

SOMALIA WEEKLY WEATHER FORECAST

Valid From 19 – 26 December 2024

Mostly dry conditions will prevail over most parts of Somalia this week, with chances of light rainfall (less than 50 mm) over Lower Juba and Middle Juba. Elevated heat risks likely to prevail in southern regions particularly in Kismaayo district in Lower Juba region and Jilib and Bu'aaale districts in Middle Juba; with milder conditions in the north.

Review of Past Rainfall and River Levels

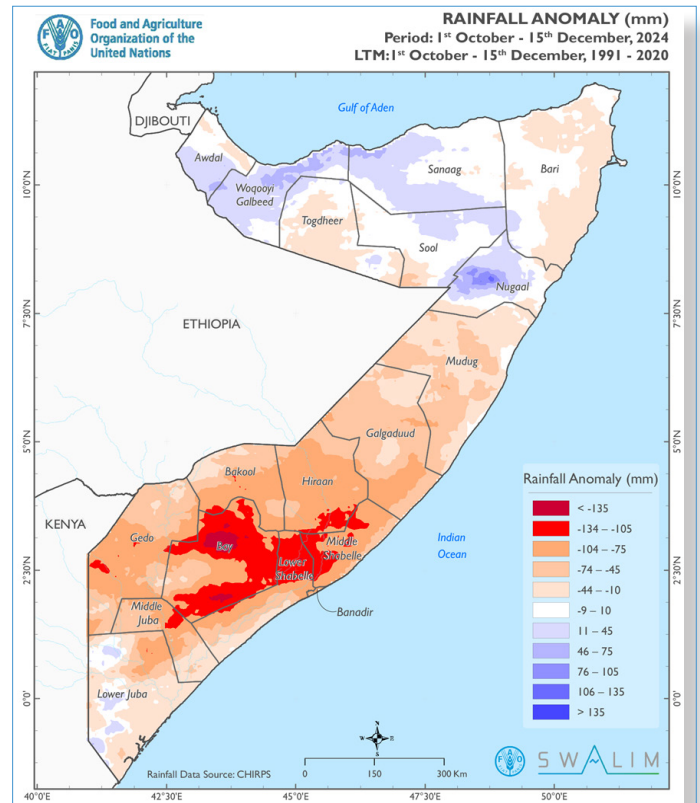
Rainfall: Observational data shows no significant rainfall observed across Somalia in the last one week. Satellite rainfall estimates confirm the continued below-average rainfall across Somalia in December 2024. The severity and extent of rainfall deficits is prevalent in the central and southern regions, especially in Bay, Lower Shabelle, Middle Shabelle and Hiraan regions (*Map 1*). Cumulative rainfall anomalies exceed 100 mm below the long-term mean in Baydhaba, Buur Hakaba and Qansax Dheere districts in Bay region, Wanla Weyne district in Lower Shabelle region, Jowhar district in Middle Shabelle region, Jalalaqsi district in Hiraan region and Ceel Waaq district in Gedo region (*Map 1*).

The lack of rainfall further exacerbates agricultural stress in drought-prone regions. The December dry spell is likely to offset the November rainfall-driven improvements in vegetation health particularly in some areas in Lower Shabelle, Middle Shabelle and Mudug regions with equally serious implications on water availability for crops and pasture. This highlights the need for continued monitoring and potential intervention in the drought prone areas in these regions.

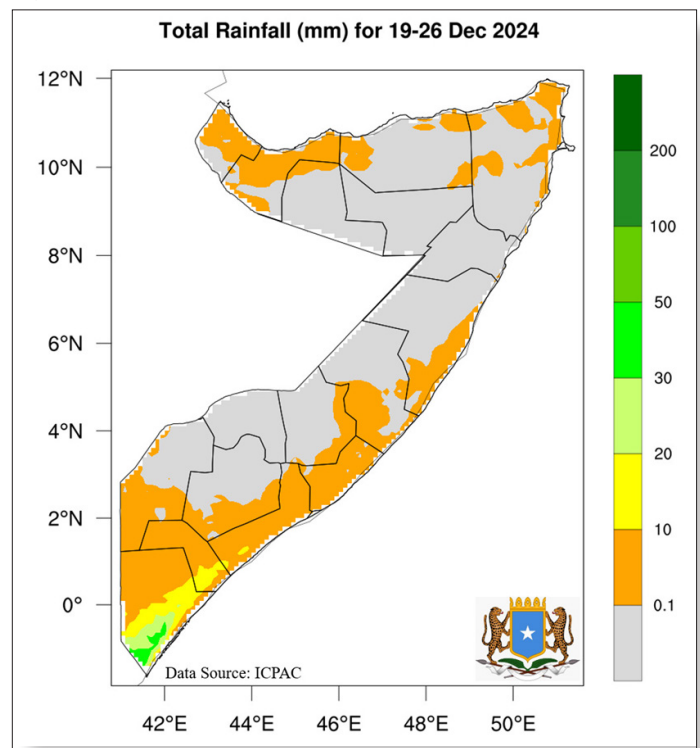
River Levels: A continued drop in the water levels along the Shabelle and Juba Rivers has been observed. River level at Belet Weyne is 3.15 m below the flood risk threshold, with the latest (20 November 2024) reading at 3.35 m (*Graph 1*). A similar drop has been observed at Bulu Burte and Jowhar with today's levels being 4.10 m and 1.30 m below moderate flood risk thresholds, respectively, driven by prevailing dry conditions over the entire catchment. River levels at both Dollow and Luuq remain well below moderate flood risk levels, reflecting the continued lack of significant rainfall in catchment areas. The level recorded at Luuq (*Graph 2*) as of 20 December 2024 (2.16 m) is more than 3 m below moderate flood risk level (5.50 m)

Forecast for the Week Between 19 and 26 December 2024

Rainfall: According to ICPAC WRF forecasts, light rains (of less than 10 mm) are expected over some areas in the north and south with chances of up to 50 mm over some areas in Lower Juba and Middle Juba regions during the coming week (*Map 2*). Dry conditions will dominate the rest of the country as Somalia remains under a La Niña Watch phase. As the Inter Tropical Convergence Zone (ITCZ) moves further south, the Northeast monsoon will develop further with strengthened wind conditions particularly at Eyl district in Nugaal region and Bandarbeyla district in Bari region. However, the present and forecasted weakening of the Madden Julian Oscillation (MJO) index is likely to suppress moisture availability with a very low chance of significant rainfall in the next two (2) weeks.



Map 1: Rainfall anomaly over Somalia for the period 1 October and 15 December 2024 with 30-year LTM for the same period from 1991 to 2020



Map 2: Cumulative rainfall forecast over Somalia from 19 to 26 December 2024

Temperature: Forecasted maximum and minimum temperatures (Map 3) indicate the persistence of varied thermal conditions across the country. The spatial variation of forecast temperature is as follows:

Based on **daily minimum temperature**, nighttime thermal conditions are likely to vary from between 15 °C and 20 °C over vast inland areas in northern Somalia including Sool, Sanaag and Togdheer regions, Borama district in Awdal region, Gabiley and Hargeisa district in Woqooyi Galbeed region, and Qardho, Bosaso and Qandala districts in Bari region. Nighttime conditions are comparatively warmer across most southern and central regions. Minimum temperatures ranging from 20 °C to 25 °C are likely over Nugaal, Mudug, Hiiraan, and Bakool regions, inland parts of Galgaduud region, Baydhaba district in Bay region, and inland parts of Cadale district in Middle Shabelle region. Further south particularly in Lower Juba, Middle Juba, Gedo, and Lower Shabelle regions, minimum temperatures are likely to range from 25 °C to 30 °C.

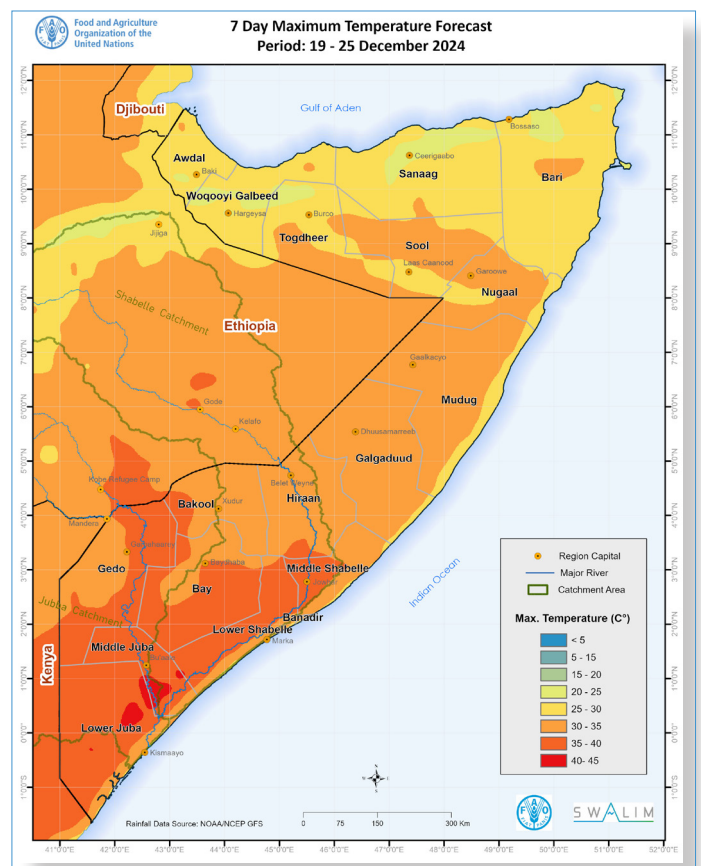
Elevated daily maximum temperatures exceeding 35 °C are likely to persist over southern regions, including most inland parts of Lower Juba, Middle Juba and Lower Shabelle regions; Bardheere, Garbahaarey and Luuq districts in Gedo region, Dinsoor and Buur Hakaba districts in Bay region, Jowhar district in Middle Shabelle region, and Waajid district in Bakool region. Temperatures in some inland parts of Kismaayo district in Lower Juba region and Jilib and Bu'aale districts in Middle Juba region may exceed 40 °C.

Moderately high daily maximum temperatures ranging from 30 °C to 35 °C are expected over Bakool, Hiraan and Galgaduud regions; inland parts of both Mudug and Nugaal regions; Laas Canood, Xudun and Caynabo districts in Sool region; Buuhoodle district in Togdheer region; Baydhaba district in Bay region; Ceel Waaq and Belet Xaawo districts in Gedo region; Balcad, Cadale, and Adan Yabaal districts in Middle Shabelle region; Banadir region; and coastal areas in the following regions: Lower Juba, Middle Juba and Lower Shabelle.

Past and Current River Levels

The current levels along Shabelle River are below the 2023 levels and tending towards Long-Term Mean (LTM). Specifically, the level at Belet Weyne is 3.15 m below the moderate flood risk threshold (6.50 m), with the latest (20 November 2024) reading at 3.35 m (Graph 1). Downstream, today's levels at Bulu Burte (4.24 m) and Jowhar (3.70 m) are 4.10 m and 1.30 m below the respective moderate flood risk levels. The drop in river has been occasioned by prevailing dry conditions over the entire Shabelle River catchment.

The current levels along Juba River are tending towards a convergence with the 2023 levels and slightly above the Long-Term Mean (LTM). Levels at both Dollow and Luuq remain well below moderate flood risk levels, reflecting the continued lack of significant rainfall in catchment areas. The levels recorded at Dollow (2.18 m) and Luuq (2.16 m) today (20 December 2024) is about 2.32 m and 3.34 m below the respective moderate flood risk levels. This drop has been occasioned by the prevailing dry conditions over its catchment in the Ethiopian highlands and within Somalia.



Map 3: Maximum temperature forecast for the period 19 - 25 December 2024

Moderate daily maximum temperatures ranging from 25 °C to 30 °C are forecast over the rest of the areas in the following regions: Awdal, Woqooyi Galbeed, Sanaag, Togdheer and Bari. The temperatures over some areas in Borama district in Awdal region; Gabiley and Hargeisa districts in Woqooyi Galbeed region; Sheikh district in Togdheer region; Ceerigaabo district and northern Laasqoray district in Sanaag region; and Qandala district in Bari region are likely to fall below 25 °C.

Impacts Associated with the Weekly Weather Forecast

With the observed and forecasted dry conditions over most areas within the Juba and Shabelle River catchments, declining river levels are expected to lower flooding risks. However, a harsh, hot, and dry air mass is likely to stagnate over inland areas of southern regions, including Lower Juba, Gedo, Middle Juba, Lower Shabelle, Bay, Rab Dhuure district (Bakool region), Jowhar district (Middle Shabelle region), and Jalalaqsi district (Hiraan region) in the coming week. These conditions are anticipated to:

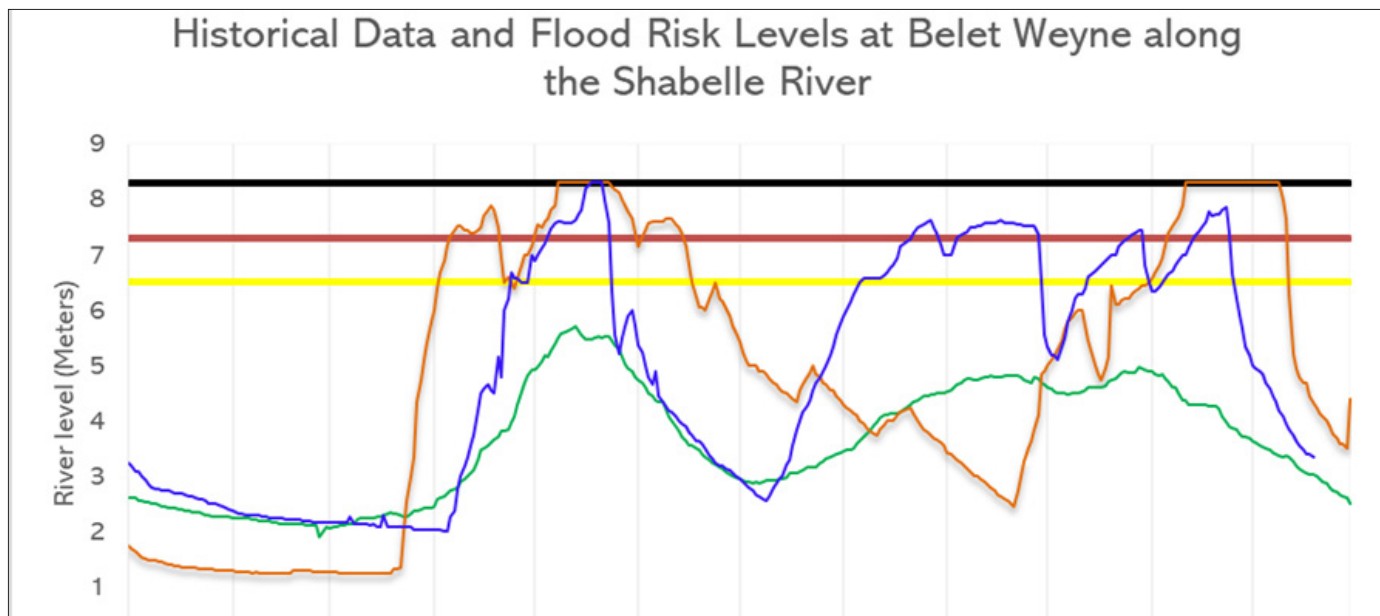
- **Exacerbate water shortages** in already drought-affected areas due to increased evaporation rates.
- **Stress livestock and crops**, reducing soil moisture and aggravating heat-related challenges.
- **Increase health risks**, such as heat stress and dehydration, particularly for vulnerable populations in pastoralist communities.

Additionally, strong winds are expected to raise atmospheric dust levels in Eyl district (Nugaal region) and Bandarbeyla district (Bari region), further impacting air quality.

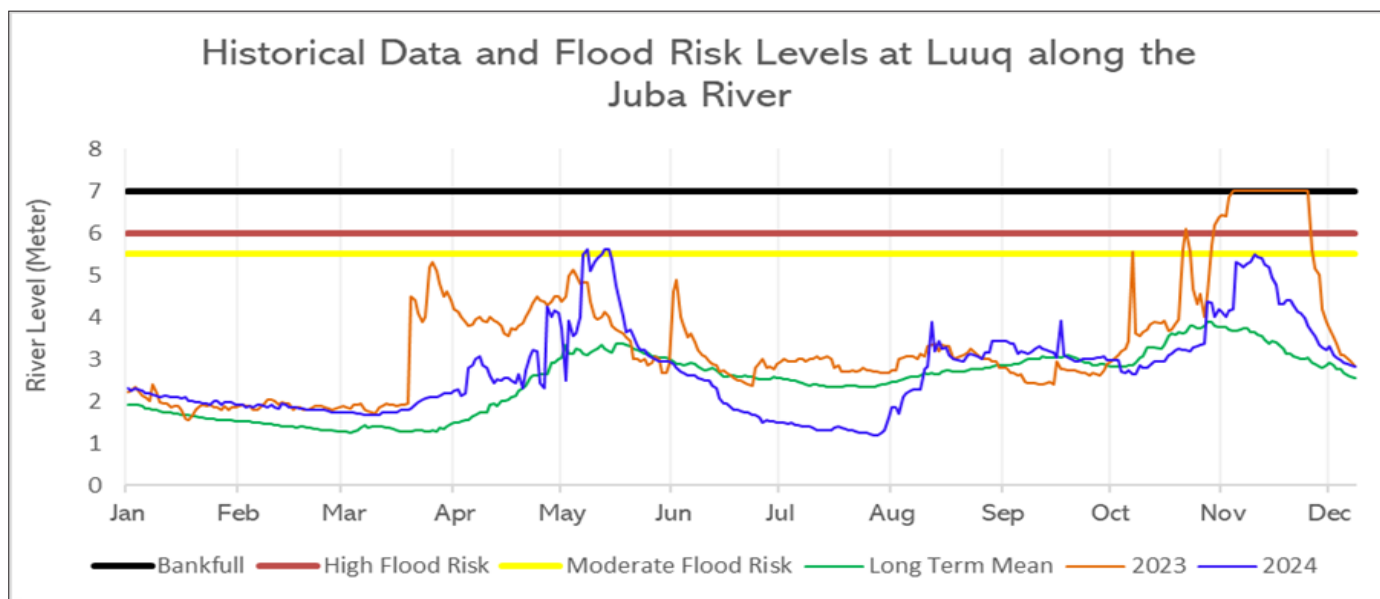
The latest Climate Prediction and Application Centre (CPC) forecast (issued 12 December 2024) indicates a 59% probability of La Niña conditions developing between November 2024 and January 2025, with a likely transition to ENSO-neutral by March-May 2025 (61% probability). The evolving La Niña and briefly negative Indian Ocean Dipole (IOD) conditions are expected to intensify hot and dry Jilaal conditions, potentially escalating moderate drought conditions to severe levels in

parts of Southwest, Hirshabelle, and Galmudug States, as well as isolated coastal areas in Lower Juba and northern regions.

To mitigate these impacts, it is crucial to take **early action**, including strengthening drought preparedness measures and providing targeted support to agro-pastoralist communities in drought-affected hotspots.



Graph 1: Shabelle River level at Belet Weyne Gauging Station as of 20 December 2024



Graph 2: Juba River level at Luuq Gauging Station as of 20 December 2024

This bulletin is co-produced by the Federal Government of Somalia's Ministry of Environment and Climate Change (MoECC), Ministry of Agriculture and Irrigation (MoAI), Ministry of Livestock Forestry and Range (MoLFR), Somali Civil Aviation Authority (SCAA), Somali Disaster Management Agency (SoDMA), The Food and Agriculture Organization of the United Nations (FAO), World Meteorological Organization (WMO), The IGAD Climate Prediction and Applications Centre (ICPAC), World Vision International (WVI) and the Media Society

SWALIM is a multi-donor project managed by FAO and currently funded by The European Union, SDC, FCDO, AICS, Government of France and USAID

