





June 2020 Monthly Rainfall and Vegetation Cover (NDVI) (Issued July 20, 2020)

## **Highlights**

June marks the last month of the Gu (April - June) rainy season in Somalia, usually characterized by reduced precipitation as compared to April and May.

In June 2020, most of the rain gauge stations across Somalia recorded little or no rainfall, with only a few stations in the northwest recording over 50mm of rainfall: Borama (56mm), Wajaale (56.5mm), Dhubato (60mm), Hudun (82mm), and El afweyn (98mm) - Map 1 and Table 1. Declining rainfall in June can also be observed from satellite derived rainfall estimates (RFE), with rainfall mostly confined to northwest and southern parts of the country as shown on Maps 2-5. For the most part, this is consistent with typical seasonal patterns.

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI), indicates a deterioration of vegetation cover in most of the country, due to the below average rainfall and extended dry spell recorded in large parts of the southern regions since mid-May 2020 - Maps 6-8, and Map 10. Strong Hagaa winds experienced in June in parts of Gedo and Shabelles regions have also contributed to this.

Due to the cumulative positive impact of current Gu season rainfall on availability of pasture and water in pastoral areas, livestock production and reproduction have generally improved. Field reports indicate medium livestock conception levels, low to medium calving among large ruminants and medium to high kidding and lambing among small ruminants. However, livelihood protection deficits and food consumption gaps persisted in most pastoral areas in north and central regions due to below baseline livestock holdings. In Nugaal region, pastorlists reported contagious camel disease, which has caused camel abortions and some deaths.

In June, reports from multiple sources, including government and FAO confirmed the presence of desert locust swarms, bands, and groups in most northern and central regions. No major locust damages have been reported in southern parts of Somalia. Thus far, damage to pasture and crops in northern and central parts of the country are moderate due to continued regeneration of pasture and scaling up of control measures by Government and FAO.

In Bay, moderate rains received in late June improved the performance of established crops and replenished water catchments in pastoral and agro pastoral areas of Bay region. However, in agro pastoral areas of Gedo, Bakool, Middle Shabelle, Middle Juba and Hiiraan regions, current Gu season crops are performing poorly due to below average to poor rainfall recorded since mid-May.

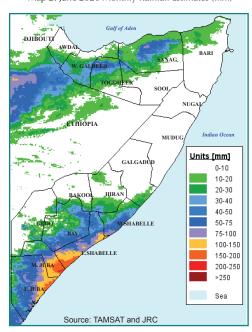
Shabelle river levels has shown a declining trend in June, due to decreased rainfall in the upper and lower catchments of the river inside Somalia and adjacent highlands of eastern Ethiopia.

There have been an increase in the price of water in June in several areas, possibly as a result of declining rainfall since mid-May. In the rural markets of central, Juba and Shabelle regions, the price of a jerry can is 35 to 65 percent above the five year average (2015-2019). Water trucking started in the first dekad in small intensity in parts of Lower Shabelle region, but intensified towards the third dekad. This is expected to wosen unless Hagaa (July-September) rains mitigate the emerging water scarcity.

Map 1:June 2020 Monthly Rain Gauge Data (mm)

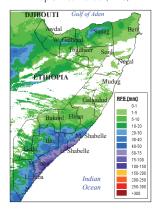


Map 2: June 2020 Monthly Rainfall Estimates (mm)

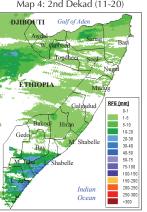


June 2020: Dekadal Rainfall Estimates (RFE) Progression

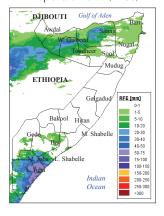
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)



Map 5: 3rd Dekad (21-30)

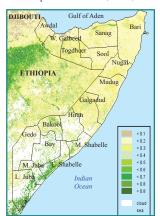


June 2020: Dekadal Vegetation Cover (NDVI) Progression

Map 6: 1st Dekad (1-10)



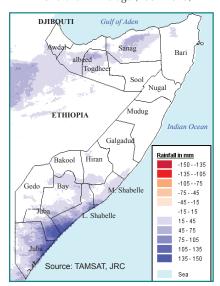
Map 7: 2nd Dekad (11-20)



Map 8: 3rd Dekad (21-30)



Map 9: June 2020 Rainfall Difference from Short Term Average (2001-2019)



Map 10: June 2020 NDVI Absolute Difference from Short Term Average (1999-2019)

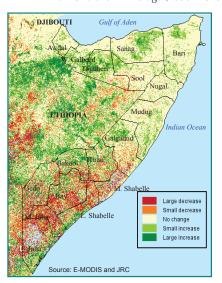


Table 1: Observed rain gauge data compared to Short term averages - STA (June 2020) **Northern Regions** Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jun 20	STA
Borama	Awdal	39.0	4.0	13.0	56.0	27.0
Gebilley	Wogooyi Galbeed	11.5	0.0	23.5	35.0	51.0
Malawle	Wogooyi Galbeed	0.0	0.0	0.0	0.0	36.0
Wajaale	Wogooyi Galbeed	16.0	11.0	29.5	56.5	49.0
Hargeisa	Wogooyi Galbeed	10.0	14.5	0.0	24.5	33.0
Daraweyne	Wogooyi Galbeed	15.0	0.0	11.0	26.0	31.0
Cadaadley	Wogooyi Galbeed	35.5	0.0	0.0	35.5	32.0
Dilla	Wogooyi Galbeed	3.0	0.0	7.0	10.0	48.0
Aburin	Wogooyi Galbeed	0.0	0.0	27.5	27.5	38.0
Dhubato	Wogooyi Galbeed	50.0	10.0	0.0	60.0	31.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	38.0
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	0.0
Burao	Togdheer	32.0	0.0	0.0	32.0	23.0
Sheikh	Togdheer	7.0	0.0	6.0	13.0	38.0
Odweyne	Togdheer	3.5	0.0	0.0	3.5	28.0
Buadodle	Togdheer	0.0	0.0	0.0	0.0	16.0
Eeerigavo	Sanaag	10.5	0.0	33.0	43.5	38.0
Elafweyn	Sanaag	98.0	0.0	0.0	98.0	19.0
Caynabo	Sool	0.0	0.0	0.0	0.0	17.0
Xudun	Sool	70.0	0.0	12.0	82.0	10.0
Taleex	Sool	0.0	0.0	0.0	0.0	9.0
Las Aanod	Sool	0.0	0.0	0.0	0.0	1.0
Bossasso	Bari	35.0	0.0	0.0	35.0	0.0
Qardo	Bari	0.0	0.0	0.0	0.0	4.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	4.0
Ballidhin	Bari	20.6	0.0	0.0	20.6	4.0
Alula	Bari	0.0	0.0	0.0	0.0	0.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	2.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	2.0
Garowe	Nugaal	0.0	0.0	0.0	0.0	9.0
Eyl	Nugaal	0.0	0.0	0.0	0.0	0.0
Burtnile	Nugaal	0.0	0.0	0.0	0.0	9.0
Galdogob	Mudug	0.0	0.0	0.0	0.0	7.0
Jarriban	Mudug	0.0	0.0	0.0	0.0	6.0
Galkayo	Mudug	0.0	0.0	0.0	0.0	6.0

Station Name	Region	dek 1	dek 2	dek 3	Jun-20	STA		
Hudur	Bakool	0.0	0.0	0.0	0.0	0.0		
Elbarde	Bakool	0.0	0.0	0.0	0.0	5.0		
Baidoa	Bay	1.5	0.0	10.0	11.5	19.0		
Diinsor	Bay	14.8	0.0	13.0	27.8	15.0		
Bardaale	Bay	3.0	0.0	4.5	7.5	14.0		
BurHakaba	Bay	0.0	0.0	0.0	0.0	13.0		
Luuq	Gedo	2.0	0.0	0.0	2.0	2.0		
Bardheere	Gedo	0.0	0.0	0.0	0.0	10.0		
Belet weyne	Hiraan	0.0	0.0	0.0	0.0	15.0		
Bulo burti	Hiraan	0.0	0.0	0.0	0.0	5.0		
Mataban	Hiraan	0.0	0.0	0.0	0.0	11.0		
Balad	Lower Shabelle	0.0	0.0	0.0	0.0	21.0		
Wanleweyne	Lower Shabelle	10.0	0.0	0.0	10.0	22.0		
Mogadishu	Banadir	7.0	7.5	14.0	28.5	86.0		
Bualle	Middle juba	4.0	0.0	29.0	33.0	47.0		
Jowhar	Middle Shabelle	0.0	0.0	0.0	0.0	41.0		
*indicates missing data								

## Monthly rainfall and NDVI perfomance maps

The Mapped NDVI and RFE above represent the differences from Long Term Mean.E-MODIS NDVI is presented as absolute difference from Long Term Mean for the same period (current - long term mean), while TAMSAT-RFE is presented as the relative difference from Long Term Mean (Current\*100)/LTM.

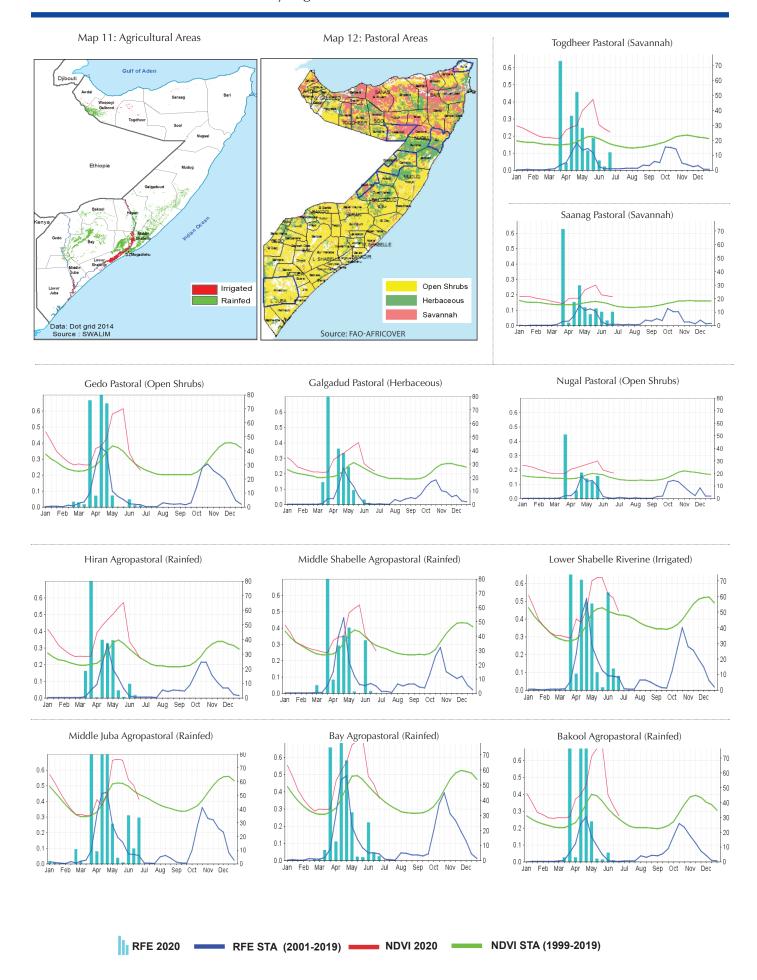
## Seasonal Trend Graph

The maps and graphs on pages 3 and 4 are produced in collaboration with the FOODSEC Action of the Joint Research Centre of the European Commision. The graphs present seasonal trends of crop specific NDVI (Normalised Difference Vegetation Index) as lines and rainfall values (RFE) as bars for each of the delineated land cover and administrative units (regions and districts). For more information or request on available data, please send an email to: data@

Primary data sources are NOAA/USGS, European Centre for Medium- range Weather Forecast (ECMWF), MARS-JRC, FSNAU and SWALIM. Maps and graphs on this bulletin are produced from four sources

- Current Rainfall Estimates and NDVI data are derived from NOAA/CPC and DEVCOCAST (www.devcocast.eu) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit http://mars.jrc.europa.eu/mars/About-us/FOODSEC For more information on NDVI visit http://earlywarning.usgs.gov/adds and http://fsausomali.org/ leadmin/uploads/1308.pdf
- This report is a compilation of climate data and field reports on Somalia that FSNAU and FEWS NET regularly review for analysis. For more information on data sources, please refer

The TAMSAT informatio is available on http://www.met.reading.ac.uk/tamsat/about/



## Seasonal rainfall and NDVI trends for selected districts

