

SOMALIA CLIMATE OUTLOOK FOR THE 2023 GU “LONG RAINS” SEASON

Issued on 17th March 2023

There is an increased likelihood that below normal 2023 Gu rains will be observed over Somalia but with high spatial variability

Forecast for 2023 Gu “Long Rains” Season

Somalia’s Gu (April-May-June) is the main wet season in the country, and is critical in supporting agricultural activities and replenishing water and pasture. The season begins as early as the second half of March, at the tail end of the Jilal Season, and the rains intensify in April with the onset progressing north eastwards almost mimicking the south-north progression of the Inter Tropical Convergence Zone (ITCZ) that follows the overhead sun. Gu rainfall cessation occurs in June in most parts of the country, with the north-eastern coastline receiving the least amount of rainfall during this season.

According to the recently released Seasonal Climate Forecast issued by IGAD’s Climate Prediction and Applications Centre (ICPAC), there is a 50% likelihood that below normal rainfall (drier than normal conditions) will be observed over most parts of Somalia as is evidenced by the yellow coloration shown in Map 1. Over the northern parts of Middle Shabelle there is greater likelihood (60%) of observing such dry conditions. In the north eastern part of the country, southern Togdheer and Lower Juba there are equal probabilities of below normal, normal and above normal rains over most areas (denoted by white coloration).

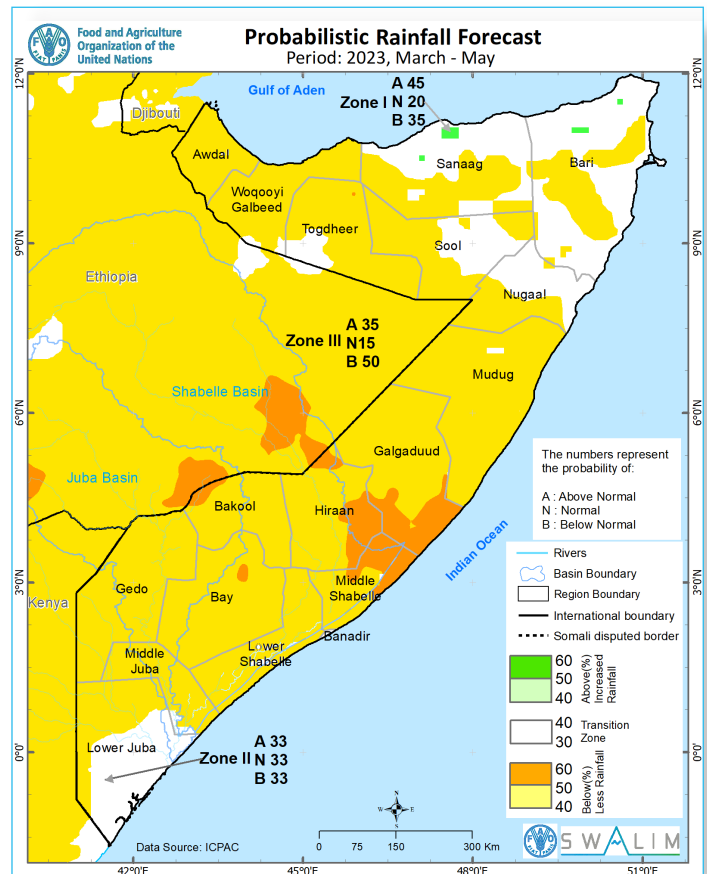
The above rainfall conditions will be accompanied by warmer than normal surface temperatures (55% likelihood) over much of the country, with increased chance of up to 70% over the northern areas. Drought analysis using SPI have shown moderate multi- season drought conditions in the southwestern Somalia (Gedo and Juba regions) and severe conditions over Sanaag region.

Seasonal climate scientists have observed that the poor forecast 2023 Gu rains are comparable to the forecast conditions of the years 2017 and 2021. However, due to the poor predictability of the Gu rain season, the forecast is expected to have high spatial variability. Further, the rainfall forecasts categories vary over regions; 170 mm and 195 mm thresholds are applicable over Somalia.

It is worth noting that this forecast is designed for a regional audience that addresses the rainfall totals summed over the three-month period from March to May 2023.

The rainfall pattern may also vary from place to place, with the areas expected to receive low rains sometimes experiencing heavy storms.

SWALIM and other technical partners will keep monitoring performance of the rains for shorter time periods and will provide updates throughout the Gu season via regular bulletins.



Map 1: Forecast of the 2023 Gu “Long Rains” Season over Greater Horn of Africa

Forecast for 2023 Gu “Long Rains” Season Onset

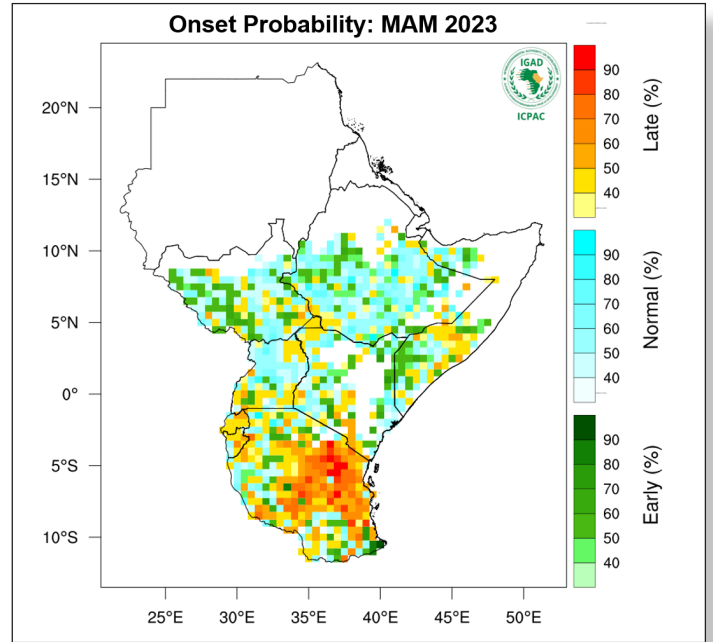
There is about 50% chance of observing an early onset over Gedo (earlier than April 11), Middle Juba and Northern part of Togdheer (earlier than April 16), and eastern part of Hiraan (earlier than April 21). Late onset (about 40% likelihood) of rainfall is expected over areas west of River Shabelle including Bakool (after April 16), Lower and Middle Shabelle and western part of Hiraan (after April 21). Normal onset timing is expected over the other parts of the country particularly, Galgaduud, Mudug and Sanaag (April 21), Nugaal (April 26), and Bari (May 1).

Impacts Associated with 2023 Gu Rainfall Forecast

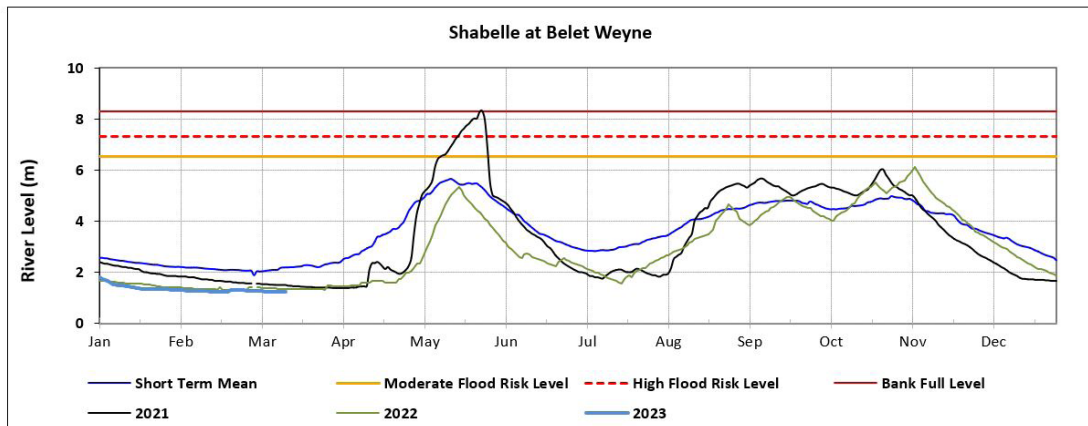
Below normal 2023 Gu rains, although with forecasts uncertainty and spatial variability, means that the country would experience an unprecedented sequence of six below-average rainy seasons with sectoral consequences. Currently levels along the entire reach of Shabelle river are below the Long Term Mean and almost identical to the 2022 levels (Graph 1); while along Juba river, at Luuq (Graph 2), the level is slightly above the mean for this period of the year, and almost double the 2022 level. Shabelle river is expected to remain low, until the start of the Gu rains. Some sections in middle and lower reaches of the river have been reported to be dry. The low levels limit water availability for the riverine communities, for domestic, livestock and agricultural use.

The dry conditions together with the above-normal temperatures will likely lead to crop and vegetation wilting posing a risk to the human and livestock survival. Late onset of the below normal rains in Bakool (after April 16), Shabelle (lower and middle) and western part of Hiraan (after April 21) will have significant impacts on cropping areas with short growing seasons. Even though below average, an early onset over Gedo (earlier than April 11), Middle Juba and Northern part of Togdeer (earlier than April 16) and eastern part of Hiraan (earlier than April 21) should signal land preparation activities in late March.

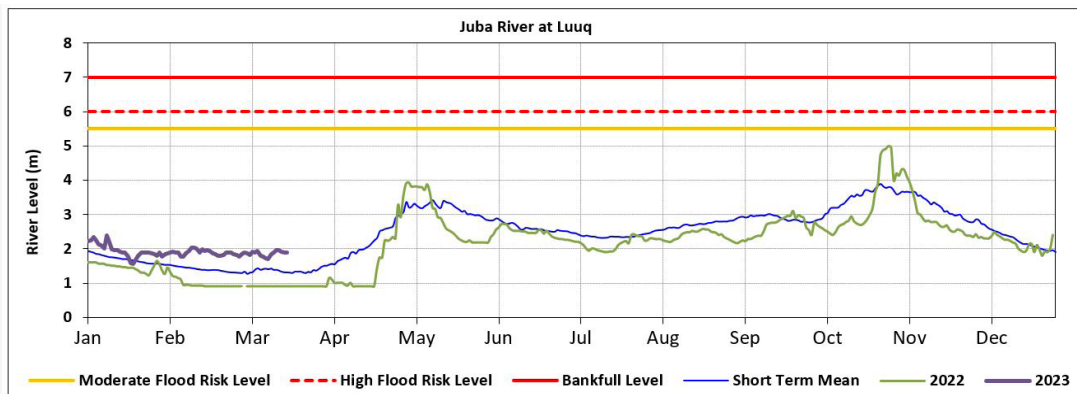
Problems related to water scarcity are likely to occur in the event of suppressed rains. There is a potential for human and/or livestock conflicts over the limited water resources in parts of the country, mainly the agro pastoral areas. Close monitoring of the situation and contingency measures are necessary in order to adequately cope with the situation. If the GU season performs below average, as it is predicted, this will translate into a very low recharge of aquifers across the country. In turn this will pose problems of groundwater quantity and quality across the country.



Map 2: Forecast Onset Dates for 2023 Gu Rains over the Greater Horn of Africa



Graph 1: Shabelle river level at Belet Weyne gauging station



Graph 2: Juba river level at Luuq gauging station

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