Fatmawati Uswatun Hasanah. NIM: 115100907111011. Risk Mapping of Landslides in Watershed Amprong. Thesis. Supervisor: Dr.Ir. Ruslan Wirosodarmo,MS and Prof. Dr. Ir. Bambang Suharto,MS

SUMMARY

Landslide disasters are events caused by natural factor or due to human intervention. Landslides usually occur in the upstream watershed. In biogeophysic, the upstream watershed has a characteristic which is a conservation area, an area with a slope greater than 15%. Landslides often occur in the upstream area, because it has a slope that is steeper than in the midstream and downstream watershed. Landslide begins with the accumulation of rain water in the upstream areas that are in high slopes. The purpose of this research is to determine the distribution of risk maps landslide in watershed Amprong and classify the risk of landslides in watershed of Amprong.

The method used in this research is descriptive analysis of quantitative method and spatial methods with type of operations is overlay. Descriptive quantitative method used to describe the watershed area that has the potential to encounter of landslides. Spatial methods used to describe the level of danger and vulnerability landslides which are. Then it used to analyze the risk of landslides in watershed of Amprong. The level of risk of landslides measured using the parameters of vulnerability and danger. Danger parameters consist of land use maps, slope maps, types of map rock, soil depth map, map of soil types and rainfall, while parameters of the vulnerability consist of a map of population density, the number of children and elderly people, women and the disabled, as well as the level of education. The level of risk of landslides are classified into five, namely very low, low, medium, high and very high.

The result of the overlay of Hazard components, Singosari, Lowokwaru, Blimbing, Jabung, Tumpang, Poncokusumo, and Pakis have the value risk higher than other regions, whereas the vulnerability components, Lowokwaru and Blimbing are higher than in the other areas in value risk. If
components of vulnerability and the dangers overlay, the area having a value risk higher than the other regions are Singosari, Lowokwaru, Blimbing, Klojen and Pakis. The type of risk of landslides in sub watershed of Amprong is being, with total percentage of area is about 11.1093%, low with total percentage of area is 70.549% and very low with total percentage of area is 18.2958%.

**Key words**: Amprong, hazard, landslide, risk, vulnerability