

## RAINFALL PHENOMENON TRIGGERING LANDSLIDE IN INDONESIA

Yunara Dasa Triana<sup>1\*</sup>, Imam A. Sadisun<sup>2</sup>

<sup>1</sup>Geological Agency of Indonesia, <sup>2</sup>Institute of Technology Bandung

Landslides are common geological disasters in Indonesia, especially during rainy season. Geological conditions, climate, and human activities might cause landslide, however earthquake could trigger landslide but the most common landslide in Indonesia due to heavy rainfall.

Number of landslide commonly increases during rainy season, November - February, as recorded in 2005 to 2012. In 2010, rainfall was high since all the year long rained and the number of landslides higher than previous years. In 2010, landslides attained 199, higher than in 2009 (161), 2008 (139) and 2007 (101) as well as in 2011 (82) and 2012 (124).

A large landslide occurred in Dewata Tea Plantation on February, 23rd 2010, Bandung district, West Java province. It collapsed after high intensity rainfall which reached 675.9 mm during 15 days. Slope stability analysis in this area suggested that heavy rain could reduce the safety factor 22.75% of 1.257 (normal conditions) to be 0.971.

Keywords: landslide, rainfall, Dewata