

**KAJIAN KERENTANAN GERAKAN TANAH
DI DESA BANJARARUM KECAMATAN KALIBAWANG
KABUPATEN KULON PROGO**

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ABSTRACT

Mass movement in Banjararum Village, Kalibawang Sub District occurs all through the year particularly in the rainy season. This phenomenon is the cause of substantial public property loss. Government funding is limited in supporting mass movement countermeasures. The priority is the implementation of simple methods to countermeasure mass movement in vulnerable locations. Therefore, a study is needed to recognize the mass movement vulnerability zones and the strategies that have been used as mass movement countermeasures.

This research is carried out to analyze the causes of mass movement vulnerability, to recognize mass movement vulnerability levels, and to study strategies that have been implemented as mass movement countermeasures. The cause of mass movement vulnerability is analyzed based on the characteristic of the studied location. This analysis is supported by mapping based on The Energy and Mineral Resource Department's statistical method (2000), and by using Arc View 3.3 program.

Research results show that these types of mass movement (20.28 Ha) are 17 of slides, 8 of slumps, and 4 of cree ps. Those area are 2.2 Ha (10.86 %); 0.07 Ha (0.34 %) and 18.01 Ha (88.80 %). Causes of mass movement vulnerability are slope > 40 %, litology of colluvial deposit, human activities at settlement area, type of climate, and high intensity rainfall. Banjararum Village (1,172.56 Ha) is divided into high, middle, low, and very low mass movement vulnerability zones. Those zones cover 86.53 Ha (7.38 %), 527.54 Ha (44.99 %), 84.63 Ha (7.22 %), and 431.97 Ha (36.84 %), respectively. Mass movement countermeasures have been limited to the areas where public facilities are significantly affected. Mass movement occurring in the settlement areas can be countermeasured by implementing simple strategies such as benching, constructing simple drainage systems, wall retaining by using stone formation. Mass movement countermeasures that have been put in place by the government include the construction of concrete retaining walls, permanent drainage channels, greening, and the rehabilitation of Kalibawang's main channel.

Keywords : *litology, slope, settlement, rainfall*