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CORDEX – a treasure trove of open climate data for hydrological modelling

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The Coordinated Regional Downscaling Experiment (CORDEX) was initiated by the World Climate Research Programme (WCRP) to coordinate high-resolution Regional Climate Modelling and provide a set of regional climate projections for the majority of global land regions. Additionally making this data available, and importantly useable, to impact and adaptation communities was a fundamental goal. Phase I of CORDEX, which came to a close in November 2013, was successful in developing a framework in which scientists around the world adopted a common protocol to guide the development of high-resolution Regional Climate Model (RCM) and empirical statistical downscaling (ESD) projections, and the intercomparison of these projections, on each continent, with a particular focus on the African region. As a result of these intensive activities by groups across the globe more than 47000 quality checked open datasets are now freely available to users through the searchable Earth System Grid Federation (ESGF).

The integration of this data into large scale hydrological modelling is in action within the Swedish Meteorological & Hydrological Institute (SMHI) exemplifying the great potential use of this resource to the hydrological community. The aim of CORDEX Phase II is to enhance the dialogue with end-users so as to meet the growing demand for tailored regional climate information. Here, greater interaction between the CORDEX and hydrological modelling community can only prove hugely beneficial leading to greater protection for those vulnerable to the impacts of a changing climate.