Climate Update

Food and Agriculture Organization of the United Nations

FSNAU
Food Security and Nutrition Analysis Unit - Somalia

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Highlights

The *Deyr* (October-December) represents the second rainy season in most parts of northeastern, central and Southern Somalia. Parts of northwest regions may also experience some rainfall in October and in December/January.

In October and November 2021, parts of Northwest regions continued to receive light to moderate rains, mostly in October 2021, as a continuation of the Karan (August-September) rains that are more typical for this region.

On the other hand, most parts of northeastern and central regions received little to no rainfall in October through early December, except light to moderate rains in northern parts of Bari region and along the coast of Nugaal, North Mudug and Galgadud regions, while southern Somalia received delayed and isolated showers with limited number of rainy days, in late October through early December. (See Map 1 and Table 1).

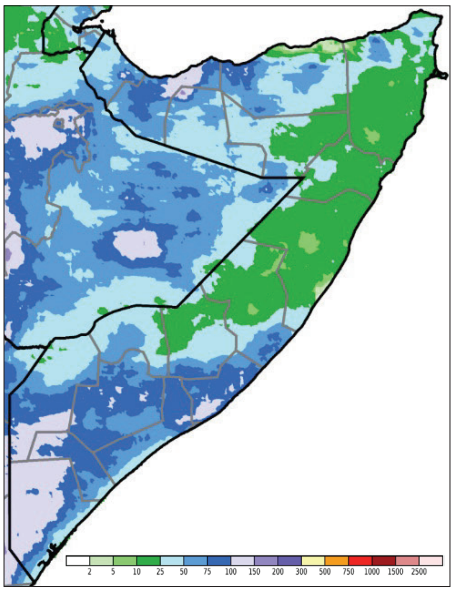
Based on data obtained from rain gauge readings at meteorological stations across Somalia, the monthly rainfall totals for October and November 2021 were below average and poorly distributed in most parts of the country except in northwest regions where most stations recorded above average rainfall. Stations that recorded monthly rainfall totals exceeding 100mm, all of them in October, are: Hargeisa (137mm), Sheikh, (109mm) and Wajaale (107mm), in northwest; Jowhar (161mm), Wanleweyne (138.5mm) and Baidoa (106mm) in the south, mostly localized and concentrated within a limited number of rainy days – see Table 1.

Cumulative rainfall from 1 October to 10 December 2021 remained significantly below average in central regions, adjacent parts of northeast regions and all parts of southern Somalia – see Map 2. Cumulatively, total rainfall amounts from 1 October through 25 December 2021, including forecasts from 11-25 December 2021, are expected to remain well below average in these same areas (Maps 3 and 4).

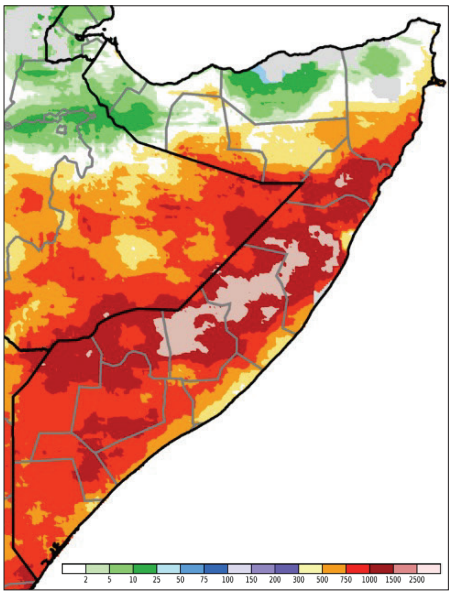
Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) has been rapidly deteriorating since October in most parts of central and southern Somalia, reflecting the cumulative effects of below average rainfall during the current Deyr season (see Maps 5, 6 & 7). There have been short-lived improvements in vegetation cover in northwest regions, parts of Bari in the northeast and parts of Hiran, adjacent parts of Bakool and parts of Shabelle regions in southern Somalia.

Severe water crisis and water trucking were reported throughout October in parts of northeast and central regions with increased water prices for livestock and human consumption. Similarly, eastern parts of Northwest (Sool, Sannag and Tog-dheer regions), water trucking started in December and expected to continue throughout Jilaal season (January – March). Debt levels are increasing among poor pastoral households in these livelihoods due to increased costs associated with livestock feed, water and migration.

Map 1: Rainfall Total (mm): 1 Oct to 10 Dec 2021

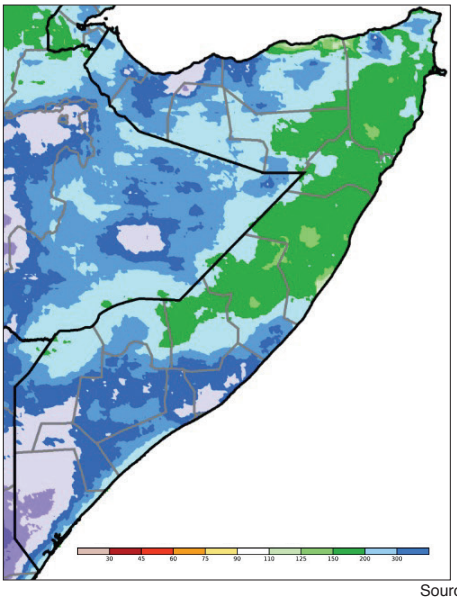


Map 2: Seasonal Rainfall as Percent of Average: 1 Oct to 10 Dec 2021

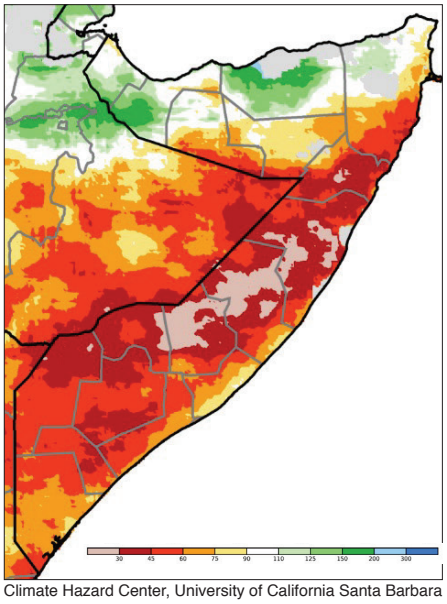


Source: Climate Hazard Center, University of California Santa Barbara

Map 3: Rainfall Total (mm): 1 Oct to 25 Dec 2021 (includes forecast data for 11-25 Dec)

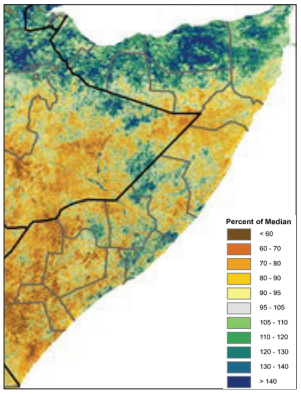


Map 4: Seasonal Rainfall as Percent of Average: 1 Oct to 25 Dec 2021 (includes forecast data for 11-25 Dec)

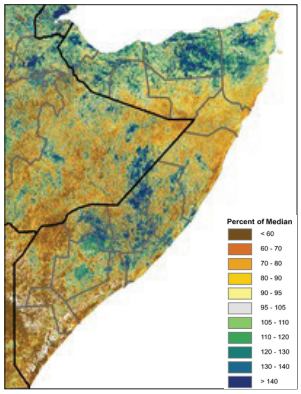


Source: Climate Hazard Center, University of California Santa Barbara

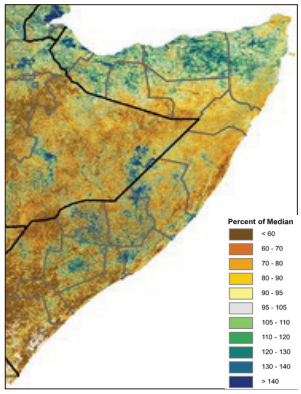
Map 5: NDVI Percent of Median: 21–31 Oct



Map 6: NDVI Percent of Median: 21–30 Nov



Map 7: NDVI Percent of Median: 1–10 Dec



Water prices were significantly higher in both October and November 2021 compared to five-year average for 2016-2020 in most parts of northwest (11-57%), most parts of northeast (27-197%), Galkacyo district of Mudug (48-60%), Shabelle (6-25%), Bakool (12-20%), Bay (18-22%), and Middle Juba (71-79%). Moreover, water prices in remote areas are much higher than water prices near main towns where permanent water sources in urban areas.

In summary, limited rainfall received during the current rainy season is not sufficient to reverse or prevent further worsening of the ongoing drought in the coming months, particularly during the typically harsh and dry January-March Jilal season. Reported livestock body conditions were Poor (PET score 2) or Very Poor (PET score 1) in October in Gedo, Middle Juba, Lower Juba, Bay and Bakool regions. Livestock that have been exposed to worsening drought conditions through late October lost significant body weight, leading to abortions in parts of northeast, central and southern regions, particularly in Nugaal, north Mudug, Galgadud, Gedo, Juba and parts of Hiran and Bakool region. Excess livestock mortality was also reported in most of these areas, especially among cattle in Gedo and Juba regions.

Continued rainfall in October in parts of northwest regions has increased pasture and water availability for livestock but only marginally improved 2021 Gu/karan cereal harvest prospects. In other parts of Somalia, below average Deyr rains between October and early December have also marginally improved pasture and water availability. However, the amount and distribution of rainfall was inadequate for crop growth and development for the 2021 Deyr cropping season, leading to widespread crop failure in most agropastoral livelihoods. Harvest prospects are marginally better in riverine areas among better off households that have the possibility of irrigating their crops. Due to the poor performance of the current Deyr season, income from agricultural employment have also been adversely affected in and riverine livelihoods of central and Southern Somalia.

With little to no rainfall expected through late-December, drought conditions are likely to continue and further adverse impacts on rural livelihoods are expected to worsen until the start of the 2022 Gu season rainfall in April.

Shabelle river levels have started declining to below average and below Moderate flood-risk levels as of mid to late November 2021. Juba river levels remained below average and below Moderate flood-risk levels in October and November 2021. With little or no rainfall expected through late December, both Shabelle and Juba river levels are likely to decline sharply during the forthcoming 2022 Jilaal season. Shabelle River is currently very low in the lower reaches of the river in Jowhar (1.6 meters as of 16 December compared to the 2.96 meter average level) and it may dry up (exposing dry river bed) during the Jilaal.

According to the latest FAO Desert Locust Watch update (14 December 2021), the success of ongoing control operations in northeast Somalia has limited the number and size of immature swarms that will form through the end of December 2021. However, a few small swarms from undetected and untreated areas should start to form in the coming week given current temperatures. Since vegetation is drying out and the prevailing winds are from the northeast, the swarms are likely to migrate southwards, passing over central Somalia and reach southern Somalia in late December or thereafter. The threat of swarm arrival in these areas should subside until the long rains arrive in April/May, which would allow maturation and egg-laying. Enhanced surveillance and control operations of swarms potentially could bring the current upsurge to an end before April 2022.

Table 1: Observed rain gauge data compared to Short Term Averages - STA (October and November 2021)

Northern regions

Region	Station Name	Oct 21	Oct STA	Nov 21	Nov STA
Awdal	Borama	74.0	18.5	0.0	8.6
Awdal	Qulenjeed	29.5	20.6	0.0	8.1
Wogooyi Galbeed	Gebilley	32.0	15.7	0.0	8.6
Wogooyi Galbeed	Malawle	58.0	23.5	0.0	7.2
Wogooyi Galbeed	Wajaale	107.0	15.7	0.0	8.1
Wogooyi Galbeed	Hargeisa	137.0	27.0	0.0	7.6
Wogooyi Galbeed	Daraweyne	37.5	30.6	4.0	9.1
Wogooyi Galbeed	Cadaadley	28.0	56.2	9.0	17.6
Wogooyi Galbeed	Dilla	3.0	14.2	0.0	8.1
Wogooyi Galbeed	Aburin	64.0	21.3	0.0	7.2
Wogooyi Galbeed	Dhubato	53.0	43.4	10.0	13.3
Wogooyi Galbeed	Baligubable	75.0	38.4	0.0	9.1
Wogooyi Galbeed	Berbera	0.0	0.0	0.0	1.0
Togdheer	Burao	50.0	31.3	0.0	7.2
Togdheer	Sheikh	109.0	70.4	23.0	24.7
Togdheer	Odweyne	87.0	59.1	0.0	17.1
Togdheer	Buadodle	42.5	34.2	0.0	6.2
Sanaag	Eeerigavo	59.0	3.6	0.0	4.8
Sanaag	Elafweyn	68.0	13.5	0.0	5.7
Sool	Caynabo	53.0	21.3	0.0	3.8
Sool	Xudun	22.0	22.1	0.0	7.2
Sool	Taleex	27.7	27.0	0.0	6.2
Sool	Las Aanod	0.0	29.2	0.0	9.5
Bari	Bossasso	0.0	1.4	48.0	2.9
Bari	Qardo	5.0	25.6	0.0	4.8
Bari	Dangoroyo	0.0	34.2	0.0	7.6
Bari	Ballidhin	0.0	1.4	0.0	7.2
Bari	Alula	13.0	0.7	34.6	8.1
Bari	Bandarbeyla	10.5	15.7	12.0	18.5
Bari	Iskushuban	36.5	5.7	9.5	5.3
Nugaal	Garowe	38.3	37.7	0.0	10.5
Nugaal	Eyl	1.0	39.8	70.0	14.8
Nugaal	Burtnile	7.2	42.7	0.0	13.8
Mudug	Galdogob	3.7	47.0	0.0	12.4
Mudug	Jarriban	0.0	42.7	8.0	19.5
Mudug	Galkayo	16.5	47.7	0.0	15.2

Southern regions

Region	Station Name	Oct 21	Oct-STA	Nov 21	Nov STA
Bakool	Hudur	71.5	106.7	4.0	11.0
Bakool	Elbarde	28.0	81.1	0.0	1.0
Bay	Baidoa	106.0	135.2	35.5	87.8
Bay	Diinsor	25.6	64.0	41.2	97.8
Bay	Bardaale	83.0	106.7	43.0	85.9
Bay	BurHakaba	28.0	111.7	50.5	57.4
Gedo	Luuq	0.0	48.4	18.5	47.5
Gedo	Bardheere	0.0	81.8	0.0	115.8
Hiraan	Belet weyne	11.5	85.4	4.0	39.9
Hiraan	Bulo burti	59.5	88.2	0.0	56.5
Hiraan	Mataban	45.0	84.7	0.0	36.6
Lower Shabelle	Wanleweyne	138.5	145.9	14.5	121.0
Banadir	Mogadishu	10.0	34.2	14.5	73.1
Middle juba	Bualle	34.5	74.0	95.2	65.5
Middle Shabelle	Jowhar	161.0	97.5	21.0	71.7
Lower Juba	Jamame	2.0	17.8	5.5	51.8

Data source: FAO SWALIM

Source of satellite Images used in this analysis are the Climate Hazard Center at the University of California Santa Barbara (for rainfall) and FEWS NET (for NDVI).