# Global RCOF Review 2017 recommendations : Role of RCCs in RCOFs Regional Climate Forum (RCF) concept

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# Global RCOF review

**RCOF Review** : held in Ecuador in September 2017

**Objectives** : 5 main objectives

1. Identify the lessons learnt, and good practices in RCOFs
2. Identify opportunities and innovative approaches for RCOFs
3. Explore possibilities to enhance/improve the capacity development benefits of RCOFs
4. Consider possible expansion of the RCOF product portfolio,
5. Propose ways to make more effective delivery and communication of climate products and services for decision making in a sustainable manner.

**Final Report** : available @ ...

http://www.wmo.int/pages/prog/wcp/wcasp/meetings/documents/rcofs2017/Report_RCOF_Review_2017_final.pdf

# Main Outcomes

## RCOF Operations

- RCOF process and format of the forecast outlook should be uniform or standardized … but only to some extent (taking care with regional specificities)
- Development of high resolution and quality data bases for better climate monitoring as well as bias correction and verification of climate model forecasts.
- Process of preparing the consensus forecast map from various forecast inputs should be objective as much as possible.
- Skill maps of objective methods need to be made available for improving confidence in using the consensus forecast products
- Standard tools for verification of consensus forecasts
- Mechanism to update the consensus forecast regularly

# Main Outcomes

## RCOF Operations

- Sub-seasonal/monthly climate forecasts to supplement the seasonal forecast .
- Capacity training workshops on other topics such as the construction of long time series of gridded climate data over the region, extended range prediction, climate applications and climate impact assessment
- Increased interaction with the user community and generation of tailored climate products for the users.
- Specialized capacity building workshops for user community (building the necessary shared knowkedge)

# Main Outcomes

## Forecasting process

- Large set of methods used (persistence, analog, composite, variability and trends analysis, statistical and dynamical modeling, model outputs statistics)
- Verification of the last seasonal forecast
- Analysis and diagnostics on the current state of climate with emphasis on drivers of climate variability
- Collection, processing, tailoring and interpretation of forecasts products
- Sub-seasonal and climate scenario products and information are increasingly being considered as RCOF outputs

# Main Outcomes

## SWOT Analysis - Strengths

- Capacity development and relationship building among NMHSs
- Interaction/collaboration
- Coordinated RCC/NMHS linkages
- Access to GPC-LRF data, products and tools
- Sustained building of a community of learning
- Communication and awareness building
- Harmonizing products across region
- Consolidating information from multiple sources through expert consensus approaches

## SWOT Analysis – Weaknesses

- High staff turn over and sub-optimal retention of capacities
- Low level of awareness of probabilistic outlooks
- Lack of good quality data, sharing constraints
- High subjectivity in consensus practices
- Low user engagement and national follow-up
- Lack of standardized approaches to downscaling, calibration and verification
- Lack of ability to demonstrate value of forecasts

# Main Outcomes

## SWOT Analysis – Threats

- Sustainable funding
- Low/varied technical capacities of NMHSs
- Visibility (public as well as policy makers)
- Inadequate observational networks/databases
- Perceived low importance of seasonal forecasts

## SWOT Analysis - Opportunities

- Sector-specific tailored products/ co-production approaches
- Foster linkages with research and adaptation communities
- Regional approaches to GFCS implementation/funding access
- Improvements in forecast skills/usefulness
- Sub-seasonal/annual forecasts on the horizon
- Regional product standardization
- More frequent RCOFs through electronic communication
- User engagement through NCOFs

# Futur generation of RCOFs

## Way forward

- 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

# Futur generation of RCOFs

## Roles and operations of GPC-LRFs in support of RCOFs and in introducing Objective approaches to RCOF products

- Encourage RCCs to take the lead in accessing these data and disseminating to members
- Capacitate RCCs and NMHSs staff in processing GPC data outputs via training programs
- Expedite the technical guidance on operational seasonal predictions (under development by the IPET-OPLSLS)
- Encourage GPCs to adopt some RCOFs in regions of their particular interest for sustained support; and to contribute with climate monitoring information to RCOFs
- Encourage the extension of the current verification procedures for individual GPCs to the MME forecasts produced by the LC-LRFMME, and development of verification products for pre-defined RCOF regions.

# Futur generation of RCOFs

## Roles and operations of RCCs in support of RCOFs, including capacity development and updates between RCOFs sessions

- RCCs should lead RCOFs and facilitate regular updates between RCOFs in close consultation with NMHSs of Member countries

➢ *As a part of the standardized process, RCCs can provide updated regional based consensus forecast even if only for reference*

- Recommend strongly that NMHSs consider RCOF forecasts and updates,
- Pursue capacity building for NMHSs through national training workshops
- Pursue co-designing, and co-producing communications packages – moving toward impacts based forecasts
- RCCs should contribute to data management, data rescue, QC

# Futur generation of RCOFs

## Roles and operations of RCCs in support of RCOFs, including capacity development and updates between RCOF sessions

- Promote stronger linkages of RCCs, RCOFs with research community
- Develop a methodology for downscaling (techniques) - to be part of capacity development of NMHSs
- Demonstrate the value of both regional (RCOF) and national products
- Should at least play a significant role on resource mobilization for RCOFs
- Recommend that sub-seasonal forecast be a part of RCC and RCOF along with training would be necessary
- Provide tools or methodology for sub-seasonal forecasting, along with capacity building.

# Futur generation of RCOFs

- **Role of NMHSs in the follow-up integration of seasonal outlooks in decision making process at country level**
  - Institutionalization into existing governmental structures (such as for DRR)
  - Co-productions (at planning level): demonstration projects to lead to final agreements
  - Recommendations to RCOFs/RCCs
- Convert maps into objective impact products for input to sector models
- Build information on regional scale - to address needs of regional users
- Improved communication: train users, develop communication strategy to communicate tailored info, moderate users expectations, provide information on risks.

# Futur generation of RCOFs

## User engagement in RCOFs

- RCOFs develop deliberate and targeted partnerships,
- New approaches to feedback - mechanisms for continous feedback, more creative ; ways to collect feedback involving social experts
- Relations building, trust, and ownership that includes communication, mutual capacity building, and building climate services teams
- Technical recommendations: tailored products, reconsidering probabilities linking with confidence, data availablity (not only climate)

- Building a **Regional Climate Forum** as a plateform moslty dedicated to users and dialogue between the stakeholders and the providers ; promoting and facilitating the access to relevant information and the co-design and co-production processes ; allowing a better use of the climate information

# Futur generation of RCOFs

## Expanding RCOFs portfolio

- Climate monitoring

➢ Develop proper understanding of what should be included in the monitoring (e.g. variability patterns, current predictability of the system)

➢ Template for Climate monitoring (including relevant Climate Drivers)

- Verification

➢ Use to look back and try to understand where and why the outlook went wrong/right

➢ Broaden the reflection to consider atmospheric and ocean structures, any impact based forecast, as well as verify how the information was used.

- Remote climate anomalies (climate anomalies for other regions)

➢ Need a research/survey on which climate anomalies are of interest

➢ Easy solution to have a link to the relevant RCOFs on the RCOF website

# Futur generation of RCOFs

## Expanding RCOFs portfolio

- Capacity Developments

➢ Could be in form of centralized training, grouping different regions a good approach (separate to RCOFs)

➢ Online training could be widely used

➢ Training of NMHS personnel; also training sessions for user groups (separate and joint), introducing climatological aspects in training for users

- The following were recommended to have a lower priortiy, due to lack of knowledge on the subject (more research required), or limited benefits compared to the previous suggestions:

➢ Subseasonal products (e.g. region specific such as onset dates) :

➢ Annual to multidecadal scale outlooks :

➢ Impact based forecasts :

➢ Demonstrate value :

# RCC Operations review

# Futur generation of RCOFs

- **Improved RCOF operations**
  - Promote greater access and utilization of WMO LC -LRFMME and GPC data to enable RCCs to produce objective forecasto to optimize skills for the region of interest (for RCOF operations and RCCs)
  - RCCs to continue guiding/coordinating the RCOF process, including the responsibilities of RCCs to play a role in resource mobilization for RCOFs
  - Build feedback mechanisms at RCOF sessions to propose improving RCC activities to better address RCOFs needs
  - Expand RCOF product portfolio to include:
    - Climate Monitoring, Verification, Remote climate anomalies, Sub seasonal products, Introduction of Climate Change component, in terms of observed trends, attribution of extreme events in climate change context, etc.
    - Replace the pre-COF training sessions with "centralized" training workshops that address specific competencies across regions

# Futur generation of RCOFs

## Improved RCOF operations

- Promote stronger linkages of RCCs, RCOFs with research community
- Establish/Implement regular NCOFs (and other similar mechanisms) at national (and sub-national) levels, with the primary aim of sharing seasonal products and their updates on a regular basis to support sector-driven climate risk management
- 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