GHANA METEOROLOGICAL AGENCY

Seasonal Climate Outlook

Official Bulletin | Northern Ghana

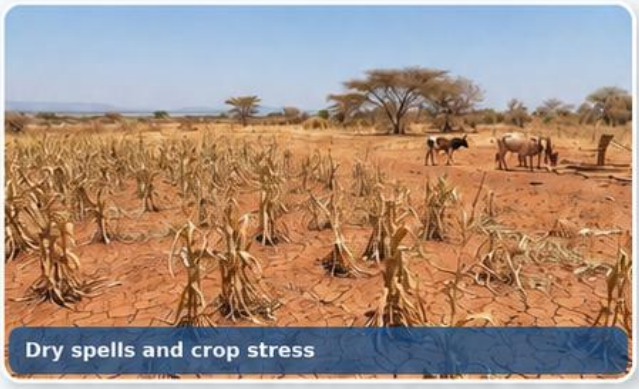
SEASONAL RAINFALL FORECAST

Update on Major Rainfall Season Northern Ghana

August–September–October (ASO) 2026 Update

Issued: August 2026

Climate risks and sectoral impacts covered in this outlook



Dry spells and crop stress

Flood risk and urban drainage

Public safety

Agriculture and water

Climate and health

Prepared by the Ghana Meteorological Agency (GMet)

For decision support in agriculture, water resources, health, disaster risk reduction and public safety

SEASONAL RAINFALL FORECAST

Update on Major Rainfall Season — Northern Ghana

August–September–October (ASO) 2026 Update

Issued by: Ghana Meteorological Agency (GMet) | August 2026

1. Overview

This bulletin provides an updated seasonal forecast for the Major Rainfall Season (August–October) over northern Ghana, with specific focus on the expected rainfall total amount and cessation of the major season. The forecast is based on observed large-scale climate drivers, regional sea surface temperature anomalies, and guidance from global seasonal prediction centres.

2. Key Large-Scale Climate Drivers

The following major climate drivers are currently being monitored and are expected to influence the 2026 rainfall season over Northern Ghana:

2.1 El Niño Development

A strong El Niño is developing rapidly and is expected to intensify throughout the August–October 2026 period. The strong agreement among seasonal prediction models provides a high level of confidence in this outlook. Historically, El Niño conditions tend to suppress rainfall over the Gulf of Guinea region during the latter part of the rainy season, particularly from August onward.

2.2 Tropical Atlantic Sea Surface Temperatures (SSTs)

The North Tropical Atlantic and South Tropical Atlantic remain warmer than normal, helping to sustain moisture availability over West Africa despite the developing Pacific El Niño. These warm Atlantic conditions are expected to partially offset El Niño's rainfall-suppressing influence, particularly during the early part of the season.

2.3 West African Monsoon

The monsoon is expected to remain active through August before gradually weakening during September and October as the ITCZ retreats southward. Regional outlooks indicate that local rainfall variability will remain high, with heavy rainfall episodes still possible.

3. Forecast: Cumulative Rainfall for August to October

3.1 Rainfall Outlook for Northern Ghana: August–October 2026

For the August–September–October (ASO) 2026 season, Northern Ghana is expected to experience predominantly near-normal to above-normal rainfall, with the highest likelihood of above-normal conditions over the Upper East and parts of the North-East Regions. August is expected to remain the wettest month, while rainfall is forecast to gradually decrease during September as the Inter-Tropical Convergence Zone begins its southward retreat. Seasonal cessation is expected during late September to

October across most northern districts. Although a strong El Niño is forecast to intensify during ASO 2026, the influence of the active West African Monsoon and warmer-than-normal tropical Atlantic sea surface temperatures is expected to sustain favourable rainfall over much of Northern Ghana.

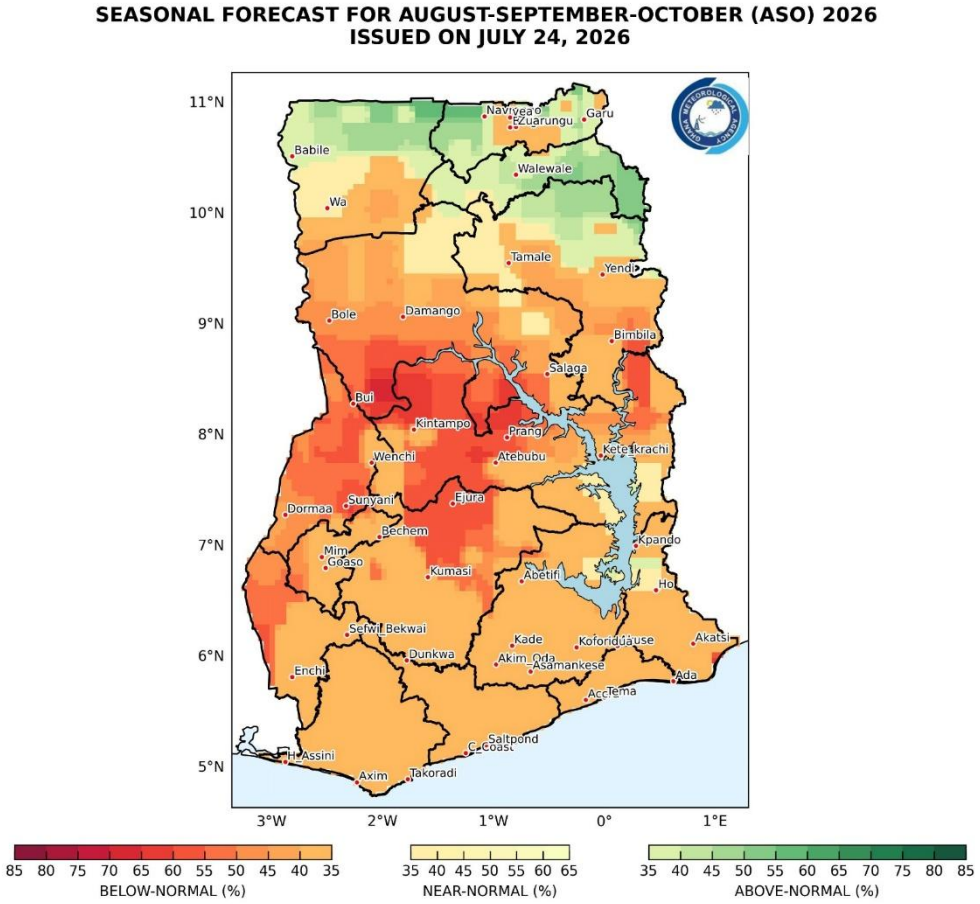


Figure 1: ASO 2026 Seasonal Rainfall Forecast Probabilities for Ghana

3.2 Temperature Outlook for Northern Ghana: August–October 2026

August 2026:

Frequent rainfall events and increased cloud cover are expected to moderate daytime temperatures across Northern Ghana. Maximum temperatures are expected to range from **28–31°C** over the Upper East and North East Regions (Bolgatanga, Navrongo, Bawku and Walewale), **27–30°C** across the Northern Region (Tamale, Savelugu, Yendi and Gushegu), and **28–32°C** over the Upper West and Savannah Regions (Wa, Lawra, Tumu, Damongo and Bole). Minimum temperatures are expected to range from **20–23°C** across most parts of Northern Ghana.

September 2026:

Although rainfall activity is expected to gradually decrease during the month, sufficient cloudiness and moisture are likely to keep temperatures close to their seasonal averages. Maximum temperatures are expected to range from **29–32°C** over the Upper East and North East Regions, **28–31°C** across the Northern Region, and **29–33°C** over the Upper West and Savannah Regions. Minimum temperatures are expected to range between **20–24°C** across the northern sector.

October 2026:

As the Inter-Tropical Convergence Zone (ITCZ) retreats southward and rainfall ceases across most of Northern Ghana, increased sunshine and reduced cloud cover are expected to result in warmer daytime conditions. Maximum temperatures are likely to range from **31–35°C** over the Upper East and North East Regions, **30–34°C** across the Northern Region, and **31–35°C** over the Upper West and Savannah Regions. Minimum temperatures are expected to remain between **21–25°C**, with relatively cooler nights possible in some localities toward the end of the month.

Overall:

Temperatures are expected to remain **near to slightly above climatological averages** throughout the ASO season. Daytime temperatures are likely to be moderated by enhanced cloud cover and rainfall during August, followed by a gradual warming trend during September and a more pronounced increase in October as the rainy season ends.

4. Forecast: Cessation of the Major Rainfall Season

Under climatological conditions, the major rainfall season ends between early October and early November depending on the agroclimatic zone. The 2026 forecast by zone is provided in the table below:

Ecological Zone	Key Districts	Normal Cessation	2026 Forecast (±5–7 days)	Confidence
Upper East Region/ North East	Bawku, Garu, Tempane, Binduri, Zebilla, Navrongo, Bolgatanga, Nalerigu, Gambaga, Walewale	2nd–3rd week of October	3rd–4th week of October **(Near Normal to late)**	**Moderate**
Northern Region (Eastern Sector) (Central Sector)	Yendi, Gushegu, Saboba, Tatale Tamale, Savelugu, Tolon, Kumbungu, Mion	2nd–3rd week of October 1st–2nd week of October	1st–3rd week of October **(Near Normal)**	High
Savannah	Damongo, Bole, Sawla, Daboya	4th week of September–1st week of November	4th week of September–3rd week of October **(Early to normal)**	**Moderate**
Upper West Region	Wa, Lawra, Nandom, Tumu, Jirapa, Lambussie	Last Week of September–2nd week of October	Last Week of September–3rd week of October **(Near normal)**	Moderate

Key findings from the forecast:

- The major season is likely to remain active through most of August and into late September across all northern zones.
- Rainfall frequency is expected to begin decreasing from approximately the second week of September.
- Effective cessation of the major season is likely between late September and the end of October 2026 for most districts.
- In October, rainfall becomes isolated with seasonal cessation occurring across most northern areas.

5. Intra-Seasonal Dry Spell Outlook

Intra-seasonal dry spells represent the greatest agricultural risk for the 2026 season. The following dry spell outlook covers the period from now through the end of the season:

Period	Expected Dry Spell Duration	Most Affected Zones	Risk Level
August 2026	<7 days	Upper East, North East, Upper West, Northern and Savanna Regions	**Low–Moderate**
September 2026	5–10 days	Upper East, North East, Upper West, Northern and Savanna Regions	**Moderate**
October	>12 days	Southeastern coastal sector (highest risk)	**Moderate–High**

Note: Generally, the dry spell conditions over this period will be largely short, with Long terminal dry spells becoming established after cessation.

6. Confidence-Based Overall Outlook

The table below provides a summary of the overall seasonal outlook based on current confidence levels:

Parameter	Assessment	Confidence
Major Season Cessation	Near normal to slightly early (mid–late Oct. 2026)	Moderate–High
Dry Spell Frequency	Shorter to Normal (Aug–Oct)	High
Flood Risk	Present; intense events possible from now to end of September	Moderate
Seasonal Rainfall Totals	Near normal to above Normal	Moderate

7. Advisories

The following sector-specific advisories are issued based on the 2026 seasonal forecast for northern Ghana.

7.1 Agriculture Advisory

- **Crop Production:** Take advantage of the favourable rainfall in August and September to complete crop management activities. Prepare for harvesting and post-harvest operations as rainfall ceases from late September through October.
- **Livestock:** Ensure adequate drainage around kraals to minimize livestock diseases during wet periods. Maintain sufficient drinking water and prepare for increasing heat stress in October.
- **Agricultural Extension:** Intensify farmer advisory services on crop protection, pest surveillance, fertilizer management, and timely harvesting based on the expected cessation dates.
- **Follow GMet for updates and consult the experts for additional guidance.**

7.2 Water Resources Advisory

- Anticipate adequate recharge of reservoirs, dugouts and streams. Optimize water storage and management in preparation for the upcoming dry season.
- Water managers at dams and irrigation schemes should plan for reduced inflows from mid-September.
- Communities in rain-fed farming areas should prioritize water harvesting and storage in August.

7.3 Water, Sanitation, and Hygiene Advisory

- Protect water sources from contamination during heavy rainfall and encourage safe water handling and improved sanitation practices.

7.4 Humanitarian and Disaster Risk Advisory

- Strengthen flood preparedness and community awareness, particularly in flood-prone communities along the White and Black Volta basins during August and early September.
- Flash flood early warning systems should remain active through August and September.
- Communities near riverbanks and low-lying areas should remain vigilant.
- District offices should disseminate this forecast to vulnerable farming communities in the northern parts of Ghana.

7.5 Health Advisory

- Enhance surveillance and control of malaria and other water- and vector-borne diseases during the peak rainfall period. Promote good sanitation to reduce disease outbreaks.

8. Data Sources and References

- Ghana Meteorological Agency (GMet) — Historical Climatological Data and Station Records
- AGRHYMET WAS2SS Objective Products
- Copernicus Climate Change Service (C3S) — Seasonal Forecast Products
- International Research Institute for Climate and Society (IRI) — ENSO and Seasonal Outlooks
- North American Multi-Model Ensemble (NMME) — Seasonal Precipitation Forecasts
- African Centre of Meteorological Applications for Development (ACMAD) — Regional West Africa Outlooks
- NOAA Climate Prediction Center (CPC) — ENSO Status and Forecasts
- Gulf of Guinea Large Marine Ecosystem (GOGLME) — SST Monitoring Products

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