

EGU2020-21337

<https://doi.org/10.5194/egusphere-egu2020-21337>

EGU General Assembly 2020

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## Assessment of the CORDEX-CORE Africa simulations: evaluation and uncertainties in the mean and extreme indices climate change signal

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CORDEX-CORE is a new phase of CORDEX simulations with higher resolutions (0.22 degrees) consisting of two RCMs forced by three GCMs. This higher resolution ensemble could provide added value to regional climate change information, however, since the data has just recently been released, more studies are required to validate and report on its climate change signal. With this in mind, we computed the mean climate and extreme indices over Africa using the CORDEX-CORE ensemble. These results are compared to the results of the driving models as well as to the lower resolution CORDEX-phase 1 ensemble. We found that for most of the extreme indices the CORDEX-CORE shows lower biases over Africa owing to its higher spatial resolution. We also found that the mean climate change signal over Africa was broadly consistent across the three different ensembles. Indicating that the new CORDEX-CORE ensemble is able to capture the uncertainty spread well. We report the projected changes in extreme indices over Africa found in the new higher resolution CORDEX-CORE ensemble. We also examine and compare the representation of some key dynamical features over Africa in the different ensembles. Africa is especially vulnerable to extreme events, due to its limited capacity for disaster management. Thus, this study adds important, higher resolution information to the existing climate change impact knowledge for Africa.