WORLD METEOROLOGICAL ORGANIZATION

REGIONAL ASSOCIATION VI REGIONAL CLIMATE CENTRE NETWORK

The WMO Regional Association VI (RA VI, Europe) Regional Climate Centre Network (RA VI RCC Network) has three dedicated nodes:

Seasonal Prediction (RCC Node-SP)

- Leads: Météo-France, France, and Roshydromet, Russian Federation
- Consortium members:
  - Norwegian Meteorological Institute (NMI), Norway
  - Republic Hydrometeorological Service (RHMS), Serbia
  - Turkish State Meteorological Service (TSMS), Türkiye

Climate Monitoring (RCC Node-CM)

- Lead: Deutscher Wetterdienst (DWD), Germany
- Consortium members:
  - Hydrometeorology and Monitoring Center of Armenia, Armenia
  - Météo-France, France
  - Koninklijk Nederlands Meteorologisch Instituut (KNMI), the Netherlands
  - RHMS, Serbia
  - TSMS, Türkiye

Climate Data Services (RCC Node-CD)

- Lead: KNMI, the Netherlands
- Consortium members:
  - Météo-France, France
  - Országos Meteorológiai Szolgálat, Hungary
  - NMI, Norway
  - RHMS, Serbia
  - Swedish Meteorological and Hydrological Institute (SMHI), Sweden
  - TSMS, Türkiye
  - MeteoRomania, Romania

Linkage with Global Climate Centres

The RA VI RCC Network relies on the contributions from WMO Members, the products of different WMO Global Producing Centres for Seasonal Prediction (GPCs-SP), including Toulouse and Moscow, and the WMO Lead Centre for Seasonal Prediction Multi-Model Ensembles (LC-SPMME), and other international centres like the Copernicus Climate Change Service (C3S)

The RA VI RCC Network also harmonizes Climate Watch Advisories in coordination with the North-Eurasia Climate Centre (NEACC).

OVERVIEW

Domain of responsibility: WMO RA VI (Europe)

Languages: Services are offered in English, some seasonal prediction products are also offered in French and Russian.

Email: rcc.cm@dwd.de

Status: Designation by WMO: May 2013

Climate features

Europe is characterized by very heterogeneous climate. It includes polar, mid-latitude and subtropical, maritime and continental climates. It is affected by various circulation patterns, including the North Atlantic Oscillation and the Siberian High.

Linkage with WMO Regional Climate Outlook Fora

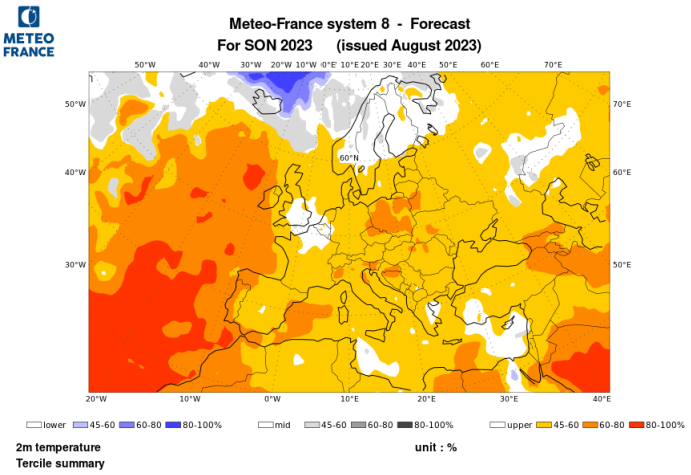
The RA VI RCC Network provides seasonal predictions, prediction verifications and monitoring products on a regular basis in support of various Regional Climate Outlook Forums (RCOFs):

- The Mediterranean Climate Outlook Forum (MedCOF)
- The South-East European Climate Outlook Forum (SEECOF)
- The North Eurasian Climate Outlook Forum (NEACOF).

Mandatory functions

All WMO RCCs fulfill a set of mandatory functions related to seasonal prediction, climate monitoring, data services and training. Listed below are those performed by the RA VI RCC Network.

Seasonal prediction – The RCC Node-SP offers a range of sub-seasonal and seasonal prediction products, maps of relevant drivers for seasonal prediction, consolidated regional and sub-regional outlooks, RCOF consensus forecast statements and



monthly verification bulletins.

Climate monitoring – The RCC Node-CM provides monthly, seasonal and annual maps of key parametres, monthly and annual bulletins and Climate Watch Advisories. The node contributes to the European State of the Climate reports of WMO and Copernicus, reviews the European part of the WMO State of the Global Climate reports and coordinates the Europe Chapter of the State of the Climate report of the Bulletin of the American Meteorological Society (BAMS).

Data services – The RCC Node-CD develops quality-controlled regional climate datasets and provides climate database and archiving services. The production of a pan-European gridded dataset (E-OBS dataset) is funded through the C3S.

Training – Training on the use of RCC products is regularly offered at European RCOFs. Some nodes also produced videos on the generation and use of certain products.

RCC Node-SP activities include trainings and user support – tutorials and technical documentation – as well as contributions for the various RCOFs in RA VI.

Access is free for all products except for SP bulletins and Climate Watch Advisories which are password-protected.

Recommended functions fulfilled

WMO RCCs are recommended to perform certain functions. Listed below are those performed by the RA VI RCC Network.

Climate prediction and climate projection – At the 2020 RA VI RCC Network Users' Forum, some Members expressed an interest for including longer-term predictions to the list of highly recommended functions. Investigations are ongoing on how to implement this.

Non-operational data services – The RA VI RCC Network contributes to the KNMI-hosted Climate Explorer, the SMHI-hosted Nordclim dataset and the NMI MEDARE.

Coordination – The Network coordinates the collection of information for a biannual newsletter to registered users and representation in WMO constituent body session, meetings and other events.

It also coordinates regular RCC Users Forums with WMO Members every four years to provide feedback and guidance for its operations. It holds an annual Coordination Team meeting to monitor progress on actions agreed in the Users Forums.

Training and capacity building – The Network delivers training on various topics:

- "Climatology, foundation for climate services" training is hosted annually by Météo-France and WMO
- Training sessions at MedCOF, SEECOF and NEACOF
- Regular training courses on seasonal prediction topics are organized by NEACC and the WMO Regional Training Centre Moscow.

Research and development – Research and development are under the responsibilities of the individual contributing NMHS. The Network joined the RA VI Task Team on Research, Modelling and Prediction.

Success story

The RA VI RCC Network's Climate Watch Advisories are regularly used to prepare for upcoming extreme events such as heavy precipitation, drought, and heat and cold waves, often helping to avoid potentially more severe damages.

The Network has become an important focal point for Europe-wide climatological requests and reports.