

The Challenge of Characterising Drought Risk in Data Scarce Regions: The Case of the South of Angola

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Abstract : In this research we developed a structured approach for the detection of areas under the highest levels of drought risk that is suitable for data-scarce environments. The methodology is based on recent scientific outcomes and methods and can be easily adapted to different contexts in successive exercises. The research reviews the history of drought in the south of Angola and characterizes the experienced hazard in the episode from 2012, focusing on the meteorological and the hydrological drought types. Only global open data information coming from modeling or remote sensing was used for the description of the hydroclimatological variables since there is almost no ground data in this part of the country. Also, the study intends to portray the socioeconomic vulnerabilities and the exposure to the phenomenon in the region to fully understand the risk. As a result, a map of the areas under the highest risk in the south of the country is produced, which is one of the main outputs of this work. It was also possible to confirm that the set of indicators used revealed different drought vulnerability profiles in the South of Angola and, as a result, several varieties of priority areas prone to distinctive impacts were recognized. The results demonstrated that most of the region experienced a severe multi-year meteorological drought that triggered an unprecedented exhaustion of the surface water resources, and that the majority of their socioeconomic impacts started soon after the identified onset of these processes.

Keywords : drought risk, exposure, hazard, vulnerability

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