





# SOMALIA CLIMATE OUTLOOK FOR THE 2025 DEYR (OCT-NOV-DEC) "SHORT RAINS" SEASON

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# 1. Context and Methodology

After the GHACOF-71, the 2nd National Climate Outlook Forum (NCOF) for the October–December (Deyr) 2025 season was convened in Mogadishu, Somalia, from 2nd to 3rd September 2025 under the theme "Climate Science and Forecasting for a Resilient Somalia."

Organized by the Federal Government of Somalia through the Ministry of Environment and Climate Change (MoECC) in collaboration with the World Meteorological Organization (WMO), IGAD Climate Prediction and Applications Centre (ICPAC), FAO Somalia, and the Somalia Disaster Management Agency (SoDMA), the forum provided a vital platform for dialogue, technical exchange, and collaborative planning.

The two-day event focused on reviewing climate performance in previous seasons, releasing the official Deyr 2025 outlook, and providing sectoral advisories to strengthen preparedness. It brought together senior government officials, parliamentarians, federal member state representatives, scientists, humanitarian actors, civil society, academia, Somali media, farmers, pastoralist representatives, and international partners. The technical sessions included:

 Review of Gu and Hagaa 2025 Seasons: Impacts included crop failures, livestock deaths, water scarcity, and disease outbreaks.

- Climate Drivers for OND 2025: Experts pointed to El Niño/ La Niña and Indian Ocean conditions, signaling likely drierthan-average conditions.
- Downscaled Forecast: Presented by Abdisamed Mohamed, focusing on localized and usable predictions.
- Sector Co-production: Discussed tailoring climate services to farmers, pastoralists, health workers, and disaster managers

### 2. Evolution of Climate Drivers

Somalia's Deyr (October - December) "short rains" season is associated with the somewhat-faster southward movement of the Inter-Tropical Convergence Zone (ITCZ) which dictates much of the country's climate.

Given the recent evolution of colder than average Sea- Surface Temperatures (SSTs) over the central and eastern equatorial Pacific Ocean, the September 11, 2025 outlook from Climate Prediction Center (CPC) anticipates that a transition from ENSO-neutral to La Niña is likely in the next couple of months, with a 71% chance of La Niña during the Deyr (October – December) 2025. Thereafter, La Niña is favored but chances decrease to 54% in the Jilal season (December 2025 - February 2026). On the other hand, International Research Institute (IRI) September 19, 2025, forecast indicates a moderate probability (56%) of









La Niña conditions developing during the first half of Deyr (September-November) 2025 persisting through the Jilal season (December-February). However, beginning in January-March, ENSO-neutral conditions are forecasted to return, with probabilities ranging from 55% to 74%, while the likelihood of La Niña gradually decreases. The chances of El Niño development remain very low—below 10%—through March-May 2026.

According to Bureau of Meteorology (BOM), a negative phase of the Indian Ocean Dipole (IOD) is underway with the sea surface temperatures (SSTs) being cooler in the western Indian Ocean than in its far eastern parts. It is anticipated that this negative IOD event will continue throughout Deyr, with a return to neutral in early Jilal (December - February 2026).

La Niña phenomena coupled with a negative IOD can contribute to below-average Deyr rainfall for most parts of the Greater Horn of Africa including Somalia.

## 3. Deyr 2025 Rainfall Outlook

## 3.1 Onset Analysis Findings

According to ICPAC, the Deyr (October-November-December) forecast, with 2021 as the closest analogue year, shows drierthan-normal and warmer-than-average conditions across

The spatial distribution of probabilistic rainfall forecast (Map 1) is as follows:

- There is increased likelihood (about 55 % chance) of drier conditions in southern and central Somalia and coastal parts of Somaliland (orange Zone I in Map 1)
- There is moderate likelihood (about 45 % chance) of drier conditions in Somaliland and central parts of Puntland (yellow Zone II in Map 1)
- There is moderate likelihood (about 45 % chance) of wetter-than-normal conditions over very isolated parts of Puntland (Nugaal, Sool-Sanaag) (green Zone in Map 1). However, with equal chances, there is no clear rainfall probability signal indicated in neighbouring areas of Sanaag, Bari and Nugaal (white Zone III in Map 1)

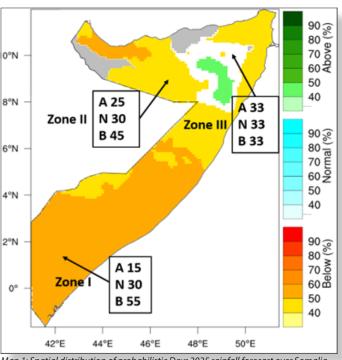
## 3.2 Deyr Rainfall Onset Forecast

According to the deterministic onset forecast, Deyr 2025 rains are likely to begin in western parts of Somaliland spreading both eastwards and southwards. The present Karan rains are anticipated to spill over to Deyr rains in the last dekad of September and first week of October in parts of Somaliland. The Deyr rains are likely to begin in the first dekad of October in Togdheer, Sool and Nugaal regions; second dekad in Southwest, Hirshabelle, and Galmudug states; the third dekad in Gedo and Middel Juba regions, early November in Lower Juba region

Based on probability onset forecast (map 2), there is high likelihood (>80 % chance) that the Deyr rains will be delayed in southern Somalia (Jubaland, Southwest and Hirshabelle states)

Analysis of standard deviation shows that the onset of Deyr rains is highly variable in the northmost parts of the country

During the past week (26 September - 1 October 2025), the Madden-Julian Oscillation (MJO) has been weak to moderate in amplitude fluctuating between phases 2-3 (Indian Ocean), with most ensemble members clustered near or just inside the unit circle. This indicates no strong rainfall enhancement during the early part of the Deyr 2025 season. Its positioning over the Indian Ocean phases (2-3), though marginal, may occasionally interact with La Niña and negative IOD background conditions to trigger localized convective bursts, raising the risk of flash floods in southern Somalia even under a predominantly belownormal seasonal outlook. Overall, the MJO is expected to play a secondary role compared to La Niña and negative IOD drivers for the Deyr 2025 season.

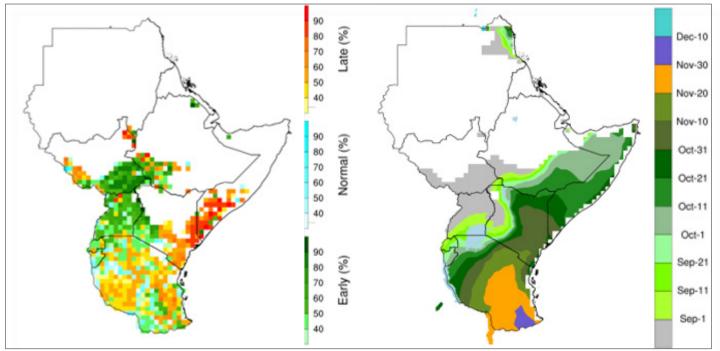


Map 1: Spatial distribution of probabilistic Deyr 2025 rainfall forecast over Somalia

(more than 20 days) and least variable in Gedo, Bay, Hiraan, and Togdheer regions (less than 10 days).

The dry spell structure is such that longer dry spells (≈8-10 days) are expected in the north.

The monthly spread of the Deyr rains is such that the Karan rains observed in Somaliland in September will shift eastwards to parts of Puntland in form of isolated wet conditions in October. Below normal conditions are expected in the November particularly in the southern and central Somalia. While December is climatologically dry, wet conditions will likely be confined to the northeastern tip in Caluula district in Bari region.



Map 2: Deterministic [left] and probabilistic [right] Deyr 2025 rainfall onset forecast

# 4. Rainy Days and Intensity Analysis

Warmer-than-average temperatures are expected across Somalia with the following spatial distribution:

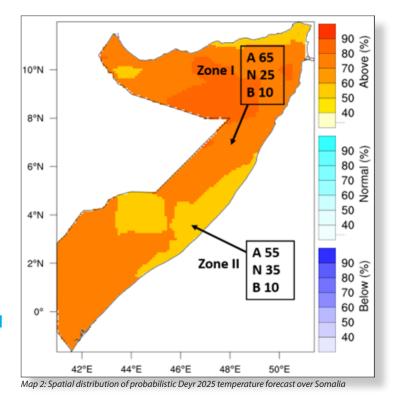
- Moderate chances (about 55 %) in Hirshabelle region, Gebiley district in Woqooyi Galbeed region, central coastal areas of Middle Shabelle, Banadir and Galgaduud regions, coastal parts of Caluula, Bosasso and Qandala districts in Bari region, and coastal parts of Laasqoray and Ceerigaabo districts in Sanaag region (yellow Zone II in Map 3).
- High likelihood (about 65 %) over Jubaland and Southwest states, Mudug and Nugaal regions, inland parts of both Galgaduud and Bari regions, Awdal and the rest of Woqooyi Galbeed region (dark orange Zone I in Map 3)
- Very high chances (about 75 %) in Sool region, Buhoodle and Burco districts in togdheer region and Ceel Afweyne district in Sanaag region (red zone in Map 3).

# 5. Experienced Impacts and Anticipated Hazards & Geographic Hot spots

A synthesis of the community feedback based on Radio Ergo weekly reports in August and September identified the following cross-cutting themes:

- Persistent requests for weather/river forecasts to guide planting and safety decisions
- Livestock diseases widespread across central/northern belts; strong demand for veterinary outreach
- Recurrent Jowhar/Middle Shabelle river flooding alongside northern/central drought—dual-track response needed

These experienced impacts imply that different regions and livelihood zones will be impacted differently by the Deyr climate forecast (Table 1):



- Drought recurrence in the south and persistence and intensification in the north: Dry conditions occasioned by below-normal rainfall and above normal temperature will further worsen in already drought-affected northern regions, while recovery in the south—gained from the Gu and Hagaa 2025 rains—may stall with poor Deyr performance. Northeast pockets: Equal chances/no clear signal, --> keep close watch, but heat risk still high
- Structural river embankment vulnerabilities and riverine flood risk: FAO-SWALIM field assessments identified 105 open breakage points, 31 overflow points, and 2 temporary closures with sandbags along the Juba River; and 126 open

breakages, 188 overflow points, and 7 sandbag closures along the Shabelle River. Despite projections of belownormal rains and a low probability of exceeding 250 mm in the Juba and Shabelle catchments (both within Somalia and upstream in Ethiopia), localized intense downpours could still trigger flooding. The unattended to weak river points heighten the risk of flooding even under below normal rainfall

- Flash-flood episodes remain possible from short-lived but intense convective storms, particularly in urban centres such as Mogadishu, Kismayo, and Belet Weyne
- Agropastoral systems will be under strain: delayed and erratic onset, shortened growing periods, and higher evapotranspiration are likely to undermine crop performance and food availability
- Heat-related risks will elevate water demand, accelerate pasture degradation, increase evapotranspiration losses, and intensify health stresses

## 6. Planning Assumptions and Implications for Livelihoods and Programming

Forecast context: The 2025 Deyr season is expected to bring below-normal rainfall and above-normal temperatures across most of Somalia. Planning should therefore be based on widespread drought stress, particularly in the north, while remaining alert to localized flood risks in riverine and urban areas

#### **Cross-cutting assumption**

- Northern Somalia: Scale up drought response and anticipatory action to address worsening conditions
- Southern Somalia: Safeguard and build upon the positive gains achieved during the Gu and Hagaa 2025 seasons through timely support

#### **Sectoral Implications & Advisories**

## Agriculture & Food Security

- Promote drought-tolerant and short-cycle seed varieties suitable for a shortened season
- Encourage staggered planting and pre-positioning of inputs to adapt to uncertain onset
- Strengthen Fall Armyworm (FAW) surveillance and deploy rapid response kits
- Promote efficient irrigation, farm-level water harvesting, and wider use of SMS/radio-based extension services

#### Livestock

- Map and rehabilitate priority water points and expand solar-powered pumping
- Establish and maintain fodder reserves and hay storage facilities
- Deploy mobile veterinary teams for vaccination, deworming, and emergency outreach
- Support destocking/offtake programmes and ensure safe migration route planning
- Facilitate market access and leverage ongoing programmes (DRIVE, BARWAAQO, PREFONES, RLRP, RAFFS) for hotspot response

#### Water

Launch water conservation campaigns and expand rainwater harvesting

- Prioritize borehole repair and chlorination, alongside water-quality monitoring
- Promote equitable water-sharing arrangements to reduce resource-based conflicts

#### Health

- Pre-position ORS, zinc, and essential medicines ahead of peak demand
- Expand mobile health and nutrition outreach to vulnerable populations
- Intensify WASH campaigns on safe storage, chlorination, and hygiene
- Disseminate heat-risk advisories on hydration, shade, and safe work-rest cycles
- Scale up disease surveillance for malaria, cholera, and dengue

#### Disaster Risk Management (DRM)

- Strengthen early warning systems with clear, actionable release triggers
- Maintain weekly bulletins and public safety campaigns on water, heat, and flood risks
- Update contingency plans, pre-position response kits, and integrate conflict-sensitive resource-sharing in migration planning

# 7. Uncertainty & Confidence

- Forecast confidence: Deyr rainfall outcomes have a stronger and more reliable statistical link to global climate drivers (La Niña, Indian Ocean Dipole) compared to the Gu season. Multi-model forecasts converge strongly on drier and hotter-than-normal conditions across much of Somalia
- Regional variation: Forecast confidence is lower in the northeast, where the probability of above-, near-, or below-normal rainfall is roughly equal
- Analogue year: 2021 offers the closest historical analogue, but outcomes may still diverge depending on intraseasonal drivers such as the Madden–Julian Oscillation (MJO) and Indian Ocean Dipole (IOD) behaviour

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Swiss Agency for Development and Cooperation SDC







Table 1: Experienced impacts and anticipated hazards and hot spots in the different regions and livelihood zones over Somalia

Region / Livelihoods	Experienced Impacts (Jul-Sep 2025)	Anticipated Hazards (Deyr 2025)	Hotspots	Priority Actions
Somaliland (Awdal, WG, Togdheer, Sool, Sanaag) — Pastoral & Agropastoral	Severe drought, water shortages; weak livestock and deaths; spotty rains insufficient; heat and dusty winds	Below-normal rains, delayed onset, drought persistence, heat stress; flash floods possible in urban/steep areas	Sool & Sanaag (Haylan, Badhan, Dhahar, Erigabo, Hudun), Togdheer (Burao, Beer), Awdal highlands	Water-trucking, borehole/solar repair, livestock health outreach, fodder/destocking, cash for water, heat-risk messaging
Puntland & Khatumo (Bari, Nugaal, Karkar, coastal) — Pastoral & Fishing	Severe drought, broken pumps, salty water; spotty rains; fishing disrupted by winds/tides; livestock disease (CCPP, parasites)	Equal-chance rainfall, hotter- than-normal; drought persistence inland; flash floods possible in wadis	Hafun, Qardho, Alula, Shimbirale, Karkar belt, coastal fishing villages	Mobile water, pump/solar repairs, fodder reserves, vet outreach, fisher safety nets, cash/market support
Central Somalia (Galgadud, Mudug) — Pastoral & Agropastoral	Severe drought, water scarcity, broken pumps; livestock disease; sporadic rains insufficient; requests for forecasts	Below-normal rains, late/variable onset, long dry spells, heat stress; risk of distress migration	Adado, Abudwak, Guriel, Dusamareb, Balanbale, Godinlabe, Elbur	Water-point rehab, cash/AA, vet campaigns, fodder, weather advisories, market links
Hirshabelle (Hiran, Middle Shabelle) — Riverine & Agropastoral	Mixed: river floods in Jowhar/Shidle-Bari, Marsheikh; elsewhere drought/heat; crop damage; disease outbreaks	Below-normal totals, but localized floods possible from weak banks; drought persistence off floodplains; heat stress	Jowhar corridor (Shidle-Bari, Marsheikh), Mataban/Beledweyne rural	Bank reinforcement, drainage clearance, flood alerts, WASH/health preparedness, cash/seed support
Southwest (Bay, Bakool, Lower Shabelle) — Agropastoral & Riverine	Good harvests in Bay and parts of Gedo; Lower Shabelle mixed (crop failures, pump issues, floods); heat stress	Below-normal rain may stall recovery; flash/river floods possible; heat stress likely	Wanlaweyn, Elasha-Biyaha, Balad, Lower Shabelle riverine pockets	Short-cycle seeds, irrigation efficiency, pump repair, WASH messaging, market support
Jubaland (Gedo, Middle & Lower Juba) — Riverine & Agropastoral	Good harvests in Gedo earlier; later drought and floods in Bardera; strong winds; livestock disease; infrastructure concerns	Below-normal rainfall but possible flash floods; heat and pasture/water deficits outside riverine	Bardera (floods, bridge damage), Dollow, Kismayo rural	Riverbank protection, bridge repair advocacy, WASH, vet/fodder support, wind safety messaging
Banadir (Mogadishu) — Urban/Peri-urban	IDP hardships (food, jobs, shelter); evictions; WASH issues; chikungunya cases; drainage problems	Urban flash floods from short storms; heat stress; disease risk	Hodan, Heliwa, Garasbaley, IDP settlements	Drainage clearance, waste management, vector control, WASH messaging, targeted cash support

This bulletin is co-produced by the Federal Government's Ministry of Environment and Climate Change (MoECC), Somali Disaster Management Agency (SoDMA), Ministry of Energy and Water Resources (MoEWR), Ministry of Agriculture and Irrigation (MoAI), Ministry of Livestock Forestry and Range (MoLFR), The Food and Agriculture Organization of the United Nations (FAO), World Meteorological Organization (WMO), and IGAD Climate Prediction and Applications Centre (ICPAC).

Users are advised that this is a seasonal outlook for the entire country, and there may be discrepancies between estimates and actual amounts of rainfall received. Local, month-to-month and week-by-week variations might occur as the Deyr season progresses. FAO-SWALIM and ICPAC in collaboration with the relevant Somalia Government ministries and other partners will provide detailed state-level monthly and weekly updates regularly, and daily and near-real-time advisories when need arises. This will be complemented by the continuous collection of weekly water-source data and monthly Combined Drought Index (CDI) maps—critical for monitoring drought evolution. Weather forecast and observed river levels are updated daily and can be found on this link: http://frrims.faoswalim.org