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How fast do gully headcuts retreat?

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How fast do gully headcuts retreat?

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Abstract:

Gully erosion has important on and off site effects. Therefore, several studies have been conducted over the past decades to quantify gully headcut retreat (GHR) in different environments. Although these led to important site-specific and regional insights, the overall importance of this erosion process or the factors that control it at a global scale remain poorly understood. This study aims to bridge this gap by reviewing research on GHR and conducting a meta-analysis of measured GHR rates worldwide. Through an extensive literature review, GHR rates for 933 individual and actively retreating gullies have been compiled from more than 70 study areas worldwide (comprising a total measuring period of > 19 600 years). Each GHR rate was measured through repeated field surveys and/or analyses of aerial photographs over a period of at least one year (maximum: 97 years, median: 17 years). The data show a

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