

## SOMALIA WEEKLY WEATHER FORECAST

Valid From 18 to 24 April 2024

**Moderate to heavy rains are expected over several areas in the Southwest and Hirshabelle States with chances of very heavy rains over some areas in Bay and Sool-Sanaag regions. Light to moderate rain is expected over vast inland areas of Puntland with tendency of general dry conditions over the coastal areas of Bari and Nugaal regions.**

### Weather Review for the Week Between 10 and 17 April 2024

The last week was marked by cloudiness across several parts of the country with light to moderate rainfall received over some places particularly in Bay, Middle Juba, Lower Shabelle, Hiraan, Bakool and Banaadir regions. Somaliland and Puntland experienced dry conditions with little or no rainfall reported over the last one week. Cloud breaks in some areas led to elevated surface air temperature with reported thermal discomfort.

The following stations (Figure 1) received more than 1 mm of rain between 8 and 15 April 2024: in Qansax-dhere (20.3 mm), Dinsor (2.9 mm), and Baidoa (24 mm) in Bay region, Wanle-weyn (23.5 mm) and Awdheegle (3 mm), in lower Shabelle region, Jamaame (3 mm), and Kismayo (5 mm) in Lower Jubba region, Bualle (38 mm) in Middle Jubba region, Mogadishu (27.9 mm) in Banadir region, Luuq (16.08 mm) in Gedo region, Bulla-burto (2.5 mm) in Hiran region and Hudur (1.5 mm) in Bakool region.

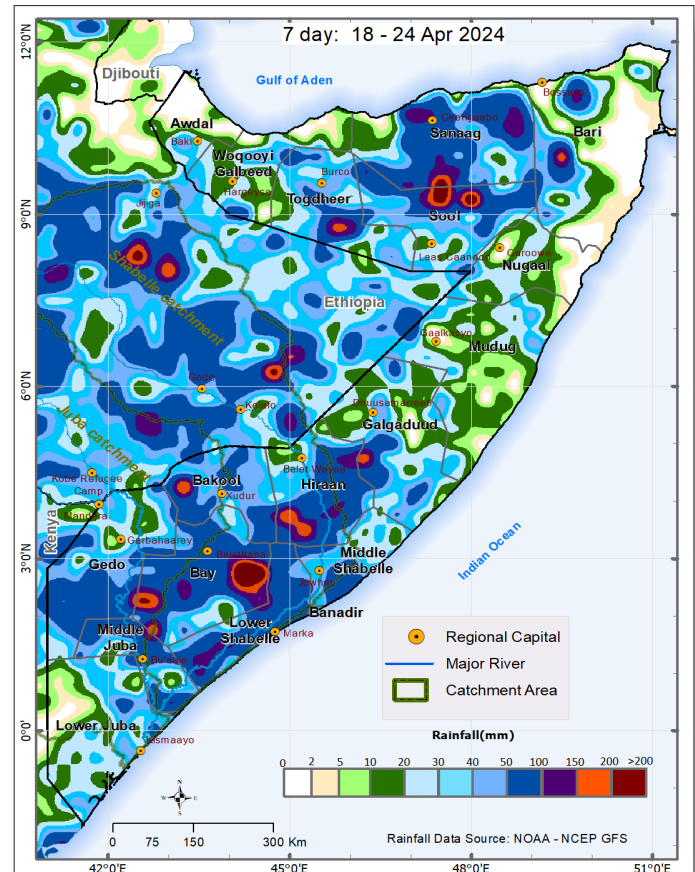
The runoff from the rains within the middle and lower catchments of Shabelle River have led to a sharp rise in the water levels. Subsequently two river breakages at Maandheere which is located approximately 12 km to the southeast of Jowhar have resulted in floods in the nearby villages submerging farmlands and causing impediments to vehicular movements between Jowhar and Balcad. Fortunately, no fatalities have been reported so far. The flood water is expected to extend to the villages located on the south of maandheere namely: Daymo-same, Jilaale, Boodaale, Bacaadley, Raqayloow, and Buurdheere.

### Weather Forecast for the Week Between 18 and 24 April 2024

During the week between 18 and 24 April 2024, and based on NOAA-NCEP GFS, moderate to heavy rains are expected over several areas in the South West and Hirshabelle States with chances of very heavy rains over some areas in Bay and Sool-Sanaag regions. Light to moderate rain is expected over vast inland areas of Puntland with tendency of general dry conditions over the coastal areas of Bari and Nugaal regions. The chances of wetter conditions might be supported by the stagnation of Madden Julian Oscillation (MJO) index over the eastern parts of Indian Ocean. The small amplitude of the index however signifies weak cycles of the MJO. This therefore is associated with decreased skill and reliability of extended range forecasts. The tendency of general dry conditions over Bari is likely to be driven by the low-level easterly winds blowing parallel to the northeastern coastline which limits the incursions of precipitable water inland. The anticipated northward spread of the rains from South West into Hirshabelle and possibly Galgaduud is favored by the northward movement of the Inter Tropical Convergence Zone (ITCZ).

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

**Heavy cumulative rainfall between 100 mm and 150 mm** is likely over some areas in Dinsoor, Baydhaba and Buur Hababa districts in Bay region, southwestern parts of Bulo Burte district in Hiraan region, northwestern parts of Ceel Buur district in Galgaduud region,



Map 1: Cumulative rainfall forecast over Somalia between 18 and 24 April 2024

northern parts of Qardho district in Bari region, Xudun and Taleex district in Sool region, southern parts of Ceerigaabo district in Sanaag region, and southern parts of Burco district in Togdheer region. The rains over isolated areas in the above parts of Bay, Sool and Sanaag regions may be very intense leading to more than 200 mm in cumulative terms and are likely to fall **between 18 and 21 April 2024 with likelihood of flash flooding.**

**Heavy cumulative rainfall between 100 mm and 150 mm** is likely over the following areas: Dinsoor, Baydhaba and Buur Hababa districts in Bay region, Bulo Burte district in Hiraan region, northwestern parts of Ceel Buur district in Galgaduud region, northern parts of Qardho district in Bari region, Xudun and Taleex district in Sool region, southern parts of Ceerigaabo district in Sanaag region, and southern parts of Burco district in Togdheer region. Such rains are also expected over southern parts of both Sablaale and Kurtunwaarey districts in Lower Shabelle region, eastern parts of Belet Weyne district in Hiraan region, northwestern parts of Qandala district in Bari region, northern parts of Laasqoray district and northern parts of Ceerigaabo district in Sanaag region.

**Moderate cumulative rainfall between 50 mm and 100 mm** is likely over the rest of the areas in Bay and Sanaag regions, the rest of the areas in Xudun and Taleex district in Sool region, the rest of the areas in southern Burco district in Togdheer region, several areas in Lower Shabelle region, Ceel Waaq and Bardheere districts in Gedo

region, Qansax Dheere district in Bay region, Balcad district in Middle Shabelle region, Qandala district and northern parts of Qardho district in Bari region, and over an area confined to the southern Hargeisa district in Woqooyi Galbeed.

**Light cumulative rainfall of less than 50 mm** is forecast over several areas in Lower Juba, Mudug and Nugaal, Awdal and Woqooyi Galbeed regions, the rest of the areas in Gedo and Bari regions, Jowhar, Cadale and Adan Yabaal districts in Middel Shabelle region. Such rains are likely over Borama district areas in Gedo and Bari regions, Jowhar, Cadale and Adan Yabaal districts in Middel Shabelle region.

**Dry conditions** are likely to prevail over vast coastal areas in Nugaal and Bari region, Zeylac district and northern parts of both Lughaye and Baki districts in Awdal region, Berbera district in Woqooyi Galbeed region, and Ceel Afweyn district in Sanaag region.

**Temperature Forecast:**

Moderately high temperatures of between 35°C and 40°C are likely over Lower and Middle Juba regions, Galgaduud, Mudug and Bari regions, Dollow and Luuq districts in Gedo region, Sablaale and Wanla Weyn districts in Middle Shabelle region, southern parts of both Dinsoor and Buur Hakaba districts in Bay region, western parts of both Belet Weyne and Bulu Burte districts in Hiraan region, Garowe district in Nugaal region, Sheikh district in Woqooyi Galbeed region, Zeylac and Lughaye districts and northern parts of Baki district in Awdal region.

Moderate temperatures of between 30°C and 35°C are likely the rest of the country except over Qandala in Bari region, Ceerigaabo in Sanaag region and northern parts of Odweyne in Togdheer region where temperatures less than 30°C are anticipated.

**Current River Levels**

Along the Shabelle River, the current level at Belet Weyne is above the station Long Term Mean (LTM) but below the 2023 level (Graph 1). At Bulu Burte, the current river level is exactly equal to the station LTM and below the level it was on the same day last year. The level at Jowhar rose sharply in the last few days to a level above LTM and is exactly as it was last year. Compared to observations taken on 10 April 2024, levels recorded on 18 April 2024 at Belet Weyne (4.58 m), at Bulu Burte (2.80 m) and at Jowhar (5.27 m) represent 1.80 m, 0.60 m, and 3.07 m rise, respectively, in response to run off from the cumulatively moderate local rains observed in the last week. **The Shabelle River level at Jowhar is now at high flood risk level and just 23 cm below bankful.**

Current levels along the Juba River are above the station LTM and below the 2023 levels at Dollow and Luuq (Graph 2). Compared to observations taken on 10 April 2024, levels recorded on 18 April 2024 at Dollow (2.36 m) and Luuq (2.842 m) represent 82 cm and 38 cm drop, respectively, in response to decreased run off as a result of reduced rainfall activity observed within the Juba River catchment in the last week. Even with the unavailability of measurements from the traditional gauging stations at Bardheere and Bu'aale, it is anticipated that a similar steady drop in the levels is likely along the central and lower sections of the Juba River.

**Impacts Associated with the Weekly Weather Forecast**

The moderate to heavy rains that are likely to fall within some isolated areas in the middle catchments of Juba River are likely to

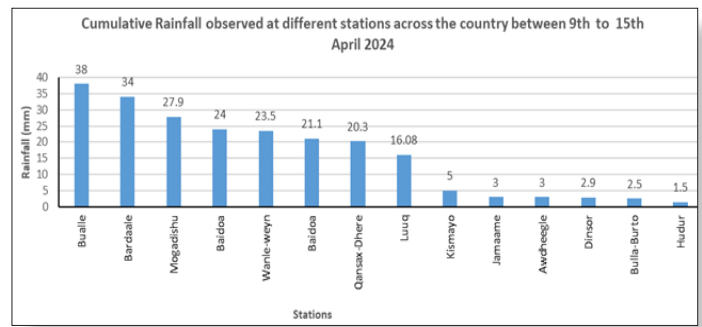
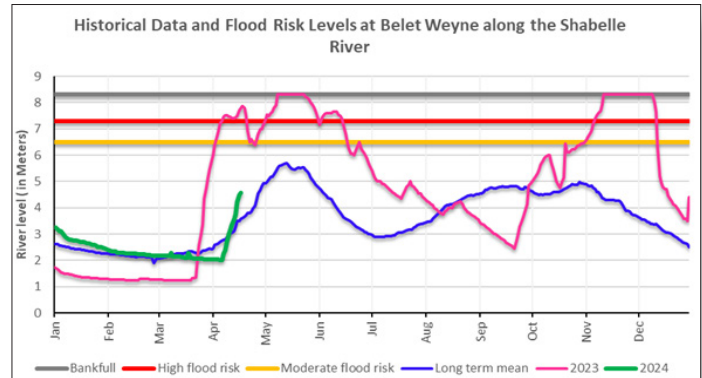
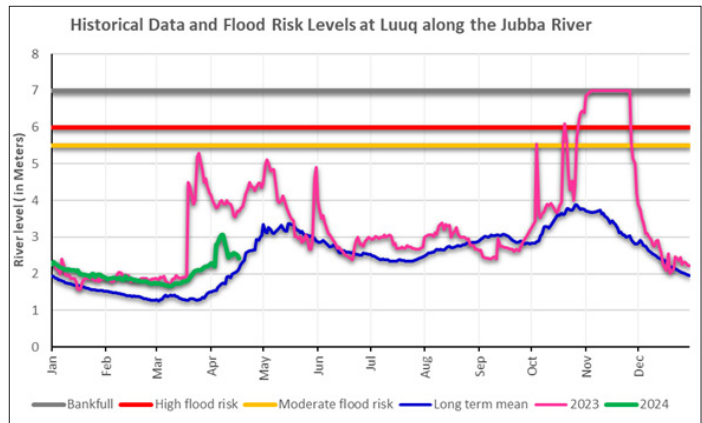


Figure 1: Stations that observed rainfall of more than 1 mm between 9 and 15 April 2024



Graph 1: Shabelle River level at Belet Weyne Gauging Station as of 18 April 2024



Graph 2: Juba River level at Luuq Gauging Station as of 18 April 2024

generate sufficient run off to cause a rise in the river levels. Given that light to moderate rain is forecast over most other places in its upper catchments, the rise in the Juba River levels is expected to be below moderate flood risk threshold. However, the known high sensitivity of the Juba River levels to rainfall events calls for day by day monitoring of storm events within its catchments.

The moderate to heavy rains that are likely along the entire Shabelle River are likely to generate sufficient run off to sustain the steady rise in the levels with moderate riverine flooding risk at the upper catchment between Belet Weyne and Jalalaqsi. There is a **high riverine flooding risk at its lower catchment particularly between Jowhar and Balcad.** The risk of riverine flooding particularly at other vulnerable breakage points along the entire Shabelle River rises to high level in the last week of April if the duration and intensity of the rains increases beyond the forecast period.

There is **moderate risk of flash flooding over some areas in Bay, Sool and Sanaag regions** due to very intense rains between 18 and 21 April 2024.

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