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The role of climate model data and long-term data archives in climate change research

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Climate change research is driven by data. Remote sensing and obervation data provide evidence of the current situation, whereas model data provide information on the climate's sensitivity against different climate factors as well as on possible future developments (future projections). Data underlying the IPCC reports provide one of the largest and most comprehensive available data collections. These data disseminated by the IPCC Data Distribution Centres (IPCC-DDC) is used within scientific research for many years. Therefore, it is essential that the data is of high quality and well-documented. But equally important is the long-term availability and curation of the data by a reliable data center such as the IPCC-DDC. The IPCC-DDC for the climate model output data is hosted at the World Data Center for Climate (WDCC) at the German Climate Computing Center (DKRZ). The data workflow from the decentral CMIP (Coupled Model Intercomparison Project) data nodes into the central IPCC-DDC long-term archive at WDCC is presented, which includes a thorough quality assurance procedure and the registration of a DataCite DOI enabling data citation. Current and future challenges of the archiving workflow as well as of the data dissemination services for a broad and broadening user community are discussed.

Biography

M Stockhause studied Meteorology at the University of Hamburg and completed her PhD in 2000. After working as an air quality expert for an engineering consulting firm, she became a Data Manager of scientific data at the Max Planck Institute for Meteorology and the German Climate Computing Center (Deutsches Klimarechenzentrum, DKRZ). She is Co-ordinator of the IPCC-DDC (Data Distribution Centre) at DKRZ and a member of IPCC TGICA (Task Group on Data and Scenario Support for Impacts and Climate Analysis).

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