

WCRP Statement to SBSTA 59 (short version)

The World Climate Research Programme (WCRP) makes fundamental and significant contributions to humankind's ability to understand and predict climate change through its unique role in spearheading climate science, observations, modelling and predictions/projections.

This has culminated in the WCRP Open Science Conference "Advancing Climate Science for a Sustainable Future" which was held in Kigali, Rwanda, between 23 and 27 of October 2023.

The hybrid conference brought together almost 1500 scientists from diverse research communities worldwide, as well as practitioners, planners, and politicians, to discuss urgently needed solutions to climate change.

Delegates acknowledged that because of human-induced climate change and other human impacts on the environment, the world is in a state of crisis, recognising that cascading systemic risk and increasing inequality coupled with unabated climate change is one of the greatest threats to humanity.

The essential messages from the conference will be made public in the "Kigali Declaration: Climate science for a sustainable future for all" as well as around 20 concept papers.

WCRP's Coupled Model Intercomparison Project (CMIP) is spinning up its next phase (CMIP7) as input into the Intergovernmental Panel on Climate Change assessment process. WCRP's CORDEX framework produces regional climate information based on regional climate downscaling and WCRP's core project "Regional Information for Society (RIfS)" and WCRP's Lighthouse activity "My Climate Risk" strengthens the science and capability needed for providing societally-relevant climate information for regions.

WCRP launched new flag-ship activities at the end of the conference, including the "Global Precipitation Experiment (GPEX)", which will address major science gaps in the field of precipitation (rainfall, snowfall etc.).

With the conference WCRP also launched a new Lighthouse Activity on research regarding the potential benefits and especially risks of Climate Intervention activities. WCRP will be an honest broker of the respective information and as a first step will – in collaboration with partners - produce an assessment of the current state of knowledge and knowledge-gaps regarding the topics of solar radiation management and carbon sequestration.

As a third flagship effort WCRP launched its Academy which will be concerned with entraining new scientist from around the world and to spin up educational and stakeholder training programs. Partnerships with other programs such as Future Earth are critical in this context.