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Some aspects of risks and natural hazards in the rainfall variability space of Rwanda.

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Rwanda is facing challenges related to its dispersed population and their density. Risk assessment for natural disasters is becoming important in order to reduce the extent and damages of natural disasters.
Rwanda is a country with a diversity of landscapes. Its mountains and marshes have been considered as a water reserve, a forest and grazing reserve by the population (currently around 11 million). Due to geologic and climate conditions, the country is subject of different natural processes, in particular hydrological events (flooding and also landslides), but also earthquakes and volcanism, which the communities have to live with in the western part. In the last years, population expansion for land by clearing of forests and draining marshes, seems to be acting as an aggravating factor.
Therefore, a risk assessment for rainfall related hazards requires a deep understanding of the precipitation patterns. Based on satellite image interpretation, historical reports of events, and the analysis of rainfalls variability mapping and probabilistic analyses of events, the aim of this case study is to produce an overview and a preliminary assessment of the hazards scenario in Rwanda.