

***APPLICATION OF GEOGRAPHIC INFORMATION SYSTEM FOR
DISASTER MAPPING VULNERABILITY LANDSLIDE IN
SUB-DISTRICT PRAMBANAN REGENCY SLEMAN***

By:

Rachma Muthia

12/331954/SV/00670

ABSTRACT

Landslide is one of the disasters that often occur in Indonesia. Landslides caused by displacement of the slope in the form of rock-forming material, material destruction, soil, or material mixture move down or off the slopes. This study aims to map-making level of vulnerability to landslides using Geographical Information Systems in Sub Prambanan which can be used to estimate the amount of losses both material and non-material. Prambanan District is an area of which 70% are hills that has a steep slope that is prone to landslides.

Source of data used are contour data, and secondary data obtained from BAPPEDA Sleman. This study uses a quantitative approach to give a weighted tiered pengharkatan value and use different weights for each variable used in the analysis. Constituent parameters used are land use, slope, rock type, soil type, fault zone / quake, and rainfall obtained from deduction maps thematic maps and field checks. Geographic information systems contribute to process and analyze the parameters of a landslide by using operations intersect. Geographic information systems are very helpful and facilitate the mapping prone to landslides.

Data analysis was performed with a Geographic Information System to produce maps of landslide-prone areas of land in the district of Prambanan, which are divided into four classes, namely low hazard classes 655.55 ha (16%), class of hazard were 1.66977 ha (41%), hazard class high 1.736,46 ha (42%), and very high hazard class 35.40 ha (1%).

Keywords: Landslide, SIG, Prone