



## **Some new perspectives on African climate from the Future Climate For Africa programme**

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The Future Climate For Africa programme aims to generate fundamentally new climate science focused on Africa, and to ensure that this science has an impact on human development across the continent. Funded by the UK Department for International Development and the Natural Environment Research Council, this programme is generating new insights into drivers of climate variability and change in the different regions of Africa. The programme has a focus on areas of climate science which can inform development decisions with long-term consequences. For example, the considerable investments being made in new infrastructure across the continent need to be future-climate proofed. This drives a need to improve knowledge of how climate change will affect, amongst other things, the frequency and severity of intense storms and droughts, and the occurrence of agriculturally-damaging dry spells. The provision of reliable future climate information for Africa is compromised by uncertainties in the water cycle and in the projections of variability of regional circulations within CMIP5 and CORDEX simulations. The representation of extreme rainfall is considered to be particularly uncertain due to the limitations of convective parameterisations used within global and regional climate models. We will present examples of new insights from the programme, including analysis of a unique convection-permitting pan-African simulation of current and future climate.