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GHANA METEOROLOGICAL AGENCY

CERTIFIED PROVIDER OF AVIATION METEOROLOGICAL SERVICE

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2026 SEASONAL FORECAST
NORTHERN GHANA RAINY SEASON
(MAY-OCTOBER)

The Director General

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2026 Seasonal Forecast for the Northern Sector and Update for the Southern Sector

“Observing Today, Protecting Tomorrow” ~

World Meteorological Day 2026 Theme (World Meteorological Organization)

A publication of the Ghana Meteorological Agency

Research and Applied Meteorology Department

TABLE OF CONTENTS

Contents

LIST OF FIGURES

LIST OF TABLES

PREFACE

The weather in Northern Ghana has become increasingly unpredictable bringing severe dry spells, sudden flash floods and widespread damage to lives, homes, and livelihoods. Over the past few years, erratic rainfall patterns which is marked by late starts, long dry spells and unexpectedly heavy downpours have hit farming hard. They have also put pressure on water and energy systems forcing communities to bear heavy recovery costs. These challenges make one thing clear; we urgently need better early warning systems and smarter disaster risk reduction strategies across every weather-sensitive sector (agriculture, security, water, energy, environment, transport and local government).

Knowing what to expect from the coming season is essential if we want to protect food supplies, keep people healthy and build resilient communities. When farmers have a heads-up on weather patterns, they can adjust planting schedules and choose crops that tolerate drought or resist flooding. Water managers can fine-tune reservoir operations. Energy planners can prepare for changes in hydropower output. And emergency teams can get resources in place before a crisis hits. It is against this background that, the Ghana Meteorological Agency (GMet) is carrying out its legal mandate by producing this annual seasonal forecast. The 2026 rainy seasonal forecast for Northern Ghana tells you what to expect as when the rains will likely start, how much rainfall to anticipate, when dry spells may occur, when the season will end, and how long the rainy period will last. Alongside these projections, we have included practical advice for key sectors to support evidence-based decisions and strategic planning.

This document brings together atmospheric data from global and regional climate centres, outcomes from Continental and Regional Climate Outlook Forums and expert analysis from GMet's own Research and Applied Meteorology Department.This forecast would not have the depth and accuracy it does without the leadership of Dr. Eric Asuman, Director General of GMet, Deputy Director General Operations, Dr. Ignatius Kweku Williams and Mrs. Francisca Martey, Deputy Director of Research and Applied Meteorology. We also want to acknowledge the contributions of, Mr. Jeremiah Zusika Lazia (Head, Climatology Unit), Nana Kofi Opoku (Head, Agrometeorology Unit), Mr. Samuel Owusu Ansah (Head, Hydrometeorology Unit), and the entire Research and Applied Meteorology Department. Their collective expertise shaped every part of this assessment.

Finally, thank you to all the stakeholders whose feedback helped improve this forecast and to GMet for providing the resources and institutional support needed to advance climate science and strengthen Northern Ghana's resilience.

FOREWORD

As climate patterns continue to shift, Ghana, especially the northern part of the country continues to feel the pressure. In the Northern Sector, where livelihoods depend heavily on seasonal rains, even small changes in weather can have big consequences. That's why accurate and timely forecasts matter more than ever. The 2026 seasonal forecast from the Ghana Meteorological Agency (GMet) offers a clear look at what to expect in terms of rainfall and dry spells information that is essential for decisions in agriculture, water management, public health, and disaster preparedness. In previous years, Northern Ghana has seen growing unpredictability in its climate. Seasons that were once reliable have become erratic. Late starts to the rains, extended dry spells in the middle of the season, and early endings are now more common. For example, in several districts, the rainy season which usually begin in April has shifted to mid-June or even early July, messing up planting schedules and reducing harvests. At the same time, dry spells lasting ten to twenty-one days during critical crop growth stages have hit food security hard, especially in the Northern, North East, and Upper East regions.

The main goal of this 2026 forecast is to raise awareness and encourage early action to reduce the harm caused by climate variability. It also ties in with this year's World Meteorological Organization theme, "**Observing Today, Protecting Tomorrow**," by stressing the need for timely responses to early warnings and forecast advice.

Rainfall has become increasingly uneven and localized. Some areas get heavy downpours while nearby communities stay dry. These inconsistencies don't just hurt farming, they also strain water supplies and trigger local flooding, even in seasons where overall rainfall is expected to be near normal.

The 2026 seasonal forecast is based on a range of climate drivers, including the West African Monsoon, the movement of the Intertropical Convergence Zone (ITCZ), and global patterns like El Niño Southern Oscillation (ENSO) and the Indian Ocean Dipole (IOD). All these drivers affect when the rain starts, how heavy it is, its intensity and distribution, how long the season lasts, and when it ends. For instance, El Niño conditions have historically brought drier weather and shorter rainy seasons to Northern Ghana, something we are keeping a close eye on for the coming season.

Given these challenges, GMet continues to lead the way in climate forecasting in Ghana. We rely

on satellite data, regional models, and partnerships with institutions like ACMAD, AGRHYMET, and the WMO. These collaborations help us improve our forecasts and make sure Ghana's seasonal outlooks fit within broader continental and global early warning systems.

Stakeholders across Northern Ghana, especially farmers, local government officials, water managers, and emergency response teams must use this forecast to guide their planning. Adapting farming calendars, promoting drought-resistant crops, improving water conservation, and strengthening community-based disaster preparedness will all be key to reducing vulnerability.

In short, the 2026 seasonal forecast is not just a scientific document, it is a call for all of us to act together. As the climate keeps changing, the resilience of Northern Ghana will depend on how well we understand, share, and respond to early warning information. With good preparation, coordination, and innovation, we can better protect lives, livelihoods, and ecosystems in the face of growing climate uncertainty.

DR. ERIC ASUMAN,
DIRECTOR GENERAL,
GHANA METEOROLOGICAL AGENCY

EXECUTIVE SUMMARY

As part of its official mandate, the Ghana Meteorological Agency (GMet) produces Seasonal Forecast to provide essential weather and climate advisories for the rainy season over Northern Ghana. The forecast presents key parameters, including the expected onset of rains, cumulative rainfall distribution, dry spell characteristics, cessation dates and the length of the season.

These outputs are intended to support evidence-based decision-making, policy formulation and strategic planning across climate-sensitive sectors such as agriculture, environmental management, disaster risk reduction, security, water resources, energy, and public health.

The 2026 Seasonal Rainfall Forecast is developed using key climate drivers and teleconnections, including the El Niño–Southern Oscillation (ENSO), observed atmospheric and oceanic conditions, Sea Surface Temperature (SST) anomalies, Mean Sea Level Pressure (MSLP), the Madden–Julian Oscillation (MJO), and the position of the Inter-Tropical Convergence Zone (ITCZ). It also incorporates long-term climatological data (a minimum of 30 years) from GMet stations nationwide.

The forecast reflects a consensus derived from the African Centre of Meteorological Applications for Development (ACMAD) and the Regional Climate Centre (RCC) through the PRESASS forum, complemented by expert analysis and downscaled model outputs from GMet. The key highlights of the 2026 May–June–July (MJJ), June–July–August (JJA), and July–August–September (JAS) forecasts are as follows:

Rainfall Onset Dates

The onset of rain for the 2026 season in the Northern part of the country is generally expected to be normal to late, except for places like **Bole and Salaga** and their surroundings, which are forecasted to be early.

Cumulative Rainfall Distribution

May-June-July (MJJ)

In terms of the cumulative rainfall, the MJJ season is expected to be above normal to near normal over most parts of Greater Accra, Central, Western, Western North, Volta, Ahafo, and the northwestern part of Ashanti Region. Below normal to near normal rainfall is expected in parts of

the Ashanti and Bono East Regions, as well as the Upper West, Upper East, North-East, and Northern Regions.

June-July-August (JJA)

The JJA season is expected to be below-normal to near-normal rainfall across most parts of the country, including the Upper West, Savannah, Northern, North-East, Oti, Bono East, Bono, Ahafo, Western North, and the Volta Region. The northern part of the country is generally expected to receive about 450mm of rainfall or more. However, a few places in the southern parts of the country, especially along the east coast, will receive normal to above normal rainfall. Meanwhile, most places in southern Ghana will continue to experience normal to above-normal rainfall.

July-August-September (JAS)

The JAS season is anticipated to experience predominantly below-normal to near-normal rainfall across Oti, Bono East, Savannah, Northern, and Northeast Regions, as well as most parts of the Upper West and the western portions of the Upper East Region. The Northern part of the country is generally expected to record about 500-700mm of rainfall for the JAS season.

Early Dry Spell

Long to Normal dry spell days are forecasted in the Upper West, Upper East, and North East, ranging from 12-14 days, and normal to long dry spell days are expected in the Northern and Transition zones, ranging from 12-13 days.

Late Dry Spell

Late Dry spell days across the **Upper East, Upper West**, and **Transition zones** are expected to be normal to long, lasting between 2 and 3 weeks (**10–18 days**), with the longest durations occuring around **Babile, Prang, Saltpond,** and **Wenchi**. The North is likely to experience normal spells ranging from 11 to 14 days, but Bimbila and Tamale are expected to experience shorter dry spells.

Cessation

The 2026 cessation for the northern sector is expected to be late to normal in the Upper East, and early to normal in the Upper West, the North, and the Transition zones. Early cessation is forecasted in **Navrongo** and **Bui**, whereas late cessation is expected in **Damongo**.

Length of Season

Northern Ghana is likely to expect a normal length of the rainfall season, except for the Upper East,

which is likely to experience a long season. Shorter length of season is expected in **Atebubu** (124days), whereas a longer season is forecasted in **Babile**(192days).

At the conclusion of this forecast, stakeholders and the general public are provided with targeted recommendations and early warning information to support timely preparedness against potential hazards such as heavy rainfall, flooding, and prolonged dry spells. This guidance is designed to enhance proactive risk management and minimize potential impacts.

DR. IGNATIUS KWEKU WILLIAMS,
AG. DEPUTY DIRECTOR-GENERAL (OPERATIONS),
GHANA METEOROLOGICAL AGENCY

CLIMATE ZONES IN GHANA

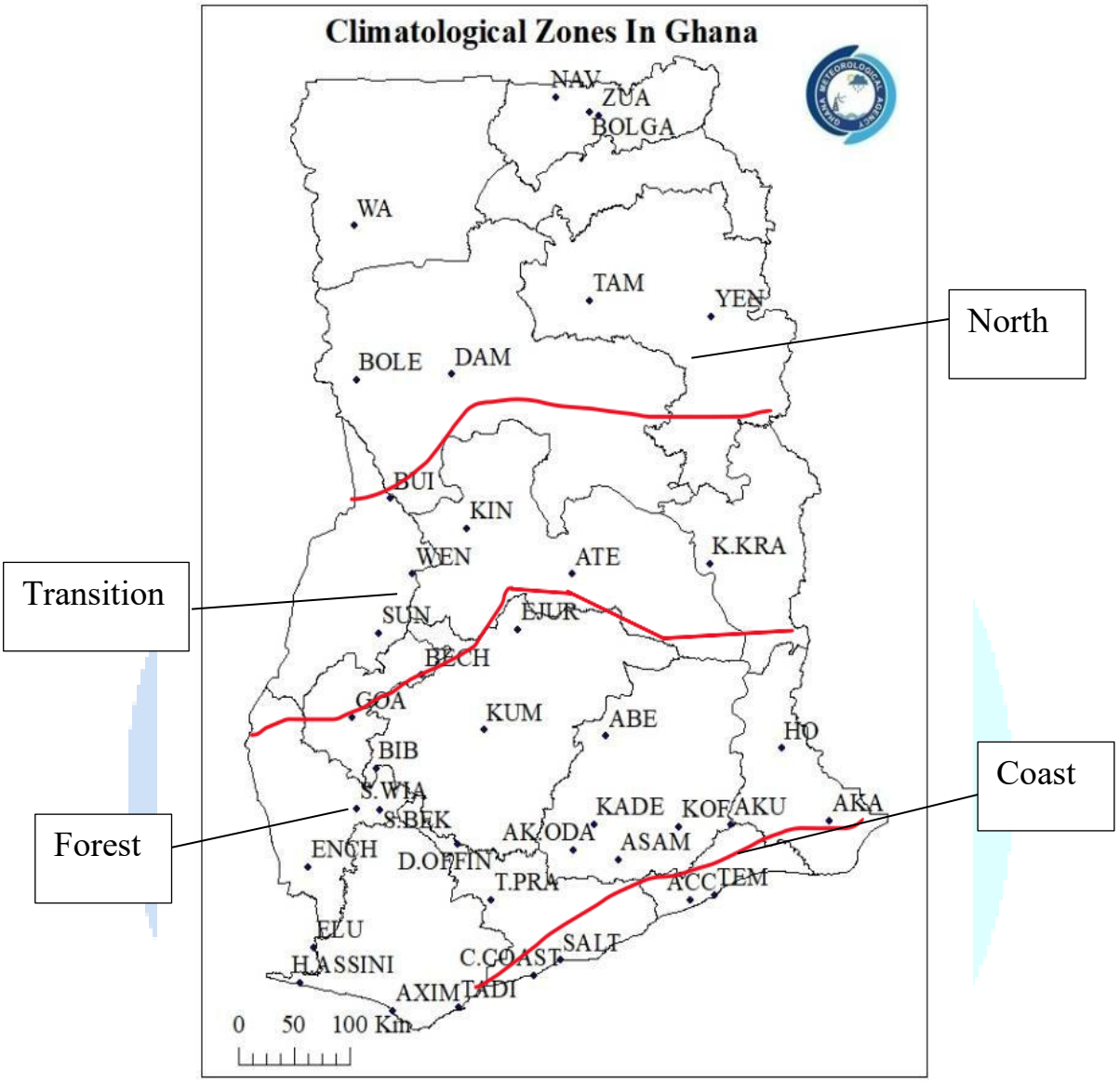


Figure 1: Map of Climatic Zones in Ghana

Table 1: List of Abbreviated Station Names

Station	Abbreviation	Station	Abbreviation
Akim Oda	A_ODA	Half Assini	H_ASS
Abetifi	ABE	Ho	HO
Accra	ACC	Kete Krachi	K_KRA
Ada	ADA	Kade	KADE
Akatsi	AKA	Koforidua	KDUA
Akuse	AKU	Kintampo	KINT
Asamankese	ASAM	Kumasi	KSI
Atebubu	ATE	Mim	MIM
Axim	AXIM	Navrongo	NAV
Babile	BAB	Prang	PRANG
Bechem	BECH	Sefwi Bekwai	S_BEK
Bimbila	BIM	Salaga	SALA
Bole	BOLE	Saltpond	SALT
Bolga	BOLGA	Sunyani	SUNY
Bui	BUI	Tamale	TAM
Cape Coast	C_COAST	Takoradi	TDI
Dormaa Ahenkro	D_AHEN	Tema	TEMA
Damongo	DAM	Vea	VEA
Dunkwa Offin	DUNK	Wa	WA
Ejura	EJURA	Walewale	WALE
Enchi	ENCH	Wenchi	WEN
Garu	GARU	Yendi	YEN
Goa	GOA	Zuarungu	ZUA

1.0 VERIFICATION OF 2025 SEASONAL FORECAST

The evaluation of the seasonal forecasts for the year 2025 involves comparing the forecasts issued for the major rainfall season in southern Ghana with the actual rainfall data recorded by the GMet weather stations across **Northern Ghana**. This process assesses the accuracy of the predictions. GMet uses the evaluation results as a basis for improving the precision of forecasts for the following year.

1.1 Onset Probability Forecast and Verification for 2025

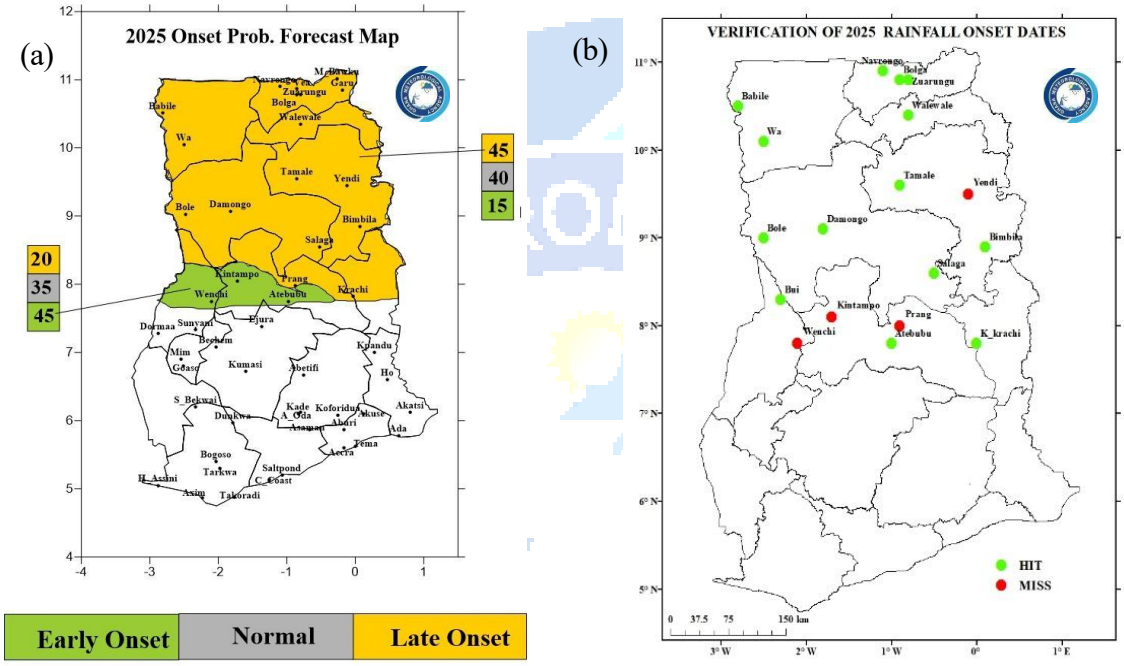


Figure 2: (a) Onset Probability Forecast 2025 (b) Verification Map 2025

Total Number of Stations: 18

Percentage Hit: 78% (14)

Percentage Miss: 22% (4)

Onset

Most places (78%) in Northern Ghana experienced a late onset as forecasted, with the exception being Yendi, which had an early onset. The Transition Zone experienced what was forecasted, except for **Wenchi, Kintampo,** and **Prang** which experienced late normal onset instead of the early onset as forecasted.

1.2 MJJ Cumulative Rainfall Forecast Verification for 2025

(a) (b)

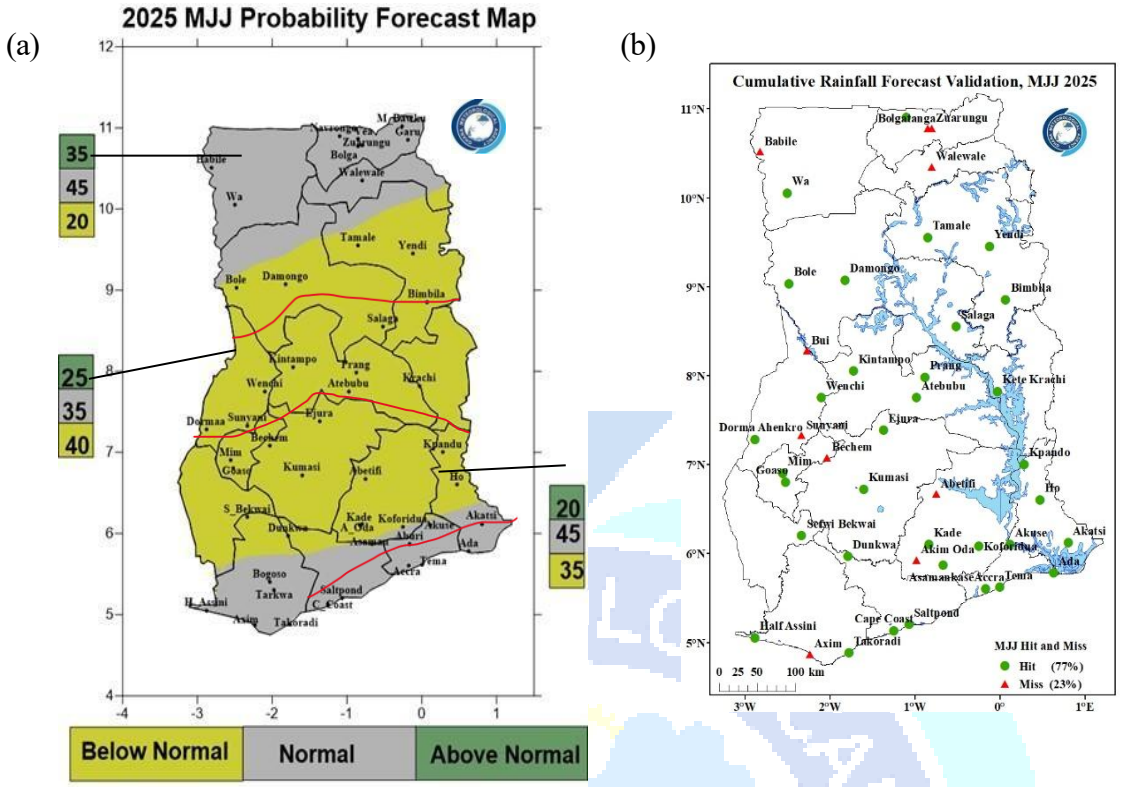


Figure 3: (a) MJJ Probability Forecast 2025 (b) Verification Map 2025

Total Number of Stations: 44

Percentage Hit: 77% (34)

Percentage Miss: 23% (10)

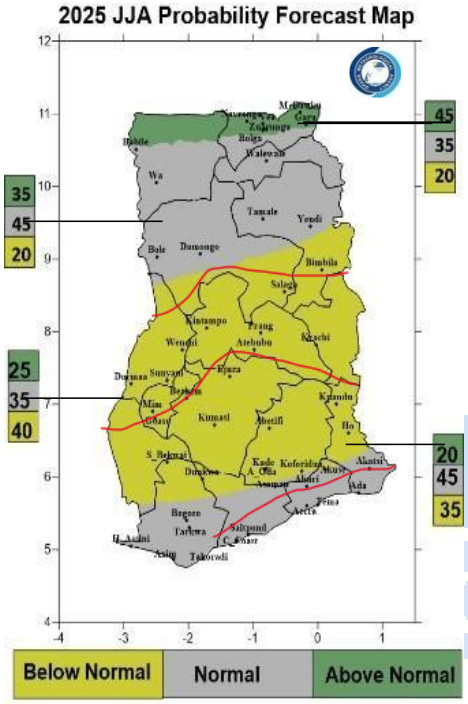
May-June-July (MJJ) 2025 Rainfall

The MJJ 2025 seasonal forecast achieved an overall accuracy of 77%, with a corresponding miss rate of 23%. The Coast and Southern Forest zone recorded the highest forecast skill. The accuracy here stood at 92%, with a miss rate of only 8%. Most places within this area received rainfall within the predicted normal to below-normal amount. The single notable deviation was the station at **Axim**, where above-normal rainfall was recorded, contrary to the forecast.

The forecast performed reasonably well in most places in the Forest Zone, Northern Ghana, and the entire Transition Zone, with an accuracy of 81% and a miss rate of 19%. However, a few distinct places deviated from the outlook by recording above-normal rainfall, and they include **Akim Oda**, **Abetifi, Bechem, Sunyani,** and **Bui**. The Upper Regions North showed the poorest forecast performance due to the quick transitioning of the movement of the ITCZ deep into Northern Niger and Mali.

1.3 JJA Cumulative Rainfall Forecast Verification for 2025

(a)



(b)

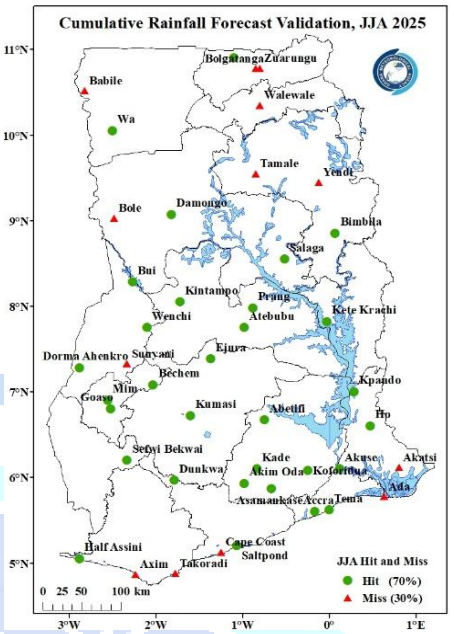


Figure 4: (a) JJA Probability Forecast 2025 (b) Verification Map 2025

Total Number of Stations: 44

Percentage Hit: 70% (31)

Percentage Miss: 30% (13)

June-July-August (JJA) 2025 Rainfall

The JJA 2025 seasonal forecast issued by the Ghana Meteorological Agency (GMet) achieved an overall accuracy of 70%, with a corresponding miss rate of 30%. The Coastal areas and some parts of the Forest Zone recorded the lowest accuracy. Places like **Axim, Takoradi, Cape Coast, Ada**, and **Akatsi** deviated from the forecast by recording above-normal rainfall instead of the predicted normal to below-normal conditions.

The Transition and parts of the Forest zone performed exceptionally well, with an accuracy of 96% and a miss rate of only 4%. Most stations received rainfall within the predicted below-normal to normal rainfall category.

Northern Portions (including Upper Regions and the extreme of the Northern Region) again showed poor forecast performance. The accuracy, based on observations at **Wa** and **Damongo** and their surrounding areas, was around 33%. Contrary to the normal to above-normal forecast, several places (**Babile, Bole, Tamale, Yendi,** and **Walewale**) recorded below-normal rainfall for the JJA season.

1.4 JAS Cumulative Rainfall Forecast Verification for 2025

(a) (b)

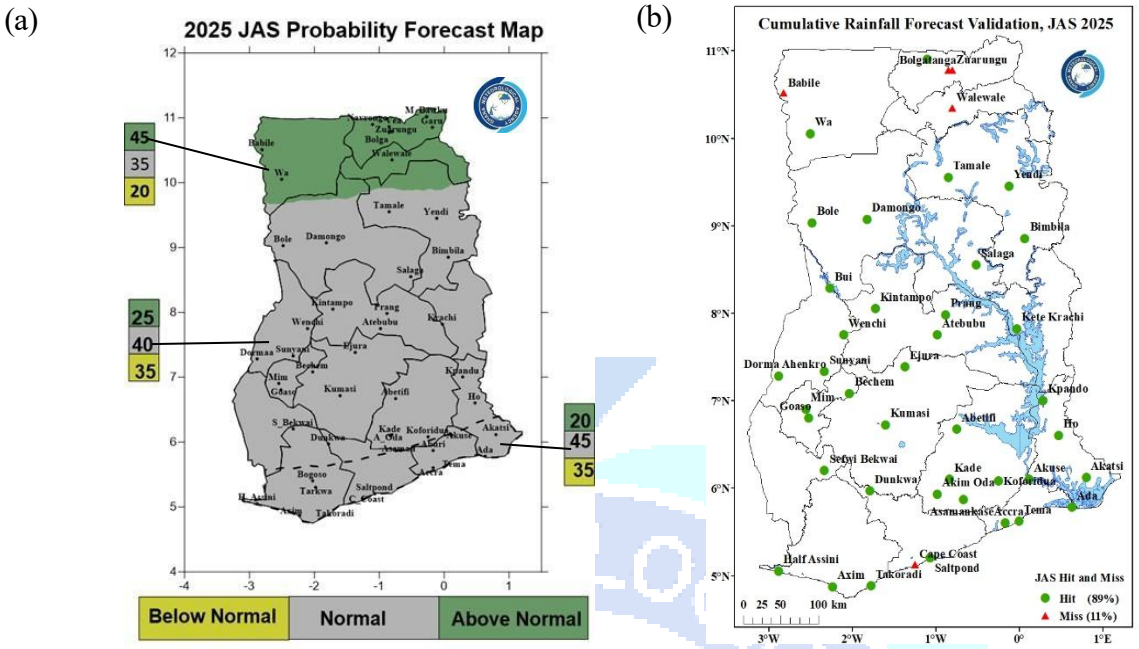


Figure 5: (a) JAS Probability Forecast 2025 (b) Verification Map 2025

Total Number of Stations: 44

Percentage Hit: 89% (39)

Percentage Miss: 11% (5)

July-August-September (JAS) 2025 Rainfall

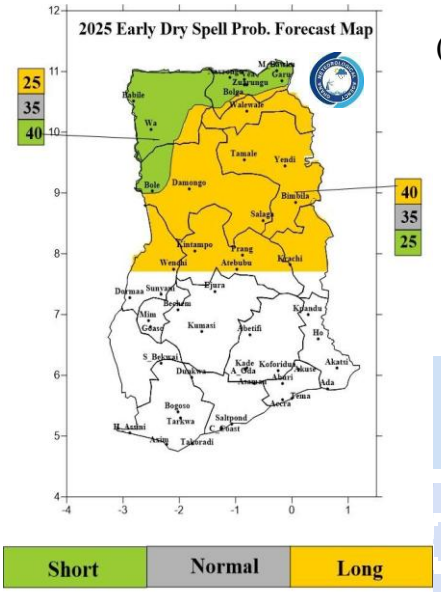
The JAS 2025 seasonal forecast achieved an overall accuracy of 89%, with a miss rate of 11%. Performance varied across the country, with the southern and central zones performing very well, while the northernmost sector again recorded significant challenges.

Coast, Forest, Transition, and Parts of the North recorded excellent forecast performance. Accuracy stood at 97%, with a miss rate of only 3%. Most places received rainfall within the predicted normal to below-normal range. The sole notable deviation was **Cape Coast**, which recorded above-normal rainfall, contrary to the forecast.

Northernmost Parts of the Country showed poor forecast performance, consistent with patterns observed in previous seasons. Accuracy was just 33%, based on observations at **Wa** and **Navrongo**

1.5 Early Dry Spell Probability Forecast and Verification for 2025

(a)



(b)

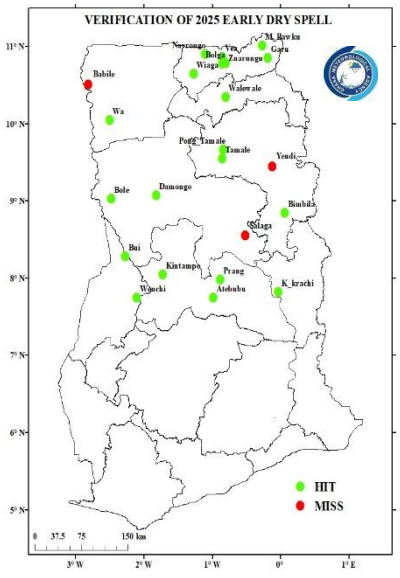


Figure 6: (a) Early Dry Spell Probability 2025 (b)Verification Map 2025

Total Number of Stations: 23

Percentage Hit: 87% (20)

Percentage Miss: 13% (3)

Early dry spell

The early dry spell forecast demonstrated strong reliability across the northern region and transition zone, with 87% of stations experiencing the predicted longer dry spell from the northern to the transition and shorter dry spell conditions for the upper regions. However, three stations (13%) deviated from the forecast, highlighting localized variability that warrants further investigation

1.6 Late Dry Spell Probability Forecast and Verification for 2025

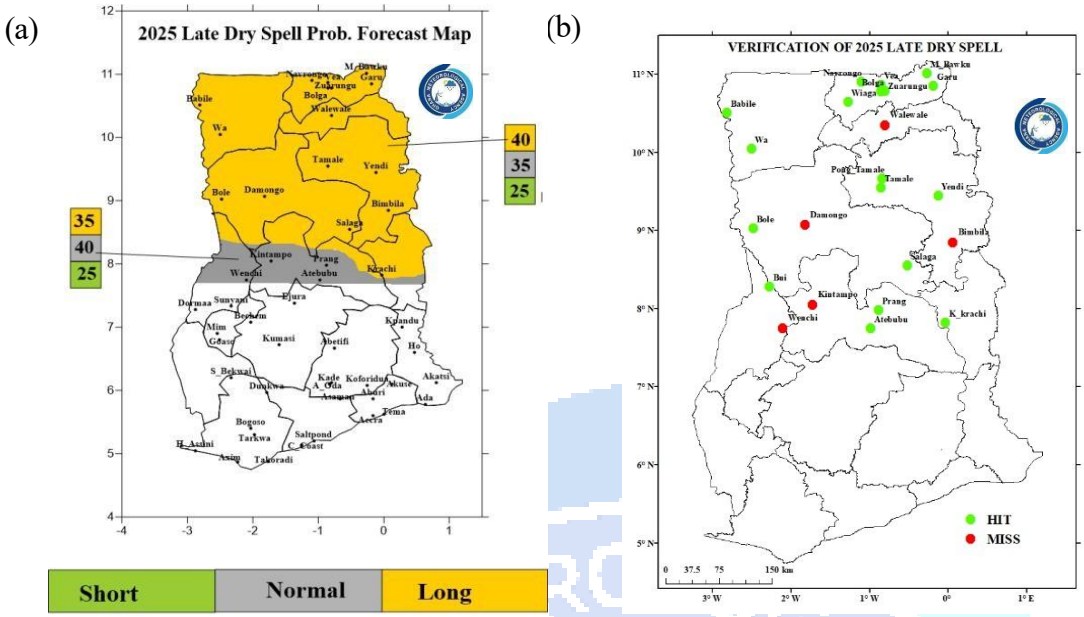


Figure 7: (a) Late Dry Spell Probability Forecast 2025 (b) Verification Map 2025

Total Number of Stations: 23

Percentage Hit: 78% (18)

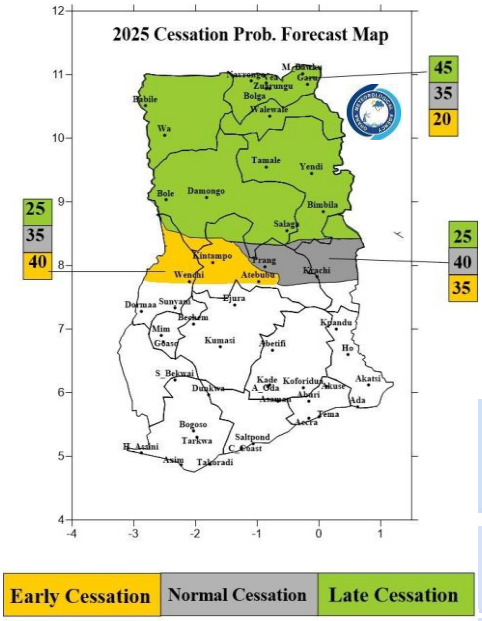
Percentage Miss: 22% (5)

Late dry spell

The entire Northern region was forecasted to have longer to normal late dry spells but few of the places experienced more rainy days instead. 22% of the places saw more rainy days than forecasted, which was good for agriculture in the north. 78% experienced longer dry spells as forecasted.

1.7 Cessation Probability Forecast and Verification for 2025

(a)



(b)

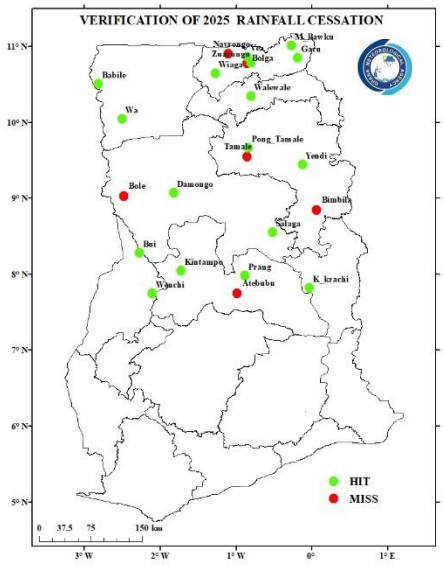


Figure 8: (a) 2025 Cessation Probability Forecast 2025 and Verification Map 2025

Total Number of Stations: 23

Percentage Hit: 71% (17)

Percentage Miss: 29% (6)

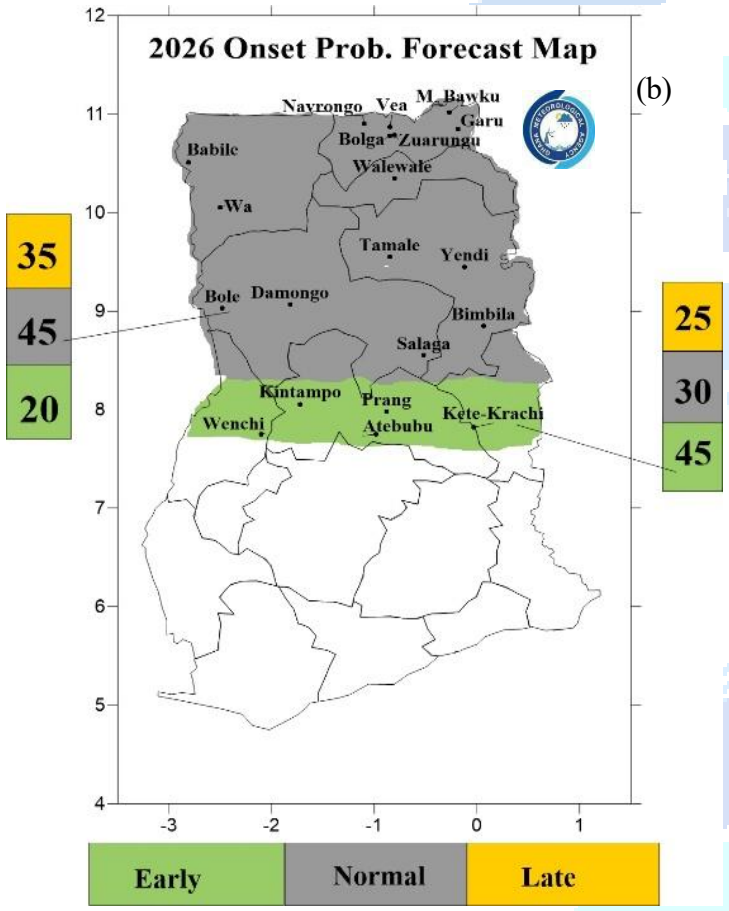
Cessation

The cessation forecast showed strong overall agreement across most stations, with a majority recording hits. In the Upper East Region, **Navrongo** and **Bolgatanga** recorded misses. Within the Northern Sector, stations such as **Bole, Tamale**, and **Bimbila** also showed misses, while most remaining stations were consistent with the forecast. In the Transition Zone, only **Atebubu** recorded a miss, with the other stations aligning well with the predicted forecast

2.0 SEASONAL FORECAST FOR NORTHERN GHANA FOR 2026

2.1 Forecast Maps of Onset Dates for the 2026 Season

(a)



(b)

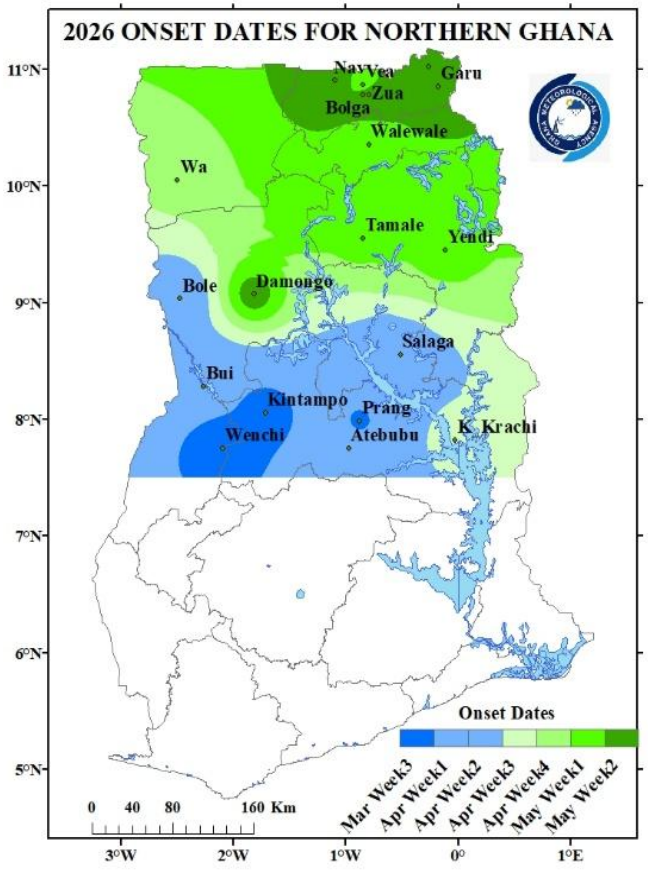


Figure 9: (a) Onset Probability Forecast Map 2026 *(b)Onset Dates Forecast Map 2026*

Table 2: Onset Dates for 2026 Season & Long-Term Mean (Normal) of the Onset Dates

ZONE	Normal Onset Dates (LTM)	Forecasted Onset Dates
Transition Zone	4th Week of March – 2nd Week of April	3rd Week of March – 2nd Week of April
North	2nd Week of April – 4th Week of April	3rd Week of April – 2nd Week of May
Upper West	3rd Week of April – 1st Week of May	3rd Week of April – 2nd Week of May
Upper East	4th Week of April – 2nd Week of May	4th Week of April – 3rd Week of May

NB: Long-Term Mean (LTM) is the 30-year average condition of a given Zone from 1991-2020.

2.2 Cumulative Rainfall Forecast Maps for the MJJ Season, 2026

(a) (b)

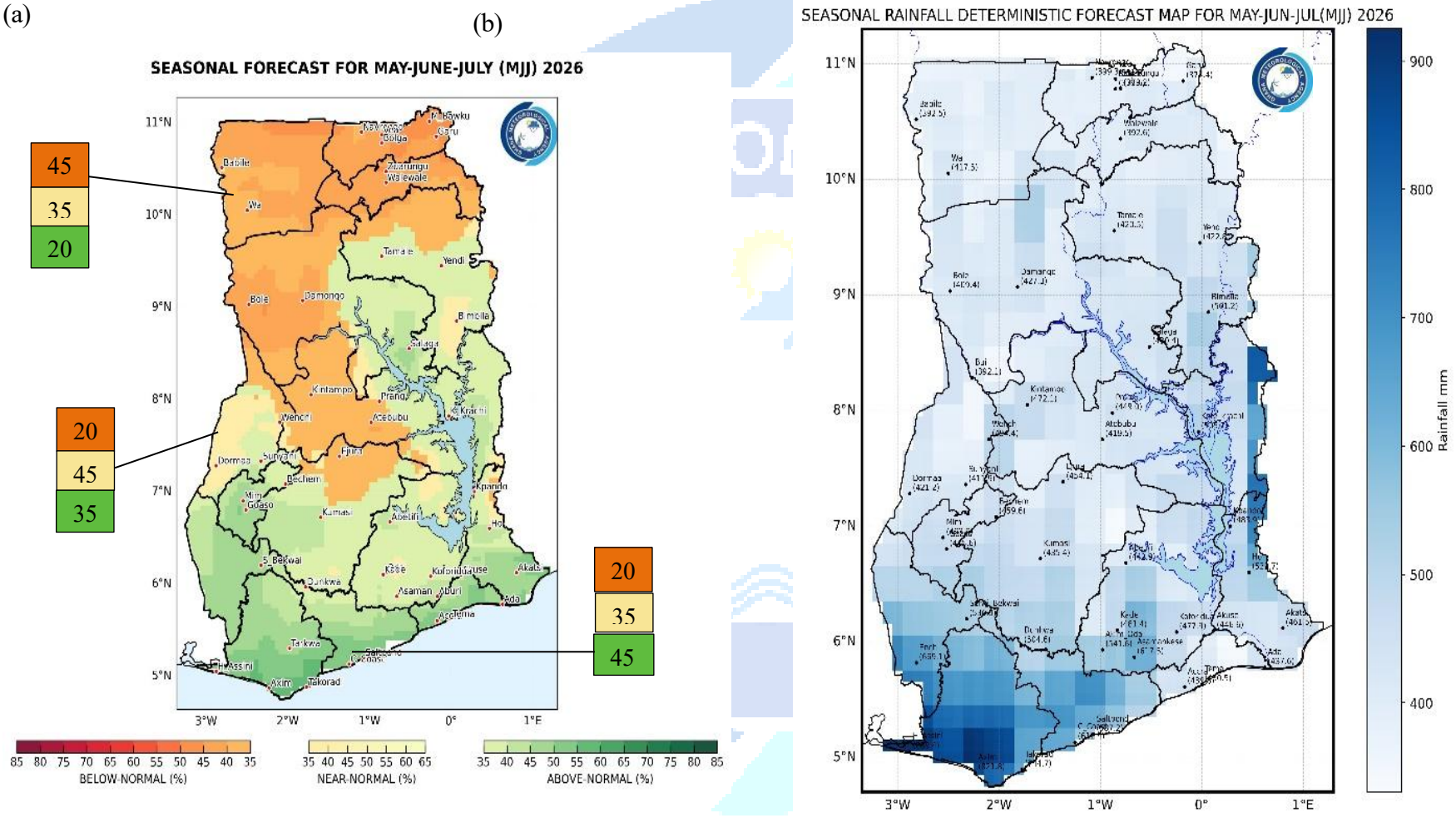


Figure 10: (a) MJJ Rainfall Probability Forecast Map 2026 (b) MJJ Rainfall Forecast Map 2026

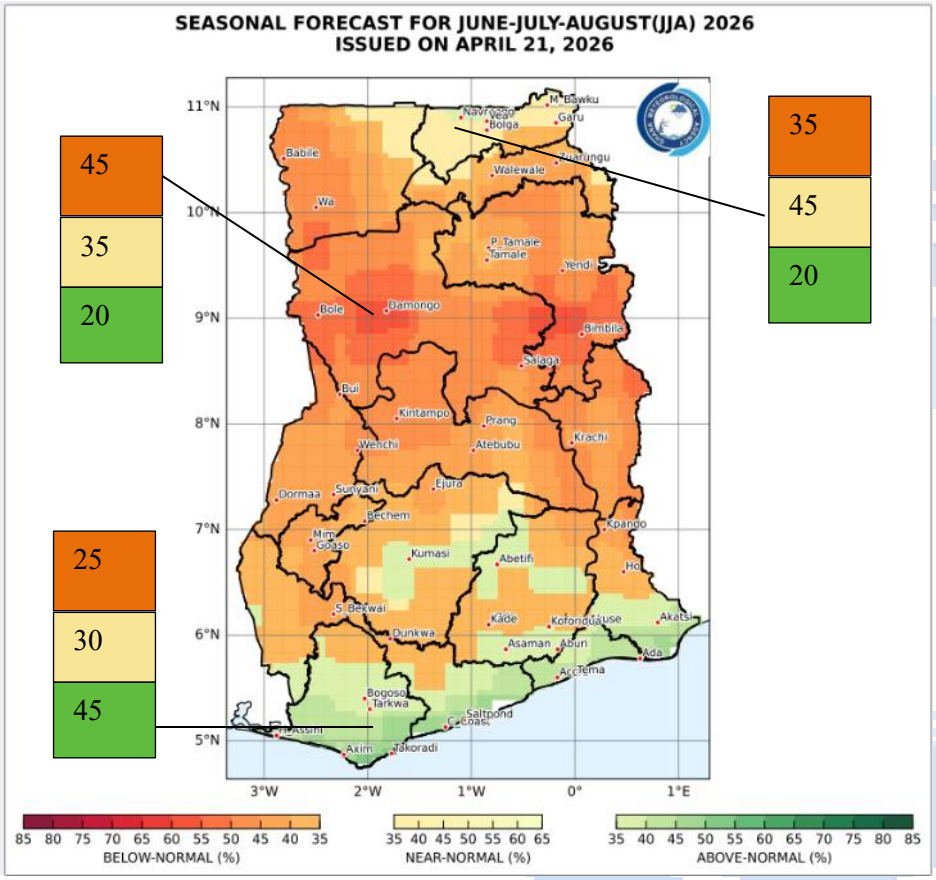
Table 3. Forecast of Total Rainfall Amount for the MJJ Season, 2026

ZONE	LTM (mm)	2026 MJJ (mm)
East Coast	286 -569	320-580
West Coast	504 - 1055	510 - 1100
Forest	360 – 790	365 - 800
Transition	386 - 601	375 - 595
North	358 – 500	350 - 490
Upper East	345 – 460	325 - 430
Upper West	387 - 483	380 - 470

NB: Long-Term Mean (LTM) is the 30-year average condition of the given Zone from 1991-2020.

2.3 Cumulative Rainfall Forecast Maps for the JJA Season, 2026

(a)



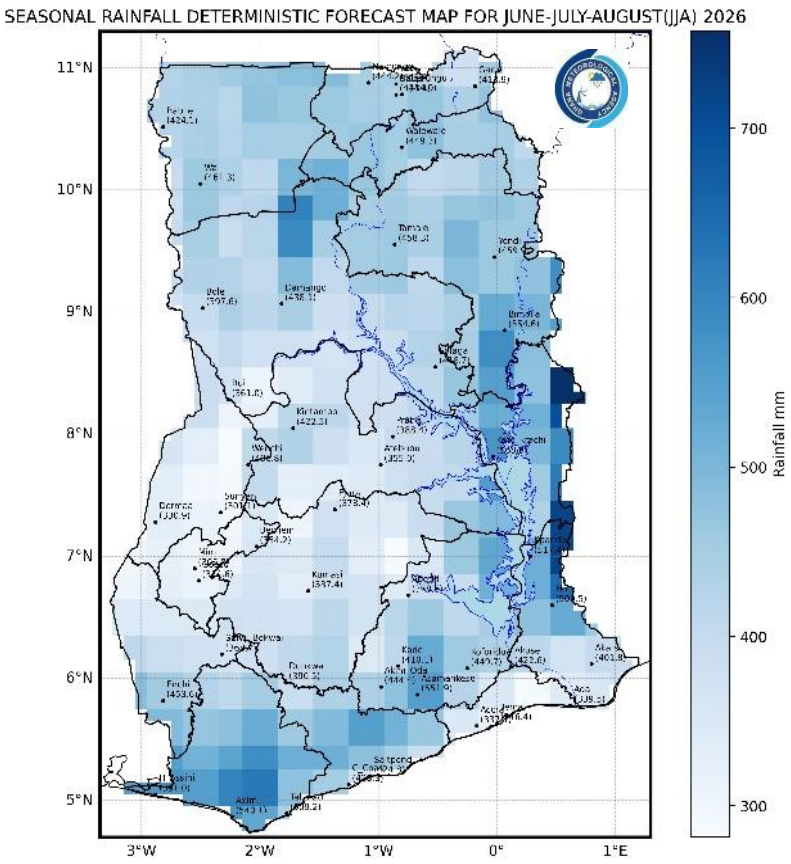


Figure 11: (a) JJA Rainfall Probability Forecast Map 2026 (b)JJA Rainfall Forecast Map 2026

Table 4. Forecast of Total Rainfall Amount for the JJA Season, 2026

ZONE	Normal Total Rainfall LTM (mm)	Forecasted Total Rainfall 2026 (mm)
North	241 - 449	225- 440
Transition Zone	369 - 573	360 - 570
Forest Zone	365 - 784	360 - 780
West Coast	512 - 1053	520 – 1060
East Coast	305 - 578	310 – 580
Upper East	497 - 643	390- 500
Upper West	458 – 546	450 - 500

NB: Long-Term Mean (LTM) is the 30-year average condition of the given Zone from 1991-2020.

2.3 Cumulative Rainfall Forecast Maps for the JAS Season, 2026

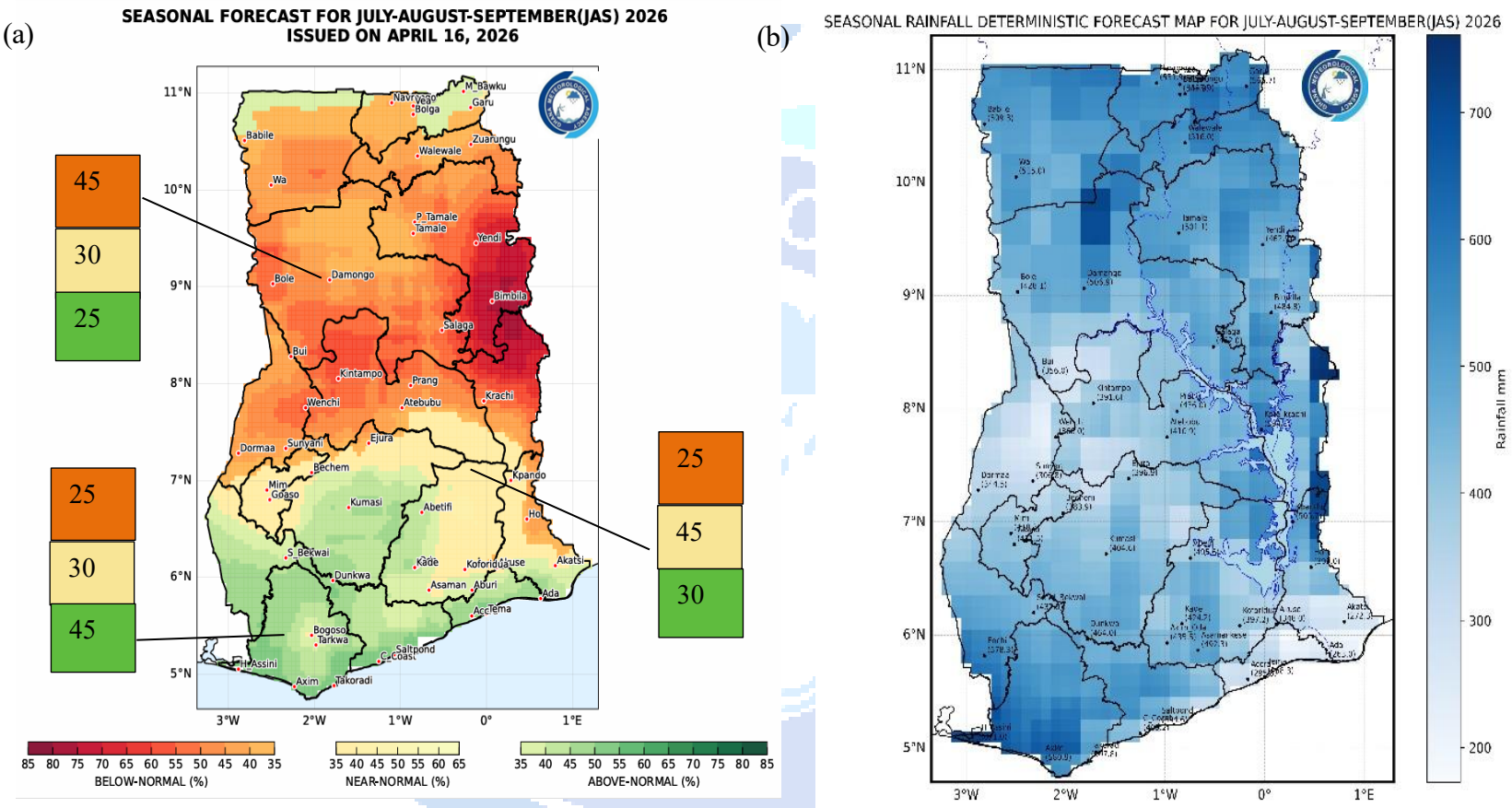


Figure 12: (a) JAS Rainfall Probability Forecast Map 2026 (b)JAS Rainfall Forecast Map 2026

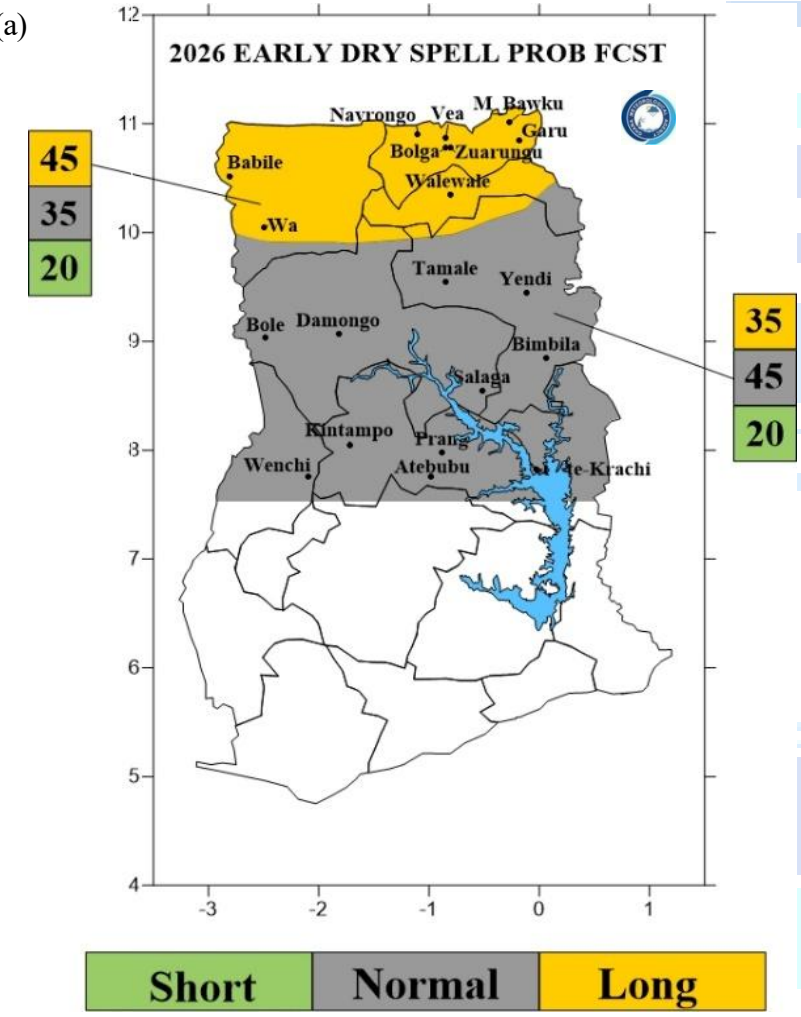
Table 5. Forecast of Total Rainfall Amount for the JAS Season, 2026

ZONE	LTM (mm)	2026 JAS (mm)
East Coast	68 – 213	90 – 250
West Coast	143 – 338	375 – 750
Forest	192 – 831	195 – 840
Transition	305 – 697	250– 690
North	465 – 710	402 – 690
Upper East	527 – 674	530 – 675
Upper West	512 – 596	508 – 600

NB: Long-Term Mean (LTM) is the 30-year average condition of the given Zone from 1991-2020.

2.4 First (Early) Dry Spell Days Forecast Maps for the 2026 Season

(a)



(b)

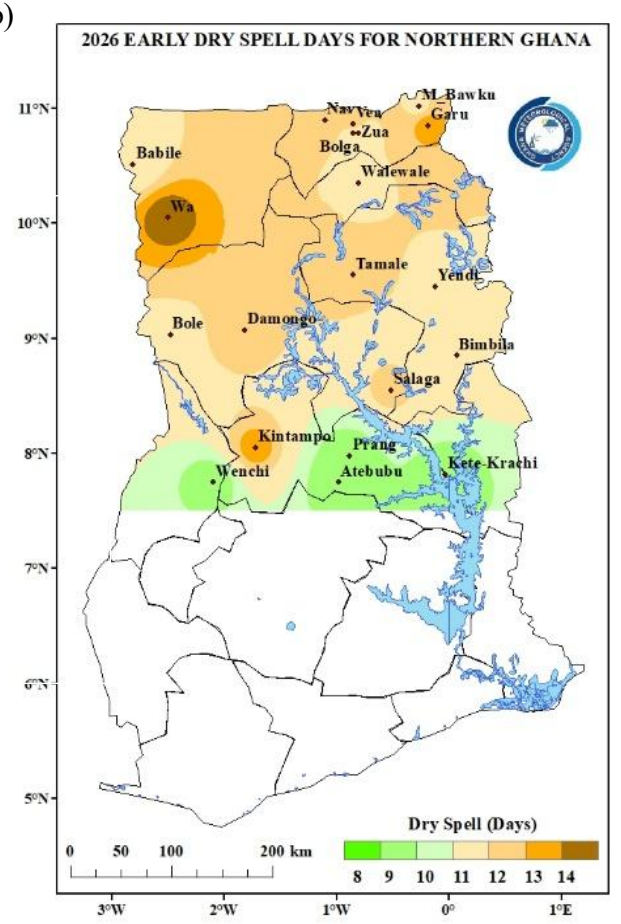


Figure 13: (a) Early Dry Spell Probability Map 2026 (b) Early Dry Spell Forecast Map 2026

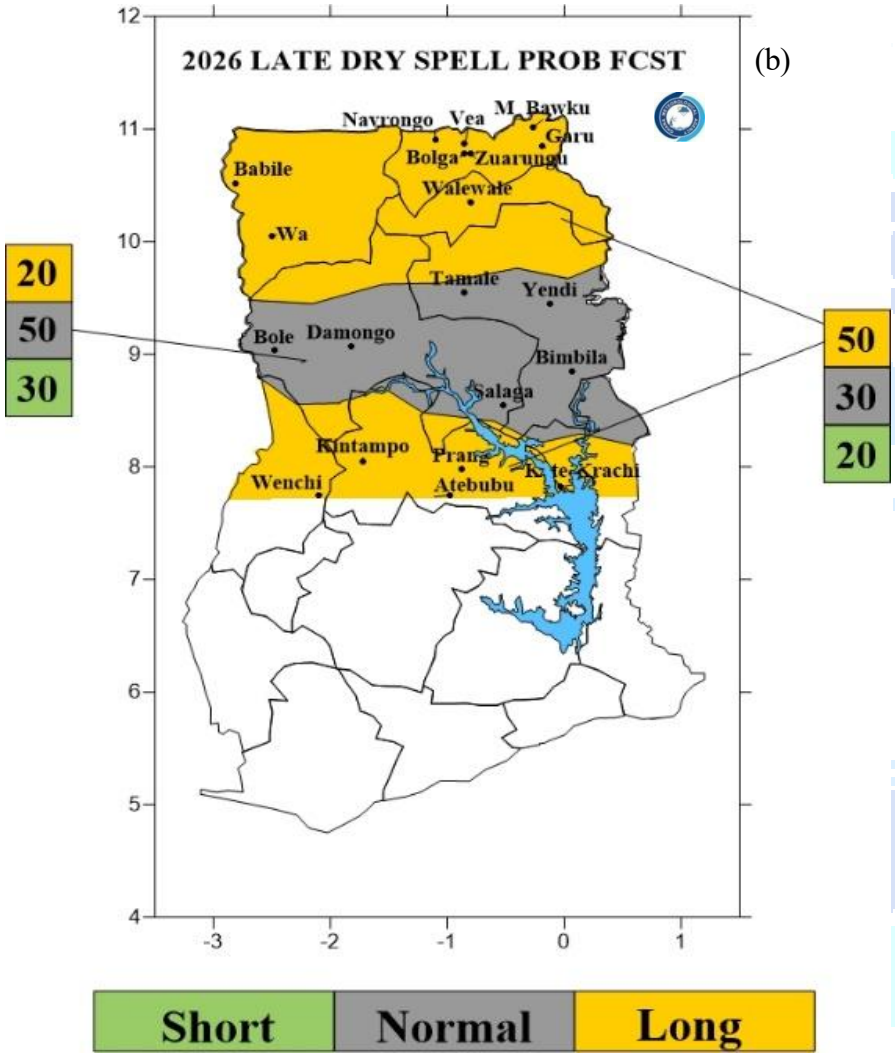
Table 6. LTM of First Dry Spell Days and Forecast of First Dry Spell Days

ZONE	LTM of First Dry Spell (Days)	Forecast of First Dry Spell (Days)
Transition Zone	8	8-13
North	11	11-12
Upper West	10	10-14
Upper East	11	11-13

NB: First (Early) Dry Spell is defined as the longest successive dry days during the first 50 days after the start of the season.

2.5 Second (Late) Dry Spell Days Forecast Maps for the 2026 Season

(a)



(b)

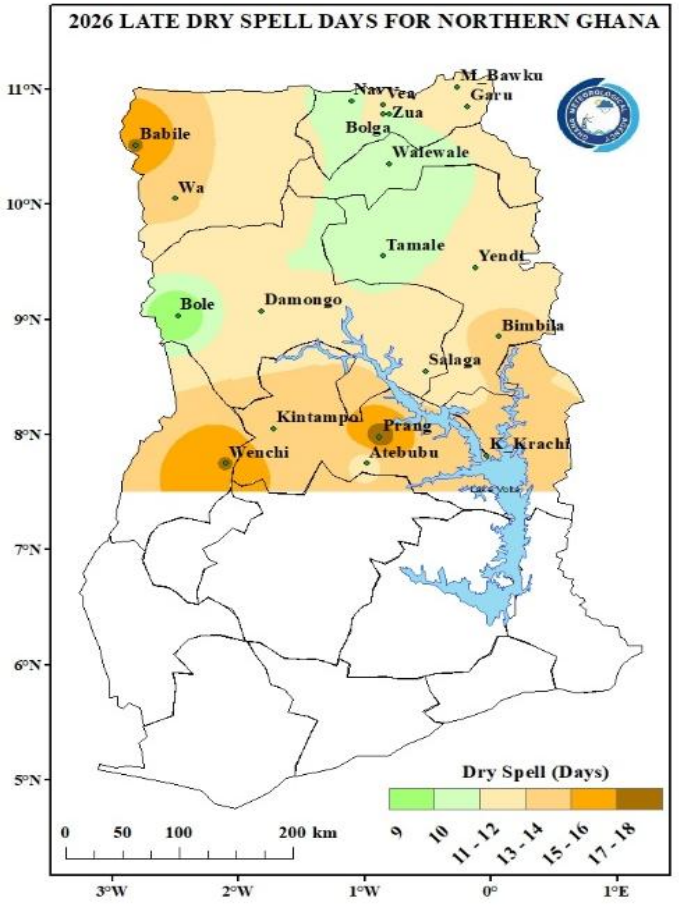


Figure 14: (a)Late Dry Spell Probability Map 2026 (b) Late Dry Spell Forecast Map 2026

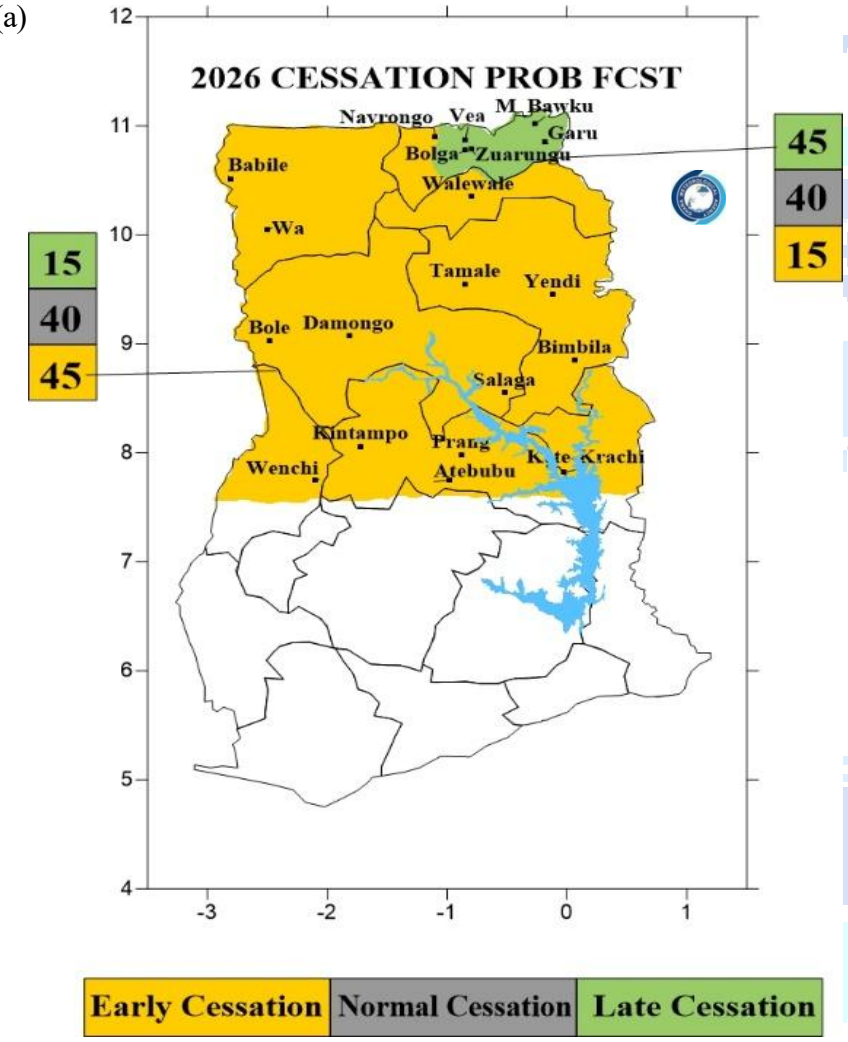
Table 7. LTM for Second Dry Spell Days and Forecast of Late Dry Spell- Days

ZONE	Normal of Late Spell(Days)	Forecast of Late Spell(Days)
Transition Zone	15	12-18
North	14	9-14
Upper West	15	13-17
Upper East	15	10-17

NB: Second Dry Spell is defined as the longest successive dry days from the 51st day after the season's start to the end.

2.6 Forecast Maps for Cessation Dates for the 2026 Season

(a)



(b)

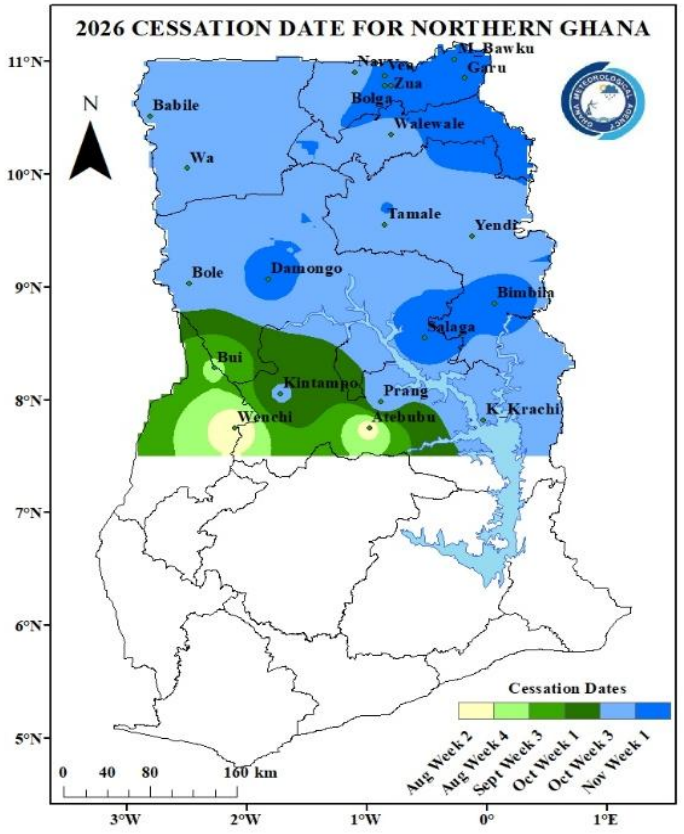


Figure 15: (a)Cessation Probability Forecast Map 2026 (b) Cessation Dates Forecast Map 2026

Table 8. Cessation Dates for 2026 Season & Long-Term Mean Cessation Dates

ZONE	Normal Cessation Dates	Forecasted Cessation Dates
Transition Zone	2nd Week of September – 4th Week of October	2nd Week of August – 3rd Week of October
North	1st Week of October – 1st Week of November	3rd Week of September - 1st Week of November
Upper West	1st Week of October – 4th Week of October	3rd Week of October – 4th Week of October
Upper East	1st Week of October – 3rd Week of October	3rd Week of October - 1st Week of November

NB: Long-Term Mean (LTM) is the 30-year average condition of the given Zone from 1991-2020.

2.7 Length of Rainfall Season Forecast Maps, 2026

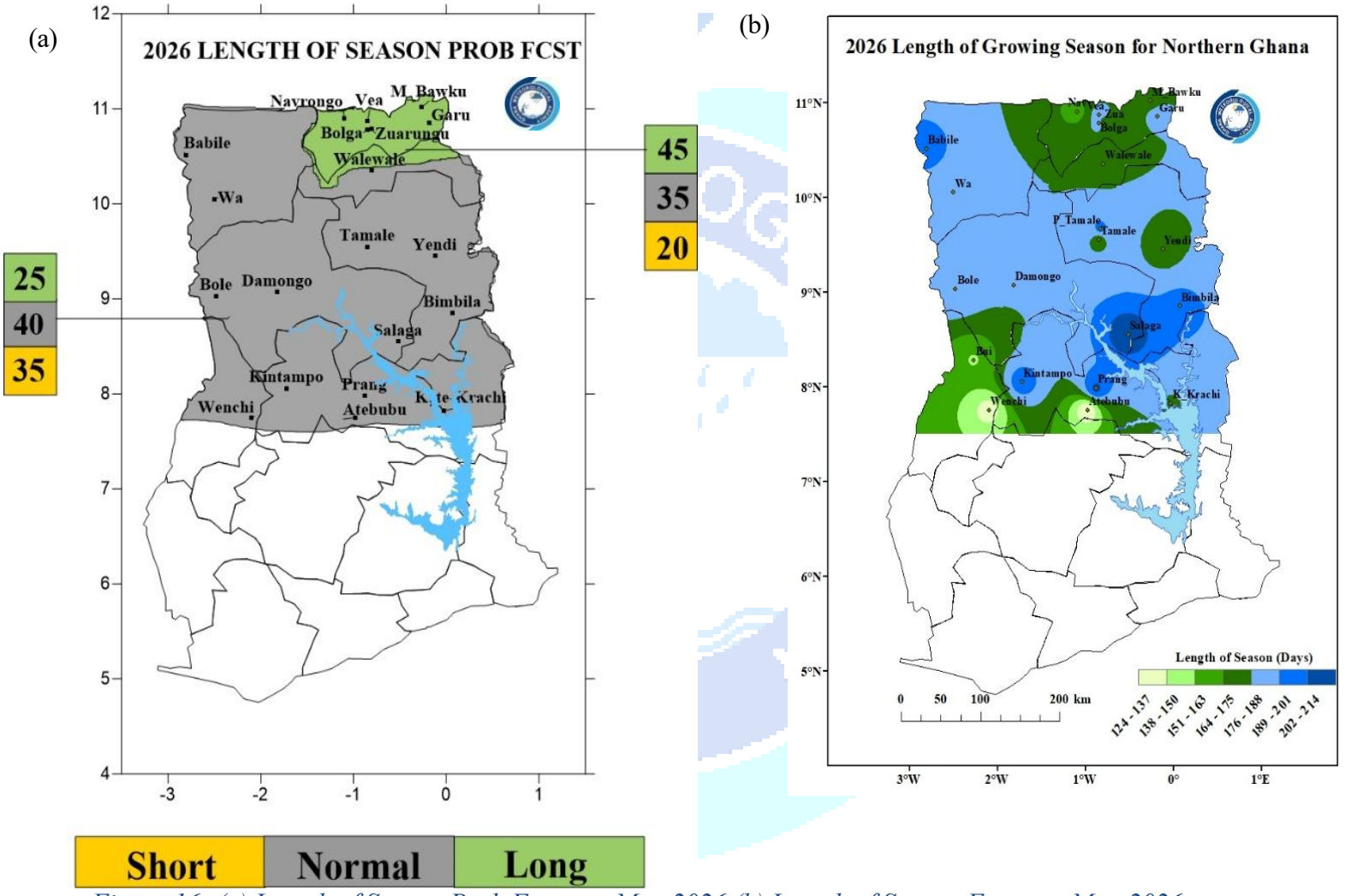


Figure 16: (a) Length of Season Prob Forecast Map 2026 (b) Length of Season Forecast Map 2026

Table 9. Forecast of Length of Rainfall Days and LTM for 2026 Season

ZONE	LTM (Days)	2026 Length of Season (Days)
Transition Zone	162 - 188	124 - 204
North	181 - 193	168-214
Upper West	175 - 184	183– 192
Upper East	164 - 171	153- 180

2.8 Average Temperature Forecast

MJJ Average Temperature Forecast

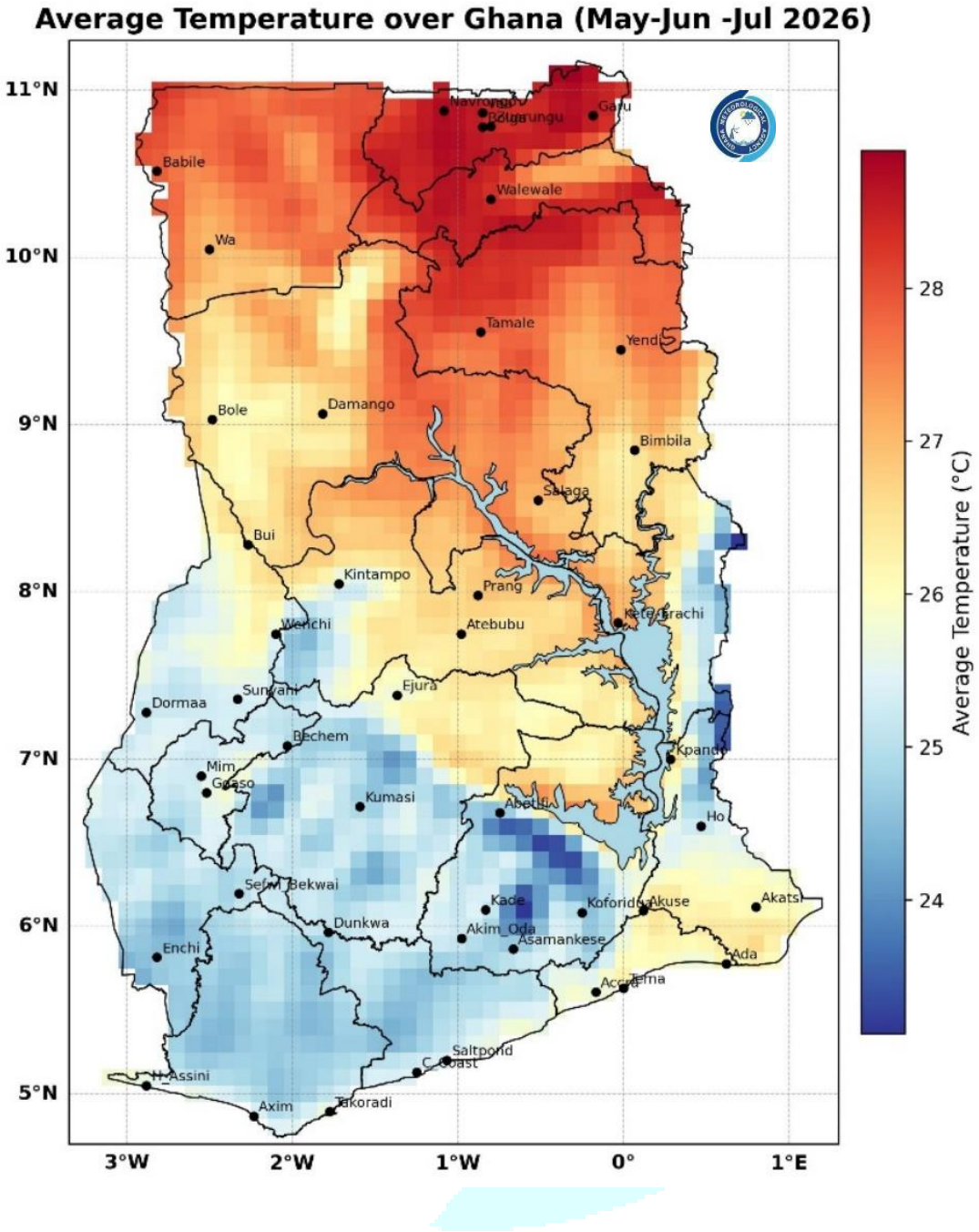


Figure 17: Average Temperature for May-June-July

Temperatures in Upper East and Upper West Regions are forecasted to be at their highest across the country, ranging between 29°C and 30°C or above. Towns **including Bolgatanga, Navrongo, Bawku,** and **Garu** are expected to experience the most intense heat during this period. Conditions are likely driven by Sahel-influenced dry heat ahead of and during the early monsoon season.

Temperatures in Northern Region (**Tamale, Yendi, Walewale**) are forecasted to be in the range of 27°C to 29°C. Warm and dry conditions are expected to persist through much of the forecast period, with gradual moderation anticipated as the Inter-Tropical Convergence Zone (ITCZ) advances northward.

Savannah and North-East Transition Belt (**Wa, Damango, Salaga, Bimbila, Kintampo**) Temperatures are forecasted between 26°C and 28°C. This zone is expected to experience a transition from dry warm conditions in May to slightly more moderate temperatures as rainfall activity increases in June and July.

Temperatures in Ashanti, Bono and Central Inland Areas (**Kumasi, Sunyani, Wenchi, Ejura**) are forecasted to be in the range of 25°C to 26°C. The onset and progression of the main rainy season is expected to keep temperatures relatively moderate throughout the MJJ period.

Temperatures in Southern, Coastal and Volta Basin Areas (**Accra, Takoradi, Cape Coast, Ada, Akosombo**) are forecasted to be at their lowest nationally, ranging between 23°C and 25°C. The Atlantic sea breeze along the coast and the thermal cooling influence of Lake Volta are expected to be the dominant factors suppressing temperatures in this zone. Localized cooler anomalies of 23°C or below are forecasted around the Lake Volta basin, particularly near **Kpando** and **Akosombo**.

JJA Average Temperature Forecast

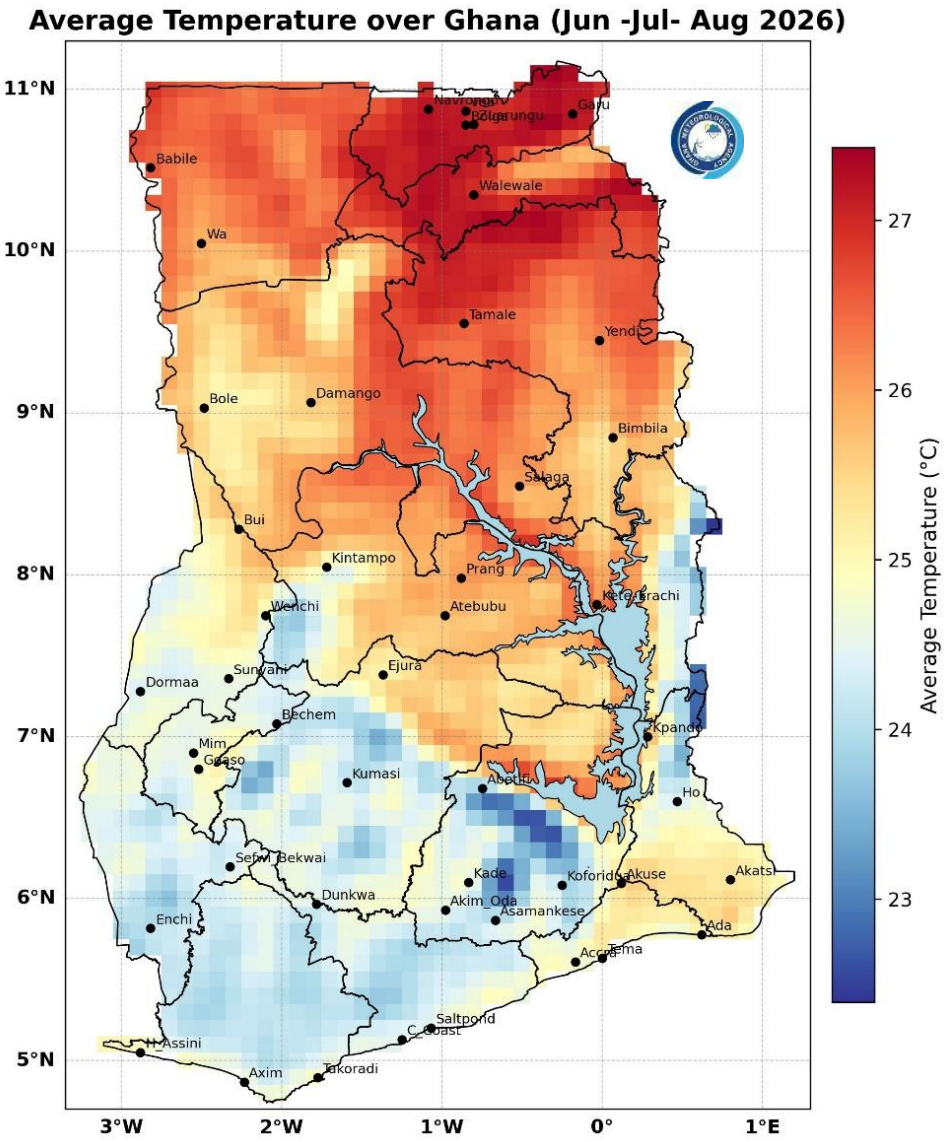


Figure 18: Average Temperature for June-July-August

Upper East and Upper West Regions are forecasted to record the highest temperatures during this season, with values expected to persist between 27°C and 28°C or above. Stations such as **Bolgatanga, Navrongo, Bawku, Babile,** and **Garu** will likely remain under high temperatures, though a gradual easing of peak heat is forecasted as August approaches and monsoon rainfall becomes more established over the far north.

Northern Region (**Tamale, Yendi, Walewale**) temperatures are forecasted to range between 26°C and 27°C for the season. Warm conditions will likely dominate through June and much of July, with some degree of cooling forecasted toward August as convective rainfall becomes more consistent and cloud cover increases.

Savannah and North-East Transition Belt (**Wa, Damongo, Bole, Salaga, Bimbila, Kintampo**) Temperatures across this zone are forecasted to fall between 25°C and 26°C. The intensification of rainfall activity over this belt during July and August is anticipated to bring measurable temperature relief relative to the drier MJJ period.

Ashanti, Bono, Central Inland Areas (**Kumasi, Sunyani, Wenchi, Ejura, Atebubu**) and the inland forest and transitional zones temperatures are forecasted to range between 24°C and 25°C. With the main rainy season reaching its peak intensity during this period, persistent cloud cover and frequent rainfall episodes are forecasted to keep thermal conditions well moderated across these areas.

Southern, Coastal and Volta Basin Areas (**Accra, Takoradi, Cape Coast, Ada, Akosombo, Ho**) are forecasted to experience the lowest temperatures nationally, with values expected between 22°C and 24°C. Pockets of 22°C or below are forecasted around the Lake Volta basin, particularly in the vicinities of **Kpando, Akosombo, Kade** and **Akim Oda**.

JAS Average Temperature Forecast

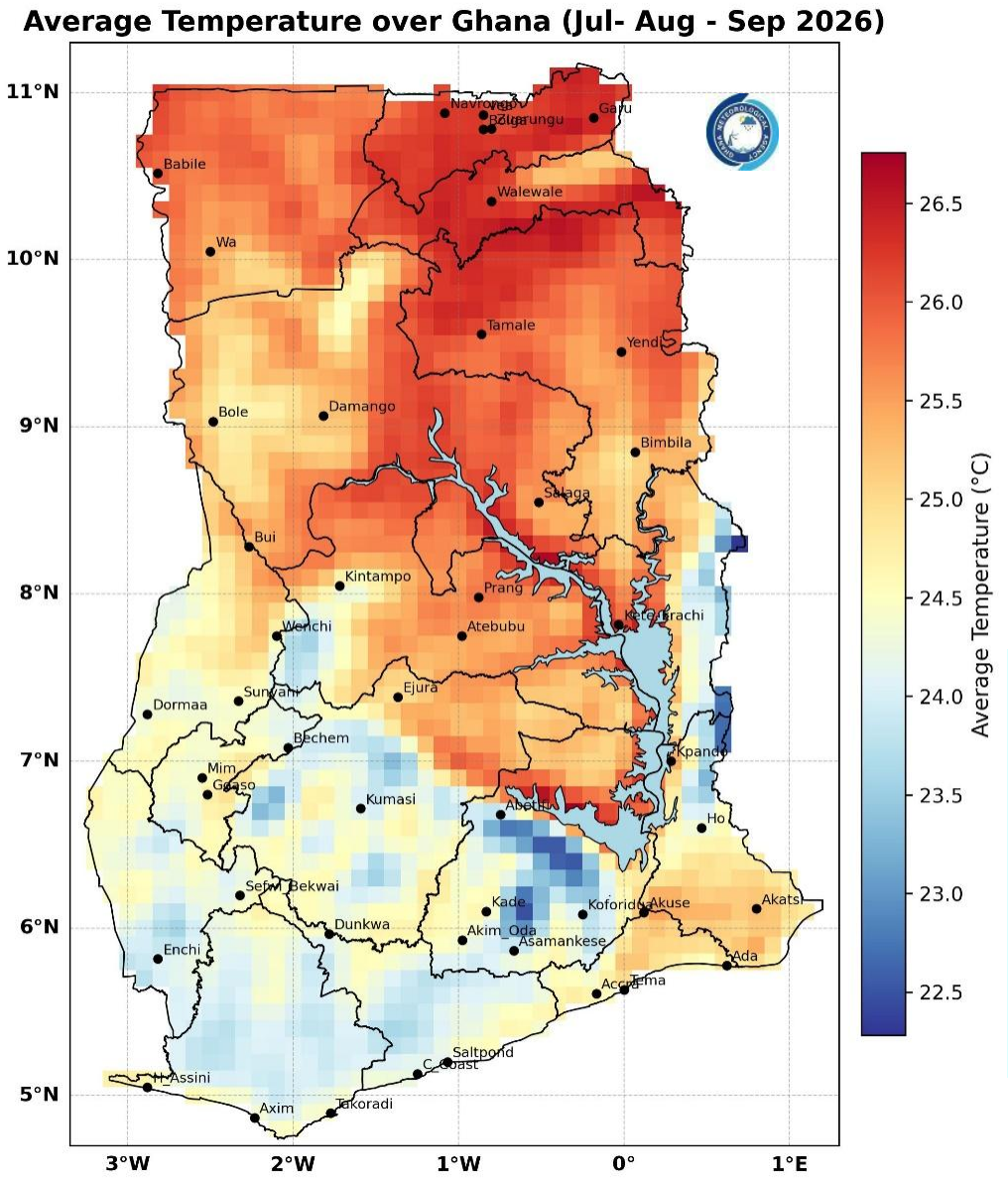


Figure 19: Average Temperature for July-August-September

Upper East and Upper West Regions are forecasted to record the highest temperatures of the season, with values expected to remain between 26°C and 27°C or above. Stations including **Bolgatanga, Navrongo, Bawku, Babile** and **Garu** are forecasted to sustain warm conditions, though temperatures are expected to be considerably lower than those recorded during the MJJ and JJA periods, as rainfall activity over the far north reaches its seasonal peak.

Temperatures across the Northern Region (**Tamale, Yendi,** and **Walewale**) are forecasted to range between 25.5°C and 26.5°C during this period. Frequent rainfall activities associated with the peak monsoon season are forecasted to limit daytime temperature build-up, resulting in a more tempered thermal regime compared to earlier seasons.

Temperatures across Savannah and North-East Transition Belt (**Wa, Damongo, Bole, Salaga, Bimbila** and **Kintampo**) are forecasted to fall between 25°C and 26°C. Sustained rainfall activity through July and August is expected to maintain moderate thermal conditions, with September likely seeing a gradual warming as the ITCZ begins its southward retreat.

Ashanti, Bono, Central Inland Areas (**Kumasi, Sunyani, Wenchi, Ejura** and **Atebubu** are forecasted to range between 24°C and 25°C. Cloud cover and rainfall associated with the peak of the main rainy season are forecasted to keep temperatures suppressed, making this season one of the cooler periods of the year.

Southern, Coastal and Volta Basin Areas (**Accra, Takoradi, Cape Coast, Ada, Akosombo** and **Ho**) are forecasted to record the lowest temperatures nationally, with values expected between 22.5°C and 24°C. Localized cooling of 22.5°C or below is forecasted to persist around the Lake Volta basin, particularly in areas around **Kpando, Akosombo, Kade** and **Akim Oda.**

3.0 SUMMARY OF EXPECTED SEASONAL FORECAST FOR 2026 MJJ, JJA & JAS

3.1 Onset

The entire region of Northern Ghana (above latitude 8ºN)) are forecasted to have a **normal to late** onset of the rainfall season, with the exception of places like **Bole, Salaga,** and their environs, where the onset is expected to be **early**. The Transition Zone rains have already started as forecasted in the major seasonal forecast for the south**.**

3.2 Cumulative Rainfall Distribution

a) May-June-July (MJJ)

The MJJ season is expected to experience above normal to near normal rainfall over most parts of Greater Accra, Central, Western, Western North, the southern part of Volta, Ahafo, and the northwestern part of Ashanti Region. Similar conditions are also anticipated in the Oti Region, Eastern, parts of Northern, the eastern part of Bono East, and the western part of the Savannah Region. However, below normal to near normal rainfall is expected within parts of the Ashanti and Bono East Regions, as well as the Upper West, Upper East, North-East, and Northern Regions.

The East Coast (**Accra, Ada, Tema**, and surroundings) is anticipated to receive rainfall amounts of between 360-450mm. The West Coast (**Axim, Takoradi, Half Assini** and environs) is forecasted to record rainfall values of about 650mm and above within this season. The northern parts of the Volta Region (**Ho, Kpando** and surrounding areas) and places in the Oti Region are forecasted to receive rainfall amounts of 600mm and above.
The Southern inland areas of Western region (**Elubo** and environs) are forecasted to record rainfall values between 600-780mm. The rest of the country is anticipated to receive rainfall values between 360-500mm.

b) June-July-August (JJA)

The JJA season is expected to experience below-normal to near-normal rainfall across most areas, including the Upper West, Savannah, Northern, North-East, Oti, Bono East, Bono, Ahafo, Western North, northern parts of the Volta Region, and parts of the Ashanti and Eastern regions.

Above-normal to near-normal rainfall is anticipated over much of the Western, Central, Greater Accra, and southern Volta regions. Meanwhile, most parts of the Upper East Region are forecast to experience near-normal rainfall.

The East Coast encompassing **Accra, Ada, Tema**, and surrounding areas is projected to receive cumulative rainfall between 200 mm and 400 mm, falling within the Normal to Above-Normal. The West Coast (**Axim, Takoradi, Half Assini**, and its environs) is forecasted to record rainfall values of about 500mm to 630mm. The northern parts of the country are generally expected to record between 450mm and 600mm (Below normal to normal).

The northern Volta (**Ho, Kpando**) and Oti regions are forecasted to experience rainfall values of about 480mm and above. Ahafo, Bono, Ashanti and parts of the Eastern regions are anticipated to record rainfall amounts between 350-450mm.

c) July-August-September (JAS)

The JAS season is anticipated to experience predominantly below-normal to near-normal rainfall across Oti, Bono East, Savannah, Northern, and Northeast Regions, as well as most parts of the Upper West and the western portions of the Upper East Region. In general, above-normal to near-normal rainfall is expected over the Greater Accra, Central, Western, Western North, and Ashanti Regions. Similar conditions are also likely along the northern fringes of the Upper West and the Eastern parts of the Upper East Region.

The East Coast (**Accra, Ada, Tema** and surrounding areas) is anticipated to receive rainfall amount of about 300-400mm. The West Coast (**Axim, Takoradi, Half Assini and** nearby communities) are forecasted to record rainfall values of about 400mm to 700mm.

The Northern part of the country is generally expected to record 500-700mm of rainfall for the JAS season.

The northern Volta (**Ho, Kpando**) and Oti regions are forecasted to experience rainfall values of about 400- 700mm during the JAS season. Ahafo, Bono, Ashanti and parts Eastern regions are anticipated to record rainfall amount between 300-450mm.

3.3 Dry Spells

a. 1st (Early) Dry Spell

Long to Normal dry spell days are forecasted in the Upper West, North East, and Upper East regions. Areas such as Wa, Garu, Navrongo, and Vea are expected to record dry spells ranging from 12-14 days.

Normal to Long dry spell days are expected in the Northern and Transition zone with Kintampo, Salaga, Tamale, and Damongo, which are likely to record dry spells between 12-13 days.

b. 2nd (Late) Dry Spell

The forecast of this season for the Upper East, Upper West, and Transition Zone, dry spells are expected to be Long to Normal dry spell days lasting between 10 and 18 days. The longest spell durations are likely to occur around **Babile, Prang, Saltpond, Wenchi**, and their surrounding areas.

In contrast, **Tamale, Bimbila**, and their respective surroundings are expected to experience shorter dry spells than their long-term climatological averages, whereas the Northern region is likely to experience Normal spells ranging from 11 to 14 days.

3.4 Cessation

The 2026 cessation for the northern sector is expected to be **late to normal** in areas in the Upper East, such as **Bolga** and **Garu**, **early to normal** in the Upper West, the North, and the Transition zones, in places like **Wa, Tamale,** and **Kintampo**. Early cessation is anticipated in **Navrongo** and **Bui**, whereas late cessation is expected in **Damongo**.

3.5 Length of Season

In general, Northern Ghana is likely to expect a normal length of the rainfall season, except for the Upper East, which is likely to experience a long season. Navrongo (153 days) in the Upper East is expecting a short season, whereas **Zuarungu** (170 days) is likely to experience a normal length of season as compared to its long-term mean.

In the Upper West Zone, **Babile** (192 days) is likely to experience a long season while **Damongo** (176 days), **Yendi** (168 days), and **Tamale** (170 days) in the North Zone are expected to experience a short season.

However, some areas along the transition zones, such as **Atebubu** (124 days), **Wenchi** (131 days), and **Bui** (149 days) are likely to experience a short seasonal length. **Kintampo** (197 days) and **Prang** (204 days) are likely to expect a long season.

4.0 POTENTIAL IMPACTS AND RECOMMENDATIONS (ADVISORIES)

While the 2026 forecasts suggest generally late to normal onset, long to normal spells and long to normal cessation, impacts are still possible:

- Long Dry Spells, Above Normal rainfall and a Short season in areas such as **Navrongo, Bolgatanga, Damongo, Yendi, Bimbila, Babile** and their environs may lead to waterlogged soil, erosive runoff, flooding, and rapid filling of lowlands, potentially disrupting transportation, economic activity, and access to healthcare.

Risks include**:**

  - Floods
  - Crop and pasture damage
  - Loss of livestock and human life
  - Infrastructure destruction (roads, power lines, markets, schools, health centers, religious sites, cemeteries)
  - Spread of waterborne and diarrheal diseases
  - Pest outbreaks
  - Landslides and river siltation
  - Post-harvest losses

- Long Dry Spells and Below Normal rainfall in areas like **Atebubu, Kete Krachi** and their surroundings may lead to:

  - Poor rainfall distribution
  - Disrupted crop calendars
  - Poor pasture growth
  - Delayed transhumance (the practice of moving livestock from one grazing ground to another in a seasonal cycle)
  - Prolonged hunger gaps
  - Migration and abandonment of farms
  - Heatwaves and dust storms
  - Crop failures, yield loss, food inflation and food crises

- Normal Length of Season, Short Dry Spells Below Normal rainfall in **Bui** and its surroundings may lead to:
    - Crop failure
    - Food insecurity
    - Livelihood disruption
    - Water scarcity
    - Pasture depletion for livestock

- These risks, when combined with civil insecurity, poverty, and household vulnerability, could intensify social tensions, land conflicts, pastoralist-farmer clashes, disputes over infrastructure, and contribute to social unrest, banditry, terrorism, etc.

Recommendations

Flood Risk

- Establish and operationalize integrated monitoring and early warning systems for flood risk.
- Improve disaster, hydrological and meteorological collaboration.
- Sensitize the populace in the exposed areas about the impending danger.
- The Municipal and Metropolitan authorities and the National disaster Agency are advised to put in place the necessary measures to ensure communities and livelihoods are safeguarded.
- Authorities should provide emergency/temporal sites for the victims and assist the homeless and vulnerable groups in society during this period.
- Ensure the Control/maintenance of dams and road infrastructure.
- Promote flood-tolerant crops (An all-year- round activity)
- Maintain flood protection infrastructure
- Clean drainage systems
- Control livestock movement

Disease and Pest Risk

- Strengthening disease alert systems (cholera, malaria, dengue, etc.)
- Improve national health systems
- Sanitize communities and drain contaminated water
- Vaccinate people and animals
- Monitor and prevent pest outbreaks (especially locusts already reported in the Maghreb)

Long Dry Spell Risk

- Set up education and sensitization of the people on the likelihood of bushfires.
- Support water harvesting whenever it rains and ensure prudent use of available water
- Promote small-scale irrigation and gardening
- Use drought-tolerant crop varieties
- Adopt climate-smart farming practices
- Engage with national meteorological, hydrological and agricultural experts for information and advice to provide relief to affected areas.

General Recommendations

Transport and Public Safety

- Drivers are advised to refrain from driving through floodwater. Road users should be mindful when plying roads in flood-prone areas as flash floods are likely to occur, especially in Cosmopolitan areas and city centers.
- Light aircraft are advised to take the utmost care and avoid flying through deep convective clouds that are associated with severe turbulence and lightning, especially in the afternoon hours.
- Motorists should be mindful of fallen trees and objects on roads during or after a storm.

National/Local Authorities

Local authorities in areas where heavy rainfall is expected are advised to.

- Provide emergency/temporal sites for the victims.
- Ensure the control/maintenance of dams and road infrastructure
- Work hand in hand with the communities through the local authorities (assembly members) to sensitize the populace on sustained community clean-up exercises and activities.
- Ensure enough food storage.
- Build the capacity of national health systems and national platforms for disaster risk management
- Collaborate with the Ghana Meteorological Agency, National Disaster Management Organization (NADMO) and Health Services to disseminate warnings and create awareness on climate-related diseases.
- Strengthening the dissemination and communication of hydro-climatic information (including seasonal forecasts) and raising community awareness through radio, television, mobile phones, and information platforms for disaster risk reduction management.
- Monitor the quality treatment of water and sanitation in towns and villages
- Improve agro-hydro-meteorological advisory services

General Public

- Take advantage of average to above average runoff situations to develop fish farming and optimize fishing yields in river basins.
- Continuously desilt drains, especially in front of our homes and shops, before and during the season.
- Monitor water quality and report any suspicions to the environmental offices of the assemblies or to the standard authority.
- People should move to higher ground in case they stay in flood-prone areas.

Health Sector – Facing the risk of diseases

In places where the rainy season is wetter, there are high levels of risk of Cholera, malaria, dengue fever, bilharzia, and diarrhea. To mitigate the development of germs and reduce the risk of water and airborne diseases, it is strongly recommended that:

- Public Education should be intensified through national platforms on disaster risk reduction such as the radio, tv, information vans, churches, mosques etc
- Dissemination of bulletins on climate-sensitive diseases.
- Prevent diseases by vaccinating people and animals.
- Set up stocks of mosquito-proofed nets, anti-malaria drugs
- Provision of mosquito nets, antimalarial drugs in affected areas.

Agriculture, Food Security and Livestock

- Invest in improved seed varieties and the development of yield enhancement techniques for both food crops and cash crops.
- Provide fertilizers (organic and mineral fertilizers).
- Increase vigilance against crop pests (e.g., armyworm and other pests).
- Monitor and follow the updates of these seasonal forecasts and the short- and medium-term forecasts produced and disseminated by the national meteorological and hydrological services.
- Focus on drought-tolerant crops and early maturing varieties for areas likely to experience water deficits.
- Strengthen monitoring of food and nutrition security in at-risk areas.
- Implement early warning systems to mitigate the impact of the long dry spells anticipated

NB: This outlook should be used with the Daily, Weekly, Sub seasonal, Monthly and regular updates issued by the Agency.

For further inquiries, clarification, information, or assistance Contact:

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