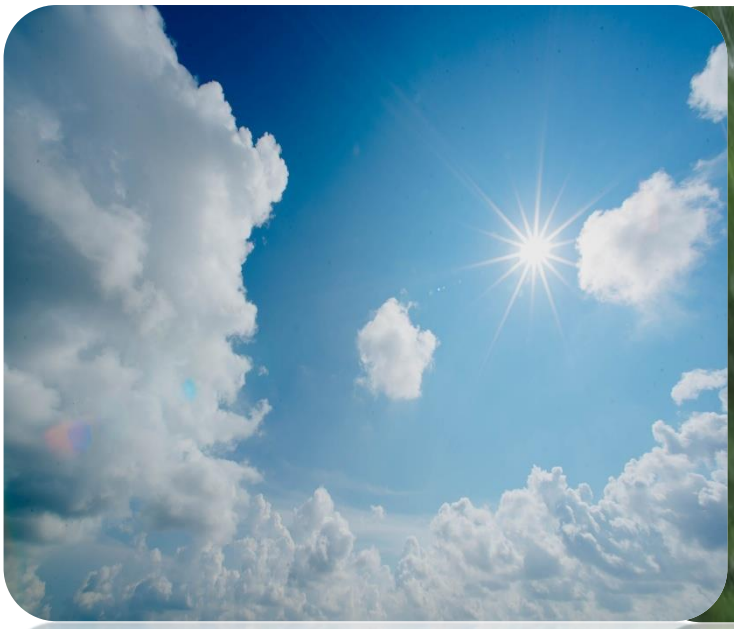
MAY 2025

CLIMATE BULLETIN



DEKAD 1, MAY (01-10)

GMET/CLIMATE/010525…...FORM337

5/1/2025

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SUMMARY

- **Rainfall:**
  - Most areas received rainfall below 50mm
  - Mim received the highest rainfall of 187.7 mm.
  - Abetifi, Akim Oda, Goaso, Kpando, Mim, Sefwi Bekwai recorded the highest rainy days of 5 days
- **Rainfall Anomalies:**
  - Deficit rainfall in most areas.
  - South-western portions experienced surplus rainfall.
- **Relative Humidity:**
  - Maximum value of 78.45% was recorded over Saltpond
  - Minimum value of 42.7% was recorded over Navrongo.
- **Temperatures:**
  - **Maximum:**
    - Above normal temperatures experienced in most of the stations.
    - The maximum of the Maximum temperature of 38.28°C was recorded in Navrongo
    - The minimum of the Maximum temperature of 30.12°C was recorded in Abetifi
    - Relatively cooler temperatures along the south-western portions and in selected forested areas.
  - **Minimum:**
    - Warmer temperatures in the Northern and East Coastal sector
    - Relatively above normal temperatures across the country
    - The maximum of the Minimum temperature of 27.46°C was recorded in Ada
    - The minimum of the Minimum temperature was recorded in Techiman; reaching 21.79°C.

1. OBSERVED CLIMATE DRIVERS

1.1 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.

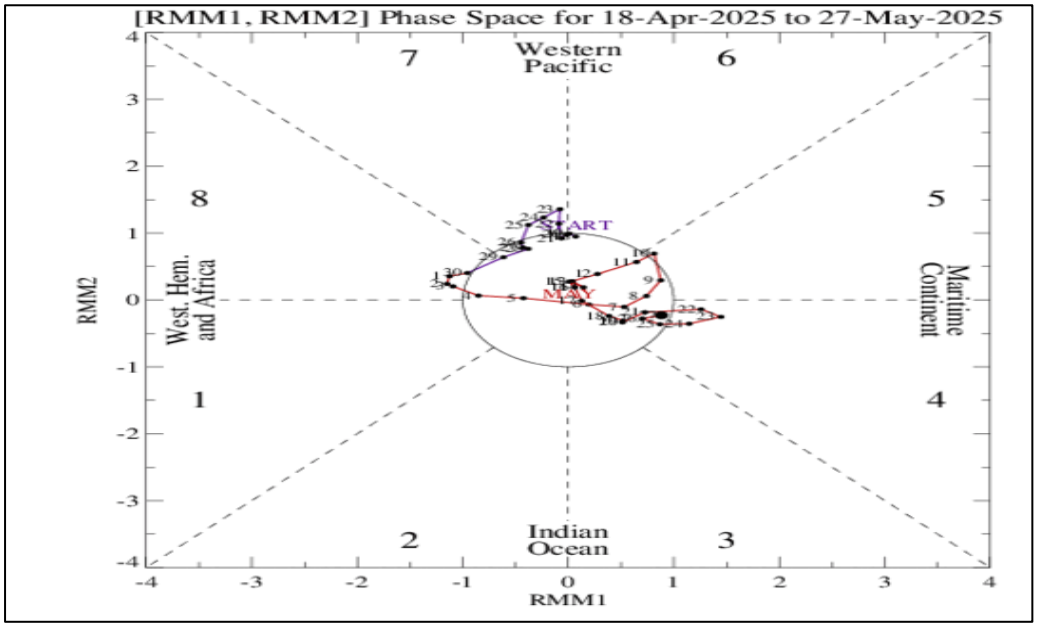


Figure 1. Current MJO position as of May 1st Dekad, 2025

As illustrated in Figure 1, the Madden-Julian Oscillation (MJO) was positioned between Phases 7 and 8, corresponding to the Western Pacific, Western Hemisphere, and Africa regions. However, its proximity to the centre of the phase-space diagram indicates a weak amplitude, reflecting a subdued MJO signal during this period.

Given its current phase and limited strength, the MJO was unlikely to significantly enhance convective activity over West Africa. This weak signal may have contributed to the short-term suppression of rainfall in Ghana, as the MJO typically exerts minimal influence on the region during weak phases.

2.0 RAINFALL, TEMPERATURE AND RELATIVE DISTRIBUTION

2.1 RAINFALL

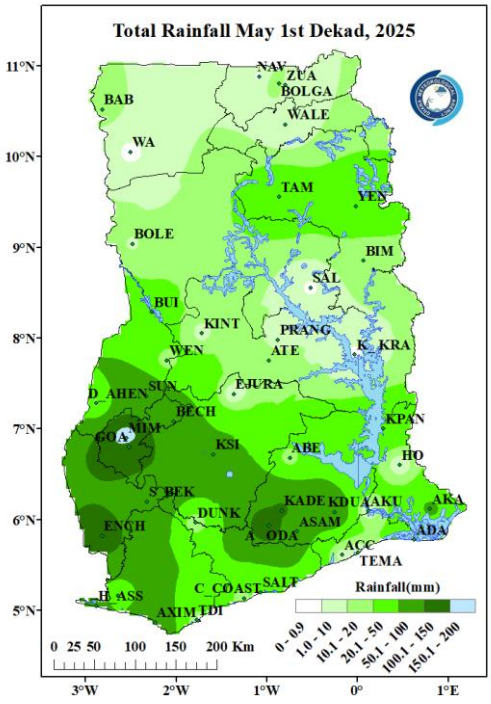


Figure 2a. Total Rainfall May 1st Dekad, 2025

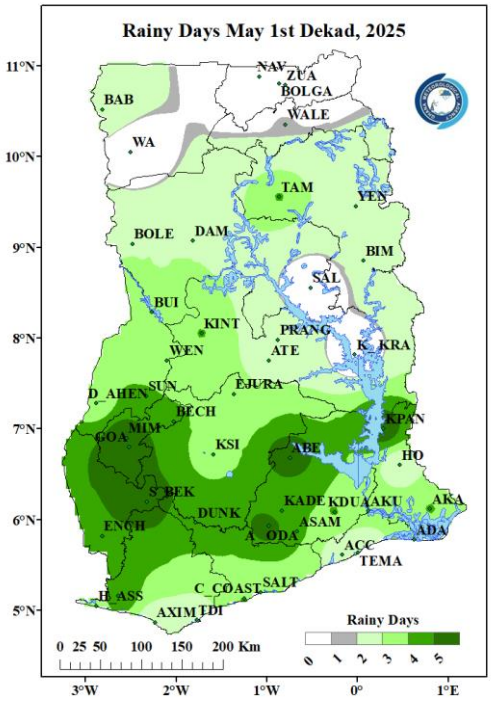


Figure 2b. Rainy Days May 1st Dekad, 2025

Figure 3a illustrates the distribution of rainfall across Ghana during the first ten-day period (dekad) of May. Within this period, Mim recorded the highest total rainfall, measuring 187.7 mm. However, no rainfall was observed at stations such as Wa, Zuarungu, Salaga, Navrongo and Kete Krachi.

Figure 3b depicts the frequency of rainy days during the same period. Majority of the stations across the country, from the northern areas to the coastal belt, recorded one (1) to three (3) rainy days. Portions of the forest zone experienced up to four (4) rainy days, while stations such as Abetifi, Akim Oda, Goaso, Kpando, and Mim recorded five (5) rainy days.

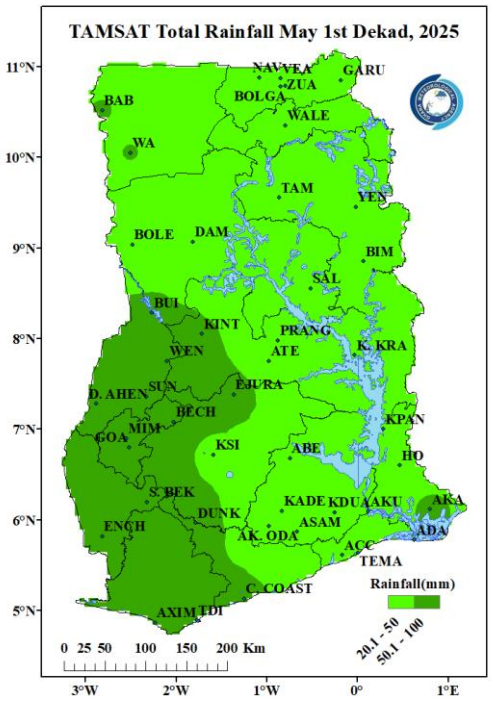


Figure 3. TAMSAT Total Rainfall May 1st Dekad, 2025

Figure 3 shows the total rainfall for the period, derived from TAMSAT satellite-based estimates. This data provides valuable insight into the nationwide distribution of rainfall. During this dekad, portions of the south-western areas exhibited rainfall patterns that were consistent with ground-based observations.

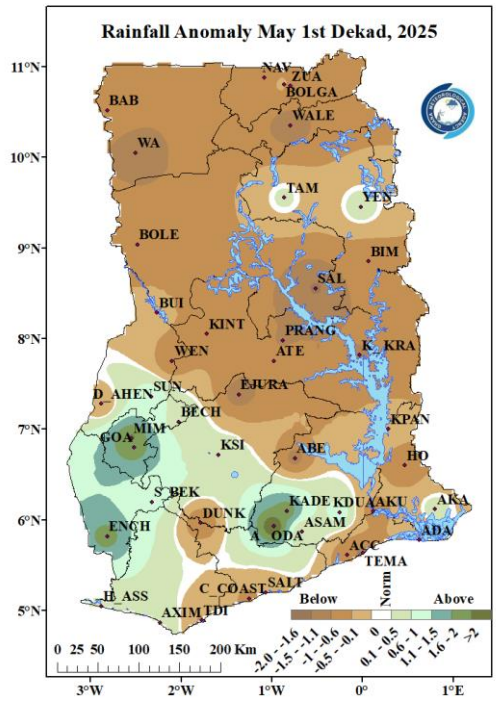


Figure 4. Rainfall Anomaly for May 1st Dekad, 2025

Figure 5 highlights areas across the country that experienced deviations from normal rainfall during the period. Notably, most stations from the Northern sector down to the transition zone and southeastern portions recorded deficit rainfall. In contrast, the south-western regions experienced surplus rainfall. Stations that reported surplus rainfall include Mim, Bechem, Enchi, Half Assini, Koforidua, Asamankese, and Kade.

2.2 TEMPERATURE

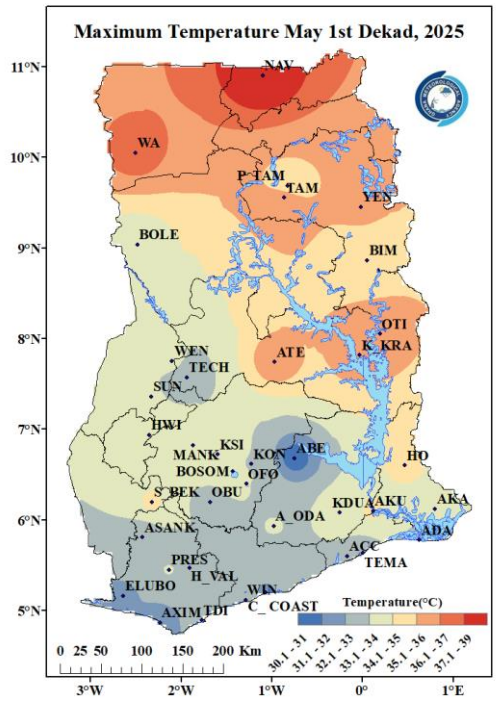


Figure 5a Maximum Temperature May 1st Dekad, 2025

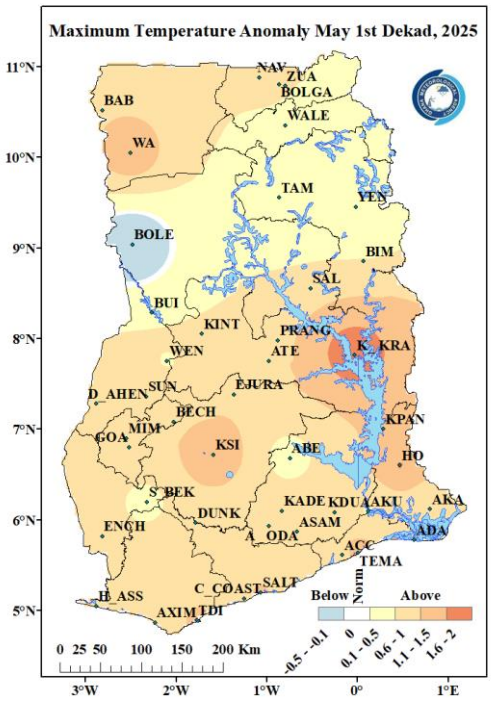


Figure 5b. Maximum Temperature Anomaly May 1st Dekad, 2025

Figure 5a presents the nationwide distribution of average maximum temperatures during the reporting period. The highest temperatures were recorded in the northern sector, ranging from 33.1°C to 39.0°C, with Navrongo recording the highest temperature at 38.28°C. In contrast, the lowest temperature of 30.12°C was observed in Abetifi. Across the transition zone, temperatures ranged between 32.1°C and 36.0°C. The southern sector, including stations such as Abetifi, Accra, Winneba, Takoradi, Axim, Elubo, Half Assini, and Akim Oda, experienced relatively cooler conditions, with temperatures ranging from 30.1°C to 35.0°C.

Figure 5b illustrates the Maximum Temperature Anomalies. In this dekad, most of the stations across the country experienced above-normal temperatures except for Bole which exhibited below-normal temperatures.

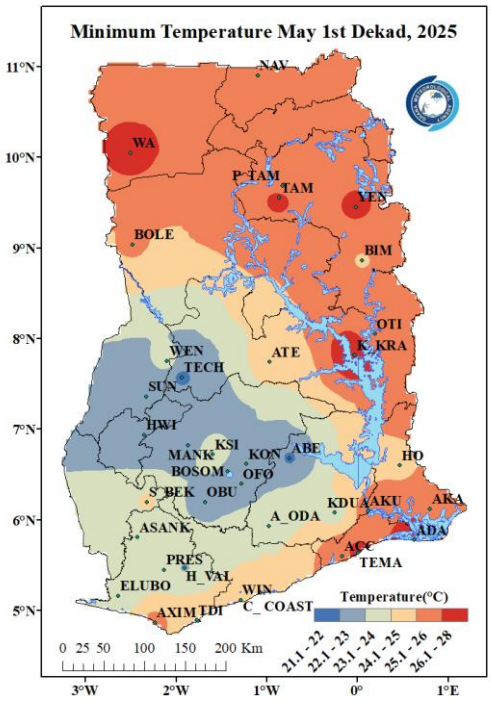


Figure 6a. Minimum Temperature May 1st Dekad, 2025

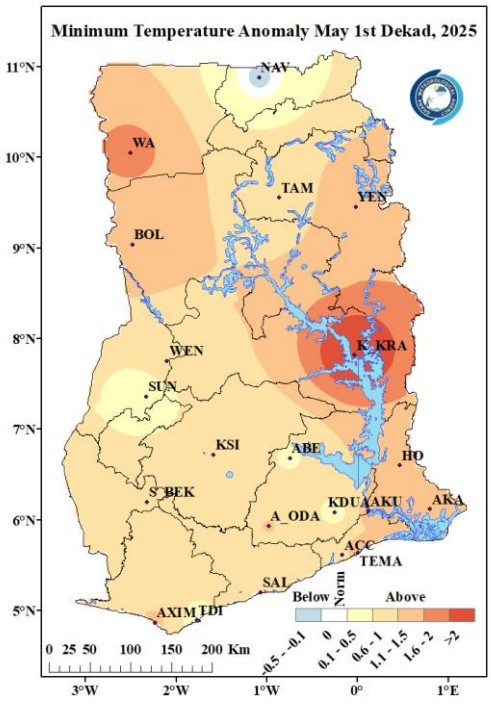


Figure 6b Minimum Temperature Anomaly May 1st Dekad, 2025

Figure 6a shows the distribution of average minimum temperatures across the country. Warmer night-time temperatures, ranging from 24.1°C to 28.0°C, were observed in the Northern sector and along parts of the coast — including stations such as Navrongo, Wa, Pong Tamale, Tamale, Yendi, Bimbila, Accra, Tema, and Ada. In contrast, relatively cooler conditions were recorded in locations such as Sunyani, Abetifi, Kumasi, and Techiman, with average minimum temperatures ranging from 21.0°C to 24.0°C. The lowest night-time temperature was observed in Techiman, located within the forest zone, at 21.79°C.

In *figure 6b*, we see the Minimum Temperature Anomaly for this period. Most parts of the country experienced above normal temperatures indicating increased night-time temperatures. However, places around Navrongo experienced below-normal temperatures.

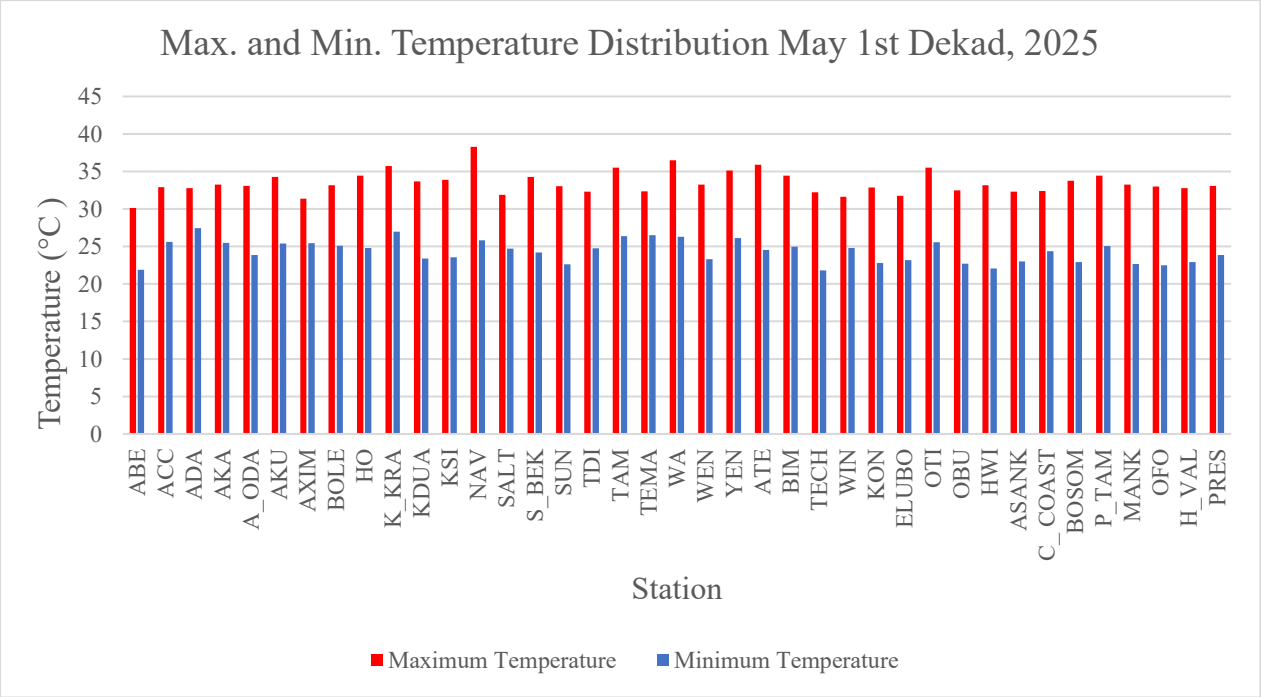


Figure 7 Max. and Min. Temperature Distribution for May 1st Dekad, 2025

2.3 RELATIVE HUMIDITY

Figure 8a presents the observed relative humidity (RH) over the ten-day period. The forest and coastal regions recorded RH values ranging from 61% to 80%, while the transition and northern zones experienced lower humidity levels, between 41% and 60%. The minimum RH value of 43% was observed in Navrongo, whereas the maximum value of 78% was recorded in Saltpond.

Average RH Anomaly is also presented in *figure 8b.* A below normal RH is observed across the entire country during the period under review.

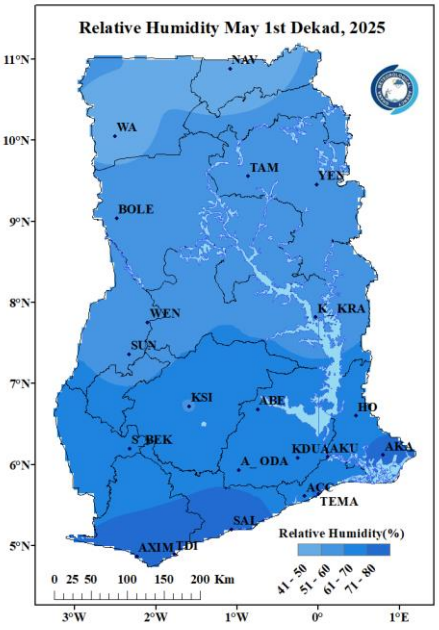


Figure 8a. Average Relative Humidity May 1st Dekad, 2025

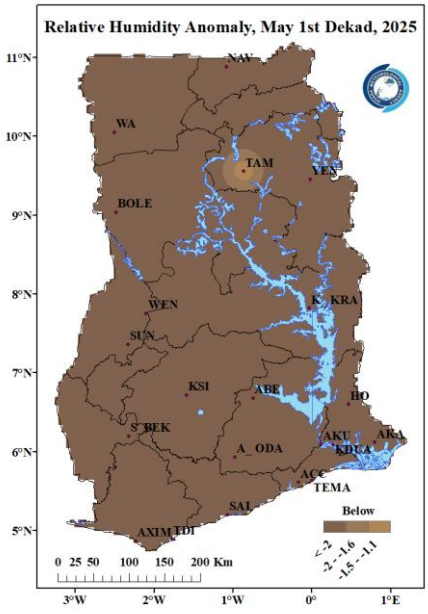
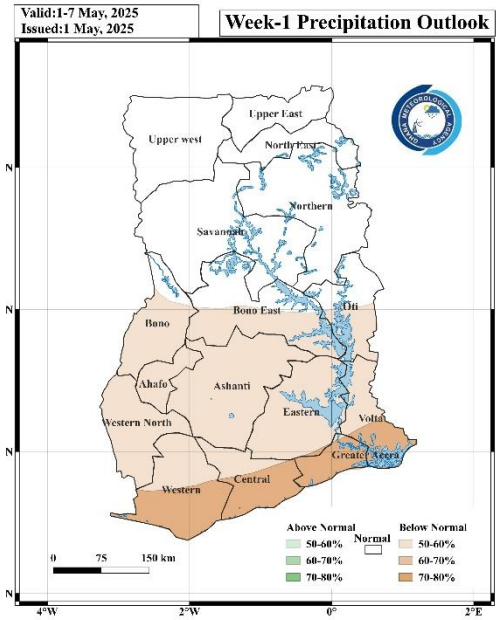
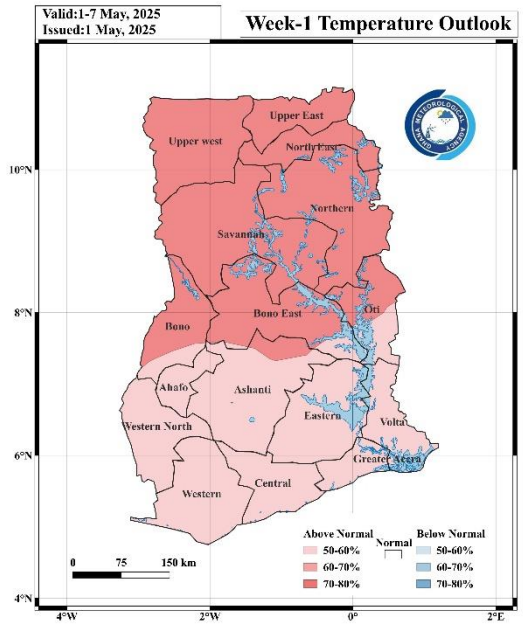


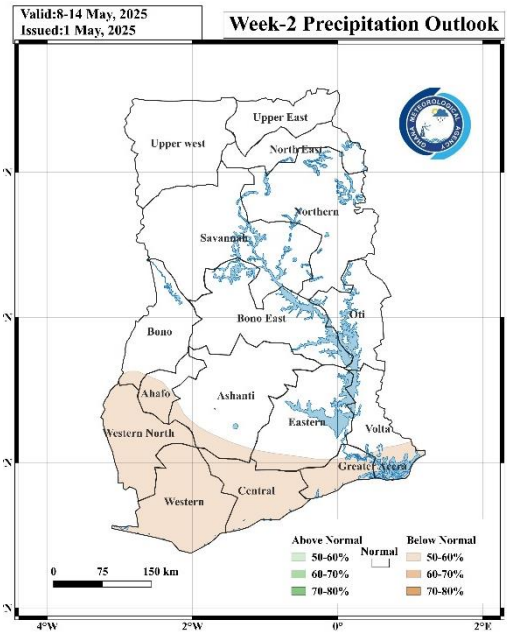
Figure 8b Average Relative Humidity Anomaly May 1st Dekad 2025

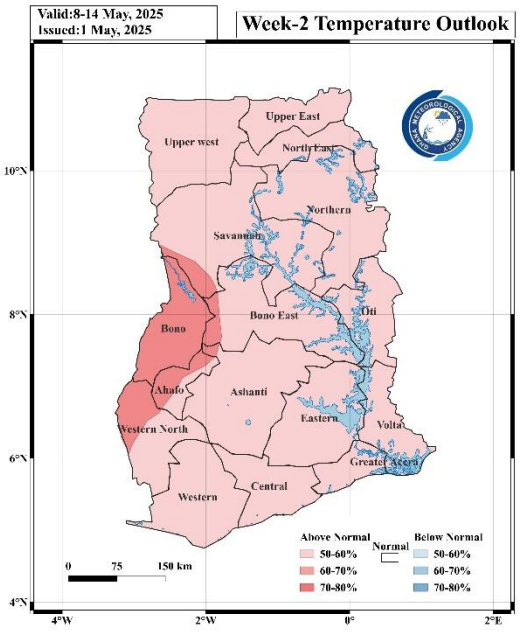
3.0 RAINFALL AND TEMPERATURE OUTLOOK 1ST- 14TH MAY 2025

Week 1 is expected to bring below-normal rainfall to the southern regions normal rainfall to the northern portions, accompanied by above-normal temperatures across the country. In Week 2, rainfall is projected to be below normal in the south western and coastal areas and the rest of the country is expected to observe normal rainfall, while temperatures are expected to reduce across the country.









4.0 ADVISORIES

1. **Flood**
    - Flash flooding may occur in sloppy areas
    - Clear drains and gutters to help reduce localized flooding
    - Avoid walking or driving through floodwaters
    - Evacuate early if advised, especially in flood prone or coastal areas.
2. **Health Sector**
    - Increased temperatures may lead to dehydration and heat stress.
    - Be cautious of heat-related illnesses, especially for vulnerable groups (elderly, children, and those with chronic illnesses) due to high daytime temperatures particularly in the Northern belt.
3. **Water Resources Management Sector**
    - Conserve water and use it efficiently, especially in regions with less rainfall (Northern sector).
    - Water should be harvested at places with excess rainfall
4. **General Public**
    - Above-Normal Temperatures (Nationwide). The general public should limit outdoor activities during peak heat hours (11 am to 4 pm).
    - The use of fans or air conditioning where available to stay cool
    - Stay hydrated, avoid prolonged sun exposure, and wear light 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				

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