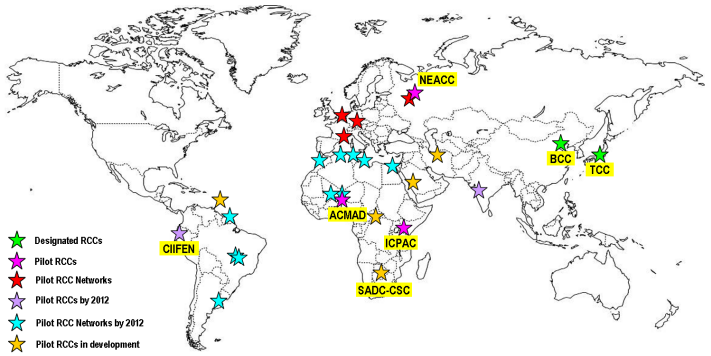
WMO RCC PRODUCTS AND SERVICES

WMO RCCs shall perform the following minimum set of mandatory functions covering the domains of long-range forecasting (LRF), climate monitoring, data services and training:

- Interpret and assess LRF products from GPCs, including the exchange of basic forecasts and hindcast data
- Generate regional tailored products, including consensus-based seasonal climate outlooks
- Provide online access to RCC products
- Perform regional climate diagnostics
- Develop regional climate datasets
- Establish a regional historical reference climatology
- Provide climate archiving services
- Implement a regional Climate Watch
- Coordinate training for RCC users
- Provide information on RCC products and guidance on their use

In addition, depending on a region's specific requirements, WMO RCCs should perform "highly recommended functions" in the areas of climate predictions and projections, data services, research and development, coordination, training, and capacity-building.



Current status of RCC establishment around the world

WMO RCC TERMINOLOGY

A multifunctional centre that fulfils all the required functions of an RCC for the entire region, or for a sub-region to be defined by the regional association, may be designated by WMO as a WMO Regional Climate Centre (WMO RCC). A group of centres performing climate-related activities that collectively fulfil all the required functions of an RCC may be designated by WMO as a WMO Regional Climate Centre Network. Each centre in a designated WMO RCC Network will be referred to as a Node. A Node will perform, for the region or subregion defined by the regional association, one or several of the mandatory RCC activities, for example, long-range forecasting, climate monitoring, climate data services, and training.

GLOBAL FRAMEWORK FOR CLIMATE SERVICES

The Global Framework for Climate Services (GFCS) was established by the World Climate Conference-3 (WCC-3) organized by WMO and its partners in 2009. The key role of RCCs in GFCS, among the operational elements of its Climate Services Information System (CSIS) component, was recognized by the High Level Taskforce on GFCS. The Sixteenth session of the World Meteorological Congress endorsed the broad thrust of the High Level Taskforce Report, and initiated the preparation of a draft implementation plan for GFCS, in which RCCs are expected to be prominently reflected.

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WMO Regional Climate Centres (RCC) at a glance:

Serving National Meteorological Services in enhancing climate services

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WHY WMO REGIONAL CLIMATE CENTRES?

Climate relevant processes have strong inter-scale linkages going beyond borders of individual countries. Therefore, and also to meet the needs of its Members, WMO has defined a worldwide three-level infrastructure: Global Producing Centres for Long-range Forecasts (GPCs), Regional Climate Centres (RCCs) and National Meteorological or Hydrometeorolgical Services (NMSs).

In the light of the enormous challenges climate variability and climate change pose to societies, there is an urgent need to enable WMO Members to provide the best possible climate services in support of climate risk management and adaptation. As global-scale information provided by GPCs (coarse in terms of resolution and reflected features) is typically not sufficient for national-scale services, the concept of WMO Regional Climate Centres was developed to bridge the gap between information at the global and national scales. Moreover, up-to-date climate services require, among others, appropriate computer power, modelling capacities and special expertise, to which not all WMO Members currently have adequate access. In this respect, WMO RCCs offer excellent opportunities for networking and pooling the capacities of NMSs in a region in order to enable each NMS to provide the full suite of climate services to meet national needs.

WHAT ARE WMO RCCs?

WMO RCCs are centres of excellence that create regional products including long-range forecasts that support regional and national climate activities, and thereby strengthen the capacity of WMO Members in a given region to deliver better climate services to national users.

Serving as a backbone for NMSs' climate activities, WMO RCCs contribute to capacity-building of NMSs and sustainable development within countries. WMO RCCs support NMSs in implementing and maintaining climate services by regionalizing global climate products and introducing innovative regional products, helping to access and apply tools, such as software and models, for regional and national analyses and applications, offering infrastructural support such as archiving services, stimulating the development of a regional research and development agenda, conducting training and promoting resource mobilization.

INTERFACES

WMO RCCs are regional institutions mandated to deliver high-quality regional-scale products, for example, by using data and products from GPCs and other global centres and incorporating regional-scale information. An additional main source of information for WMO RCCs is the national data, products, know-how and feedback they receive from the NMSs.

WMO RCCs provide online access to their products to NMSs and other regional users, including the Regional Climate Outlook Forums. At the same time, they provide regional data, products and feedback to GPCs and associated lead centres for respective verification and product optimization of the global-scale information.

WHO ARE THE USERS OF WMO RCCs?

A WMO RCC serves primarily the NMSs in a region.

In addition, WMO RCCs and NMSs from neighbouring regions may be among the users. WMO RCC products and services are regional in nature and provide support to NMSs to extend or improve their user-oriented services. Regional and international organizations might also be served by WMO RCCs.

HOW TO IMPLEMENT WMO RCCs?

The initiation of WMO RCC implementation is principally under the respective responsibility of the six WMO regional associations.

The implementation and designation of WMO RCCs typically include the following general steps (for a more detailed list of recommended steps, please contact the WMO Secretariat):

- Survey on regional needs for, and capacity to deliver, WMO RCC services leading to a statement of requirements of the regional association
- Implementation plan for WMO RCCs in the regional association including identification of potential hosts
- Pilot phase (1 to 4 years) in order to implement, demonstrate and consolidate the RCC-related products and services
- Initiation of the official designation process through the president of the regional association according to the designation procedure defined in the WMO *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485)
- Designation process overseen by the WMO Commission for Climatology and WMO Commission for Basic Systems, including a demonstration of the applicants' capabilities regarding the WMO RCC services required
- Official designation by the WMO Executive Council and the WMO Congress