Geophysical Research Abstracts
Vol. 18, EGU2016-17770-1, 2016
EGU General Assembly 2016
© Author(s) 2016. CC Attribution 3.0 License.

Relationship between rainfall erosivity and landslides; A Case Study in Korea

Joon-Hak Lee (1), Taereem Kim (2), and Hyunjun Ahn (2)

(1) Korea Military Academy, Seoul, Korea, Republic Of (cetera@hanmail.net), (2) Yonsei University, Seoul, Korea, Republic Of (taereem@yonsei.ac.kr, kamjakang@yonsei.ac.kr)

Rainfall erosivity has been widely used to estimate the amount of long-term soil erosion in many countries. Some researchers have used rainfall erosivity as an indicator of landslides such as "ROSE" index since 2000. The purpose of this study is to evaluate the application of rainfall erosivity for predicting landslides in Korea. Precipitation data for the period of 10 deadly landslides in Korea, including devastating landslides in 2011, were used to analyze the relationship between rainfall erosivities and landslides. The result showed that rainfall erosivity and landsldes had a higher correlation than rainfall intensity. The previous "ROSE" index was not appropriate method to forcast landslides in Korea. This study presented the new indicator of predicting landslides hazard area in Korea using rainfall erosivity.