Analysis of experimental studies on gully erosion: a global review

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Research on gully erosion has increased significantly in the last decades. Despite the growing interest on the topic, relevant knowledge gaps still remain a challenge for gully erosion researchers (Poesen, 2011). Moreover, many of these studies are mainly descriptive, with little quantitative data allowing a comparison of the severity of the processes among different environments and conditions.

The aim of this communication is to analyse the available experimental data in gully erosion literature involving quantitative information from the Web of Science datasets. Our objective is to investigate relevant trends of this type of erosion on the world scale. We have evaluated the role of gully erosion in the overall soil losses as well as the magnitude of the morphological variables. Also, we analysed the characteristics of image-based and field surveys regarding the technique employed, duration and data collection frequency.

In this communication, we intend to provide insights on the evolution of gully erosion research up to the present moment in order to gain perspectives on the design of future efforts in the topic.

References