

## **Estimation of Specific Degradation of Watersheds using Rainfall Erosivity**

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**Abstract.** Rainfall erosivity is one of the main parameters to predict the amount of soil erosion. The purpose of this study is to investigate the relationship between specific degradation of watersheds and annual mean rainfall erosivity. We used specific degradation data at 30 stations and annual rainfall erosivity data at 60 weather stations from the National Disaster Management Research Institute over 30 years to analyze the association between specific degradation and annual rainfall erosivity in South Korea. The result showed that the annual rainfall erosivity was related to specific degradation of each watershed. Annual rainfall erosivity can be used as an estimator for the amount of sediment for drainage basins. Correlations between the rainfall erosivity and the mean annual rainfall precipitation are also presented. A new regression model for predicting specific degradation of watersheds using annual rainfall erosivity is also presented.