Food and Agriculture Organization of the United Nations

SWALIM
Somali Water and Land Information Management

REVIEW OF DEYR 2023 RAINFALL PERFORMANCE, JILAL STATUS, GU OUTLOOK, AND IMPLICATIONS ON LIVELIHOODS OVER SOMALIA

Issued: 19 January 2024

Key Highlights

Several key findings have been obtained following a review of the 2023 Deyr (October-November-December) seasonal rainfall.

- Heavy cumulative rainfall was observed over the south and central parts of the country with a substantial 1,152 mm being recorded in Baidoa in Bay region representing five times of the station's Long-Term Mean (LTM). The rainfall was more significant in Berbera in Wooqoyi Galbeed Region where the amount was 26 times the LTM.
- The *Deyr* rains began in early October over parts of Somaliland and central parts of Puntland spreading southwards to Gedo and Bay-Bakool regions. However, there was a sharp end to the Deyr rains particularly over Puntland and Somaliland with no single rainy day observed in Puntland in December.
- There was more than 30 consecutive dry days in almost all the stations in the country between 1st October and 31st December 2023.
- The observed rainfall amounts, and the length of wet spells particularly over the Juba and Shabelle River basins within the country were 100% in agreement with the forecast. The onset of *Deyr* rains across the country was also generally in agreement with the forecast with most of the stations realizing onset within a week of the forecast date.

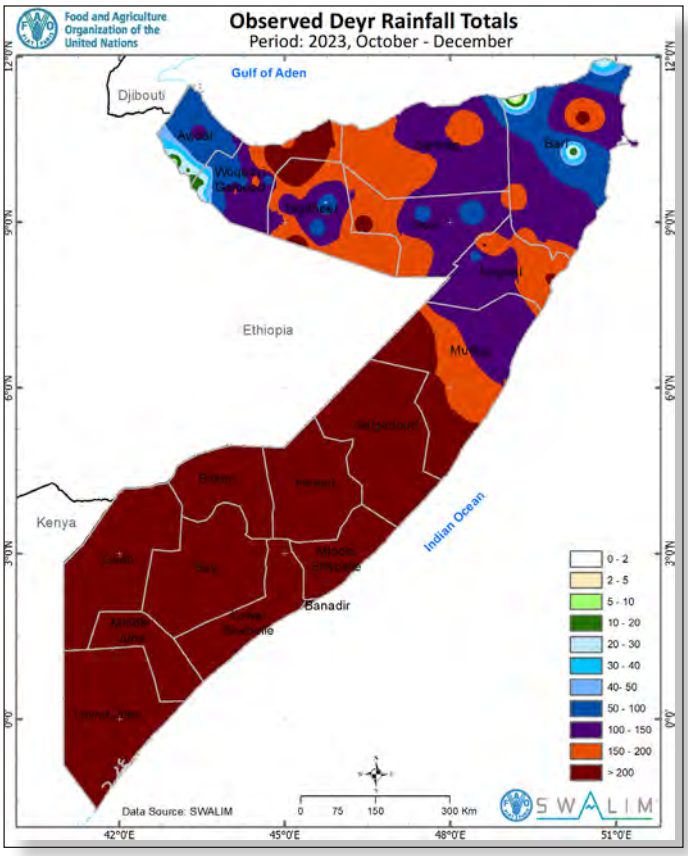
Coming in the wake of above-normal *Gu*, and a normal Hagaa rains, the substantial *Deyr* rainfall is likely to have led to substantial recharge of water sources, replenished water catchment levels, and improved soil moisture conditions hence creating favorable conditions for fodder and grassland regeneration for the livestock, and crop production across the agro-pastoral livelihoods. However, the substantial and consecutive rains over the Juba and Shabelle River basins within the country and in the Ethiopian Highlands were a recipe for massive riverine and flash floods. The longer-than-a-week wet spells favored soil soaking thus permitting rapid run off over urbanized areas and steep-sloped surfaces. By the 26th of November, water levels at 6 out of the 7 river gauging stations along the two rivers were at bankful. The resultant floods led to substantial damage to earlier-grown croplands, livestock fodder and pasturelands, buildings, and civil infrastructure rendering roads impassable and cutting off access in to and out of towns and other human settlements with devastating implications. The ensuing population displacement triggered other social challenges including unavailability of shelter, food, and clean water for use, increase in water borne diseases, and family disconnection among others.

The infrastructural interventions together with timely and accurate early warning information proved valuable in saving lives and livelihoods through evacuation to previously identified higher grounds and provision of humanitarian assistance.

Therefore, while the *Deyr* rain season generally led to improved food security situation across the country, and that the dry spells in between the season favored farmland practices like weeding, the more than a month-long dry spell poses a serious threat to the survival of crops and water retention in both open, shallow and groundwater sources .

The El Niño phenomena is expected to continue beyond *Deyr* 2023 with a marked weakening from April onwards. This is likely to therefore lead to above normal *Gu* rains in the first part of the season (i.e., March and early April) with expected flash and riverine flood risks. The forecast further projects a sharp end to the rains (i.e., drier May and June) posing agro-pastoral livelihood risks.

This bulletin presents both qualitative and quantitative review of the temporal and spatial variation of the observed rains, and verification of the forecast *Deyr* rainfall amount and anomaly, length of wet and dry spells, and onset dates. It also reviews the experienced (*Deyr*), current (*Jilal*) and projected (*Gu*) weather impacts on livelihoods over Somalia.



Map 1: The spatial variation of cumulative rainfall during the October-November-December (Deyr) 2023 season over Somalia

Review of the Observed Deyr (October-November-December) Rainfall Performance

Review of the Spatial-Temporal Variation of the Observed Rainfall

Heavy cumulative rainfall was observed over the south and central parts of the country with moderate cumulative rains over the central northeastern and northwestern parts during the October-November-December season *(Map 1)*. Based on these observations, the forecast of **cumulative rain amounts exceeding 300 mm** over the Juba and Shabelle River basins within the country was a 100 % accurate *(Map 1)*.

The heaviest seasonal cumulative rainfall of 1,152.0 mm was recorded at Baidoa station in Bay region *(Map 1)*. The heaviest monthly cumulative rains amounting to 775.8 mm was observed in December at Bardheere station in Gedo region. Over Somaliland and Puntland, the heaviest seasonal total rainfall of 429.0 mm *(Figure 2)* and 328.5 mm *(Figure 3)* was observed at Las Dacawo station in Woqooyi Galbeed region and Galdogob station in Mudug region, respectively *(Map 1)*. The highest number of rainy days (at least 1 mm of rain) were recorded at Kismaayo, Dollow, Luuq, Jowhar, and Belet Weyne (20 Days), Bardheere (21 days), Wanla Weyne (22 days), Baidoa (26 days), and Qansadheere (34 days). When averaged throughout the country, much of the rainfall was received in the month of November (103.2 mm), with moderate amount (73.1 mm) in October and the least (8.8 mm) in December.

As a demonstration of the sharp end to the Deyr rains, no single rainy day was observed in Puntland while in Somaliland only two stations recorded 7.0 mm and 16.0 mm of rainfall respectively in the entire month of December. On the other hand, the heaviest monthly cumulative rains (775.8 mm) were observed in December, compared to October (512.9 mm) and November (647.0 mm) over the South and Central regions affirming the southward shift of the rains during the cessation period.

The spatial variation of the cumulative rainfall amounts (Map 1) was as follows:

Cumulative rainfall greater than 200 mm was observed in most parts of the following regions: Lower Juba, Middle Juba, Gedo, Bay, Bakool, Lower Shabelle, Middle Shabelle, Hiran, and Galgaduud. Similarly heavy rains were also reported in Mudug's border with Galgaduud including Galdogob and Xaradheere districts and eastern parts of Hobyo district. In the north, heavy rains were observed in Berbera district in Woqooyi Galbeed region and Sheikh district in Togdheer region.

Cumulative rainfall of between 100 mm and 200 mm was received over most parts of the following regions: Nugaal, Sool, Sanaag, and Togdheer. Similar rains were also observed over Hargeisa district in Woqqoyi Galbeed region, Galkacyo and Jariiban districts in Mudug region, Qandala district, southern parts of both Qardho and Bandarbeyla districts and northern part of Iskushuban district in Bari region.

Cumulative rainfall of less than 100 mm was observed over most parts of Awdal region, Bosasso and Caluula districts and southern parts of Iskushuban district in Bari region. There are isolated areas in the central parts of Togdheer and Sool region that also received rains of comparative amounts.

The least cumulative rainfall of less than 20 mm was received in the following stations: Amoud (17.0 mm), Dilla (12.0 mm), Ruqi (7.0 mm), Qulujeed (5.5 mm), and Harirad (5.0 mm) in Awdal region, Botor (17.5 mm), Magalo-cad (13.0 mm), and Wajaale (11.5 mm) in Woqqoyi Galbeed region, and Iskushuban (11.5 mm) and Bosasso (0 mm) in Bari region.

Review of the Observed Wet and Dry Spells

The longest consecutive wet days were observed at Belet Weyne (7 days), Baidoa and Bandarbeyla (8 days), Dollow and Qansadheere (9 days). There were no consecutive rainy days in Awdal, Woqqoyi Galbeed, Sanaag, Sool, and Nugaal regions and in most parts of both Mudug and Togdheer regions, and in northern parts of Galgaduud region and central and western parts of Bari region. Based on these observations, the forecast of longer-than-usual wet spells (6 – 10 consecutive rainy days) over the Juba and Shabelle River basins within the country was accurate.

However, and except for Mogadishu (23 days), Qansadhere (27 days) and Kismayo (29 days), there was more than a month-long dry spell in all the stations in the country. The dry spells were more than two months long over Warabeye (63 days), Cada (89 days) and Bosasso (92 days).

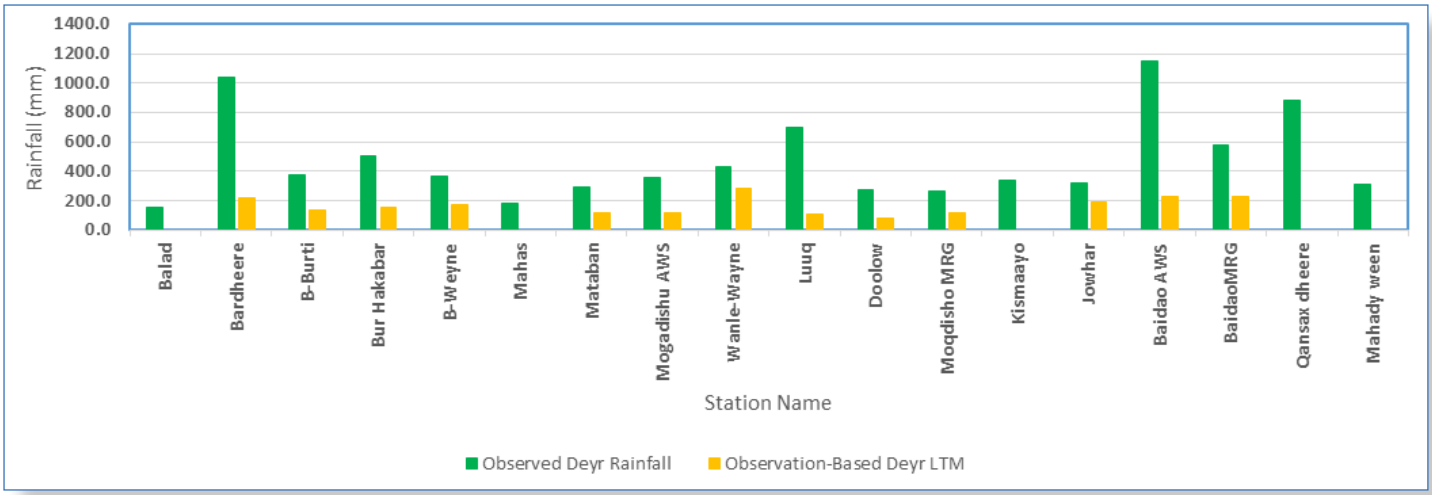


Figure 1: Spatial variation of cumulative rainfall during the October-November-December (Deyr) 2023 season against LTM over South and Central Somalia

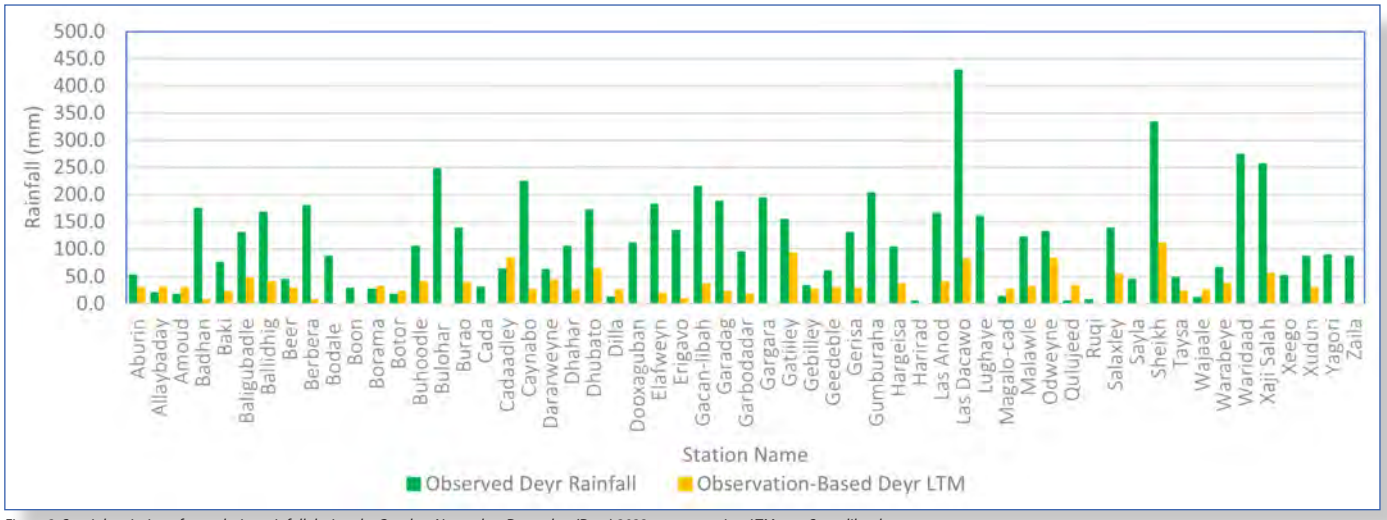


Figure 2: Spatial variation of cumulative rainfall during the October-November-December (Deyr) 2023 season against LTM over Somaliland

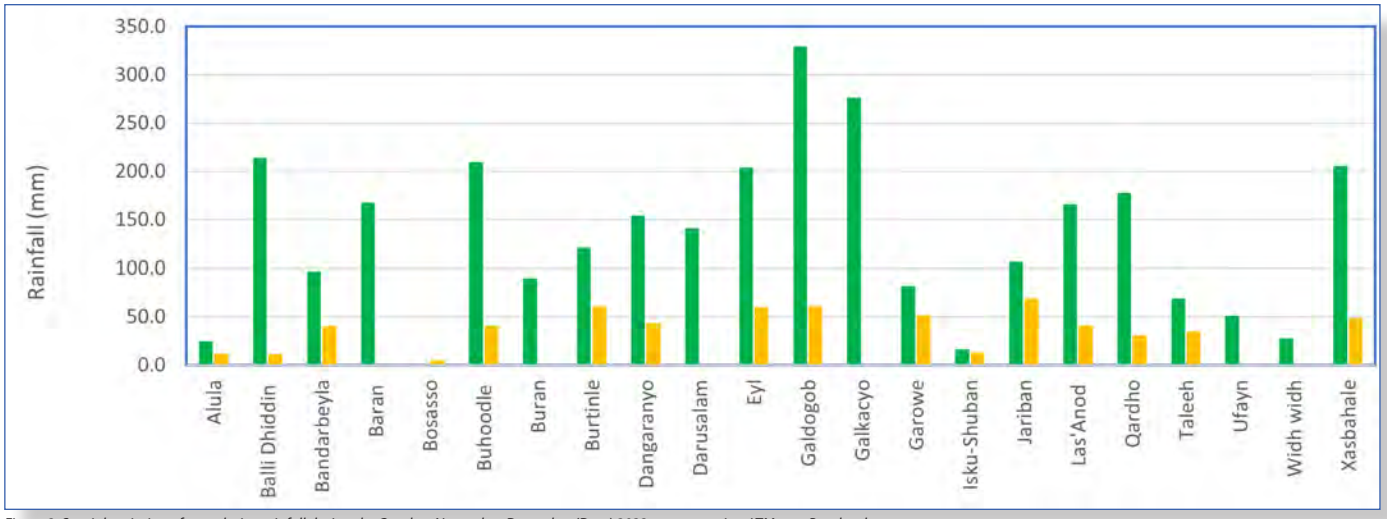
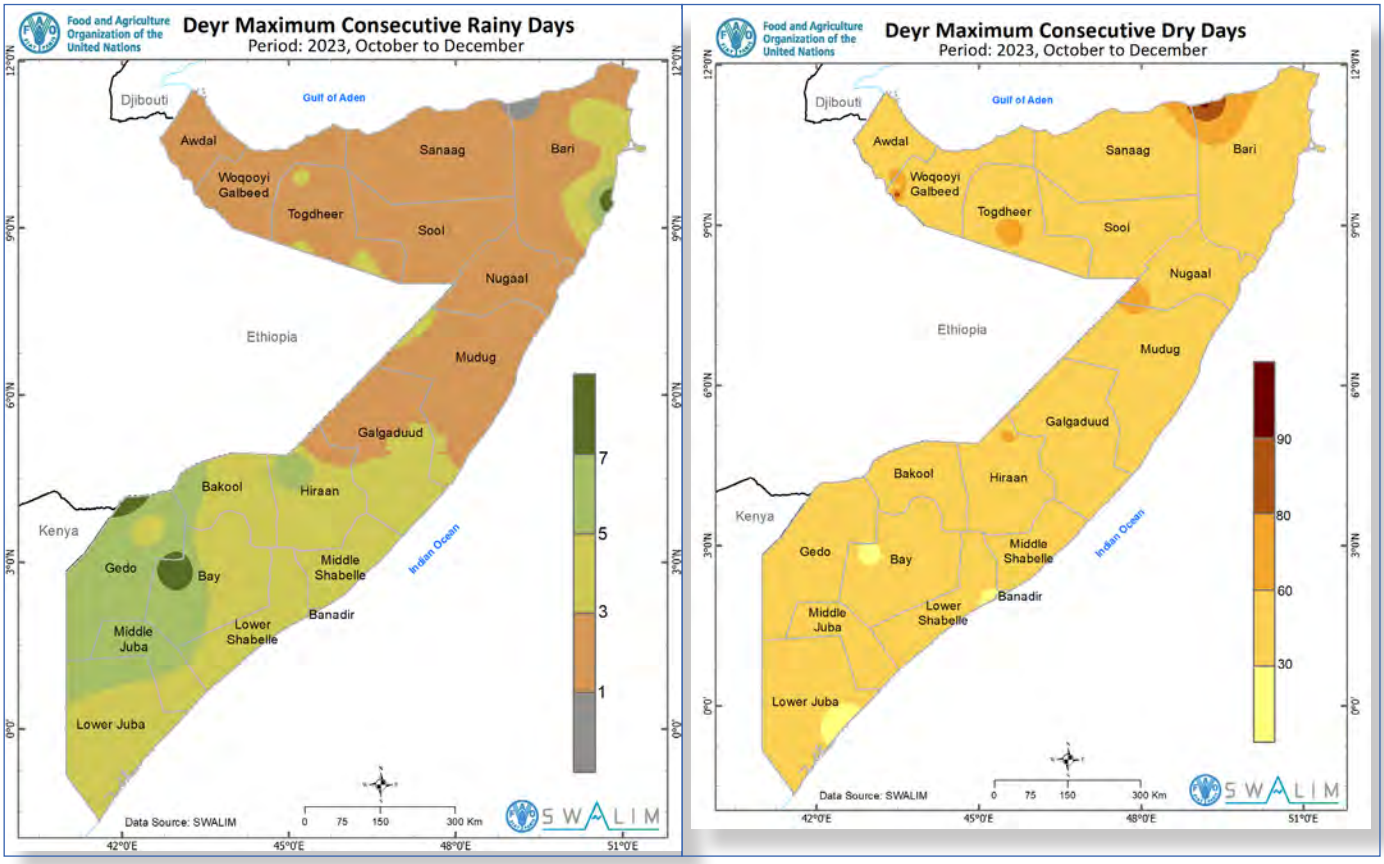


Figure 3: Spatial variation of cumulative rainfall during the October-November-December (Deyr) 2023 season against LTM over Puntland

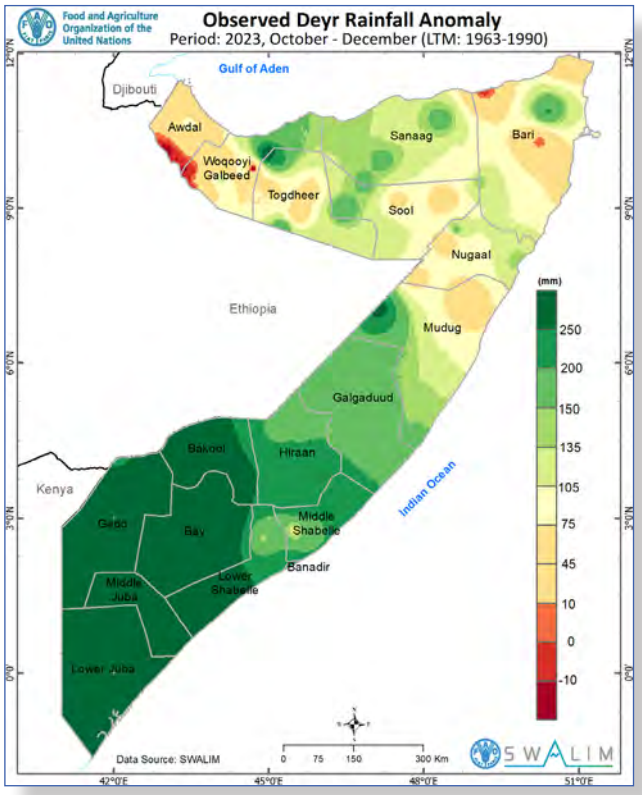


Map 2: The spatial variation of maximum consecutive rain (left) and dry (right) days during the Deyr 2023 season over Somalia

Review of the Observed Rainfall Anomaly

In this review, the long-term average *(LTM)* of rainfall during the Deyr season over Somalia was used as the climatology. Based on this climatology, positive anomaly was generally observed throughout the country except for some areas in Awdal, Woqqoyi Galbeed and Bari regions in the north *(Map 3)*. The Deyr rains were multiple times heavier and more intense compared to the LTM. The largest positive anomalies were realized at Badhan (166.6 mm) and Berbera (172.1 mm) in Woqooyi Galbeed and Bali Dhidhin (203 mm) in Bari region *(Map 1)* where the cumulative observed rainfall was as high as 2350 %, 2607 % and 2038 % of the respective station LTMs. Over South and Central Somalia, the rains were five (5) times the LTM over Bardheere and Baidoa and six (6) times over Luuq *(Figure 4)*. Over Somaliland, the rainfall received over Erigavo, Badhan and Berbera were 14 times, 23 times and 26 times the LTM *(Figure 5)*. The rain observed over Puntland specifically at Galdogob and Qardho was five (5) times the LTM while that over Bali Dhidhin was 20 times the LTM *(Figure 6)*.

Notable negative rainfall anomalies (Map 3) were observed in Qulujeed (-27.9 mm) in Awdal region and Cadaadley (-19.7 mm) in Woqqoyi Galbeed region representing only 16 % and 76 % of the station LTMs *(Figure 5)*, respectively.



Map 3: The spatial variation of Deyr 2023 rainfall anomalies as a percentage of LTM over Somalia

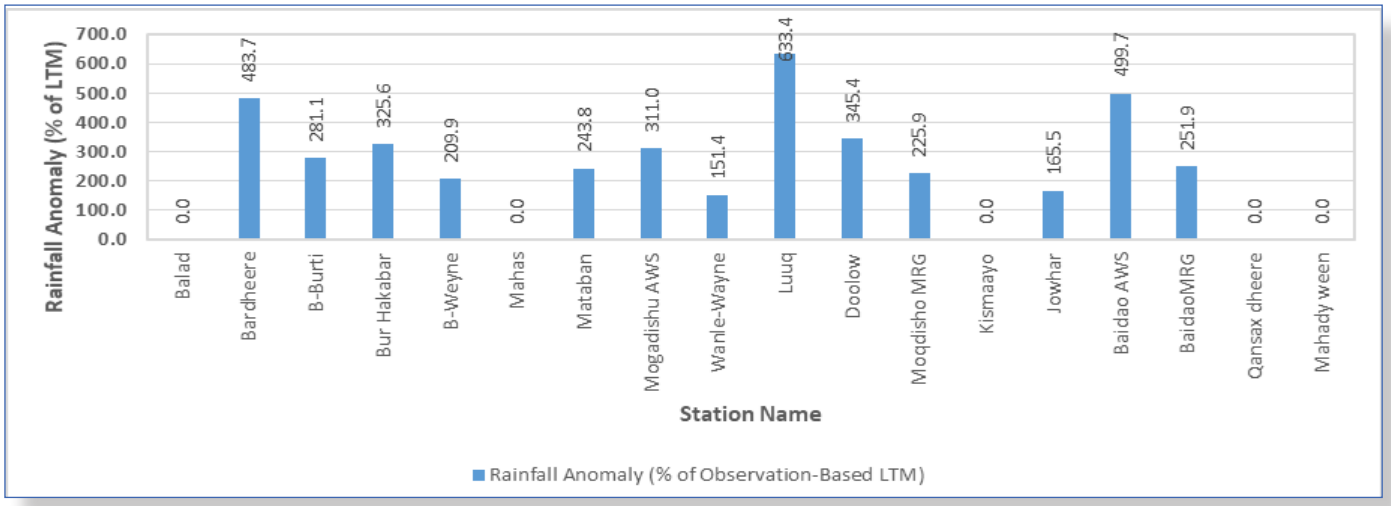


Figure 4: The Deyr 2023 rainfall anomalies as a percentage of LTM over South and Central Somalia

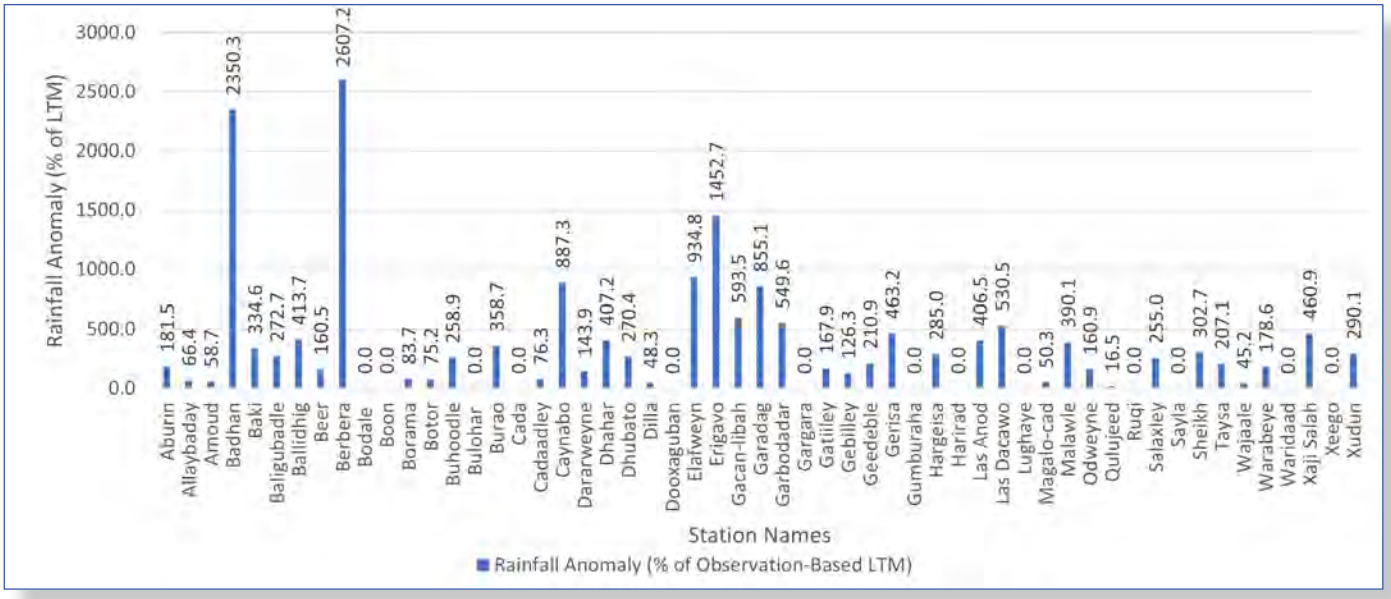


Figure 5: The Deyr 2023 rainfall anomalies as a percentage of LTM over Somaliland

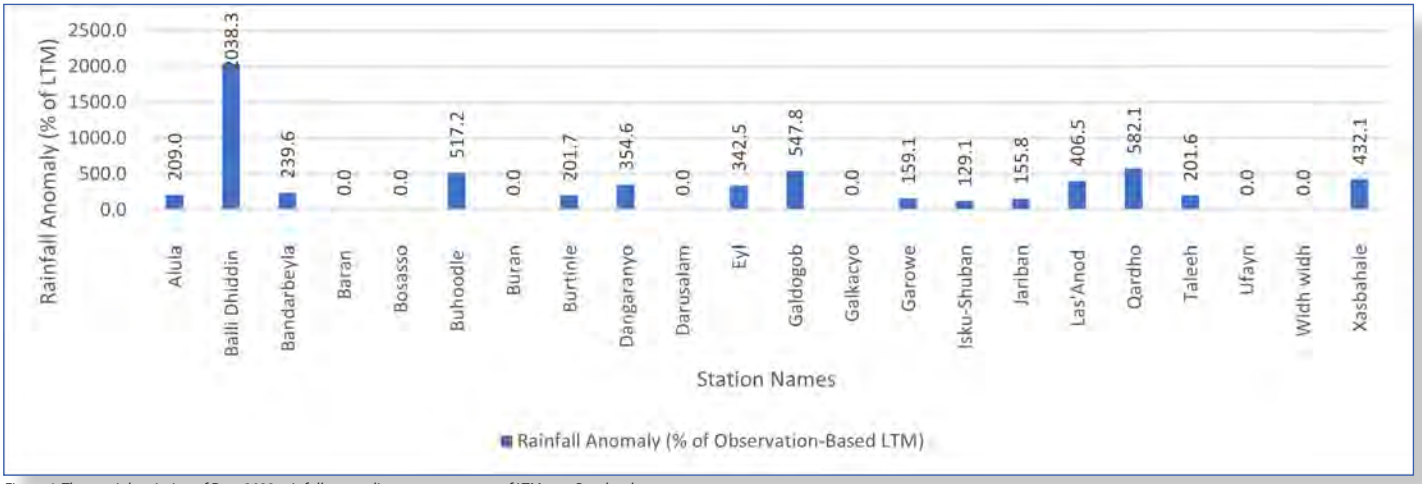


Figure 6: The spatial variation of Deyr 2023 rainfall anomalies as a percentage of LTM over Puntland

Review of Deyr Rainfall Onset Dates

In this analysis, the following operational onset-day definition was adopted: a day during which 20 mm of rain "was received within three days (which can be observed in a day within the three days) and no seven continuous dry days within 21 days afterwards".

The forecast of the onset of Deyr rains was generally accurate across the country. No single station recorded an onset earlier than had been forecasted. While some torrential rains were observed as from the 4th and 5th October 2023 at Baidoa (195.0 mm), Qansadhere (94.2 mm), and Luuq (123.0 mm), the actual operational onset was observed in these stations on 11th (Qansadheere) and 18th October 2023 (Baidoa and Luuq).

The rains over Xaji Salah (2-Oct-23) in Sool region, Buhoodle (5-Oct-23) in Togdheer region, Eyl (10-Oct-23) in Nugaal region, Qansadheere (11-Oct-23) in Bay region, Luuq (18-Oct-23) in Gedo region on the upper catchment of Juba River, Belet Weyne (18-Oct-23) in Hiran region on the upper catchment of Shabelle River catchment, Garadag (17-Oct-23) in southern parts of Sanaag region, and Galkacyo (19-Oct-23) in the western parts of Galmudug region were observed within a week of the forecast onset date.

The onset of the rains over Kismaayo (31-Oct-23) in Lower Juba region and Jowhar (10-Nov-23) in Middle Shabelle region were about a month later than had been forecasted. The rainfall onset at Bandarbeyla (2-Nov-23) in Bari region, Elafweyn (3-Nov-23) and Erigavo (3-Nov-23) in Sanaag region was late by about two weeks.

The rainfall onset was realized in 49 stations only representing about half of the monitoring network *(Figure 7)*. Prior to the Deyr onset, Hagaa rains were observed over Somaliland (named Karan). During the transition between the two seasons in the month of September the rains spread eastwards from Somaliland to Puntland. Although the Deyr earliest rains may have been sporadically spread across the country, the analysis of the operational onset seemingly depicts a general southward spread from Somaliland and central parts of Puntland to Gedo and Bay-Bakool regions. The lack of dense-enough station network within Lower Juba, however, may explain the lack of evidence to demonstrate the climatological northwestward rainfall onset progression from the southern coastal parts of Somalia.

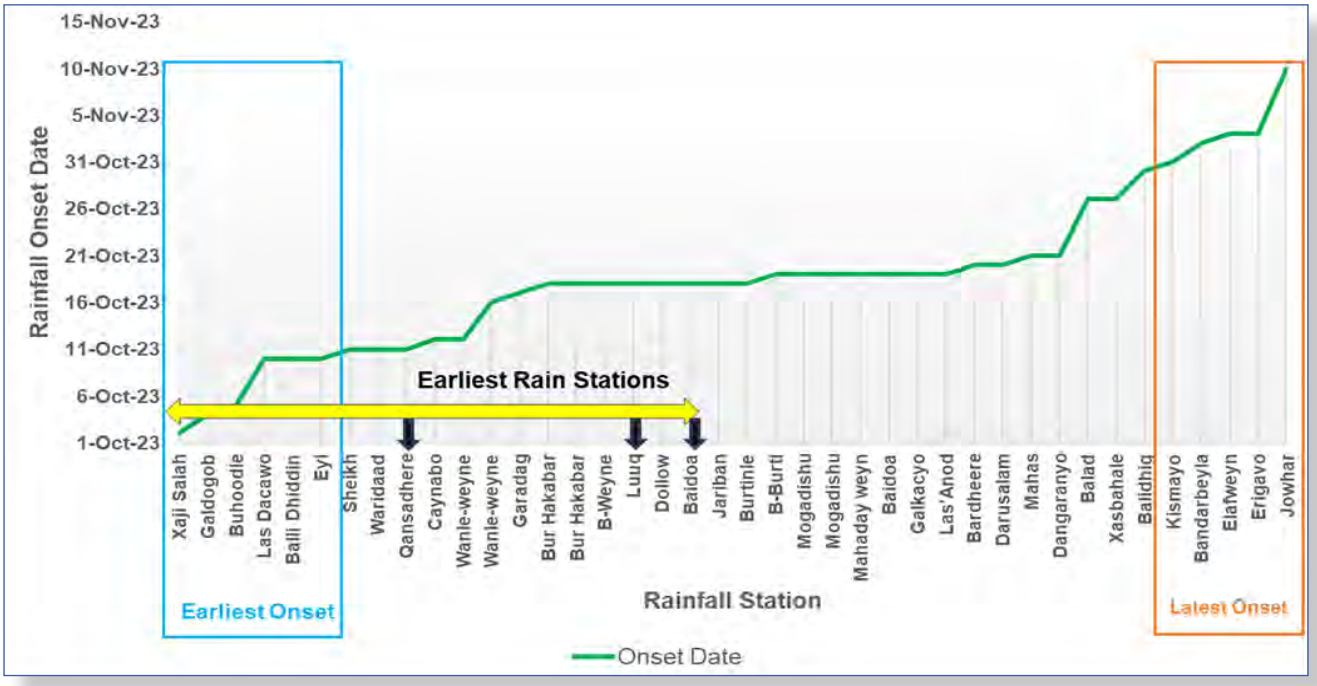


Figure 7: The Deyr 2023 rainfall onset dates over applicable stations over Somalia. The yellow arrow indicates the occurrence of torrential rains and perceived onset at Baidoa, Qansadhere and Luuq

Review of the Experienced (Deyr), Current (Jilal) and Projected (Gu) Weather Impacts on Livelihoods over Somalia

Prior to the Gu rains, there had been five failed rain seasons in Somalia, with the associated dry weather conditions causing food insecurity, loss of livestock, and loss of income leading to over dependency on humanitarian aid. Coming in the wake of above-normal Gu, and a normal Hagaa rains, the Deyr rainfall led to substantial recharge of water sources, replenished water catchment levels, improved soil moisture conditions, creating favorable conditions for grassland regeneration, offering continued fodder for the livestock, land preparation and timely crop and fodder planting across the agro-pastoral livelihoods (Annex 1).

However, the substantial and consecutive rains over the Juba and Shabelle River basins within the country and in the Ethiopian Highlands were a recipe for massive riverine and flash floods. The longer-than-a-week wet spells led to heavy soil soaking thus permitting rapid run off over both urbanized areas and steep-sloped surfaces. By the 26th of November, water levels at six out of the seven river gauging stations along the two rivers were at bankful.

The overbank spillage along the Juba River at Dollow from 3rd, at Luug from 5th, at Bardheere from 6th, and at Bualle from 11th November 2023, led to devastating weeks-long floods. Similar riverine flooding along the Shabelle river was first reported at Belet Weyne on 8th November and later at downstream stations in Bulo Burte and Jalalaqsi. These floods led to substantial damage to earlier-grown crop lands, livestock fodder and pasturelands, buildings and road infrastructure rendering them impassable and cutting off access in to and out of towns and other human settlements with devastating implications. The ensuing population displacement triggered other social challenges including, unavailability of shelter, food, and clean water for use, increase in water borne diseases, and family disconnection among others.

The infrastructural interventions together with timely and accurate early warning information proved valuable in saving lives and livelihoods through evacuation to previously identified higher grounds and provision of humanitarian assistance.

Therefore, while the Deyr rains generally led to improved food security situation across the country, and that the dry spells in between the season favored farmland practices like weeding, the more than a month-long dry spell poses a serious threat to the survival of crops and water retention in both open, shallow and groundwater sources.

El Niño conditions are expected to persist till April 2024. Although the forecast for the present Jilal season had anticipated a wetter influence of El Niño, dry conditions are expected to prevail throughout Somalia during the month of January with occasional sporadic rains in the western part of Gedo and costal parts of Lower Juba region and coastal showers in the northern and northeastern parts of the country in the third and fourth week.

As the overhead Sun, and the low-level convergence zone (ITCZ) associated with it, shifts northwards, the persistent El Niño conditions are likely to lead to above normal Gu rains in the first part of the season (i.e., March and early April) posing both flash and riverine flood risks. Due to the weakening El Niño in April and onwards, it is likely that there will be a sharp end to the Gu rains; implying that the rains in May and June may be below normal. The projected impacts of the Gu rain season take in to account the performance of the past Deyr rains and the present Jilal weather conditions and will therefore vary from region to region *(Annex 1)*.

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

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Annex 1: Impacts of Observed Deyr, Current Jilal and projected Gu seasonal rainfall on livelihoods over Somalia

Region (Livelihoods within the Zone)	Impact of Observed *Deyr* Rains	Impact of Current *Jilal* and Projected *Gu* Rainfall
Awdal (pastoral and agropastoral)	• The recharge of water sources, improvement of soil moisture conditions supported grassland regeneration and offered fodder for the livestock and timely planting and other agricultural activities	• Dry conditions with intermittent light coastal *Jilal* rains and wet *Gu* conditions in March and early April will sustain the rangeland and fodder conditions with moderate agropastoral risk
Woqooyi Galbeed (pastoral and agropastoral)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for the livestock and timely planting and other agricultural activities	• Although the dry *Jilal* conditions with intermittent light coastal rains will negatively affect the rangeland and fodder conditions posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April
Sanaag (Goats, Sheep, Frankincense and Fishing)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for goats and sheep. The moist *Deyr* soil conditions favored the development of the Frankincense bark.	• Although the dry *Jilal* conditions with intermittent light coastal rains will negatively affect the rangeland and fodder conditions posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April. • Given the August-January harvest season of Frankincense (Boswellia carterii), the dry and hot *Jilal* conditions favor the drying and hardening up of its cutout resin surfaces. • The NE monsoon winds in DJF are likely to suppress coastal upwelling at Sanaag region's shores leading to downward transport of cold, nutrient-rich waters to the ocean surface which does not favor fish abundance
Togdheer (pastoral and agropastoral)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for the livestock and early planting activities	• Although the grassland/fodder will be negatively impacted by the dry *Jilal* conditions thus posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April
Nugaal (Goats, Sheep, and other forms of pastoralism)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for goats, sheep, and other pastoral activities	• Although the dry *Jilal* conditions will negatively affect the rangeland and fodder conditions posing moderate pastoral risk, the moisture conditions will improve in March and early April.
Sool (Goats, Sheep, and other forms of pastoralism)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for goats, sheep, and other pastoral activities	• Although the dry *Jilal* conditions will negatively affect the rangeland and fodder conditions posing moderate pastoral risk, the moisture conditions will improve in March and early April.
Bari **(**Goats, Sheep, Frankincense and Fishing)	• The recharge of water sources and improvement of soil moisture conditions supported grassland regeneration and offered fodder for goats and sheep. The moist *Deyr* soil conditions favored the development of the Frankincense bark	• Although the dry *Jilal* conditions with intermittent light coastal rains will negatively affect the rangeland and fodder conditions posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April. • Given the August-January harvest season of Frankincense (Boswellia carterii), the dry and hot *Jilal* conditions favor the drying and hardening up of its cutout resin surfaces. • The NE monsoon winds in DJF are likely to suppress coastal upwelling at Bari region's shores leading to downward transport of cold, nutrient-rich waters to the ocean surface which does not favor fish abundance

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Mudug (pastoral, cowpea belt agro-pastoral and fishing)	• The recharge of water sources, and improvement of soil moisture conditions led to timely planting of cowpeas, supported grassland regeneration, thus offering fodder which supported pastoral livelihoods	• Although the dry *Jilal* conditions will negatively affect rangeland and crop and fodder conditions posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April. • The NE monsoon winds in DJF are likely to suppress coastal upwelling at Mudug region's shores leading to downward transport of cold, nutrient-rich waters to the ocean surface which does not favor fish abundance
Galgaduud (pastoral, cowpea belt agro-pastoral and fishing)	• The recharge of water sources, and improvement of soil moisture conditions led to timely planting of cowpeas, supported grassland regeneration, thus offering fodder which supported pastoral livelihoods	• Although the dry *Jilal* conditions will negatively affect rangeland and crop and fodder conditions posing moderate agro-pastoral risk, the moisture conditions will improve in March and early April. • The NE monsoon winds in DJF are likely to suppress coastal upwelling at Galgaduud region's shores leading to downward transport of cold, nutrient-rich waters to the ocean surface which does not favor fish abundance
Hiraan (Camels, goats, sheep, cattle and sorghum and pump irrigation)	• The recharge of water sources, and improvement of soil moisture conditions, favored planting of rain fed sorghum, easing of pump irrigation, supported grassland regeneration, and offered fodder which supported livestock. Flooding at BW, at BB and at Jalalaqsi led to farmland and property damage.	• Although the dry *Jilal* conditions are likely to lead to depressed grassland/fodder conditions with moderate agro-pastoral risk, the moisture conditions will improve in March and early April. Additionally pump irrigation may be deployed for sorghum production. However, there is some risk of riverine flooding in March and early April
Bakool (Camels, goats, sheep, cattle and sorghum and Bay-Bakool low potential agropastoral)	• The recharge of water sources, and improvement of soil moisture conditions, favored planting of sorghum and supported grassland regeneration, offering fodder that supported livestock and improved the low potential agropastoral activities in the southern parts of Bakool	• Although the dry *Jilal* conditions are likely to lead to depressed sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April.
Middle Shabelle (camels, goats, sheep, cattle, and cowpea belt, high potential sorghum, riverine gravity irrigation and fishing)	• The recharge of water sources, and improvement of soil moisture conditions, favored planting of cowpeas and enhanced high potential sorghum production in the riverine irrigation zone, and supported grassland regeneration, thus offering fodder that supported livestock.	• Although the dry *Jilal* conditions are likely to lead to depressed cowpea, sorghum, and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April. • Additionally riverine gravity irrigation may be deployed for cowpea and sorghum production. • However, there is some risk of riverine flooding in March and early April. • The NE monsoon winds in DJF are likely to suppress coastal upwelling at Middle Shabelle region's shores leading to downward transport of cold, nutrient-rich waters to the ocean surface which does not favor fish abundance
Bay (camels, goas, sheep, cattle, and high potential sorghum, and Bay-Bakool low potential agropastoral)	• The recharge of water sources, and improvement of soil moisture conditions, favored high potential production of sorghum and supported grassland regeneration, thus offering fodder that supported livestock. It also improved the low potential agropastoral activities in the northern parts of Bay	• Although the dry *Jilal* conditions are likely to lead to depressed sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April.

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Lower Shabelle (camels, goats, sheep, cattle, rain fed maize, and high potential sorghum, riverine gravity irrigation)	• The recharge of water sources, and improvement of soil moisture conditions favored timely planting of rain fed maize and favored high potential production of sorghum supplementing riverine gravity irrigation and supported grassland regeneration, thus offering fodder that supported livestock.	• Although the dry *Jilal* conditions are likely to lead to depressed maize and sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April. • Riverine gravity irrigation may be deployed for maize and sorghum production. • However, there is some risk of riverine flooding in March and early April.
Gedo (camels, goats, sheep, cattle, and high potential sorghum, riverine gravity irrigation)	• The recharge of water sources, and improvement of soil moisture conditions favored timely planting of sorghum supplementing riverine gravity irrigation and supported grassland regeneration, thus offering fodder that supported livestock. Flooding along the Juba River led to farmland and property damage.	• Although the dry *Jilal* conditions are likely to lead to depressed sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April. • Riverine gravity irrigation may be deployed for sorghum production. • However, there is some risk of riverine flooding in March and early April.
Middle Juba (camels, goats, sheep, cattle, rain fed, maize, and high potential sorghum, riverine gravity irrigation)	• The recharge of water sources, and improvement of soil moisture conditions favored timely planting of rain fed maize and favored high potential production of sorghum supplementing riverine gravity irrigation and supported grassland regeneration, thus offering fodder that supported livestock.	• Although the dry *Jilal* conditions are likely to lead to depressed maize and sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April. • Riverine gravity irrigation may be deployed for maize and sorghum production. • However, there is some risk of riverine flooding in March and early April.
Lower Juba (camels, goats, sheep, cattle, sorghum and rain fed maize, riverine gravity irrigation)	• The recharge of water sources, and improvement of soil moisture conditions favored timely planting of rain fed maize and favored high potential production of sorghum supplementing riverine gravity irrigation and supported grassland regeneration, thus offering fodder that supported livestock.	• Although the dry *Jilal* conditions are likely to lead to depressed maize and sorghum and grassland/fodder conditions with moderate agropastoral risk, the moisture conditions will improve in March and early April. • Riverine gravity irrigation may be deployed for maize and sorghum production. • However, there is some risk of riverine flooding in March and early April.
Banadir/Mogadishu (urban)	• The recharge of water sources, and enhancement of soil moisture conditions, improved the vegetative cover over highly urbanized areas thus mitigating against windblown natural dust and urban particulates, and supported day time breeze in improving thermal comfort, reducing AC power demand	• Although the dry and hot *Jilal* conditions are likely to lead to Air and thermal discomfort over the urbanized areas in Banadir/Mogadishu region, the conditions are likely to improve in March and early April.

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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Confédération suisse
Confederazione Svizzera
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Swiss Agency for Development and Cooperation SDC

British Embassy Mogadishu

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