



Special Issue Reprint

## **Rainfall-Induced Landslides Hazard**

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This book includes five articles and a technical note recently published in the Special Issue "Rainfall-Induced Landslides Hazard" from the journal Hydrology. Its main objective is to describe the latest developments and applications of the use of new numerical and analytical methods to improve our understanding of rainfall-induced landslide models and other aspects of landslide-hazard assessment.

In the first article, based on the estimation of rainfall thresholds and their return periods in a sector of southern Spain, a linear equation for the rainfall duration threshold and a powerlaw curve for the intensity-duration pair were determined. The second and fourth articles present two case studies in Italy on the assessment of landslide susceptibility. One of them uses the Weight of Evidence method and takes into account parameters such as geology, activity, land use, average annual precipitation and extreme precipitation events, and the other one compares Forward Conditional Analysis and Forward Logistic Regression methods. The next work aims to generate and compare the basic information on rainfall events triggering landslides in two areas with different climate and geological settings (southern Ecuador and southern Spain). In addition, this paper gives preliminary insights into the correlation between these rainfall events and major climate cycles affecting each of these study areas. The last article focuses on the estimation of evapotranspiration using remote sensing and the Surface Energy Balance Algorithm for Land in western Iran.

Finally, the technical note presents a procedure to determine and validate the probabilities for landslide occurrence by using different precipitation parameters (rainfall intensity, rainfall



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