## Climate Update



Food and Agriculture Organization of the United Nations



Issued October 19, 2021

## Highlights

September usually marks the end of Hagaa/ Karaan (July– September) short rainy season in northwestern Somalia and a typically dry and windy season across other parts of Somalia.

Light to moderate Karan rains were received across most parts of northwest regions in September 2021. Northeastern regions received little rainfall while central and southern Somalia remained mostly dry, with the exception of parts of Shabelle and Bay regions that received light rains around mid-September (see Map 1 and Table 1).

Based on data obtained from rain gauge readings at meteorological stations across Somalia, the monthly rainfall totals for September 2021 were below average in most parts of the country except in northwest most stations recorded above average rainfall. Some of these stations recorded rainfall exceeding 100inm: Hargeisa (161.5mm), Malawle (109mm), Borama, (103mm) and Dhubato (101mm) – see Table 1. Cumulative rainfall from 1 September to 10 October 2021 remained below average in most regions of central and southern Somalia – see Map 2.

Cumulatively, total rainfall amounts from 1 September through 25 October, including forecasts from 11-25 October 2021, are expected to remain below average in most parts of central and southern Somalia and some parts of northeast regions, with large rainfall deficits expected in parts of Bakool, Bay, Gedo, Middle Juba and Lower Shabelle regions and coastal parts of northern regions (Maps 3 and 4).

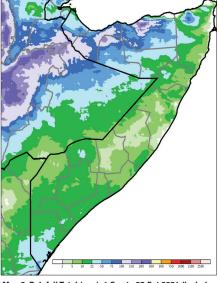
Continued rainfall in September in parts of northwest regions has improved pasture and water availability for livestock. However, in the remaining parts of Somalia, pasture and water availability continued to deteriorate due to worsening drought conditions. Livestock body condition and reproduction deteriorated leading abortions and death of livestock in parts of central and southern regions, particularly in Galgadud, Gedo and Juba.

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) has been deteriorating in late September and early October in most parts of central and southern Somalia, reflecting the cumulative effects of below average April to June 2021 Gu season rainfall and poor rainfall in September (see Maps 5 and 6). Better vegetation covers are observed in northwest regions, northern parts of Bari region and most parts of Shabelle regions.

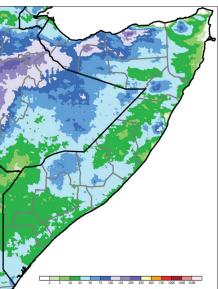
Severe water crisis and water trucking are reported in parts of northeast and central regions with increased water prices for livestock and human consumption. Debt levels among poor pastoral households in these livelihoods are increasing due to increased costs associated with livestock feed and water.

Water prices increased in September 2021 compared to the five-year average for 2016-2020 in most parts of the northwest (i.e. Toghdeer, Sool and Sanaag, 12-16%), most parts of Bari and Nugaal (20-64%), Glakacyo district of Mudug (48%), Marka district of Lower Shabelle (44%),

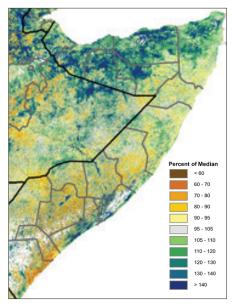
Map 1: Rainfall Total (mm): 1 Sep to 10 Oct 2021



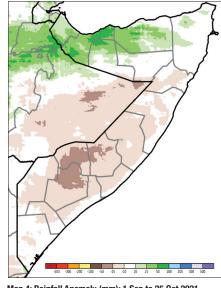
Map 3: Rainfall Total (mm): 1 Sep to 25 Oct 2021 (includes forecast data for 11 to 25 Oct)



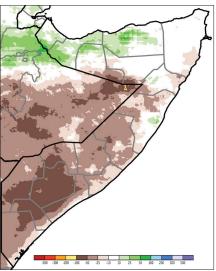
Map 5: NDVI Percent of Median: 21–30 Sep



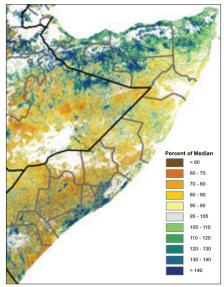
Map 2: Rainfall Anomaly (mm): 1 Sep to 10 Oct 2021



Map 4: Rainfall Anomaly (mm): 1 Sep to 25 Oct 2021 (includes forecast data for 11 to 25 Oct)



Map 6: NDVI Percent of Median: 1-10 Oct



Xudur of Bakool (21%) and Qansax Dheere of Bay (54%) and Middle Juba (42-53%). Moreover, water prices in remote areas are much higher than water prices near main water points.

Abortions and death of newly born small ruminants have been reported in north Mudug and Nugaal regions, in Addun Pastoral, parts of Hawd Pastoral and Coastal Deeh Pastoral of central regions due to worsening drought conditions and drought-induced diseases.

The ongoing drought has also affected rural livelihoods in southern Somalia, including Gedo, Middle Juba, Lower Juba, Bay and Bakool regions. Livestock body conditions are Poor (PET score 2) or Very Poor (PET score 1). Abortions and livestock deaths in Gedo and Middle Juba regions are moderate but could increase further if the Deyr season rains continue to perform poorly. In Lower Juba region, cattle deaths are high (10-15%) due to a combination of severe drought and drought-induced diseases, exacerbated by large influx of livestock into the area from Geo region and northeastern Kenya. Death rates (losses) among livestock that migrated from Geo region and northeastern Kenya are much higher (20-30%) as the animals arrived in weakened, state after a long trek and not adapted to livestock diseases that are endemic in Juba region.

With little to no rainfall expected through the end of October, current drought conditions and likely impact on pastoral livelihoods and seasonal crop cultivation are expected to worsen. If rainfall during the remainder of the current Deyr (October-December) continues to perform poorly, agro pastoral and riverine livelihoods of Southern Somalia are also expected to be affected due to loss of agricultural employment and income earning opportunities and reduced harvest prospects.

Shabelle river levels remained above average but below Moderate flood-risk levels during September 2021 through 10 October. Juba river levels remained below average and below Moderate flood-risk levels in September 2021 through 10 October. However, a slight increase in both river levels is likely with no risk of flooding the end of October due to the limited amount of rainfall expected over next two weeks.

The latest FAO Desert Locust Watch reports that a limited number of small desert locust swarms persisted in northwest and northeast Somalia. If rainfall and vegetation conditions become favorable, the swarms could mature and lay eggs eventually leading to hatching and band formation in November. Additional immature swarms are expected to arrive from northeast Ethiopia and southern Yemen. As a result, desert locust infestation and the risk this poses to pasture and crops in Somalia will persist through the end of this year.

Southern regions

## Table 1: Observed rain gauge data compared to Short term averages - STA (September 2021)

## Northern regions

Station Name	Region	dek 1	dek 2	dek 3	Sep 21	STA
Borama	Awdal	39.5	25.5	38.0	103.0	80.0
Qulenjeed	Awdal	56.5	19.5	14.5	90.5	84.4
Gebilley	Wogooyi Galbeed	41.0	19.0	11.0	71.0	57.5
Malawle	Wogooyi Galbeed	37.0	60.0	12.0	109.0	61.1
Wajaale	Wogooyi Galbeed	50.0	26.0	6.0	82.0	56.0
Hargeisa	Wogooyi Galbeed	69.0	24.5	68.0	161.5	64.0
Daraweyne	Wogooyi Galbeed	0.0	27.0	11.5	38.5	66.2
Cadaadley	Wogooyi Galbeed	0.0	0.0	39.0	39.0	76.4
Dilla	Wogooyi Galbeed	19.0	14.0	24.0	57.0	61.1
Aburin	Wogooyi Galbeed	14.5	28.0	18.0	60.5	57.5
Dhubato	Wogooyi Galbeed	36.0	22.0	43.0	101.0	71.3
Baligubable	Wogooyi Galbeed	15.0	10.0	M	25.0	58.9
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	2.2
Burao	Togdheer	3.0	0.0	0.0	3.0	24.7
Sheikh	Togdheer	5.5	54.0	38.5	98.0	73.5
Odweyne	Togdheer	16.0	31.0	10.0	57.0	60.4
Buadodle	Togdheer	0.0	20.0	7.5	27.5	8.7
Eeerigavo	Sanaag	4.0	12.0	31.0	47.0	79.3
Elafweyn	Sanaag	0.0	22.0	0.0	22.0	61.1
Caynabo	Sool	0.0	19.0	0.0	19.0	13.1
Xudun	Sool	0.0	0.0	0.0	0.0	33.5
Taleex	Sool	0.0	0.0	6.0	6.0	16.0
Las Aanod	Sool	0.0	0.0	30.0	30.0	16.0
Bossasso	Bari	0.0	0.0	0.0	0.0	0.7
Qardo	Bari	0.0	14.0	4.0	18.0	7.3
Dangoroyo	Bari	0.0	0.0	0.0	0.0	2.9
Ballidhin	Bari	30.0	0.0	0.0	30.0	2.9
Alula	Bari	0.0	0.0	0.0	0.0	0.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	5.8
Iskushuban	Bari	0.0	4.0	19.5	23.5	6.5
Garowe	Nugaal	0.0	0.0	6.8	6.8	10.2
Eyl	Nugaal	0.0	0.0	0.0	0.0	2.2
Burtnile	Nugaal	0.0	0.0	0.0	0.0	8.0
Galdogob	Mudug	0.0	0.0	1.0	1.0	3.6
Jarriban	Mudug	0.0	0.0	0.0	0.0	2.2
Galkayo	Mudug	0.0	0.0	0.0	0.0	3.6

	1					
Station Name	Region	dek 1	dek 2	dek 3	Sep 21	STA
Hudur	Bakool	0.0	0.0	0.0	0.0	46.5
Elbarde	Bakool	0.0	0.0	0.0	0.0	26.2
Baidoa	Вау	7.5	19.5	0.0	27.0	13.1
Diinsor	Вау	0.0	13.9	0.0	13.9	10.9
Bardaale	Вау	1.0	2.5	0.0	3.5	5.8
BurHakaba	Вау	0.0	8.0	0.0	8.0	17.5
Luuq	Gedo	0.0	0.0	0.0	0.0	2.2
Bardheere	Gedo	0.0	7.0	7.0	14.0	8.0
Belet weyne	Hiraan	0.0	0.0	0.0	0.0	13.1
Bulo burti	Hiraan	0.0	0.0	0.0	0.0	5.1
Mataban	Hiraan	0.0	0.0	0.0	0.0	13.1
Wanleweyne	Lower Shabelle	0.0	12.0	0.0	12.0	32.0
Mogadishu	Banadir	0.0	25.0	0.0	25.0	16.7
Bualle	Middle juba	0.0	0.0	0.0	0.0	9.5
Jowhar	Middle Shabelle	0.0	45.0	0.0	45.0	5.8
Jamame	Lower Juba	0.0	7.0	3.0	10.0	32.7

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).

