SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

CLIMATE SERVICES CENTRE (SADC-CSC)

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ClimSA
INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME
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BENEFICIARIES

A. HIGHLIGHTS

- **The rainfall during May:** Rainfall was significant in northern DRC, northern Angola, Malawi, parts of Tanzania, and eastern Madagascar. Some central areas recorded above-average rainfall, but most of the region remained dry—especially western Zambia, southern Angola, northern Namibia, and northern Botswana.
- **Drought monitoring:** Soil moisture conditions across the region reflect contrasting trends. The 12-month SPI indicates widespread dryness, especially in southwestern South Africa, western Namibia, central Angola, northern Zambia, much of the DRC, and Madagascar. However, the 3-month SPI shows notable improvement following the recent summer rains, with most countries experiencing normal to moderately wet soils. This improvement aligns with the influence of a persistent La Niña event. Despite these gains, dryness persists in parts of Zimbabwe, northern South Africa, Madagascar, western Angola, and northern DRC.
- **Dry days:** Most of the region experienced prolonged dry spells of 15 to 30 consecutive days, with the longest durations (27–30 days) recorded over Angola, southern DRC, Zambia, Botswana, and northern South Africa. Exceptions were noted in northern DRC, northwestern Tanzania, and parts of northern Mozambique, where fewer dry days occurred.
- **The minimum temperature anomalies:** In May 2025, minimum temperatures dropped to around 5°C in southern parts of the region, while elsewhere values reached up to 22°C. Anomalies show –3°C in central areas, including Angola, Namibia, Zambia, and South Africa, and up to +3°C in the rest of the region, with some areas near normal.
- **Maximum temperatures anomalies.** Mean maximum temperatures ranged from 16°C to 33°C, with the coolest areas in southern South Africa, eastern Namibia, Botswana, Zimbabwe, and eastern Madagascar. Negative anomalies of up to -3°C were recorded in central parts of the region, while positive anomalies of up to +3°C prevailed elsewhere.
- **Day and nighttime heat waves:** Prolonged daytime heatwaves (up to 28 days) and nighttime heatwaves (around 25 days) affected northern DRC, central Zambia, Lesotho, western Madagascar, northern Mozambique, and the western fringes of Angola and Namibia
- **Rainfall and temperature outlook for May:** 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

During May 2025, significant rainfall was recorded over the northernmost areas of the SADC region, particularly in northern DRC, northern Angola, southeastern and northwestern Tanzania, Malawi, eastern Madagascar, and in isolated parts of southwestern South Africa [Figure 1, left].

Rainfall anomalies for the month indicate above-average precipitation in some central parts of the region, including central Angola, southeastern DRC, northeastern Zambia, Malawi, central and northern Mozambique, most of Tanzania, and northwestern Madagascar. Despite these localized anomalies, the region remained predominantly dry, with pronounced dryness observed over western Zambia, southern Angola, northern Namibia, and northern Botswana [Figure 1, right].

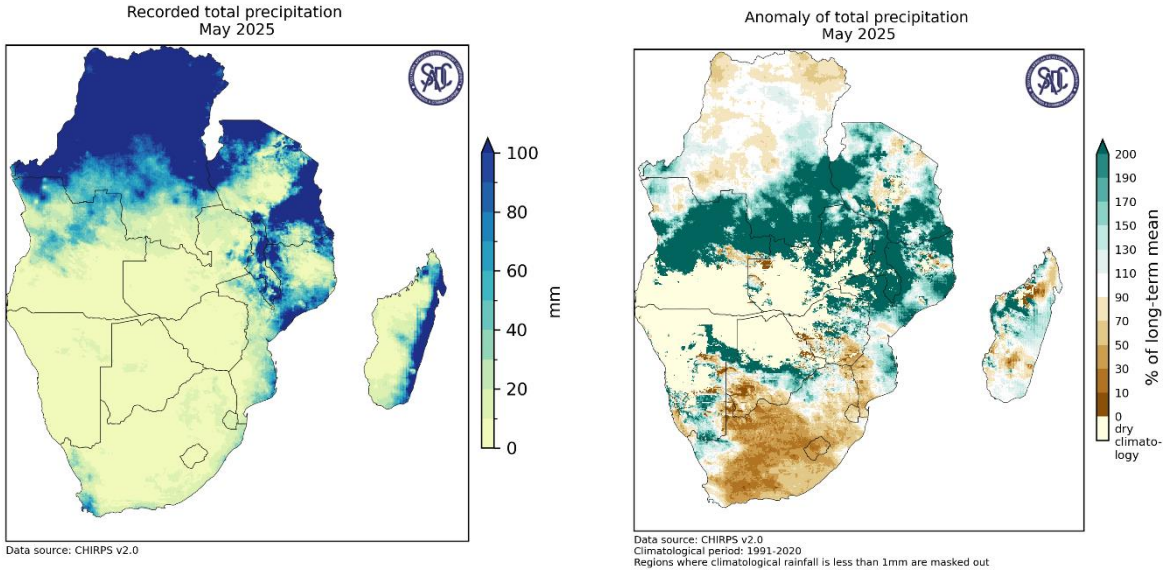

Figure 1: Observed rainfall (left) and rainfall anomaly (right) for the month of May 2025

1.1 Drought Monitoring

1.1.1 Seasonal and Annual Drought Assessment

A reduction in precipitation compared to the previous two months likely contributed to the poor soil moisture conditions observed across much of the subcontinent, as indicated by the 12-month Standardized Precipitation Index (SPI-12).

Extreme dryness was observed in the southern tip of the region, particularly over southwestern South Africa. Similarly, severely dry conditions prevailed along the western fringes of Namibia, central Angola, northern Zambia, much of the DRC, and across Madagascar. In contrast, the rest of the region showed soil moisture levels ranging from normal to moderately wet conditions [Figure 2, left].

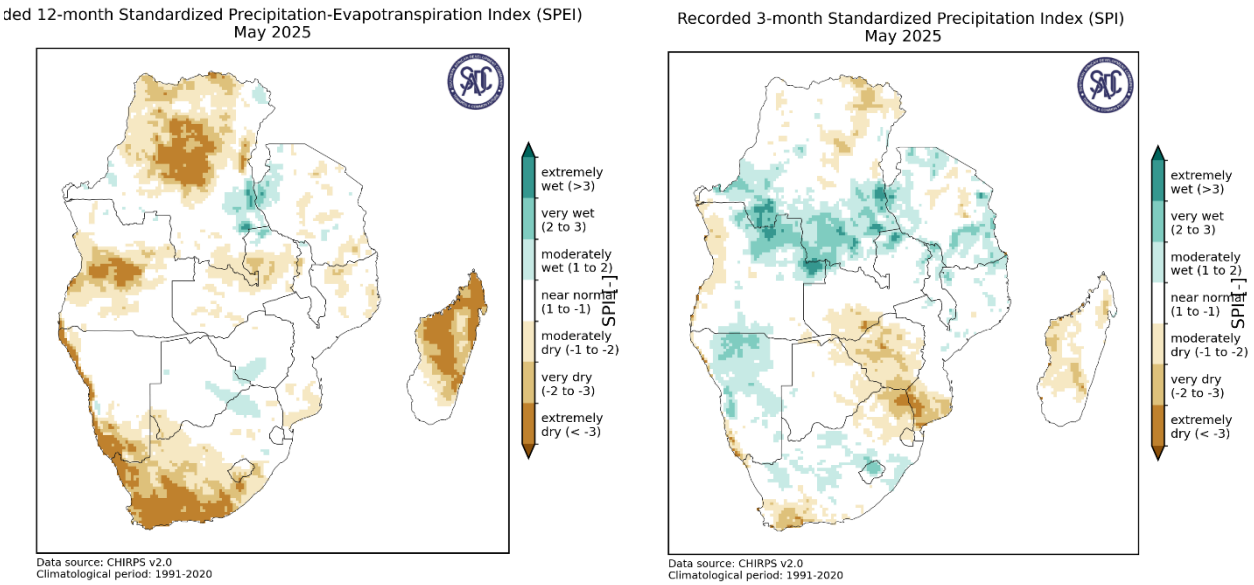

Figure 2: Drought assessment: SPI for 12-months (left) and 3-months SPI (right)

The 3-month Standardized Precipitation Index (SPI-3) indicates that rainfall during the recent summer season has significantly improved soil moisture conditions across much of the region. Most countries are experiencing soil conditions ranging from normal to moderately wet. This is consistent with the influence of a persistent La Niña event recorded this year. However, isolated areas in northern South Africa, much of Zimbabwe, Madagascar, western Angola, and the northernmost parts of the DRC continue to exhibit drier-than-normal conditions [Figure 2, right].

1.1.2 Short term drought (dry spells)

A consecutive number of dry days ranging from 15 to 30 was recorded across most of the region, except in the northern parts of the DRC, northwestern Tanzania, and isolated areas in northern Mozambique [Figure 3]. The longest dry spells, lasting approximately 27 to 30 days, were observed in the central part of the sub-region, including Angola, southern DRC, most of Zambia, Botswana, and parts of northern South Africa.

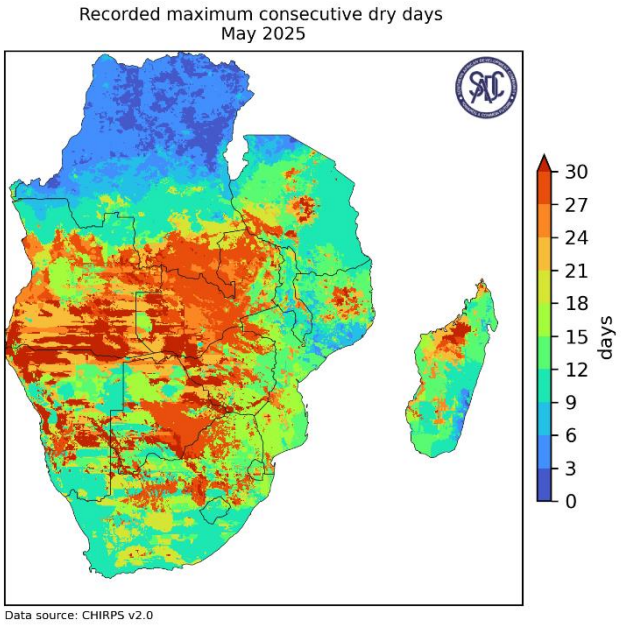

Figure 3: Dry spells prevalence during the month of May 2025

1.2 Extreme Rainfall

Most of the subcontinent did not record any extreme precipitation events over a single day during the period under review. However, isolated areas experienced significant rainfall, particularly in the western and eastern parts of the DRC, the northern and eastern fringes of Mozambique, most of Tanzania (excluding its central areas), and central Angola. In these areas, daily rainfall totals ranged from **25 mm to 90 mm** [Figure 4].

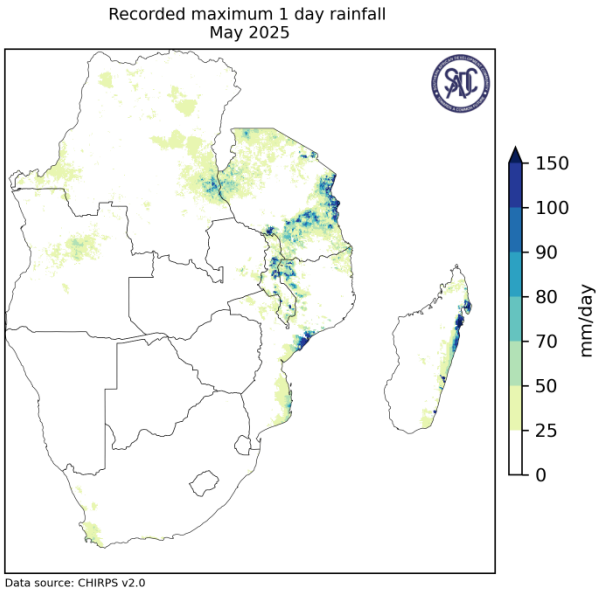

Figure 4: Maximum rainfall recorded over a one-day period during the month of May 2025

2. REGIONAL TEMPERATURE

2.1 Minimum Temperature

The lowest minimum temperatures were recorded in countries situated around the southern tip of the subcontinent, particularly in **central Zimbabwe**, **southern Botswana**, **eastern Namibia**, **central Madagascar**, and across **South Africa**, where temperatures dropped to around **5°C**.

In contrast, the rest of the region experienced significantly higher minimum temperatures, reaching up to **22°C**. However, moderate minimums were observed in areas such as **central Angola**, parts of **Namibia**, **Zambia**, and **Tanzania**, indicating a more even distribution of nighttime temperatures across those zones, [Figure 5 right].

Anomalies in minimum temperatures indicate that central parts of the subcontinent—including eastern Angola, most of Namibia, Zambia, Botswana, and South Africa—experienced **negative anomalies of around -3°C**. In contrast, **positive anomalies of up to +3°C** were observed across the rest of the region, although **areas with near-normal (null) anomalies** were scattered throughout.

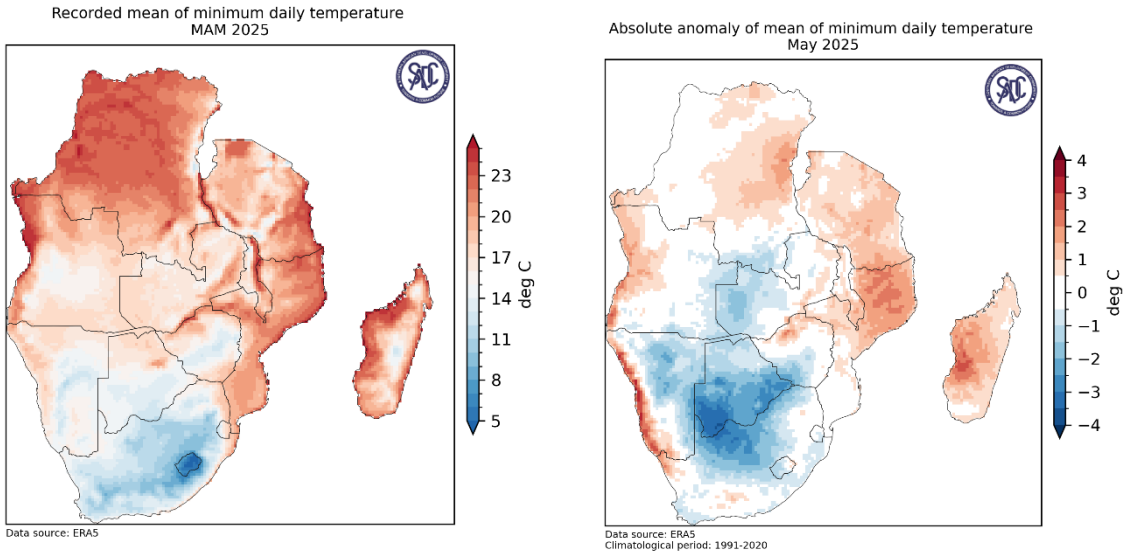

Figure 5: Observed average minimum temperature (left) and anomalies (right) for May 2025

2.2 Maximum Temperature

Recorded mean maximum temperatures ranged from **16°C to 33°C** across the region. The lowest values, between **16°C and 20°C**, were observed in the southernmost areas of the region—mainly in South Africa, eastern Namibia, Botswana, Zimbabwe, and eastern Madagascar. The rest of the region recorded mean maximum temperatures of around **32°C**.

Temperature anomalies revealed that central areas—including most of Angola, southern DRC, Zambia, Malawi, and Botswana—experienced **negative anomalies of up to -3°C**. In contrast, positive anomalies of up to **+3°C** were recorded in other parts of the region. **Neutral anomalies** were also observed in scattered areas.

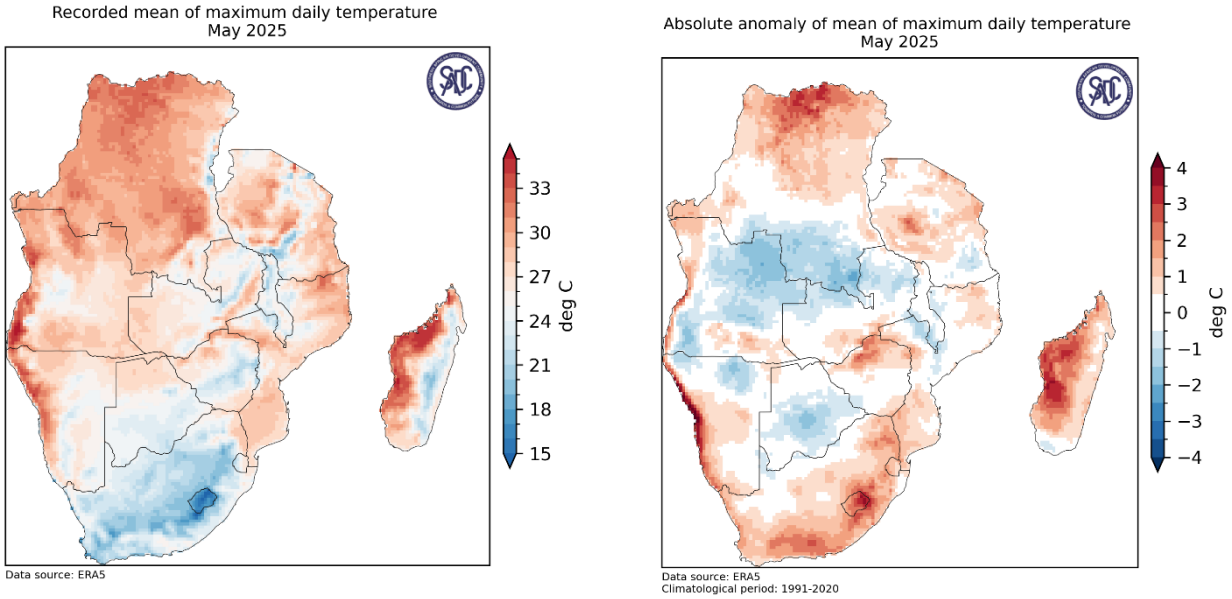

Figure 6: Observed maximum average temperature (left) and anomalies (right) for May 2025.

2.3 Heatwaves

Daytime heatwaves, lasting up to 28 days, were observed in northern DRC, central Zambia, Lesotho, western Madagascar, northern Mozambique, and the western fringes of Angola and

Namibia, [Figure 7 left]. Nighttime heatwaves also occurred in these areas, with durations of around 25 days, [Figure 7 right].

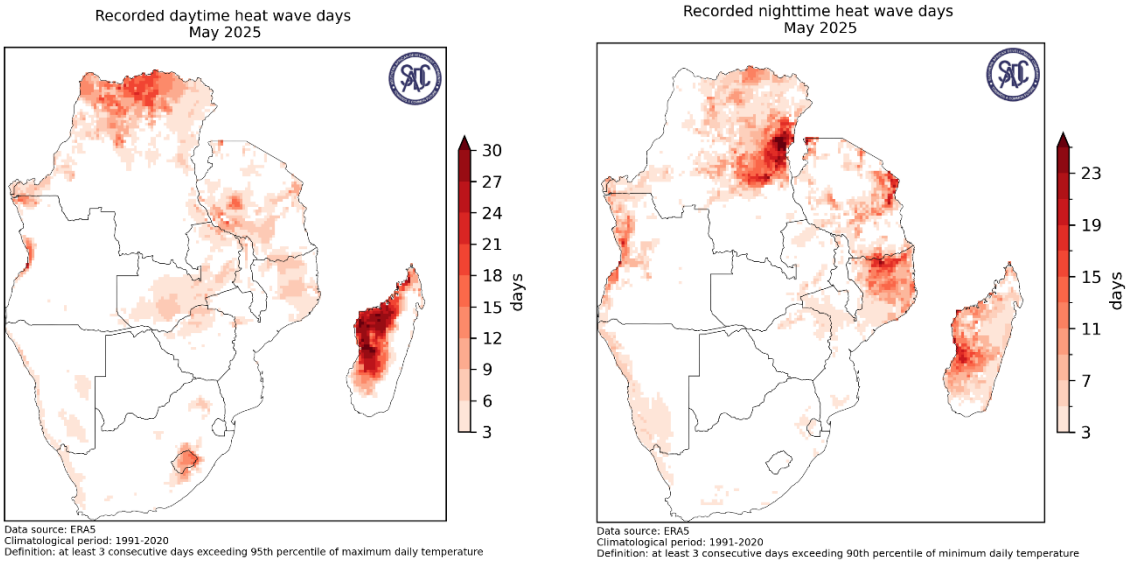

Figure 7: Heatwaves detected during the month of May 2025

3. REGIONAL MONTHLY OUTLOOKS

3.1 Rainfall Outlook

An increased probability of above-normal rainfall is forecast for a few isolated areas within the SADC region for July 2025. These areas include northeastern Madagascar, much of Mozambique, central and eastern South Africa, northern Angola, and parts of the DRC. In contrast, most of Tanzania, Angola, Zambia, Zimbabwe, Namibia, and western Madagascar are expected to receive rainfall within the normal range of probability This pattern reflects the generally dry conditions typical of the **austral winter (June to August)**, with limited rainfall activity across much of the region, [Figure 8].

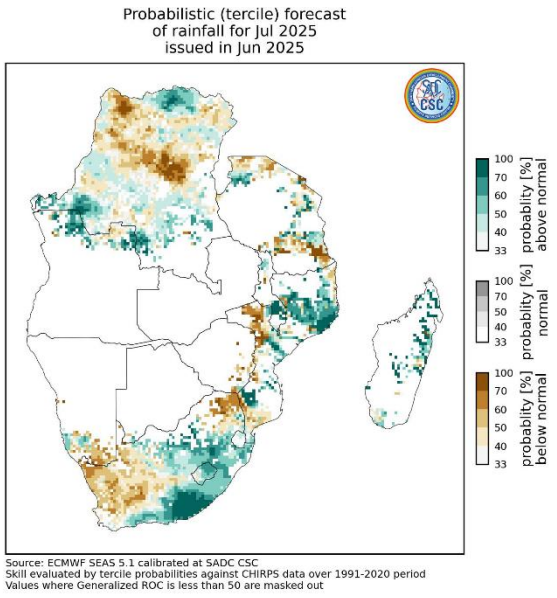

Figure 8: Rainfall probabilistic forecast for July 2025

3.2 Temperature Outlook

Above-normal temperatures are forecast over much of the SADC region for July, particularly across most of the Democratic Republic of Congo (DRC), Madagascar, eastern Zimbabwe, the entirety of Mozambique, Tanzania, Malawi, western Zambia, central Angola, and central South Africa. In contrast, a likelihood of below-normal temperatures is indicated for the southern half of the region, notably in Botswana, parts of central Namibia, central Zambia, northern Mozambique, as well as central and western Angola. Meanwhile, near-normal temperatures are expected in most of Namibia, southwestern South Africa, and some isolated areas within central Zambia [Figure 9].

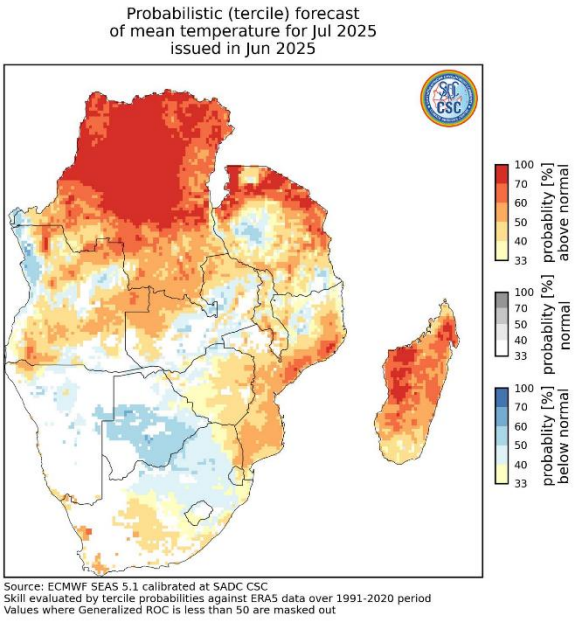

Figure 9: Temperature probabilistic forecast for July 2025

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.

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