION OF EX-MINING LIMESTONE  
QUARRIES BASED ON THE LEVEL OF  
LAND DEGRADATION AT CANDIREJO VILLAGE, SEMIN SUB-  
DISTRICT, GUNUNGKIDUL DISTRICT, SPECIAL REGION OF  
YOGYAKARTA**

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**ABSTRACT**

The Limestone mining activities at Candirejo village, Semin Sub-district, Gunungkidul District, Special Region of Yogyakarta, changed the landscape forms and without the good control then it will be bad for environmental sustainability and the life of people who live in the area around the mining activities. The purpose of this study is to determine the level of land degradation caused by limestone quarry at Candirejo village, Semin Sub-district, Gunungkidul District, and seek the direction of reclamation and environmental insightful land management on the after-mining limestone quarries.

The method of the study is based on the parameters of physical environment degradation that are measured and observed. The example of measured parameters are quarries basic relief such as depth of pit as measured from the difference in height between pits with the closest pit, the slope of pit cliff to determine the slope degree, and height of pit wall as measured by using measuring tool from the top to bottom of the materials. The examples of observed parameters such, did not have permission from the government (illegal mining), and then the topsoil that isn't managed with the vegetation way, quarries border such as the nearest house which located more than 5 meters from the quarry, holey road conditions and the reclamation at the quarries are not done yet. Data from each of these parameters were calculated from each point of observation and measurement to determine the level of land degradation at the mining site.

The results of study showed that the land degradation are happened in the light, medium and heavy rate category. From the 38,62 hectares of total study area, 28,29 hectares are on the light damaged categories, 2,46 hectares are on the medium damaged categories, and 7,87 hectares are on the heavy damaged categories. In the area where the limestone quarries are located, land degradation level on the heavy damaged categories are very dominant. Based on the result of this study, reclamation need to be done with the slope reduction by structuring level, bench terracing for heavily damaged land, and revegetation way with the alley cropping system on the study area at Candirejo village, Semin Sub-district, Gunungkidul District, Special Region of Yogyakarta.

**Keywords:** Post-mining Reclamation, Limestone Quarries, Land Degradation