AGROMETEOROLOGICAL BULLETIN NO.2, JANUARY 2ND DEKAD (11-20) 2025

GMET/AGROMET/110125 **FORM910**

GHANA METEOROLOGICAL AGENCY

SUMMARY

With the Inter-Tropical Boundary (ITB) shifting further down south the latitude 7°N, **there were no rains recorded across the entire country** during this dekad. This highlighted the rainfall deficits over the entire country.

As a result of this, the Northern sector continued to remain dry with moisture content ranging from 9-20%. West coast and areas such as **Akim Oda, and Asamankese** in the Forest Zone recorded soil moisture content spanning from 51 – 70%.

Most parts of the Northern sector experienced deficits with the Southern sector recording higher evapotranspiration rates.

For temperature, the Northern sector recorded lower night-time and higher day-time temperatures. Despite this, the Southern sector experienced significant increase in both day-time and night-time temperatures as compared to the previous dekad which left individuals sweating during the day and restless during the night.

For the next dekad, places such as **Sefwi Bekwai**, **Half Assini** and **Dunkwa** within the Central and Western portions of the Forest Zone are expected to have above normal rainfall with the rest of the country expected to experience normal rainfall. Above-normal temperatures are expected in areas such as Wa**, Bolgatanga, Tamale, Yendi, Bole** in the Northern Sector and **Kete-Krachi,** and its surroundings in the Transition Zone.

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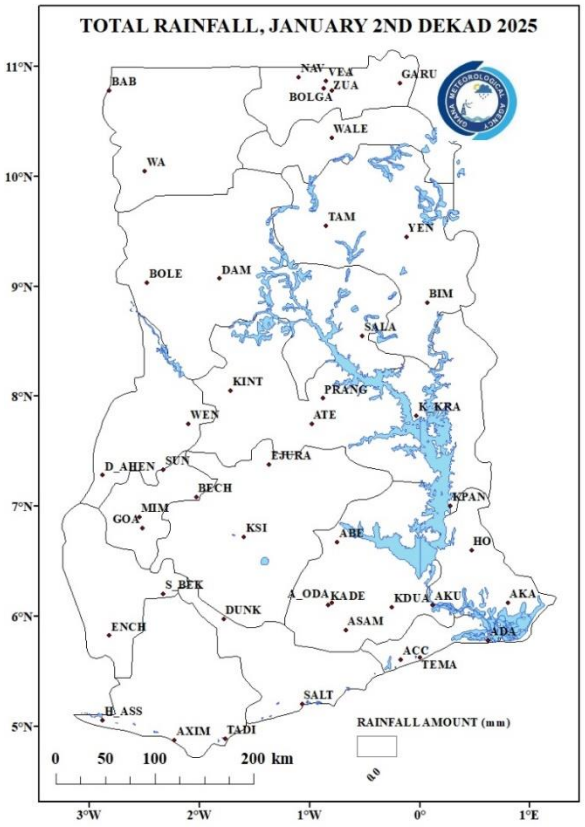
1.0 CLIMATIC ASSESSMENT (JANUARY 2ND DEKAD 2025)

1.1 RAINFALL

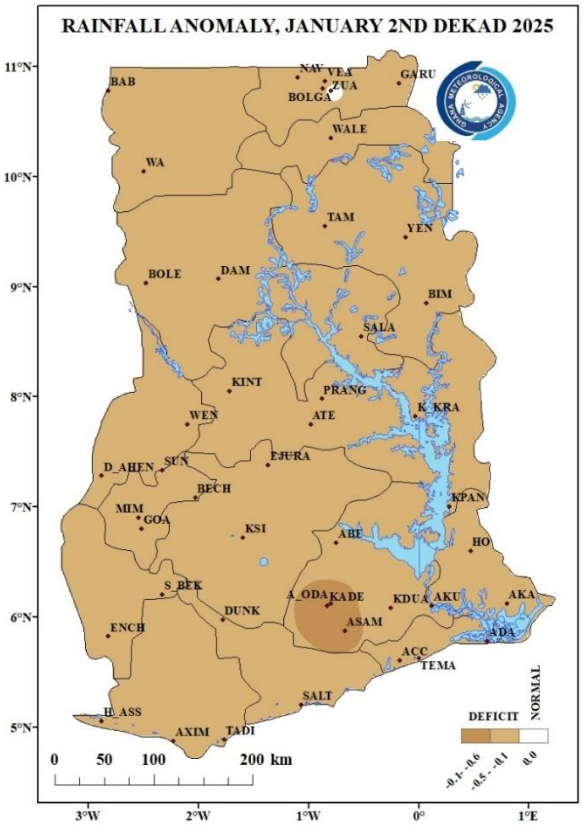
Generally, the 2nd dekad of January is characterized by few amounts of rainfall which is usually experienced in areas within the southern part of the country typically Enchi, Dunkwa, Half Assini and their environs. However, there were no rains recorded across the entire country in the 2nd dekad of January 2025 (refer to map 1).

This could be as a result of the Inter-Tropical Boundary (ITB) shifting down south the latitude 7°N, causing most parts of the country to be dominated by dry winds.

The entire country experienced rainfall deficits with the exception of Zuarungu which recorded normal conditions (refer to map 2).



Map 1: Total Rainfall Map.



Map 2: Rainfall Anomaly Map.

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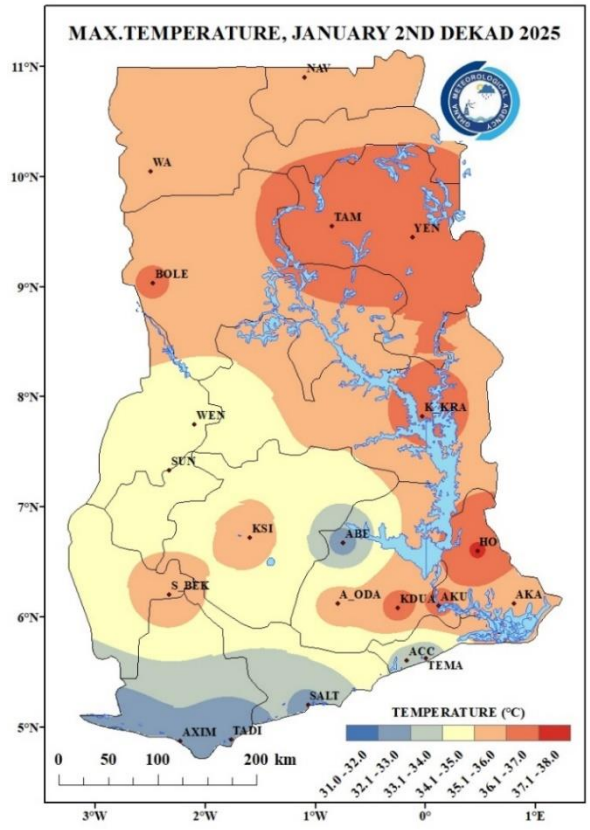
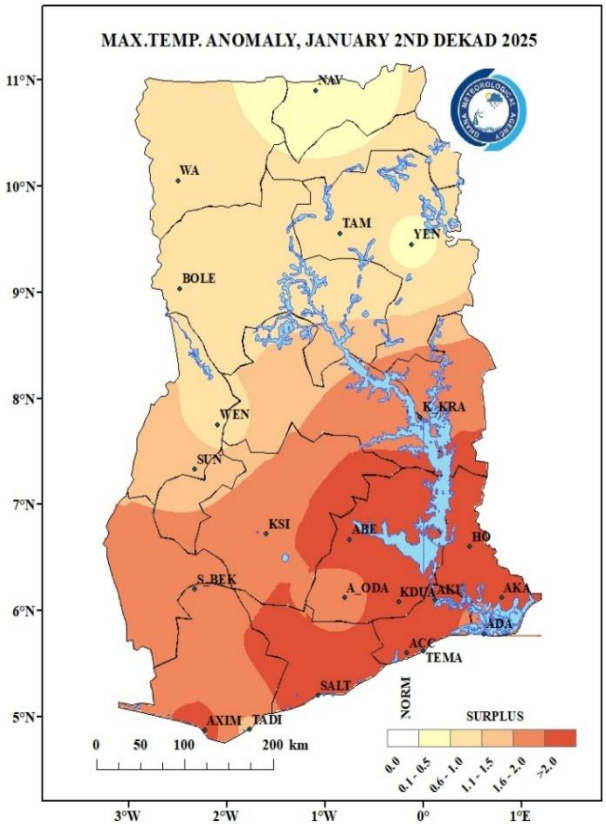
1.2 MAXIMUM TEMPERATURE

The Northern sector recorded warmer day-time temperatures during the harmattan periods. Areas around Navrongo, Yendi, Bole and Tamale recorded 35.4℃, 36.1℃, 36.0℃ and 36.7℃ respectively. Ho and its environs recorded average temperatures as high as 37.1℃, the highest temperature with Axim recording the lowest maximum temperature in the dekad (refer to map 3). Sefwi Bekwai, Kumasi, Kete-Krachi, Koforidua and Akuse recorded average temperatures of 35.6℃, 35.4℃, 36.2℃, 36.5℃ and 36.2℃ respectively.

The entire country most especially the south-eastern portions, which harbors stations such Ho, Saltpond, Accra, Tema, Koforidua, Abetifi, Akuse and Akatsi recorded significant temperature increase as compared to their respective Long-term means (refer to map 4).



Map 3: Maximum Temperature Map.



Map 4: Maximum Temperature Anomaly Map.

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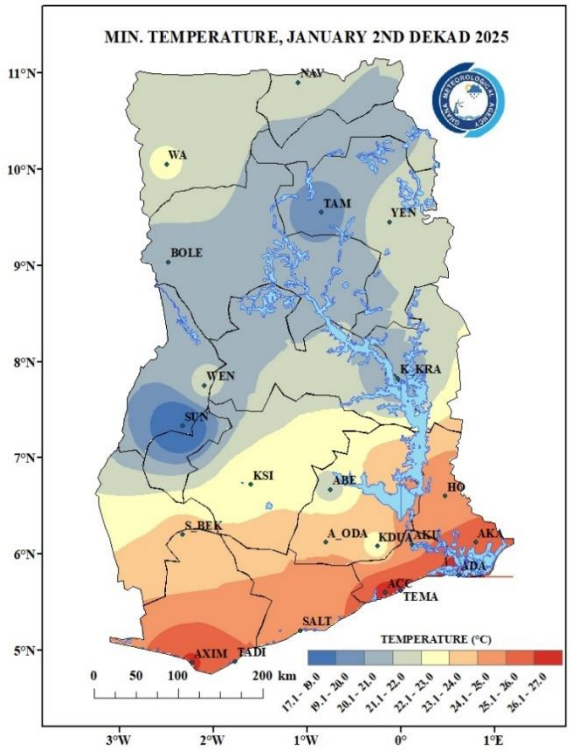
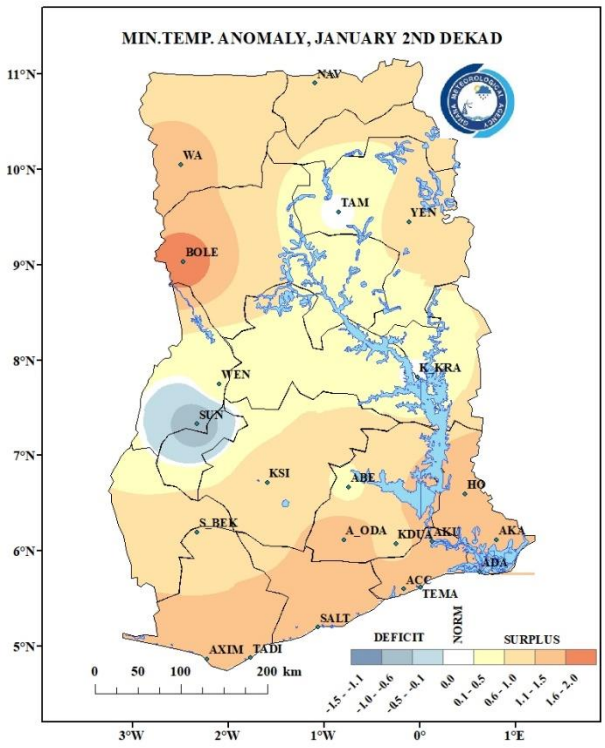
1.3 MINIMUM TEMPERATURE

The highest average night-time temperature for the dekad was recorded within the Ada enclave as 27.1℃. The entire coastline recorded temperatures ranging from 24.0℃ - 27.0℃ (refer to map 5) showing significant increase in their temperatures with respect to their climatological means (refer to map 6). Tamale, Wa and Kete-Krachi recorded 19.5℃, 22.1℃ and 20.2℃ respectively.

Sunyani recorded the lowest average minimum temperature of 17.1℃. It was the only station which recorded a deficit. The rest of the country experienced higher average minimum temperatures as compared to their climatological means with Bole been the most noticeable station (refer to map 6).



Map 5: Minimum Temperature Map.



Map 6: Minimum Temperature Anomaly Map.

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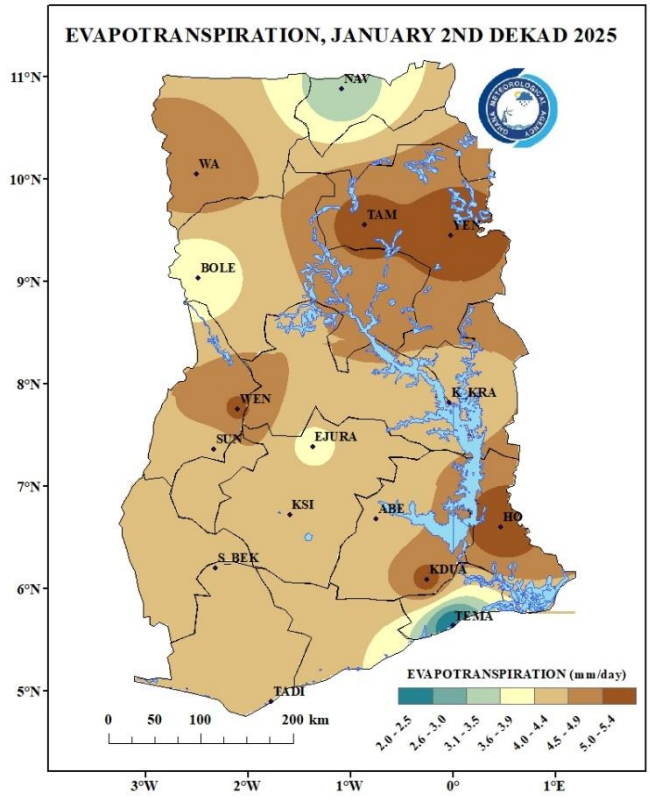
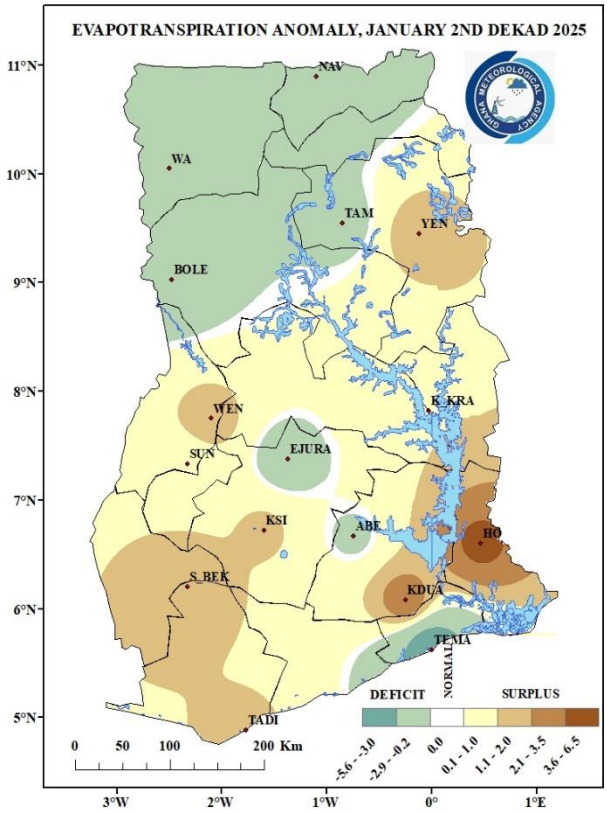
1.4 EVAPOTRANSPIRATION

In the 2nd dekad of January, Ho recorded the highest average evapotranspiration rate of 5.4mm/day. Tema recorded the lowest evapotranspiration rate with 2mm/day. Tamale, Yendi, Wa, Bole, Wenchi, Ejura and Koforidua recorded 5.1mm/day, 5.2mm/day, 4.8mm/day, 3.5mm/day, 5.0mm/day, 3.8mm/day and 5.1mm/day respectively.

Places within the Southern sector such as Kumasi, Sefwi Bekwai, Ho and Koforidua recorded higher rates of evapotranspiration whereas Tema, Abetifi and Ejura also in the Southern sector, recorded lower rates of evapotranspiration as compared to their respective climatological means. Areas within the Northern sector such as Wa, Bole, Tamale and Navrongo recorded deficits indicating lower evapotranspiration rates (refer to map 8).



Map 7: Evapotranspiration Map.



Map 8: Evapotranspiration Anomaly Map.

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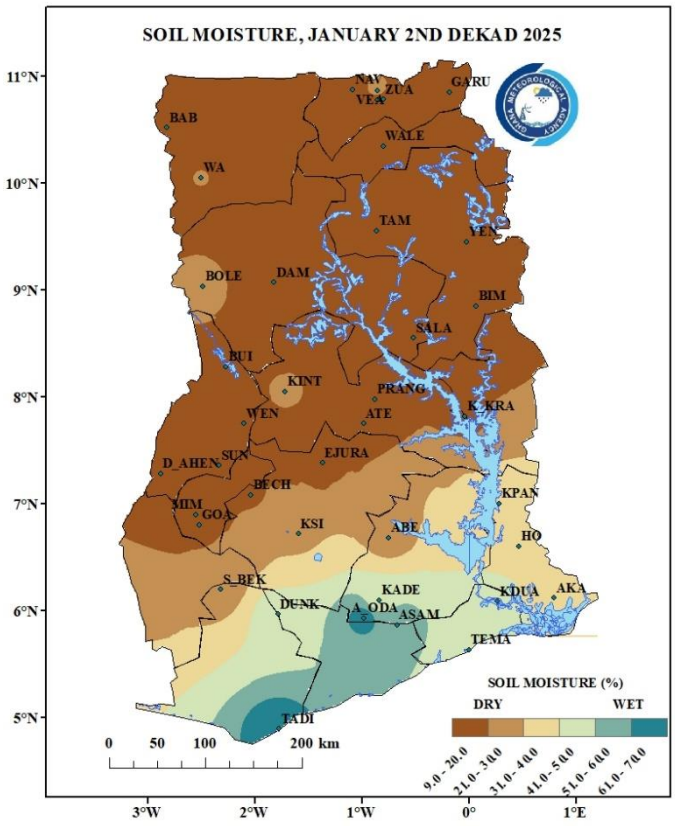
1.5 SOIL MOISTURE

The Northern and Transition zones recorded soil moisture below 40% (refer to Map 9).
Areas such as Akim Oda, Dunkwa, Ho, Koforidua, Asamankese in the Forest zone recorded soil moisture between 40-70%. Also, Axim, Takoradi, Tema in the Coastal zone recorded soil moisture between 51-70%.



Map 9: Soil Moisture Map.

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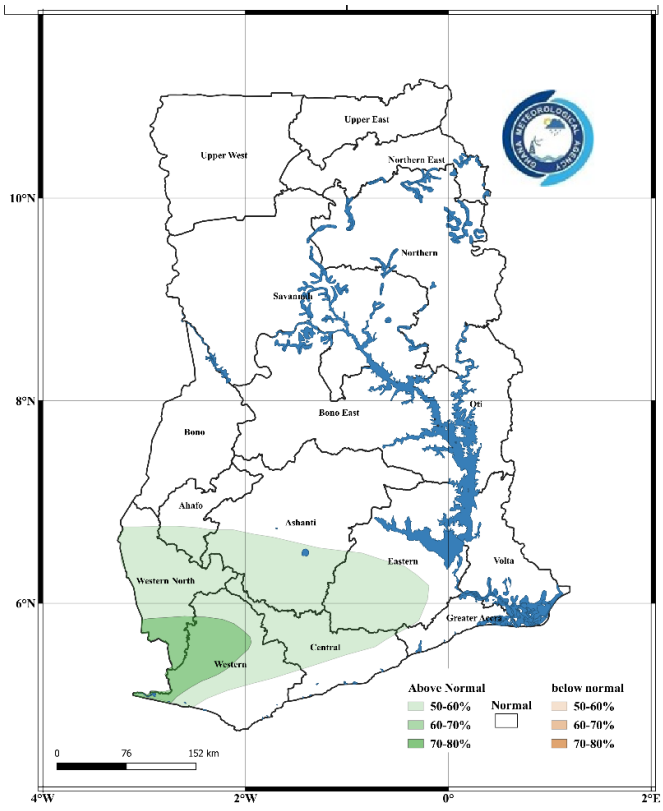
2.0 RAINFALL AND TEMPERATURE OUTLOOK FOR JANUARY 3RD DEKAD 2025

2.1 RAINFALL OUTLOOK

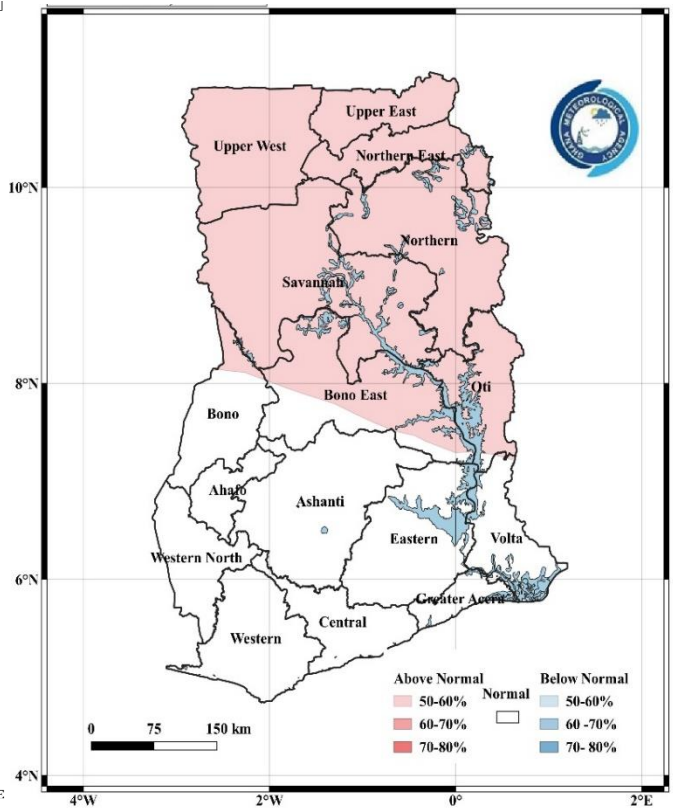
Above normal rainfall is expected over the central and western portions of the Forest Zone. However, the rest of the country is expected to experience normal rainfall amounts.

2.2 TEMPERATURE OUTLOOK

Above-normal temperatures are expected across Wa, Bolgatanga, Tamale, Yendi, Bole, in the Northern Sector and Kete-Krachi, and its surroundings in the Transition Zone.



Map 10: Rainfall outlook Map.



Map 11: Temperature outlook Map.

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3.0 AGRO – ADVISORIES:

Dekadal	Crops	Development Stage	Main cultivation operation	Comments
NORTHERN ZONE				
January, Dekad 1	Tomato (25 – 35 days)	Vegetative 	 Fertilization	The locality concerned is Upper East (100kg ha-1 Potassium Nitrate)
	Sorghum	Site selection		
	Soyabean	Site selection		
	Maize	Site selection		
	Rice	Site selection		
FOREST & TRANSITION ZONE				
January, Dekad 1	Maize	Land preparation	 Fertilization	The locality concerned are Akumadan and Offinso (100kg ha-1 Potassium Nitrate)
	Rice	Land preparation		
	Tomato (20 – 25 days)	Vegetative 		
EAST COAST & WEST COAST				
January, Dekad 1	Tomato (20 – 25 days)	Vegetative 	 Fertilization	The locality concerned is LaDMA (100kg ha-1 Potassium Nitrate)
	Maize	Land preparation		
	Rice	Land preparation		

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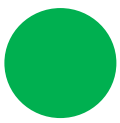
	Weather conditions are favourable for crops
	Weather conditions are not very favourable for crops
	Weather conditions are unfavourable for crops

Dominant stages of development	Land Preparation	Germination / Emergence	Vegetation	Maturity (Flowering and fruiting)	Aging

A. For the Northern sector.

Crops	**Dominant stages of development**	**Weather**	**Risks**	**Cultivation operations planned**	**Recommendations**
Maize			• No major risk associated	Site selection	Avoid gravelly and shallow soils because these soils are easily affected by drought. Spraying synthetic insecticide against mites is not recommended.
Rice					
Sorghum					
Soyabean					
Tomatoes			• Wilting of plant • Pest and Disease outbreak	Fertilization	

A. For the Forest and Transition Regions.

Crops	**Dominant stages of development**	**Weather**	**Risks**	**Cultivation operations planned**	**Recommendations**
Maize			• No major risk associated	Land preparation	Instead of clearing the forest and burning vegetation, adopt "slash- and – mulch" approach
Rice					
Soyabean					

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Tomatoes			• Wilting of plant • Pest and Disease outbreak	Fertilization Maintenance	Do not intercrop with alternative hosts e.g. peppers, tomato

B. For the East and West Coast Regions.

Crops	Dominant stages of development	Weather	Risks	Cultivation operations planned	Recommendations
Maize			• No major risk associated	Land preparation	Plough and harrow once or twice to break soil lumps properly to get a fine field
Rice					
Tomatoes			• Wilting of plant • Pest and Disease outbreak	Fertilization Maintenance	Apply potassic soap (e.g. alata samina15g/15L), neem oil, Abamectin, Bt insecticides.

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4.0 APPENDIX

TABLE OF STATIONS

STATION	ABBREVATION	STATION	ABBREVATION
ABETIFI	ABE	KOFORIDUA	KDUA
AKIM ODA	A_ODA	KINTAMPO	KINT
ACCRA	ACC	KPANDO	KPAN
ADA	ADA	KUMASI	KSI
AKATSI	AKA	MIM	MIM
AKUSE	AKU	NAVRONGO	NAV
ASAMANKESE	ASAM	SALAGA	SALA
ATEBUBU	ATE	SALTPOND	SALT
AXIM	AXIM	SEFWI BEKWAI	S_BEK
BECHEM	BECH	SUNYANI	SUN
BOLE	BOLE	TAKORADI	TADI
BUI	BUI	TAMALE	TAM
DORMAA AHENKRO	D_AHEN	TEMA	TEMA
DUNKWA	DUNK	WA	WA
GOASO	GOA	WALEWALE	WALE
HO	HO	WENCHI	WEN
KADE	KADE	YENDI	YEN
KETE KRACHI	K_KRA	ZUARUNGU	ZUA

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

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