

WCRP statement supporting the WCRP's corresponding poster presentation to the Ninth Meeting of the Research Dialogue (RD 9) of UNFCCC SBSTA-46, Bonn, Germany, 10 May 2017

Theme 1: Regional climate research data and information, and gaps

Regional Climate Downscaling through Arctic-CORDEX

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CORDEX is a program sponsored by the World Climate Research Programme (WCRP) that organizes an international coordinated framework to produce an improved generation of regional climate change projections for input into impact and adaptation studies. The Arctic CORDEX activities are coordinated through the WCRP Climate and Cryosphere Project (CliC). Currently, the core of Arctic CORDEX consists of regional climate model simulations over the Arctic, with hindcast (ERA-Interim and GCM-driven historical simulations) and scenario (GCM-driven RCP4.5, RCP8.5) simulations.

Arctic CORDEX runs are available from 11 atmosphere and 6 coupled atmosphere-ice-ocean RCMs for the ERA-Interim period. Some high-resolution simulations are available as well (15km pan-Arctic and 5km for Greenland). Arctic CORDEX simulations are furthermore used to project temperature and precipitation change over the Svalbard area. Multi-model analyses of extreme temperature and cyclones have recently been completed.

In October 2017, both components of Polar CORDEX (i.e., Arctic and Antarctic CORDEX) will hold a joint annual meeting (hosted by the British Antarctic Survey in Cambridge, UK) for the first time, strengthening further the interactions between the two communities.