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# Landslide characteristics and spatial distribution in the Rwenzori Mountains, Uganda

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## Highlights

- A first systematic landslide inventory for the Rwenzori Mountains is presented
- Slope steepness and lithology are key controlling factors for landslides
- Most landslides are rainfall-triggered but co-seismic slides also occur
- Preparatory factors for landslides are often human-induced

## Abstract

In many landslide-prone regions, data on landslide characteristics remain poor or inexistent. This is also the case for the Rwenzori Mountains, located on the border of Uganda and the DR Congo. There, landslides frequently occur and cause fatalities and substantial damage to private property and infrastructure. In this paper, we present the results of a field inventory performed in three representative study areas covering 114 km². A total of 371 landslides were mapped and analyzed for their geomorphological characteristics and their spatial distribution. The average landslide areas varied from less than 0.3 ha in the gneiss-dominated highlands to >1 ha in the rift alluvium of the lowlands. Large landslides (>1.5 ha) are well represented while smaller landslides (<1.5 ha) are underrepresented. The degrees of