Abstract. The Coordinated Regional Downscaling Experiment (CORDEX) is a Diagnostic MIP in CMIP6. CORDEX builds on a foundation of previous downscaling intercomparison projects to provide a common framework for downscaling activities around the world. The CORDEX Regional Challenges provide a focus for downscaling research and a basis for making use of CMIP6 GCM output to produce downscaled projected changes in regional climates and assess sources of uncertainties in the projections, all of which can potentially be distilled into climate change information for vulnerability, impacts and adaptation studies. CORDEX Flagship Pilot Studies advance regional downscaling by targeting one or more of the CORDEX Regional Challenges. A CORDEX-CORE framework is planned that will produce a baseline set of homogeneous high resolution, downscaled projections for regions worldwide. In CMIP6, CORDEX coordinates with ScenarioMIP and is structured to allow cross comparisons with HighResMIP and interaction with the CMIP6 VIACS Advisory Board.