

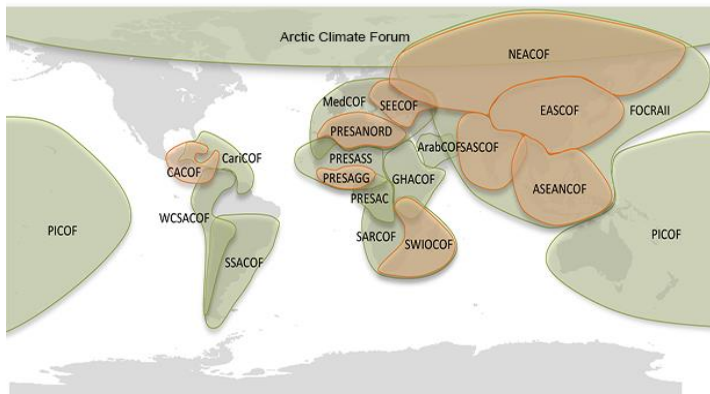
WMO's Regional Climate Outlook Forums - Status and evolution

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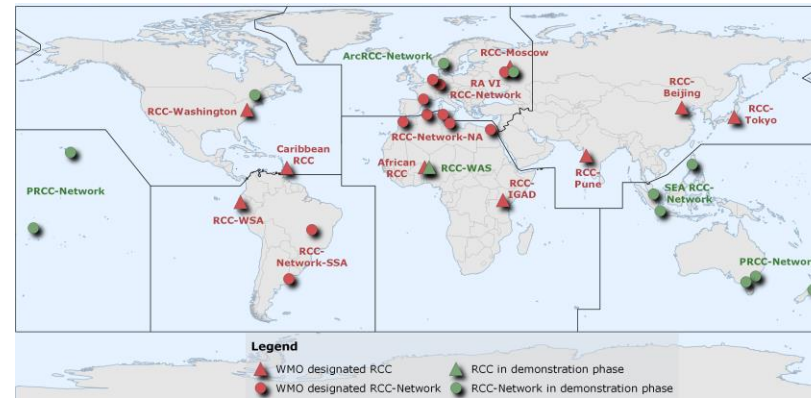


Regional Climate Outlook Forums - Concept

A platform that brings together national, regional and international climate experts and stakeholders' representatives from countries in a **climatologically homogeneous area** to provide consensus-based climate predictions based on input from **NMHSs, regional institutions, WMO RCCs, WMO GPC-LRFs** and other **climate prediction centres**.



WMO Regional Climate Outlook Forums



WMO Regional Climate Centres



WMO Global Producing Centres for Long-Range Forecasts

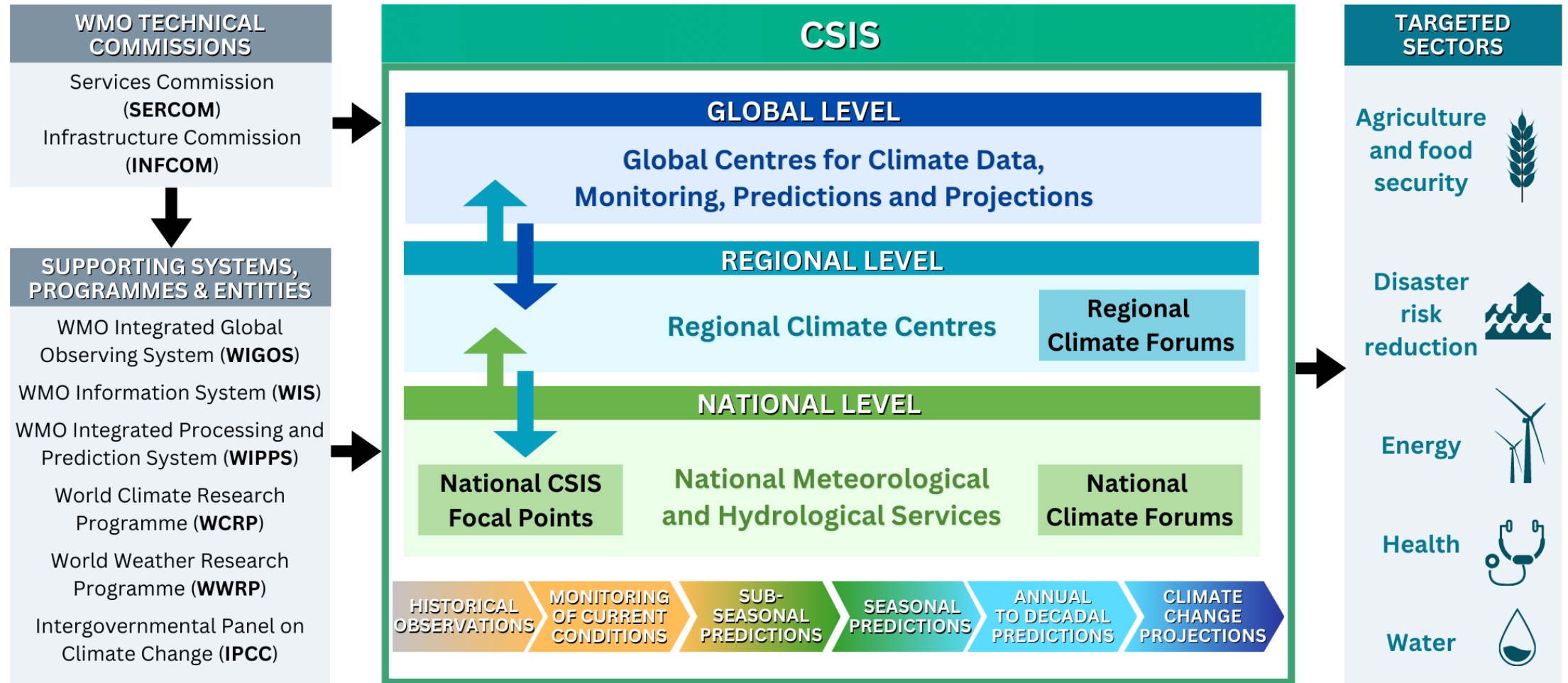
Historical perspective

- RCOFs were initiated in late 1990s under the WMO Climate Information and Prediction Services (CLIPS) project.
- They were first established in 1996 in Zimbabwe.
- RCOF gained momentum as a regional response to the major 1997/1998 El Niño event.
- Upon conclusion of CLIPS in 2015, RCOFs are widely recognized to be key elements in the implementation of the Global Framework for Climate Services (GFCS).



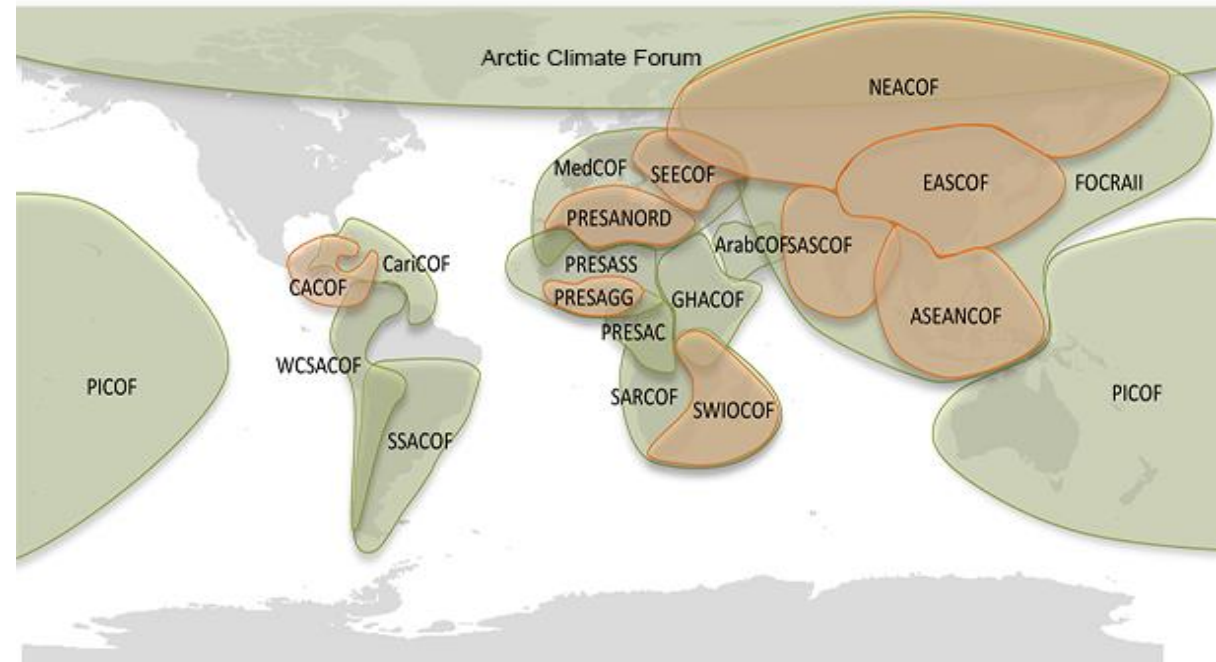
Global Framework for Climate Services

RCOFs support CSIS implementation



Current status worldwide

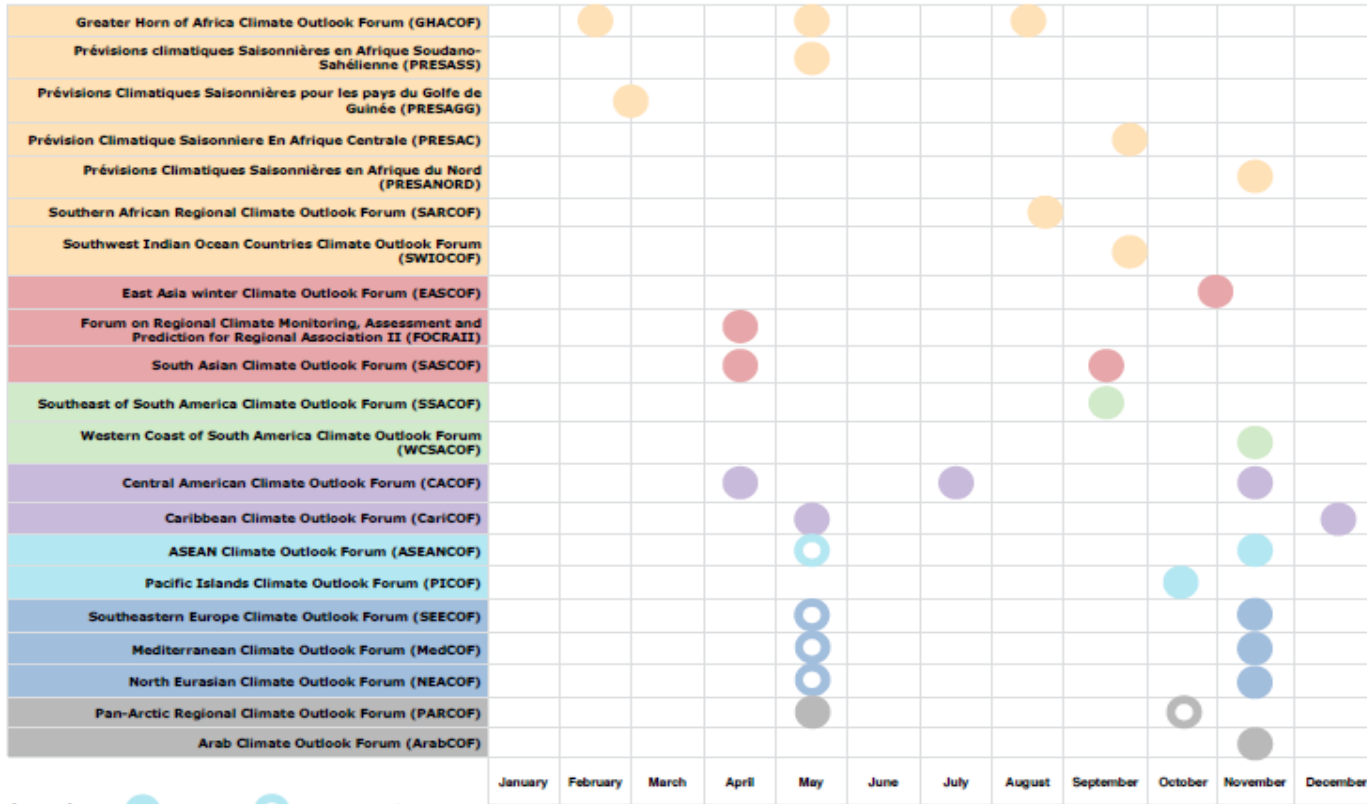
- 21 RCOFs are regularly conducted in many parts of the world.
- **New forum:** Third Pole Climate Forum (TPCF)
 - Scoping workshop on the establishment of the TPCF, 7–9 November 2023, Bangkok, Thailand
 - Focuses on the cryosphere products



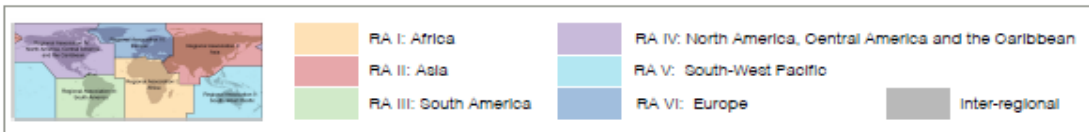
WMO Regional Climate Outlook Forums

Format and calendar

REGIONAL CLIMATE OUTLOOK FORUMS



Legend: ● Forum ○ Online events

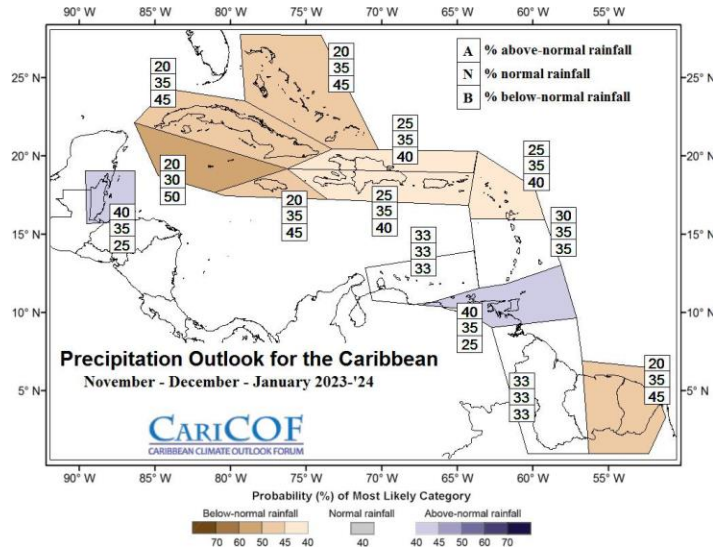


Through interaction with sectoral users, extension agencies and policymakers, RCOFs assess the **likely implications of the outlooks on the most pertinent socio-economic sectors** in a given region and explore the ways in which use can be made of them.

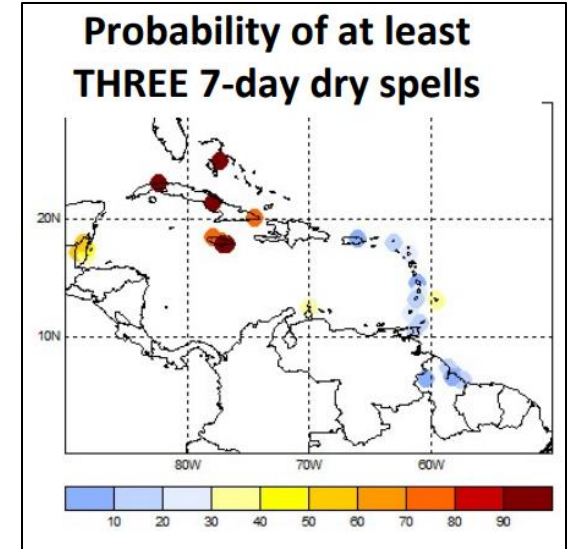
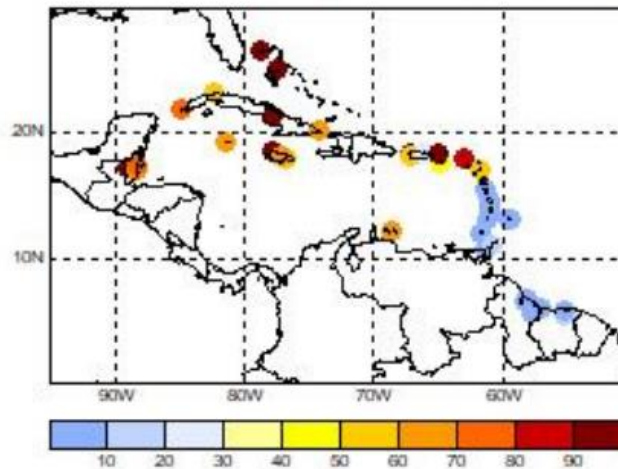
One of the important components of RCOFs is development of existing capacities of NMHSs in **seasonal forecasting and communication of climate information** to user community.

Caribbean Climate Outlook Forum (CariCOF)

Examples of products



Prob. no more than 3 heatwave days in October 2023



What is the predicted long term drought concern at the end of November 2023?

- This 12-month SPI-based drought outlook uses observations through August 2023, with potential impacts on large surface water reservoirs and groundwater. In general, impacts are expected if the 12-month SPI is ≤ -1.3 (severely dry or worse - ref.: CDPMN).
- A **drought warning** should be considered for western Belize, Dominica, southern French Guiana, Martinique, southeast Puerto Rico, St. Vincent, and Trinidad & Tobago.
- A **drought watch** should be considered for eastern the ABC islands, Barbados, northern and eastern Belize, Grand Cayman, Western and Central Cuba, northern Dominican Republic, central French Guiana, Grenada, northwest Puerto Rico, USVI, Saint Lucia, and Sint Maarten/St-Martin.

Long term drought alert levels at the end of November 2023
(updated September 2023 - based on a 12-month SPI for December 2022 to November 2023)

For climate information specific to your country, please consult with your national meteorological service. CariCOF outlooks speak to recent and expected climate trends across the Caribbean in general.

caricof@clmsh.edu.bb

WMO
IMO-WMO
150
1873
2023

Wet spells frequency shifts
Forecast for: November to January 2023-24

NDJ 2023-24 frequency of 7-day wet spells

USUALLY: Between 2 and 5 wet spells occur from November to January, with 1 to 3 of them ending up very wet (coastal Guianas: up to 3).

FORECAST: NDJ may be wetter than usual in Belize and Trinidad and Tobago, but the usual or drier elsewhere.

- An increase in the number of 7-day wet spells is expected across most of the Lesser Antilles, Belize and Suriname (low to medium confidence), with fewer elsewhere across the region.
- An increase from the usual numbers of very wet spells is expected across most of the Windward Islands, the ABC Islands, Guyana and Jamaica.

IMPLICATIONS:

- Recharge rates of large water reservoirs and soil moisture by wet spells may be even faster than usual in the Lesser Antilles and coastal Guianas through the end of the year.
- The chance of recurrent very wet spells translates to flood potential (1) being high through December in Belize and the islands, particularly in the Windward Is.; (2) increasing from moderate to high in the coastal Guianas after November.

NDJ 2023-24 frequency of 7-day very wet spells

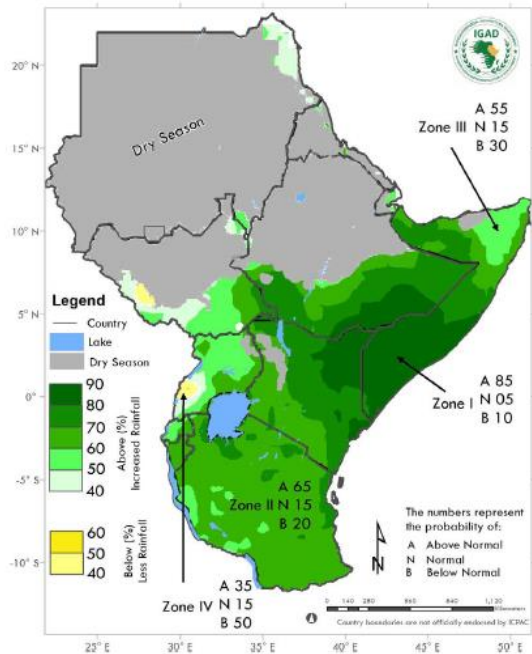
Frequency Shift: decrease, no change, increase

● little indication ● missing

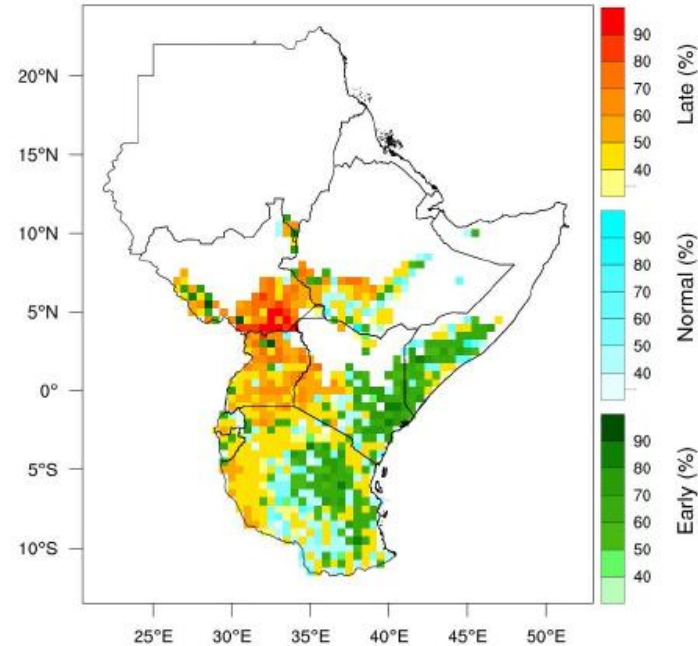
Greater Horn of Africa Climate Outlook Forum (GHACOF)

Examples of products

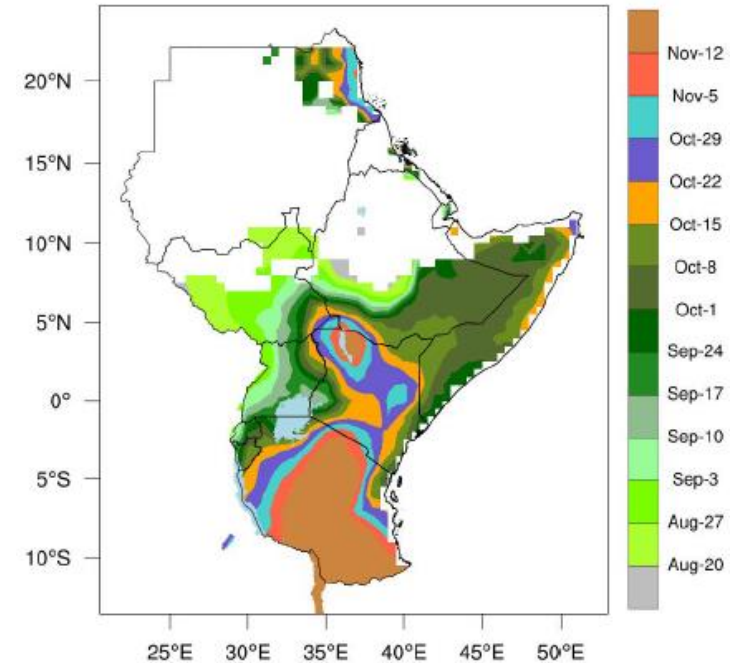
Rainfall probabilistic forecast
OND 2023



Onset probability
OND 2023

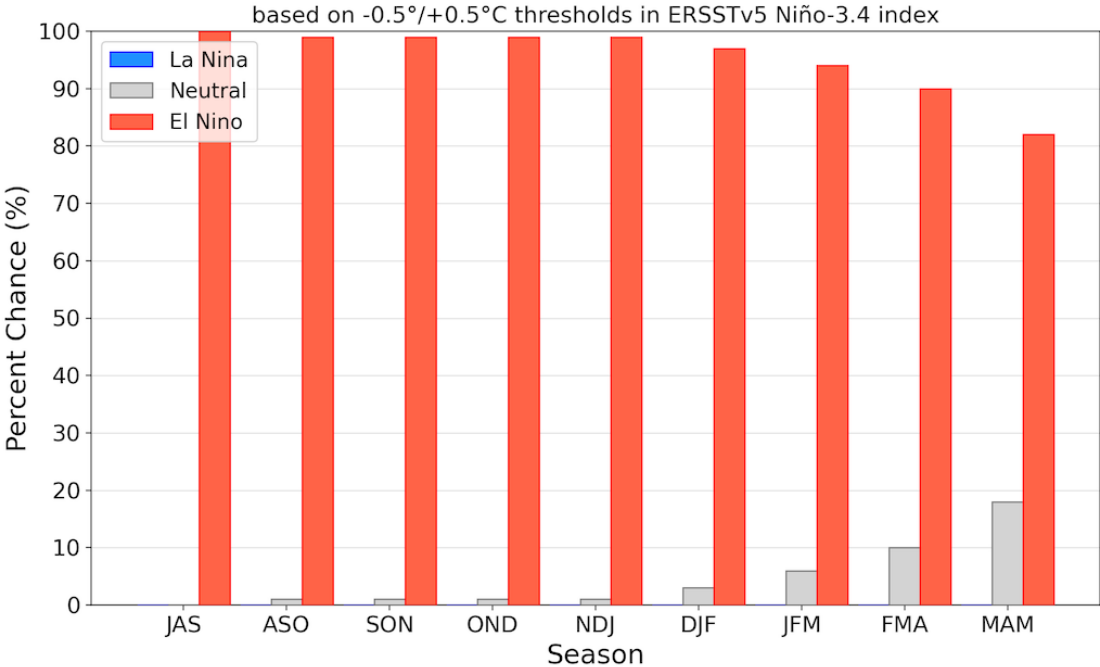


Onset dates
OND 2023

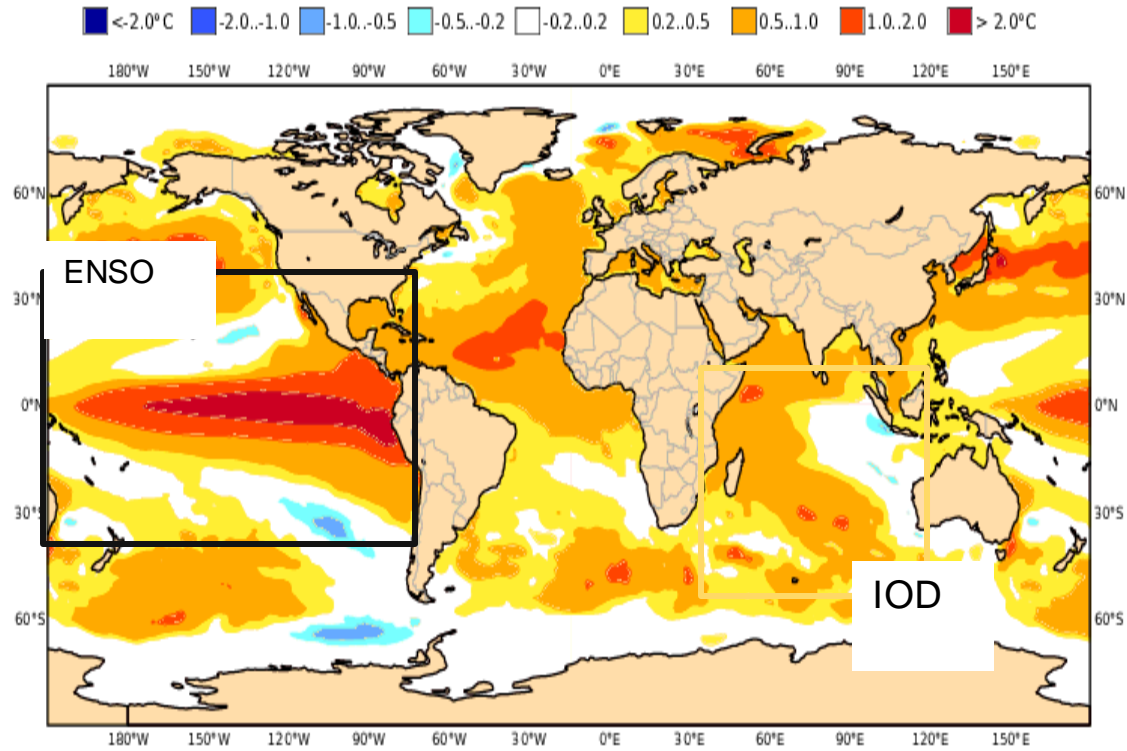


Climate drivers discussed by GHACOF

Official NOAA CPC ENSO Probabilities (issued Aug. 2023)



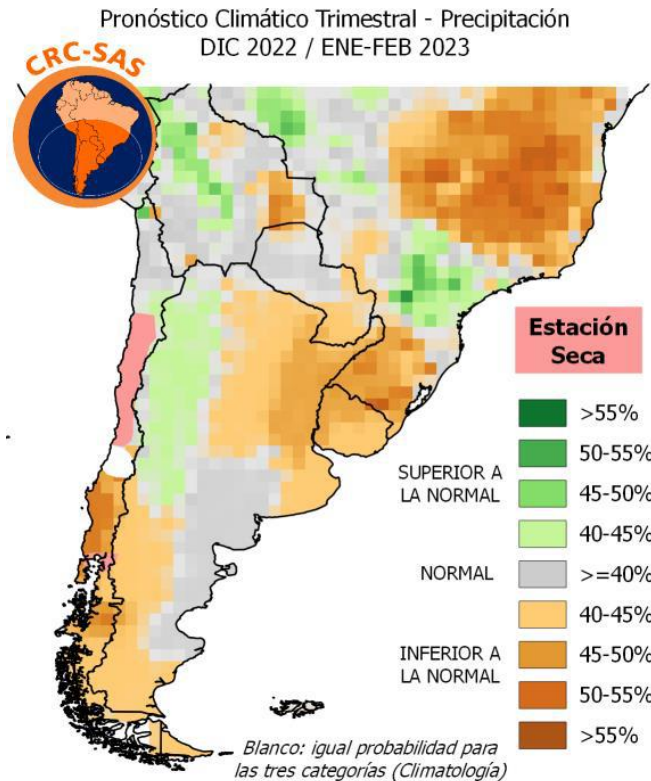
Predicted sea surface temperature OND 2023



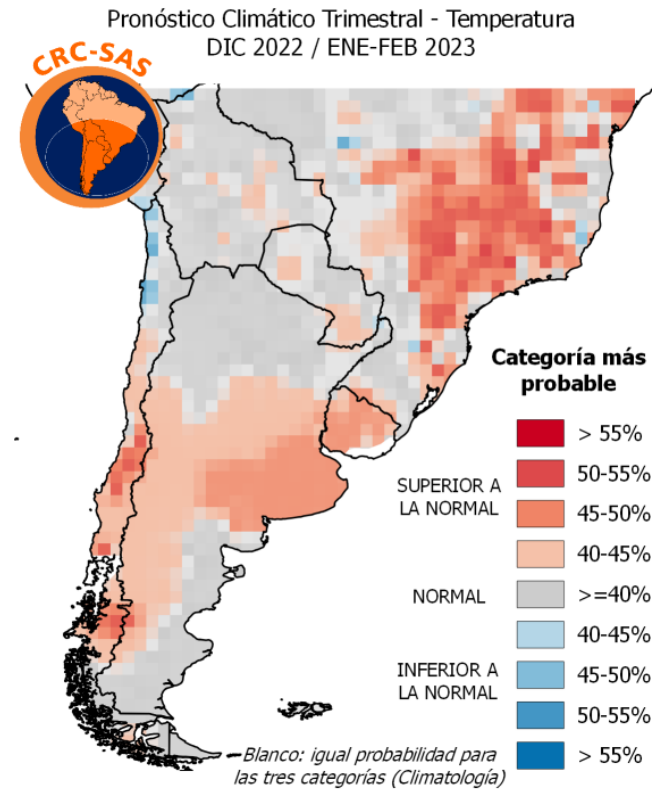
Southern South America Climate Outlook Forum (SSACOF)

Examples of products

Rainfall probabilistic forecast – DJF 2022/2023



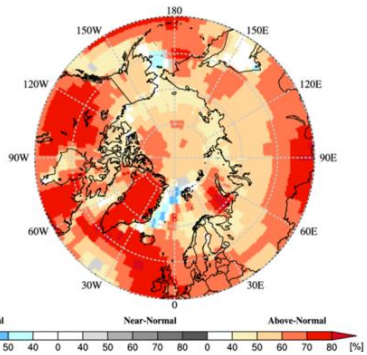
Temperature probabilistic forecast – DJF 2022/2023



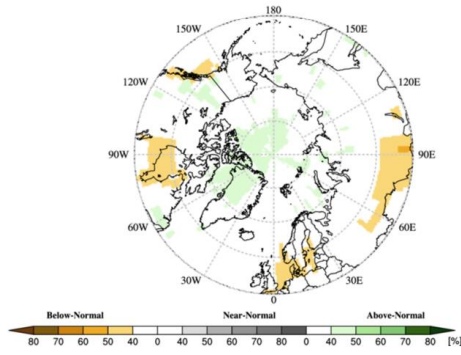
Arctic Climate Forum (ACF)

Examples of products

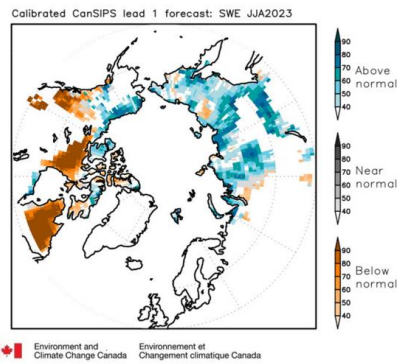
Temperature outlook
JJA 2023



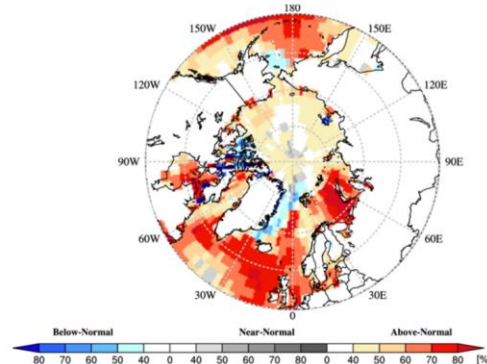
Precipitation outlook
JJA 2023



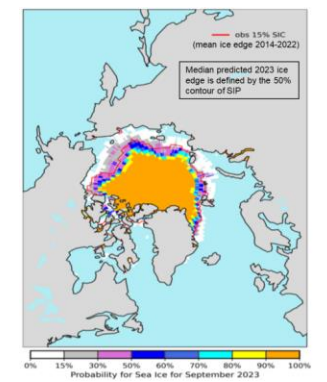
Snow Water Equivalent Outlook
JJA 2023



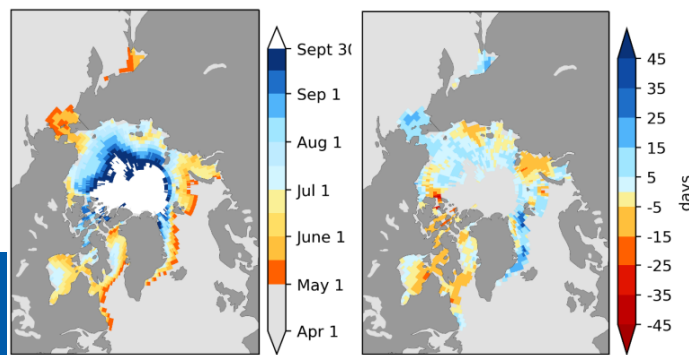
SST outlook (experimental)
JJA 2023



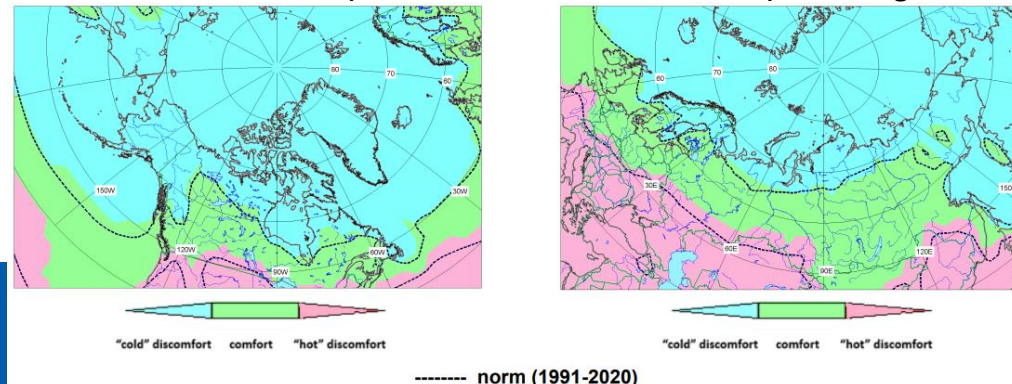
Minimum sea ice extent
September 2023



Spring break-up outlook
Ice-free date (left) – Ice-free date anomaly (right)



Bioclimatic indices outlook (effective temperature) – JJA 2023
Western Hemisphere (left) – Eastern Hemisphere (right)



Workshops on Global Review of RCOF

Global RCOF Review: Undertake a comprehensive review of the RCOF process, share experiences, highlight successes, address the challenges and pave the way forward for improved RCOF operations

- 2000: in Pretoria, South Africa
- 2008: Arusha, Tanzania
- 2017: Guayaquil, Ecuador

Global RCOF Review 2017 recommendations

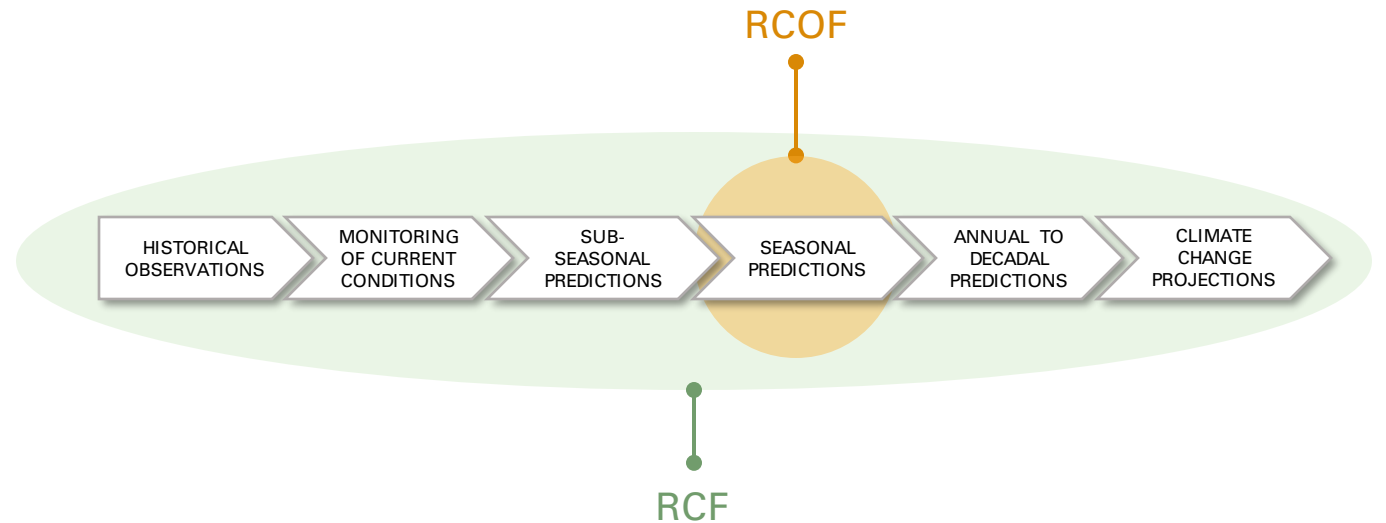
- Introduction of objective seasonal climate forecasts
- Expansion of the RCOF product portfolio (climate monitoring, sub-seasonal products, climate change component, verification, etc.)
- Follow-up of integration of seasonal outlooks in decision-making at country level
- Introduction of “centralized” training workshop to better target capacity development efforts
- Improvement of partnership and user engagement in RCOF process



Global Review of Climate Outlook Forums, 05-07 September 2017, Guayaquil, Ecuador

Transition to Regional Climate Forums (RCFs)

- Generalization of RCOF to include climate services at a broad and seamless range of timescale:
 - Data and monitoring
 - Sub-seasonal forecasts
 - Seasonal predictions
 - Annual-to-decadal predictions
 - Climate change projections
- Objectives of RCF:
 - Deliver high-quality climate information
 - Promote accessibility and applicability
 - Foster engagement
 - Translate climate information to valuable knowledge



WMO Guidelines on RCOF and RCF Operations

Workshop on developing the WMO guidelines on RCOF and RCF operations, 17–20 October 2023, Geneva, Switzerland:

- 11 selected experts worked together to further develop and produce an initial draft of the guidelines defining the RCF concept
- The guidelines will review:
 - the historical background of RCOFs
 - the need to expand the traditional RCOF portfolio
 - the operational considerations to conduct an RCF
 - the implementation and coordination mechanisms to sustain and maintain an RCF
 - etc.

WMO Guidelines on the Use and Interpretation of Climate Change Projections

Workshop on developing the WMO guidelines on the use and interpretation of climate change projections, 21–23 November 2023, Exeter, UK:

- 12 selected experts will work together to further develop and produce an initial draft of the guidelines
- The guidelines will address:
 - the value of regional and national projections in climate risk management
 - climate risk drivers
 - benefits and limits of using climate projections for decision-making (model errors, downscaling, uncertainty, accuracy vs precision, etc.)
 - use cases/examples (sectors, communities, industry, ecosystem, etc.)
 - monitoring and evaluation to support learning
 - etc.

WMO Guidelines on the Establishment and Operations of National Climate Outlook Forums and National Climate Forums

Workshop on developing the WMO guidelines on the establishment and operations of NCOF and NCF, 13–16 March 2023, Geneva, Switzerland:

- 8 selected experts worked together to further develop and produce an initial draft of the guidelines
- The guidelines will address:
 - the concept and benefits of NCFs
 - the functions and outcomes of an NCF
 - the key elements of establishing an NCF (structure, activities, capacity development and training, timing, duration and frequency, etc.)
 - challenges
 - case studies
 - etc.

WMO Guidelines on Operational Practices for Sub-seasonal Predictions

Workshop on developing the WMO guidelines on operational practices for sub-seasonal predictions, 16–19 May 2023, Geneva, Switzerland:

- 10 selected experts worked together to further develop and produce an initial draft of the guidelines
- The guidelines will address:
 - the components of a sub-seasonal forecast system (real-time forecasts, hindcasts, verification, observational datasets, etc.)
 - sub-seasonal forecast products (reference period, forecast categories, probability density function, tailored products, etc.)
 - good practices for developing well-calibrated sub-seasonal forecasts
 - sources of sub-seasonal prediction products
 - etc.

Thank you



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