THE RECLAMATION OF POST PUBLIC MINING LAND OF SAND AND GRAVEL BASED ON PHYSICAL LAND CONDITION IN NGENTAK HAMLET, SUMBER VILLAGE, NGENTAK DISTRICT, MAGELANG REGENCY, CENTRAL JAVA

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ABSTRACT

Post-mining land of sand and gravel which was done by the villagers traditionally and without giving attention to the environmental aspects caused degradation of the quality of the environment. The post-mining land of sand and gravel was left after being exploited without any effort of doing reclamation. This study was aimed to study the level of the degradation of the land based on the physical condition of the land and the plan with technical and biotic engineering which are appropriate with the condition of the land.

The research methods used to know physical of post-mining land condition were survey, mapping, analysis, laboratory test, and evalution of each parameter. The parameters used on post-mining land of sand and gravel were taking and managing topsoil to be managed; border edge of excavation; relief of foundation excavation; slope limit of excavation cliff; height of excavation walls; street condition; vegetation cover; erotiont, distance between post-mining land and habition; and also reclamation effort. The parameters then evaluated to determine reclamation plan which was appropriate with the location of reclamation.

The result of the research based on measurements and observations in the field, and also the result of the analysis and evaluation of the data showed that post-mining land of sand and gravel has a land damage class and it is classified minor damaged land to heavy damaged land. Taking and managing top soil parameter, relief of foundation excavation, street condition, border edge of excavation, and slope limit of excavation cliff are classified as a heavy damaged land, then parameter that classified as a minor damage to severe damage is height of excavation walls and Depth of excavation parameter classified as a good field. The determination of reclamation designed was adjusted with the technical physic arrangement in the form with the width of 6 meters and the height of 2 meters, and with biologically form of horticulture with guava commodities.

Keywords : *Post-mining Land, Land Degradation, Reclamation, Horticulture*