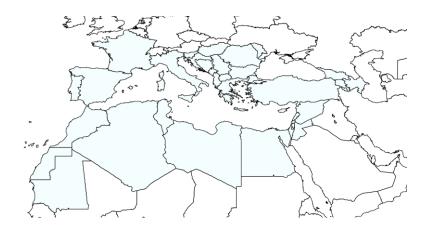




#### NINTH MEDITERRANEAN CLIMATE OUTLOOK FORUM



# WMO Global RCOF Review workshop (Guayaquil, 5-7 Sept 2017)

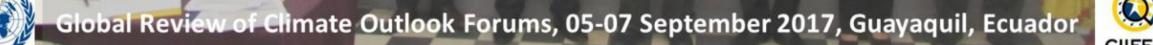
#### Ernesto Rodríguez-Camino, AEMET

With contributions fron A. Hovsepyan, K. Kolli and all participants in the workshop

http://www.wmo.int/pages/prog/wcp/wcasp/meetings/workshop\_rcofs.php

### Outline

- Introduction
- RCOF operations around the world
- Operational practices
- Towards improved and sustained RCOF process
- Conclusions and recommendations for the future generation RCOFs



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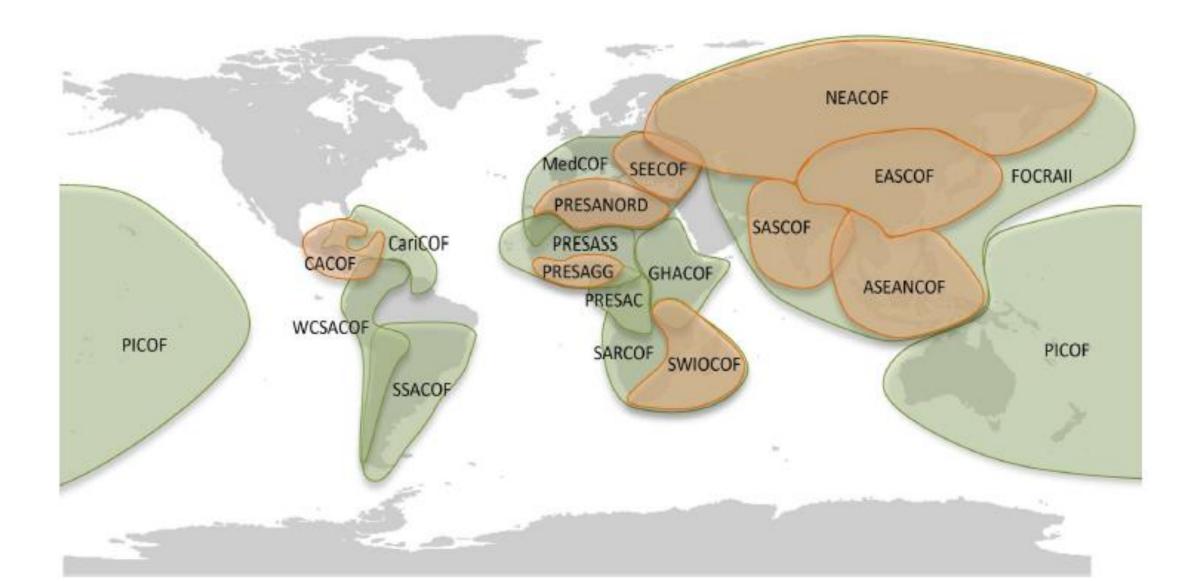
http://www.wmo.int/pages/prog/wcp/wcasp/meetings/workshop\_rcofs.php

- A key component of WMO Climate Information and Prediction Services (CLIPS) project activities.
- First established in October 1996 at the Workshop on Reducing Climate-Related Vulnerability in Southern Africa (Victoria Falls, Zimbabwe).
- Gained momentum as a regional response to the major **1997–1998 El Niño** event.
- RCOF Concept was pioneered in Africa and spread worldwide.
- WMO and a number of national, regional and international organizations and development agencies (e.g., NOAA, IRI, Meteo France, Met Office, IGAD, SADC, USAID, AusAID, etc.) have supported their growth, stability and expansion.

#### Introduction:

#### From Victory Falls, Zimbabwe, 1996

## **RCOFs Worldwide**



#### To Guayaquil, Ecuador, 2017

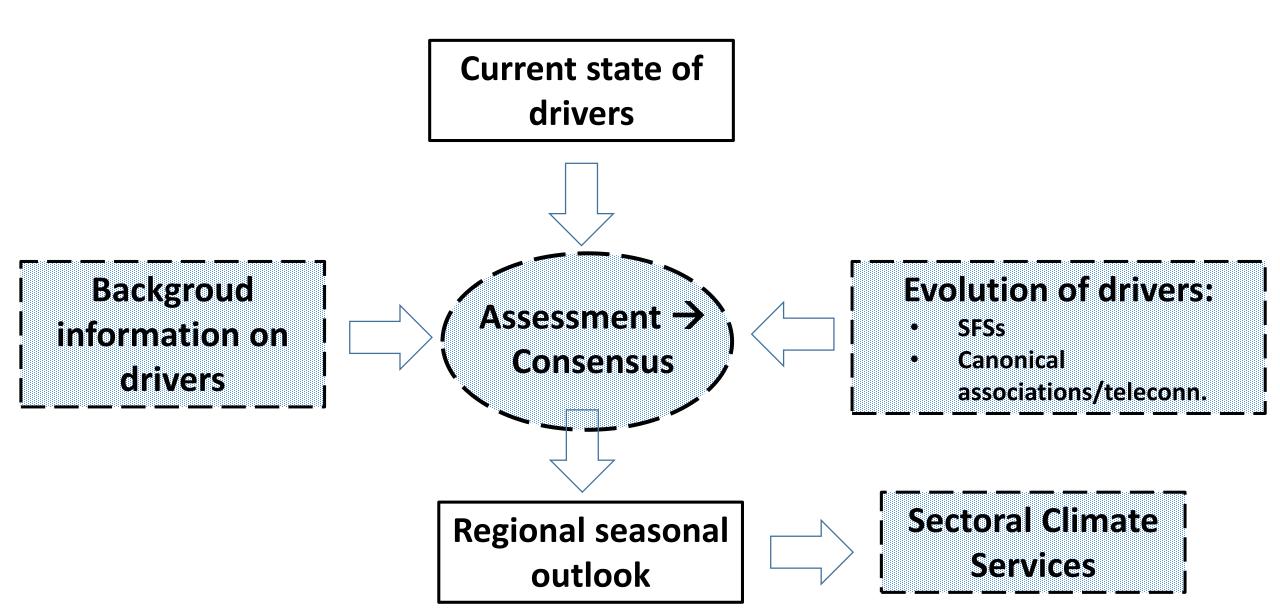


- After two decades of successful
  implementation, WMO undertook a
  comprehensive review of the RCOF process.
- Examine all aspects of the interpretation, creation and dissemination of regional climate outlooks.
- Expectations and requirements of stakeholders for more actionable climate information tailored to their needs.
- Agree on the way forward towards the improved and sustained RCOF processes.
- The RCOF Review was guided by the CCI TT-RCOF in close collaboration with the Subject Matter Experts (SME) from international institutions involved in RCOF process.

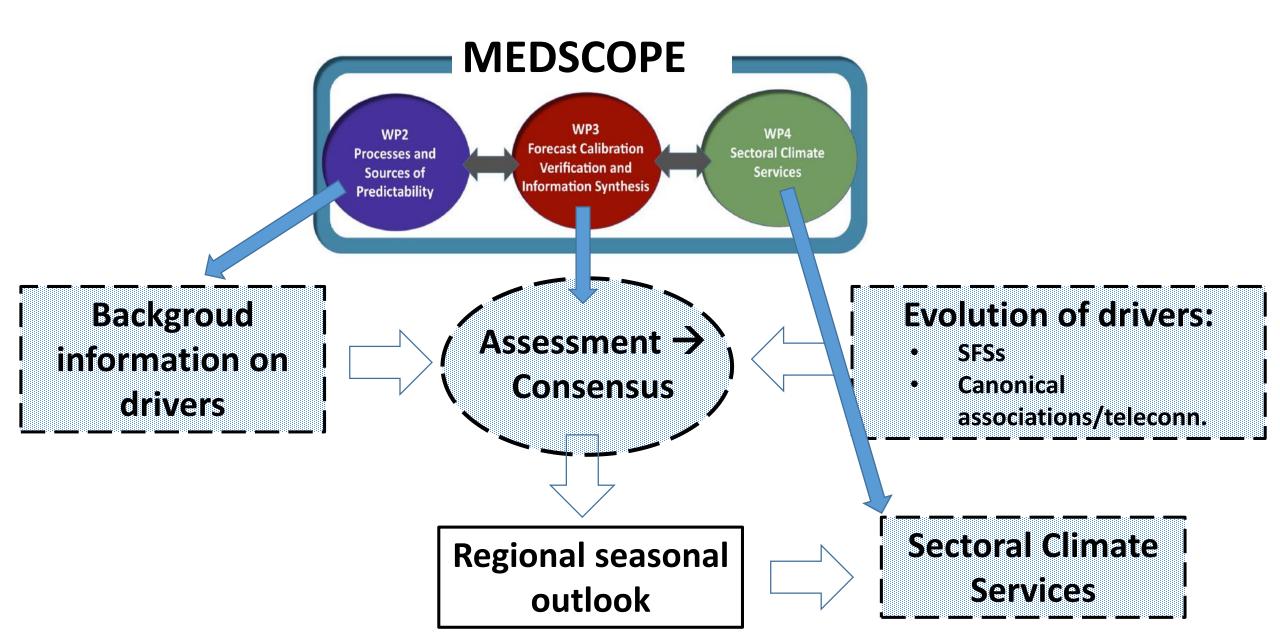
### Regional Climate Outlook Forums (RCOFs) (2)

- RCOFs provide platforms for Climate experts and climate information users to:
  - Discuss current climate status
  - Exchange views on scientific developments in climate prediction
  - Develop consensus-based regional climate outlooks that can feed into national climate outlooks produced by NMHSs
  - Engage in **user-provider dialogue**
- An important aspect of RCOFs is the facility to bring together experts in various fields, operational climate providers and end users of forecasts in an environment that encourages interaction and learning.

#### Current practice in MedCOF for consensus seasonal outlook



#### Matching between MEDSCOPE and MedCOF



# Specific recommendations for improved RCOF operations (I)

- Promote **WMO LC -LRFMME** data to enable RCCs to produce objective forecast
- RCCs to continue guiding/coordinating the RCOF process,
- Build feedback mechanisms at RCOF sessions to propose improving RCC activities
- Expand RCOF product portfolio to include:
  - Climate Monitoring
  - Verification
  - Remote climate anomalies
  - Sub seasonal products
  - Introduce **Climate Change component**, in terms of observed trends, attribution of extreme events, etc.
  - Replace the pre-COF training sessions with "centralized" training workshops

# Specific recommendations for improved RCOF operations (II)

- Promote stronger linkages of RCCs, RCOFs with research community
- Establish/Implement regular NCOFs (and other similar mechanisms) at national (and sub-national) levels
- National Frameworks for Climate Services (NFCS) linked to high-level cross-cutting objectives, will provide mechanisms for sustainability to the national climate forums
- Ensure joint provider-user ownership of RCOF process, demonstrating the value of forecast and advocating with the governments the usability/value of the RCOF/NCOF products

# Way forward towards the new generation of RCOFs (RCOF v2.0)

- Mainstreaming of objective seasonal climate forecasting underpinning RCOF products,
- New approaches including **expanded product portfolio**, based on standardized operational practices identified during the workshop,
- Follow-up integration of seasonal outlooks in decision-making process at country level
- Improved Partnership and User Engagement in RCOF process
- Organization of "centralized" training workshops to better target capacity development efforts associated with RCOFs

### Objective seasonal climate forecasting

- New methods for bias correction and forecast calibration
- Combining and synthesizing all sources of climate forecasting information into a single source of information.
- Selection of sub-ensembles for applications
- Make use of portals such us LC-LRFMME, C3S, NMME, etc

### Expand product portfolio

- Climate Monitoring
- Verification
- Remote climate anomalies
- Sub seasonal products
- Introduce Climate Change component, in terms of observed trends, attribution of extreme events, etc.
- Replace the pre-COF training sessions with "centralized" training workshops

# Integration of seasonal outlooks in decision-making process

- In addition to sectoral information from C3S, MEDSCOPE will provide specific sectoral seasonal predictions for the Mediterranean region. In particular it will demonstrate the feasibility of climate services and generate prototypes for three sectors:
  - renewable energy
  - hydrology (including water resources and flood risk assessment)
  - agriculture and forestry.

### Improved Partnership and User Engagement in RCOF process

- Expand and **improve the current practice of one day** specifically devoted to interaction with users.
- **Coordinate with C3S** to reinforce user engagement
- Deepen links with sectors explored in MEDSCOPE project

# Organization of "centralized" training workshops

- Coordinate with WMO and RCCs for the organization of "centralized" workshop also making use of web based tools, e.g., webinars, Moodle platforms, etc.
- Open MedCOF training workshops to participants from other RCOFs at least via web.
- Prepare and make available to all RCOFs specific E-training material for RCOFs, e.g., tutorials, presentations, videos, tutorized practical sessions, etc

#### Future

- Closer colaboration between MedCOF and MEDSCOPE. Some MedCOF participants are also MEDSCOPE partners.
- Identification of **predictability drivers** is a core element of MedCOF activity.
- Development of **objective tools for combining and synthetizing** information.
- Tailored CS to enhance users interest and participation
- Demonstration of added value of tailored products
- Common MedCOF and MEDSCOPE training activities