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World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
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Annex: 1

Subject: Implementation of WMO Regional Climate Centre Network (RCC-Network) for the Third Pole region

Action required: To provide feedback on requirements and capabilities for RCC Services for the Third Pole Region

Dear Sir/Madam,

Noting the recommendations of the Regional Consultation on Climate Services for the Third Pole Region (Jaipur, India, from 9 to 11 March 2016) on establishing a Regional Climate Centre Network (RCC-Network) and a Regional Climate Outlook Forum (RCOF) focused on the special needs of the Third Pole Region, the World Meteorological Organization (WMO) Regional Association II, at its sixteenth session (RA II-16) in 2017, endorsed the proposal to establish a WMO RCC-Network for the Third Pole Region (Decision 11 (RA II-16)). The WMO Executive Council (EC), at its sixty-ninth Session in 2017 (EC-69), requested the EC Panel of experts on Polar and High-mountain Observations, Research and Services (EC-PHORS) to develop and propose, in consultation with appropriate partners, a roadmap to implement the Third Pole RCC-Network learning from the lessons of developing the Arctic PRCC-Network (Decision 46 (EC-69)). Development of climate services for the Third Pole region of South Asia is one of the target areas of a project on the implementation of the Global Framework for Climate Services (GFCS) at regional and national scales, funded by the Government of Canada during the period 2013-2018.

WMO RCCs are centres of excellence that create regional climate products in support of 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. Functions of WMO RCCs, the relevant designation criteria and other related information are available at http://www.wmo.int/pages/prog/wcp/wcasp/rcc/rcc.php. The concept of WMO RCCs provides adequate flexibility to accommodate specific regional climate service needs and limitations.

A list of RCC functions is herewith attached in terms of a brief survey (Annex), based on the descriptions provided in the Manual on Global Data Processing and Forecasting System (GDPFS), WMO No. 485. I request you to complete the survey indicating your country's interest and capacities in delivering/using RCC-related services, or carrying out research to develop relevant capacities for the Third Pole region. While completing the survey, I would also encourage you to consider the potential roles of national institutions besides your Service and also international institutions hosted by your country, in contributing to RCC operations. I ask that you kindly provide me with your completed survey by **5 March 2018**.

To: Permanent Representatives of Afghanistan, Bangladesh, Bhutan, China, India, Kyrgyzstan, Mongolia, Myanmar, Nepal, Pakistan, Tajikistan and Uzbekistan of WMO (limited distribution)

cc: President of RA II

The outcome of this survey will be used to develop a draft implementation plan for the Third Pole RCC-Network under the guidance of the RA II Working Group on Climate Services (WGCS) and its Task Team on Third Pole RCC (TT-TPRCC) in close consultation with the WMO Secretariat.

Furthermore, WMO Members in the Third Pole that have indicated an interest, via their surveys, in contributing to the Third Pole RCC-Network operation, either as a node lead or as a consortium member, will be invited to participate in a Scoping Meeting on the Third Pole Regional Climate Centre Network Implementation that is proposed to be held at WMO, Geneva, from 27 to 28 March 2018.

For more information and to return completed survey responses, you may contact Mr Rupa Kumar Kolli (rkolli@wmo.int), Chief, World Climate Applications and Services Division of WMO Secretariat. I also invite you to nominate a focal point from your Service to deal with RCC related matters.

I take this opportunity to thank you for your cooperation and support to WMO Programmes and activities.

Yours faithfully,

(W. Zhang)
for the Secretary-General

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WORLD METEOROLOGICAL ORGANIZATION

SURVEY OF RA II MEMBERS IN THE THIRD POLE REGION[1] ON NEEDS AND CAPACITIES FOR RCC SERVICES IN THE THIRD POLE REGION

Name of Country:.....

PART A
Mandatory Functions for Designation as a WMO RCC or RCC-Network

Requirement/Function	*Does your country require this activity to be performed or coordinated by an RCC focused on the Third Pole region? (Yes/No)*[2]	*Does your country provide relevant services or carry out research to enable such services for the Third Pole Region? (Yes/No)*	*Is your country interested in contributing to this function of an RCC for the Third Pole region? (Yes/No)*
Operational Activities for Long Range Forecasts (LRF)			
Interpret and assess relevant LRF products from Global Producing Centres of LRF (GPC-LRFs), distribute relevant information to RCC Users; and provide feedback to GPC-LRFs;			
Generate regional and sub-regional tailored products, relevant to RCC User needs, including seasonal outlooks etc.;			
Generate consensus statement on regional or sub-regional forecasts;			
Perform verification of RCC quantitative LRF products, including the exchange of basic forecasts and hindcast data;			
Provide on-line access to RCC products/services to RCC Users;			
Assess use of RCC products and services through feedback from RCC Users.			

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1 The Hindu Kush-Himalayan (HKH) region, also known as the Third Pole region, spans Afghanistan, Bangladesh, Bhutan, China, India, Kyrgyzstan, Mongolia, Myanmar, Nepal, Pakistan, Tajikistan and Uzbekistan

2 Please provide additional explanatory information on separate sheets, if required

Requirement/Function	*Does your country require this activity to be performed or coordinated by an RCC focused on the Third Pole region? (Yes/No)*[2]	*Does your country provide relevant services or carry out research to enable such services for the Third Pole Region? (Yes/No)*	*Is your country interested in contributing to this function of an RCC for the Third Pole region? (Yes/No)*
Operational Activities for Climate Monitoring			
Perform climate diagnostics including analysis of climate variability and extremes, at regional and sub-regional scales;			
Establish an historical reference climatology for the region and/or sub-regions;			
Implement a Regional Climate Watch.			
Operational Data Services, to support operational LRF and climate monitoring			
Develop quality controlled regional climate datasets, gridded where applicable;			
Provide climate database and archiving services, at the request of NMHSs.			
Training in the use of operational RCC products and services			
Provide information on methodologies and product specifications for mandatory RCC products, and provide guidance on their use;			
Coordinate training for RCC Users in interpretation and use of mandatory RCC products.			

NOTE: *Reflect the true capacity to deliver the function, in consideration of the required human resources, computing and telecommunications capacities including equipment, power, hardware, software, and other infrastructure requirements, and also in consideration of the mandate of the organization.*

PART B
Highly Recommended Functions for WMO RCCs and RCC-Networks

Requirement/Function	*Does your country require this activity to be performed or coordinated by an RCC focused on the Third Pole region? (Yes/No)*	*Does your country provide relevant services or carry out research to enable such services for the Third Pole region? (Yes/No)*	*Is your country interested in contributing to this function of a an RCC for the Third Pole region? (Yes/No)*[3]
Climate Prediction and Climate Projection			
Assist RCC Users in the access and use of WCRP-CMIP climate model simulations;			
Perform downscaling of climate change scenarios;			
Provide information to RCC Users for use in development of climate adaptation strategies;			
Generate, along with warnings of caution on accuracy, seasonal forecasts for specific parameters where relevant, such as: onset, intensity and cessation of rainy season; tropical cyclone frequency and intensity;			
Perform verification on consensus statements for forecasts;			
Perform assessment of other GPC products such as SSTs, winds, etc.			
Non-operational data services			
Keep abreast of activities and documentation related to WMO WIS, and work towards WIS compliance and DCPC designation;			
Assist NMHSs in the rescue of climate data from outmoded storage media;			
Assist NMHSs to develop and maintain historical climate datasets;			
Assist RCC Users in the development and maintenance of software modules for standard applications;			
Advise RCC Users on data quality management;			

[3] Where appropriate, indicate in this column the priority from your perspective as High (H), Medium (M) or Low (L)

Requirement/Function	***Does your country require this activity to be performed or coordinated by an RCC focused on the Third Pole region? (Yes/No)***	***Does your country provide relevant services or carry out research to enable such services for the Third Pole region? (Yes/No)***	***Is your country interested in contributing to this function of a an RCC for the Third Pole region? (Yes/No)[3]***
Conduct data homogenization, and advise RCC Users on homogeneity assessment and development and use of homogeneous data sets;			
Develop and manage databases, and generate indices, of climate extremes;			
Perform Quality Assurance/Quality Control on national datasets, on request of an NMHS;			
Provide expertise on interpolation techniques;			
Facilitate data/metadata exchange amongst NMHSs, including on-line access, through an agreed regional mechanism;			
Perform Quality Assurance, Quality Control on regional datasets.			
Coordination Functions			
Strengthen collaboration between NMHSs on related observing, communication and computing networks including data collection and exchange;			
Develop systems to facilitate harmonization and assistance in the use of LRF products and other climate services;			
Assist NMHSs in user liaison, including the organization of climate and of multidisciplinary workshops and other forums on user needs;			
Assist NMHSs in the development of a media and public awareness strategy on climate service.			
Training and Capacity building			
Assist NMHSs in the training of users on the application and on implications of LRF products on users;			
Assist in the introduction of appropriate decision models for end-users, especially as related to probability forecasts;			

Requirement/Function	*Does your country require this activity to be performed or coordinated by an RCC focused on the Third Pole region? (Yes/No)*	*Does your country provide relevant services or carry out research to enable such services for the Third Pole region? (Yes/No)*	*Is your country interested in contributing to this function of a an RCC for the Third Pole region? (Yes/No)*[3]
Promote technical capacity building on NMHS level (e.g. acquisition of hardware, software, etc.), as required for implementation of climate services;			
Assist in professional capacity building (training) of climate experts for generating user-targeted products.			
Research and Development			
Develop a climate Research and Development agenda and coordinate it with other relevant RCCs;			
Promote studies of regional climate variability and change, predictability and impact in the Region;			
Develop consensus practices to handle divergent climate information for the Region;			
Develop and validate regional models, methods of downscaling and interpretation of global output products;			
Promote the use of proxy climate data in long-term analyses of climate variability and change;			
Promote application research, and assist in the specification and development of sector specific products;			
Promote studies of the economic value of climate information.			

NOTE: *Reflect the true capacity to deliver the function, in consideration of the required human resources, computing and telecommunications capacities including equipment, power, hardware, software, and other infrastructure requirements, and also in consideration of the mandate of the organization.*