

## **Break-out group on regional climate**

### ***Report to the plenary***

The break-out group worked on the hypothesis that the regions where WCRP actions are most needed are those with less well-developed climate research communities.

Our recommendation is for WCRP to develop and nurture regional networks of climate scientists and operational agencies that provide authoritative information on climate variability and change. We thought that the academic scientific communities and the operational agencies (such as for instance the Regional Climate Centres (RCC) of WMO) should be the backbone of these networks. WCRP already has networks of scientists in at least some of these regions through its Core Projects and CORDEX, and we should work to engage those networks as part of this. These networks would be authoritative by their scientific excellence and their contribution to the regional declinations of the four objectives of the WCRP strategic plan: understanding processes, prediction, projection and interface with society.

Why is it important to have strong regional expertise on these objectives?

- Both the interface between WCRP and society and the geophysical or social sciences that need to be involved in connecting climate information and stakeholders vary widely from one region to another. Regional issues/focus is really 'cross-cutting', across the entire WCRP Programme.
- These regional networks are essential for the distribution of the global information that comes from CMIP, CORDEX or the datasets build by the core projects, such as GEWEX. They should evaluate these products regionally and determine how they can help their science and their contribution to society.
- Having vibrant regional communities also provides feedback to other centres in the world about the quality of their products and predictions. These communities have in-depth knowledge on important processes in their region and thus can inform society of necessary improvements to data processing and models. They can evaluate the quality and relevance of globally provided products for the users with whom they interface.

Regional capacity building is essential. Two-way communication with local experts and the added value of regional is sometimes 'over-clouded' by 'problems' in driving GCMs.

We believe that information on the fraction of the world's population who benefit from WCRP science is an important element in the objectives of the WCRP strategy. We considered some metrics which could be used to make the case. Either use a country by country statistic of ESGF downloads or publications used in IPCC and divide it by the number of inhabitants which could potentially benefit from the associated expertise. It will translate the size and activity of the national WCRP community to the population served.

It is important to determine who WCRPs key regional stakeholders are, possibly using an example in a breakout box, to give readers a clear sense of WCRPs unique value. Impact assessment and adaptation measures in most cases take place on regional/national/local, with an increased demand for regional information, for instance at the 'WMO International Workshop on Climate Services Information System Operations and Coordination', Nanjing, China 21-24 March 2017' the GFCS 'target countries' specifically asked for more information from CORDEX (regional info). The SP should show that a wider and more regional focused dissemination and gathering of WCRP knowledge is needed in order to ensure that Sustainability Development Goals and Sendai framework objectives are effectively served.