

## **CLIMATIC CONTROL OF LANDSLIDES IN SPAIN**

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Rainfall is the main triggering factor of landslides and rockfalls in Spain, affecting natural or excavated slopes. Precipitation intensity and duration controls, with some other geological and morphological factors, the magnitude and typology of slope movements. In this work some aspects related to the influence of meteorology and climate on the occurrence of landslides in Spain are analysed. Landslides are the most extended geological risk in Spain, with the highest economical losses after floods and erosive processes. At local scale, the analysis of meteorological series and rainfall data associated to the occurrence of landslides allows the deduction of general precipitation thresholds for the triggering of new landslides or reactivations of ancient movements. At regional scale, from the analysis and review of the climatic parameters which control the landslide processes, some general criteria can be established on the influence of precipitation in the triggering of slope movements in Spain. Parameters as daily and hourly maximum precipitation intensity and net infiltration in the terrain have a definitive influence on some type of slope movements. The application of these climatic criteria in areas with different geological and morphological characteristics allows the establishment of a relative climatic susceptibility degree for slope movements occurrence in different regions in Spain.