2025

CLIMATE BULLETIN

DEKAD 1, AUGUST (11-20)

GMET/CLIMATE/010825 FORM337

8/11/2025

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SUMMARY

- **Rainfall:**
    - Most areas received significant rainfall (> 30.0 mm).
    - Yendi received the highest rainfall of 86.9 mm
    - Forest and coastal areas: Highest rainy days (9 days).
    - Transition area to northern parts: Least rainy days.
- **Rainfall Anomalies:**
    - Deficit rainfall in most areas.
    - Kumasi, Ejura, Axim, Cape coast and their environs experienced normal to surplus rainfall.
- **Relative Humidity:**
    - Maximum value of 89.5% was recorded over Saltpond.
    - Minimum value of 69% was recorded over Wenchi.
- **Temperatures:**
    - **Maximum:**
        - Below normal anomalies over most parts of the country.
        - The maximum of the Maximum temperature of 32.7°C was recorded in Prestea
        - Relatively cooler temperatures over the coastline and slightly North of it.
    - **Minimum:**
        - Above normal to Normal temperatures over the Northern half, and Below normal over the Southern sector of the country.
        - The minimum of the Minimum temperature was recorded in Abetifi, reaching 19.2°C.

1.0 OBSERVED CLIMATE DRIVERS

1.1 INTERTROPICAL FRONT

Also known as the Intertropical Convergence Zone (ITCZ) is a critical meteorological feature that significantly influences weather patterns in West Africa, including Ghana. The ITF is a boundary zone where the warm, moist air from the Atlantic Ocean (southwesterly monsoon winds) meets the hot, dry air from the Sahara Desert (northeasterly Harmattan winds). This convergence leads to the formation of clouds and precipitation, making it a key driver of the rainy season in West Africa. The northward movement of the ITF during March-July brings the rainy season to Ghana.

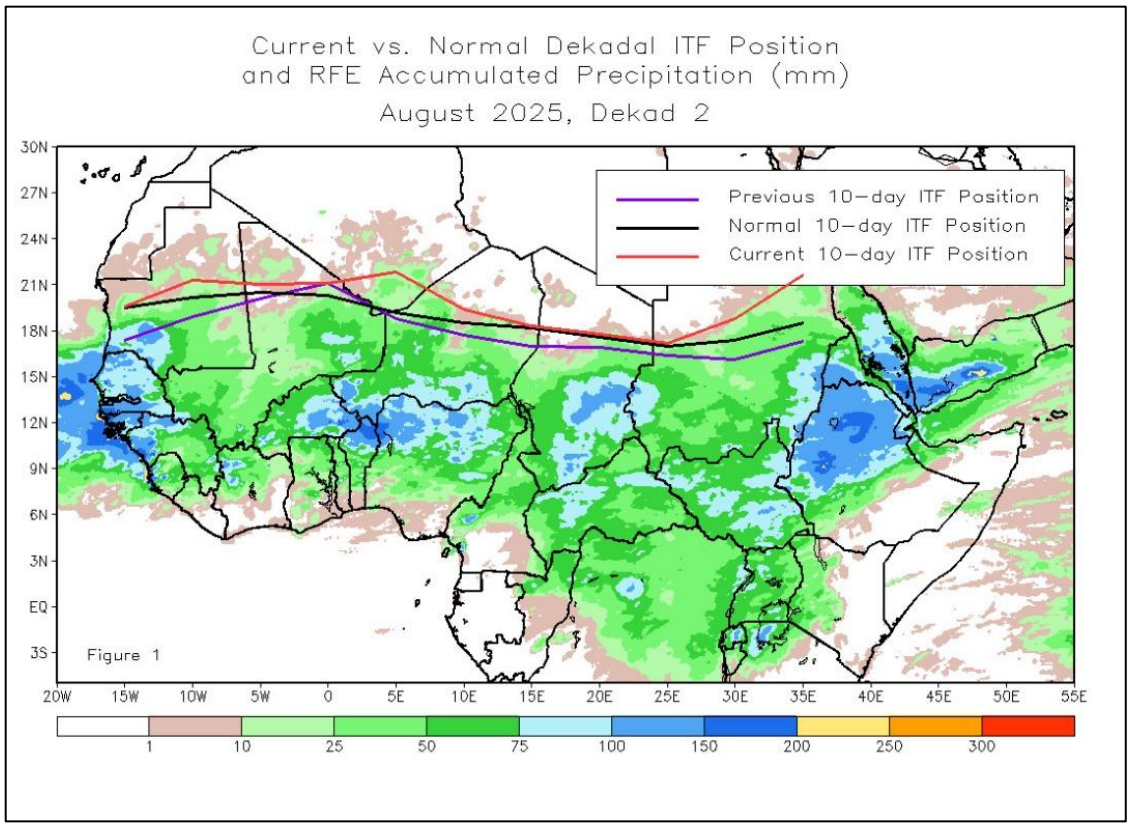


Figure 1. Current ITF position for August 2nd Dekad, 2025

Between August 11 and 20, the Inter-Tropical Front (ITF) shifted northward compared to its previous location. Specifically, the current ITF was located at approximately 21.1N in the northern part of the Africa which is north of its previous position by 0.2 degrees. *Figure 1* displays the current position of the ITF during the 2nd dekad of August and its previous position during the 1st dekad of August. Similarly, *Table 1* below also shows the evolving ITF's position of Ghana, located between 5W and 5E.

Dekad	15W	10W	5W	0	5E	10E	15E	20E	25E	30E	35E
January 1	10.6	7.9	7.2	7.6	7.8	5.4	3.7	4.1	4.6	2.8	3.2
January 2	10.6	8.6	7.3	7.8	7.8	5.8	4.3	4.7	4.9	3.3	4.1
January 3	11.5	8.6	7.9	8.2	8.5	7.2	4.7	5.2	4.9	2.7	3.7
February 1	10.7	8.2	6.6	8.1	8.3	7.2	4.7	4.8	4.4	2.8	3.7
February 2	11.5	10.5	9.6	9.0	8.8	7.5	4.9	5.6	5.7	3.7	3.2
February 3	11.5	9.4	8.2	9.2	8.9	7.2	5.8	7.0	6.6	2.8	2.9
March 1	12.1	10.7	11.0	10.5	10.1	6.6	6.0	6.1	6.8	4.4	5.0
March 2	11.2	10.8	10.0	9.8	9.6	8.2	8.2	8.3	7.7	7.8	8.5
March 3	12.6	12.1	11.6	11.6	11.2	8.8	7.3	7.5	7.7	7.3	8.7
April 1	12.9	11.9	11.1	11.3	11.1	9.4	8.3	9.7	9.5	9.4	8.7
April 2	13.3	12.4	12.8	11.7	11.1	8.8	8.1	9.9	9.6	9.7	9.7
April 3	14.5	13.7	13.5	13.1	12.1	10.7	9.9	10.3	9.9	10.0	10.2
May 1	15.0	14.2	13.9	13.7	12.7	9.9	8.7	9.6	9.4	9.3	9.6
May 2	13.2	13.4	14.1	13.9	13.8	12.3	11.5	10.5	9.6	10.0	11.3
May 3	15.1	17.8	14.5	14.7	14.2	12.7	11.6	11.6	10.8	11.8	12.6
June 1	14.6	15.1	14.4	15.9	16.5	15.5	14.7	13.5	11.8	12.1	13.1
June 2	15.7	17.7	15.8	15.9	18.1	14.1	13.3	12.8	12.4	13.3	14.3
June 3	16.2	16.1	16.5	16.4	17.5	14.3	13.5	13.1	13.1	13.2	14.0
July 1	16.6	18.2	18.1	18.4	17.6	17.2	17.7	16.0	15.0	14.8	15.9
July 2	18.8	20.2	20.4	20.5	18.5	17.5	17.4	16.2	16.0	16.3	17.2
July 3	18.6	20.5	20.5	20.9	19.8	19.5	20.0	19.6	18.5	16.4	17.7
August 1	17.4	18.9	20.1	21.1	18.8	17.7	17.0	16.9	16.4	16.1	17.3
August 2	19.6	21.3	21.0	21.1	21.8	19.4	18.3	17.8	17.2	18.8	21.6

Table 1. Dekadal evolution of the ITF position over Ghana 2025.

1.2 MADDEN-JULIAN OSCILLATION (MJO)

MJO is a tropical disturbance that moves eastward around the globe, influencing weather patterns, including rainfall and temperature, in various regions. The MJO has phases (1-8), with each phase corresponding to its location over the tropics. Its position and strength can have significant implications for weather in Ghana, particularly during the West African monsoon season.

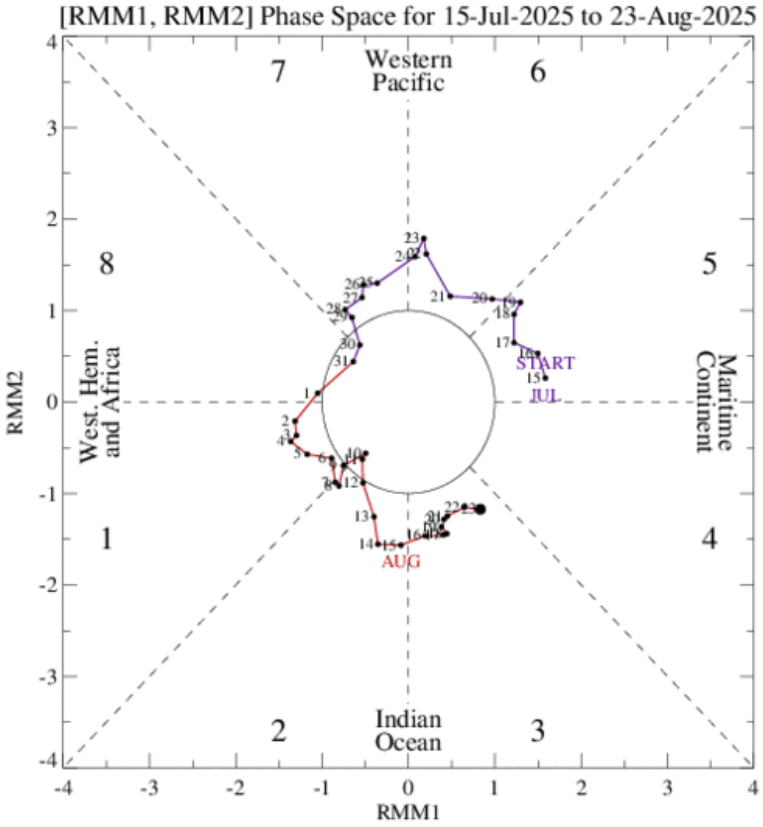


Figure 2. Current MJO position for August 2nd Dekad, 2025

From *figure 2*, the MJO is at phases 1 and 2 (Indian Ocean sector), with low-to-moderate amplitude (mostly close to the unit circle). The effect on Ghana's rainfall was expected to be neutral to slightly suppressed rainfall, with only small windows of wetter activities.

2.0 RAINFALL, TEMPERATURE AND RELATIVE DISTRIBUTION

2.1 RAINFALL

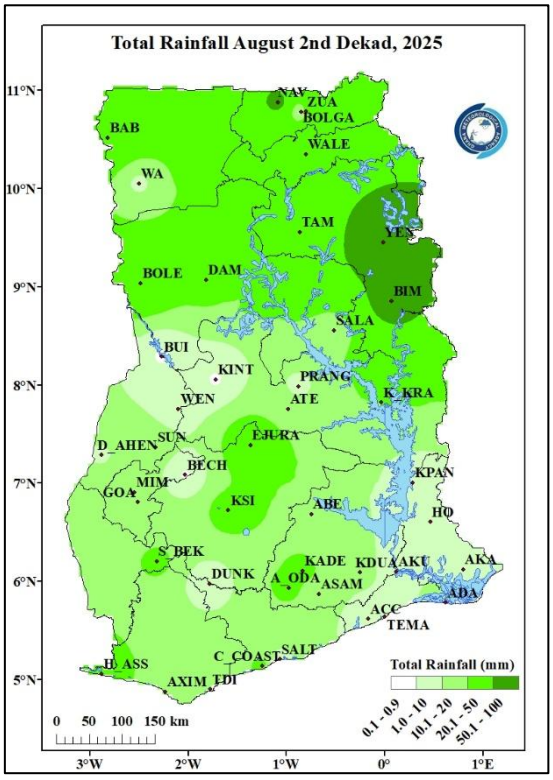


Figure 3a. Total Rainfall August 2nd Dekad, 2025

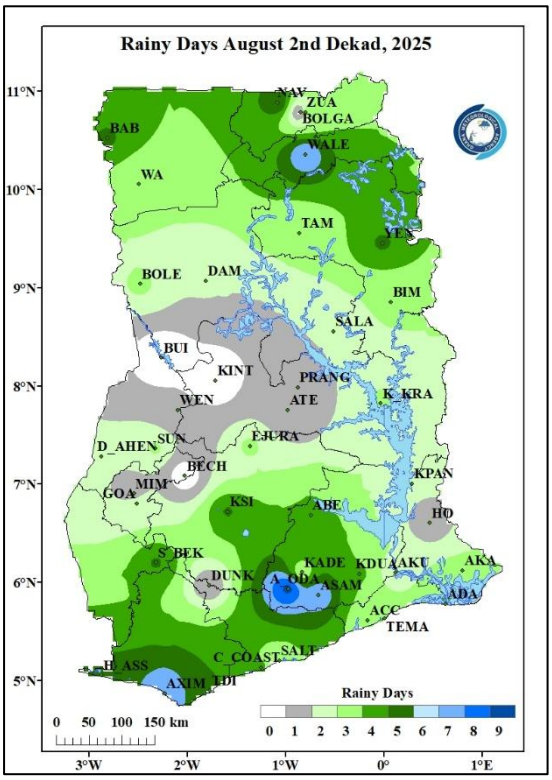


Figure 3b. Rainy Days August 2nd Dekad, 2025

Figure 3a illustrates the rainfall distribution across Ghana during the second ten-day period of August. The Northern station Yendi recorded the highest rainfall amount with a total of 86.9 mm. In contrast, some Transition areas around Bechem and Kintampo experienced no rainfall during the period.

As illustrated in Figure 3b, the frequency of rainy days during the specified period is shown. Some areas spanning from the Northern sector to the forested areas experienced comparatively fewer days, with less than 2 days of rain. Places around Asamankese, Walewale, and Axim saw up to 7 rainy days recorded. Akim Oda experienced the most rainy days of 9.

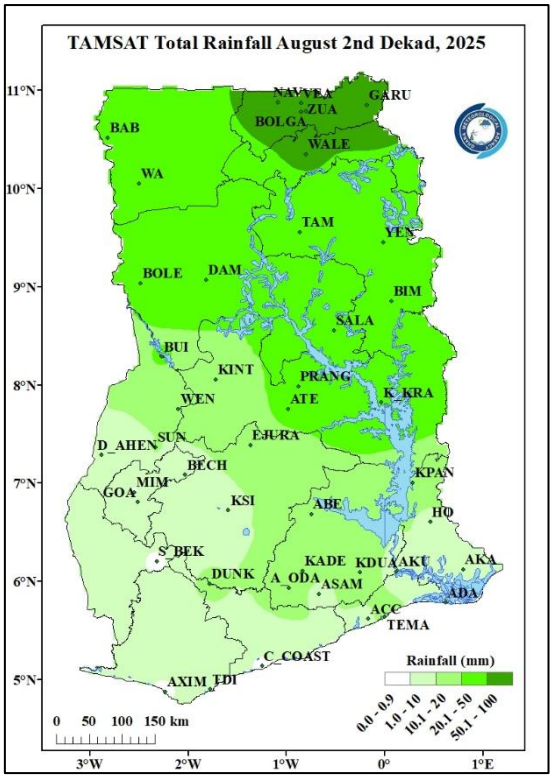


Figure 4. TAMSAT Total Rainfall August 2nd Dekad, 2025

Figure 4 also presents the total rainfall derived from the TAMSAT rainfall estimate. While the data generally aligns well with observed patterns, some overestimation is noted, particularly in the Northeastern region.

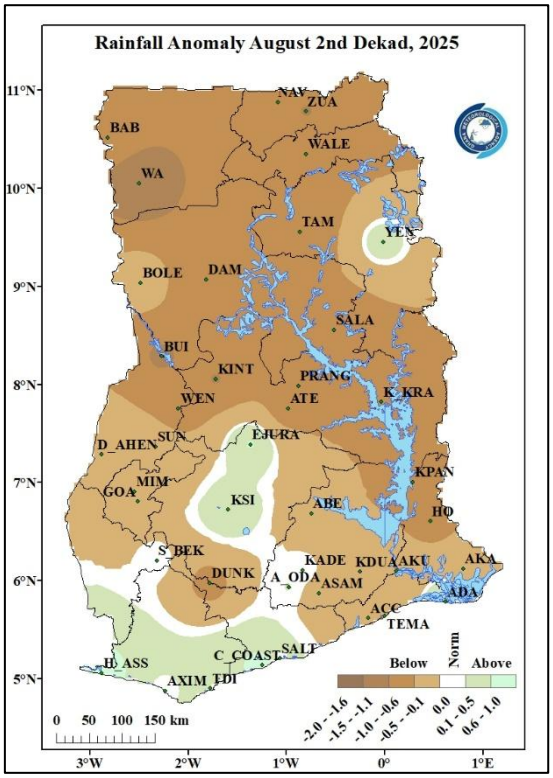


Figure 5: Rainfall Anomaly for August 2nd Dekad, 2025

Figure 5 also highlights areas with deviations from normal rainfall. Most areas within the transition and Northern regions experienced deficit rainfall. However, some forested areas and places along the west coast such as Kumasi, Ejura, Axim, and Cape coast experienced normal to surplus rainfall.

2.2 TEMPERATURE

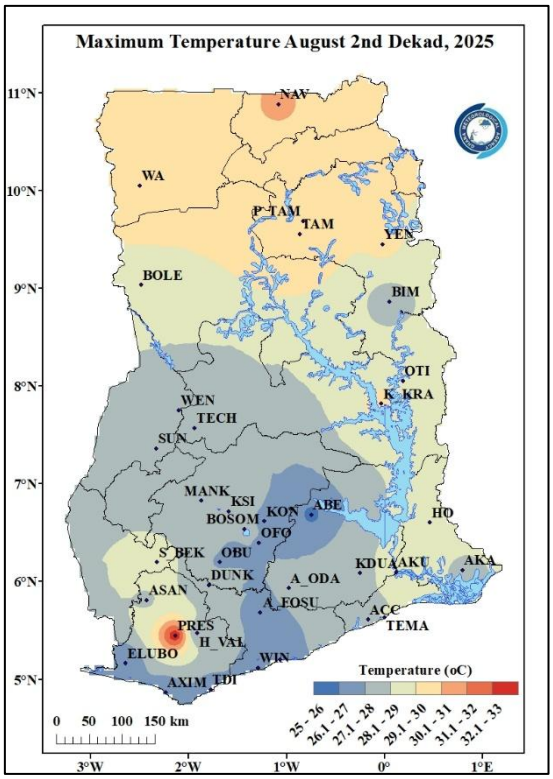


Figure 6a. Maximum Temperature August 2nd Dekad, 2025

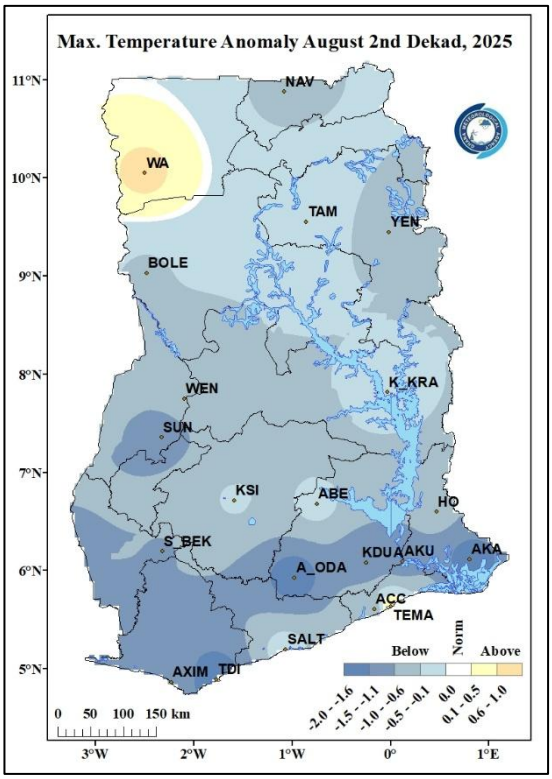


Figure 6b. Maximum Temperature Anomaly August 2nd Dekad, 2025

Figure 6a displays the distribution of average Maximum temperatures across the country. The northern belt recorded temperatures, ranging from 27.1°C to 33.0°C. The highest temperature of 32.7°C was recorded in Prestea, while the lowest temperature of 25.9°C was observed in Abetifi. In the transition zone, temperatures ranged between 27.1°C and 30.0°C. In contrast, the southern sector, including Abetifi, Elubo, Saltpond, and Axim experienced relatively cooler temperatures ranging from 25.0°C to 28.0°C.

Maximum Temperature Anomaly is represented in *figure 6b* above. Almost the entire country experienced a below normal temperatures with the exemption of Wa and its environs (above normal). This signifies persisting decreasing day-time temperatures in the country.

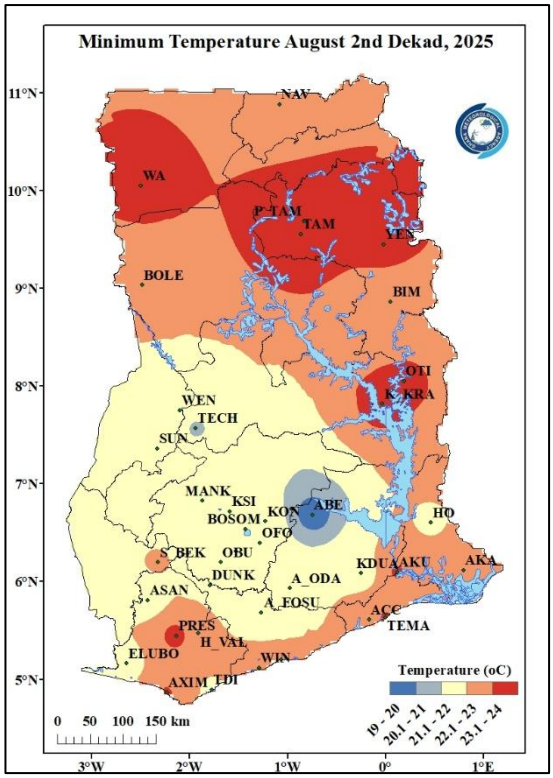


Figure 7a. Minimum Temperature August 2nd Dekad, 2025

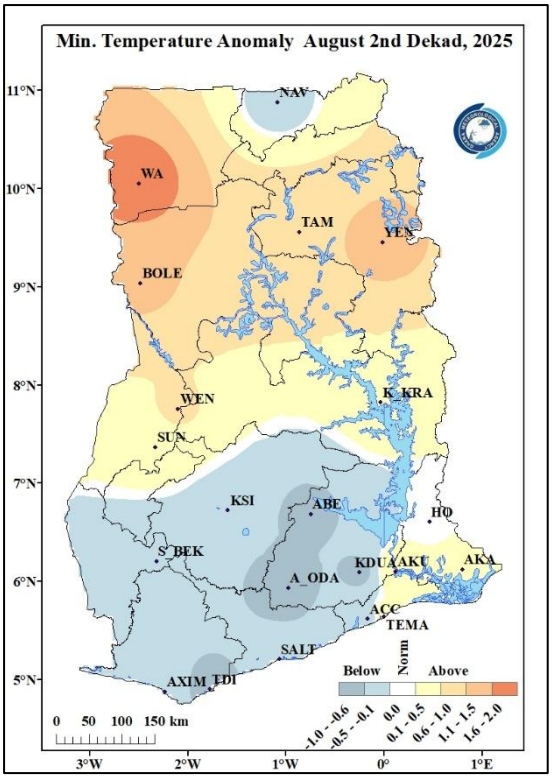


Figure 7b. Minimum Temperature Anomaly August 2nd Dekad, 2025

In *Figure 7a*, the average minimum temperatures varied across different regions. The northern sector and the coastal areas experienced relatively warmer temperatures, with average values ranging from 22.1°C to 24.0°C. In contrast, places in the transition and the forest zones, such as, Abetifi, Ho, Techiman and Dunkwa experienced cooler average nighttime temperatures ranging from 19.0°C to 22.0°C. The lowest average nighttime temperature was recorded in Abetifi in the Forest zone, reaching 19.2°C.

In *figure 7b*, we see the Minimum Temperature Anomaly. It is evident that, the transitional and Northern portions of the country except Navrongo experienced Above normal to Normal temperatures indicating increasing night-time temperatures. Areas around Ho, Akuse, Akatsi, and Ada also Above normal to Normal temperatures. The forested areas extending to the west and central coasts, however experienced Below normal temperatures.

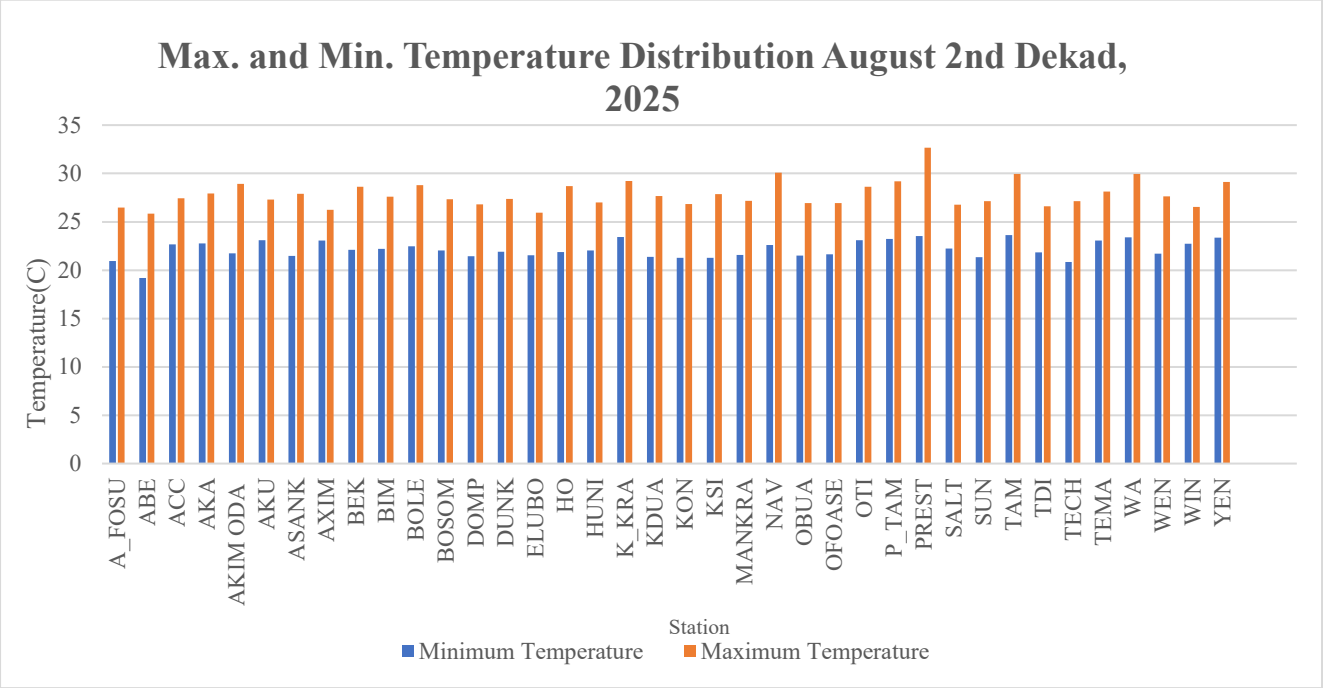


Figure 8. Max. and Min. Temperature Distribution for August 2nd Dekad, 2025

2.3 RELATIVE HUMIDITY

Observed Relative Humidity (RH) over the ten (10) day period is presented in *figure 9a* below. The forest and coastal areas experienced RH of 71 to 90%. On the other hand, the Transition and Northern areas experienced RH values ranging from 60 to 80 %. The minimum value of 69% was recorded over Tamale while a maximum value of 89% was recorded over Saltpond.

Average RH Anomaly is also presented in *figure 9b.* Generally, a Below normal RH is observed over the entire country, signifying a decreased moisture levels during the ten day period.

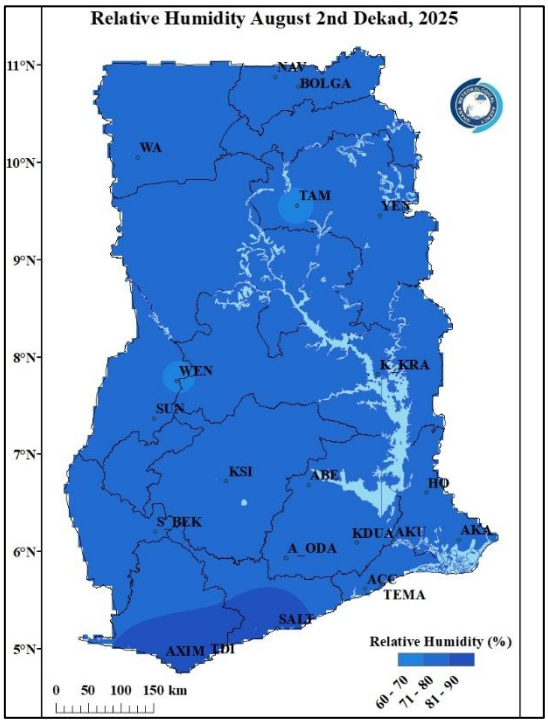


Figure 9a. Average Relative Humidity August 2nd Dekad, 2025

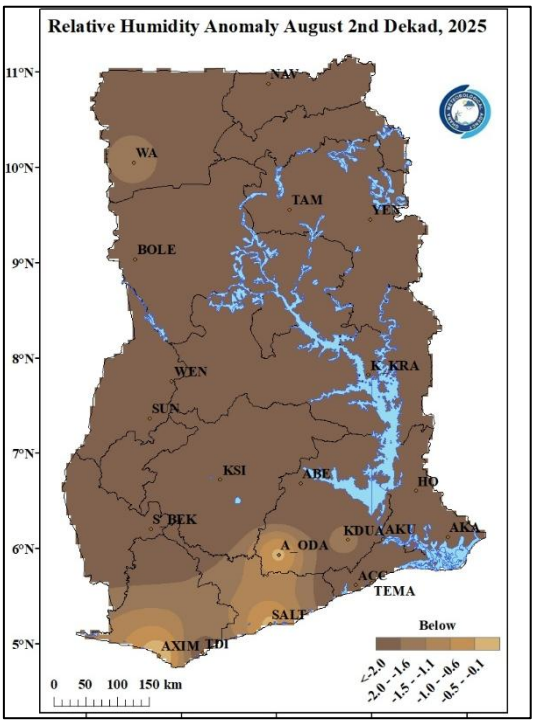
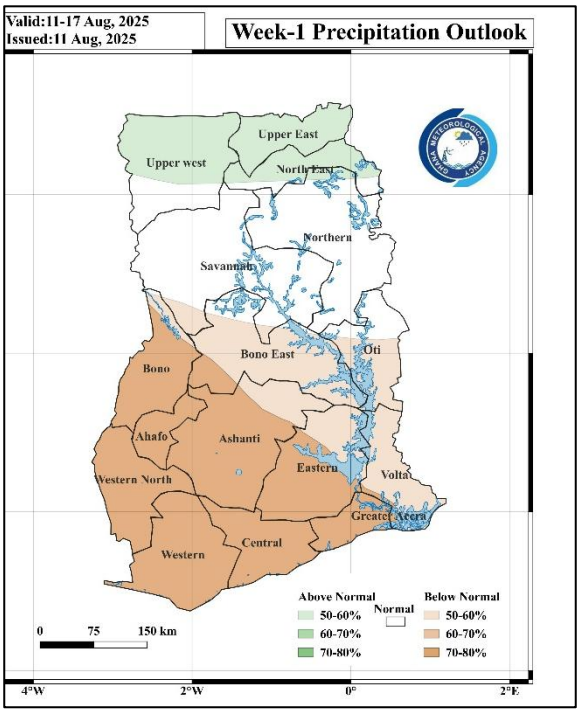


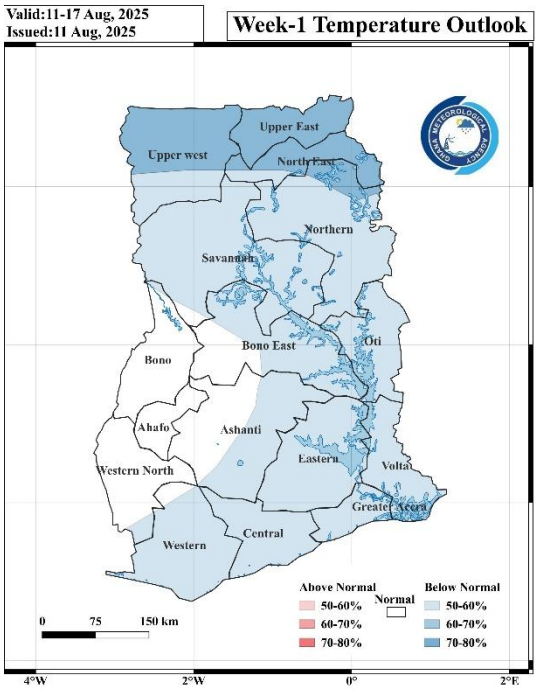
Figure 9b. Average Relative Humidity Anomaly August 2nd Dekad, 2025

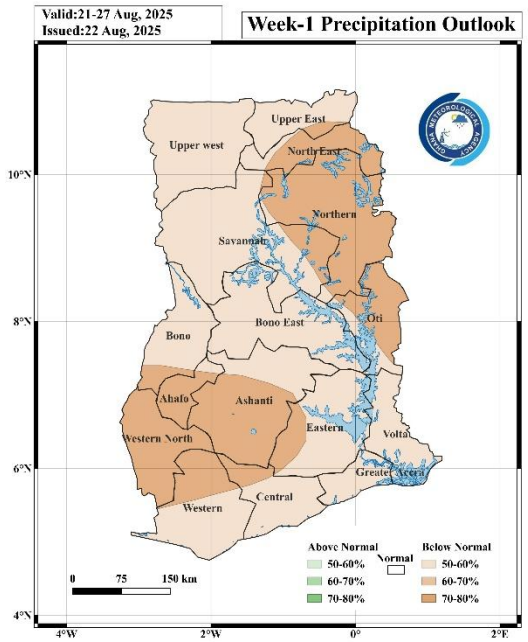
3.0 RAINFALL AND TEMPERATURE OUTLOOK 11- 17TH AUGUST 2025

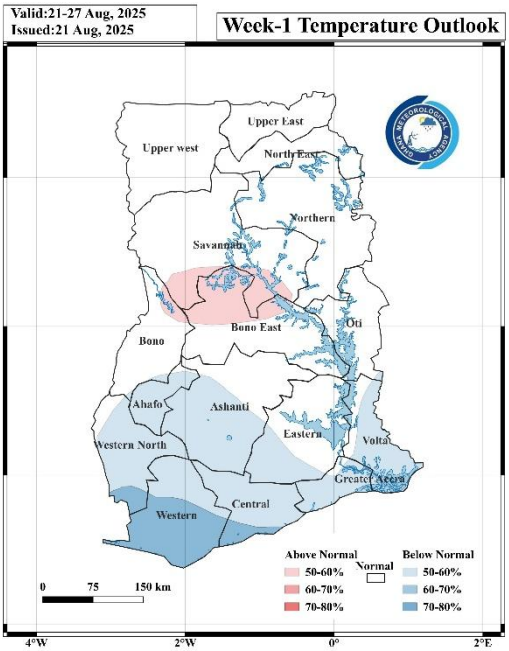
Week 1: The Southern half of Ghana is expected to receive below normal rainfall. The northern half on the other hand is expected to experience Normal to Above normal conditions.

Week 2: Below normal rainfall is expected over most parts of the country.









4.0 ADVISORIES

1. **Health Sector**
    - Be cautious of cold-related illnesses, especially for vulnerable groups (elderly, children, and those with chronic illnesses) due to low daytime temperatures over the entire country.

2. **Water Resources Management Sector**
    - Conserve water and use it efficiently, especially in regions with no rainfall (Transition and Southern sector).

3. **General Public**
    - Below-Normal Temperatures (Nationwide). The public should limit outdoor activities.
    - The use of fans or air conditioning where should be limited where necessary
    - Stay hydrated and heavy clothing.
    - Stay updated on weather forecasts from the Ghana Meteorological Agency.

5.0 APPENDIX

5.1 TABLE OF STATIONS

STATIONS	Abrevation	STATIONS	Abrevation	STATIONS	Abrevation
Abetifi	ABE	Bui	BUI	Salaga	SALA
Accra	ACC	Cape Coast	C. COAST	Saltpond	SALT
Ada	ADA	Damongo	DAM	Sefwi Bekwai	S. BEK
Agona Kwanyako	AG. KWA	Dorma Ahenkro	D. AHEN	Sefwi Wiawso	S. WIAW
Agona Swedro	AG. SWE	Duayaw Nkwanta	D. NKWA	Sunyani	SUNY
Akatsi	AKA	Dunkwa	DUNK	Techiman	TECH
Akim Oda	AK. ODA	Goaso	GOA	Tafo	TAFO
Akropong Akwapim	A. Akwap	Ho	HO	Takoradi	TADI
Akuse	AKU	Kade	KADE	Tamale	TAMA
Asamankese	ASAM	Kete Krachi	K. KRA	Tarkwa	TARK
Asankragwa	ASANK	Kintampo	KINT	Tema	TEMA
Atebubu	ATE	Koforidua	KOF	Twifo Praso	T. PRA
Atieku	ATIEKU	Kpando	KPAN	Vea Dam	VEA
Axim	AXIM	Kumasi	KSI	Wa	WA
Babile	BABILE	Manga Bawku	M. BAWKU	Walewale	WALE
Bechem	BECH	Mim	MIM	Wamfie	WAMF
Bibiani	BIB	Navrongo	NAV	Wassaw Akropong	W. AKR
Bimbila	BIMB	Nsoatre	NSOA	Wenchi	WEN
Bole	BOLE	Obuasi	OBUASI	Winneba	WINN
Bolgatanga	BOLGA	Pong Tamale	P. TAM	Yendi	YEN
Bompata	BOMPA	Prang	PRANG	Zuarungu	ZUA
Breman Asikuma	B. ASIK				

For further inquiries, clarification, information or assistance

Contact:

The Director General

Tel. +233 (0)30 701 0019 or clients@meteo.gov.gh/info@meteo.gov.gh