

REVIEW OF DEYR 2024, STATUS OF JILAAL, AND GU 2025 OUTLOOK AND IMPLICATIONS FOR LIVELIHOODS OVER SOMALIA

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Key Highlights

The Deyr 2024 season in Somalia was marked by significant rainfall deficits, poor temporal and spatial distribution, and prolonged dry spells leading to moderate - severe drought conditions in southern and central regions. The ongoing Jilaal season, characterized by intense heat and aridity, is likely to have further exacerbated water and pasture stress, intensifying livelihood challenges. Looking ahead, the Gu 2025 season is forecasted to bring below-normal rainfall, delayed onset, and above-average temperatures, amplifying drought conditions and increasing humanitarian needs

The ongoing Jilaal season has intensified water and pasture scarcity, especially in Bay, Gedo, and Lower Shabelle regions, leading to heightened drought severity. These conditions are compounded by persistent La Niña influences, with reports of increased food insecurity, malnutrition, and displacement.

The outlook for Gu 2025 presents additional challenges:

- Below-normal rainfall is expected across most of Somalia, with a delayed onset predicted in key agricultural areas.
- Above-average temperatures will increase evapotranspiration, exacerbating water stress and reducing agricultural productivity.

KEY OBSERVATIONS FROM THE DEYR 2024 SEASON

CUMULATIVE RAINFALL

Widespread below-normal rainfall, with many regions receiving less than 50% of their long-term averages.

UNCERTAIN ONSET

Nonrealization of rainfall onset and prolonged dry spells at most stations, leading to poor performance of the season.

POOR DISTRIBUTION

Significant spatial variability in rainfall anomalies, with a few areas in Somaliland experiencing above-average rains, but the majority of regions, particularly in southern part of the country, suffering severe deficits.

- Humanitarian needs, including food security, malnutrition, and displacement, are expected to worsen, with women, children, and marginalized groups likely to be disproportionately affected.

This report presents a review of the Deyr 2024 performance, the current status of Jilaal, and the Gu 2025 outlook, along with actionable advisories to mitigate negative impacts.

Review of the Observed Deyr 2024 Rainfall

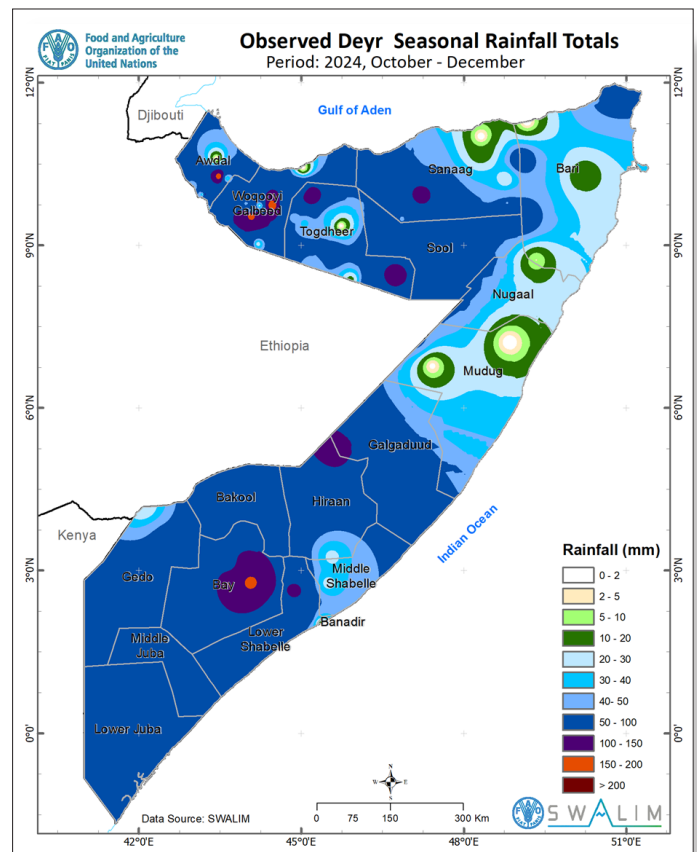
Spatial Distribution of Cumulative Rainfall

The observed Deyr 2024 rainfall (Map 1) was marked by significant spatial variability across Somalia with as much as 150 mm in some parts of Somaliland and very isolated area in Bay region, and less than 10 mm in some areas in Puntland, Sanaag and even Somaliland.

The spatial variation of the cumulative Deyr 2024 rainfall based on the individual stations is as follows (Map 1):

Cumulative rainfall amounts above 100 mm were observed in the following stations: Gumburaha (101 mm), Malawle (106.5 mm), Xasbahale (109 mm), Amoud (110 mm), Wanle-Wayne (110 mm), Burtinle (112 mm), Elafweyn (114 mm), Mataban (115 mm), Mahas (116.4 mm), Kismaayo (116.4 mm), Las'Anod (119 mm), Widh widh (119.6 mm), Aburin (121.5 mm), Murcaanyo (136.9 mm), Sheikh (147.5 mm), Qansax dheere (153.5 mm), Bur Hakaba (158 mm), Xudun (158.2 mm), Baki (176.5 mm), Gacan-libah (187.5 mm), Dhubato (191 mm) and Hargeisa (203 mm).

Cumulative rainfall amounts between 50 mm and 100 mm were recorded over the following stations: Buhoodle (51.2 mm), Luuq (53 mm), Harirad (55 mm), Darusalam (55.5 mm), Allaybaday (55.5 mm), Awdheegle (56.5 mm), Taysa (57 mm), Taleeh (57.8 mm), Cada (58 mm), Afgoi (59.3 mm), Boon (62 mm), Qardho (69 mm), Cadaadley (70 mm), Dilla (70 mm), Beled-Hawa (70.9 mm), Dhahar (71 mm), Las Dacawo (71 mm),



Map 1: Observed cumulative Deyr 2024 rainfall over Somalia

Warabeye (71 mm), Carmo (72 mm), Garowe (73 mm), Alula (75 mm), Belet Weyne (80.4 mm), Gebilley (81 mm), Buhoodle (86 mm), Caynabo (86 mm), Bardheere (86 mm), Baligubadle (90 mm), and BaidaoMRG (97.5 mm)

Cumulative rainfall amounts less than 50 mm were observed over the following stations: Badhan (10 mm), Isku-Shuban (11 mm), Xudun (15 mm), Ballidhig (16 mm), Moqdisho (17.8 mm), Bodale (18 mm), Ruqi (18 mm), Doolow (19.8 mm), Dararweyne (21 mm), Lughaye (21 mm), Buran (22.1 mm), Borama (22.5 mm), Botor (22.5 mm), Dooxaguban (23 mm), Xeege (23 mm), Salaxley (24 mm), Bandarbeyla (24.2 mm), Zaila (24.5 mm), Jowhar (25.5 mm), Ufayn (25.6 mm), B-Burti (26.5 mm), Marka

(26.6 mm), Bulohar (27 mm), Garbodadar (28 mm), Burao (30.5 mm), Uusgure (30.8 mm), Eyl (31 mm), Magalo-cad (33 mm), Waridaad (34 mm), Mahady ween (35 mm), Dhahar (35.7 mm), Odweyne (36 mm), Gatiiley (40 mm), Geedeeble (41 mm), Qulujeed (43.5 mm), Balli_Dhiddin (43.7 mm), Xaji Salah (44 mm), Erigavo (45 mm), Baran (47.1 mm), Wajaale (48.5 mm), Garadag (49 mm) and Bargaal (49.7 mm)

Cumulative rainfall amounts less than 10 mm were recorded over the following stations: Beer, Berbera, Gargara, Gerisa, Sayla, Yagori, Laasqoray, Bosasso, Jariban, Balad, Adale, Galkacyo, Dangaranyo, and Galdogob.

Rainfall Onset

The following onset definition has been adopted for analysis in this report: a day during which “20 mm of rainfall observed in three days and no seven continuous dry days within the next 21 days”. Based on this stringent onset definition, not even a single station in Somalia realized an onset during the Deyr 2024 season. This, together with prolonged dry spells, is evidence that the Deyr season, although normal in cumulative amounts, performed poorly.

Sensitivity analysis relaxing the “7-dry days within 21 days” constraint, shows that some stations indeed satisfied the 20 mm in three days condition. The earliest onset was reported on 3rd October 2024 over Amoud, Baki, Borama, Dhubato, Gacanlibah, Gumburaha, Harirad, Las Dacawo, Qulujeed, and Wajaale (Figure 1)

The latest onset was realized over Dilla and Gatiiley (1st November 2024), Malawle and Taysa (2nd November 2024), Murcaanyo (17th November 2024), Eyl (18th November 2024), Alula (20th November 2024), Bargaal (21st November 2024), Qardho (22nd November 2024) and Geedeeble (23rd November 2024).

The onset analysis indicates that rainfall events occurred, but they were sporadic with poor temporal and spatial distribution, with intervening dry spells preventing full onset realization under the stricter definition. These isolated rainfall events might still have been significant for specific crops or water resources.

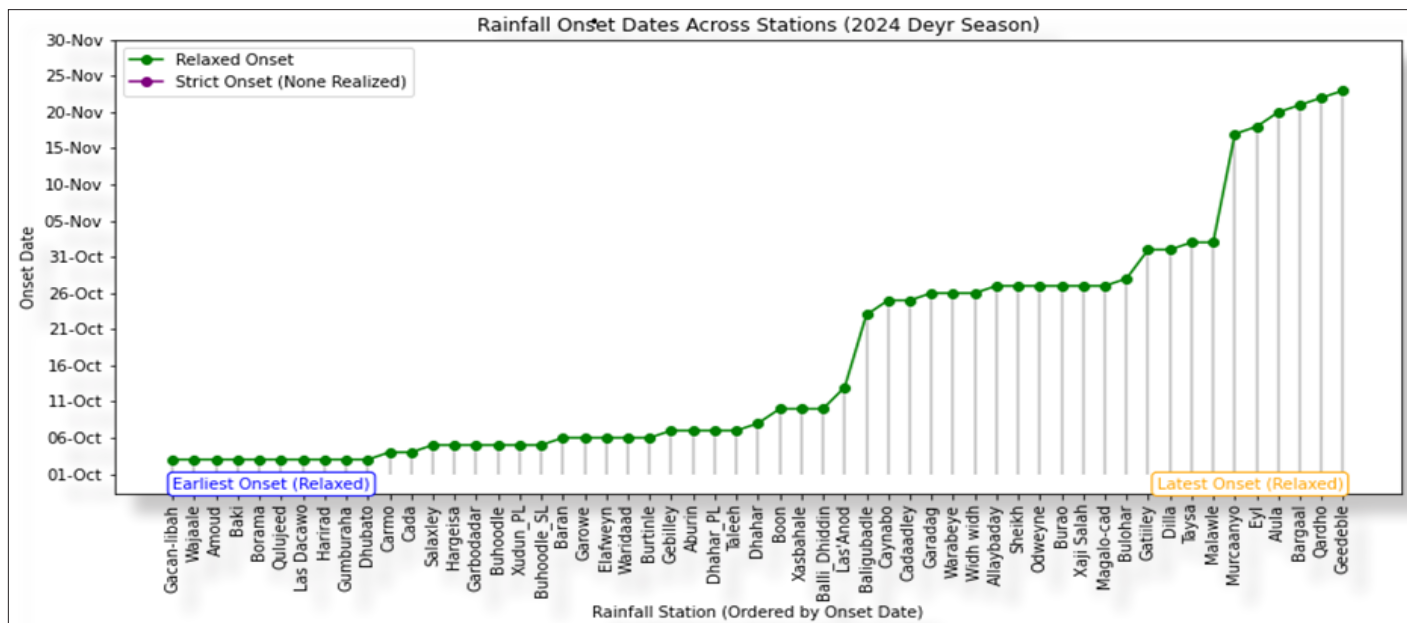


Figure 1 : Rainfall onset across rainfall stations during the Deyr 2024 season across Somalia

Temporal Distribution of Cumulative Rainfall

Most of the stations in Puntland and regions in the southern and central parts of the country remained dry in October, with following stations mostly in Somaliland receiving more than 100 mm in that month alone: Sheikh (108.5 mm), Amoud (110 mm), Widh widh (115.4 mm), Las'Anod (119 mm), Xudun (124 mm), Dhubato (143.5 mm), Gacan-libah (146 mm), and Baki (176.5 mm). As the season progressed the amount of rain reduced significantly with only the following four stations observing more than 100 mm in November alone: Hargeisa (105 mm), Bur Hakaba (123 mm), Murcaanyo (133.9 mm), and

Qansax dheere (153.5 mm). The season then ended abruptly with rainfall being recorded only in the following three stations: Murcaanyo (3.0 mm), Mahas (45.3 mm) and Kismaayo (45.3 mm).

Rainfall was therefore very erratic, with most rains confined to November, driven by a brief wet phase of the Madden-Julian Oscillation (MJO). However, this was insufficient to offset deficits earlier in the season.

Rainfall Anomaly

The observed Deyr 2024 rainfall anomaly (Map 2) shows significant spatial variability across Somalia with more than 100 mm excess rain in some parts of Awdal, Woqooyi Galbeed, Sool and Sanaag regions and more than 100 mm rainfall deficit over Middle Shabelle, Lower Shabelle, Middle Juba and some parts of Gedo, Lower Juba, Hiraaan and Bay regions.

When reported in percent of LTM, the following individual stations recorded less than 10 % of the LTM: Beer (0 %), Berbera (0 %), Gerisa (0 %), Laasqoray (0 %), Bosasso (0 %), Jariban (0 %), Galkacyo (3 %), and Dangaranyo (7 %). Less than half of LTM rainfall was observed in the following stations : Jowhar (13 %), Mogadisho (15 %), Bulo Burte (20 %), Doolow (25 %), Isku-Shuban (27 %), Afgoi (31 %), Awdheegle (36 %), Buran (37 %), Wanle-Wayne (39 %), Ballidhig (40 %), Bardheere (40 %), Baidao (42 %), Gatiiley (44 %), Odweyne (44 %), Salaxley (44 %), Belet Weyne (46 %), Bandarbeyla (48 %), Luuq (48 %), Dararweyne (48 %), and Dhahar (60 %).

Regarding the positive anomalies, the following stations reported about twice the respective LTMs: Buhoodle, (213 %), Garadag (224 %), Qardho (227 %), Taysa (241 %), Widh widh (276 %), Dhahar (277 %), and Dilla (282 %). The following reported about three times the LTM: Dhubato (301 %), Gebilley (310 %), Malawle (341 %), Caynabo (341 %), Amoud (380 %). Aburin (420 %), Darusalam (489 %), and Erigavo (490 %) recorded about four times LTM. The rains received over Gacan-libah (519 %), Hargeisa (562 %), and Elafweyn (586 %) represents about five times LTM. At seven and 15 times LTM, respectively, the rains received over Baki (793 %) and Xudun (1 510 %) represents the highest positive anomalies.

Figures 2 - 4 show comparison of the 2024 Deyr rainfall performance with LTM for selected stations across the country.

It is worth noting that the above normal cumulative rainfall in some stations in Puntland and regions in the southern and central parts of the country were as a result of short-lived rains in November.

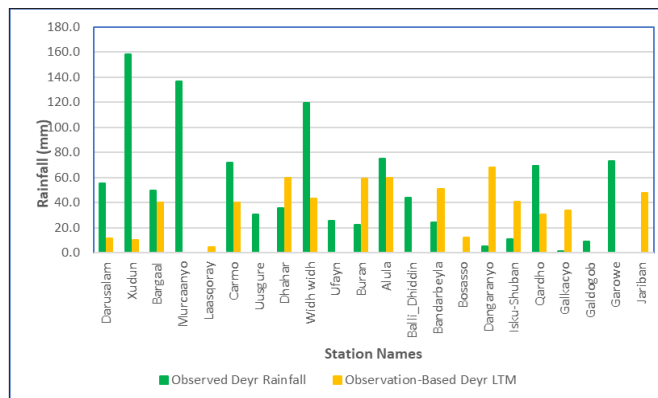
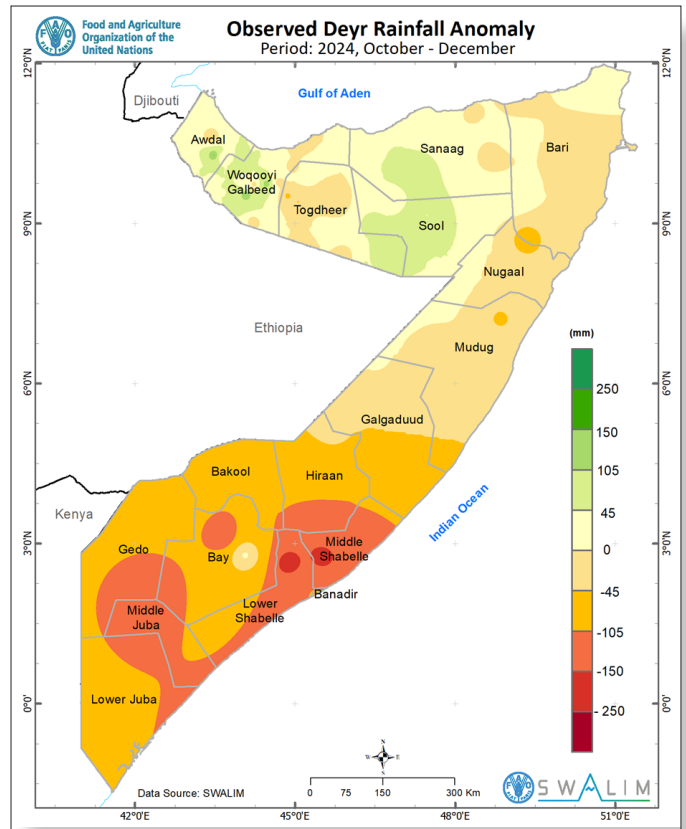


Figure 4: Cumulative rainfall received across different stations in Puntland during the Deyr 2024 over Somalia

Implying that other pertinent rainfall characteristics like onset and dry spells are critical in the understanding of the overall impact on key areas: water resources, agriculture, and livelihoods.



Map 2: Observed Deyr 2024 rainfall anomaly over Somalia

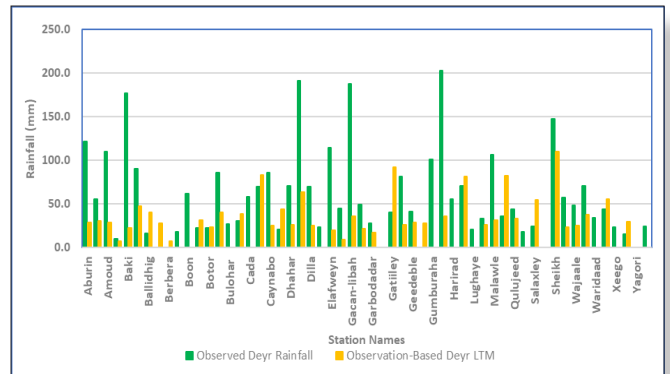


Figure 2: Cumulative rainfall received across different stations in Somaliland during the Deyr 2024 over Somalia

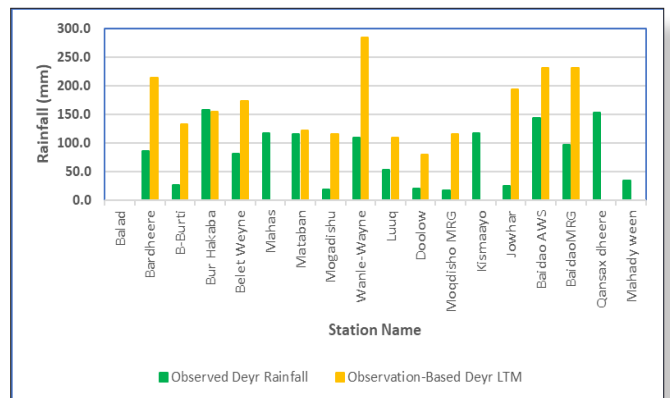


Figure 3: Cumulative rainfall received across different stations in South-Central during the Deyr 2024 over Somalia

Wet Spells and Dry Spells during the Deyr 2024

Dry spells longer than three weeks were observed in Somalia with most stations recording consecutive dry days (CDD) values ranging between 30 and 60 days. Some stations, particularly Beer, Berbera, Gargara, Gerisa, Sayla, Yagori, Laasqoray, Bosasso, Jariban and Balcad, recorded more than 2-months long dry spells.

Not even a single station received a week-long consecutive wet days (CWD) with longest wet spell of four (4) consecutive rainy days was observed in Dhubato in Woqooyi Galbeed.

Impacts of Deyr 2024 Rainfall on Livelihoods

According to SWALIM's analysis of field report, particularly Radio Ergo week-by-week caller feedback, drought conditions worsened progressively through January 2025, exacerbating resource scarcity, livestock losses, and displacement. Immediate humanitarian aid and long-term resilience interventions—including borehole drilling, livestock support, and sustainable water management—are urgently required.

Week 1 (1–8 January 2025): Severe drought was reported in Sanaag, Middle Shabelle, and Galgaduud, alongside livestock deaths and high winds affecting farms and homes in Kismayo and Lower Shabelle. Communities requested water, fodder, food aid, and conflict resolution support in Sanaag.

Week 2 (9–15 January 2025): Worsening drought was observed in Gedo, Mudug, and Middle Shabelle, leading to crop failures and livestock diseases such as diarrhea and CCPP. Callers highlighted the urgent need for water trucking, boreholes, aid for displaced families, and financial assistance.

Week 3 (16–22 January 2025): Drought intensified in Togdheer and Hiran, with reports of livestock deaths, extreme heat in Kismayo, cold weather in Togdheer, and displacement due to clan conflicts. Communities called for livestock health interventions, food, water, medical aid for IDPs, and reforestation efforts.

The observed climatic conditions and field reports indicate that the following impacts have been experienced during and after the Deyr 2024 season:

Water Resources: Water points in drought-affected areas dried up earlier than usual, intensifying the need for water trucking and increasing associated costs.

Agriculture: Crop failures were widespread, particularly in rainfed agricultural zones, with farmers reporting reduced planting areas and poor yields.

Livestock: Livestock productivity declined due to inadequate pasture

Jilaal 2025 Status

By end of December 2024, the poorly spatial and temporal spread late Deyr rains over Somalia particularly over southern regions (refer to anomaly map), lead to evolution of **moderate drought conditions** in most parts of Mudug, Galgaduud, Hiraan and Middle Juba; **severe drought conditions** in several parts of Bay, Lower Shabelle, Middle Shabelle and Gedo region; and **extreme drought conditions** in northern parts of Awdal.

Both Climate Prediction and Application Centre (CPC) and International Research Institute (IRI) have confirmed the **presence of La Niña conditions** in January 2025 which are expected to persist through Feb-Apr 2025.

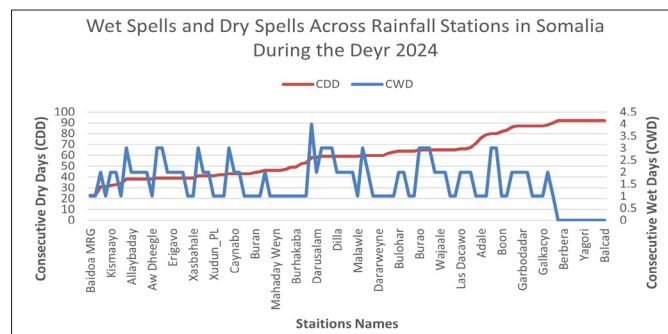
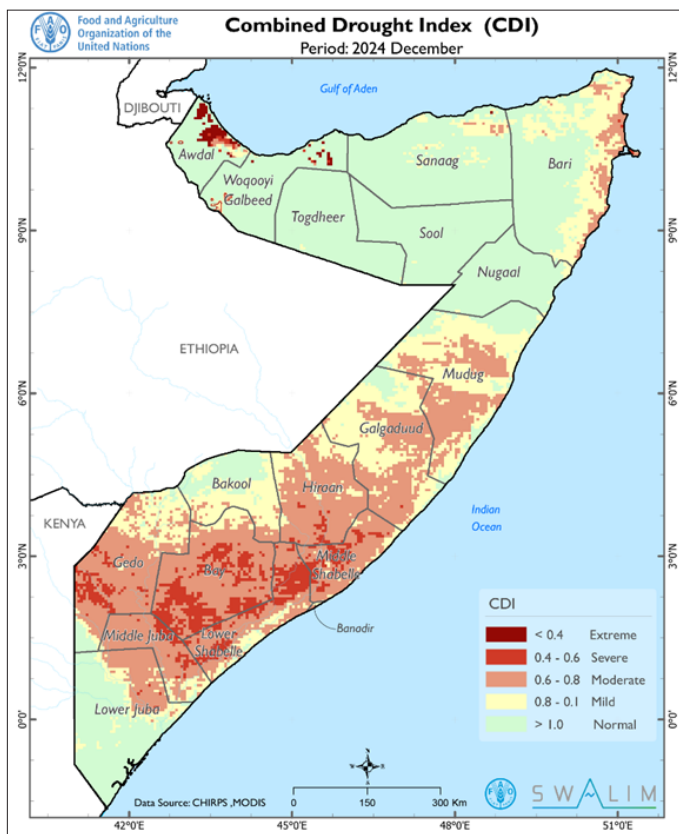


Figure 5: Observed Wet Spells and Dry Spells during the Deyr 2024 in Somalia



Map 3: Spatial variation of drought conditions over Somalia based on Combined Drought Index (CDI) by end of December 2024

and water availability, with some cases of mortality reported. Many pastoralists have migrated or are considering migration in search of better conditions, leading to increased pressure on host communities.

Food Security: While food insecurity was not immediately evident during the Deyr season, the poor performance of rains—characterized by a late onset and poor spatial and temporal distribution—has likely exacerbated food shortages in December. Reports of malnutrition are beginning to emerge in some regions.

This is likely to sustain the ongoing Jilaal season which is characterized by intense heat and lack of rainfall, which have further depleted water and pasture resources. The combination of Deyr deficits and harsh Jilaal conditions is likely to have escalated drought severity, especially in Bay, Gedo, and Lower Shabelle. According to Radio Ergo reports, declining food, water and fodder has been reported in some areas with chances of drought-induced displacement. This is likely to intensify livelihood stress, with negative implications on food security and malnutrition rates.

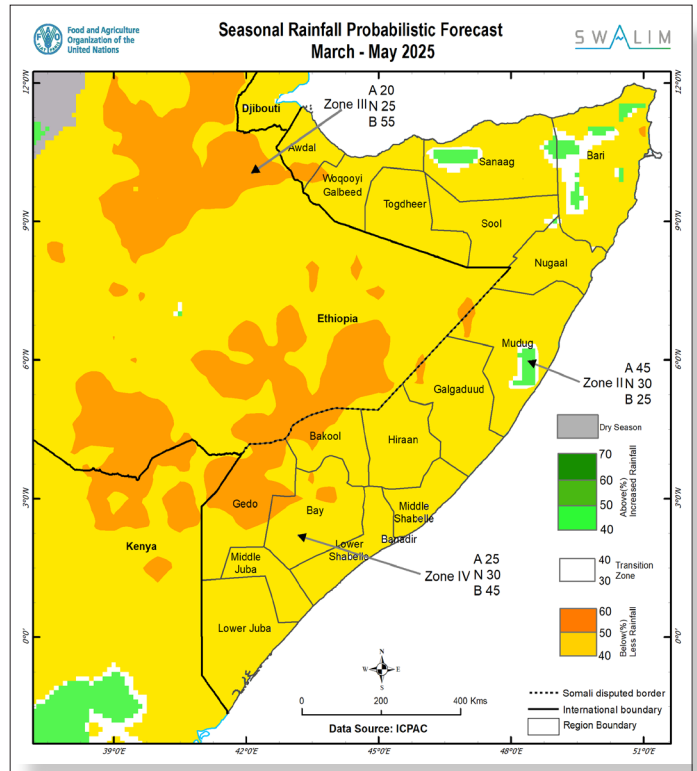
Probabilistic Rainfall Forecast

Contributing to about 60 % of annual rainfall, Gu season is critical for the Greater Horn of Africa (GHA) including Somalia. According to IGAD Climate Prediction and Application Centre (ICPAC), Gu 2025 is predicted to be characterized by below normal rainfall, normal to delayed onset and above normal temperatures. There is a 45 % likelihood that most parts of the country (Zone IV in yellow/orange in Map 4) will observe below normal rains. There is even a higher likelihood (55 %) of drier conditions being observed over Gedo, and some parts of Bay, Bakool, Hiraan and Awdal (dark orange). However, there are chances of very isolated above normal rains in some parts of Puntland. There is very low probability that cumulative Gu rainfall amount will exceed 200mm particularly over the Shabelle River Catchment. However, there are chances of exceedance over the uppermost and lowermost reaches of Juba River Catchment.

ICPAC have also reported that the status and predicted evolution of climate drivers in 2024/2025 closely resemble observations made in 2016/2017 and 2020/2021. The characteristics of the Gu 2025 are therefore expected to resemble those observed in 2017 and 2021. The performance of the Gu rain season against the long term mean (anomaly) over Somalia during the 2017 and 2021 analogue years is as shown in Map 5 and Map 6, respectively. An 8-year times series of observed satellite-based cumulative Gu rainfall estimates over Somalia is provided in Appendix I

Deterministic and Probabilistic Rainfall Onset Forecast

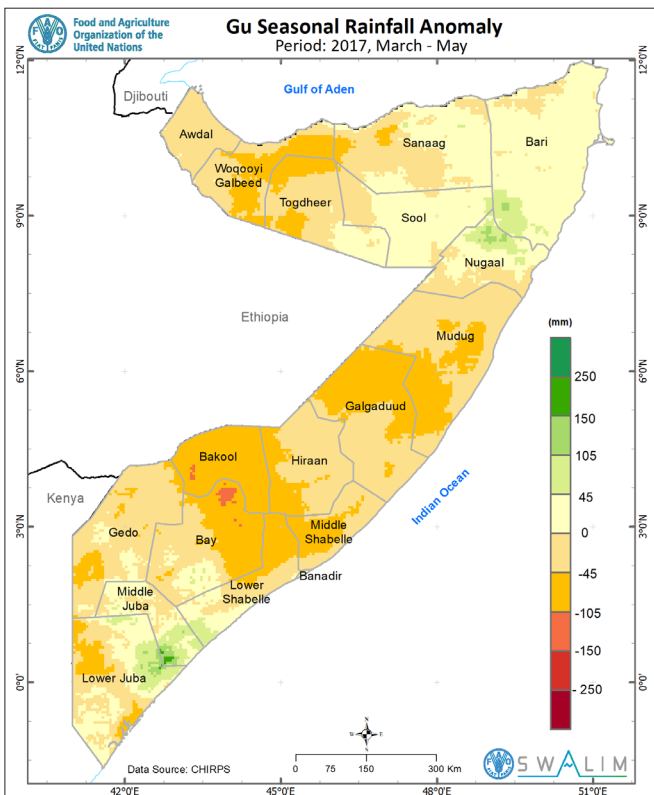
The Gu 2025 rains are likely to start over Gedo region in the second week of April. It will then spread southwards to Lower Juba and eastwards to Bay, Bakool, Awdal, Wagooyi Galbeed regions in the third week of April. By the fourth week, the



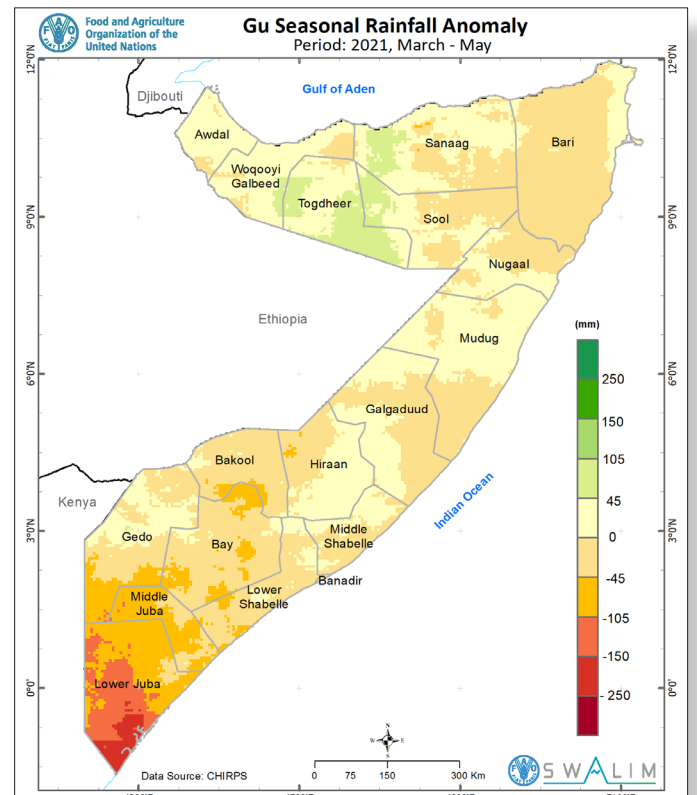
Map 4: Probabilistic Rainfall outlook for Gu 2025 Somalia

onset is likely to have been realized over Middle Juba, Lower Shabelle, Middle Shabelle, Hiraan and Togdheer. Onset is not likely until the last week of April over Galgaduud, Mudug, Sool and Sanaag. Nugaal and Bari regions are likely to observe onset in the first week of May 2025.

Based on climatology, the probabilistic forecast of onset is mixed with chances of being normal to late especially in some areas in Lower Juba, Hiraan, Mudug and Somaliland.



Map 5: GU Seasonal rainfall anomaly 2017



Map 6: GU Seasonal rainfall anomaly 2021

Expected Impacts

Considering the uneven distribution of Deyr 2024 rainfall, the absence of defined rainfall onset, and the predominance of prolonged dry spells, which have collectively exacerbated drought conditions across the country, the following impacts are likely to be associated with the Gu 2025 outlook.

- **Temperature:** Above-normal temperatures are highly likely, with implications for evapotranspiration and water demand.
- **Onset Timing:** The anticipated delay in rainfall onset is likely to significantly impact agricultural planning and water availability.

- **Water Stress:** Water shortages are likely to worsen, particularly in regions already facing deficits.
- **Agriculture:** Late onset and below-normal rainfall will delay planting, reduce crop yields, and increase reliance on food aid.
- **Livestock:** Limited pasture regeneration will exacerbate livestock stress and mortality.
- **Humanitarian Needs:** Intensified food insecurity, malnutrition, and displacement are expected, with women, children, and marginalized groups being disproportionately affected.

Conclusion and Recommendations

The analysis and discussion presented in this report points to the severe and extreme drought conditions observed in critical regions such as Awdal, Bay, Lower Shabelle, and Gedo, driven by both deficient rainfall and ongoing La Niña conditions. The Gu 2025 outlook predicts below-normal rainfall, delayed onset, and heightened temperatures, with significant implications for water resources, agriculture, livelihoods, and humanitarian programming.

Humanitarian actors must urgently mobilize and coordinate resources to address the escalating drought crisis and prepare for the anticipated challenges of the Gu 2025 season. The following are the key recommendations:

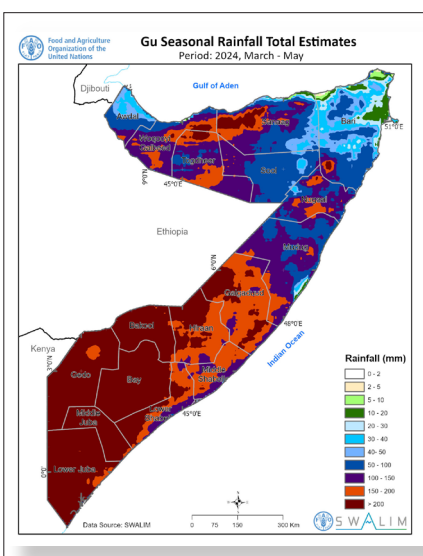
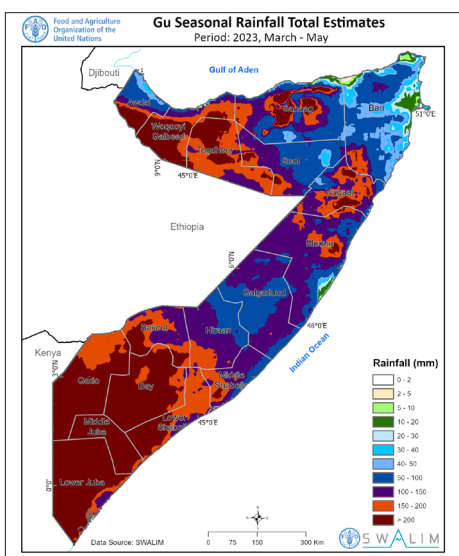
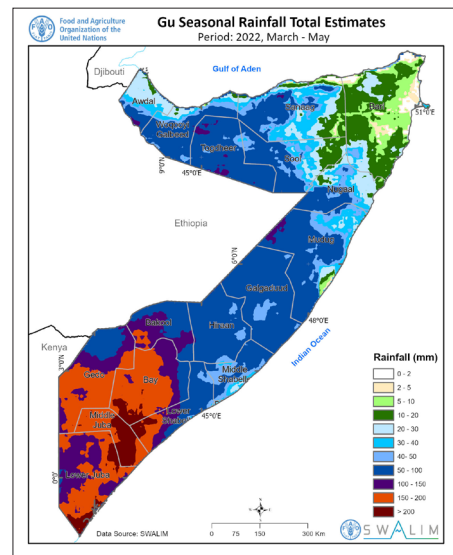
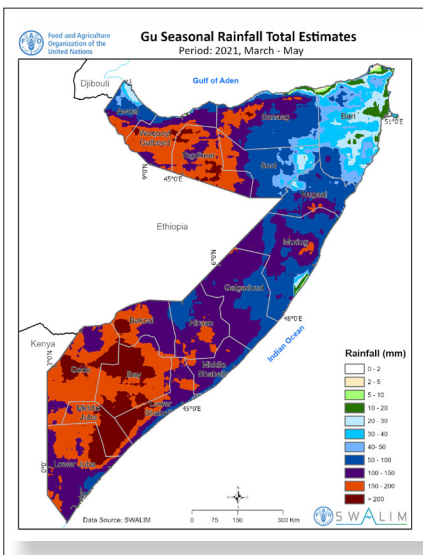
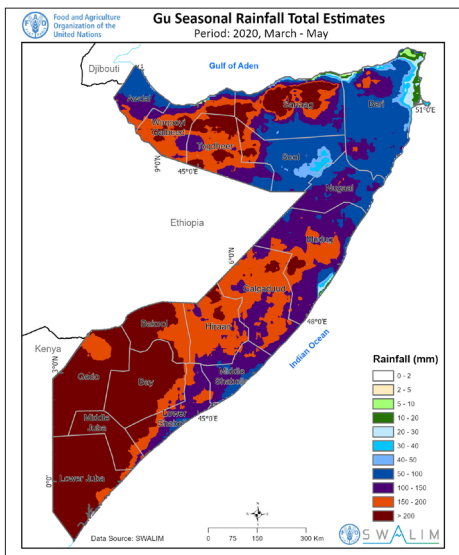
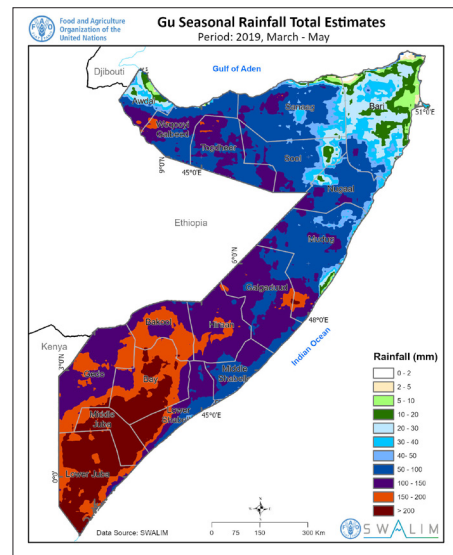
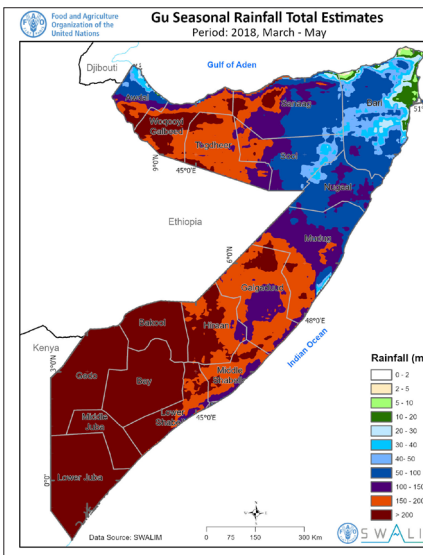
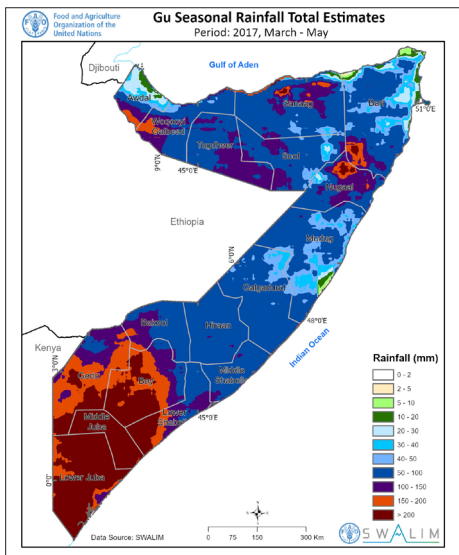
1. **Early Warning Systems:** Strengthen and rely on sub-seasonal drivers such as the MJO for timely updates, leveraging tools like CDI and Price of Water (PoW)-based drought triggers to provide real-time monitoring and reporting.
2. **Water Management:** Prioritize expanding the monitoring of strategic water points, repairing nonfunctional water systems, promoting water harvesting, and enhancing distribution networks to address immediate water scarcity and long-term resilience.

3. **Agricultural and Livelihood Support:** Develop and disseminate advisories on climate-resilient crops, drought-tolerant fodder, and sustainable agricultural practices to safeguard livelihoods and food security in vulnerable regions.
4. **Health Preparedness:** Implement awareness campaigns and strengthen healthcare systems to mitigate the impacts of elevated temperatures and prolonged dry spells, including heat-related illnesses and waterborne diseases.
5. **Humanitarian Response Coordination:** Support the Federal Government of Somalia (FGS) in mobilizing immediate drought responses, pre-positioning supplies, activating contingency plans, and sustaining effective Early Warning Systems (EWS).
6. **Flood Risk Minimization:** While riverine flooding risks are expected to be minimal, monitoring must continue to ensure preparedness for localized extreme events.
7. **National Climate Outlook Forum (NCOF):** Advocate for and support the February 2025 NCOF, enabling sectoral advisories that incorporate downscaled forecasts and multi-sector coordination to mitigate risks and enhance preparedness.

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



Appendix 1 : GU Seasonal Rainfall Estimate Maps for Mar-Apr-May 2017 to 2024



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