

**MITIGATION OF DISASTERS OF SOIL AND STONE MASS AND STONE  
MOVEMENT OF SOIL AND STONE MASSAGE SETTLED BY THE  
VILLAGE OF UMBULHARJO, DISTRICT OF CANGKRINGAN, DISTRICT  
OF SLEMAN, D.I. YOGYAKARTA**

**By:**  
**Muhammad Akbar AlMajiid**  
**114130104/TL**

**ABSTRACT**

*Umbulharjo village is one of the villages located in Cangkringan District, Sleman Regency, D.I. Yogyakarta which has the appearance of landforms in the form of young Merapi deposits. Since the village of Umbulharjo is very rich in volcanic materials and the amount of mining that exists, there is a need to study the vulnerability and characteristics of the disaster in the area considering the disasters that have occurred in the Umbulharjo Village several times. The research aims to determine the type of movement of mass of soil and / rock, knowing the effect of land conditions on the vulnerability of the movement of mass of land and / rock, knowing the disaster mitigation efforts of land and / or rock mass movements.*

*This research was conducted by survey and mapping methods, weighting and overlaying. There are two data used, namely in the form of primary and secondary data. Secondary data is data obtained from relevant agencies which can be either tables or maps. While the primary data is data that is directly obtained in surveys conducted in the field. In this study, sampling was carried out using purposive sampling method. For the analytical method used is the scoring and weighting method based on Ministerial regulation No. 22 of 2007 concerning spatial planning guidelines for landslide prone areas*

*For characteristics of soil and rock mass movements in the field of research based on the type of material falling, control factors, and movement mechanisms it can be concluded that avalanches that occur in three different places at the study site are included in the type of debris slide. The results of this study indicate that the study area has two classes of vulnerability movements in the mass of land and / rock that are ranging from medium to high. Mitigation carried out in the research area is carried out in reference to environmental and social aspects. Environmental aspects in the form of gabion making will be placed on each of the ex-mine cliffs to minimize the occurrence of ground mass movements. The social aspect is to provide disaster education to residents and provide maps.*

*Keywords: mitigation, ex-mine area, land and / rock mass movement.*