SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

CLIMATE SERVICES CENTRE (SADC-CSC)

REGIONAL CLIMATE MONTHLY MONITOR

REPORTING MONTH: APRIL 2025

ISSUE NO. 04 **YEAR:** 2025 **ISSUE DATE:** 27 MAY 2025

FINANCIAL RESOURCES

European Union

TECHNICAL PARTNERS

WMO

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

BENEFICIARIES

A. HIGHLIGHTS

- In April 2025, significant rainfall was recorded over much of the northern SADC region, while the southern areas remained generally dry. Precipitation anomalies showed above-average rainfall in central areas such as eastern Namibia, eastern Angola, and parts of Mozambique and Botswana, likely due to La Niña. Meanwhile, below-average rainfall was observed in the western and eastern fringes of the subcontinent, including western Angola, Namibia, Mozambique, Tanzania, and much of the DRC.
- The rainfall decreased in the western parts and the southern tip of the subcontinent, resulting in very dry to extremely dry conditions, especially in most of South Africa and Madagascar. In contrast, central areas, including parts of northern South Africa, Botswana, Zimbabwe, eastern DRC, and western Tanzania, experienced near normal to moderately wet conditions. The recent summer rains have generally improved soil moisture across the region, with only a few isolated areas remaining dry.
- **Dry days:** Most of the southern half of the region and southern Madagascar experienced 18–30 consecutive dry days in April, while northern areas recorded only 3–9 dry days. Isolated pockets of short dry spells also appeared in parts of the central region.
- **The minimum temperature anomalies:** Anomalies of minimum temperature in April showed warmer than normal conditions above 2°C, across most of the SADC region, including Madagascar. However, the westernmost and the northernmost areas recorded little to no anomaly, with parts of western Namibia showing slightly cooler conditions, near -2°C.
- **Maximum temperatures anomalies.** In April, most of the region experienced maximum temperatures above 33°C, with cooler areas around 25°C in parts of South Africa and central Madagascar. The west recorded cooler-than-normal conditions, while the east, including Madagascar, was warmer than usual.
- **Day and nighttime heat waves:** In April, daytime heatwaves lasting over 23 days affected northern and eastern parts of the SADC region, including DRC, Zambia, Tanzania, and most of Madagascar. Night-time heatwaves of around 15 days were also observed in these areas. However, regions without heatwaves were present throughout the subcontinent.
- **Rainfall and temperature outlook for April:** Above-normal rainfall is likely in northern, southern, and eastern parts of the SADC region, including eastern Madagascar, while central areas may receive normal rainfall. Most of

the region is expected to experience above-normal temperatures, except in parts of Angola, Namibia, South Africa, and Tanzania.

1. Regional Rainfall Performance

Rainfall during April 2025 was significant over most areas of the SADC region, particularly in the northern parts of the subcontinent, including northern Angola, northern Zambia, northern Mozambique, Tanzania, eastern Madagascar, and parts of central South Africa. The southernmost areas of the region covering most of South Africa, Namibia, Botswana, Zimbabwe, and southern Mozambique were generally dry in April [Figure 1, left]

The anomalies of total precipitation indicate that central parts of the region, including eastern Namibia, eastern Angola, western Zambia, most of Botswana, and the western parts of central Mozambique recorded considerable rainfall, likely influenced by the prevailing La Niña conditions. In contrast, dry anomalies were observed across the entire western strip of the subcontinent, from western Angola and western Namibia to the southernmost tip of the subcontinent, as well as in most of the eastern region, including Mozambique and Tanzania, and much of the DRC [Figure 1, right]

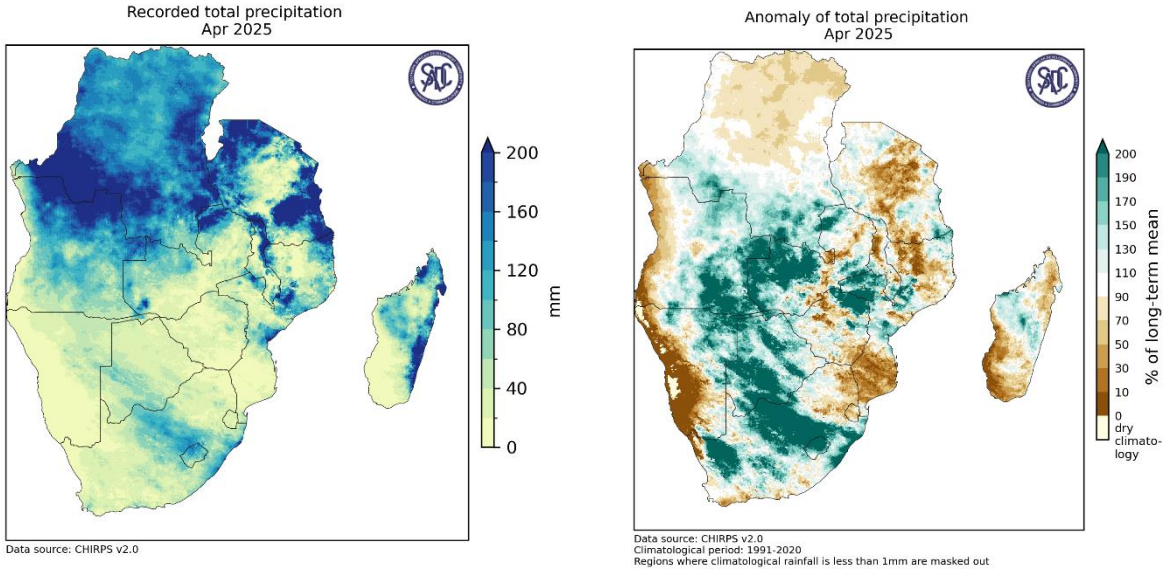

Figure 1: Observed rainfall (left) and rainfall anomaly (right) for the month of April 2025

1.1 Drought Monitoring

1.1.1 Seasonal and Annual Drought Assessment

A reduction of precipitation by comparison with the previous month, according to the 12-months SPI (SPI-12) has been noted, mainly on the western stripes of the sub-continent, that were dry. The southern tip of the region located in most of South Africa was also very dry or extremely dry, by contrast with the central parts of the subregion where the condition varied from near normal to moderately wet specifically in some parts of north South Africa, parts of Botswana and Zimbabwe, and minor strips in the eastern parts of the DRC and west Tanzania. The whole Madagascar was extremely dry, but not within its southernmost region where near the normal conditions were recorded according to the 12-months SPI (SPI-12), [Figure 2 left].

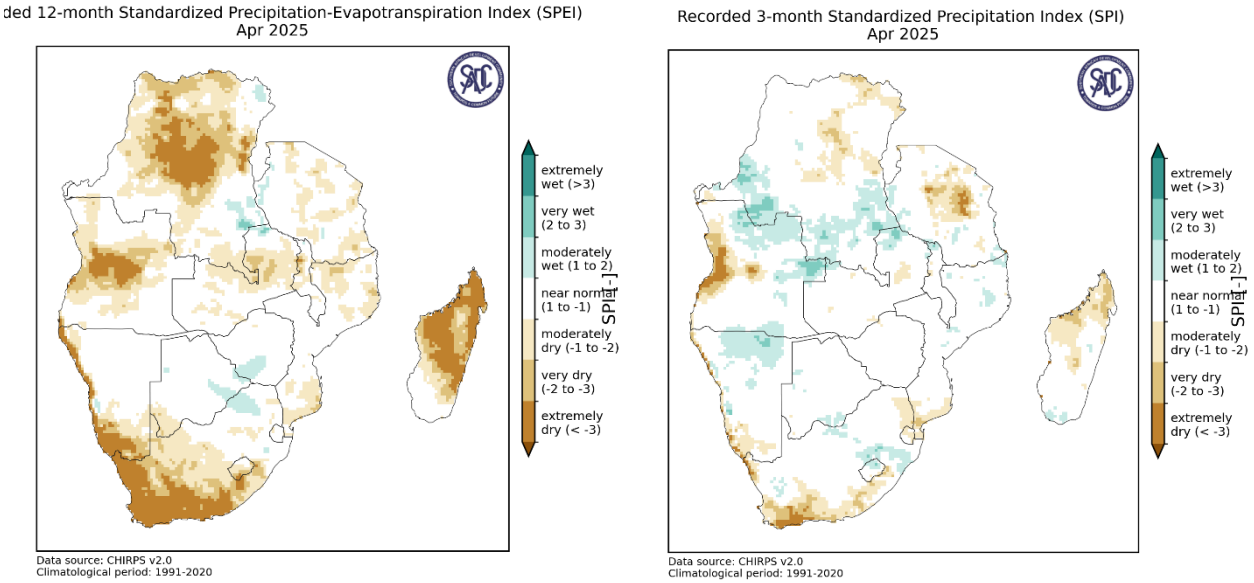

Figure 2: Drought assessment: SPI for 12-months (left) and 3-months SPI (right)

The 3-month SPI shows that the recently recorded summer season precipitation has continued to improve considerably the soils conditions mainly within most of the region, with the soils conditions varying from the normal to moderately wet in most of the countries, except in isolated areas within the southernmost tip of the sub-continent, the western strips of Angola, northern Tanzania and northern DRC, and the northern tip of Madagascar, [Figure 2 right].

1.1.2 Short term drought (dry spells)

Consecutive number of dry days ranging from 18 to 30 were recorded over most of the western strip of the SADC region located within south Angola, west Namibia and west South Africa. Similar numbers of dry spells were also noted within isolated areas in central Tanzania, parts of Malawi, Mozambique, Zimbabwe, East Zambia, South Africa and southwest of Madagascar. The northernmost parts covering the whole of DRC, north Angola, west Zambia, isolated parts within Botswana, the central south Africa and most of central and eastern parts of Madagascar recorded dray days between 3 and 9 days in April 2025, [Figure 3].

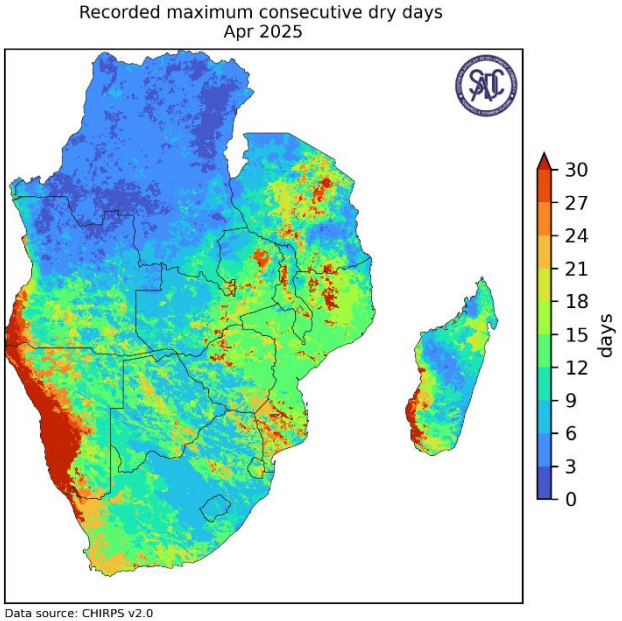

Figure 3: Dry spells prevalence during the month of April 2025

1.2 Extreme Rainfall

Most of the subcontinent recorded no extreme precipitation in a single day period, except for the isolated areas located western DRC, parts of northern Mozambique, Tanzania, and east of Madagascar where the precipitation was near 100mm, [Figure 4].

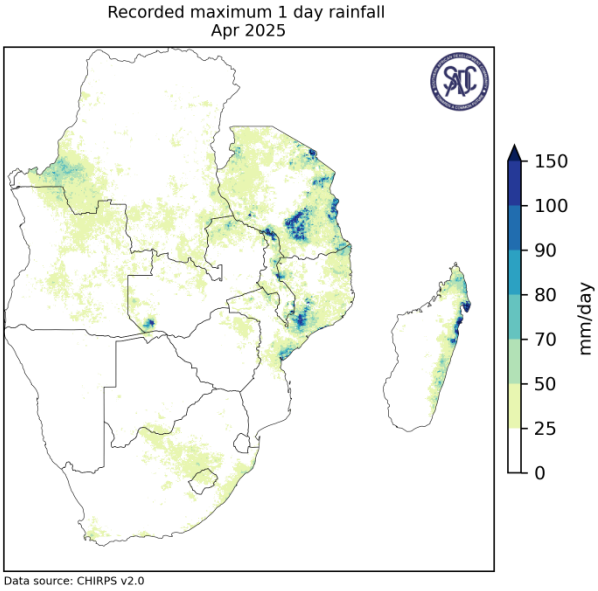

Figure 4: Maximum rainfall recorded over a one-day period during the month of April 2025

2. REGIONAL TEMPERATURE

2.1 Minimum Temperature

Average minimum of daily temperatures of around 25^{0}C were recorded within most of the areas in SADC region except within most of South Africa and the half of south Namibia, where the minimum temperatures below 8^{0}C prevailed. This was also noted in most od Madagascar, [Figure 5 left].
The absolute anomaly of minimum temperatures shows that in April there were positive signals above 2^{0}C over most of the region including within the island of Madagascar. However, the westernmost parts of the region and the northernmost recorded a null anomaly of the minimum except minor fringes in west Namibia that recorded minimums of temperature anomalies near -2^{0}C, [Figure 5 right].

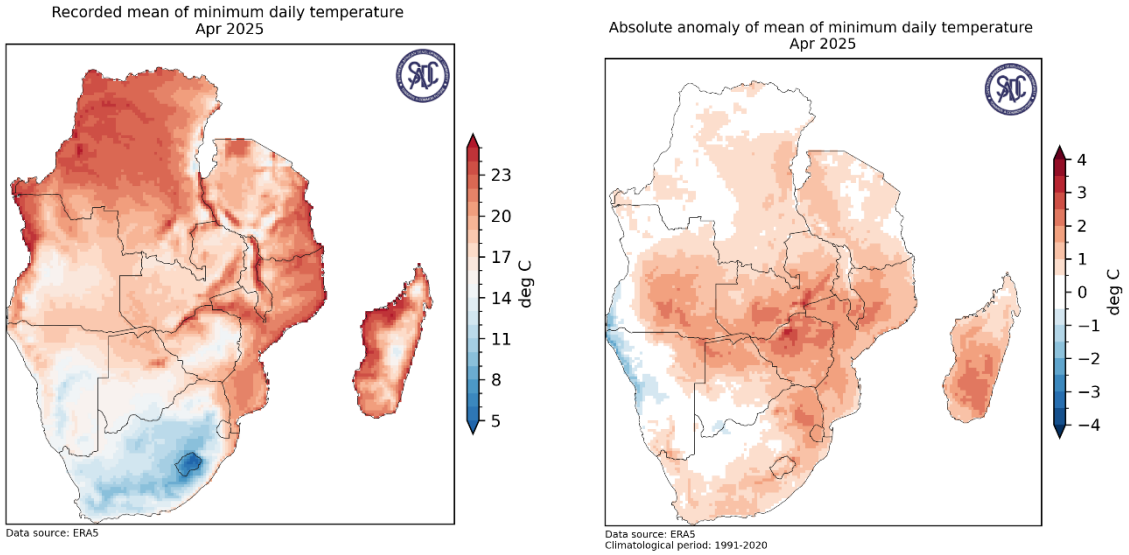

Figure 5: Observed average minimum temperature (left) and anomalies (right) for April 2025

2.2 Maximum Temperature

The average of maximum temperatures in April, peaked to above 33^{0}C over most of the region, except within most of South Africa. Areas of maximum temperature near 25^{0}C are conspicuous almost everywhere in the subcontinent, including in Central Madagascar, [Figure 6 left].

Negative anomalies of around -2^{o}C for the maximum temperature's anomalies were recorded over most of the western half of the sub-continent, whereas by contrast most of the easter half including Madagascar recorded positive anomalies of 2^{o}C. Near the border of DRC and Angola and within isolated areas everywhere near null anomalies are also noted, [Figure 6 right].

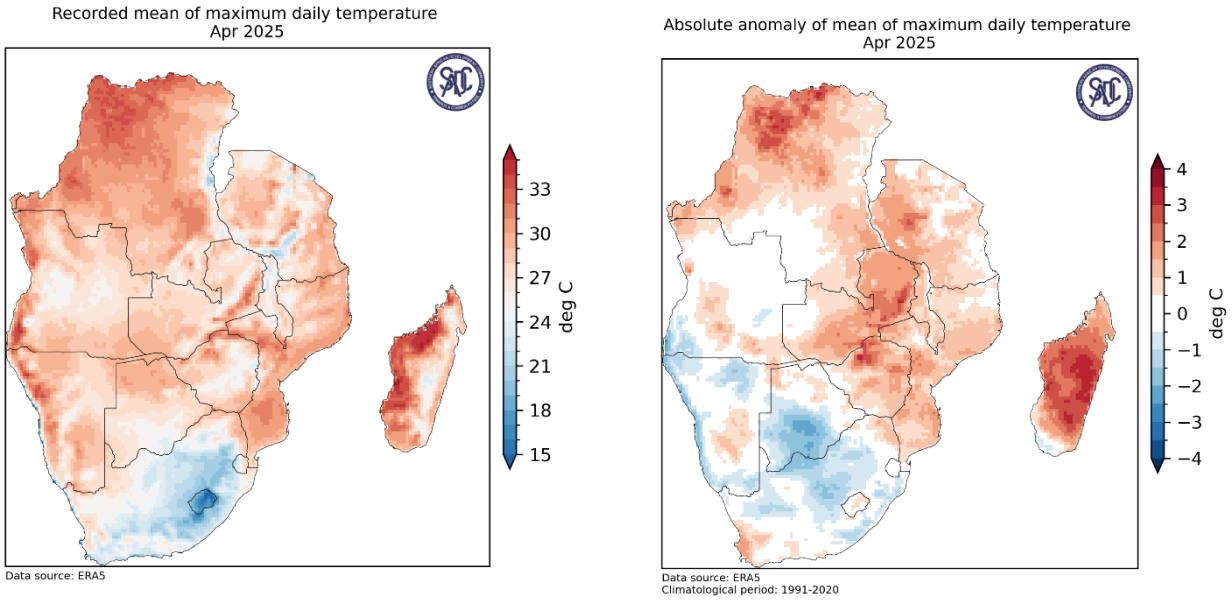

Figure 6: Observed maximum average temperature (left) and anomalies (right) for April 2025.

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 more than 23 days were recorded within the northernmost and easternmost parts of the region lying in DRC, Zambia, and Tanzania, and most of Madagascar. Areas of no daytime heat waves are also noted everywhere, [Figure 7 left].

Night-time heatwaves of around 15 days were recorded within most of the northern part of the SADC region, as well as in most of the Island of Madagascar. Nevertheless, areas with no nighttime heat waves are found everywhere in the subcontinent, [Figure 7 right].

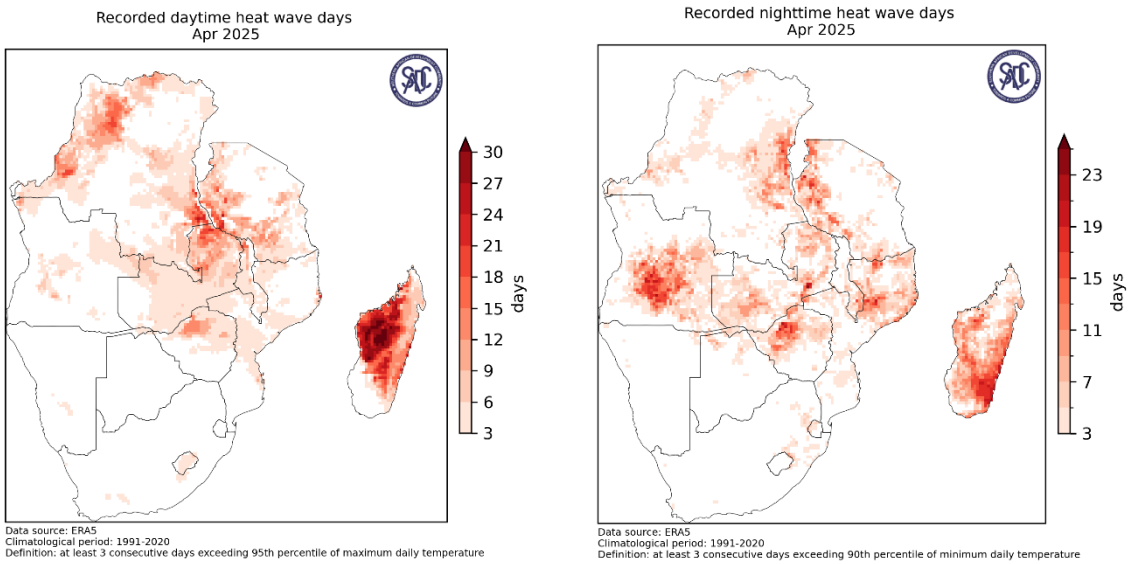

Figure 7: Heatwaves detected during the month of April 2025

3. REGIONAL MONTHLY OUTLOOKS

3.1 Rainfall Outlook

There is an increased probability for above normal rainfall over most of the northern, southern and eastern sides of the region, including the eastern part of the Island of Madagascar. However, most of the central parts located in south Tanzania, Zambia, west Zimbabwe, northern half of Namibia, Angola and south of the DRC, have near 33% of occurrence of normal precipitation, over the forthcoming moth of June, [Figure 8].

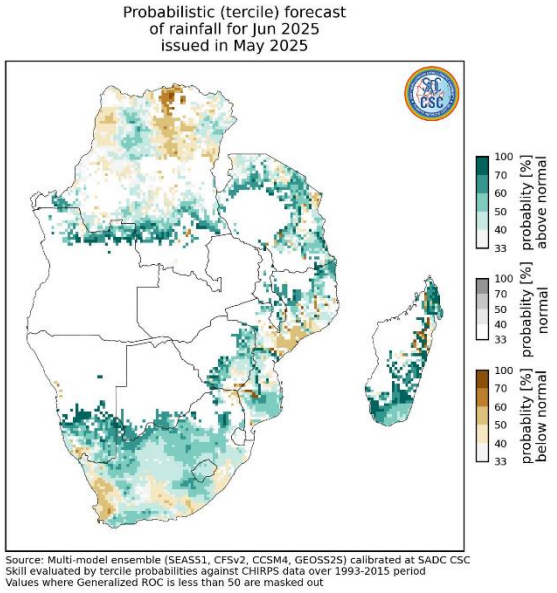

Figure 8: Rainfall probabilistic forecast for June 2025

3.2 Temperature Outlook

Above normal temperatures are expected over most of the region of SADC, including, Madagascar, but not within the central parts of Angola, west Namibia, the southern tip of South Africa and central Tanzania, [Figure 9].

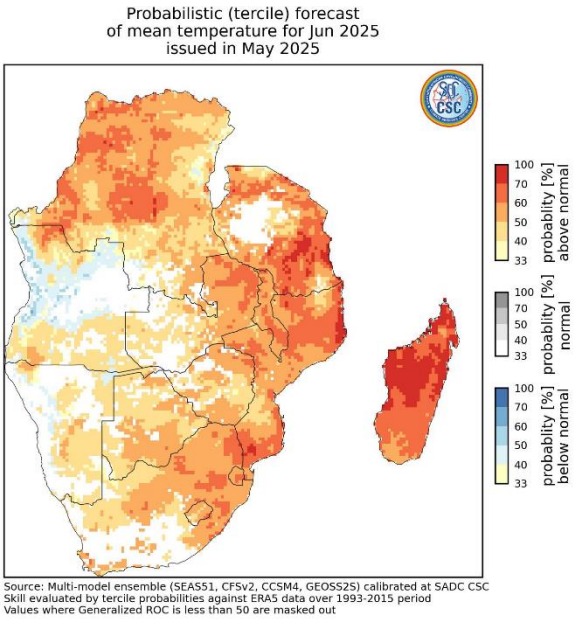

Figure 9: Temperature probabilistic forecast for June 2025

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