



INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

CLIMATE SERVICES CENTRE (SADC-CSC)

REGIONAL CLIMATE MONTHLY MONITOR

REPORTING MONTH: APRIL 2024

ISSUE NO. 07

YEAR: 2024

ISSUE DATE: 13 MAY 2024



FINANCIAL RESOURCES



European Union

TECHNICAL PARTNERS



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INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



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



BENEFICIARIES



A. HIGHLIGHTS

- **Rainfall during the month of April 2024 was well below the monthly long-term average** over most of the contiguous SADC region, except over extreme south DRC, northern Zambia, northern and extreme south Tanzania, southern Botswana, Lesotho and central South Africa.
 - **Persistent long term drought conditions continued** over much of the central and western parts of the sub-continent. Parts of southern Madagascar also experienced moderately dry conditions.
 - The **minimum temperature anomalies** were mostly close to slightly above the long-term average over most of the SADC region.
 - Positive **maximum temperatures anomalies of 2-3°C above average**, were recorded over central Madagascar, over north and central DRC, south Angola, south Zambia, west Botswana, northern South Africa, Lesotho and most of Namibia and Zimbabwe. The rest of the SADC region recorded close to normal temperature during the month of April 2024.
 - Around **15 days of daytime heat wave conditions were observed** in April over the SADC region extending from south Angola, Zambia, through Namibia, Botswana and Zimbabwe to central South Africa. Over North DRC and central and western Madagascar around 25 heat wave days were observed.
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1. REGIONAL RAINFALL PERFORMANCE

Rainfall during the month of April 2024 was well below the monthly long-term average over most of the contiguous SADC region, except over extreme south DRC, northern Zambia, northern and extreme south Tanzania, southern Botswana, Lesotho and central South Africa. (Figure 1).

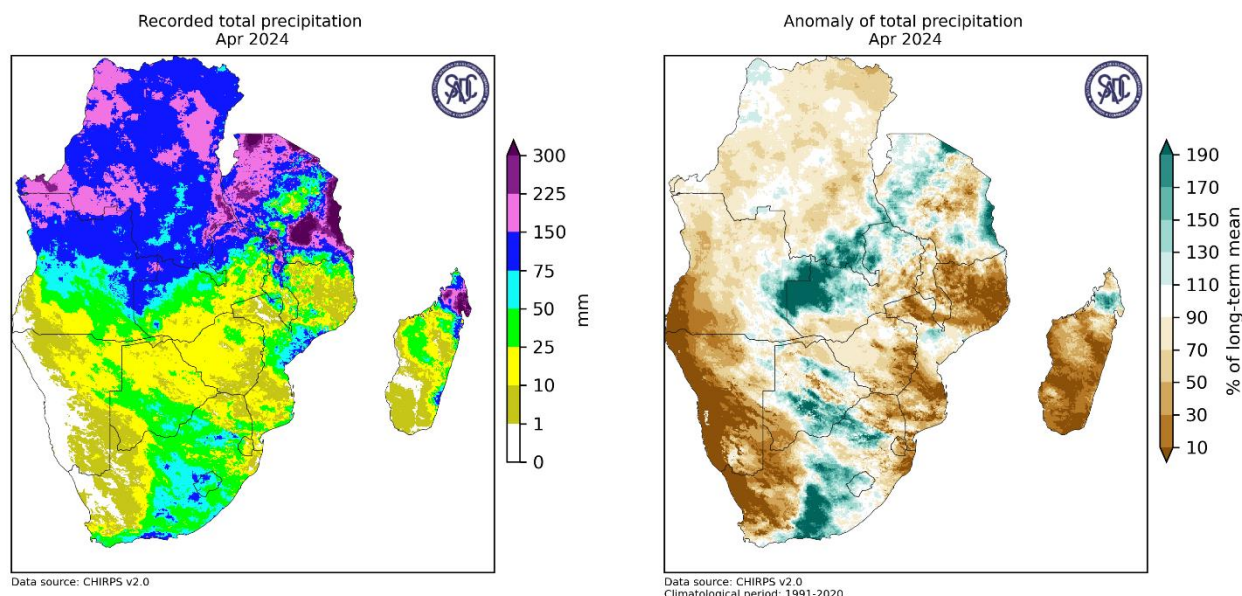


Figure 1: Observed rainfall (left) and rainfall anomaly (right) for the month of April 2024

1.2 Drought Monitoring

1.2.1 Seasonal and Annual Drought Assessment

Persistent drought conditions, defined by 12-month SPI (SPI-12) continued over much of the central and western parts of the sub-continent covering Namibia, central and southern Angola, Botswana, western Zambia, most of Zimbabwe, central and southern Mozambique and northern South-Africa. Parts of southern Madagascar also experienced moderately dry conditions.

The 3-month Standardized Precipitation Index (SPI-3) is a meteorological drought indicator to monitor precipitation anomalies over 3-month accumulation periods and is a proxy indicator for immediate impacts of droughts including reduced soil moisture. Very dry to extreme dry conditions were observed over central Angola, south Zambia, Zimbabwe, most of Mozambique, some parts of Botswana, some parts of central DRC, western and south eastern fringes of South Africa and particularly over the entire Namibia. (Figure 2).

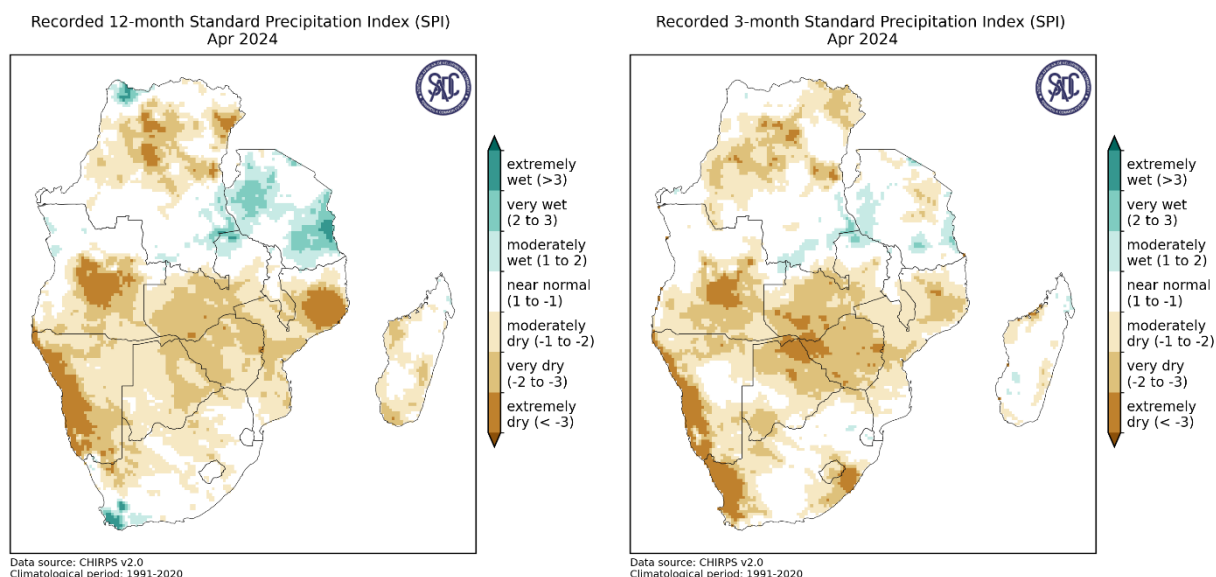


Figure 2: Drought assessment: SPI for 3-months (left) and 12-month SPI (right)

1.2.2 Short term drought (dry spells)

Figure 4 shows that the consecutive number of dry days were ranging from 25 to 30 over western and southern Namibia, extreme southwestern Angola and northwestern South Africa and locally over some parts of central and southern Madagascar.

Most of central and southern Angola, extreme south DRC, locally some parts of central Tanzania, most of Zambia, Botswana, Zimbabwe, Mozambique, eastern South Africa, Eswatini, Lesotho and including most of central and southern Madagascar experienced no rainfall events almost two weeks during the month of April 2024.

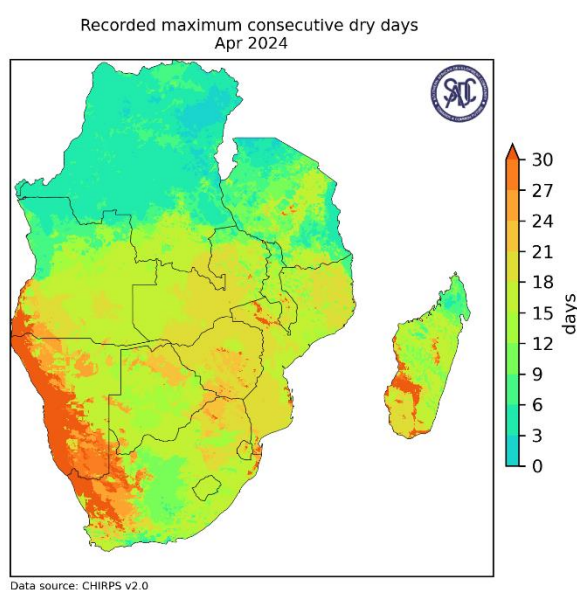


Figure 3: Dry spells prevalence during the month of April 2024

1.3 Extreme Rainfall

Except for the extreme north eastern part of Madagascar and southern Tanzania where the recorded maximum one day rainfall was locally of the order of 100mm, the rest of the SADC region did not record any extreme one day precipitation events.

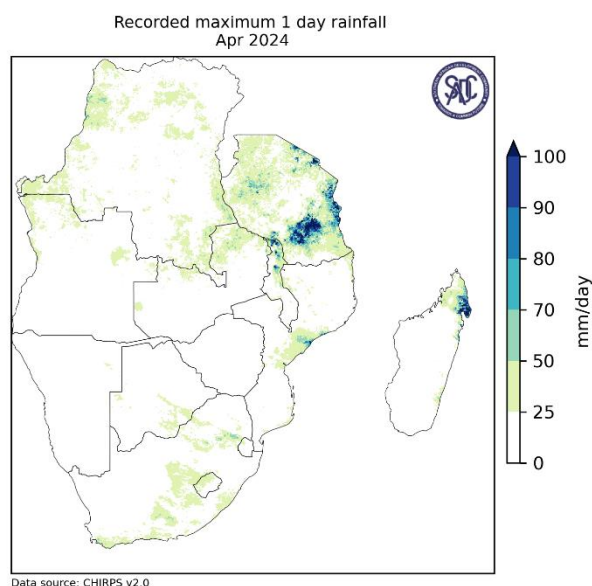


Figure 4: Maximum rainfall recorded over a one-day period during the month of April 2024

2. REGIONAL TEMPERATURE

2.1 Minimum Temperature

The mean minimum temperature for the month of April 2024 over Lesotho was around 5 °C and over central South Africa it was around 10 °C. The rest of the congruous SADC region recorded mean minimum temperatures of above 20°C. Over most of DRC, Mozambique, east Malawi, north Zimbabwe, western fringes of Angola, and most of Madagascar the mean minimum temperatures hiked to 25 °C.

The minimum temperature anomalies were mostly close to slightly above the long-term average over most of the SADC region(Figure 6).

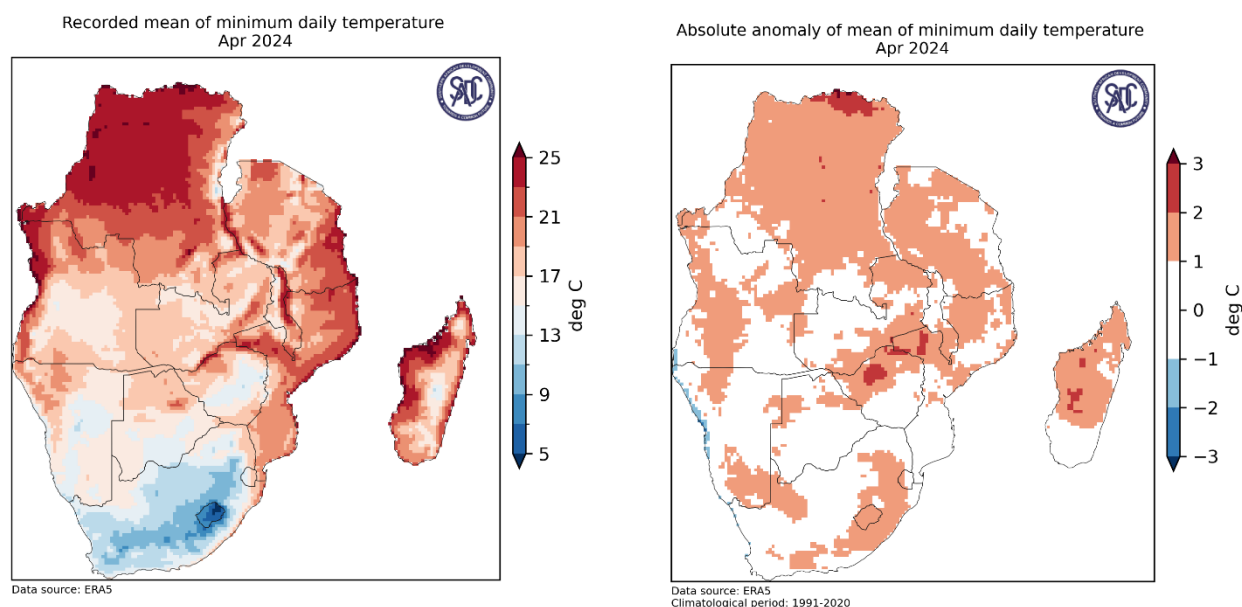


Figure 5: Observed average minimum temperature (left) and anomalies (right) for April 2024

2.2 Maximum Temperature

The average maximum temperatures peaked around 35°C over north DRC, most of Namibia, extreme north and southern Angola, west Zambia, north and western Zimbabwe, most of Botswana, extreme northern western parts of South Africa and locally over extreme northern parts of Zimbabwe and western Madagascar.

Positive maximum temperatures anomalies of 2-3°C were recorded over central Madagascar, locally over north and central DRC, south Angola, south Zambia, west Botswana, northern South Africa, Lesotho and most of Namibia and Zimbabwe. The rest of the SADC region recorded close to normal temperature during the month of April 2024 (Figure 7).

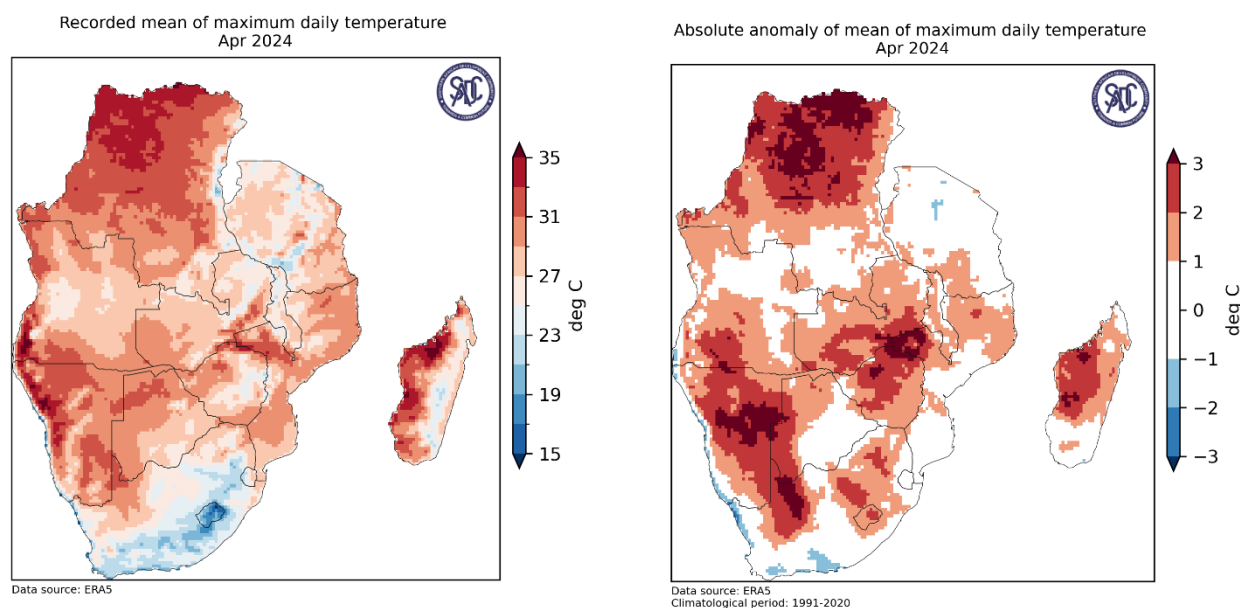


Figure 6: Observed maximum average temperature (left) and anomalies (right) for April 2024

2.3 Heat waves

We distinguish here two types of heatwaves which differ in economic and human health impacts – daytime defined based on maximum temperature recorded during daytime, and night-time, defined based on minimum temperature recorded during nighttime. Approach to derive these indices is described in the Appendix.

Daytime heat waves were recorded over north DRC and over most of the central contiguous SADC region extending from south Angola, Zambia, through Namibia, Botswana and Zimbabwe extending to central South Africa. These regions had recorded around 15 days of daytime heat wave conditions in April (Figure 8). North DRC and central and western Madagascar recorded around 25 heat wave days.

Night-time heatwaves were recorded for over 15 days over the northern half of the contiguous SADC region and over central and northern Madagascar.

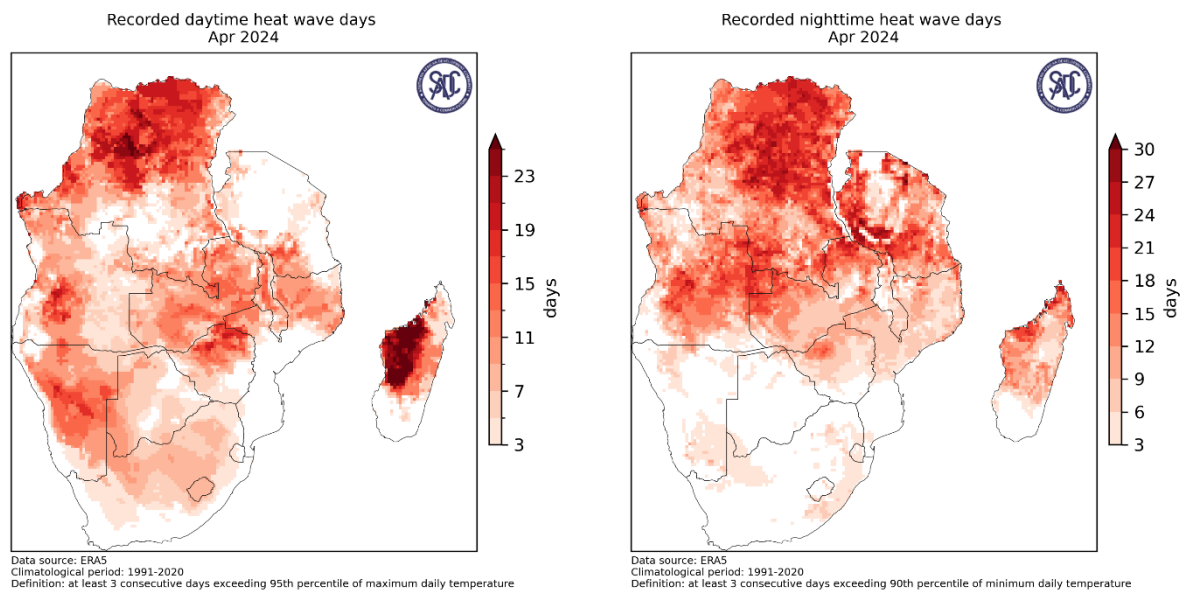


Figure 7: Heatwaves detected during the month of April 2024

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.



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