



INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME

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INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



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BENEFICIARIES



A. HIGHLIGHTS

- **Rainfall during the month of August 2024 was well below the monthly long-term average** over most of the contiguous SADC region, except over extreme north of DRC.
 - **Persistent long term drought conditions continued** over much of the central and western parts of the sub-continent. Parts of Madagascar also experienced moderately to extremely dry conditions.
 - The **minimum temperature anomalies** were mostly very low within the central parts of the region, with incidence over most of South Africa, where negative anomalies of up to **-4°C** were recorded.
 - Positive **maximum temperatures anomalies of above 3°C above**, were recorded almost everywhere within the subcontinent, during the month of August 2024.
 - Almost 20 **days of daytime heat wave conditions were observed** in August over most of the of the SADC region. Night-time heat waves were mainly in DRC, Tanzania and northern Mozambique.
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1. REGIONAL RAINFALL PERFORMANCE

The rainfall during the month of August 2024 was well below the monthly long-term average over most of the western parts of the SADC region, except over patchy parts of the northern DRC and Tanzania, where above normal rainfall was observed. Most of the parts of SADC countries received precipitation below normal or no precipitation at all, [Figure 1 left]. This pattern matches very well with the winter conditions, a season known to be dry in most parts of the subcontinent.

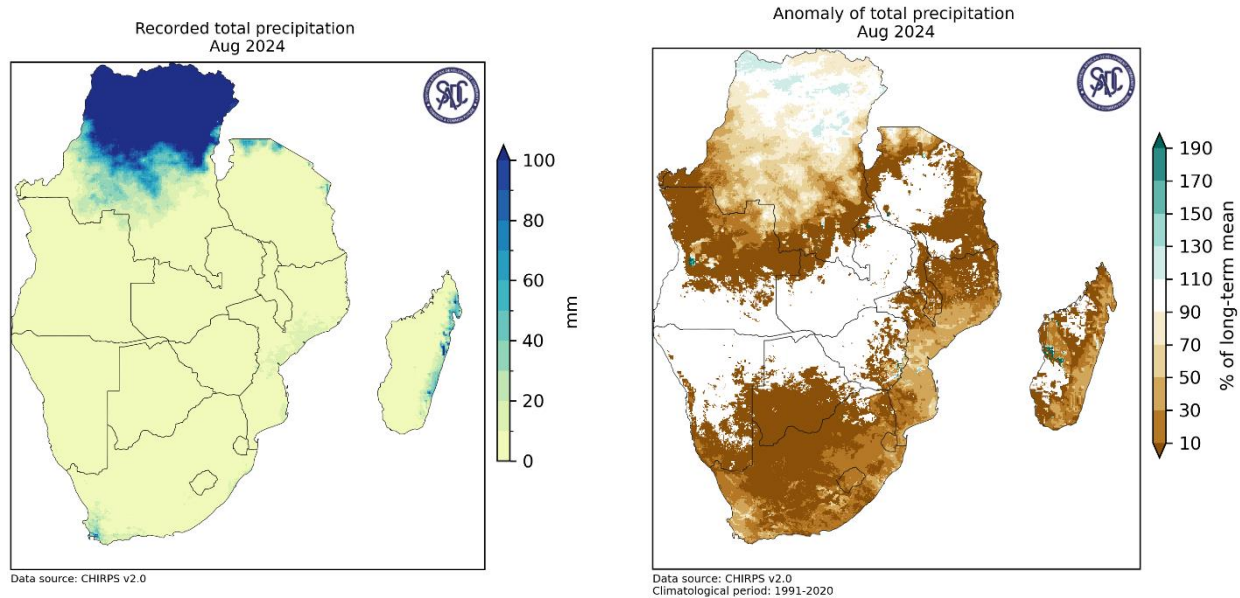


Figure 1: Observed rainfall (left) and rainfall anomaly (right) for the month of August 2024

1.1 Drought Monitoring

1.1.1 Seasonal and Annual Drought Assessment

Persistent drought conditions, defined by 12-month SPI (SPI-12) were prevalent over the whole region, except within most parts of Tanzania, northern Zambia and southeast DRC. Extremely dry conditions were also noted in isolated areas, precisely over the western fringes of South Africa and Namibia, central Angola and DRC, and the northern Mozambique. Overall, the subcontinent experienced moderately dry conditions inferred from the 12-months SPI [Figure 2 left].

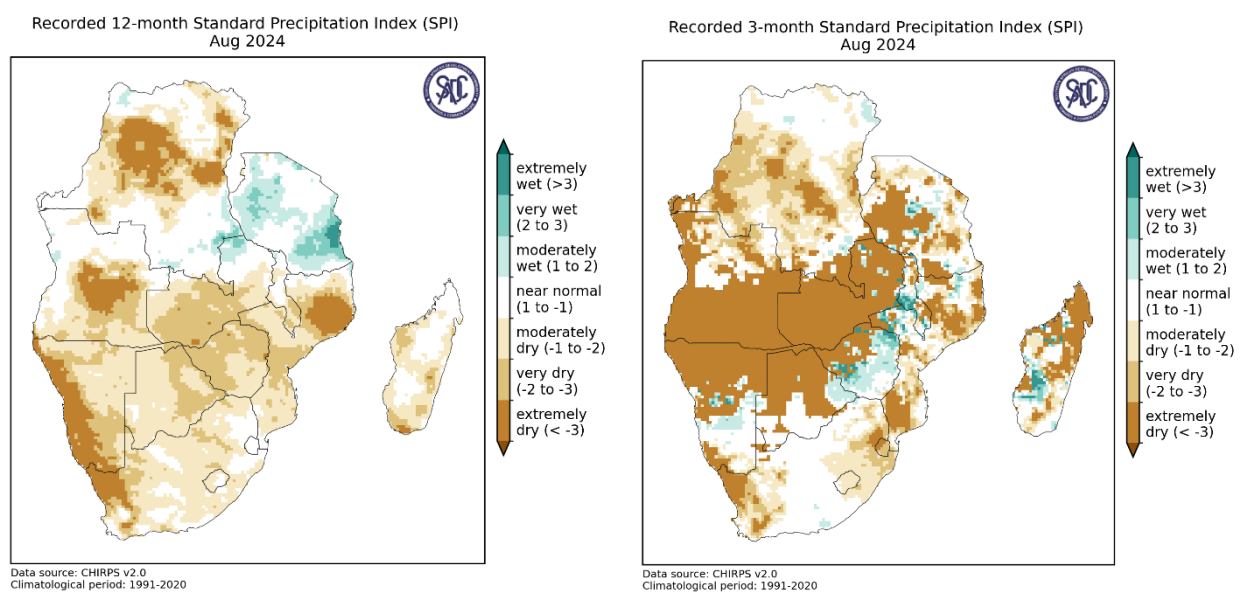


Figure 2: Drought assessment: SPI for 12-months (left) and 3-months SPI (right)

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. It highlights that the drought was more severe over the central parts of the subcontinent covering the northernmost parts of Namibia and Botswana, south Angola and Zambia and patchy parts of DRC, Mozambique and Tanzania. Hence the conditions for agriculture in this phase were relatively poor in most of the subcontinent, except in eastern Zimbabwe and parts of Central Madagascar.

1.1.2 Short term drought (dry spells)

Figure 3, shows that consecutive number of dry days ranging from 25 to 30 were recorded over most of the subcontinent in August, highlighting the winter patterns within the region, which is known to be dry in this season. The northern part of the region covering minor areas of northern Tanzania and almost the whole of DRC, the southeastern part of South Africa, recorded less than 12 dry days. In Madagascar the number of dry days were above 30 in most of the western part of the country, [Figure 3].

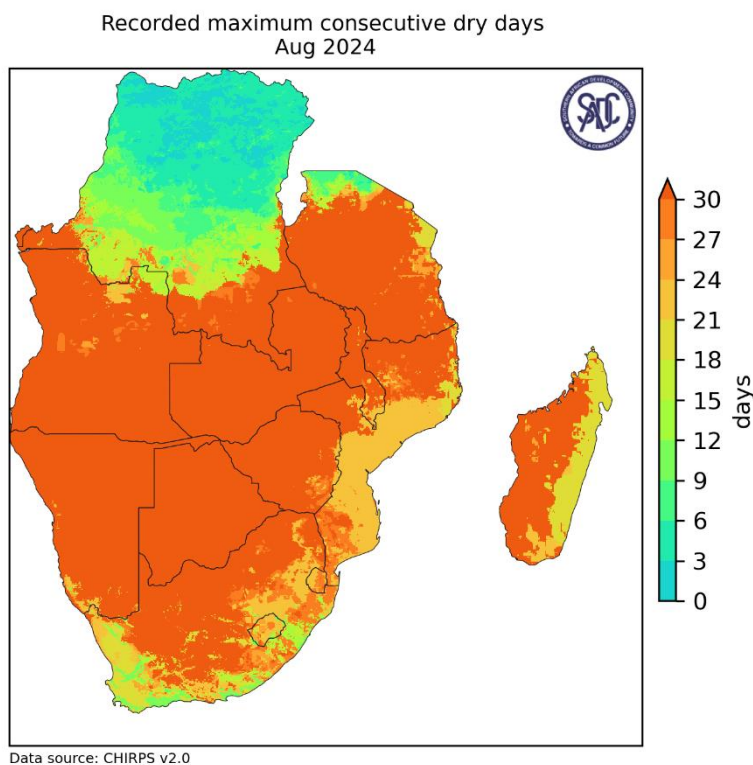


Figure 3: Dry spells prevalence during the month of August 2024

1.2 Extreme Rainfall

The whole subcontinent recorded no extreme precipitation in one day period, except the northernmost part of DRC, [Figure 4]. This absence of null one day extreme precipitation was also noted in most of the Indian ocean States, with emphasis to Madagascar.

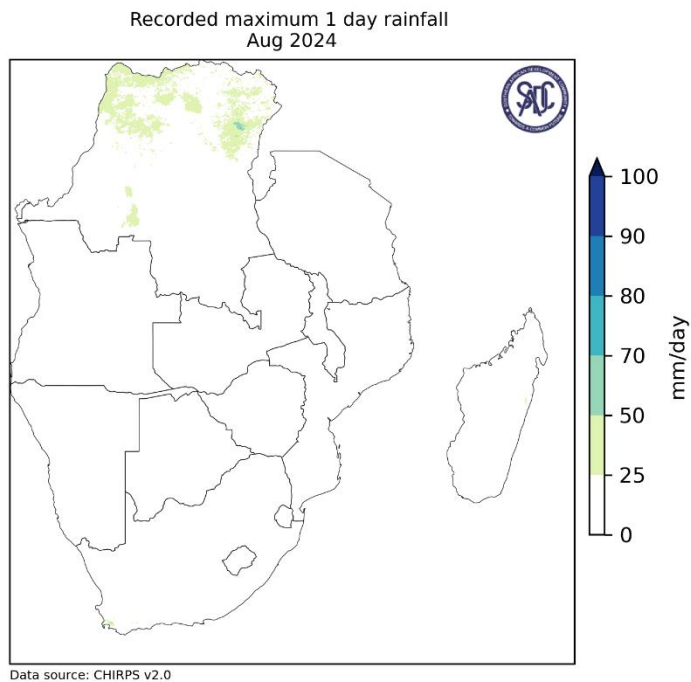


Figure 4: Maximum rainfall recorded over a one-day period during the month of August 2024

2. REGIONAL TEMPERATURE

2.1 Minimum Temperature

The average minimum of daily temperatures of 25 °C were recorded within most of DRC, and parts of Angola, Mozambique, Tanzania and the west of Madagascar. The central and the southernmost parts of the region that cover most of Botswana, Zambia, South Africa, Zimbabwe, recorded minimum temperatures between 5 and 12°C. In most of central and the southern tip of South Africa, the minimum temperatures reached 5°C, [Figure 5 left]. The absolute anomaly of minimum temperatures shows that there were positive signals over the central parts of DRC, Mozambique, Zimbabwe and Botswana, with values around 3°C. The central parts of the region located in Zambia, east Angola and most of South Africa recorded negative anomalies of around, -3 °C, [Figure 5 right].

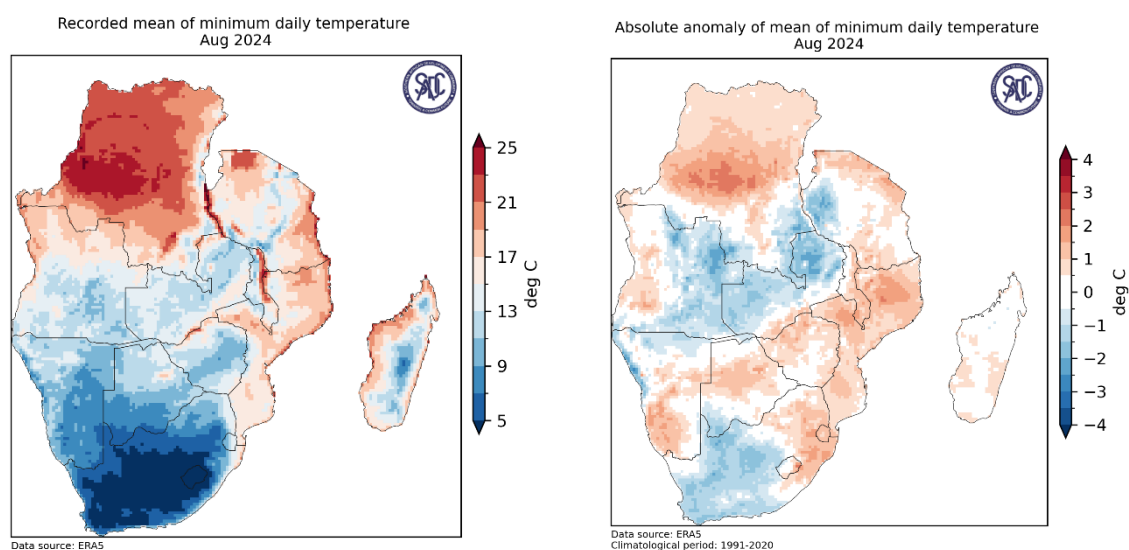


Figure 5: Observed average minimum temperature (left) and anomalies (right) for August 2024

2.2 Maximum Temperature

The average of maximum temperatures in August, peaked to above 35°C over some parts of the central DRC. Other areas, especially the countries on the central parts, such as Angola, Zambia, north Botswana, Mozambique and Tanzania on the East, recorded maximums between 27 and 30°C. Western Madagascar also recorded higher maximums above 31°C, but not South Africa and parts of eastern Madagascar where the records of maximums were around 15°C [Figure 6 left].

Positive absolute of maximum temperatures anomalies above 3°C were recorded over the central parts of the region lying within southeast Angola, the whole Namibia, parts of Zambia and Zimbabwe, Botswana, and South Africa. Likewise, parts of western Madagascar exhibited similar patterns. The western fringe of the subcontinent covering parts of west Angola, recorded negative minimum anomalies within 0 and -4°C, [Figure 6 right].

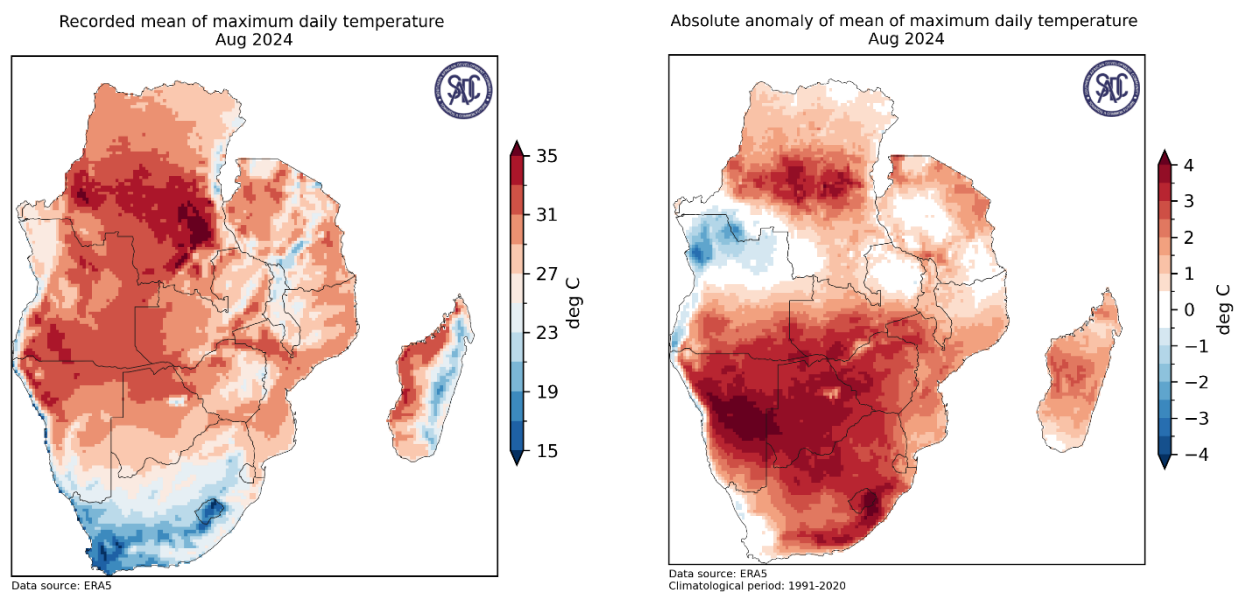


Figure 6: Observed maximum average temperature (left) and anomalies (right) for August 2024

2.3 Heatwaves

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.

Daytime heat waves of 19-25 days were recorded over most of region and western Madagascar, [Figure 7 left].

Night-time heatwaves of around 30 days were recorded within the central parts of DRC, whereas the rest of the region recorded below 3 days of night-time heat waves, except Mozambique and Tanzania with more where records above 15 days were noted, [Figure 7 right].

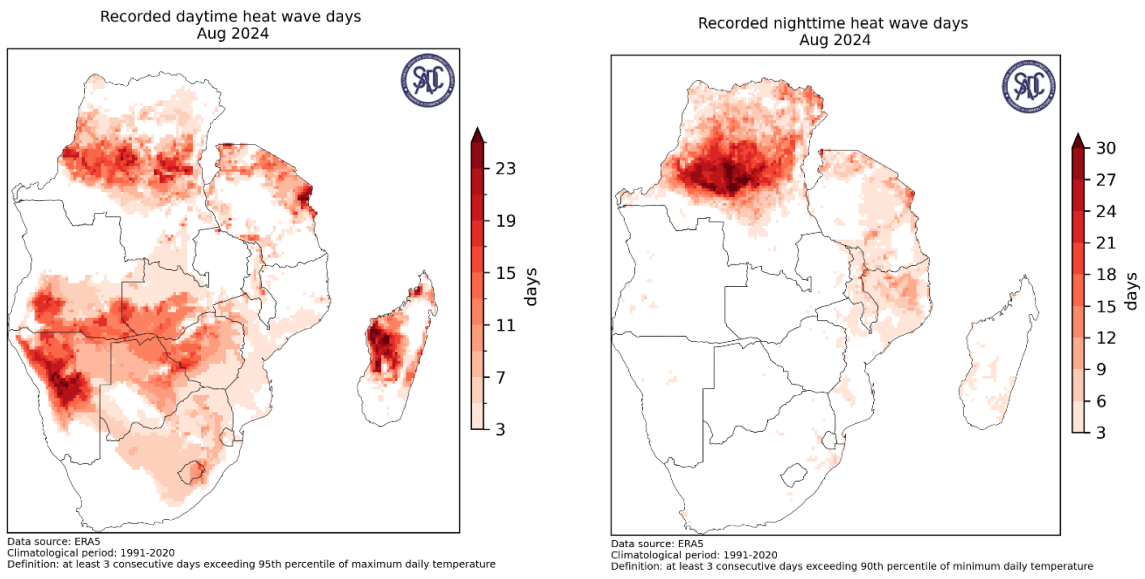


Figure 7: Heatwaves detected during the month of August 2024

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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