



SOUTHERN AFRICAN DEVELOPMENT COMMUNITY CLIMATE SERVICES CENTRE (SADC-CSC)

REGIONAL SEASONAL UPDATE

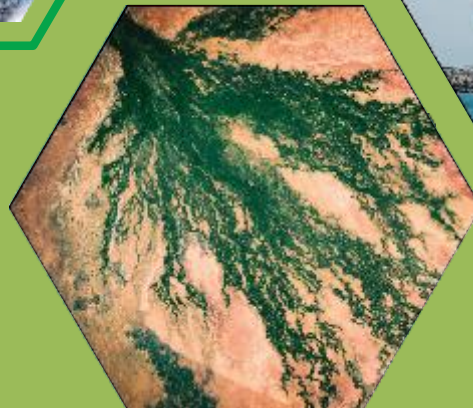
REPORTING PERIOD: JUNE-JULY-AUGUST 2024

FORECAST PERIOD: OCTOBER-NOVEMBER-DECEMBER 2024

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BENEFICIARIES



A. HIGHLIGHTS

- The **El Nino Southern Oscillation is currently neutral**, while the **Indian Ocean Dipole is also in a neutral** phase with a tendency to remain in this phase throughout the upcoming rainfall season.
 - **Rainfall during the June-July- August 2024 period was relatively dry in most parts of the SADC region**, except over extreme northern DRC, western Cape in South Africa, east coastal Madagascar and some parts of Tanzania, Eswatini and Mozambique.
 - The **minimum and maximum temperature anomalies** indicate a warmer June-July-August 2024 period.
 - **Enhanced rainfall** is expected in **parts of Botswana, northern South Africa, Zimbabwe, Mozambique, DRC and Tanzania**.
 - **Above normal temperatures expected** over most parts of the regions during the October to December 2024 period.
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1. PERFORMANCE OF CLIMATE DRIVERS

Global Sea Surface Temperatures have maintained near-record levels since the highest recording in July 2023 compared to recordings since 1854. The El Niño-Southern Oscillation (ENSO) has remained neutral May 2024, albeit now on the negative side of the neutral conditions as of August 2024. The Indian Ocean Dipole (IOD) is also currently neutral (Figure 1).

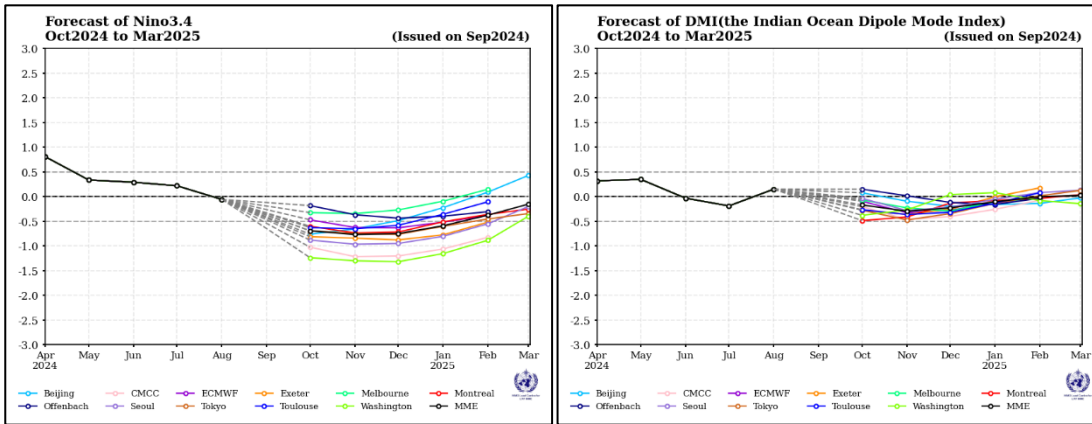


Figure 1: Observed Nino 3.4 basin index (left) and the IOD index (right) as of August 2024

2. SEASONAL RAINFALL PERFORMANCE

Relatively dry conditions prevailed over most of the SADC region during the past three as the reporting is a winter season for most countries in the sub-region and winters are usually dry in most countries, with an exception of the southern coastal areas of South Africa and northern parts of DRC, northern parts of Tanzania and eastern Madagascar. During the reporting period, it can be seen that amounts above 400mm were recorded in some parts of western Cape in South Africa, northern DRC and eastern Madagascar. Consecutive wet days were also recorded in the above mentioned areas with an inclusion of east coastal parts of South Africa, southern Eswatini, central Mozambique, southern Malawi and northern Tanzania (Figure 2).

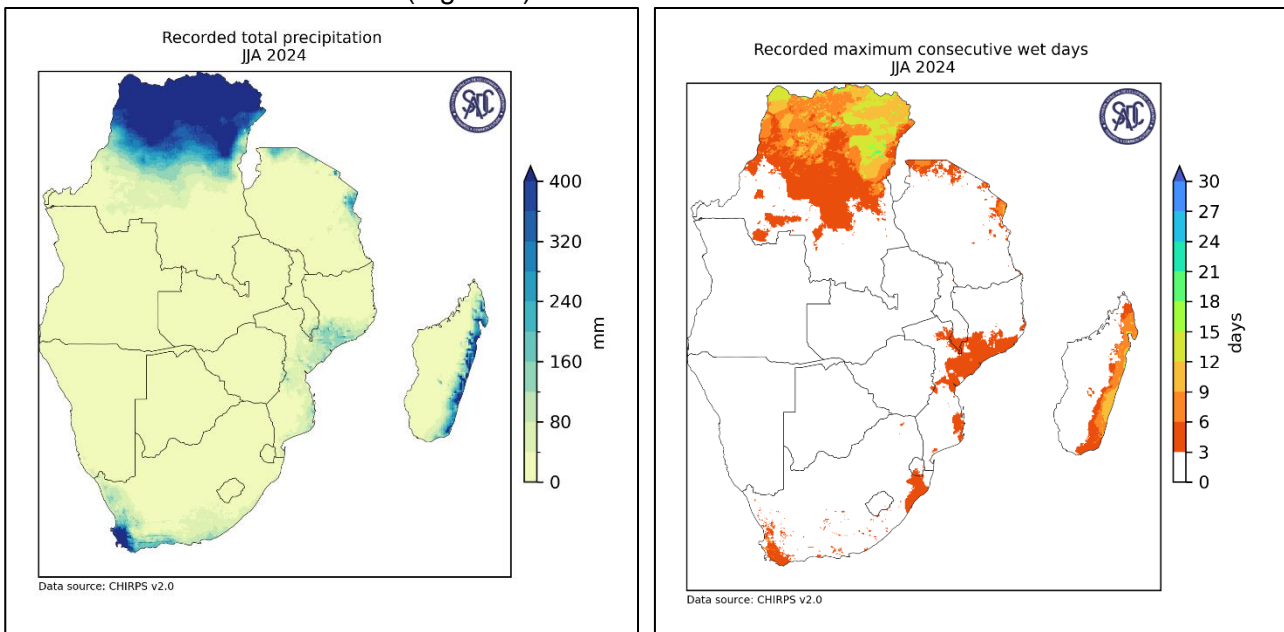


Figure 2: Observed rainfall (left) and maximum consecutive wet days (right) for the June-July-August 2024 period

3. REGIONAL TEMPERATURE

3.1 Minimum and Maximum Temperature

Bulk of the SADC region recorded warmer than normal day-time temperatures during the June-July-August 2024 period with an exception over north-western parts of Angola. Night temperatures, were slightly lower than the long term average over central to western parts of the sub-continent with warmer than usual night temperatures over east coastal areas including most of DRC.

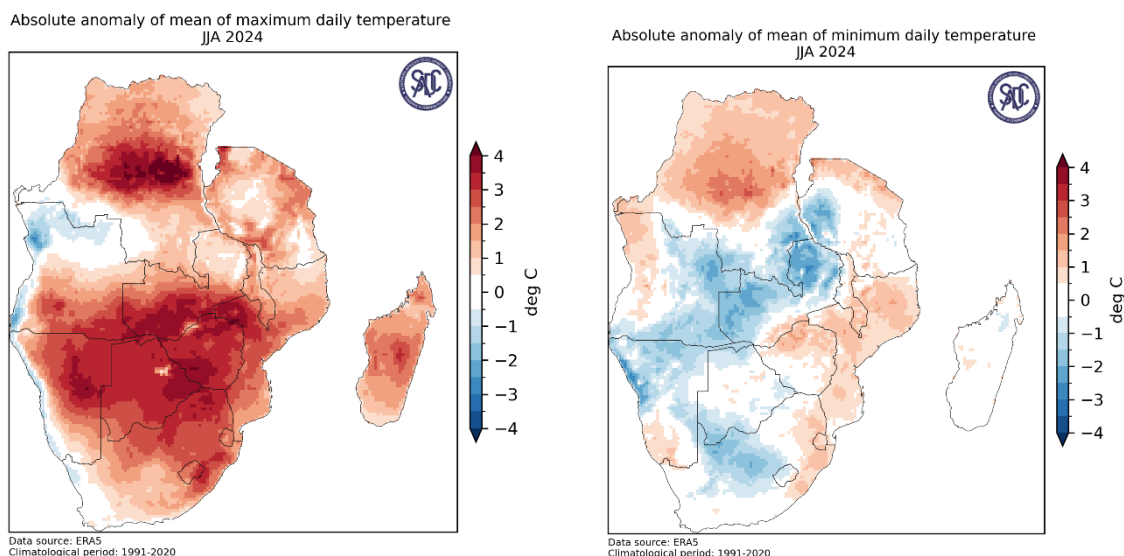


Figure 3: Observed average minimum temperature (left) and anomalies (right) for August 2024

4 SEASONAL OUTLOOK FOR OCTOBER-NOVEMBER-DECEMBER 2024

4.1 Forecasted Global Climate Drivers and Rainfall Outlook

Global models show that there is a slight likelihood for La Nina conditions to be met during the forecast period as it can be seen on the Copernicus Climate Change (C3S) service outlook in Figure 4 below, in that the Nino region in the Pacific Ocean will meet the La Nina threshold. This is further confirmed by the WMO Nino 3.4 multi model Index forecast (Figure 1) which indicates that La Nina conditions are likely to be met in October 2024, but will most likely be short lived as by February 2025, it is expected to have returned to neutral conditions.

The World Meteorological Organization multi-model ensemble outlook shows that the eastern parts of the SADC region will receive normal to above normal rainfall, while the bulk of the region will have no clear signal except the Seychelles where below normal conditions are expected (Figure 4 below).

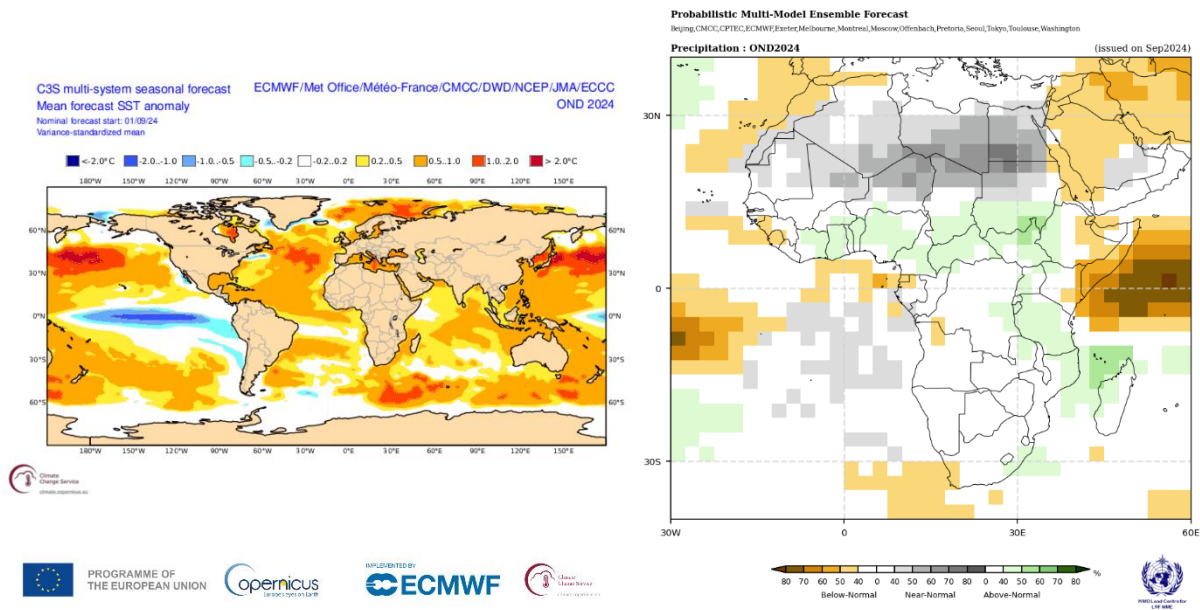


Figure 4: Global models Forecasted SSTs (left) and Forecasted rainfall (right) for the October-November-December 2024 period

4.2 Rainfall Seasonal Outlook

Enhance rainfall is expected over parts of Botswana, northern South Africa, Zimbabwe, Mozambique, DRC and Tanzania during the October to December 2024 period. Dry spell outlook also depicts that there are reduced chances for dry spell to prevail in the parts expected to observe normal to above normal rainfall during the upcoming three months. Parts of the region that are expected to record above normal consecutive dry days include central Angola, southern DRC, most of Namibia, South Africa, Lesotho, Eswatini and southern Botswana (Figure 5)

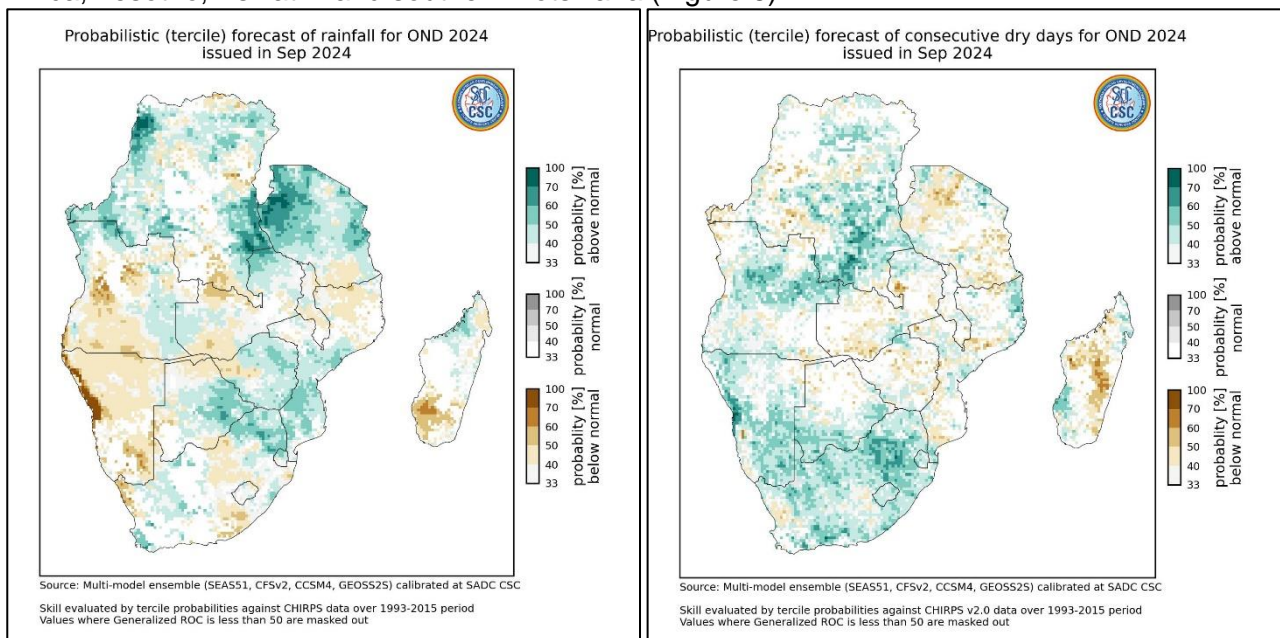


Figure 5: Forecasted rainfall (left) and maximum consecutive wet days (right) for the October-November-December 2024 period

4.3 Seasonal Temperature Outlook

The period October-November-December 2024 is expected to recorded above average temperatures over most parts of the SADC region with an exception of coastal areas of Namibia, South Africa and southern Mozambique (Figure 6 left).

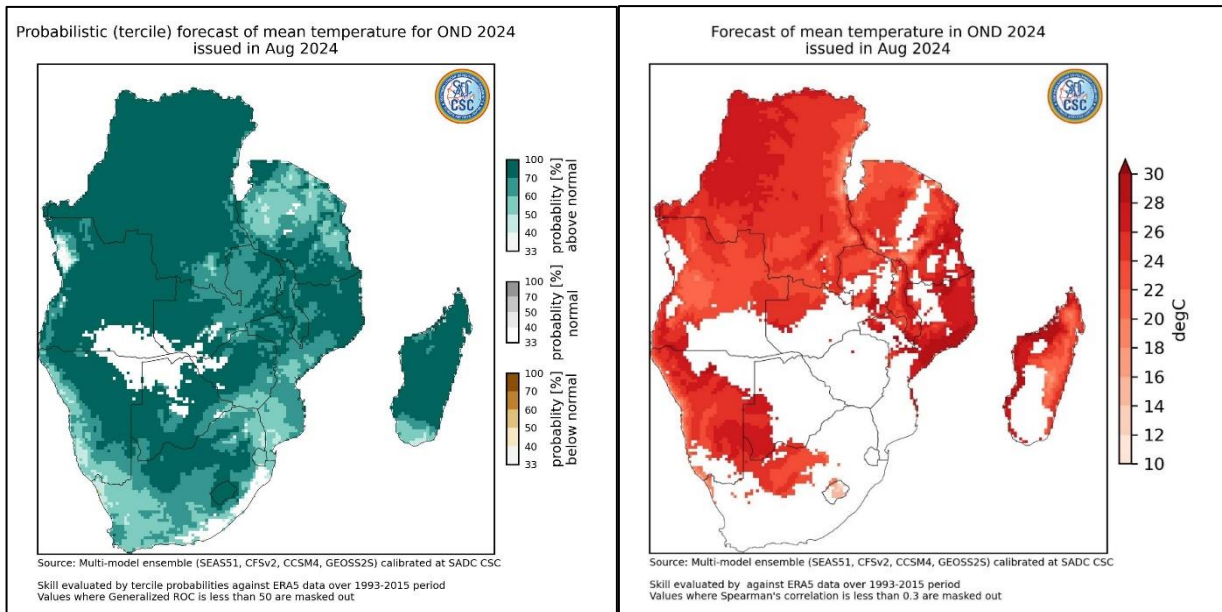


Figure 6: Temperature outlook for the October-November-December 2024

4.4 Southern African Regional Climate Outlook Forum (SARCOF)

The Twenty Ninth Southern African Climate Outlook Forum (SARCOF-29) that was held in Harare, Zimbabwe from 26 – 28 August 2024, projected that the bulk of the region will receive normal to above normal rainfall with an exception of mostly eastern parts of the region expected to record normal to below normal rainfall including the Island States of Comoros and Seychelles and most of South Africa (Figure 7 below).

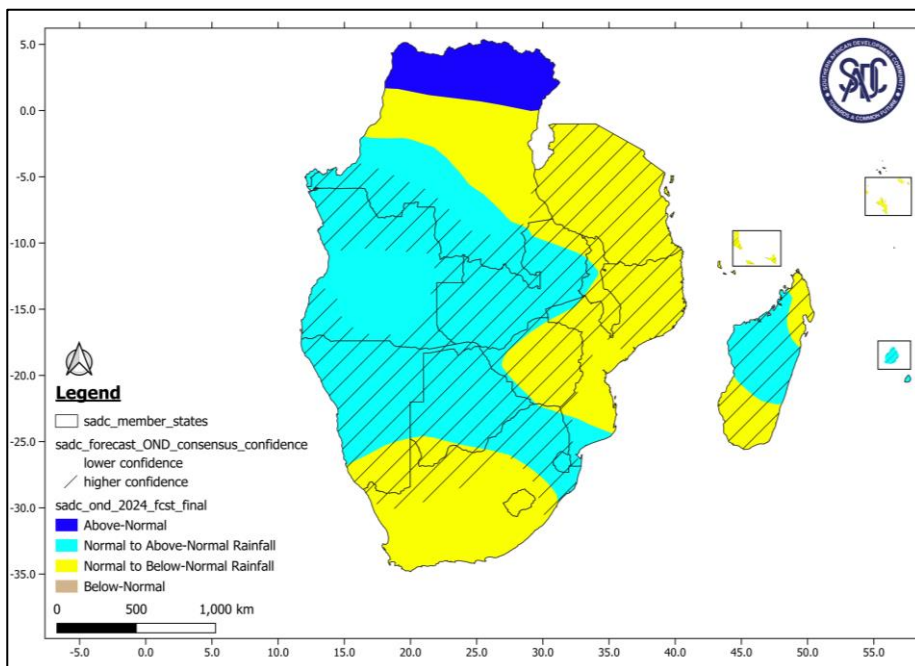


Figure 7: Rainfall outlook for the October-November-December 2024

NOTE:

This bulletin used CHIRPS and ERA5 data. While these datasets are considered broadly representative to local conditions over the SADC region, the results presented here may differ from those derived using local observations from Member States.

Users are therefore, urged to consult the local National Meteorological and Hydrological Services (NMHSs) for local conditions and detailed interpretation of the contents of this bulletin.



ClimSA

INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



An initiative of the Organisation of African, Caribbean and Pacific States funded by the European Union

