

**DANANG Wisnumurti. Distribution of Erosion Hazard Index At Merapi Eruption Disaster Prone Areas in the Village Kepuharjo Cangkringan Sleman. Under the guidance of Ir. Dyah Arbiwati, MP., And DR. Ir. Setyo S. Wardoyo, MS.**

### **ABSTRACT**

Kepuharjo village located approximately 10 km from the Summit of Mount Merapi with the majority of the young soils comes from the material result of the eruption of Mount Merapi. The new soils did not yet have a steady aggregate due to the womb clays and organic materials low which makes the lack of power between connective particles so it is easy to be further eroded. The topography of steep and sloping up to a factor of vegetation around the troubled aftermath of the eruption that occurred in the village of Kepuharjo due to Disaster-prone Regions are in a eruption of Mount Merapi causes soil against erosion sensitivity can occur becomes larger. The rationale for this research was conducted to determine the magnitude of erosion that occurred, erosion hazard levels as well as the spread of erosion hazard index displayed in the form of a map of the distribution by using software arcview 3.3. The research was carried out in July-October 2014. Research method was purposive sampling to determine the point of deliberately sampling a map overlay results two land units map the map slope slopes and land use maps. Erosion prediction method using USLE (Universal Soil Loss Equation) with parameters of observation rainfall erosivity (R), soil erodibility (K), slope length and slope tilt (LS), crop factors (C) and conservation activity (P), bulk density (BV) and soil solum thickness. The results showed the level of erosion hazards are divided into three classes, 59% of the territory of the village of Kepuharjo including very light, 25% including medium and 16% including weight. While the spread of erosion hazard index are divided into four classes, 60% of the region including low, 20% of the medium, 10% of the region is high, and 10% of the region is very high. Slope, vegetation and conservation measures, is the most influential factor of the amount of erosion that occurred.

**Keywords: Erosion hazard level, Erosion hazard index, USLE**