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PUNTLAND DEYR RAINFALL PERFORMANCE REPORT 2025

Issued: 12 Jan, 2026

Puntland is facing a worsening drought conditions as a result of below normal Deyr rainfall and the impending dry Jiilaal season expected to further deplete already stressed resources.

KEY MASSAGES

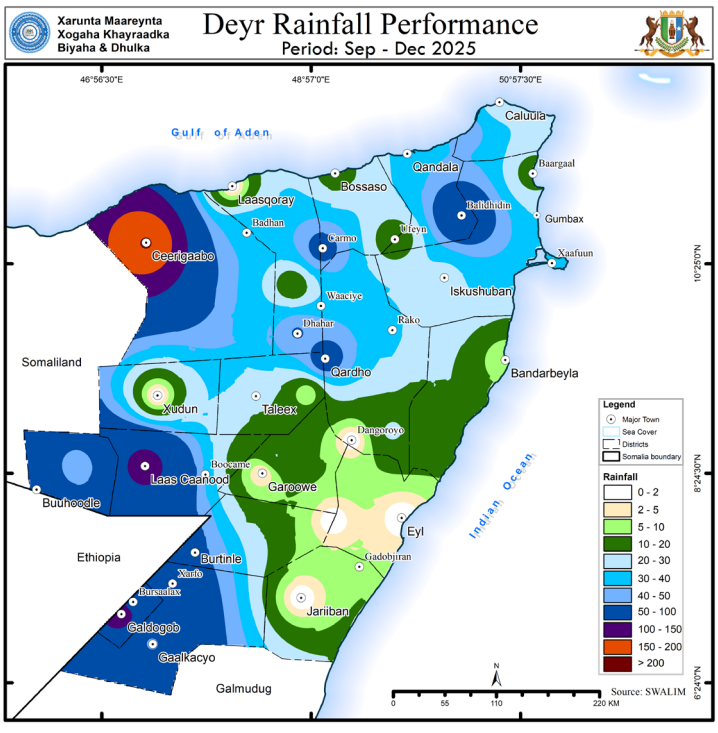
- Puntland is currently facing severe drought conditions following four consecutive failed rainy seasons, resulting in widespread humanitarian impacts and growing vulnerability among communities.
- Large scale movement of pastorals and livestock become rampant across many areas, leading to quick depletion of the limited resources.
- Strategic boreholes are showing declining water levels, while most berkads and shallow wells have dried up. As a result, communities are increasingly dependent on distant boreholes, many of which have low yields and poor water quality.
- Migration driven by drought has led to increase in school dropout rate, harshly disrupting children's education and future opportunities.
- Crop failures are being reported across most agricultural zones due to poor deyr season.
- The drought has impacted around 216,095 households over (1.29 million) people placing significant pressure on basic services and livelihoods (MOHADM).
- Drought conditions are projected to further deteriorate during the forthcoming Jiilaal season, increasing risks to water availability, livelihoods, and food security.

Overview

The seasonal rainfall outlook for Puntland from October to December 2025, issued by IGAD Climate Prediction and Applications Centre (ICPAC) during the 71st Greater Horn of Africa Climate Outlook Forum (GHACOF71), indicated a higher likelihood of below-normal rainfall across the regions of Puntland predicted a poor Deyr rainy season in Puntland. This has been witnessed so far in most parts where minimal rain has been recorded since the start of the season.

The **Deyr 2025 rainy season** commenced toward the end of September and persisted until December. Most rain gauge stations across Puntland recorded below normal rains.

Cumulative Rainfall amounts above 100 mm were recorded in only three locations, including Ceerigaabo (202.5 mm), Las'anod (117.5 mm), and Galdogob (117 mm).



Map 1: Observed Deyr rainfall performance 2025

Moderate rainfall amounts (50 -100 mm) were observed by the fallowing Seven rain gauge stations Laan-Madow, Balidhidin, Buuhoodle, Qardho, Darusalaam, Carmo, and Dhahar.

Below normal rainfall (<50mm) were recorded by 15 stations in Galkacyo, Widhwidh, Murcanyo, Iskushuban, Caluula, Uusgure, Taleex, Bargaal, Boosaaso, Ufayn, Burtinle, Buraan, Banderbayla, Shaxda and Garoowe.

Alarmingly, no rains recorded in Six stations in Xasbahale, Xudun, Eyl, Dangorayo, Jariiban, and Laasqoray worsening drought conditions.

DEYR OBSERVED RAINFALL OF 2025

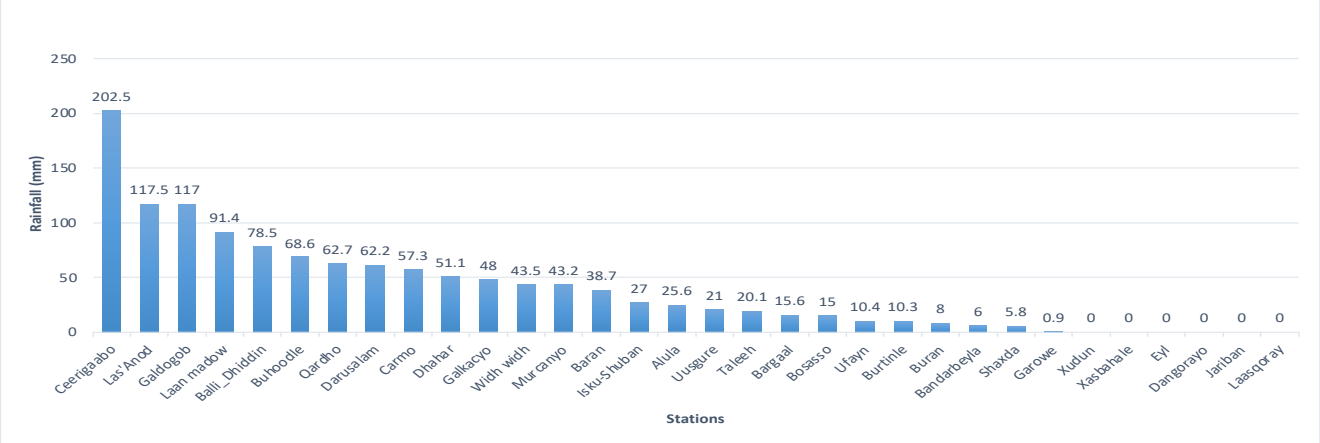


Figure 1. Deyr observed rainfall of 2025

Figure 1. Shows the observed Deyr 2025 rainfall across Puntland, with the chart clearly indicating that most stations recorded below-normal rainfall. The rainfall deficit across Puntland continues, with four consecutive poor rainy seasons being recorded. This has increased drought risk and negatively affected livelihoods, highlighting the urgent need for drought response.

DEYR ANOMALY OF 2025

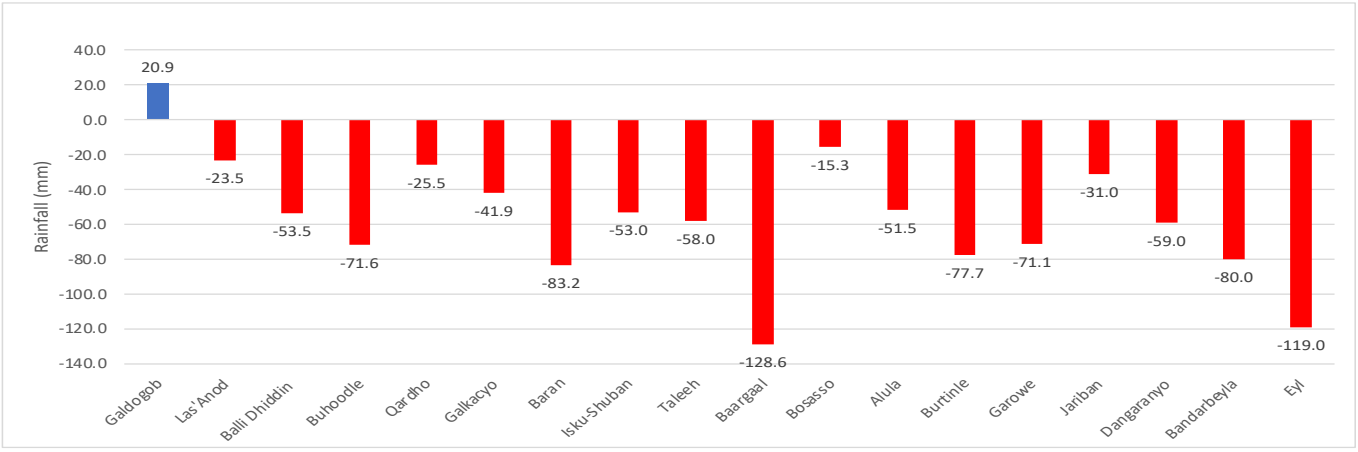


Figure 2: Deyr Anomaly 2025

Figure 2: illustrates the Deyr 2025 rainfall anomaly across Puntland, showing that the majority of stations recorded rainfall below the long-term average (LTA) for the past 15 years. Only one station recorded a positive anomaly, indicating rainfall above the LTA, while most stations exhibited negative anomalies, reflecting significant rainfall deficits.

WATER SOURCES FUNCTIONALITIES

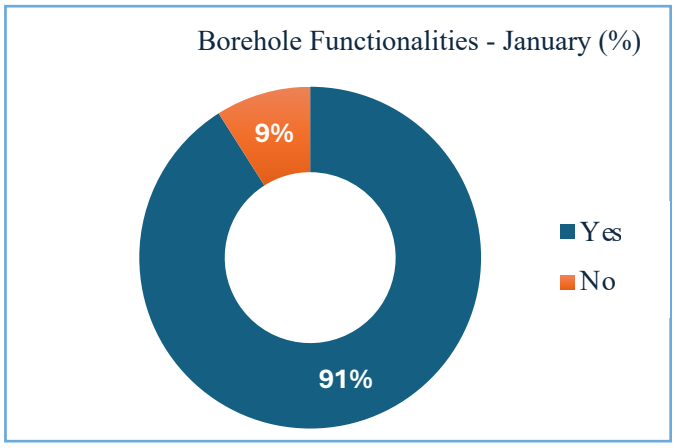


Figure 3: Weekly Borehole Functionalities

Figure 3 demonstrates the importance of weekly water source monitoring in assessing borehole functionality, performance, and maintenance needs in Puntland, enabling timely responses and ensuring reliable access to groundwater in water-scarce areas.

Out of 170 boreholes weekly monitored in January, 155 (91%) were found to be functional and provide water services, while 15 (9%) were non-functional and required maintenance to restore reliable access for drought affected communities.

According to Puntland water development agency (PWDA) two additionally boreholes are not functioning and 20 boreholes are partially functioning; making the total non-functioning 17 in total.

MALFUNCTIONING WATER SOURCES

Figure 4 indicates that, out of 170 monitored boreholes, 15 were non-functional, with pump failures accounting for 53% of the breakdowns, rising pipe problems for 40%, and borehole collapse for 7%.

As communities shift to alternative water sources, abstraction pressure on nearby boreholes has increased, accelerating groundwater depletion. Telemetric monitoring across parts of Puntland confirms a declining trend in groundwater levels, which has been further aggravated by the below-normal Deyr 2025 rainfall that limited natural aquifer recharge and intensified stress on groundwater systems.

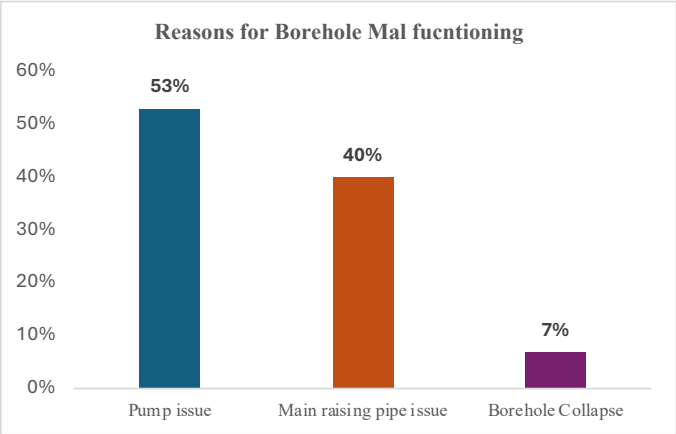


Figure 4: Reason for Boreholes Malfunctioning

WATER USAGE

Figure 5 according to the ground water usage over 170 monitored boreholes indicates that the largest share of water is used for domestic purposes accounting (30%), showing that households depend heavily on boreholes for drinking, cooking, and hygiene due to the scarcity of alternative water sources.

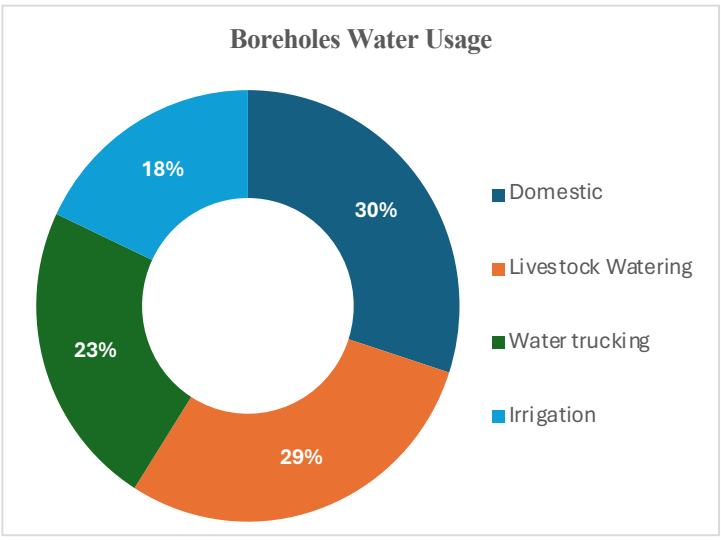


Figure 5: Borehole Water Usage

Nearly the same proportion of water is used for livestock watering (29%), which underscores the importance of livestock to local livelihoods and food security. During droughts, natural grazing areas reduces and water shortages increase, forcing pastoral communities to rely more on boreholes to sustain their livestock. This increases pressure on groundwater resources and accelerates aquifer draw-down.

Water trucking (23%) indicates that borehole water is not only serving local communities but is also being transported to other water-stressed areas. This suggests uneven water availability across regions and highlights how some boreholes are becoming strategic supply points during water shortages.

The lowest usage is for irrigation (18%), reflecting reduced agricultural activity due to limited water availability. Farmers are prioritizing water for survival needs rather than crop production, which may affect food production and income in the long term.

Overall, this usage pattern shows that groundwater is under increasing stress due to high demand from households, livestock, and water trucking, while below-normal Deyr rainfall has limited natural recharge.

GROUND WATER LEVEL AND CONDUCTIVITY MONITORING TRENDS

Mudug region Water Level trends

Figure 6: The Harfo borehole shows strong seasonal groundwater fluctuations, with water levels rising from 22.2 m in July 2024 to 26.5 m in September 2024, then declining to around 13 m by April 2025 due to reduced recharge and increased abstraction. A sharp recovery to 34.8 m was recorded in May 2025 following seasonal rains, before levels declined again to 26.3 m in June 2025. From July 2025 onward, recorded values dropped to 0 m readings observed from August 2025 till January 2026, indicating that either the water level fell below the sensor depth or the instrument was removed, rather than the borehole running dry, as the borehole is deep and still has some water.

In contrast, the Galkayo Wadajir IDP borehole shows a gradual and steady decline in groundwater levels from 81 m in June 2024 to 79 m by January 2026, representing a total drop of approximately 2 m. Despite minor fluctuations, this trend reflects sustained abstraction pressure and limited recharge during below normal deyr rainfall conditions.

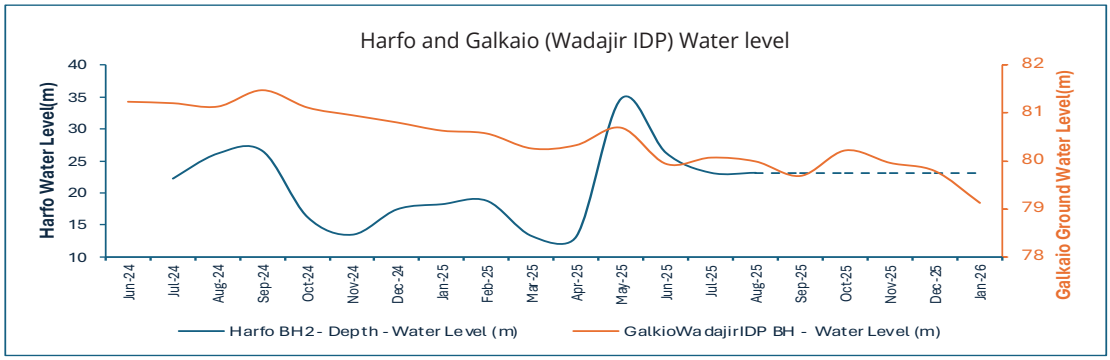


Figure 6: Ground Water Level of Mudug Region

Mudug region Water Conductivity Trends

Conductivity measurements show differing water quality trends between Harfo and Galkayo. At Harfo BH2, conductivity declined sharply from 2,340 µS in July 2024 to a low of 736 µS in November 2024, indicating a period of fresher groundwater recharge. Values then increased again, stabilizing at around 2,372 µS from July 2025 to January 2026, suggesting rising salinity linked to reduced recharge and continued abstraction.

In contrast, the Galkayo Wadajir IDP borehole consistently recorded high conductivity levels, decreasing gradually from 3,214 µS in June 2024 to 2,924 µS by January 2026. Although this represents a slight improvement in water quality (about 290 µS reduction), the overall levels remain high, indicating persistent salinity stress likely driven by heavy groundwater use and limited natural recharge.

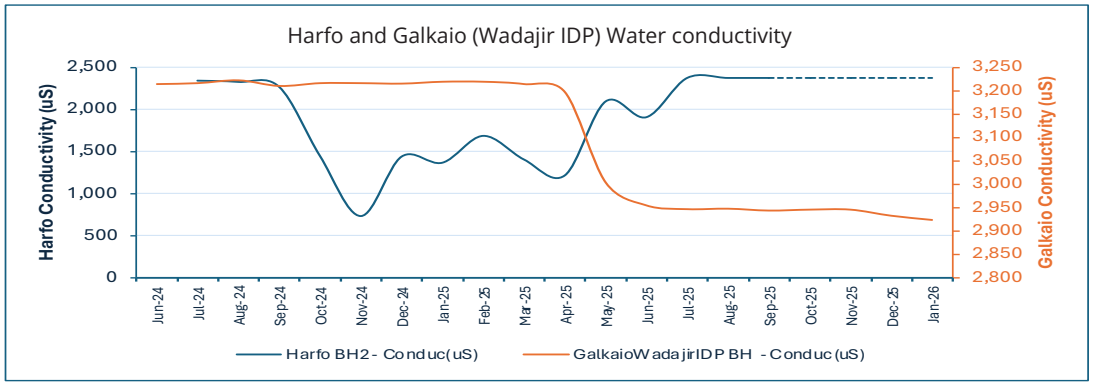


Figure 7: Mudug Region Ground Water Conductivity

Sanaag region Ground water Level Trend

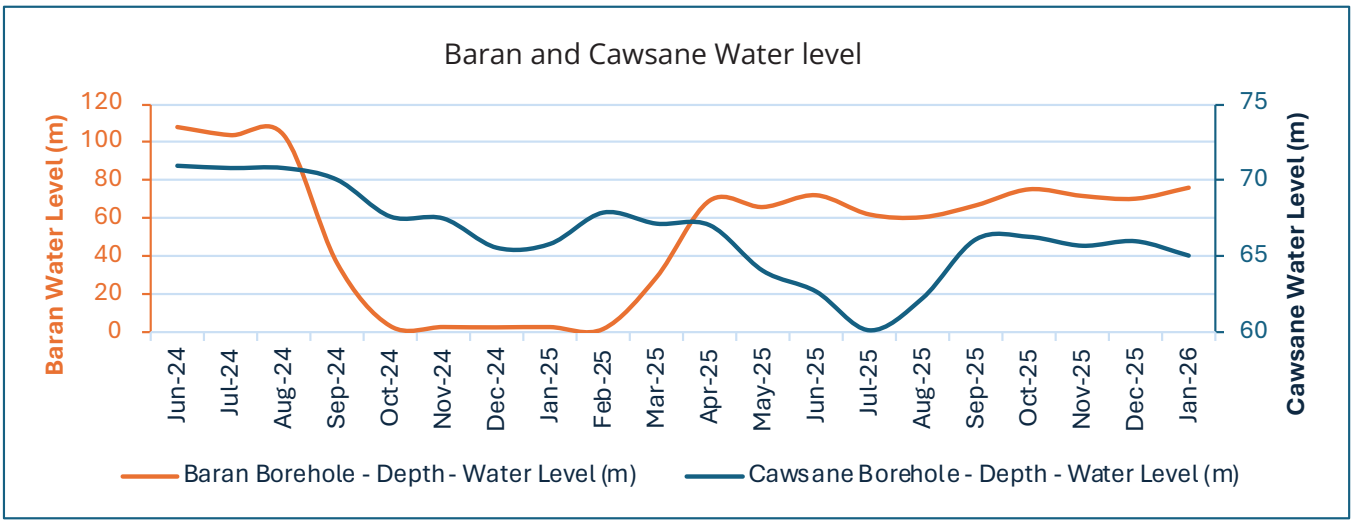


Figure 8: Ground Water Level in Sanaag region

The groundwater level trends in the Sanaag Region show varying aquifer responses across different boreholes. The Baran borehole experienced the most dramatic fluctuations, with water levels recorded at around 107 m in June 2024 and remaining high through July and August. In September 2024, the level declined sharply to 36.2 m, followed by a further drop between October 2024 and February 2025, when the water table reached very shallow depths of about 3-1 m, indicating strong aquifer stress. Recovery began in March 2025, with levels rising to 28.6 m and reaching 69.1 m in April due to the late Gu rainfall. From that point onward, groundwater levels stabilized, remaining between 60 and 75 m up to January 2026.

Unlike the groundwater levels at the Cawsane borehole remained relatively stable throughout the monitoring period, with moderate seasonal fluctuations.

From June to August 2024, water levels were around 70.8 -71 m, indicating stable groundwater conditions during the dry season. A gradual decline was observed from September to December 2024, reaching 65.6 m by December, suggesting reduced recharge and continued water use.

In early 2025, groundwater levels slightly improved in February at 68 m , likely due to seasonal rainfall. However, a steady decline followed from March to July 2025, with the lowest level recorded in July 2025, 60 m. This period represents the peak of the dry season, when groundwater abstraction and low rainfall reduced water availability.

From August to October 2025, water levels recovered to about 66.1-66.3 m, indicating renewed recharge. The levels then remained relatively stable through January 2026, fluctuating between 65 to 66 m.

Overall , the ground water level trends in Sanaag region highlights complementary aquifer behaviors , with the Baran showing the high sensitivity to rainfall variability and extreme stress during prolonged dry periods while Cawsane borehole remains relatively stable due to its likely deeper and more resilient aquifer system as deeper aquifers provide more reliable water supply during drought conditions compared to shallow

Overall, groundwater level trends in Sanaag Region highlight contrasting aquifer behaviors, with the Baran borehole showing high sensitivity to rainfall variability and severe stress during prolonged dry periods, while the Cawsane borehole remains relatively stable due to its connection to a deeper and more resilient aquifer system. This demonstrates that deeper aquifers provide more reliable water supply during drought conditions compared to shallow, rainfall-dependent groundwater sources.

Sanaag region Water Conductivity Trends

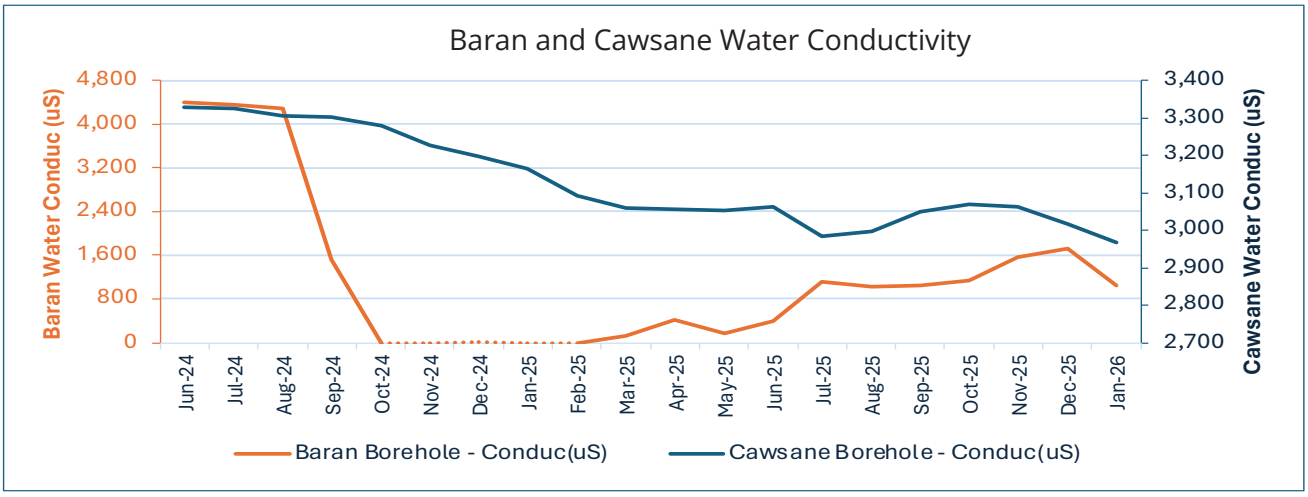


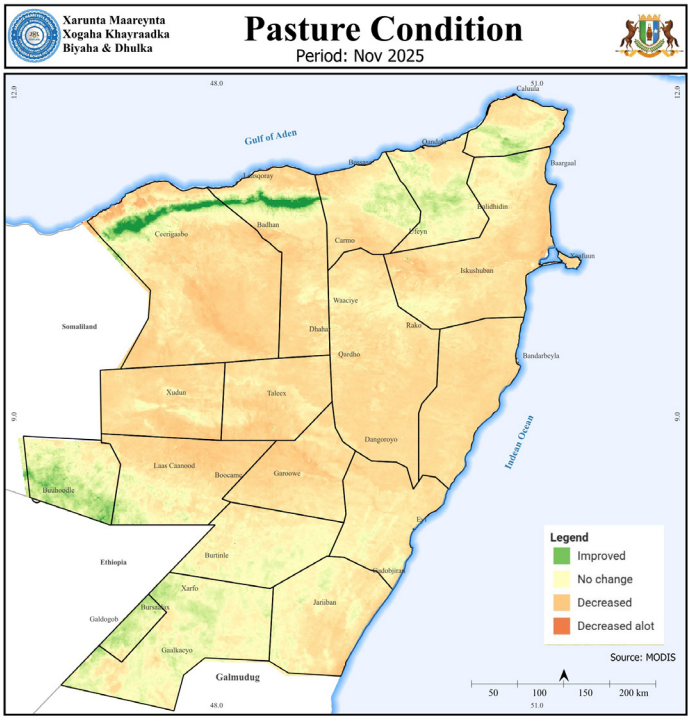
Figure 9: Sanaag region water conductivity trends

The water conductivity trends in Cawsane borehole illustrates difference in groundwater quality over the monitoring periods in comparison to Baran Borehole reflecting disparity aquifer conditions.

Cawsane ground water conductivity remained stable throughout the monitoring period , declining from 3,330 µS in June 2024 to 2,968 µS in January 2026, with only minor seasonal changes observed corresponding to stable aquifer with consistent water quality and limited sensitivity to rainfall variability. Whereas the Baran borehole indicated high variable of conductivity levels. Conductivity was very high in mid-2024 ranging from 4,409-4,295 µS , indicating saline water. From September to 2024 to February 2025, values dropped sharply to zero as indicated by dots , suggesting either borehole inactivity , sensor issues or major changes in ground water conditions. From March 2025onward , conductivity gradually increased , attaining 1,730 µS in December 2025, before declining again to 1,057 µS in January 2026 and this reflects shallow dependent aquifer that is more sensitive to recharge.

VEGETATION AND PASTURE CONDITION

Based on Map 2, which presents pasture conditions for November 2025, there were localized improvements in pasture availability across some livelihood zones in Puntland , largely linked to below-to-normal Deyr rainfall performance.



Map 2: Pasture conditions

In the Northern Inland Pastoral (NIP) areas particularly in Las'anod, Qardho, and the Eastern Golis zones of Qandala, Alula, and Balli-dhidin pasture and browse conditions showed noticeable improvement.

The Hawd Pastoral zone, covering Buuhoodle, Galdogob, Xarfo, and Bursaalax, also shown better vegetation cover following relatively favorable Deyr rains.

Similarly, vegetation conditions improved in the Addun Pastoral areas of Jerriban and Galkacyo.

In contrast, the map highlights a significant deterioration in pasture conditions classified as decreased and decreased a lot across the Coastal Deex zones, including Xaafuun, Benderbeyla and Eyl where rainfall remained far below normal.

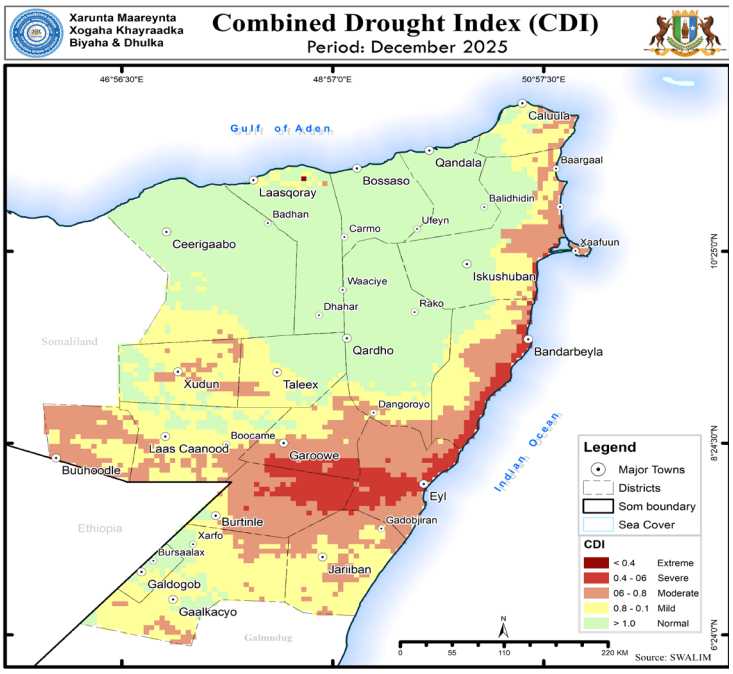
Reduced pasture and biomass were also observed in Laasqoray, Bargaal, Badhan, and Bossaso within the Eastern Golis, as well as in much of the NIP areas such as Garoowe , Burtinle ,Godobjiiraan , Dangorayo and Iskushuban, mainly due to no or below normal Deyr rainfall.

COMBINED DROUGHT INDEX (CDI)

The Combined Drought Index (CDI) for December 2025 indicates widespread drought conditions across much of Puntland, with varying levels of severity. Large areas districts, including Garoowe, Burtinle, Dangorayo, Eyl, Godobjiiraan, and parts of Jarriban, are experiencing severe to extreme drought, as shown by the red and dark-red colors. These conditions reflect critically low moisture availability, poor pasture, and significant water stress.

The coastal zones particularly Banderbeyla, Eyl, Xaafuun, Bargaal , and Caluula are also affected by moderate to severe drought due to no rains and below normal rains with limited groundwater recharge.

In contrast, districts of Ceerigaabo, Badhan, Laasqoray, Bossaso, Qandala, and Caluula show normal to mild drought conditions, indicating relatively better status compared to other areas.



Map 3: Combined drought index (CDI)

Overall, the CDI map highlights a deteriorating drought situation, especially in the Puntland regions and its livelihood zones, where prolonged dry conditions continue to threaten water resources, pasture availability, livestock productivity, and community livelihoods.

DROUGHT IMPACTS AND PROJECTION OF UPCOMING JILAAL PERIOD

Rainfall: Most parts of Puntland have recorded significantly below normal rains during this Deyr 2025 season. The rain started in the third week of September and lasted until December. Parts of Nugal , Sool , Sanaag , Mudug and Bari regions have not recorded any rains up to date. This is the fourth consecutive failed season in the Puntland and therefore has led to severe drought conditions which has put serious stress on the livelihoods.

Water Resources: According to the Puntland joint drought assessment in November 2025 , it's reported that 90% of the berkads (water reservoirs), in Puntland are dried up leaving communities with very few water storage options. The current situation has placed severe pressure on water resources, with many communities lacking constant and reliable water sources. Frequent breakdowns of boreholes have further reduced access to safe water, forcing households to depend on limited and often unsafe alternatives. As a result, water prices have increased significantly, making water less affordable for vulnerable families. In addition, much of the available water is brackish and unsuitable for drinking, posing serious health risks. These combined challenges highlight the urgent need for sustainable water supply interventions, infrastructure rehabilitation, and improved water resource management.

Livestock: In general, the pastoralists in Puntland are facing water and pasture shortages, rapidly weakening livestock body conditions and productivity. The little improved pasture pockets are already depleted quickly because of the high concentration of livestock. The animals are largely emaciated with no deaths reported so far while others have been forced to migrate long distances including the neighboring Ethiopia in search of pasture and water, increasing stress on animals and herders. Many households have resorted to distress sales of their remaining livestock at low prices due to scarce availability of animal feed and grazing resources. The weakened condition of animals has also contributed to the outbreak of infectious livestock diseases, further increasing mortality and reducing productivity.

Agriculture: In the agricultural sector, reports indicate small-scale farms have been abandoned because of the lack of water for irrigation, leading to reduced crop production and loss of income for farming communities. These combined impacts have significantly undermined food security, household livelihoods, and the overall resilience of pastoral and agro-pastoral communities.

Food Security: food insecurity is immediately evident as result of the poor performance of rains characterized by a late onset and poor spatial and temporal distribution which has exacerbated food shortages. The joint assessment reports indicated that malnutrition is beginning to emerge in some regions of Puntland.

Since the Deyr rainy season has ended, the upcoming Jiilaal period from January to march which is a prolonged cool and dry season is expected to further worsen the already stressed water and pasture resources in Puntland. The dry conditions will further reduce groundwater recharge, dry up remaining water sources, and limit pasture availability for livestock. As a result, communities are likely to face increased water shortages, rising water prices, livestock diseases and deaths, food insecurity, and a higher risk of displacement as families migrate in search of water and grazing areas.

In response to the ongoing drought, the Puntland Government has established a high-level Drought Response Committee led by the Vice President, conducted a joint drought impact assessment with government, UN, and local partners, designed a response plan based on assessment findings, projections, and existing gaps, mobilized resources from various sources, implemented the response plan to address immediate drought impacts, and initiated the realization of emergency actions while transitioning toward sustainable long-term solutions. The Ministry of Humanitarian Affairs and Disaster Management (MOHADM) have called for a drought appeal to all humanitarian partners to provide the necessary support.

CONCLUSION AND RECOMMENDATIONS

Below normal deyr rainfall in Puntland has severely strained water sources, livestock health, and degraded pasture. Immediate and coordinated actions are therefore required to stabilize water access, protect livestock, human health, and crop yields to strengthen vulnerable community resilience.

To address these challenges, the following short and long term recommendations are proposed:

Short term:

- Emergency water trucking and rehabilitation boreholes.
- Water quality must be improved through salinity management measures and the promotion of safe water treatment options to ensure that communities have access to clean and safe drinking water.
- Water-use efficiency should be promoted for domestic, livestock, and irrigation purposes to reduce wastage and ensure sustainable use of limited water resources during the dry season.
- Provide livestock feed support in severely affected zones to prevent livestock losses, protect pastoral livelihoods, and reduce distress sales of animals.
- Vaccination campaigns, disease surveillance, and veterinary outreach to prevent disease outbreaks and protect livestock productivity.

Long term:

- Water resources: construction of new strategic boreholes, expansion of rural and urban water supply, improvement of water quality, and promotion of water harvesting systems.
- Range land management and restoration: resting of degraded pastures, afforestation and reforestation.
- Agriculture and livestock: implementation of good agricultural practices, promoting agro-pastoral communities, and irrigation efficiency through adoption drip irrigation systems.
- Enhance early warning and anticipatory action for community resilience.

Puntland Information Management Center for Water and Land Resources (IMC)
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