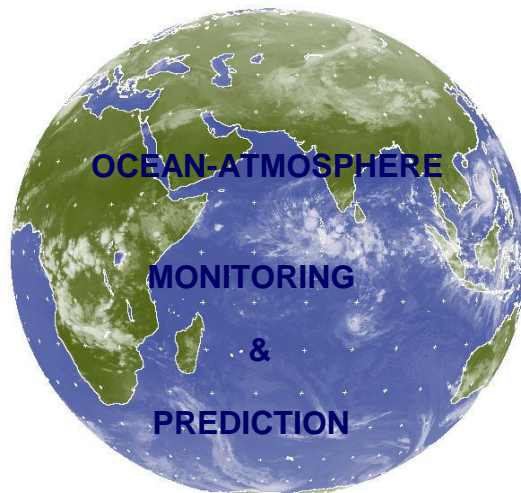


CLIMATE DIAGNOSTIC BULLETIN FOR AFRICA

NO. 4
APRIL, 2025



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SUMMARY OF APRIL 2025 AND OUTLOOK FOR FMA 2025

The precipitation during April 2025, above-average to well above average was observed over Algeria, Tunisia, eastern Guinea, southern Benin, south-west Nigeria, CAR, central of Gabon, most parts of Congo, western and southern DRC, eastern of Uganda, much of Kenya, north and south of Tanzania, most parts of the SADC region.

Below to well below-average precipitation was observed over northern Morocco, south-western Burkina Faso, north and central of Côte d'Ivoire, central and eastern Nigeria, most parts of Cameroon, eastern Ethiopia, Somalia, westernmost of Angola and much of Madagascar.

The precipitation during season of February-March-April 2025, was above-average to well above average over Morocco, Tunisia, Guinea, Liberia, Togo, Benin, south-western Nigeria, central of Gabon, southern DRC, much of Kenya, southern parts of Tanzania, most part of SADC region and south of Madagascar,

Below-average precipitation was observed over south-eastern Nigeria, southern Cameroon, south-western CAR, Angola, central of Ethiopia, and northern Madagascar.

Positive temperature anomalies, greater than or equal to 1.5°C were observed during April 2025 over Morocco, Algeria, Tunisia, Mauritania, Senegal, Guinea, Mali, Burkina Faso, most parts of Madagascar, the rest of the Continent the anomalies of temperature was less than 1.5°C.

During the February-March-April 2025 season, positive temperature anomalies greater than or equal to 1.5°C were observed over most of the central parts of the Northern Africa, Mali, Niger, Burkina Faso, Guinea, Côte d'Ivoire, Ghana, Nigeria, Chad and Madagascar.

The outlooks for the rainfall season during the May to August 2025 period is that normal to below average rainfall is expected over most southern parts of Western Africa region, western Cameroon, much of Equatorial Guinea, eastern Ethiopia, most parts of Somalia, Djibouti and south-east of Eritrea.

Season of May to August 2025, is expected to be observed normal to above average and above average rainfall over southern Mali, Niger, much of Burkina Faso, northern Guinea, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, most parts the southern Chad, north of Cameroon, CAR, southern Sudan, most parts of South-Sudan, western of Ethiopia, Kenya, Uganda, Rwanda and north-eastern of DRC.

Near to above and above average temperature is very likely over most part of the Continent during the season of May to August 2025 .

1. SYNOPTIC SITUATION FOR APRIL 2025

This section shows the intensity of pressure centres, circulation and the associated anomalies at 850hPa, the wind direction and speed at the middle and higher levels, relative humidity at 850hPa and 700hPa, Sea Surface Temperature (SST) and El Nino/Southern Oscillation (ENSO).

1.1 Pressure Centres:

Figure 1 shows the locations and status of the surface pressure systems.

- **The Azores high:** The pressure systems at the Azores high recorded 1024hPa, decreased by 1hPa when compared to the previous month and intensifying by 8hPa than its climatology mean (1991-2020). The centre was located at 41°W, 32°N. It moved westward of its climatological position over the North Atlantic Ocean.
- **St. Helena High:** Observed a central value of 1022hPa, increased by 1hPa when compared to the previous month and by 1hPa than its climatological mean (1991-2020). The centre was located at 3°E, 36°S, and it moved eastward of its climatological position over South Atlantic Ocean.
- **Mascarene High:** The Mascarene high-pressure system observed a value of 1024hPa, intensifying by 3hPa when compared to the previous month and by 9hPa compared to its climatological mean (1991-2020). It moved eastward and was located at 91°E and 35°S.
- **Heat Low:** Heat-low located over southern Chad had central values of 1005.6hPa. The central values deepened by 2hPa when compared to the previous month. The heat-lows were located at 16°E and 12°N respectively.

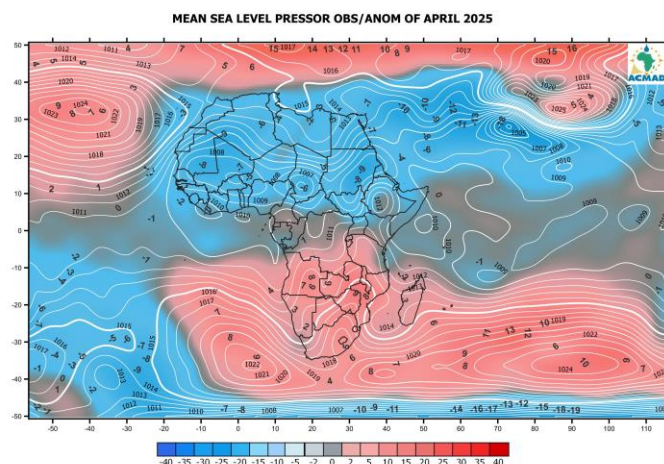


Figure 1. Observed Mean Sea Level Pressure (Contour) and anomaly (shaded) for April 2025 (Source: NOAA/NCEP)

1.2 Wind Anomalies (m/s) at 850hPa

Figure 2 shows wind anomalies at 850hPa. Light to moderate westerly to northerly winds was observed over Morocco, Mauritania, Algeria.

Light to moderate north-easterly winds was observed over the Chad, Niger, Nigeria, and CAR.

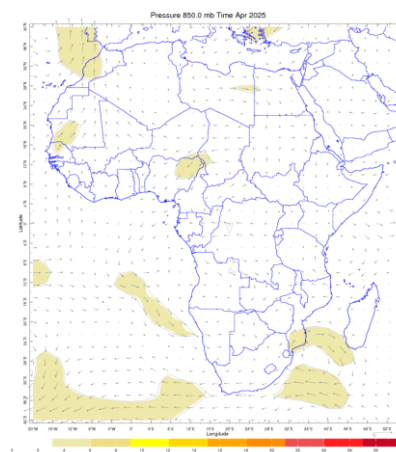


Figure 2a: Wind anomalies (m/s) at 850hPa for April 2025 (source: NOAA/NCEP)

1.2 Relative Humidity (RH) at 850hPa

In April 2025, high RH $\geq 60\%$ at 850hPa (fig.3) was observed over northmost of Morocco, Guinea, Sierra Leone, Liberia, western Côte d'Ivoire, southern Ghana, Togo, Benin, Nigeria, Cameroon, much of Guinea Equatorial, Gabon, Congo, DRC, most of the southern parts of Eastern Africa, northern and eastern parts of Southern Africa regions and Madagascar. The rest of the continent observed RH values less than 60%.

Negative anomalies (1991-2020 mean) of relative humidity were observed over Benin, Nigeria, Sudan, Djibouti, Ethiopia, Somalia and Madagascar. The rest of the continent observed positive anomalies of RH (above 1991-2020 mean) during January 2022.

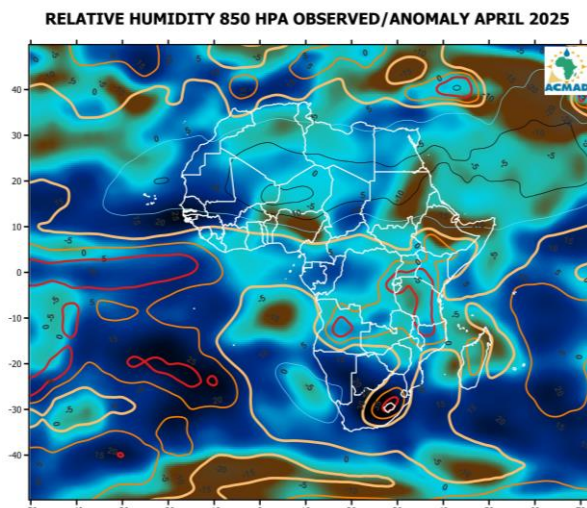


Figure 3. Relative humidity (%) at 850hPa (contour) and anomaly (shaded) for April 2025 (SOURCE: NOAA/NCEP)

1.4 Relative Humidity at 700 hPa

High RH $\geq 60\%$ at 700hPa (fig.4) was observed during April 2025 over western parts Western African, most parts of the Central Africa, southern Eastern Africa, eastern and southern of Southern Africa. The rest of the continent observed RH values were less than 60%.

Negative anomalies (1991-2020 mean) of RH were observed over Burkina Faso, Niger, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, Sudan, DRC, Angola, , Zimabia, and Madagascar. The rest of the continent observed positive anomalies (greater than the 1991-2020 mean) of RH during the month under review.

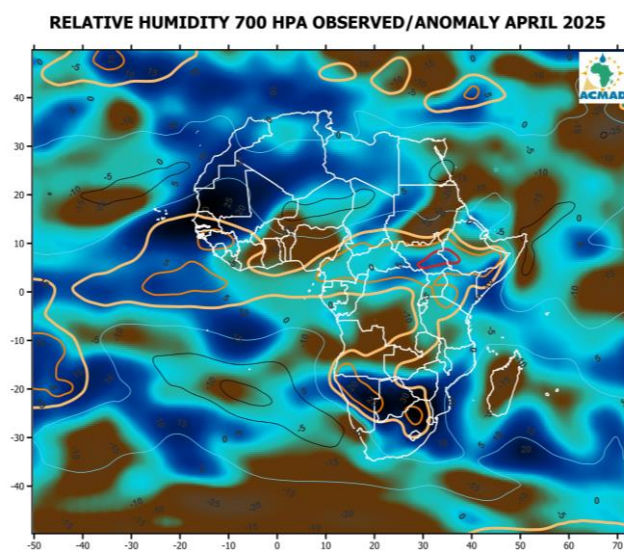


Figure 4. Relative humidity (%) at 700hPa (contour) and anomaly (shaded) for March 2025 (SOURCE: NOAA/NCEP)

1.5 Sea Surface Temperature (SST) and El Nino/Southern Oscillation (ENSO)

Over central parts of the Equatorial Pacific, near to below-average SSTs were observed during April 2025. Near average SST were noted over Tropical North Atlantic (TNA) area. In the Gulf of Guinea, neutral conditions prevailed during April 2025 with some neutral to warm conditions further southern Atlantic Ocean. Over the Indian Ocean, neutral to warm SSTs conditions were recorded over the south-western Indian Ocean and neutral to warm SSTs were observed over the north to the south-eastern Indian Ocean.

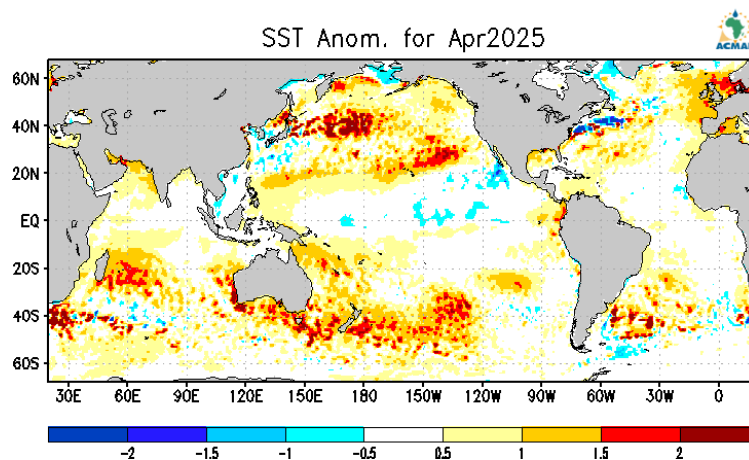


Figure 5: Sea surface temperature anomalies for April 2025 (source: IRI)

2. CLIMATOLOGICAL SITUATION AND IMPACTS DURING FEBRUARY 2025

This section provides the general climatological situation and its impacts, covering two major parameters; temperature and precipitation.

2.1 Precipitation

2.1.1 Monthly Precipitation

The precipitation during April 2025, above-average to well above average was observed over Algeria, Tunisia, eastern Guinea, southern Benin, south-west Nigeria, CAR, central of Gabon, most parts of Congo, western and southern DRC, eastern of Uganda, much of Kenya, north and south of Tanzania, most parts of the SADC region.

Below to well below-average precipitation was observed over northern Morocco, south-western Burkina Faso, north and central of Côte d'Ivoire, central and eastern Nigeria, most parts of Cameroon, eastern Ethiopia, Somalia, westernmost of Angola and much of Madagascar.

2.1.2 Seasonal Precipitation

The precipitation during season of February-March-April 2025, was above-average to well above average over Morocco, Tunisia, Guinea, Liberia, Togo, Benin, south-western Nigeria, central of Gabon, southern DRC, much of Kenya, southern parts of Tanzania, most part of SADC region and south of Madagascar,

Below-average precipitation was observed over south-eastern Nigeria, southern Cameroon, south-western CAR, Angola, central of Ethiopia, and northern Madagascar.

MONTHLY PRECIPITATION IN PERCENT OF AVERAGE
FOR APRIL 2025

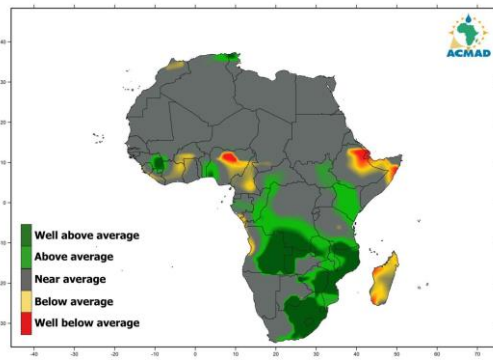


Figure 6a: Monthly precipitation in the percentage of the average for April 2025 (Source: NOAA/NCEP)

SEASONAL PRECIPITATION IN PERCENT OF AVERAGE
FOR FEBRUARY-MARCH-APRIL 2025

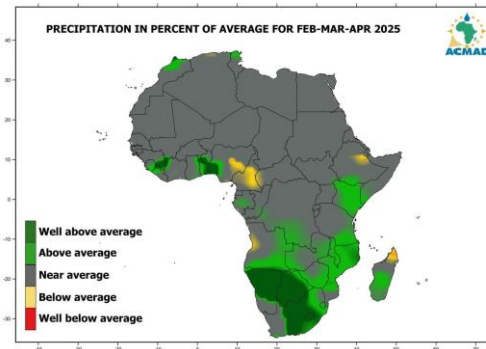


Figure 6b: Precipitation in the percentage of the average for February-March-April 2024/2025 (Source: NOAA/NCEP)

2.2 Surface Temperature

2.2.1 Monthly Temperature Anomalies

Positive temperature anomalies, greater than or equal to 1.5°C were observed during April 2025 over Morocco, Algeria, Tunisia, Mauritania, Senegal, Guinea, Mali, Burkina Faso, most parts of Madagascar, the rest of the Continent the anomalies of temperature was less than 1.5°C.

MONTHLY TEMPERATURE ANOMALY
FOR APRIL 2025

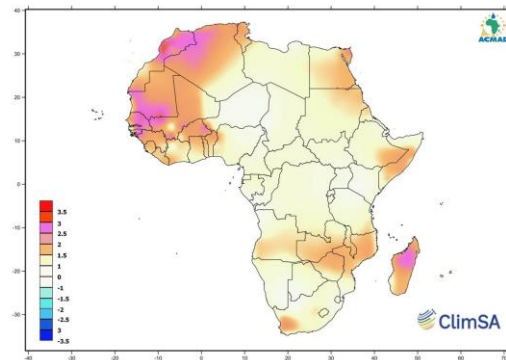


Figure 7: Temperature anomaly for March 2025 (Source:NOAA/NCEP)

2.2.2 Seasonal Temperature Anomalies

During the February-March-April 2025 season, positive temperature anomalies greater than or equal to 1.5°C were observed over most of the central parts of the Northern Africa, Mali, Niger, Burkina Faso, Guinea, Côte d'Ivoire, Ghana, Nigeria, Chad and Madagascar.

SEASONAL TEMPERATURE ANOMALY
FOR FEBRUARY-MARCH-APRIL 2025

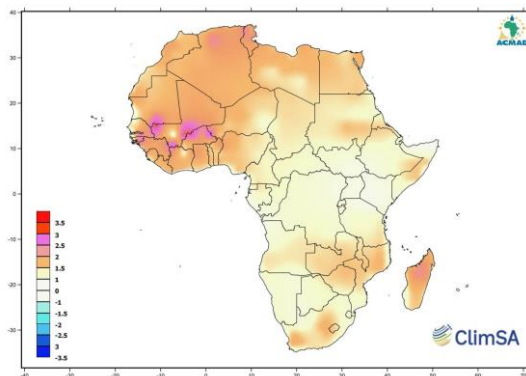


Figure 8: Seasonal temperature anomaly January-February-March 2025 (Source: NOAA/NCEP)

3. OUTLOOK

3.1 El Niño/La Niña

This section provides the predicted Sea Surface Temperature (SST) anomalies, exhibiting the future characteristics of ENSO and the precipitation outlook for the coming months.

Figure 12 shows the forecasts by dynamic and statistical models over Niño3.4 (5°N–5°S, 120°W–170°W).

In mid-April, Sea Surface Temperatures was near to below average in the central-eastern equatorial Pacific. A large majority of the models in the plume predict SSTs near-normal at the level of a Neutral phase until May to August 2025..

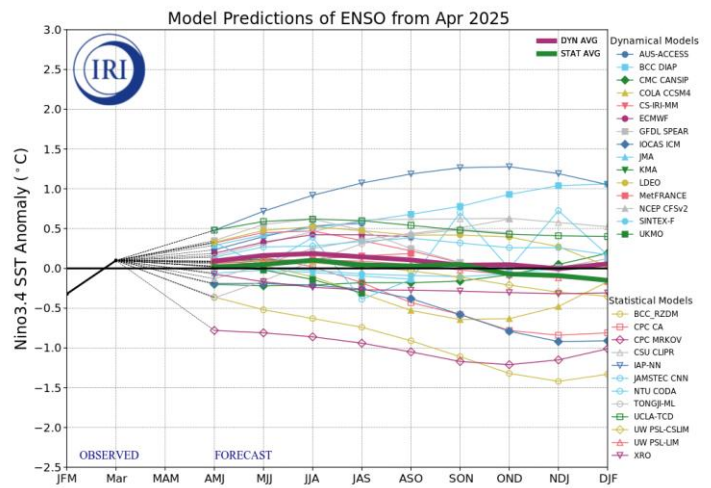


Figure 12: Ensemble multi-model forecast from April 2025 (Source: IRI)

3.2. Seasonal Precipitation Forecast for May-June-July 2025

The precipitation forecast for May-June-July 2025 season (fig.13), issued on April 29, 2025, reveals that:

The outlooks for the rainfall season during the May to August 2025 period is that normal to below average rainfall is expected over most southern parts of Western Africa region, western Cameroon, much of Equatorial Guinea, eastern Ethiopia, most parts of Somalia, Djibouti and south-east of Eritrea.

Season of May to August 2025, is expected to be observed normal to above average and above average rainfall over southern Mali, Niger, much of Burkina Faso, northern Guinea, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, most parts the southern Chad, north of Cameroon, CAR, southern Sudan, most parts of South-Sudan, western of Ethiopia, Kenya, Uganda, Rwanda and north-eastern of DRC..

3.3. Seasonal Temperature Forecast for May-June-July 2025

The temperature forecast for April 2025 season (fig.14), issued on April 29, 2025, shows that:

Near to above and above average temperature is very likely over most part of the Continent during the season of May to August 2025.

SEASONAL PRECIPITATION FORECAST FOR MAY-JUNE-JULY 2025 ISSUED ON APRIL 30, 2025

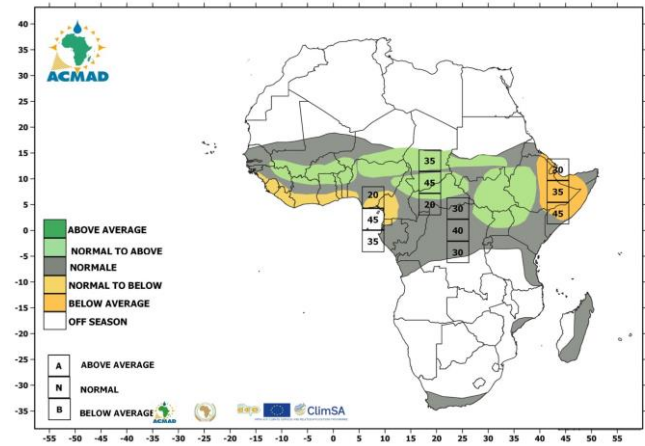


Figure 13: Seasonal precipitation forecast for May-June-July, 2025

SEASONAL TEMPERATURE FORECAST FOR MAY-JUNE-JULY 2025 ISSUED ON APRIL, 2025

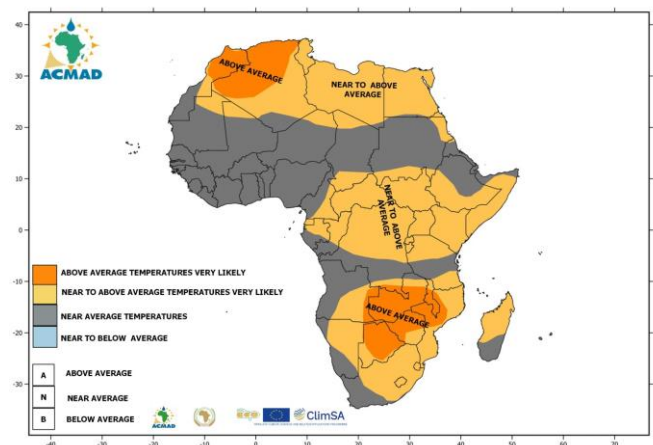


Figure 14: Temperature forecast for April-May-June, 2025