

**SOIL MOVEMENT MANAGEMENT IN AREA OF SETTLEMENT IN
BANJAR HAMLET, GERDU VILLAGE, KARANGPANDANG
DISTRICT, KARANGANYAR REGENCY, CENTRAL JAVA PROVINCE**

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ABSTRACT

Land use in urban areas is increasingly growing, in terms of the coverage and type of use. Limited land for housing in urban areas results in many buildings constructed in locations that are not proper, or endanger the safety of both the settlement and the surrounding environment. The purpose of this study was to determine the level of vulnerability in the study area, and to know the relation between the controlling and the triggering factors in the study area, and to determine the direction of the management of soil movement in the area of research, especially in residential areas to reduce losses due to soil movement.

The method used in this study was the method of surveying, mapping and weighting. The parameters used were slope, soil thickness, soil texture, infiltration, rock strength, rainfall, land use and vegetation density.

The results showed that the study area consisted of three soil movement hazards namely low soil movement hazard zone with an area of 0.91 hectares or 15.98 %, moderate soil movement hazard zone with an area of 52.08 hectares or 2.96 %, and the high vulnerability zone with an area of 1.81 hectares or 31.92 %. Management direction suitable for the surrounding community was the direction of technical and vegetation management. The direction of technical management was to be applied in areas of high and moderate vulnerability zone, while the direction of the vegetation management was to be applied in the low vulnerability zone, and usually also in the low vulnerability zone area, depending on the potential of ground movement that occurs.

Keywords: management , soil movement , settlement