

**TECHNICAL RECLAMATION BASED ON THE LEVEL OF DAMAGE TO
THE LAND AND SOIL FERTILITY IN THE MINING AREA OF CLAYS AT
KLANGKAPAN II, MARGOLUWIH VILLAGE, SEYEGAN SUBDISTRICT,
REGENCY OF SLEMAN, DIY**

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ABSTRACT

Clay mining activities in Dusun Klangkapan II have not used good mining techniques, nor have they been oriented towards environmentally sustainable mining. These mining activities cause topographic changes that can cause land damage and decline in soil fertility. The purpose of this research is to know and analyze the level of land damage; soil fertility due to clay mining; and determine the technical model of land reclamation in Klangkapan II Hamlet, Margoluwih Village, Seyegan Sub-district, Sleman District, D.I. Yogyakarta.

The research method used is survey and cultivation method with parameters used for land damage is bas relief of excavation, slope of excavation, height of excavation wall, road condition, and vegetation cover. As for soil fertility parameters used are C-Organic, N-Total, KTK, P Available, K-Total, Ratio C / N and soil pH Sampling technique used is purposive sampling based on before and after mining. All parameters are obtained by cross check data in the field and field mapping. The slope of the excavation cliff, the height of the wall, the bas-relief bas-relief, and the road conditions are obtained from the measurements in the field. For soil fertility parameters tested laboratory. After the measurement is then done giving the harvest, from the determination can be determined the level of land damage. For soil fertility is seen from how the decline of the fertility rate that is affected by mining.

The results showed that the level of damage to the mining area in Dusun Klangkapan II was categorized as heavily damaged with a total value of 8 of 5 parameters studied, and the soil fertility rate decreased from moderate to very low from 6 parameters tested in the laboratory. The main thing that affects the damage and fertility that occur is mining activities that are not environmentally sound. Management directives are terrestrial modeling with 12 meters of terrace height and 3 meter high terrace height, to strengthen the stability of the slopes by planting vegetation with potting system, in the form of mango plant in the former land of clay mining with bandotan plant as land cover plant . As well as making trenches and SPAs to reduce the flow of surfaces that can cause erosion. Making a tub of control from the SPA flow to reduce the sediment entering the river. Mining management must be planned and executed so as not to leave the damaged environment after the mine has ended.

Keywords: land degradation, soil fertility, clay, mining.