Governance of the IPCC Data Distribution Centre (DDC) by TGICA

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1. Mission of the Data Distribution Centre

The Intergovernmental Panel on Climate Change (IPCC) Data Distribution Centre (DDC) provides long-term access to data sets, climate and other scenarios, and other materials (e.g., technical guidelines on use of scenarios) in support of the broad IPCC community. The DDC operates under the oversight of the Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA), which was established by the IPCC to facilitate wide availability of climate change-related data and scenarios to enable research and sharing of information across the three IPCC working groups.

2. Focus of DDC activities

The DDC provides a repository for data from IPCC sources, quality controlled and carefully vetted, and operating within the IPCC's mandate. In addition, it provides pointers to other centres and groups for data beyond its current holdings that may be useful for impacts, adaptation, vulnerability and mitigation assessments. Specifically, the DDC currently focuses on:

- Supporting research on climate change impacts, adaptation, vulnerability (IAV) and
 mitigation, promoting communication and exchange of information across the IPCC
 Working Groups, and facilitating studies that use consistent scenarios and baseline data for
 integration into IPCC assessments;
- 2. Ensuring the long-term accessibility and stewardship of DDC data holdings in accordance with best practices and standards, to support future IPCC assessments and climate-related research and assessment activities;
- 3. Providing or pointing to:
 - data and metadata from General Circulation Models (GCMs) that are analysed and evaluated in the IPCC Assessment Reports;
 - finer resolution regional climate information downscaled from GCMs;
 - socio-economic, climate and related scenario information from international modelling exercises feeding into IPCC assessments;
 - updated socio-economic information at scales needed for IAV and mitigation assessments:
 - high resolution observational climate data sets—with guidance on their use in observed impacts analyses;
 - climate-related environmental information on sea level, storm surge, atmospheric composition, and other phenomena;
 - resources such as technical guidelines, fact sheets and exemplar studies at different scales;
 - the documentation and training materials needed to support the widespread and appropriate use of DDC data and information;
 - processing tools that permit an easy processing or visualisation of data and results;
- 4. Distributing data sets on various electronic media for research groups from developing

- countries and transition-economies that cannot access large data sets on-line;
- 5. Responding to user queries and addressing access and use issues on a timely basis within available resource levels, including efforts to ensure equitable access by developing country and transition-economy scientists and other users;
- 6. Working to establish standards of data quality control within the communities producing data relevant to the IPCC Assessments;
- 7. Providing a user registration service.

3. Principles

- 1. The TGICA is responsible for the DDC, providing leadership and oversight for its operations. It makes decisions about the materials (observational data, model data, other data and documents) to be included in the DDC. As specified in the TGICA mandate, information provided through the DDC includes IPCC "approved", "adopted", "accepted", and "supporting" material.
- 2. Material that falls outside the scope of IPCC "approved", "adopted", "accepted", and "supporting" material (including datasets) will be appraised according to the "DDC Criteria for linking datasets" (www.ipcc-data.org/documents/ddcLinkingCriteria.pdf). Such links should be clearly identified as having been reviewed by the TGICA in accordance with the criteria.
- 3. The TGICA retains overall responsibility for the directions given to the DDC, but may choose to delegate some decisions to a designated work-group (see below), e.g., to facilitate day-to-day DDC operations. Decisions regarding operations of the DDC are made with the full participation of the DDC managers and reflect the expertise, responsibilities, and operating procedures of the institutions that comprise the DDC. Decisions regarding model data and scenarios are made in consultation with participating modelling centers and partners.
- 4. In its operations, the DDC seeks to build capacity for climate-related research and assessment in developing and transition-economy regions and countries.
- 5. The DDC supports users of the data and information it disseminates. TGICA's membership includes representatives of different research communities who use climate-related data and scenarios. These members are responsible for representing user needs and perspectives.
- 6. The data and information served by the DDC web site are available free of charge to all users. Additional benefits or individual services (such as provision of data on electronic media) may be made available at cost.
- 7. The operations of the DDC are primarily funded through voluntary "in-kind" contributions from governments that support the participating data centres that comprise the DDC. The TGICA should maintain regular communication with representatives of supporting governments and the home institutions of the data centres.

4. DDC Structure and Roles of the DDC Managers

- 1. The DDC is currently a shared operation of the British Atmospheric Data Centre (BADC) in the United Kingdom; the World Data Center Climate at the German Climate Computing Center (WDCC / DKRZ) in Hamburg, Germany; and the NASA Socioeconomic Data and Applications Center (SEDAC) operated by the Center for International Earth Science Information Network (CIESIN) at Columbia University, New York, USA. Each of these institutions has voluntarily taken on responsibility for managing access to a subset of the data and information provided by the DDC.
- 2. The DDC Managers make decisions by consensus. Lead responsibility for the DDC

- currently rests with the BADC, which coordinates the overall management of the DDC. Any one of the DDC Managers may bring matters to the attention of the TGICA.
- 3. The DDC Managers are accountable for the successful operation of the DDC. They are charged with developing and maintaining the DDC in keeping with international standards and "best practices" for user access and support, appropriate cataloguing, documentation, quality control, archiving, and preservation and stewardship of DDC holdings. The DDC Managers are empowered to undertake the following actions:
 - A) Design, operate and maintain the DDC website in keeping with the overall direction provided by the TGICA to ensure that the DDC evolves and keeps up with changes in technology and standards. The objective is to make sure that the information on the DDC is easily accessible and usable for a wide range of users.
 - B) Carry out performance monitoring and reporting including use and quality statistics.
 - C) Solicit user feedback and reactions to the site and report these to the TGICA as requested.
 - D) Develop proposals for improving the content, data delivery, and user support of the DDC for review and approval by the TGICA. Proposals for new DDC initiatives should be based on knowledge of the DDC managers and their home institutions, monitoring of the Web, and other information sources.
 - E) Implement content changes that have been requested or approved by TGICA, subject to review conditions if such are specified by TGICA.
 - F) Suggest changes to correct content that is outdated and implement changes with approval of the DDC work-group or the full TGICA.
 - G) Ensure that the information and services provided by the DDC are well integrated with the main IPCC web site (www.ipcc.ch).
 - H) At each regular meeting of the TGICA, DDC Managers will provide an overview of DDC operations and previously implemented or proposed modifications to the DDC.

5. The Role of the TGICA and DDC Work-group in Providing Leadership and Oversight for the DDC

- 1. The TGICA provides oversight for the DDC and establishes policies for managing it.
- 2. The TGICA establishes a standing "DDC Work-group" of at least three members. The DDC Work-group periodically reviews the websites that make up the DDC and provides ongoing feedback to the DDC Managers. More specifically, it reviews the DDC site before each TGICA meeting and prepares a report for discussion by the TGICA on its assessment of the state of the DDC and materials or aspects of the site that need to be updated. The DDC Managers may request input from the TGICA or DDC Work-group as needed.
- 3. The DDC Work-group will make decisions on a consensus basis.
- 4. The TGICA provides leadership for identifying needs for observations, model data, technical guidelines, and other materials in standard formats to facilitate research and assessment by scientists and other users in diverse settings. It relies on its members and the DDC Managers for suggestions and proposals for new content.
- 5. The TGICA approves additions of data, scenarios, technical guidelines, fact sheets and other materials to the DDC's holdings.
- 6. Before being added to the DDC, technical guidelines and fact sheets must be peer reviewed to ensure quality and reliability for their intended purpose. Separate documents¹ outline the

¹ Notes for authors preparing technical guidelines for the IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA); Notes for authors preparing Fact Sheets for the IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA).

procedures for preparation, review and Task Group approval of technical guidelines and fact sheets. The DDC also provides an archiving function for the review process as well as for the resulting documents and their updates.