



# The 2023-24 Dry Season Caribbean Climate Outlook Forum (CariCOF) Roseau, Dominica November 27<sup>th</sup> – 30<sup>th</sup>, 2023

## Concept Note

### Background

Addressing climate change and increasing climate variability are regional and national priorities established by the Heads of Government of the Caribbean Community. Climate variability and change, as exemplified by extreme weather and climate events, such as droughts, floods, heat waves and tropical cyclones, continue to pose significant risks for the Caribbean region. These make early warning information systems critical components of preparedness, risk reduction and adaptation.

Regional Climate Outlook Forums (RCOFs) were first organized in 1997 in response to a threatening El Niño event, to provide seasonal climate information to help decision-makers reduce climate-related risks, develop technical forecasting capacity, and to strengthen connections between science providers and decision-makers. Thanks to the promotion by the World Meteorological Organization (WMO), RCOFs are now active in several parts of the world. The Caribbean Climate Outlook Forum (CariCOF) is a significant step towards providing those relevant and necessary climate information and services to support adaptation and disaster risk reduction in climate sensitive sectors and communities across the Caribbean.

In June 2010, in the wake of one of the most intense droughts in Caribbean history, a workshop was convened to re-establish the Caribbean Climate Outlook Forum (CariCOF) after its hiatus in the early 2000s, in order to develop a sustained collaborative process that provides credible and authoritative real-time regional climate products. To cement the re-establishment, the first of many CariCOFs was held in February/March 2012 that consisted of three separate but complementary activities:

1. A Technical Training Workshop that developed a draft seasonal (three-month) rainfall outlook,
2. A Partnership Workshop that brought together key partners and users of climate information, and
3. The Outlook Forum that discussed the rainfall forecast with users, which determined the final product.





Since the 2012 CariCOF, the CIMH has been coordinating climate forecasting activities leading to a consistently growing body of climate forecasters who: (i) contribute to the monthly production of consensus-based seasonal climate outlooks, and (ii) engage with the user community, both nationally and regionally, to facilitate awareness-building within climate sensitive sectors. At the 2012 CariCOF, it was also agreed that the bi-annual hosting of such forums, roving across the region, just prior to the beginning of the wet season and the dry season in the Caribbean, be pursued. Since 2012, CariCOF face to face workshops were held in:

- Trinidad and Tobago, Jamaica, Saint Lucia, Dominica, St. Vincent and the Grenadines, Barbados and Sint Maarten prior to the 2013 to 2019 wet/hurricane seasons;
- Antigua and Barbuda, St. Kitts and Nevis, Grenada, Guyana, Trinidad and Tobago and Barbados for the Dry Season CariCOF prior to the 2014 to 2019, and 2022 dry seasons.

The face-to-face forums followed a similar agenda to that in 2012, but with the partnership workshop and forum merged into one General Assembly. From May 2020 until May 2022, CariCOFs were held virtually due to the COVID-19 pandemic.

### **The 2023-24 Dry Season Caribbean Climate Outlook Forum (CariCOF)**

The Caribbean dry season typically has implications for water management and agriculture, with water availability often challenging these two sectors. It is now customary to have participation from practitioners from the water and agriculture sectors for this CariCOF. However, the 2023 dry season CariCOF will also focus on the health sector, with Dominica, the host country for this CariCOF, being the target country for climate and health under the Climate Services and Related Applications (ClimSA) programme.

In collaboration with our partners the European Union, the Organization of the African, Caribbean and Pacific States (OACPS), the Caribbean Community Climate Change Centre, the National Oceanic and Atmospheric Administration of the USA, and the Columbia Climate School International Research Institute for Climate and Society, the 2023-24 Dry Season CariCOF is scheduled for November 27<sup>th</sup> – 30<sup>th</sup>, 2023 in Roseau, Dominica. The Stakeholder Forum will be held on November 29<sup>th</sup> and 30<sup>th</sup> featuring 4 sections:

1. The delivery of the regional forecasts for the season (which includes rainfall and temperature forecasts, as well as forecasts of drought and dry spells that limit water availability, wet days, wet spells, extremely wet days and extreme wet spells that provide insight into the potential for flooding), the Atlantic and heatwaves along with sub-seasonal forecasts up to 2 weeks,
2. Multi-Hazard Tournament – a fun and engaging way of collectively responding to forecasted climate conditions reflecting, as closely as possible, real decision making processes, amongst competing teams





3. Climate services for the water sector and water users in the Caribbean, with a focus on new research and development activities.
4. Climate services at the national level – national frameworks, climate forums and user interface platforms.

This agenda reflects strides to transition the global RCOF to Regional Climate Forums where the focus moves beyond just the outlooks for the season, but broader climate related issues.

### Pre-CariCOF Training of Caribbean Meteorologists and Climatologists

The technical training workshop, often referred to as the pre-CariCOF training of Caribbean meteorologists and climatologists will take place on November 27<sup>th</sup> and 28<sup>th</sup>, 2023. Training will continue the focus on sub-seasonal forecasting of water-related extremes of dry spells and excessive rainfall (as relates to the potential for flash flood occurrence), as well as monitoring (bush) fire danger that stems from dry conditions.

Sub-seasonal forecasts can provide information on timing within a month of a potential event which, as compared to weather forecasts, extends the lead time for alerting and response by up to 2-3 weeks. In 2018, the National Oceanic and Atmospheric Administration (NOAA), the International Research Institute for Climate and Society (IRI), Columbia University and the CIMH, commenced investigating the skill of US-based weather models at the sub-seasonal scale, with encouraging results for rainfall, temperature, dry spells and heatwaves at various time scales between 1 to 4 weeks. The US-based models operate at a spatial resolution that is too low to explicitly resolve the smaller islands of the Eastern Caribbean and highlight potential differences between them. In order to improve the resolution of sub-seasonal forecasts produced by the US-RCC for the Caribbean, statistical downscaling using regional climate data is required. Through downscaling, it is expected that the quality of forecasts should improve in terms of skill.

### Dominica National Climate Outlook Forum

This CariCOF week culminates on December 1<sup>st</sup>, 2023, with the inaugural National Climate Outlook Forum (NCOF) for Dominica. NCOFs are a World Meteorological Organization (WMO) initiative to enable countries to realize the benefits of climate information services. Like its regional counterpart the RCOF, for example the Caribbean Climate Outlook Forum (CariCOF), they deliver user-relevant climate outlook products in real time in order to reduce climate-related risks and support sustainable development for the upcoming season in sectors of critical socioeconomic significance – albeit at the national level in the case of NCOFs.

The forum will be hosted by the Dominica Meteorological Services in collaboration with the CIMH, with financial support from the ClimSA programme. The forum will showcase national climate outlooks for the 2023-24 Dry Season and launch the Caribbean ClimSA climate and health programme that would be piloted in Dominica. With the typical dry season concerns, the





NCOF will also place some focus on the agriculture and water resources sectors and discuss climate related issues surrounding these sectors.

