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## **Landslides in Equatorial Africa: Identifying culturally, technically and economically feasible resilience strategies**

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Landslides cause significant impacts in many equatorial regions ranging from fatalities to damage to infrastructures and agricultural production. This problem is particularly acute in Equatorial Africa characterised by mountainous topography, intense rainfall, deep weathering profiles, high population density and high vulnerability to geohazards. Losses from landslides in this region are expected to increase in the future in response to the demographic pressure, associated changes in land use and land cover, and the changing climate. Many studies investigate how natural factors and human activities control the occurrence of landslides. These studies typically deliver susceptibility maps but these are insufficient to lead to efficient risk management. Building resilience requires to have a true hazard estimate, accounting not only for the spatial distribution of future landslides but also for their temporal occurrence and the hazard intensity, to quantitatively analyse the socio-economic consequences of landslide and to identify effective resilience strategies that are cost-effective, technically efficient and that are culturally acceptable and adapted to the livelihoods of the vulnerable population. Such an analysis is crucial as it enables to provide practical recommendations for households and policy makers to mitigate landslide-related damages. This project focuses on 3 representative study areas known for having suffered from rainfall-triggered landslides in Uganda (Rwenzori Mountains) and SW and NW Cameroon (Mount Cameroon, Bamboutos caldera). This project follows a bottom-up approach in collaboration with the local communities and stakeholders via stakeholder meetings and participatory data collection approaches [1].

Thus far, detailed landslide inventories were carried out in the Rwenzori Mountains and Bamboutos caldera to produce landslide susceptibility maps [2, 3]. An extensive literature review was accomplished to identify the current implemented and recommended landslide risk reduction strategies in the tropics [4]. Field work was also conducted in the Rwenzori Mountains to assess current and potential resilience strategies at household and at policy levels [5]. Furthermore, anthropological research was carried out in all study areas to investigate the cultural premises underlying perceptions of environmental threats. A multi-hazard assessment to reconstruct the 2013 flash flood event in Kilembe (Rwenzori Mountains) was also performed [6]. Finally, a critical analysis of the process from risk assessment to implementation of risk zonation policy was conducted based on a case-study of Limbe city, SW Cameroon. The integration of these assessments will be dedicated to risk mapping and the identification of the most effective

resilience strategies. These will not only be of potential use in the target regions but also in any similar other environments.

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