

## WCRP and CORDEX at the 3rd International Conference on Climate Services

by Roberta Boscolo, Clare Goodess, Bill Gutowski and Bruce Hewitson

The WCRP Working Group on Regional Climate (WGRC, <http://www.wcrp-climate.org/index.php/regional-climate>) organized a side event with the focus on CORDEX at the 3rd International Conference on Climate Services that took place in December 2013 in Montego Bay, Jamaica (<http://www.climate-services.org/iccs/iccs-3/home>).



The event titled "Regional climate modeling and robust foundations for climate services: What does the CORDEX initiative have to offer climate service providers and users?" was designed as an opportunity to inform those in the climate-services community about the CORDEX initiative. In the coming months it is anticipated that many terabytes of CORDEX data will become available online and in this context the WGRC recognized the importance of setting expectations by informing potential users on the design of the regional downscaling experiments as well as on broader CORDEX activities and plans (<http://www.climate-services.org/iccs/iccs-3/side-events>).

In particular, the presenters offered some practical examples on how to build, around CORDEX activities, regional networks of climate modellers, climate service providers and users, including the example of the Caribbean and South America. Bruce Hewitson, WGRC co-chair, gave an overview of an 18-month capacity building program using RCM analysis in Africa. The African regional teams analyzed the outputs from RCMs, GCMs, and SDS, and looked at how to handle contradictions between the models. Considerable effort was devoted to

“distilling” the variety of information streams in order to provide useful information to user communities.

Felipe Lucio from WMO stressed the importance of the research community for the implementation of the Global Framework for Climate Services (GFCS, <http://www.gfcs-climate.org/>). The recent Africa Climate Conference (<http://africaclimateconference.org/>) held in Arusha, Tanzania, in October 2013, was highlighted as an example where scientists and practitioners agreed on a coordinated regional climate research agenda for development. GFCS welcomes the CORDEX efforts towards reducing the gap between science products and service-oriented climate information. Finally Felipe listed some GFCS research priorities where great synergy with the CORDEX community is anticipated such as the characterization of uncertainties in climate information for risk management, adaptation and mitigation decisions, and research on attribution and prediction of extreme events at regional level.



The side event provided a space for dialogue and inputs from the climate services community on research priorities in support of climate services with a special focus on CORDEX regional downscaling experiments. While acknowledging the major achievements of CORDEX, there was a strong desire to see CORDEX move beyond a ‘simple’ model intercomparison project. Several pressing needs and gaps emerged from the discussion, including the need to:

- Develop tools for analysis, evaluation and comparison of model outputs and share them across the CORDEX domains.
- Develop and make available high-resolution observational data sets.
- Improve stakeholder engagement, focusing on problem solving and co-exploration, for example, in the context of sectorial and regional data and decision support systems.
- Reduce the gap between scientists and users of CORDEX data.
- Work with intermediary organizations and social scientists who can help translate user needs into research questions.

- Raise awareness of the important climate issues for decision-makers.
- Recognise that more than data dissemination is required. Data are not information although the science community tends to present their model data as if they are ready to use. Climate *information* needs to be generated from the data and made available.
- Consider downscaling of seasonal forecasts and decadal predictions

## Participants

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ICSU  
International Council for Science

## **Regional climate modelling and robust foundations for climate services What does the CORDEX initiative have to offer climate service providers and users?**

**Working Group on Regional Climate Side Event  
at the International Climate Services Conference  
Montego Bay, Jamaica, 3 December 2013**

### **AGENDA**

#### **2 to 2.45pm**

Introduction to the session and the WGRC – *Clare Goodess*

Introduction of participants

Overview of the CORDEX initiative – *Bill Gutowski*

- Who and what is CORDEX?
- The modeling strategy
- Dissemination, outputs and evaluation activities

#### **2.45 to 3.25pm** Chair: *Roberta Boscolo*

How is CORDEX engaging with user communities around the world?

- Michael Taylor*: Caribbean and South America
- Bruce Hewitson*: Africa
- Bill Gutowski*: North America

#### **3.30 to 4.20 pm**

The CORDEX World Café

Moderated café table discussions on the following topics.

- Maximising the utility of CORDEX for climate services

- Examples of CORDEX being used for climate services
- What is needed to facilitate greater accessibility and use of CORDEX? (e.g., data dissemination mechanisms, evaluation, supporting observations, guidance.....)
- Building user communities
  - Examples of activities and good practice
  - What structures are needed?
  - What support – financial or otherwise – is needed?
- Managing expectations and limits to information
  - What are the limits to the regional information based on CORDEX and how to communicate them?
  - What responsibilities do the different communities (e.g., climate modellers, climate service providers) have in this respect?

#### **4.20 to 4.30 pm**

- Viewing of the café outputs
- A CORDEX 2 wish list – what would you like to see in the second phase of CORDEX?

#### **4.30 to 5.00 pm – Plenary discussion**

- Highlights and plenary discussion of the café outputs
- Thinking ahead to CORDEX 2 and CMIP6:
  - How to incorporate the climate services perspective in the design of major international modeling initiatives?
  - What are the priorities for this audience?

#### ***Overarching questions and topics to explore include:***

- A status report on what is actually taking place in each continent in CORDEX and potentially other experiments and/or what future activities are planned?
- What climate projections outputs are currently in use and what do the experiences of decision-makers with those products teach us?
- What can be expected from these initiatives to improve or inform climate services activities?
- How can the climate services community engage in a dialogue to identify regional climate information needs that might inform CORDEX design, implementation, and post-run accessibility of information?

What are the regional climate information needs which the WGRC can help to inform?