ICPAC

Dual climate risks Emerging

Extremely Dry Conditions Expected Across Northern Greater Horn of Africa During July–September, Followed by Intensely Wet October–December Rains over Equatorial and Southern parts of the Region

1. Introduction

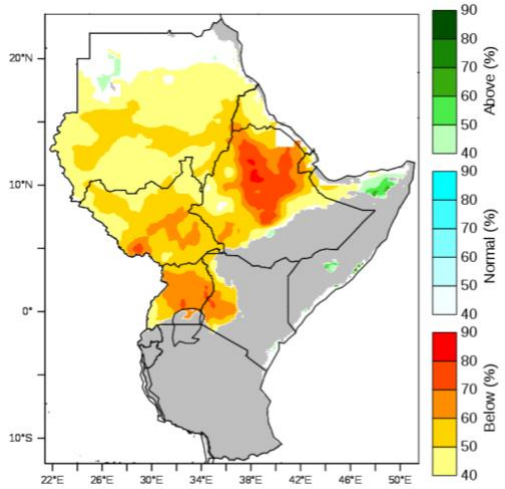
The Greater Horn of Africa is facing a highly contrasting climate outlook for the remainder of 2026 defined by extreme drier conditions followed by wetter episodes with large scale potential flooding. This pattern is expected to generate compound impacts across key sectors, including agriculture, livestock production, water availability, public health, energy, DRM and livelihoods, among others. Long-range climate forecasts indicate a pronounced dual-phase pattern across the region: a strong and expanding dry signal dominating the northern and equatorial sectors from July to September (JAS), followed by a transition to wetter-than-normal conditions during the October–December (OND) rainy season across the equatorial and southern zones. These conditions are currently being influenced by the El Niño–Southern Oscillation, which is projected to peak around November. The Indian Ocean Dipole that is expected to influence the OND season is currently in neutral with indications that it might be positive.

2. Forecast outlook

2.1 July to September (JAS): Intensifying Dry Signal

Latest seasonal climate forecasts shown in Fig. 1 indicate an intensifying dry signal dominating the northern and equatorial sectors of the region. Communities, agricultural sectors, and water resource managers are urged to prepare for significant moisture deficits as the probability of below-normal rainfall is high. The situation is likely to worsen due to warmer than usual conditions forecast over the region.

JAS 2026 Rainfall



JAS 2026 Temperature

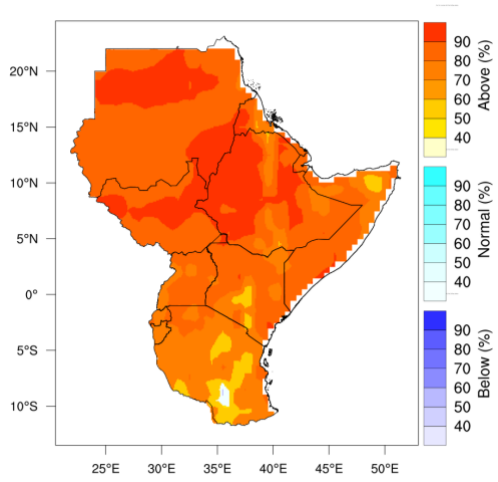


Figure 1: JAS 2026 rainfall (left) and temperature (right) probabilistic forecasts. Forecasts were initialised with the June initial conditions.

- **Widespread Depressed rainfall Areas:** Most of South Sudan, Uganda, Ethiopia, Sudan and western parts of Kenya.
- **Very Strong Dry Signal Hotspots:** The situation is most acute in central to northern Ethiopia, where probabilities for suppressed rainfall spike into the *70% to 90% range* (indicated by the deep red shading), signaling a near-certainty of severe dry conditions.
- **Widespread Regional Impact:** In comparison with the released JJAS 2026 forecast during the 73rd Greater Horn of Africa Climate Outlook Forum, the dry signal broadens significantly (ranging from *40% to 60%* probability) to blanket almost the entirety of Sudan, parts of northern South Sudan, Djibouti, and western Eritrea.

2.2 October to December (OND)

Using long-range forecasts (June 2026 update) from the North American Multi-Model Ensemble, the long lead forecast for the OND 2026 season (Figure 2) indicates the following:

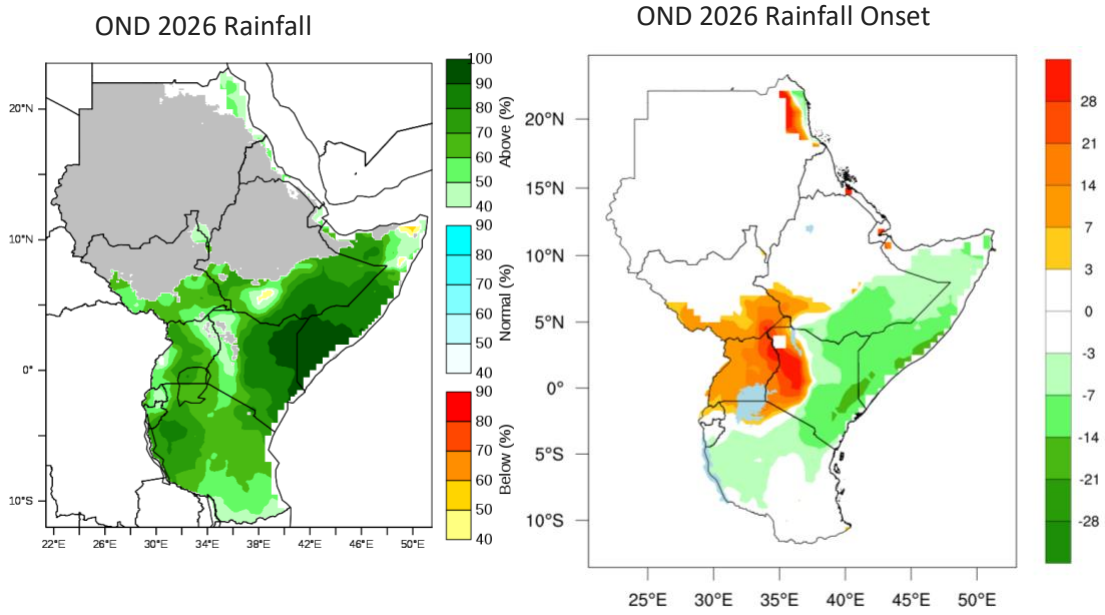


Figure 2: OND 2026 rainfall (left) probabilistic forecasts and expected onset anomaly (right). Forecasts were initialized with the June initial conditions providing long lead times.

- **Widespread Above Normal Zones:** Kenya, Uganda, Rwanda, Burundi, central to southern Somalia, western Tanzania, and southeastern Ethiopia have high probabilities of enhanced rainfall of approximately (70% to 90%+). The onset of rainfall over the eastern parts of the region is also expected to be earlier than usual (Fig. 2, right).

- **Elevated Wet Signals:** Parts of eastern Kenya, southern and western Somalia, and localized pockets in eastern Ethiopia display the highest probabilities (dark green pixels), beyond 9**0%**. This reflects an exceptionally strong consensus among the ensemble models for an intensely wet season.

3. Primary Meteorological Drivers

The extreme divergence between these two consecutive seasons is heavily driven by the El Niño-Southern Oscillation (ENSO) phenomenon. NOAA's Climate Prediction Center (15 June 2026) confirms El Niño conditions are now present, with an El Niño Advisory issued. Equatorial sea surface temperatures across the central and eastern Pacific are above average, accompanied by atmospheric circulation anomalies that are consistent with El Niño, and the latest weekly Niño 3.4 anomaly is at 0.9°C. It is expected that the event will strengthen throughout the rest of 2026 and persist into the southern hemisphere summer seasons of 2026-27, with essentially all model outlooks favoring continuation and a 63% chance of attaining "very strong" intensity by October–December.

During the July–September (JAS) season, El Niño conditions are often associated with suppressed rainfall and delayed onset over the northern sector, particularly in parts of Sudan, Eritrea, Djibouti, and northern Ethiopia. In contrast, during the October–December (OND) season, El Niño typically enhances rainfall across the equatorial and southern sectors, including Kenya, Somalia, Uganda, Rwanda, Burundi, and parts of Tanzania and southern Ethiopia.

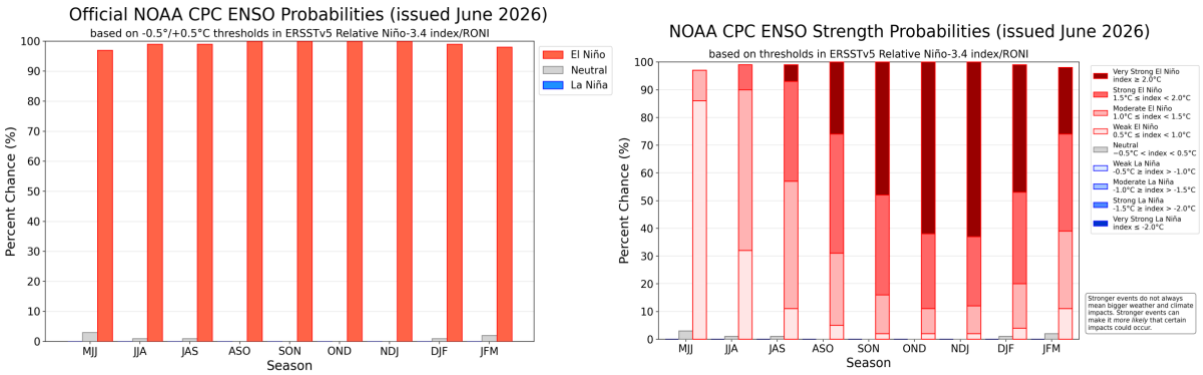


Figure 3: The June 2026 outlook from the NOAA Climate Prediction Center shows the forecast probabilities of different El Niño–Southern Oscillation phases (left panel), indicating the likelihood of El Niño, La Niña, or neutral conditions over the coming months. The strength forecast (right panel) provides an estimate of the expected intensity of the ENSO event, highlighting whether conditions are likely to remain weak, moderate, or strong.

The October to December season is also influenced by the Indian Ocean Dipole. The Indian Ocean Dipole is currently in a near-neutral state, with weak sea surface temperature gradients across the western and eastern equatorial Indian Ocean, indicating the absence of a strong positive or negative phase. Most dynamical and statistical forecast models suggest that neutral conditions are likely to persist over the coming weeks, with a gradual tendency toward weak positive anomalies during the

next few months. However, there remains considerable spread among model outputs, reflecting substantial uncertainty in both the timing and magnitude of any potential transition. At this stage, the predictability of the IOD remains low, and predictability is generally expected to increase in July.

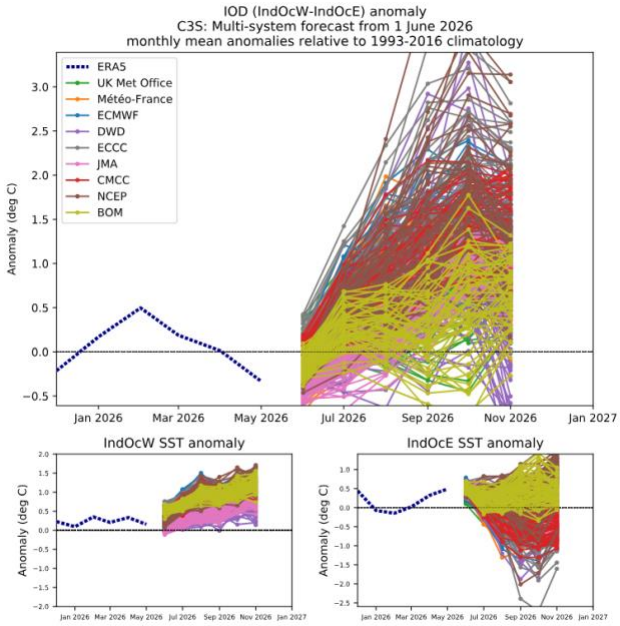


Figure 4: IOD anomalies from the Copernicus Climate Change Service ensemble forecasts indicate a wide spread among members, reflecting considerable uncertainty in the evolution of the Indian Ocean Dipole over the coming months.

4. Lessons from the Past: What the Analogue Years Tell Us

Analysis of global climate drivers reveals similarities between the current 2026 Sea surface temperatures over the Pacific Ocean and those for 1997**,** and 2023. Each of these historical markers was characterised by a severe rainfall deficit during the July to September season Northern regions of GHA including Ethiopia, South Sudan, Somalia, Sudan that transitioned to an extremely wet season during the short rains across Equatorial East African regions of Kenya, Uganda Rwanda, Tanzania and Burundi.

Some of the sector specific impact during the different seasons include:

July to September

- Depressed rainfall: Lower River flows and reservoir inflows may reduce hydropower generation, while hotter conditions can increase electricity demand and pressure on already constrained power systems
- Widespread food insecurity over the northern parts of the region

October to December

- Increased surface runoff, flash floods, and landslides in hilly terrains.
- Abundant rainfall to regenerate the Rangelands and replenish surface and ground water
- Improved soil moisture and vegetation conditions can support recovery from ongoing dry conditions and enhance overall agricultural production across the equatorial and southern parts of the region. However, excessively wet conditions may also lead to flooding and waterlogging in prone areas resulting in crop damage, livestock losses, infrastructure destruction, post-harvest losses, and localized food insecurity, with impacts varying considerably across locations.
- Heightened vector-borne disease risks both livestock and human populations.
- Equatorial sector: Enhanced rainfall: Higher inflows may improve hydropower output, but flooding and landslides can damage power plants, substations and transmission lines, causing electricity-supply disruptions

CRITICAL UPDATE TIMELINE & MONITORING NOTICE

This OND seasonal forecast has been issued with a long lead time; a comprehensive, consolidated regional statement will be finalized at the next Greater Horn of Africa Climate Outlook Forum (GHACOF74), scheduled for August 2026. An update to the forecast will be issued in July. The long lead forecasts will guide partners to activate readiness activities in preparations for potential full Anticipatory Actions in September 2026.

This forecast should be used alongside the monthly and weekly forecasts issued by ICPAC and downscaled by National Meteorological and Hydrological Services (NMHSs).