



## **A Comparison of Landslides Caused by Rainfalls and Earthquakes**

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In Taiwan, rainfalls and earthquakes are the major factors to trigger landslides in mountainous area. Especially, on 21th September 1999, central Taiwan was suffered a severe raid from Chi-Chi earthquake, and, eastern Taiwan was also suffered from Cheng-Kung earthquake on 10th December 2003. Plenty of landslides were triggered by such catastrophic events in Taiwan, which caused several serious geohazards after these events. The purpose of this research is to compare the characteristics of landslides caused by rainfalls and earthquakes. 4 major basins in Taiwan and 32 FORMOSAT-II satellite images were selected to survey the landslide before and after earthquake. The DEM, geologic data, and remote sensing can be applied to analyze the landslide positions by GIS techniques in study basins. The result shows that the slope, the aspect, and geologic characteristics are quite different because of triggering mechanism. In addition, the characteristics of landslides after earthquake are gradually changed, which explain the effect of earthquake is decreased with time.