

## Monitoring Land Cover Changes in the Disaster-Prone Area: A Case Study of Cangkringan Sub-District, the Flanks of Mount Merapi, Indonesia

<b>Title</b>	Monitoring Land Cover Changes in the Disaster-Prone Area: A Case Study of Cangkringan Sub-District, the Flanks of Mount Merapi, Indonesia
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<b>Abstract</b>	Volcanic eruption is one of the natural factors that affect land cover changes. This study aimed to monitor land cover changes using a remote sensing approach in Cangkringan Sub-district, Yogyakarta, Indonesia, one of the areas most vulnerable to Mount Merapi eruption. Three satellite images, dating from 2001, 2006 and 2011, were used as main data for land cover classification based on a supervised classification approach. The land cover detection analysis was undertaken by overlaying the classification results from those images. The results show that the dominant land cover class is annual crops, covering 40% of the study area, while the remaining 60% consists of forest cover types, dryland farming, paddy fields, settlements, and bare land. The forests were distributed in the north, and the annual crops in the middle of the study area, while the villages and the rice fields were generally located in the south. In the 2001–2011 period, forests were the most increased land cover type, while annual crops decreased the most, as a result of the eruption of Mount Merapi in 2010. Such data and information are important for the local government or related institutions to formulate Detailed Spatial Plans (RDTR) in the Disaster-Prone Areas (KRB).
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