



World Meteorological Organization  
Working together in weather, climate and water

# Climate related activities in WMO RA VI region

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WMO RAVI Hydrology Forum, Koblenz,  
Germany

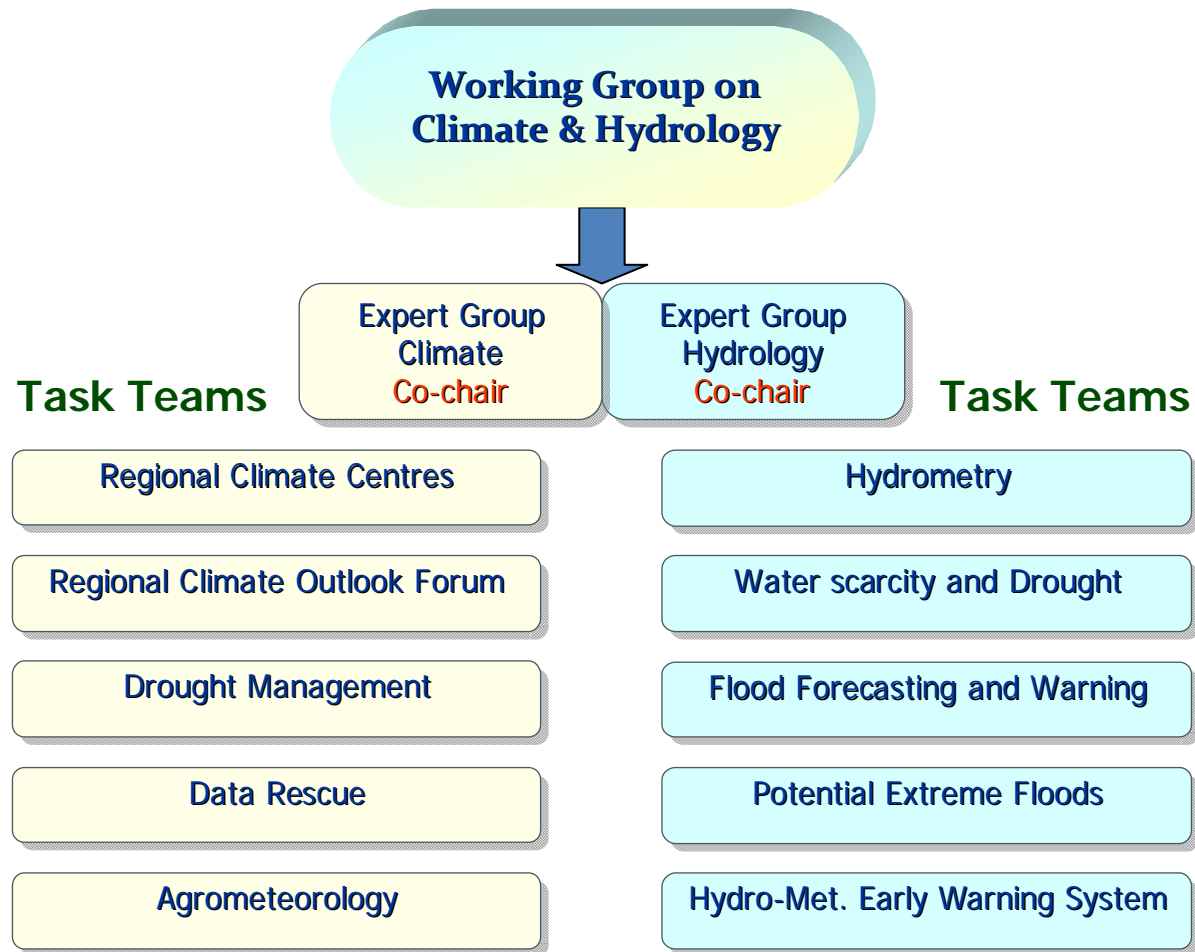
8-10 May, 2012

# Working Group on Climate and Hydrology: Expert Group for Climate

## Work programme

- Guide and assist the full implementation of the RA VI Network of Regional Climate Centres (RCC);
- Facilitate the implementation of Regional Climate Outlook Forums (RCOF) mechanism in the Region;
- Coordinate integrated drought management in the close cooperation between meteorological and hydrological services at national and regional level;
- Assist in mobilizing resources and providing guidance on the data rescue efforts based on the identified needs of the Members in the Region;
- Coordinate the evaluation of agrometeorological services regarding their user acceptance, economic impact and future challenges related to climate change, technological

# Working Group: structure



# ~~Task Team Regional Climate~~ Centres Stefan Roesner (Germany)

The work of this TT is mainly driven by the implementation of the WMO RAVI RCC-Network towards a fully operational network

- Following years of research and development WMO designated a number of **Global Producing Centres for Long-range Forecasts (GPCs)**, after a careful assessment of needs, capabilities and optimal designation criteria.
- WMO Members have proposed development of **Regional Climate Centres (RCCs)** to help fulfill the need for more regionally focused climate services.

## Regional Climate Centres

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, and to strengthen their capacity to meet national climate information needs

# WMO RA VI RCC Network

▲ RA VI RCC node on climate data:

● **The Netherlands (lead),** France, Hungary, Norway, Serbia, Sweden, Turkey

■ RA VI RCC node on climate monitoring:

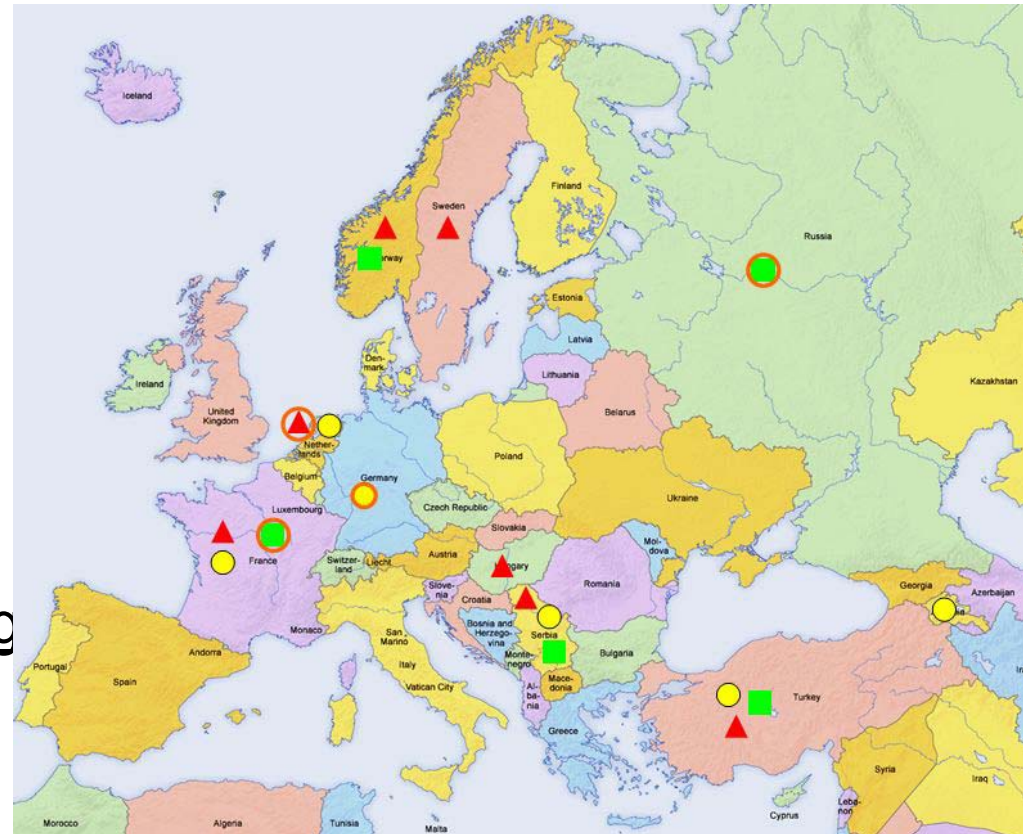
● **Germany (lead),** Armenia, France, The Netherlands, Serbia, Turkey

■ RA VI RCC node on Long-range Forecasting:

● **France and Russian Federation (joint lead),** Norway, Serbia, Turkey.

● **Overall coordination – DWD,**

● **Germany** WMO RA VI Hydrology Forum, Koblenz, Germany



# Climate Watch System

The “**Climate Watch**” is the advisory/alert, which will serve as a mechanism to heighten awareness in the user community that a significant climate anomaly exists or might develop and that preparedness measures should be initiated.

**CWS builds on existing weather early warning systems by adding advisories on climate extreme events such as heat waves, cold waves, extended heavy precipitations leading to flooding, rainfall / soil moisture deficiency leading to drought conditions, severe wind storms extending beyond weather scales, extended snowfall, etc.**

# Elements of Climate Watch

**The Climate Watch System shall be based on all the ongoing climate related activities**

- Real time meteorological observations;
- Ongoing climate monitoring;
- Assessment of regional climate anomalies, including their relationship to large-scale climate variability;
- Development of a long-range forecasting system or using publicly available LRFs provided by Global Producers of LRF or Regional Climate Centers;
- Consultation with prospective end users on the development of indices, criteria and policies for issuing Climate Watches;
- Development of a system for dissemination of the Climate Watches in consultation with the user community;
- Evaluation of the Climate Watches and their effectiveness in meeting the needs of the users.



# CWS workshop in Europe (Offenbach 2010)

**Format, content & dissemination of climate advisories (climate watches)**

**User aspects of (national) climate watches**

**Consider basic infrastructure requirements and needs for (national) climate watch**

- Show case implementation in Finland, Serbia, Turkey

**Proceedings published WMO TD No. 1565**

# Task Team Regional Climate Outlook Forum

Dmitry Kiktev (Russia)

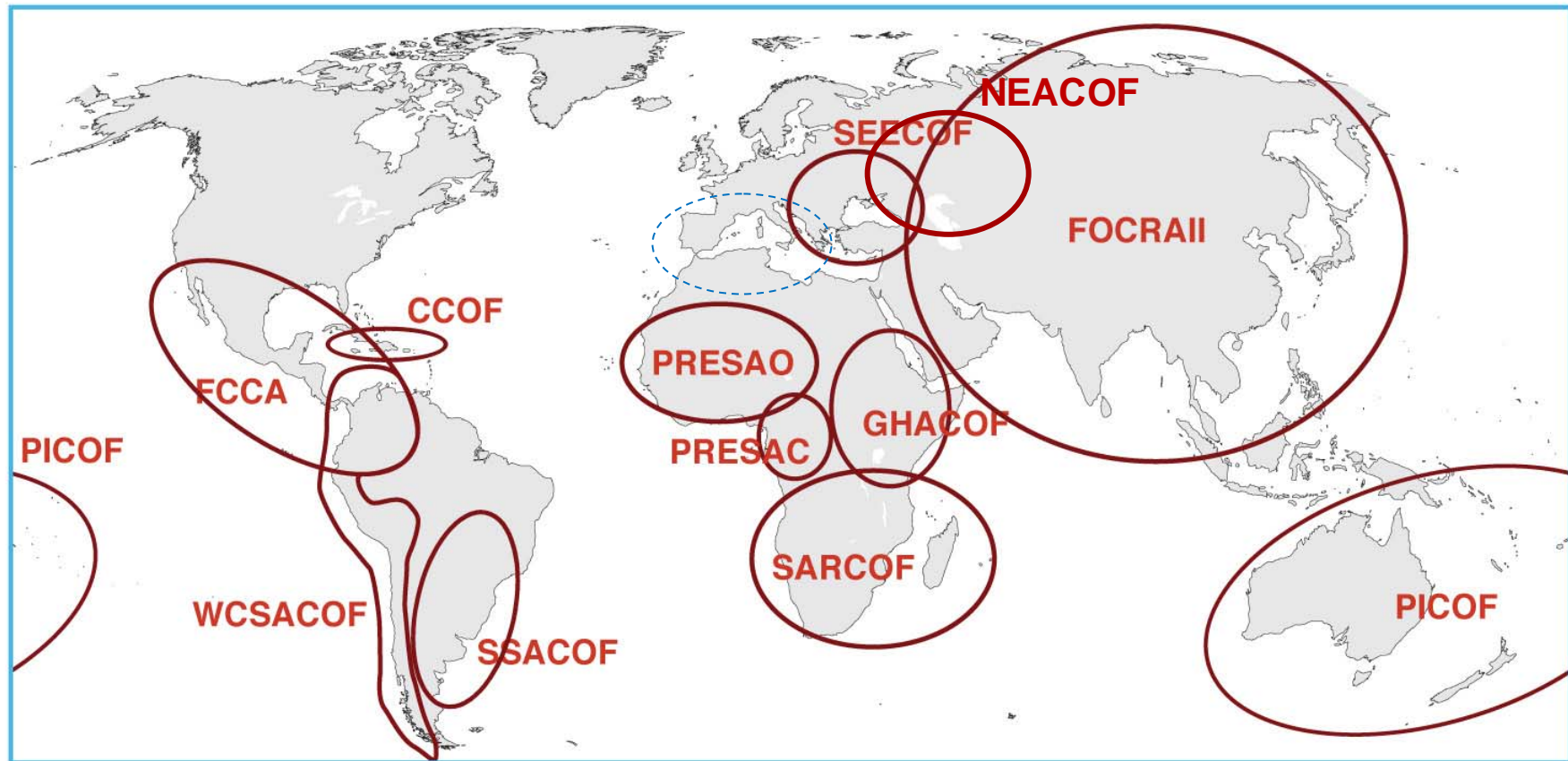
The main objectives of the TT RCOF are to expand the geography and refine the functionality of RCOFs in the region and find ways for the sustainability of existing RCOFs.

# Regional Climate Outlook Forum

- RCOFs bring together national, regional and international climate experts, on an operational basis, to produce regional climate outlooks based on input from NMHSs, regional institutions, Regional Climate Centres (RCCs) and Global Producing Centres of long range forecasts (GPCs) and other climate prediction centres.
- Through interaction with sectoral users, extension agencies and policy makers, RCOFs assess the likely implications of the outlooks on the most vulnerable socio-economic sectors in the given region and explore the ways in which these outlooks could be made use of

- RCOFs have fostered interactions and exchange of information between the climate scientists and users of climate information
- The RCOF process has facilitated a better understanding of the links between the climate system and socio-economic activities.
- The RCOFs then lead to national forums to develop detailed national-scale climate outlooks and risk information including warnings for communication to decision-makers and the public.

# Existing RCOFs



# RCOFs in Europe

## The South-East European Climate Outlook Forum (SEECOF)

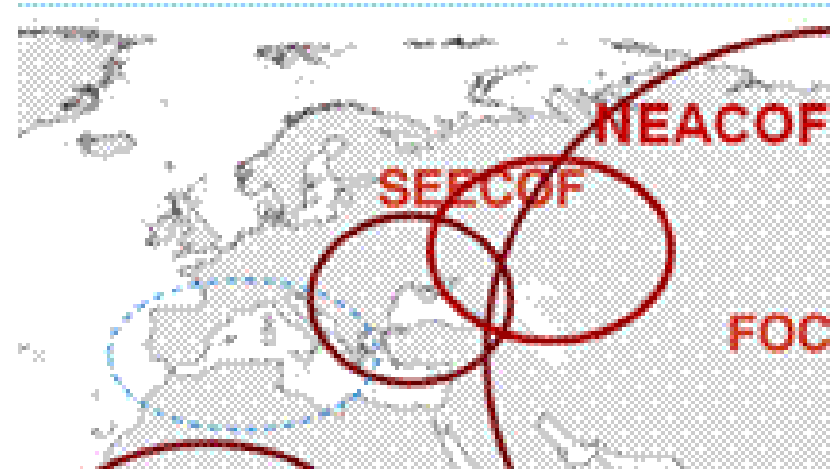
Covers mainly countries of South East Europe and Caucasus.

SEECOF I - 2008, Zagreb/Croatia,  
2 forums per year – physical and online

## North EurAsian COF (NEACOF)

launched in May 2011 for CIS countries

**MEDCOF - interregional – potential implementation**



# Task Team on Data Rescue

Jose Antonio Guijarro (Spain)

Assists in mobilizing resources and providing guidance on the data rescue efforts based on the identified needs of the Members in the Region in order to set up Data Rescue mechanisms similar to MEDARE initiative or its extension to other sub-regions.

# MEDARE

- **The MEditerranean climate DAta Rescue** (MEDARE) is an initiative, born under the auspice of the World Meteorological Organization, with the main objective is being to develop, consolidate and progress climate data and metadata rescue activities across the Greater Mediterranean Region (GMR)

<http://www.omm.urv.cat/MEDARE/index.html>



# TT DARE activities

- Inventorying available digital climate data through European NMHSs, repositories/projects (e.g. ECA&D, EMULATE, CIRCE) and Agencies (e.g. EUMENET, DWD)
- Data rescue coordination in Europe: Inventorying/approaching current DARE activities over Europe: both at regional and national scales
- Provide guidance on the methodics for homogeneity test of historical time series and quality control of data as well as support in capacity building process

# Task Team Drought management

Ali Umran Komuscu (Turkey)

- Provide a coordinated RA VI approach on operational drought monitoring and assessment, taking into consideration recommendations and conclusions reached at the Lincoln workshop, taking the advantage of the RCC product suit and RCOF mechanisms in the Region.
- Identify possibility of integrated approaches to meteorological, hydrological and agricultural droughts.

# TT DM activities

- To review and evaluate drought monitoring capacities in RA VI countries
- Make recommendations on addressing the needs for capacity building in RA VI countries, pertinent to drought monitoring
- To develop and provide guidelines on the implementation, use, and evaluation of Standardized Precipitation Index (SPI) in drought monitoring
- To identify the scope for, and implementation of integrated drought monitoring approach in RA VI countries with respect to water resources and agriculture
- To propose ways for ensuring effective cooperation of NHMSs with other international and regional bodies involved in drought assessment and mitigation, particularly through Drought Management Centre for South East Europe (DMC/SFF), FDO, JRC

# Task Team on Agrometeorology

## Josef Eitzinger (Austria)

**Overall aim: Review of agrometeorological products, services to improve implementation and impact**

- Assessment of the economic impacts of agrometeorological information, based on case studies carried out worldwide. All these studies prove that there is a very high economic gain for farmers; positive impacts on the irrigation sector have also been shown.
- Recommendations for improving cooperation between farming and agrometeorological communities. The effort should be towards development of customized products tailored to specific end users and taking into account local agro-ecological system, type of crop, etc

- Best practices for agrometeorological products; review, evaluate and recommend
- New challenges or tasks for agrometeorological services and products related to ongoing climate change impacts; to identify and evaluate
- use of climate and meteorological resources in the RA VI high-quality agricultural production chain; to review and access

# Thank You