



Standardization in gully erosion studies: methodology and interpretation of magnitudes from a global review

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Standardization is the process of developing common conventions or proceedings to facilitate the communication, use, comparison and exchange of products or information among different parties. It has been an useful tool in different fields from industry to statistics due to technical, economic and social reasons. In science the need for standardization has been recognised in the definition of methods as well as in publication formats. With respect to gully erosion, a number of initiatives have been carried out to propose common methodologies, for instance, for gully delineation (Castillo et al., 2014) and geometrical measurements (Casalí et al., 2015).

The main aims of this work are: 1) to examine previous proposals in gully erosion literature implying standardization processes; 2) to contribute with new approaches to improve the homogeneity of methodologies and presentation of results for a better communication among the gully erosion community. For this purpose, we evaluated the basic information provided on environmental factors, discussed the delineation and measurement procedures proposed in previous works and, finally, we analysed statistically the severity of degradation levels derived from different indicators at the world scale. As a result, we presented suggestions aiming to serve as guidance for survey design as well as for the interpretation of vulnerability levels and degradation rates for future gully erosion studies.

References

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