

MITIGASI BENCANA GERAKAN TANAH DI DESA MUNCAR KECAMATAN GEMAWANG KABUPATEN TEMANGGUNG

Kartika Sari

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ABSTRACT

Muncar Village at Gemawang, Temanggung District is a hilly area that mainly consists of steep hills, and is composed of sandy clay sediments which is one of the factors that cause land movement. Besides that, high intensity of rainfall and rapid development of human settlements and their activities become the trigger factor for small or large scale of land movement that can threaten the safety of local inhabitants. To reduce losses caused by land movement disaster, a risk map of land movement is highly needed. The risk map is a combination of susceptibility map and vulnerability map of land movement. As an effort to mitigate the residential area located in high-risk zones, it is necessary to make disaster evacuation maps of land movement. The establishment of susceptibility, vulnerability, risks and evacuation map of land movement disaster in this study was conducted by using Geographic Information

System (GIS). This study uses 6 parameters of susceptibility causes, and 2 parameters of vulnerability causes. The parameters of susceptibility causes are geology, slope, morphology, distance from the fault, distance from the river, and elevation while the parameters of vulnerability causes are land use and density of buildings/houses. The primary data is physical data obtained by surveys, direct identification and interpretation of the field map. As for non-physical data, data collection techniques used are discussions and interviews, and data collection and dissemination questionnaire to 50 respondents to determine the level of community capacity. The results of this study are susceptibility map, vulnerability map, and risk map of land movement. Areas considered high risk zones are Blawong Wetan, Blawong Kulon, Tlogowungu and Muncar Lor. Based on that, landslide occurrence is located in high and medium zones.

As a mitigation effort to determine the level of capacity/ability of the society to cope with disasters, from the results of questionnaires process which were based on 3 categories of questions (land movement disaster, early warning systems and socialization), it can be concluded that Muncar villagers already have a high level of knowledge and understanding on land movement hazard and early warning systems, while socialization for these issues is considered inadequate. The results of data collection (the number of vulnerable group, potential group, transportation means, and livestock) are used to establish the evacuation map of land movement disaster in villages located at high risk zones.

Keywords:

land movement, susceptibility map, vulnerability map, risk map and evacuation maps