



WCRP at the 17th WMO Congress

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At the 17th World Meteorological Organization (WMO) Congress on Friday 29th May, the delegates reviewed the latest achievements of World Climate Research Programme (WCRP).

Guy Brasseur, chair of the Joint Scientific Committee, presented the new WCRP climate research efforts that aim to address the most pressing questions posed by society on climate change: how much warmer will the planet be by the end of the century? How frequent and how intense will extreme events (droughts, flooding etc...) be? How will water availability change under future climate? How fast will sea level rise in different part of the world and how vulnerable are coastal cities and their populations? How fast will the Arctic ice sheet melt and how will it affect other region of the world? How can we improve our seasonal-to-decadal predictions?

To respond to these questions, the international WCRP climate community has identified six

climate Grand Challenges that will be the research foci for the next 5-10 years:

- Clouds, circulation and climate sensitivity
- Understanding and prediction weather and climate extremes
- Water availability
- Sea-level rise and regional impacts
- Cryosphere in a changing climate
- Decadal climate information and prediction

All the challenges fit a paradigm of global processes with regional and local impact and bring additional positive impact into the organizing structures of climate conferences and workshops and into the planning processes of funding agencies.

In his presentation, WCRP Director David Carlson placed particular emphasis on the successful international collaboration for CMIP5 (Couples Modeling Intercomparison Project phase 5) products and processes. CMIP5 outcomes provided the fundamental modelling basis for the entire IPCC 5th Assessment Report (AR5), permeated many chapters of the Working Group I report and continue to enable a very wide range of climate research and analysis. WCRP's planning efforts for phase 6 of CMIP is well underway. The CMIP6 process is composed of a research-driven set of climate diagnosis, evaluation and characterization experiments accompanied by standardization, coordination, infrastructure, and documentation functions to allow all simulations and their main characteristics performed under CMIP to be made available to a broader community.

The WMO Congress expressed appreciation for WCRP's continued, positive and effective relationships with its co-sponsoring organizations, the Intergovernmental Oceanographic Commission (IOC) of UNESCO and the International Council for Science (ICSU) including the positive impacts of a formal declaration of partnership between WCRP and the emerging programme Future Earth sponsored by the Science and Technology Alliance for Global Sustainability.