



## **Predictive susceptibility analysis of typhoon induced landslides in Central Taiwan**

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Climate change caused by global warming affects Taiwan significantly for the past decade. The increasing frequency of extreme rainfall events, in which concentrated and intensive rainfalls generally cause geohazards including landslides and debris flows. The extraordinary, such as 2004 Mindulle and 2009 Morakot, hit Taiwan and induced serious flooding and landslides.

This study employs rainfall frequency analysis together with the atmospheric general circulation model (AGCM) downscaling estimation to understand the temporal rainfall trends, distributions, and intensities in the adopted Wu River watershed in Central Taiwan. To assess the spatial hazard of the landslides, landslide susceptibility analysis was also applied. Different types of rainfall factors were tested in the susceptibility models for a better accuracy. In addition, the routes of typhoons were also considered in the predictive analysis. The results of predictive analysis can be applied for risk prevention and management in the study area.