



World Meteorological Organization

Working together in weather, climate and water

# Components of the GFCS Climate Services Information System

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WMO



# Aim of talk

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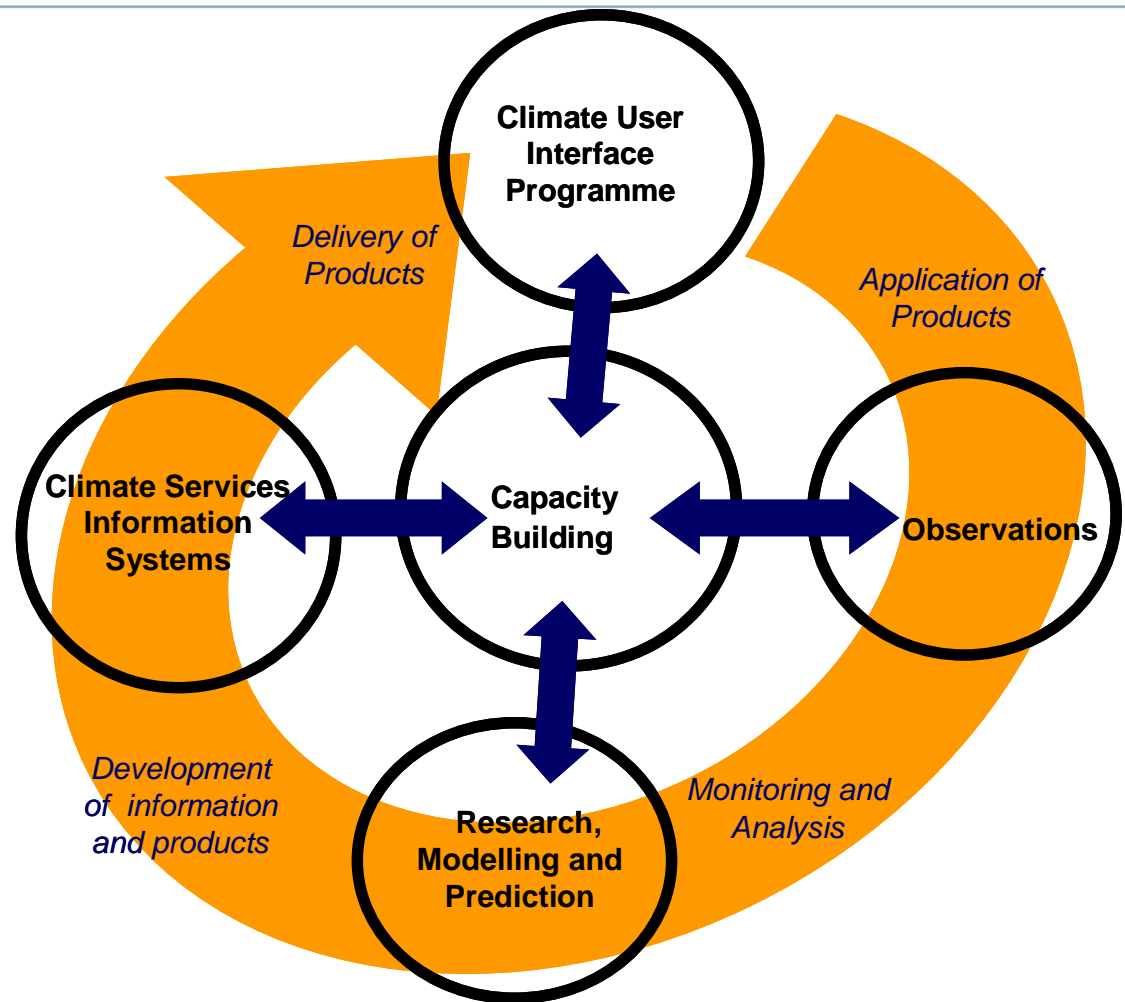
To provide a future-oriented context for the evolution of RA VI (Europe and Middle East) regional entities and mechanisms in support to national climate services

Relevant keywords of the talk:

Global Framework for Climate Services, WMO Global Producing Centres, WMO Regional Climate Centres, Regional Climate Outlook Forums, Global Seasonal Climate Updates, WMO Climate Watch systems

# Global Framework for Climate Services

WCC3 decided to establish a Global Framework for Climate Services (GFCS) to strengthen the production, availability, delivery and application of science-based climate prediction and services.





# Global Framework for Climate Services

The Climate Services Information System (CSIS) is the component of the Framework that is designed to **routinely generate climate information** which users need for the decisions they have to make.

## Relevant WMO current strengths include:

- GDPFS including 12 GPCs and 2 Lead Centers as well as 2 RCCs
- Regional institutions, such as DMCs, ACMAD, ICPAC, CIIFEN
- Standards and best practices for operations (-> CCI, CBS)
- WMO El Niño/ La Niña Update

## Relevant WMO contributions to GFCS include:

- NCS/NCC concept development
- Extension of GPC and RCC networks to cover all climatic regions
- Expansion of RCC operations to cover regional climate change scenarios
- Development of additional global climate updates (-> GSCU)



# WMO Regional Climate Centres

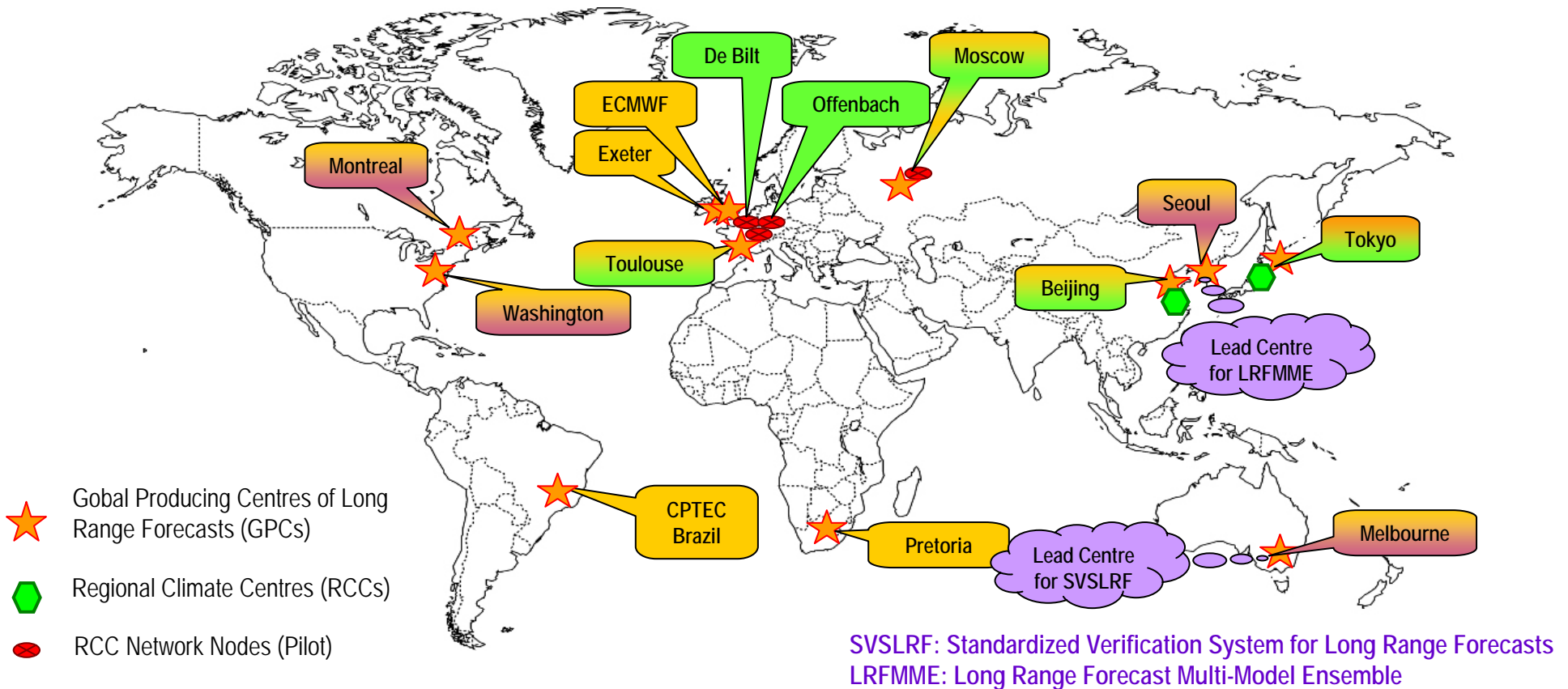
- RCCs are Centres of Excellence, designated by CBS and CCI, to perform operational regional-scale climate functions in the domains of long-range forecasting, climate monitoring and data services including training
- Highly recommended functions comprise the domains of climate projections, co-ordination, capacity building and R&D
- RCCs will be complementary to and supportive of NMHSs, which will deliver all warnings and national-scale products
- Establishment of RCCs will be initiated by Regional Associations, based on regional needs and priorities

## Mandatory product list (examples):

- Assessment of GPC products
- Regional/sub-regional seasonal outlooks
- Consensus outlook statements
- Verification datasets
- Climate diagnostics bulletins
- Reference climatologies
- Implementation of climate watches
- Regional climate datasets
- Training, feedback mechanisms, information portals

# Global Network of WMO GPCs and RCCs

Global Network for Climate Information (WMO designated global and regional climate centres)





# Regional Climate Outlook Forums (RCOFs)

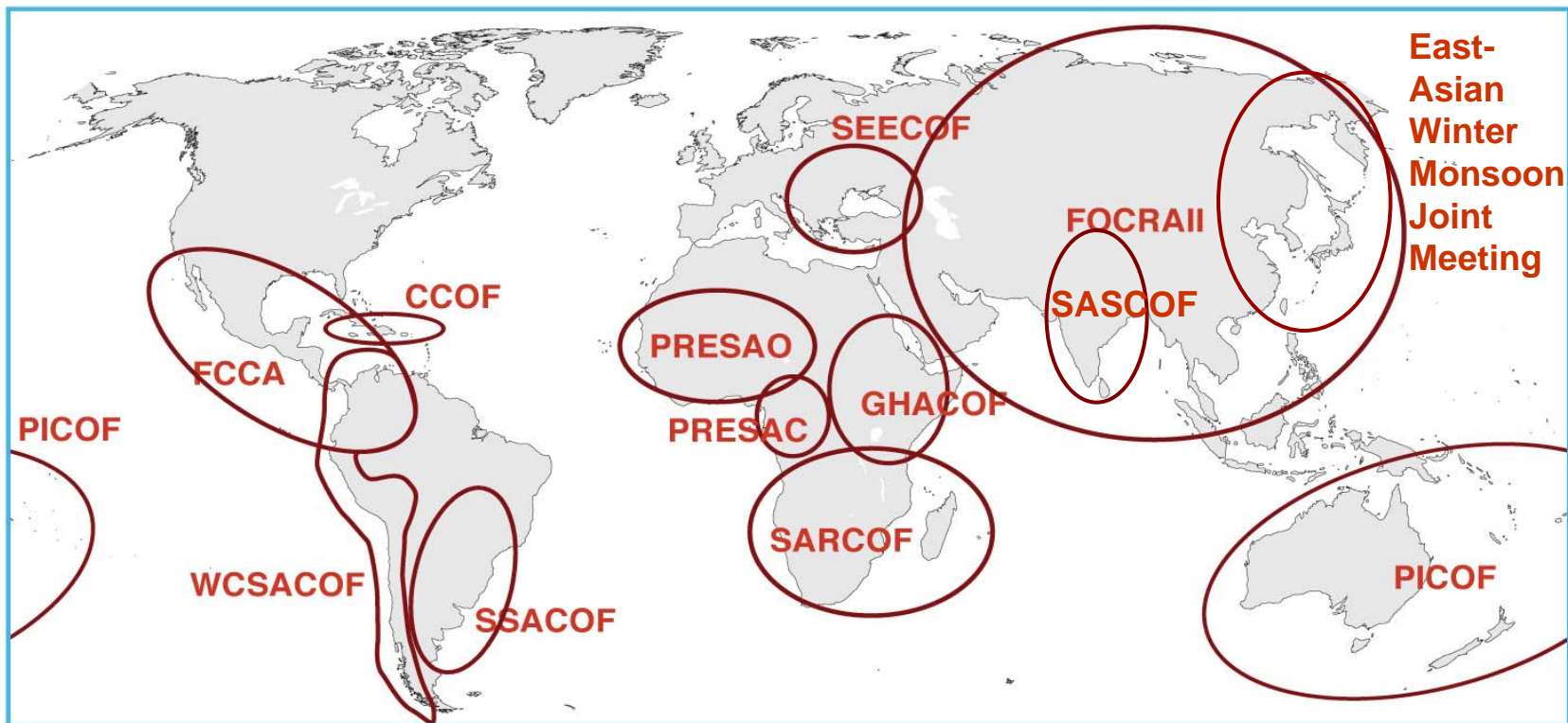
RCOFs bring together national, regional and international climate experts, on a regular basis, to produce regional climate outlooks based on input from global and regional producers of climate information as well as from NMHSs of the region concerned.

The RCOF mechanism:

- > addresses regions of common climate characteristics
- > ensures consistency in access to, and interpretation of, climate information
- > facilitates close user interaction to jointly assess the likely implications of the outlooks
- > provides training on long-range forecasting, communication etc.

# Global Coverage of current RCOFs

## Existing RCOFs worldwide

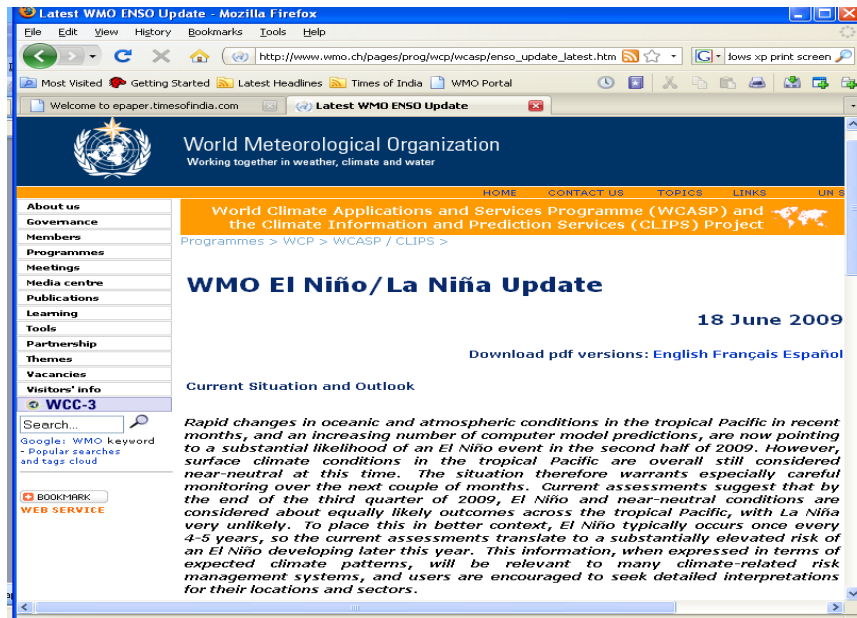






# WMO El Niño/La Niña Updates and GSCU

WMO has been issuing consensus based **El Niño/La Niña Updates** on a quasi-regular basis over the past more than a decade, providing useful information on these events of significant importance to regional climate impacts.



From 12-14 Oct 2010, an *Expert Meeting on Scoping **Global Seasonal Climate Updates (GSCU)*** took place at WMO Headquarters, expanding the idea of El Niño/La Niña Updates to a quarterly publication on the observed status and potential evolution of the global climate (ENSO, SST, TT, RR, significant events).

A first phase aims at serving regional and national meteorological entities, whilst a second phase might aim at serving global users and media.



# WMO Climate Watch Systems

Regional WMO Climate Watch systems, which are designed to detect, monitor and predict (if possible) climate anomalies and related extremes ...

... might be fed by global guidance products, such as WMO's El Niño/La Niña Update and the upcoming GSCU,

... are part of the mandatory RCC functions and will receive guidance information from regional entities and mechanisms, such as RCCs and RCOFs,

... deliver, through NMHSs, national climate advisories to users as a climate service.

WMO Workshop on Climate Monitoring, including the Implementation of Climate Watch Systems in RA VI (25-28 Oct 2010, Offenbach/Germany)



# RA VI regional entities and mechanisms in support to national climate services

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RA VI existing capabilities include:

Pilot RCC-Network, SEECOF mechanism, SEE-VCCC, ECMWF, DMC-SEE, EUMETSAT, EUMETNET, EU etc.

Further evolution (examples):

Implementation of RA VI Climate Watch system

Formal designation of RA VI RCC-Network

Expansion of RCOFs?

Consideration of Arctic and Mediterranean COFs and RCCs!



# Information Sources

WMO RCCs, GPCs/LCs, El Niño/La Niña Updates :

[http://www.wmo.int/pages/prog/wcp/wcasp/wcasp\\_home\\_en.html](http://www.wmo.int/pages/prog/wcp/wcasp/wcasp_home_en.html)

Global Seasonal Climate Update (concept):

<http://www.wmo.int/pages/prog/wcp/wcasp/GSCU.html>

RA VI RCC-Network: <http://www.rccra6.org>

SEECOF: <http://www.wmo.int/pages/prog/dra/eur/SEECOF-3.php>

Relevant WMO bodies include:

WMO Commission for Climatology

WMO Commission for Basic Systems

WMO RA VI WG on Climate and Hydrology



**Thank you**

**Merci**

**Спасибо**

**Gracias**

**شكرا**

**谢谢**