Food and Agriculture Organization of the United Nations

SWALIM Somali Water and Land Information Management

SOMALIA WEEKLY WEATHER FORECAST

Valid From 22 to 28 November 2024

Light rainfall is expected over several areas in the south and central regions and in some parts of Somaliland with dry conditions likely to prevail over Puntland, Galmudug and Sool-Sanaag regions

Review of Past Weather

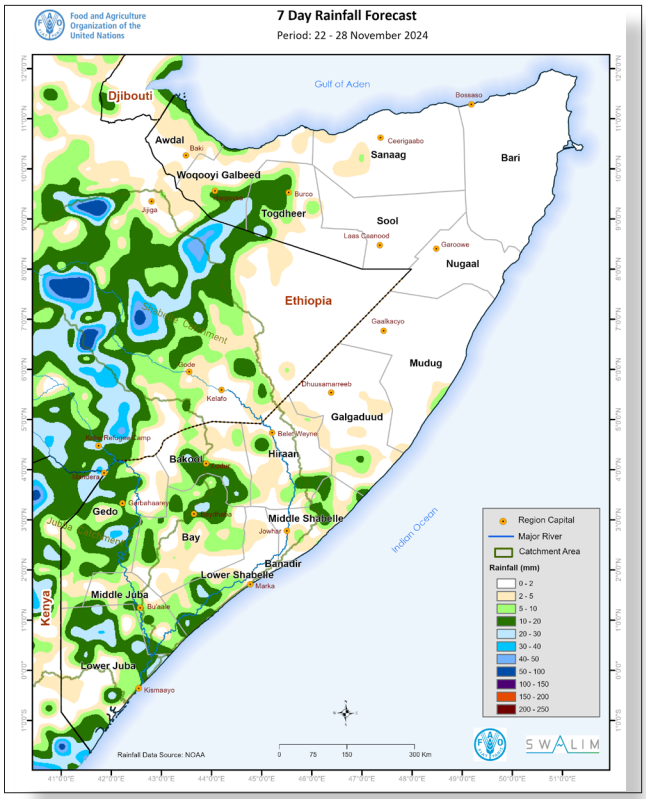
Satellite rainfall estimates show that light to moderate rainfall was generally observed over the central and southern regions of Somalia with moderate cumulative rainfall of more than 50 mm confined to Lower Juba and Middle Juba regions in the last dekad (11 to 20 November 2024).

Based on the existing network, moderate cumulative rainfall was recorded between 12 and 18 November 2024 at Murcaanyo (92.0 mm) in Bari region and Buur Hakaba (64.0 mm) in Bay region. The rains over Murcaanyo were particularly intense on 18 November when 70.0 mm was recorded following the 22.0 mm observed the previous day. Light rainfall of more than 30 mm was also observed during the same period over the following individual stations: Wanla Wayn (48.0 mm) in Lower Shabelle region, Carmo (43.0 mm) in Bari region, Luuq (40.0 mm) in Gedo region, and Mahaday Weyn (30.0 mm) in Middle Shabelle region. The rains in the southern regions were particularly intense on 11 November as observed at Wanla Wayn (29.5 mm) in Lower Shabelle region and Buur Hakaba (28.0 mm) in Bay region; on 12 November as observed at Mataban (20.0 mm) in Hiraan region; and on 13 November as observed at Buur Hakaba (36.0 mm) in Bay region, Bardheere (22.0 mm) in Gedo region and Belet Weyne (19.0 mm) in Hiraan region. The rains in Puntland were significant on the 17 November as observed at Carmo (43.0 mm) in Bari region, and Eyl (22.0 mm) in Nugaal region; and on 18 November as recorded at Bandarbeyla (14.0 mm) in Bari region. Somaliland was generally dry with only light rainfall being recorded at Caynabo (2.0 mm) in Sool region.

Based on Combined Drought Index (CDI), and as of 31 October, moderate drought conditions with severity tendencies have been observed in some parts of Jubaland, and Bay region in the south, and Berbera and Las Qoray districts in the north (Map 2). This is confirmed by FAO's Agricultural Stress Index (ASI) for dekad 1 November 2024, which indicates that more than 50 % of cropland areas in Lower Shabelle region, Cadale district in Middle Shabelle region and Buur Hakaba district in Bay region might have been affected by drought.

The levels along the Shabelle River crossed the high flood risk level (7.30 m) on 15 November with today's (22 November) level (7.74) being 44 cm above high flood risk level. While no riverine flooding has been observed along the main channel in Somalia, these high river flows have reportedly led to overflows in the Ethiopian sections whose inflows outside the channel have led to flooding of about 10,000 Ha of land on the eastern upstream of Belet Weyne town. (https://x.com/faosomalia/status/1859311916918976549?s=46) Government and partners have reportedly deployed impact assessment teams to the affected fields. This rise-and-fall river level behaviour is therefore likely to be driven by the alternate occurrence of wet and dry spells within its catchment in the Ethiopian highlands.

The Juba River levels at Dollow and Luuq have continually dropped from the seasonal high flows reported on 10 November 2024 to 4.18 m and 4.14, today (22 November 2024) which are 32 cm and 36 cm below moderate flood risk levels. This drop has been occasioned by reduction of rains over its catchment in the Ethiopian highlands and within Somalia.



Map 1: Cumulative rainfall forecast over Somalia between 22 and 28 November 2024

Rainfall Forecast for the Week Between 22 and 28 November 2024

According to NOAA-NCEP GFS, light rainfall is expected over several areas in the south and central regions and in some parts of Somaliland during this last week of November. Dry conditions are likely to prevail over Puntland, Galmudug and Sool-Sanaag regions.

The observed rainfall during the first half of November was likely linked to the arrival of the Madden-Julian Oscillation (MJO), which enhanced moisture influx into southern and central Somalia. The weakening and forward propagation of the MJO in this last week of November, as indicated by the latest ECMWF forecast, is likely to lead to less intense rains in the coming weeks.

The temporal and spatial distribution of the forecast rainfall (Map 1) are as follows:

Light cumulative rainfall of less than 50 mm is forecast over several areas in the following regions: Gedo, Lower Juba, Middle Juba, Bay, Bakool, Lower Shabelle, Hiraan, Middle Shabelle,

Togdheer, Woqooyi Galbeed and Awdal. The rains over the central parts of Gedo and northern parts of Lower Juba may be intense leading up to moderate amounts of 50 mm or more. It is important to note that similar rainfall amounts are likely over some areas within the catchments of both Juba and Shabelle Rivers

Dry conditions are likely to prevail over Bari, Nugaal, Mudug, Galgaduud, Sool, and Sanaag regions and Buhoodle district, northern and southern parts of Burco district in Togdheer region, Gebiley and Berbera districts in Woqooyi Galbeed region, Borama district, southern parts of Zeylac district and central parts of Baki district in Awdal region, central parts of Belet Weyne district in Hiraan region, Jowhar and Balcad districts in Middle Shabelle region, northern parts of Tayeeglow district and Rab Dhuure district in Bakool region, western parts of Dinsoor district and eastern parts of Buur Hakaba district in Bay region, northern parts of Badhaadhe district and southern parts of Afmadow district in Lower Juba region, western parts of Saakow district, northern parts of Bu'aale district, and northern parts of Jilib district in Middle Juba region.

Temperature Forecast for the Week Between 22 and 28 November 2024

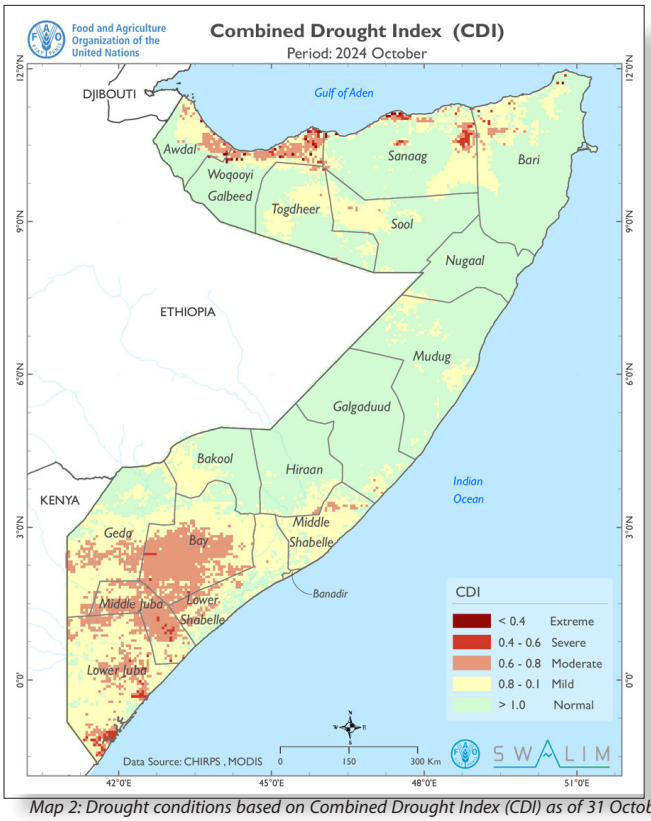
Forecasted maximum and minimum temperatures indicate the persistence of varied thermal conditions across the country. The spatial variation of forecast temperature is as follows:

Based on daily minimum temperature, nighttime thermal conditions are likely to vary from between 20 °C and 25 °C in northern Somalia and as low as 20 °C in some places in Woqooyi Galbeed region, to between 25 °C and 30 °C across most southern and central regions and as high as 35 °C in some places in Jubaland.

Elevated daily maximum temperatures exceeding 35 °C are likely to persist over southern regions, including inland parts of Lower Juba region; Bu'aale district and inland parts of Jilib district in Middle Juba region; Sablaale district in Lower Shabelle region; southern parts of both Dinsoor and Buur Hakaba districts in Bay region; Luuq district in Gedo region; Jowhar district in Middle Shabelle region; and Ceel Buur district and inland parts of Ceel Dheer district in Galgaduud region.

Moderately high daily maximum temperatures ranging from 30 °C to 35 °C are expected in the rest of the areas in the following regions: Gedo, Bay, Middle Shabelle, and Galgaduud regions. Similar temperatures are expected in Bakool, Hiraan, Mudug, and Nugaal regions; Qardho, Bandarbeyla and Iskushuban districts in Bari region; Laas Canood, Taleex and Xudun districts in Sool region; Buhoodle district and southern parts of both Burco and Owdweyne districts in Togdheer region; Zeylac and Lughaye districts and northern parts of Baki district in Awdal region; and Berbera district in Woqooyi Galbeed region.

Moderate daily maximum temperatures ranging from 25 °C to 30 °C are forecast over Sanaag region; Borama district and southern parts of Baki district in Awdal region; Gebiley and Hargeisa districts in Woqooyi Galbeed region, Caynabo district in Sool region; Bossaso Qandala and Caluula districts in Bari region; Banadir region; and very narrow eastern coastal strips in Mudug, Nugaal and Bari regions. The temperatures over Gebiley, Sheikh, Ceerigaabo and Qandala districts are likely to be as low as 20 °C.



Map 2: Drought conditions based on Combined Drought Index (CDI) as of 31 October 2024

Current River Levels

The levels along both Juba and Shabelle Rivers are currently above Long-Term Mean (LTM) but below the 2023 levels.

The Juba River level at Dollow has continually dropped from its seasonal high of 5.54 m reported on 10 November 2024 to 4.18 m today (22 November 2024). It is now 32 cm below moderate flood risk level (4.50 m). As is expected, river level at Luuq shows a similar behaviour, with today's level (4.14 m) being 36 cm below moderate flood risk level (5.50 m) marking a significant drop from a seasonal high of 5.50 m reported on 10 November 2024. This drop has been occasioned by reduction of rains over its catchment in the Ethiopian highlands and within Somalia.

The levels along the Shabelle River began a fourth peculiar sub-seasonal rise on 2 November (6.35 m) crossing the high flood risk level (7.30 m) on 15 November with today's (22 November) level (7.74) being 44 cm above high flood risk level. While no riverine flooding has been observed along the main channel in Somalia, these high river flows have reportedly led to overflows in the Ethiopian sections whose inflows outside the channel have led to flooding on the eastern upstream of Belet Weyne town. A similar but low peak behaviour has been observed at Bulo Burte where today's level (6.20 m) represents an 85 cm rise from 5.35 m reported on 11 November and only 30 cm below moderate flood risk level (6.50 m). The generally dry conditions over the catchment within Somalia means that not much run off has been added into the river. This rise-and-fall river level behaviour is therefore likely to be driven by the alternate occurrence of wet and dry spells within its catchment in the Ethiopian highlands. The levels at Jowhar have been generally and peculiarly stable since 31 July with today's level (4.50 m) being 50 cm below moderate flood risk level (5.00 m). As has been reported, this behaviour is attributed to the loss of water from the main river channel upstream.

Graphs 1 and 2 show the current river levels against the Short Term Mean and 2023 levels for Belet Weyne and Luuq stations respectively.

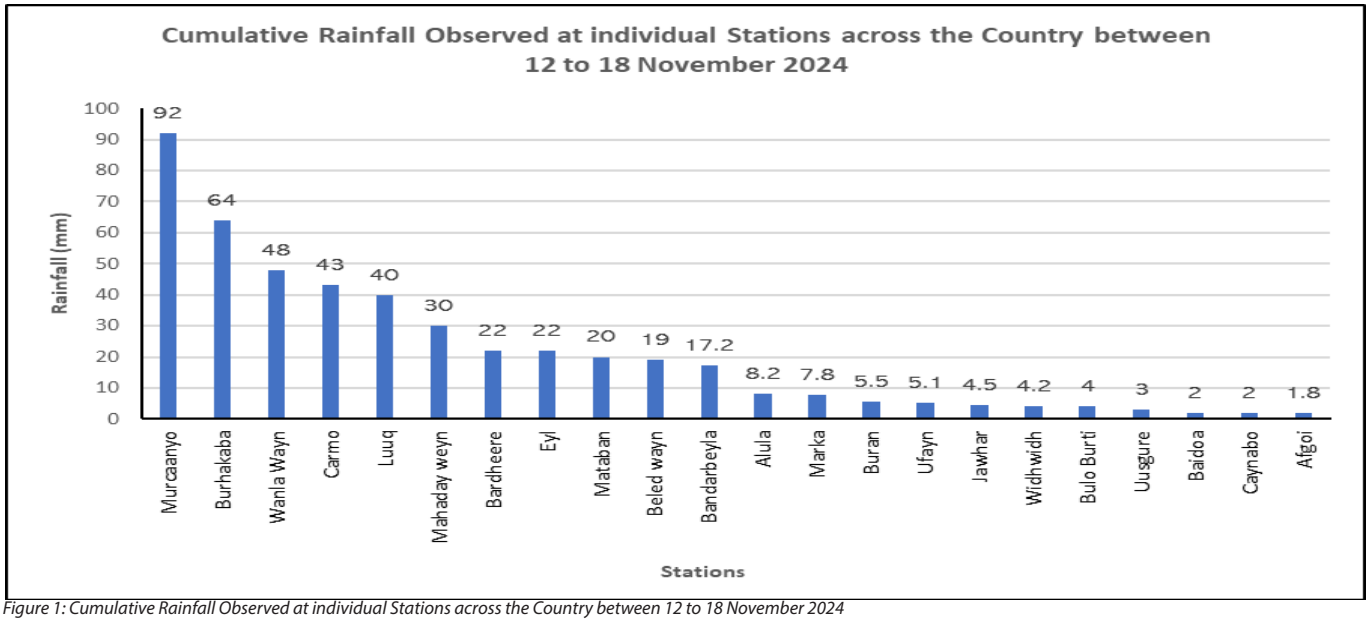
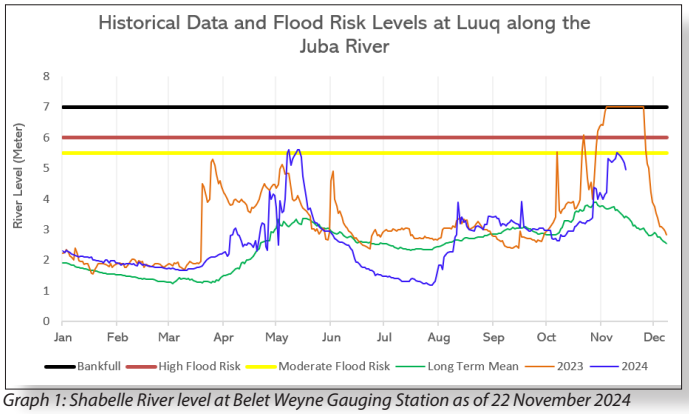
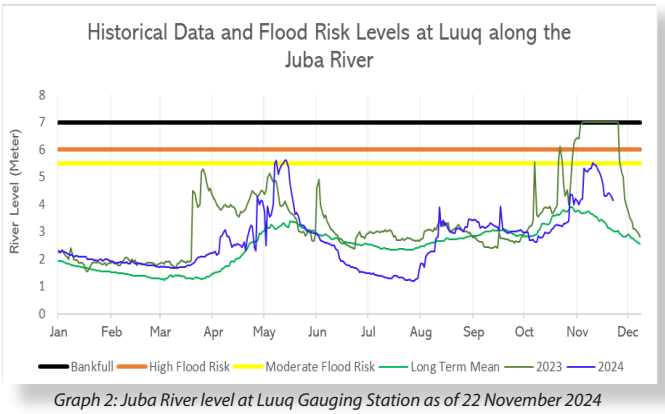


Figure 1: Cumulative Rainfall Observed at individual Stations across the Country between 12 to 18 November 2024



Graph 1: Shabelle River level at Belet Weyne Gauging Station as of 22 November 2024



Graph 2: Juba River level at Luuq Gauging Station as of 22 November 2024

Impacts Associated with the Weekly Weather Forecast

The light rainfall forecast over some areas within the catchments of both the Juba and Shabelle River catchments implies that not much run off will be generated. However, given the lag in the flow of water along the Shabelle River, the current high levels at Belet Weyne and the associated flooding risks, will be sustained but with decreasing tendency. The observed water overflows spread on the eastern upstreams of Belet Weyne town calls for close monitoring of its accumulation and downstream flow tendency.

Harsh hot and dry air mass is likely to stagnate over inland parts of Lower Juba region, Bu'aale district and inland parts of Jilib district in Middle Juba region, southern parts of both Dinsoor and Buur Hakaba districts in Bay region, Jowhar district in Middle Shabelle region, and Ceel Buur district and inland parts of Ceel Dheer district in Galgaduud region during the upcoming week. This is likely to lead to increased evaporation rates exacerbating water shortages in already drought-stricken areas, livestock and crop stress due to heat stress and reduced soil moisture levels, and risks of heat stress and dehydration, especially for vulnerable populations in pastoralist communities.

Favourable wet and warm airmass is likely to prevail over Borama district and southern parts of Baki district in Awdal region, and Gebiley district in Woqooyi Galbeed region. Considering the lag effect of previous October rains, soil moisture is likely to favour further pasture growth. Continued rainwater harvesting will also be beneficial to agro-pastoralist livelihoods. Stagnant water from recent and forecast rains may however elevate risks of vector-borne diseases such as malaria and dengue fever. Therefore, there is need to scale up vector control efforts and distribute hydration kits to mitigate health impacts in both hot and moist areas. In the south, where dry conditions were observed in the month of October, agro-pastoralist communities are urged to take advantage of temporary pasture regeneration in wet regions.

The evolving La Niña and briefly negative Indian Ocean Dipole (IOD) conditions are expected to drive dry conditions in the last part of Deyr. This scenario may pave the way for harsh Jilaal conditions (December–February), potentially setting up widespread drought conditions in southern and central regions that could persist until the Gu rains in March 2025. Therefore, taking early action by strengthening drought preparedness measures in regions prone to extended dry spells is recommended.

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