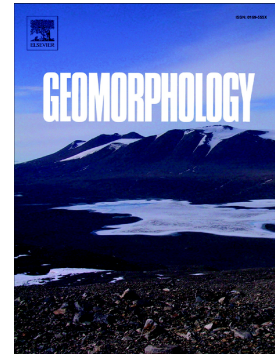


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ABSTRACT

An enormous effort is underway in Ethiopia to address soil erosion and restore overall land productivity. Modelling and participatory approaches can be used to delineate erosion hotspots, plan site- and context-specific interventions and assess their impacts. In this study, we employed a modelling interface developed based on the Revised Universal Soil Loss Equation adjusted by the sediment delivery ratio to map the spatial distribution of net soil loss and identify priority areas of intervention. Using the modelling interface, we also simulated the potential impacts of different soil and water conservation measures in reducing net soil loss. Model predictions showed that net soil loss in the study area ranges between 0.4 – 88 t ha⁻¹ yr⁻¹ with an average of 12 t ha⁻¹ yr⁻¹. The dominant soil erosion hotspots were associated with steep slopes, gullies, communal grazing and cultivated areas. The average soil loss observed in this study is higher than the tolerable soil loss rate estimated for the highland of Ethiopia. The scenario analysis results showed that targeting hotspot areas where soil loss exceeds 10 t ha⁻¹ yr⁻¹

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