## GCOS Statement to Research Dialogue, SBSTA 46

An important focus of the new 2016 GCOS implementation plan that was presented to SBSTA in Marrakesh in 2016 was adaptation. High-quality, reliable and sustained observations will underpin planning for and monitoring of adaption. GCOS will support this from both a global and local perspective.

In some cases, high resolution datasets (for example satellite derived observations of vegetation and land use) can be provided. In other cases, the observations will drive models, downscaling and reanalysis to provide the information needed locally. However, in many cases higher resolution local observations are needed. Capturing localised extreme rainfall events is an example. The local needs depend on the most significant likely impacts in that region: flooding, droughts, heatwaves, rising sea level and so on.

To address these needs GCOS in collaboration with the UNFCCC secretariat, IPCC and other partners, is planning to hold a series of regionally focussed workshops to develop an understanding of the observations needed for different regions. These workshops will prepare plans for improving the regional observational capacities. One important initial topic will be water: extreme rainfall, floods and droughts.

In 2003, decision 11/CP.9 welcomed the establishment of the GCOS Cooperation Mechanism which was established by the sponsors of GCOS assisted by parties to the convention. This enables donor funds to be used to support continued operation of key climatological stations that are at risk. This now needs to be reinvigorated to avert decline in essential climate observations – for the atmosphere, oceans and land. Following decision 19/CP.22 we encourage Parties to consider participating in, and contributing to, the GCOS Cooperation Mechanism.

Supported by a WMO decision at its last congress, GCOS is advocating for free and open access to Climate Data for all users. The discoverability, accessibility and long-term stewardship of climate data is a fundamental requirement of successful adaptation to climate change and climate policy development.

Finally, to support national and global policy making, GCOS has condensed the over 50 Essential Climate Variables into an initial list of 9 climate Indicators. These can be used to communicate the scope and rate of changes to the climate in a widely accessible manner. GCOS is continuing its work in this area looking at ways of conveying future climate risks.

GCOS will continue to support Parties to the Convention in issues related to climate observing systems and looks forward to cooperating further with Parties and organisations to improve observations and their use.