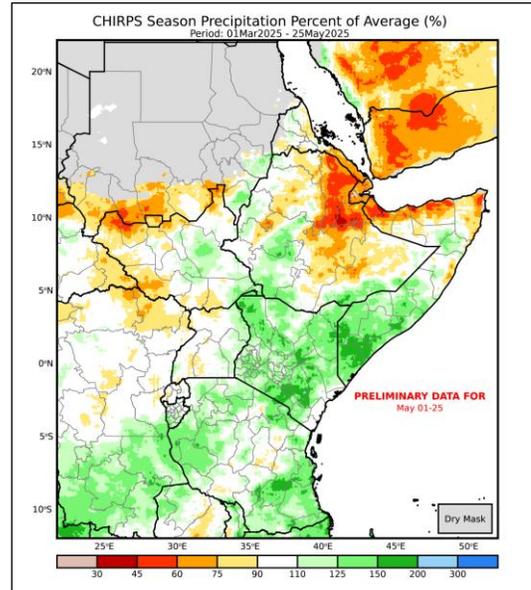


## March to May 2025 rainfall variability across East Africa leads to mixed outcomes for both cropland and rangeland productivity

### KEY MESSAGES

- The erratic distribution of the March–May 2025 rainfall and anticipated timely cessation of the season is likely to lead to crop production deficits across the eastern sector of the region, including northeastern Ethiopia, eastern Kenya, and southern Somalia, despite the above-average seasonal precipitation totals.
- Better than average pasture and water availability in the pastoral regions of southern Ethiopia, Kenya, and southern Somalia were observed following an above-average season.
- Crop production is expected to be mixed for the Belg cropping areas in northeastern Ethiopia following a highly variable season, both in time and space.
- High chances of a timely onset of Kiremt season as well as the June through September unimodal season for South Sudan, Sudan and Yemen following a timely and an above-average rainfall ensemble forecast across the northern sector.
- Flood risk remains high in Ethiopia and downstream countries following above-average seasonal rainfall forecast for the unimodal regions of Ethiopian highlands, South Sudan, and Sudan.



**Figure 1.** CHIRPS cumulative rainfall, March 1- May 25, 2025, percent of 1991-2020 average

**Context:** *Between June and September, the following are the areas and names of the rainy seasons underway in parts of East Africa: Kiremt rains (June to September) in Western, Central and Northern Ethiopia; main rainy season (June to September) in the unimodal zones of South Sudan and Sudan; long rains in unimodal Uganda and Kenya; Karan/Karma rains (July to September) in northern pastoral areas of Ethiopia and Sitti and Fafan zones of Somali (Ethiopia) and northern sector of Somalia; and second rains (July to November) in South Sudan bimodal zone.*

### SEASONAL PROGRESS

The March–May 2025 rainfall season across the region indicates a significant spatial and temporal variability. On the one hand, this has led to extensive soil moisture improvements in most parts of Kenya, southern Somalia, Tanzania, and southern Ethiopia. While on the other hand, significant rainfall deficits have been observed in northern Belg cropping regions in Ethiopia, parts of bimodal South Sudan, and Yemen (see Figure 1).

Despite all these benefits, an early cessation to the current season is the most likely scenario across the eastern half of the region. This is likely to reduce the benefits gained from the above-average rainfall season, especially for the croplands with emphasis on the delayed cultivators, and a corresponding reduction in the expected production for the season (Figure 2). The Water Requirement Satisfaction Index (WRSI), shown in Figure 2, highlights a water balance model that looks at the amount of water required for specific crops during different phenological stages and derives the most likely outcome. The yellow to red colours indicate a mediocre to failed crop. Eastern Kenya and central Somalia are highlighted as significant deficits. However, pasture conditions across same regions appear to be exceptionally above-average (Figure 3), including areas of southeastern Ethiopia that received below-average rainfall accumulations during the season. These conditions offer a much-needed reprieve for the pastoral community following a poor October–December 2024 season.

As a result of erratic and highly variable rains during the season, the cropping outcome is likely to be mixed across the region. The Belg season areas are likely to have a varied outcome with a good crop performance expected for the southern and central regions while a poor to failed crop is expected for the northern Belg cropping regions. Bimodal regions of Kenya are likely to have a favourable crop performance. However, eastern regions of Kenya and the Gu regions in Somalia are likely to have an average to poor crop given that the season is likely to end on time, likely leading to poor outcomes for the late-planted crops. The rest of the region is likely to have a favourable outcome given the above-average rains experienced in Kenya, Tanzania, and eastern Uganda. The remaining areas of Uganda, Rwanda, and Burundi are like to have an above-average crop production (see Figure 2) despite the rainfall deficits (as depicted in Figure 1) within the season because these regions have a high rainfall regime such that a slightly below-average rainfall amount doesn't heavily impact the overall crop production.

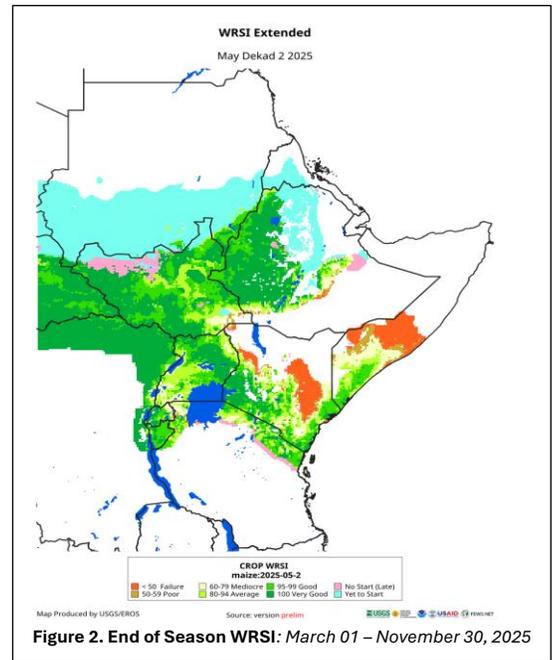


Figure 2. End of Season WRSI: March 01 – November 30, 2025

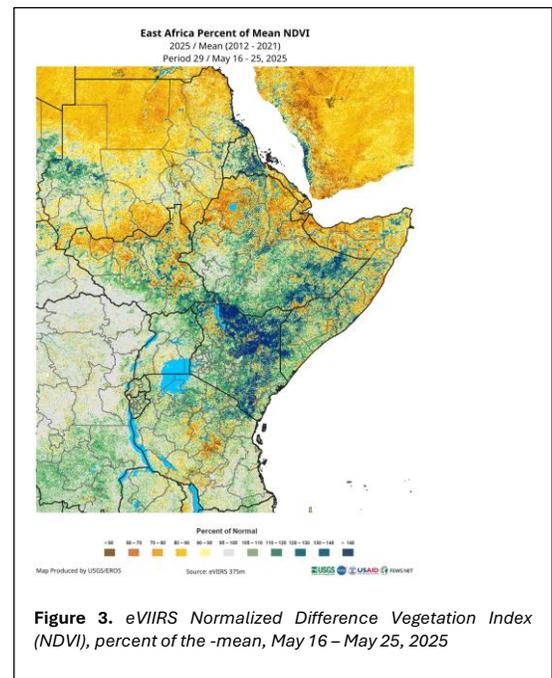


Figure 3. eVIIRS Normalized Difference Vegetation Index (NDVI), percent of the -mean, May 16 – May 25, 2025

### AGROCLIMATIC OUTLOOK

The short-term NOAA GFS forecast for the next 2 weeks indicates above-average rainfall over western Ethiopia and western South Sudan, marking a timely onset for the June to September unimodal seasonal rains. Parts of western and coastal regions of Kenya, northern Uganda, Rwanda, and coastal Somalia are also likely to benefit in the coming few weeks. However, most parts of the region are likely to remain dry, leading to an early/timely cessation of the MAM 2025 seasonal rains across the eastern parts of Kenya, southeastern Ethiopia, and southern Somalia (see Figure 4).

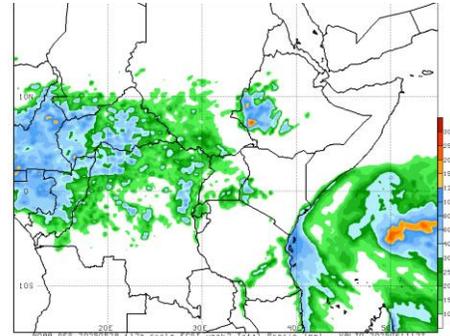


Figure 4. NOAA GFS 2 weeks Forecast valid between, May 29 – June 11, 2025

Forecasts for the June to September 2025 rainfall season indicate high chances of a timely onset and above-average rainfall across the northern sector of East Africa and Yemen, including the Kiremt season in western, central and northern Ethiopia, as well as unimodal regions of South Sudan, Sudan, and Yemen. According to ICPAC’s probabilistic forecast, there is a high chance of an early-to-timely onset and above-average rainfall performance (See Figure 5). This will, in turn, support improved agricultural, pastoral, and water recharge outcomes. Global forecasts converge with a consensus for above-average rainfall across these regions, including Yemen. This will offer a much-needed reprieve, especially for Yemen and northern Ethiopia, following a significantly below-average MAM and FMAM season, respectively.

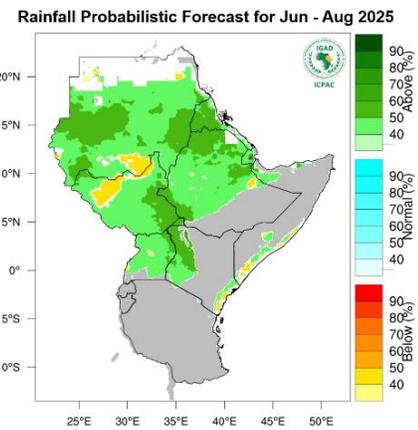
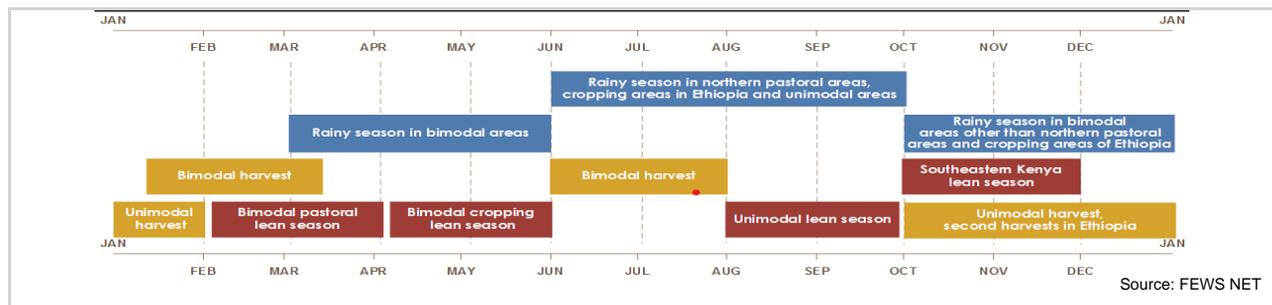


Figure 5. ICPAC seasonal probabilistic Forecast June-September, 2025

The forecasted above-average rainfall raises concerns about increased flood risks in Ethiopia and other downstream regions such as South Sudan and Sudan. The Ethiopian Meteorological Institute has already issued a warning regarding the anticipated heavy rainfall. The soils within the Sudd wetlands are already saturated, and given the forecast above-average rainfall, the inundated areas are likely to expand further.

### Seasonal Calendar for a Typical Year



Source: FEWS NET

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