2025

# CLIMATE BULLETIN





DEKAD 3, JUNE (21-30) GMET/CLIMATE/030625

FORM337

6/3/2025

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## 1.0 SUMMARY

## • Rainfall:

- o The country receives a substantial amount of rainfall above 10mm
- o The northern sector and transitional zone reported rainfall more than 20mm.
- o Forest zone recorded rainfall of about 50mm − 500mm with highest rainfall over the west coast.

## • Rainfall Anomalies:

- o Deficit rainfall over the most areas within the transition, few places within the north and the southern sector.
- o Surplus rainfall recorded over most places in the country.

## • Relative Humidity:

- o Maximum value of About 90% was recorded over Axim, Takoradi and Saltpond.
- o Minimum value of 60% to 70 % was recorded mostly over the northern sector and the transition as well.

# • Temperatures:

#### Maximum:

- The maximum of the maximum temperature of 33.7°C was recorded over the southern sector.
- Relatively cooler temperatures over few areas slightly north the coast.

## o Minimum:

- It is relatively warmer over the entire country except few areas in the south.
- The minimum of the minimum temperature was recorded Awudome in the southeastern portion of about 19.9°C
- The maximum of the Minimum temperature was recorded most places in the northern sector reaching about 24.4°C.

#### 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.

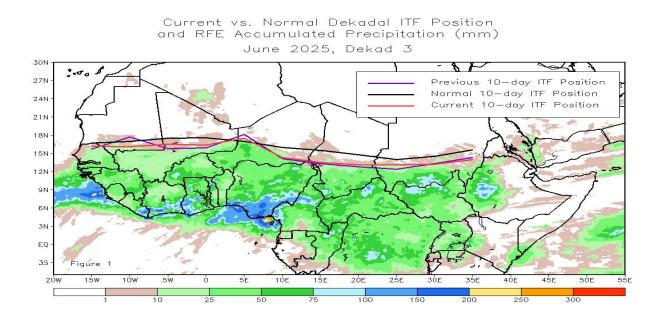


Figure 1 Current ITF position for June 3<sup>rd</sup> Dekad, 2025

Figure 1 describes the position of ITF during the third dekad of June. The current Inter-Tropical Front (ITF) is positioned at approximately 17.5N, reflecting a northward displacement compared to its previous position at 18.1N. Similarly, Table 1 below also shows the evolving ITF's position of Ghana, located between 5W and 5E.

DEKAD	5W	0	5E
January 1	7.2	7.6	7.8

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January 2	7.3	7.8	7.5
January 3	7.9	8.2	8.5
February 1	6.6	8.1	8.3
February 2	9.6	9.0	8.8
February 3	8.2	9.2	8.9
March 1	11.0	10.5	10.1
March 2	10.0	9.8	9.6
March 3	11.6	11.6	11.2
April 1	11.1	11.3	11.1
April 2	12.8	11.7	11.1
April 3	13.5	13.1	12.1
May 1	15.0	13.7	14.2
May 2	13.2	13.9	14.1
May 3	15.1	14.5	14.7
June 1	14.6	15.9	14.4
June 2	15.8	15.9	18.1
June 3	16.5	16.4	17.5

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.

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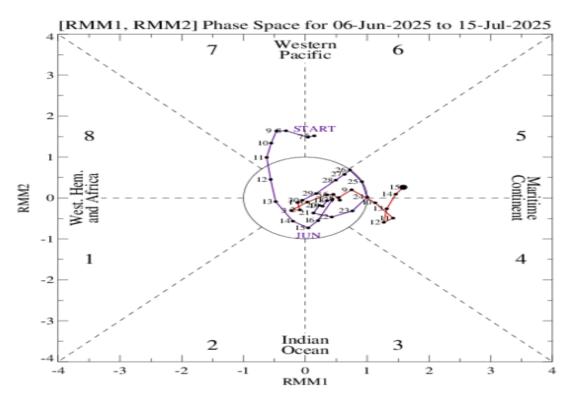


Figure 2. Current MJO position as of June 3<sup>rd</sup> Dekad, 2025

As depicted in Figure 2, the Madden-Julian Oscillation (MJO) was observed between Phases 4 and 5, corresponding to the Maritime Continent. And Africa regions. However, its position near the centre of the phase-space diagram indicates a weak amplitude, signifying a less active MJO signal during this period.

Given its current phase and weak intensity, the MJO was unlikely to significantly enhance convective activity over West Africa. This may have contributed to the suppression of rainfall over Ghana in the short term, as the influence of the MJO during weak phases tends to be minimal across the region.

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## 2.0 RAINFALL, TEMPERATURE AND RELATIVE DISTRIBUTION

#### 2.1 RAINFALL

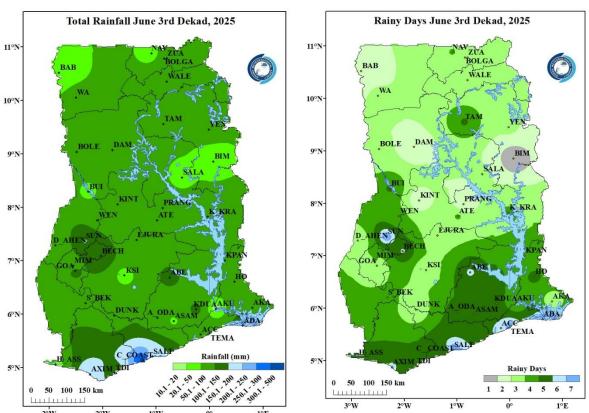


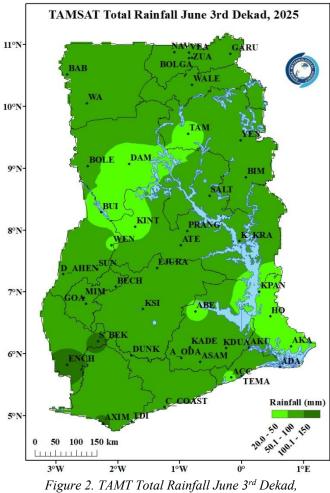
Figure 1a: Total Rainfall June 3<sup>rd</sup> Dekad, 2025

Figure 1b: Rainy Days June 3<sup>rd</sup> Dekad, 2025

Figure 1a illustrates the rainfall distribution for the 3<sup>rd</sup> dekad of June. The country received significant rainfall amount which is above 10mm. Stations that recorded the lowest rainfall amounts over the north were Babile, Navrongo Bimbila and Salaga. Stations within the southern sector, especially the forest zone and the west coast received adequate amount of rainfall of about 100-500mm with the highest amount of 500mm recorded over Cape Coast. Axim, Ada, and Saltpond also recorded rainfall of above 100mm. Stations with the lowest rainfall amounts were recorded over Asamankese and Akuse having less than 50mm.

Figure 1b illustrates the frequency of rainy days during the dekad. The southern sector experienced rainfall mostly in 3 to 7 days. Stations like Sunyani, Abetifi, Saltpond, Accra, Ada and Axim record the highest maximum number of 6-7 rainy days. The northern sector received rainfall for 1 to 3 days.

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Figure 2 also presents the total rainfall derived from the TAMSAT rainfall estimate which shows rainfall amount like the observed total rainfall mostly over the southern sector.

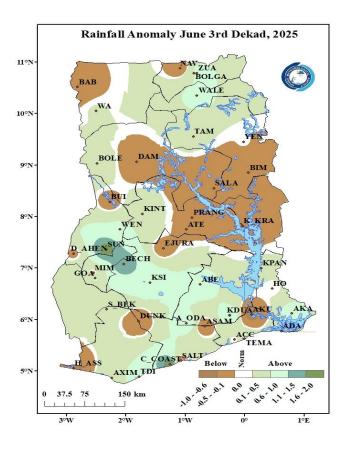
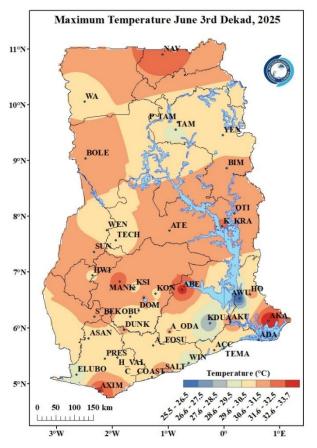


Figure 3: Rainfall Anomaly for June 3<sup>rd</sup> Dekad, 2025

Figure 3 also highlights rainfall anomaly for the third dekad of June. Most areas of the country experienced above-normal rainfall, except for areas within the extreme north (Babile, Damongo and Navrongo), transition zone (Salaga, Bimbila, Bui, Prang, Atebubu and Kete Krachi), forest zone (Ejura, Dunkwa Offin) and the southern coast (Koforidua, Akuse Asamankese and Half Assini) which observed a deficit in rainfall during the period.

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#### 2.2 TEMPERATURE



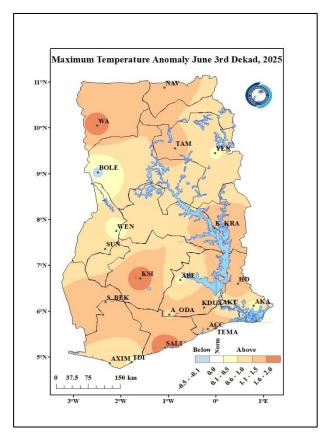


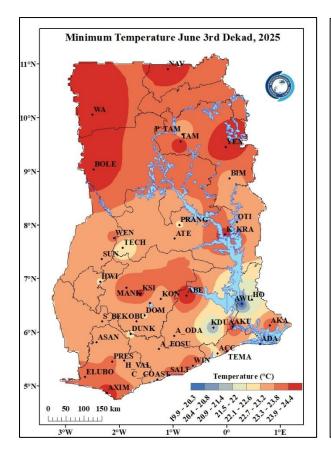
Figure 4a. Maximum Temperature June 3<sup>rd</sup> Dekad, 2025

Figure 4b. Maximum Temperature Anomaly June 3<sup>rd</sup> Dekad, 2025

Figure 4a displays the distribution of average maximum temperatures within the 3<sup>rd</sup> dekad across the country. The country recorded higher temperatures, ranging from 30°C to 34°C. The highest temperature of 33.7°C was recorded over Akatsi, while the lowest temperature of 25.5°C was observed in Awudome. In the transition zone, temperatures ranged between 30°C and 32°C.

Maximum Temperature Anomaly is represented in *figure 4b* above. It is evident that, almost the entire country experienced above normal temperatures.

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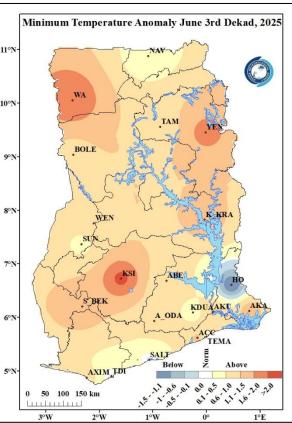


Figure 5a. Minimum Temperature June 3<sup>rd</sup> Dekad, 2025

Figure 5b. Minimum Temperature Anomaly June 3<sup>rd</sup> Dekad, 2025

In *Figure 5a*, the average minimum temperatures are shown over the country during the dekad. country experienced warmer temperatures with average values ranging from 22.0°C to 24.0°C. Most places over the northern sector, including Bole, Navrongo, Tamale, Wa and Yendi recorded the highest minimum average temperatures of 23.9°C to 24.4°C respectively whereas areas such as Elubo, Saltpond Akuse, Akatsi, Ada and Axim recorded the highest temperatures of 23.3°C to 23.9°C in the south. The lowest average night-time temperature of 20.0°C- 21.0°C was recorded over Awudome and Koforidua.

In *figure 5b*, depicts the Minimum Temperature Anomaly. Ho experienced below normal temperatures whiles above normal temperatures dominated the entire country indicating increased nighttime temperatures during the period.

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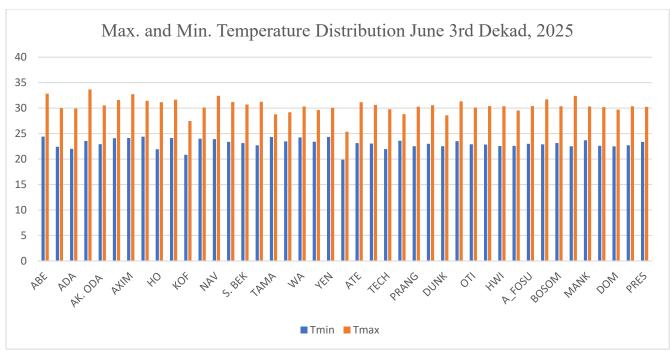


Figure 6. Max. and Min. Temperature Distribution for June  $3^{rd}$  Dekad, 2025

## 2.3 RELATIVE HUMIDITY

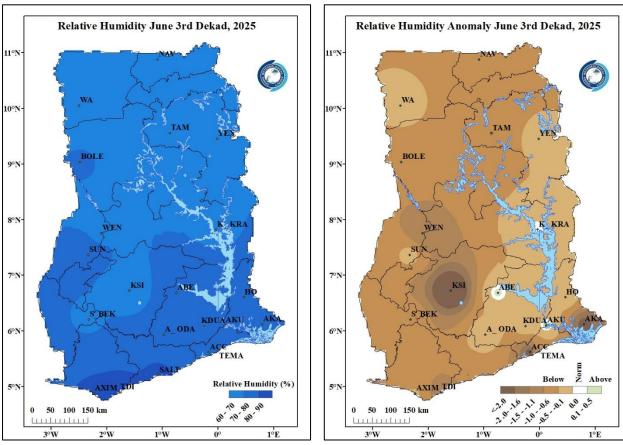


Figure 7a. Average Relative Humidity June 3<sup>rd</sup> Dekad, 2025

Figure 7b. Average Relative Humidity Anomaly June 3<sup>rd</sup> Dekad, 2025

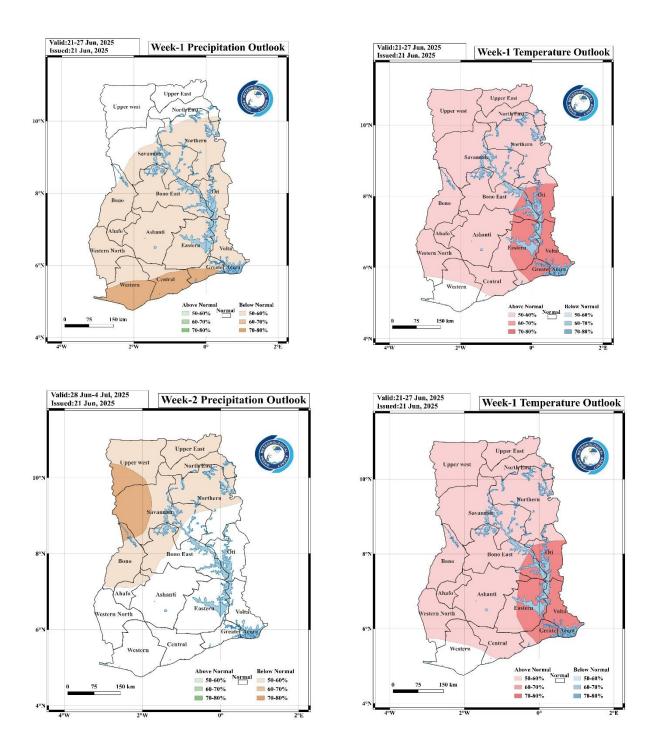
The observed Relative Humidity (RH) over the  $3^{\rm rd}$  dekad period is displayed in *figure 7a*. The country generally experienced a very humid atmosphere of 60%-90%. The Transition and Northern areas experienced RH values ranging from 60%-70 % whereas the southern sector recorded RH of 70% - 90% with the highest RH over the coastal and inland areas

Average RH Anomaly is also presented in *figure 7b*. Generally, a below normal RH is observed over the entire country. Abetifi and Akuse experienced normal to above normal RH.

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## 3.0 RAINFALL AND TEMPERATURE OUTLOOK 21-27 JUNE 2025

Week 1 is expected to bring below-normal rainfall to the southern regions, accompanied by above-normal temperatures across much of the country. In Week 2, rainfall is projected to be normal in the southern areas, while temperatures will drop below normal in parts of the North and remain slightly above normal in some forested regions.



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#### 4.0 ADVISORIES

## 1. Health Sector

- o Increased temperatures may lead to dehydration and heat stress.
- o 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.
- O Low temperatures could trigger asthma and arthritis conditions.

# 2. Water Resources Management Sector

- o Conserve water and use it efficiently, especially in regions with no rainfall (Northern sector).
- O Building of wells and ponds to store rainfall water for irrigation purposes.

## 3. General Public

- o Above-Normal Temperatures (Nationwide). The public should limit outdoor activities during peak heat hours (11 am to 4 pm).
- o The use of fans or air conditioning where available to stay cool.
- o Always carry your umbrellas and rainy coat during this season.
- o Stay hydrated, avoid prolonged sun exposure, and wear light clothing.
- o Stay updated on weather forecasts from the Ghana Meteorological Agency.

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## **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	Но	НО	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	ВОМРА	Prang	PRANG	Zuarungu	ZUA
Breman Asikuma	B. ASIK				

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