



## Abstract

# SPATIAL PLANNING AREAS AFFECTED MERAPI VOLCANO ERUPTION 2010 IN THE SLEMAN DISTRICT

**Danang Dwi Wahyujati**  
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Pembimbing Utama  
**Prof. Ir. Iman Satyarno, ME.,Ph.D**

Pembimbing Pendamping  
**Ir. Sugeng Wijono, M.S.**

Anggota Dewan Penguji Lain  
**Dr. Ir. Agung Setianto, M.Si.**

In November 2010, Volcano Merapi eruption resulted more than 100 people dead and hundreds injured. This disaster is one of the biggest eruption of Volcano Merapi which is able to change the direction of the openings into the crater from the west to the southeast so that the eruption River Gendol previous period is a safe area into the hazardous area. Vulcanologi and Geology Disaster Mitigation Center aftermath of this disaster Disaster Zone Map changes that became one of the basic manufacture of disaster spatial planning volcanic eruption in Sleman. To anticipate the next eruption Sleman government do to mitigate one of which is the revised spatial planning Sleman regency, 2011-2031.

This research was based on the Regulation of the Minister of Public Works No. 21/PRT/M/2007 on spatial management susceptible areas to volcanic eruptions and earthquake region that has been modified with the use of GIS to overlay and analysis. Indicators of susceptible maps obtained from overlaying pyroclastic map and map potential lahar. Vulnerable indicators map derived from the process of overlaying population density map, vulnerable groups map, construction maps, land use map, the density of the livestock economy and vegetation maps. Capacity maps derived from overlaying process disaster management foundations maps, population independent mitigation map, transport independent evacuation map, early warning systems map, network communication and building sediment retention maps. Weighting and scoring of each indicator derived from field observations and analysis of AHP (Analytical Hierarchy Process).

The results of this study are 1) susceptibility map, 2) map vulnerability, 3) map capacity, 4) Merapi volcanic risk map, 5) potential for zone classification map Merapi Volcano Sleman regency. Areas that have a high level of risk is Cangkringan, Kalasan, Ngaglik, Ngemplak, Pakem, Tempel and Turi. Areas with a high level of risk and is directed to the protected area of cultivation is limited, being areas with medium and low risk levels can be used as an area of cultivation and settlements with certain requirements. Draft Spatial Plan Sleman regency, 2011-2031 in susceptible areas to volcanic disasters shows a mismatch pattern based Regulation of the Minister of Public Works No. 21/PRT/M/2007.

Keywords: *Merapi Volcano, spatial planning, risk maps, zoning maps volcanoes*