

**MANAGEMENT OF SOIL MASS MOVEMENT AT MEKARBUANA VILLAGE,
TEGALWARU SUB-DISTRICT, KARAWANG REGENCY, WEST OF JAVA
PROVINCE**

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ABSTRACT

The morphology of hills could be identified by a slope that made from geological process and human activities. Slope is identic with tiltness. Tiltness that exists at a slope is a factor that could be causing soil mass movement. Mekarbuana Village, Tegalwaru Sub-District, Karawang Regency, West Of Java Province is located at a region of hills. A research is needed in this location to control the soil mass movement by increasing the stability of the slope. The purpose of this research is to know the score of slope safety factor that will be used in applying the appropriate engineering model to solve the problem.

There are several methods that will be used in this research such as mapping, purposive sampling for taking the sample of soil, analysis, and bishop. Testing at laboratory would be done to know the mechanical character of the soil. Result of this testing is score of cohesion, shear angle, and fill weight. Several parameters that used in this research are rainfall data, land utilization, soil type, rock type, and slope.

The result of research that has been done is the score of slope safety factor. From the research, score of slope safety factor is 0,489 which is classified as an unstable slope safety factor (less than 1,07 in the classification). After choosing the appropriate management method, the score of slope safety factor is increasing to 1,710 which is include into stable slope safety factor (more than 1,25 in the classification). The three management methods are by changing the slope geometry to decrease the tiltness, constructing drainage system to control the water flows, and planting some vegetation such as tanaman jati and rumput gajah to make the slope stonger.

Key Word:

Soil Mass Movement, Slope Stability, Safety Factor, Management Method