

ABSTRACT

Clay Mining in Sidorejo Village managed by PT. Sahid Putra Sehati with an area of 4.985 Ha (49,580 m²) is used for infrastructure development for low-income people. The problem of this research is the very high level of erosion due to the mining of clay material due to the absence of vegetation so that during high rainfall it is easy to erode the soil. The purpose of this study is to analyze the level of soil erosion and provide direction for land conservation priorities. The methods used for this research are methods USLE and methods MUSLE. For testing of soil samples in the laboratory uses three methods namely Walkley and Black for organic matter content, hydrometer for soil texture analysis and de Boodt for soil permeability and data analysis. Calculation of the level of erosion hazard with the USLE equation has the level of erosion hazard in the category of very light class to very heavy class. The average value for the rate of soil erosion with the USLE equation is 358,3 m³/ha / year while the average value using the MUSLE equation is found in the paddy field area (DTH I) of 103 m³ / ha / year, in the mining area (DTH II) of 151,3 m³ / ha / year and dry field area (DTH III) of 108,3 m³ / ha / year. The direction of the priority of land conservation is that priority I is given to land that falls into the category of very severe erosion hazard level, conservation priority II is given to land that falls into the category of severe erosion danger and conservation priority III is given to land that falls into the moderate erosion class category. Handling of soil erosion by vegetation at each location that has the potential to cause erosion, if vegetation has been carried out, the erosion hazard level in paddy fields (DTH I), mining areas (DTH II) and dry fields (DTH III) will be normal.

Keywords: Soil Erosion, Soil Conservation, Clay, Godean, Sleman.