Food and Agriculture Organization of the United Nations

SWALIM
Somali Water and Land Information Management

SOMALIA WEEKLY WEATHER FORECAST

Valid From 4th to 11th October 2023

Moderate to heavy rains expected over inland parts of Central and North Eastern regions particularly around parts of Gedo, Bay, Bakool and Hiraan regions in South Somalia, parts of Mudug and Galgaduud regions in central Somalia and parts of Sool, Sanaag and Bari regions in Northern Somalia.

Review of the Weather for the Period 27th Sep to 5th October 2023

During the review period, several parts of southern Somalia received high rainfall. Extremely high rainfall was recorded in Baidoa (179.7 mm) on the 4th October resulting to extensive flash floods within the town. Similarly high rainfall (123 mm) was observed in Luuq on the same day with limited flooding on the nearby farms. Other parts that recorded significant rainfall of more than 30 mm include Ruqi (40 mm) in Awdal region, Garowe (38.1 mm) in Nugaal region, Xeego (35 mm) in Awdal region, Bulo Burte (34.5 mm) in Hiraan region, El Afweyn (33 mm) in Sanaag region, Dhubato (30 mm) in Woqooyi Galbeed region *(Graph 1)*.

From 4 October up to date, a breakage in Mahaday village along Shabelle River created a flood affecting hectares of farmland and thousands of people (numbers to be confirmed), with many villages isolated due to muddy roads. in Mahaday, the flood waters entered deep into neighborhoods, and the population began fleeing with essential belongings moving to the neighboring villages. The other villages affected by the floods are Kacaanka and Horseed. The exceptional rise of river level could be caused by debris accumulated at the Sabuun Barrage, downstream from Mahaday. Urgent humanitarian intervention is needed in Jowhar District as well as the removal from debris from Sabuun Barrage.

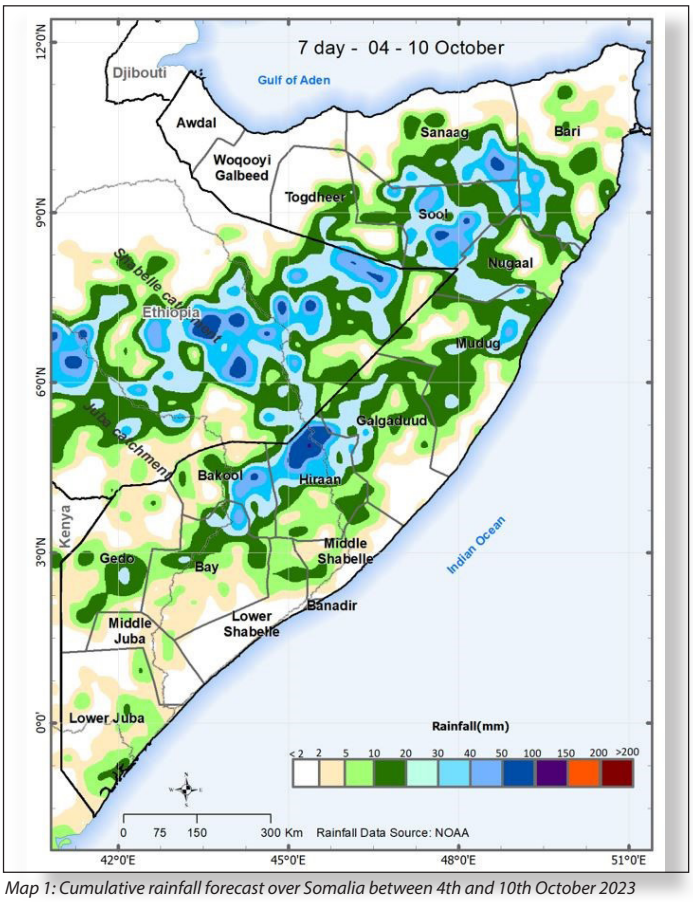
A steady rise in water levels was observed along both Juba and Shabelle Rivers due to light to moderate rains observed over the catchment within the country and upstream in the Ethiopian Highlands. Such visibly rising water levels were reported along the Shabelle River near Mahaday town on 2nd October2023. A huge accumulation of debris in front of the Sabuun barrage has also been identified on a satellite image. Just as was the case in March 2023, the debris could cause river flow impediment and act like a dam leading to unintended upstream flooding. Immediate mobilization of excavation machinery by the relevant Government and non-governmental authorities is advised to remove the debris before the river level rises further, making the intervention difficult to implement.

On the 2nd October 2023, FAO SWALIM released maps and geospatial datasets from which 170 open breakage points were identified along the Shabelle River and 26 along the Juba River. Also identified were 56 canal flooding points and 168 overflow points. All these risk features require immediate action. FAO SWAIM has also generated and disseminated maps and spatial datasets of potential higher grounds for potential evacuation in case of flooding along both rivers.

Forecast of the Weather for the Period 4th to 11th Oct 2023

Moderate rainfall of between 50 and 100 mm is forecast over eastern parts of Bakool region particularly Tayeeglow; northern parts of Bay region, and several areas in Hiraan region particularly Belet Weyne, Mahas, and Mataban (Map 1). Rainfall of similar amounts is also likely over Jariiban district in Mudug, Xasbahale district in Nugaal, and Laas Caanon, Xudun, and Taleex districts in Sool. The rains are likely to spread outwards and intensify over Bay, Hiraan, Mudug and Nugaal and prevail beyond the forecast period to cumulative amounts above 100 mm. Other places forecast to receive comparable amounts of rainfall include Garadag, Dhahar, and Buran in Sanaag region, Qardho and Dangoroyo in Bari region, Buuhodle, Balidhiig, and Warabeye in Togdheer region.

Light rainfall of less than 50 mm is anticipated across several areas in Somalia. These include Burao, Beer, and Xaaji Saalax in Togheer region; Caynabo, Waridaad, and Yagori in Sool region; Erigavo and El Afweyne in Sanaag region; Ufayn, Ballidhig, and Bandar Beyla districts in Bari region; Garowe and Burtinle districts in Nugaal region; extensive parts of Mudug region; inland areas of Galgaduud region, particularly around Dhuusamarreb, Cadaado, and Cabudwaaq districts; Adan Yabaal and Jowhar in Middle Shabelle region; Wanla Weyne district in Lower Shabelle region; areas around Baidoa and Qansahdere in Bay region; areas around Luuq and Bardheere in Gedo region, as well as areas around Jamame, Kismaayo, and Badhaadhe districts in Lower Juba region.



Map 1: Cumulative rainfall forecast over Somalia between 4th and 10th October 2023

Dry conditions are likely over extensive areas in Awdal region, Woqooyi Galbeed region, western and northern parts of Togdheer region, as well as coastal and western parts of Sanaag region. Similar dry conditions are likely over extensive coastal and northwestern areas of Bari region, Galkayo district and the southern coastal parts of Mudug region, coastal parts of Galgaduud region, and coastal parts of both Lower and Middle Shabelle regions. Dry conditions are also anticipated over Banadir region, southern parts of Bay region, northern and western parts of Gedo region, as well as extensive areas of Lower and Middle Juba.

Temperature Forecast: Northwestern parts of Hiraan and Middle Shabelle regions, coastal parts of Bari region, central parts of Sool region, as well as coastal areas of Awdal and Woqooyi Galbeed regions, are likely to experience higher temperatures of between 35°C and 45°C. Most other parts of the country are likely to experience moderate temperatures of between 25°C and 35°C.

Surface (10 m) Wind Forecast: There is a higher likelihood (70%) of surface (10 m) winds exceeding 20 knots (10 m/s) over the northeastern coastal strip including Jariiban and Eyl districts in Nugaal region and Bandarbeyla and Iskushuban districts in Bari region prevalently between 3 pm and 9 pm local time during the forecast period.

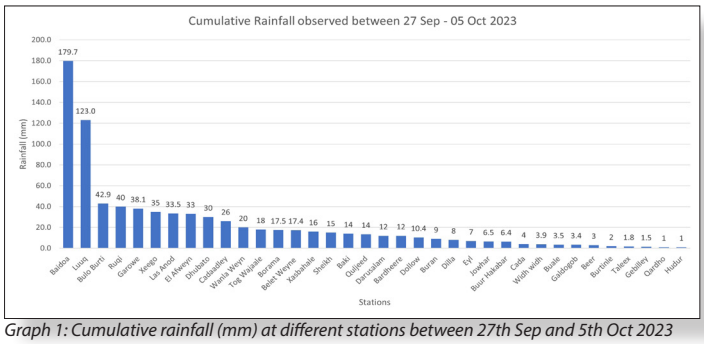
Current River Levels

A steady rise in water levels has been observed along both Juba and Shabelle Rivers due to light to moderate rains observed over the catchment within the country and upstream in the Ethiopian Highlands. At Dollow, Luuq and Bardheere stations along Juba River, water levels have surpassed their expected levels at this time of the year. The heavy rains on the night of 4th October 2023 resulted to a very sharp rise (2.12 m) at Luuq surpassing the moderate flood risk level (5.5 m). However, as the day progressed the levels stabilized back. Downstream at Bualle, consecutive localized rains over the last week have led to a sharp rise in the river levels but still below short term mean and 2022 levels. At Belet Weyne, Bulo Burti and Jowhar Stations along Shabelle River, the river levels have surpassed the short term mean and the 2022 levels.

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

Impacts Associated with the Weekly Weather Forecast

Depending on scale and intensity, the light to moderate rains forecast over the Ethiopian highlands, and localized rains over the river catchments within the country are expected to lead to soil saturation and faster run off generation into the river streams. Consequently, the water levels along Juba and Shabelle are projected to rise to flood-risk levels as from the third week of October. However, if the accumulation of debris and sedimentation in front of the Sabuun barrage is not removed in time, it could cause river flow impediment and act like a dam leading to unintended upstream flooding much earlier. The continued rains over Bay region are likely to prolong the risk of flash flooding in vulnerable areas especially Baidoa town. Based on the forecast and the established



Graph 1: Cumulative rainfall (mm) at different stations between 27th Sep and 5th Oct 2023

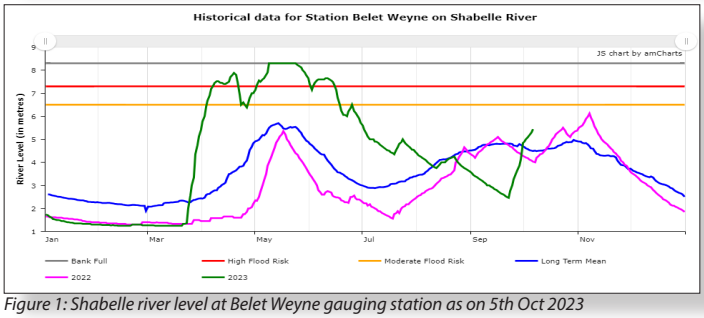


Figure 1: Shabelle river level at Belet Weyne gauging station as on 5th Oct 2023

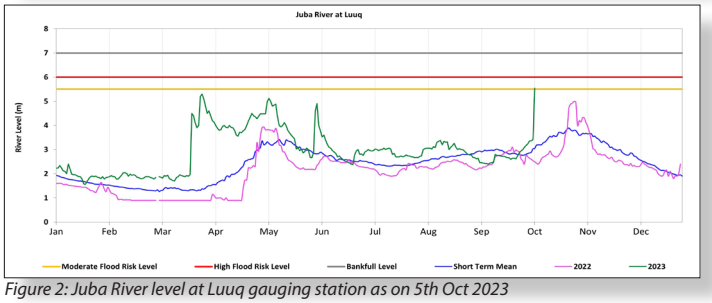


Figure 2: Juba River level at Luuq gauging station as on 5th Oct 2023

triggers, there is also a potential risk for flash flooding at vulnerable build up areas in Burtinle and Garowe districts. Communities residing near these rivers are advised to maintain vigilance and make necessary preparations for potential flooding incidents. As an integral part of the early warning system, it is crucial to have anticipatory measures actively in place for any flood-related risks, particularly in vulnerable areas.

The forecast light to moderate rains over the agropastoral livelihood zones in the south central and northern parts of the country, coupled with the general light rains in the previous week, offers an opportunity for the livelihood activities such as land preparation and planting. The forecast weekly rains will lead to recharge of water sources, replenishing of water catchment levels, and improvement in the soil conditions. These conditions are ideal for land clearance in the agropastoral livelihood zones and should signal the beginning of planting. Moreover, the forecast moderate temperatures (25 and 35) over most parts of the country, are likely to lead to warmer soil conditions favorable for germination. However, the moderately high temperatures above 35) in Hiraan and Middle Shabelle regions, coastal parts of Bari region, central parts of Sool region, as well as coastal areas of Awdal and Woqooyi Galbeed region may lead to substantial evapotranspiration. The forecast strong surface winds will worsen the evapotranspiration and also raise loose soils leading to dusty conditions over the northeastern coastal strip including Jariiban and Eyl districts in Nugaal region and Bandarbeyla and Iskushuban districts in Bari region.

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