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PROGRESS REPORT

**Task Group on Data and Scenario Support for Impact
and Climate Analysis (TGICA)**

(Submitted by the TGICA Interim Co-Chairs, Timothy Carter and Bruce Hewitson)

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Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA)

This report outlines major developments related to the Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA) since the last progress report, delivered for IPCC-XXXIII (Abu Dhabi, 10-13 May 2011, Doc. 19). At that IPCC Plenary meeting it was announced that Drs Timothy Carter (Finland) and Bruce Hewitson (South Africa) had been appointed to serve as Interim TGICA Co-Chairs for a two-year period, with Dr Rachel Warren (United Kingdom) appointed as Co-Chair elect.

Timetabling and some recent activities

Due to congestion in the Working Group calendars, it has not been possible to hold a face-to-face meeting of the full Task Group. In order to maintain momentum on the agenda items agreed at TGICA-16 (Boulder, 4-6 August 2010) pending a full meeting of the committee with the new Co-Chairs, two teleconferences and two Co-Chair contact meetings have taken place. Teleconferences of the Task Group (with between half and two-thirds of members available) were administered by the Technical Support Unit (TSU) of Working Group II (WG II), each comprising 3-hour sessions on two consecutive days. The first teleconference was held on 13 and 14 April 2011, prior to the appointment of the new Co-Chairs (meetings were run by the WG II TSU, including participation by Dr Chris Field, Co-Chair of WG II). Following their appointment, the two Co-Chairs held a one-day planning meeting in Helsinki on 25 July 2011 and subsequently met with Co-Chair elect, Dr Warren, for a second planning meeting in London on 29 September 2011. The second teleconference took place on 6 and 7 October 2011, with the Co-Chairs in place. As neither teleconference has been reported previously to Plenary, the main topics discussed and action points agreed are outlined below.

TGICA WebEx teleconferences, 13/14 April 2011 and 6/7 October 2011

Between 14 and 23 TGICA members and *ex officio* members participated in the two teleconferences (on four days), which were the first of their kind undertaken by the full Task Group. Most participants were able to communicate freely, though a few were hampered by technical limitations or by the constraint of international time zone. Nonetheless, this experiment demonstrated how, even for a large group, such a format can offer a viable means for supplementing (albeit not fully replacing) face-to-face meetings.

Most of the topics addressed appeared as items on the TGICA-16 agenda, but several new items have also been identified. Topics are sub-divided below into items approved, items in progress and other issues. The last of these includes a questionnaire, which was prepared by the Co-Chairs to solicit members' feedback and suggestions about TGICA (see below).

Items approved

- Sea-Level Scenario Guidelines: Following an extensive external review process prior to TGICA-16, the authors were requested to ensure that the content was fully consistent with the findings of the AR4. A revised draft was subjected to TGICA internal review, and the Task Group approved a final revised version on 7 October 2011 for posting on the Data Distribution Centre (DDC) as a PDF proof pending final formatting by the WG II TSU:

Nicholls, R.J., Hanson, S.E., Lowe, J.A., Warrick, R.A., Lu, X., Long, A.J. and Carter, T.R., 2011: *Constructing Sea-Level Scenarios for Impact and Adaptation Assessment of Coastal Area: A Guidance Document*. Supporting Material, Intergovernmental Panel on

Climate Change Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA), 47 pp.

- Technical Guidelines Process Paper: A document outlining the process for development and review of technical guidelines was prepared by the TGICA sub-group on guidelines, following a recommendation from TGICA-16. The draft was circulated to the full Task Group, comments received and a revised version subsequently approved by TGICA on 7 October 2011 as:

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

- Fact Sheet Process Paper: Following a recommendation at the Webex teleconference of 13/14 April 2011 arising out of the technical guidelines process paper, the TGICA sub-group on guidelines prepared a second document outlining the process for development and review of Fact Sheets. A Fact Sheet can be a shortened version of existing more detailed TGICA technical guidelines, act in place of full technical guidelines for well-contained issues, or provide a summary overview of specific topics or research processes that fall within the TGICA mandate. The process paper was approved by TGICA on 7 October 2011 as:

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

Items in progress

Data Distribution Centre (DDC)

- DDC Governance: A draft document has been prepared by DDC managers and reviewed by TGICA members, which sets out criteria for the types of modifications to the DDC website that can be decided by the DDC managers, and those that require authority from the DDC Work Group (a sub-group of TGICA) or the full TGICA committee. Based on comments received, a revised document will be submitted to the full committee for email approval prior to TGICA-17.
- Website Linking Criteria: A draft document has been prepared detailing criteria for linking to datasets external to the DDC, or removing such links, and the associated decision-making mechanisms required among the DDC Work Group and full TGICA membership. The DDC Work Group will circulate a recommendation on a revised document to TGICA members for a decision at TGICA-17.
- DDC Data and Information Access Policy: Outlines of two papers are under preparation. The first addresses policies concerning intellectual property, data access and correct citation of DDC-hosted and DDC-linked information. Following comments from TGICA members on a draft, a revised version will be prepared for approval at TGICA-17. The second explores broader legal, ethical and scientific principles and policies concerning access to data and scientific material for the IPCC as a whole. A proposed outline for this will be presented at TGICA-17.
- Archiving and linking to CMIP5 data: CMIP5 data will contribute a substantial proportion of the climate projections assessed in the AR5. Data from eight modelling groups are currently available to users (accessible after registration) via the PCMDI portal, and a quality control process is ongoing. Archiving of some of these data will become the responsibility of the DDC. A report on progress and issues relevant to the DDC will be prepared by the DDC managers for TGICA-17.

- DDC Website Reorganisation and Glossary: Proposed alternative designs of the DDC website that are consistent with the IPCC website have been developed by the DDC managers. These will be reviewed by TGICA members, with comments considered by the DDC managers and Work Group and a recommendation submitted to TGICA-17. A draft glossary of terms relevant to information and data held at the DDC will also be prepared for presentation at TGICA-17, where possible drawing on existing IPCC glossaries
- Web Pages on New Scenarios: A new set of radiative forcing scenarios (Representative Concentration Pathways – RCPs) that supersede the SRES set have been developed by the international research community for undertaking simulations with a range of global climate and earth system models. Results of these model simulations will feed into the IPCC Fifth Assessment. Similarly, new socio-economic scenarios designed to parallel the RCPs are under development by the international research community, and are also expected to contribute to the IPCC Assessment process. A set of web pages have been prepared, in close co-operation with the three Working Group TSUs, that report the process and timetable of new scenario development as well as links to the scenarios. The web pages have been approved by TGICA pending some updates, which will be posted on the DDC development site for email approval by the membership prior to TGICA-17.
- "Regionalisation" of the DDC: The current focus of the DDC is on global data sets, but increasing use is being made of regional and national portals to obtain data for application in IAV and mitigation analyses. A possible response to this trend is to offer access to reliable, IPCC-assessed regional information through the DDC, by setting up regional "entry points" for finding and linking to such data. A suggestion has been presented by the Co-Chairs, with further discussion and specific recommendations planned for TGICA-17.

Technical guidelines

- Updating of Guidelines Documents: The TGICA General Guidelines on the Use of Scenario Data for Climate Impact and Adaptation Assessment is under review by a TGICA sub-group and a plan for its revision will be prepared for TGICA-17. In addition, it was suggested that the existing two climate scenario downscaling guidelines documents be merged into a new guidelines document directed towards potential users of such information. As a first step, a draft Fact Sheet will be prepared for TGICA-17.
- Other Guidelines and/or Fact Sheets: There are proposals for four new standalone guidelines documents and/or Fact Sheets: (i) on the use of decadal climate forecasting experiments (with key points also included in the General Guidelines); (ii) on limits to the use of CMIP5 and other physical climate data, which would complement the IPCC Good Practice Guidance Paper on Assessing and Combining Multi Model Climate Projections and the General Guidelines; (iii) on the comparison of SRES and RCP-based climate projections and impact assessments, and (iv) on the use of existing socioeconomic baseline/reference datasets and methods for downscaling such information. These will be discussed further at TGICA-17.

Training and Capacity Building

- Capacity-Building Activities: Four Working Group II Regional Expert Meetings have been held that are of relevance to TGICA capacity-building activities (for Africa, Asia, Central and South America and Small Island Developing States). In addition, the first two Africa CORDEX (Co-Ordinated Regional climate Downscaling Experiment) meetings "co-branded" with TGICA have been held, providing training for participants from a range of

developing countries (primarily in Africa), including the establishment of "mentor partnerships". An additional two African and one South Asian meeting are under preparation.

Other issues

- Questionnaire: A questionnaire was prepared by the Co-Chairs and circulated to Task Group members, requesting responses regarding members' interests and expertise relevant to TGICA activities, the regions of the world or regional communities they felt comfortable representing, ideas about gaps in coverage of the DDC and priorities for DDC development, views on TGICA's role in the new scenarios process, ideas about capacity building and training activities, and other ideas about TGICA activities. 15 responses were received containing a large number of helpful suggestions. A subgroup was formed to distill priorities based on questionnaire responses, for presentation at TGICA-17.
- Liaison with PROVIA: UNEP has recently launched the Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA), which aims "to provide direction and coherence at the international level for research on vulnerability, impacts and adaptation (VIA)". One of PROVIA's three priority areas for 2011-2012 is "developing methods of constructing adaptation and other socio-economic scenarios". The PROVIA scientific steering committee includes current and past IPCC authors and officials, and it is proposed to invite one of them to TGICA-17 to explore opportunities for future co-operation between TGICA and PROVIA.
- Next Meetings: The next full meeting (TGICA-17) is scheduled for 6-8 February 2012 in Palo Alto, USA. Scheduling of subsequent meetings is also under consideration by the Co-Chairs and TSUs.