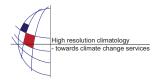
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Forecasting in Ethiopia, one of the most challenging and vulnerable regions with respect to weather and climate

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Ethiopia is one of the most challenging areas for weather forecasting. This is due to the fact that weather and climate are controlled by strong interaction between large-scale and small-scale phenomena. On the one hand, large-scale conditions are given by ocean-land-surface-atmosphere interaction and upper tropospheric jets and waves leading to the development of the west African and Asian monsoon systems. On the other hand, land-surface and orographic conditions are extremely heterogeneous leading to a strong and complicated interaction with large-scale processes. Furthermore, verification data are sparse. This results in high weather and climate variability, which is poorly understood, and in low predictive skill of models in a particular vulnerable and challenging region. In this presentation, efforts concerning weather forecasting in Ethiopia are presented. The forecast system is based on a convection-permitting version of WRF-NOAH driven by ECMWF analyses. The dependence of the quality of short- to long-range forecasts on boundaries, land-surface and vegetation conditions, and orography is discussed. Furthermore, it is evaluated what observations and methodologies are available and reasonable for data assimilation.