





SOMALIA WEEKLY WEATHER FORECAST

#### Valid From 13th to 19th Dec 2023

### Light rains anticipated over few southern parts, with dry conditions expected to prevail across the rest of the country.

# Review of the Weather Conditions for the Period 6th November to 12th December 2023

As the monsoonal winds blow southwards from the largely continental Indian subcontinent, dry and subsident air mass leads to dry conditions over most parts of the country. A tropical disturbance that developed on the night of 7th December in the northeastern part of Indian Ocean died down with negligible influence on the weather conditions over the Greater Horn of Africa on the evening of 9th December.

In the past week, dry conditions prevailed across most parts of the country, with no rainfall recorded at any of the existing weather monitoring stations. These dry conditions specifically over the Juba and Shabelle River catchments have led to a gradual decrease in river levels. Along the Juba River, the river levels are now below flood risk levels at various points including Dollow, Luuq, Bardheere, and Bualle. However stagnant floodwaters are still reportedly present along the vulnerable riverine areas especially downstream of Bualle. The Shabelle River is still bankful with floods of decreasing magnitude at Bulo Burte and with floods of stable magnitude at Jalalaqsi. The river level has slightly dropped below bankful at Belet Weyne with flood waters receding from most parts of the town. The river level at Jowhar has remained stable in the last week and is now 13 cm below moderate flood risk level with minimal risk flooding.

# Forecast of the Weather Conditions for the Period 13th December to 19th December 2023

Light rainfall of below 50 mm is forecast over some areas in the southern parts of the country in the coming week (Map 1). These light rains are expected in the earlier part of the forecast week (13th – 15th December) over Badhaadhe, Kismayo and Jamaame districts in Lower Juba region, Ceel Waaq and Belet Xaawo districts in the Gedo region. Other areas expected to receive the light rains are the coastal areas of Jilib district in Middle Juba region, Marca and Kurtunwaarey districts, areas in the Sablaale, Qoryooley, and Barawe districts in Lower Shabelle region, and Baidoa in Bay region. Although moderate in cumulative amounts, the rains over the Lower Juba region are likely to be spread out across the entire week and will therefore be less intense. Moderate rains above 50 mm may be observed in some areas along the southern coastal strip whenever the monsoonal winds blowing parallel to the coastline are accentuated by any elevated East-West oriented terrain. As these monsoonal winds blow southwards across the Gulf, there are also chances of trace amounts of rains over the northern coastal strip including Caluula and Qandala districts in Bari region and Berbera districts in Woqooyi Galbeed region.

**Dry conditions** are expected to persist over the rest of the country during the coming week. The model predictions of minimal rainfall amount across the country and the Ethiopian highlands in the month of December signals the end of the Deyr rainy season for Somalia.

**Temperature Forecast:** The current forecast indicates likelihood of very high temperatures ranging from 35°C to 40°C over extensive areas in Lower and Middle Juba regions, southern parts of Lower

Shabelle region, Luuq and Garbahaaray districts in Gedo region (Map 2). High temperatures of between 30°C to 35°C are likely over the south, central and northeastern parts of the country. Moderate temperatures ranging from 25°C to 30°C are expected over some extensive areas in the following regions: Bari, Sanaag, Sool, Togheer, Woqooyi Galbeed and Awdal. Moderately low temperatures of between 20°C and 25°C are likely over some areas in Bari, Sanaag, Togheer, and Woqooyi Galbeed regions. Temperatures below 20°C are only likely over elevated areas with very low air density in Ceerigaabo district in Sanaag region.



Map 1: Seven-day rainfall forecast for 13th – 19th December 2023

#### **Current River Levels**

Due to the prevailing dry conditions across the catchments of the Juba and Shabelle Rivers, there has been a consistent decline in river levels. Compared to observations made along the Juba River last week on Wednesday 6th December 2023, water levels are now below flood risk levels having dropped from 2.92 m to 2.65 m at Dollow, from 3.10 m to 2.92 m at Luuq, and from 7.26 m to 6.72 m at Bualle. The Shabelle River remains bankful at Bulo Burte with decreasing flood magnitude and at Jalalaqsi with stable flood magnitude. The river level is slightly dropping below bankful with receding floods at Belet Weyne. At Jowhar, the river level is stable at 13 cm below moderate flood risk level with minimal risk of flooding.

Figures 1 and 2 show the current river levels against the Short Term Mean and 2022 levels for Belet Weyne and Luuq stations respectively.



Map 2: Temperature forecast for 13th December 2023

Impacts Associated with this Week's Weather Forecast

The prevailing and forecast dry weather conditions over the catchments of both Juba and Shabelle Rivers within the country and in the Ethiopian highlands is expected to lead to a further decrease in the river levels along both rivers lessening the risks associated with flooding.

River levels along the Juba River are expected to drop further down to Long Term Mean at Dollow, Luuq, Bardhere and Bualle. The ongoing flooding downstream of B ualle is expected to reduce in magnitude and spatial extent. The river level at Belet Weyne is expected to gradually decrease at first as floodwater recedes from the town back to the main river channel before sharply dropping to it's LTM. At Bulo Burte the river level is expected to decrease gradually thereby lessening the magnitude of ongoing floods. The river level at Jalalaqsi and associated flooding is likely to be sustained during the first part of the forecast period. The river level at Jowhar is likely to remain stable as water is continuously lost to breakages upstream; with an upward tendency and moderate flood risk as the flood wave moves downstream.

The hot and dry air mass over extensive non-coastal areas in the south, central and northeastern parts of the country is likely to lead to accelerated evapotranspiration and extraction of soil moisture from previously inundated and waterlogged areas. Additionally, water seepage will contribute to soil drying up thus rendering previously flooded areas more accessible and favorable for flood recession farming.



Figure 1: Shabelle river level at Belet Weyne gauging station as on 13th December 2023



Figure 2: Juba River level at Luuq gauging station as on 3th December 2023

The communities returning to their residences post-evacuation should carefully evaluate the existing ground conditions and the state of structures before habitation.

Coupled with the previous month's wet conditions, the mild temperature over some areas still favors various agropastoral activities such as short-crop crop cultivation, pasture growth, and fodder production more so under flood recession farming. Despite these favorable conditions, given the forecast period's progression towards dry and hot Jillal season, agro-pastoralists are advised to prioritize water conservation, especially in areas where favorable rains were received in the month of November.

The current forecast provides an opportune time for farmers to engage in harvesting, processing, and storing available fodder, ensuring a sustainable supply for animal feeding during the upcoming dry season. The farmers should deliberately take advantage of the hot and dry conditions to reduce postharvest losses including weight, quality and nutritional loss in their produce, loss of seed viability loss, and marketing loss.

Healthwise, preventive measures should be put in place to limit the spread of vector borne diseases which are favored by the forecast hydroclimatic conditions.

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



Funded by the European Union

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