



## **POLICY DIALOGUE DAY FOR ANTICIPATORY ACTION**

### **CONCEPT NOTE**

**THEME: *"THE LOOMING EL NINO IS HERE AND THE EXPECTED IMPACTS ACROSS AFRICA COULD BECOME SIGNIFICANT"***

---

**DATE: August 24, 2023 AT 10:00 AM GMT**

**VENUE: ONLINE ON ZOOM**

**ORGANIZERS AND PARTNERS: ACMAD, AUC, UNDRR**

**EXPEXTED PARTICPANTS: STAKEHOLDERS OF THE ANTICIPATORY ACTION DIALOGUE PLATFORM FOR AFRICA**

***EXPECTED RESULTS:***

***AWARENESS RAISED AND ANTICIPATORY ACTION COORDINATED THROUGH INTERAGENCY AND INTER INSTITUTIONAL DIALOGUE***



**CONTINENTAL**

BRIEF FOR POLICY AND DECISION MAKERS BASED ON SIGNIFICANT WEATHER AND CLIMATE EVENTS UPDATE.

VALID FOR: **AUGUST TO DECEMBER 2023**

<p><b>CLIMATE ANOMALIES</b></p> <p>Wetter than average season leading to heavy rainfall with possibility of flooding events very likely</p>	<p><b>CLIMATE ANOMALIES</b></p> <p>Drier than average with wetter pre winter period</p> <p>A very hot season with more warmer than normal days within the seasons. Rainy days are likely to be less than normal with very marked rainfall deficit</p>	<p><b>CLIMATE ANOMALIES</b></p> <p>Drier than average season leading to prolonged drought with possibility of persistent drought events very likely</p>
<p><b>HAZARDS</b></p> <p>Heavy rainfall events may lead to flash flood, riverine flooding, landslides and soil erosion. High chance of lightning, hail formation and stormy weather are expected</p>	<p><b>HAZARDS</b></p> <p>Weak to Moderate drought, dry spells, near average to late onset very likely.</p>	<p><b>HAZARDS</b></p> <p>Weak to Moderate drought, dry spells, near average to late onset very likely.</p>
<p><b>POTENTIAL IMPACTS</b></p> <p>Waterlogging, pest and diseases infestation leading to outbreak of water borne diseases, damage to infrastructures (dams, reservoirs, bridges, roads...) Displacement of people due to floods.</p>	<p><b>POTENTIAL IMPACTS</b></p> <p>Moisture stress, decreased river discharge, reduced rain-fed crop yield prospect, degradation of pastures and high food prices.</p>	
<p><b>MEASURES</b></p> <p>Plant water-logged-tolerant crops. Tree planting campaigns. Develop new and rehabilitate existing drainage structure. Update and implement flood contingency plans. Improve water management in reservoirs and dams.</p>	<p><b>MEASURES</b></p> <p>Develop and implement policy to support drought tolerant and short cycle crops, soil and water conservation practice, maximize full irrigation farming. Use watershed based in-situ water harvesting structures Develop and implement policy in support of weather based insurance and dam management</p>	

**LEGEND**

- Observed drought hazard
- Observed flood hazard
- Drought hazard outlook
- Flood hazard outlook

✚ The question is no longer whether El Niño will happen, but what we must do to mitigate its impacts in Africa knowing floods in the east and drought in the south are key El Niño related hazards in the continent.



## 1. Introduction

El Niño is a phenomenon whereby the warming of the Pacific Ocean interacts with the atmosphere, causing an increased risk of flooding in Eastern Africa, drought in Southern Africa, poleward tracks and central genesis of South Western Indian Ocean tropical cyclones. It typically happens on average every two to seven years, and episodes tend to last nine to 12 months. Its effects are felt globally and particularly in Africa, El Niño disrupts seasonal rainfalls and temperatures, directly affecting agriculture, water resources, and consequently, food security, making it a pressing concern for the continent's sustainable development. The most recent significant El Niño event occurred in 2015-2016, which contributed to 2016 being one of the hottest years on record globally. In Africa since 1950, 2016 is still the year with the highest number of very hot days.

✚ The question is no longer if El Niño will happen, but what we must do to mitigate its impacts.



There is a greater than 90 percent chance that El Niño will continue through the end of 2023, and the Meteorological community **forecast a moderate to strong El Niño continuing into 2024**. This will increase the likelihood of extreme weather and climate hazards.

Fig1: Source: BoM of Australia El Niño Alert

Beyond extreme weather conditions, El Niño historically leads to various impacts such as floods in eastern Africa and drought in southern Africa where during El Niño 2015/2016, 50 million people were food insecure, mainly due to drought exacerbated by El Niño or due to a combination of drought and conflict which affected food security and agricultural production, with cascading effects on livelihoods, health, water, sanitation, education and other sectors. The African Centre of Meteorological Applications for Development (ACMAD) experts' analysis identify 2015 and 2018 as the two most likely years similar to the current year.

However, every El Niño is different, so the best we can do is prepare for extreme weather conditions and hope to mitigate its impact on sectors such as agriculture, water resources and on vulnerable groups, especially women and children.

***Nearly all models indicate El Niño will persist through the Northern Hemisphere winter of 2023-24. A strong El Niño (ONI values at or greater than 1.5°C) is indicated by the dynamical model average through December 2023-February 2024. (Source IRI 19 July 2023).***

## 2. What does El Niño 2023 mean for Africa?

The African Centre of Meteorological Applications and Development (ACMAD), a WMO Regional Climate Centre (RCC) with continental mandate organized the thirteenth session of Africa Continental Climate Outlook Forum (ACCOF-13) with all RCCs over Africa in July 2023.

The ACCOF aims at improving the contribution of RCCs to early warning, anticipatory action and disaster preparedness, taking into account information on global climate variability drivers such as the El Niño Southern Oscillation (ENSO) Indian Ocean Dipole (IOD), Atlantic Dipole, Benguela Niño, Sub-tropical Indian Ocean Dipole (SIOD), North Atlantic Oscillation (NAO) amongst others.

According to the consensus seasonal forecast update conducted under ACMAD's coordination with the contribution of Regional Climate Centres (ICPAC, SADC-CSC, AGRHYMET and CAPC-AC) which *provide a continental climate outlook for the upcoming four months period emphasizing expected climate anomalies, hazards outlooks, potential impacts and proposed response measures and actions required to update or implement Emergency Preparation and Response (EPR) plans. The evolution of the ENSO and IOD during 2023/2024 is expected impact African regions as follow for the coming season:*

- *Parts of Eastern Africa and northern Madagascar, are expected an above to well above average precipitation potentially associated with heavy rains and floods,*
- *Southern Africa is expected to record below to well below average precipitation associated with drought of moderate to high intensity with significant impacts in many parts of the region.*
- *The northern most part of Africa is expected to record a very hot summer season with a drier than usual winter.*
- *Above average precipitation, potentially leading to floods is likely to over parts of western Africa from August to October season.*

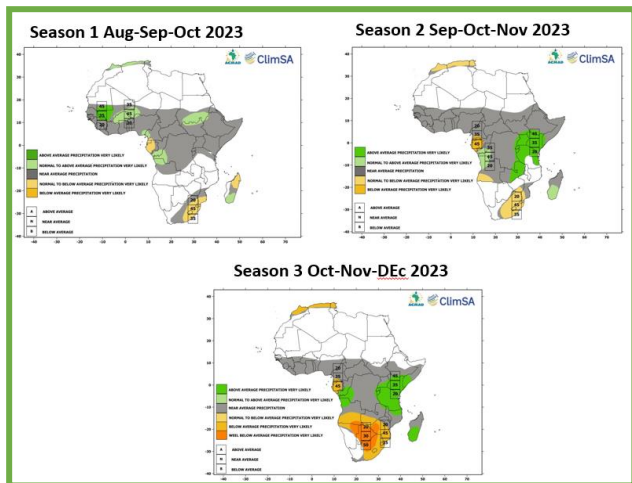


Fig2: Source: ACMAD Probabilistic Forecast

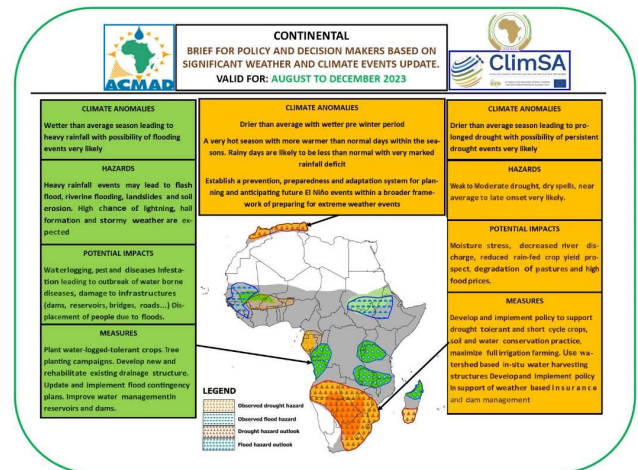


Fig3: Source: ACMAD, Impact Based Forecast

*This outlook is relevant for seasonal timescales and covers relatively large areas. Local and month-to-month variations might occur as the season progresses.*

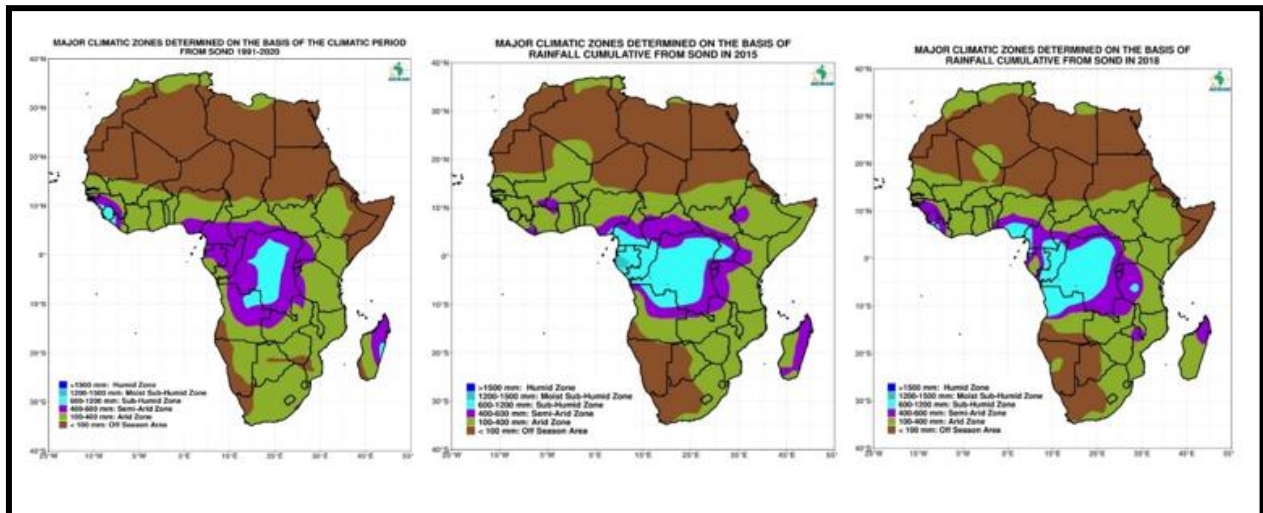
*ACMAD in collaboration with National Meteorological and Hydrological Services (NMHSs) will play a critical role in consistently monitoring the development of El Niño and will continue providing monthly Regional and Continental updates on a regular basis.*



### 3. What can we learn from a similar year “Analogue Year”?

Forecast by analogue year is a method that uses observed past similar drivers to predict the actual weather and climate conditions. On the map below, most of the western half of Southern African region moves from a semi-arid to dry land during the past two similar El Niño years. A significant part of semi-arid western southern Africa may not record rainfall up to December 2023.

*Based on these analogue years (2015 and 2018), moderate to severe drought is looming over parts of Southern Africa during the second half of the year.*



### 4. Recommendations

Along with flooding and food insecurity linked to droughts, infectious disease outbreaks are another significant fallout of an intense El Niño. There are lots of different ways that El Niño will drive the climate and make it more extreme over Africa especially over eastern and southern African countries.

The looming El Niño presents both challenges and opportunities for Africa. It requires concerted efforts from all stakeholders to mitigate potential negative impacts and leverage potential benefits.

Based on the analogue years’ precipitation patterns, impacts and response measures, the anticipatory action Dialogue Platform should be organized discuss preparation and early actions, share information on inter-agency and institutional commitments for anticipatory action,

ACMAD in collaboration with other Regional Climate Centres will actively monitor the looming El Niño event and will provide forecasts concerning the anticipated impacts throughout the forthcoming months. This proactive approach will help mitigate the potential risks and enable better preparedness to cope with the challenges posed by this climatic event.



## 5. Programme

<b>August 24, 2023, Starting time: 10:00 GMT</b>	
09:30-10:00	<b><i>Registration of participants online</i></b>
10 :00--10:10	<b><i>Session 1: Welcome Remarks and opening Speech</i></b> <ul style="list-style-type: none"> <li>- <b><i>Moderator's introduction</i></b></li> <li>- Remarks by AUC (Department of ARDWE)</li> <li>- Remarks by WMO</li> <li>- Remarks by Representative of UNDRR</li> <li>- Opening Speech by ACMAD</li> </ul>
10 :10 :11 :00	<b><i>Session 2: El Nino Outlook and expected August-December 2023 impacts in Africa</i></b> <ul style="list-style-type: none"> <li>- <i>African Continental Climate Outlook for August-December 2023, potential impacts and proposed Anticipatory action (ACMAD)</i></li> <li>- <i>Panel Discussions (OCHA, IFRC/Anticipatory Hub, AUC, UNDRR, ...)</i></li> <li>- <i>Recommendations</i></li> </ul>
11 :00	<b><i>Closing remarks and end of dialogue</i></b>



**ClimSA**



INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME

