Climate Update





August 2019 Monthly Rainfall and NDVI (Issued September 23, 2019)

Highlights

The Hagaa/Karan (July - September) rains continued in parts of Somalia during the month of August with northwestern regions recording average to above average rains, particularly in agro pastoral and parts of West Golis, East Golis and Hawd pastoral livelihoods of the north . However, though Hagaa rains intensified in August along coastal parts of southern Somalia, the overall amount and distribution were below average. The rest of the country remained dry, which is normal at this time of the year. Some of the rain gauges in the North that recorded above average rains in August 2019 include: Boroma (186mm), Gebilley (128mm), Hargeisa (118mm), Sheikh (84mm) and Wajaale (157mm). In the south, Banadir rain gauge recorded moderate showers of 39mm and Balcad 21mm (Table 1, Map 1).

Satellite Rainfall Estimates (RFE) derived from TAMSAT confirm rainfall availability in the above mentioned areas (Maps 3-5). Satellite-derived Normalized Difference Vegetation Index derived from E-Modis shows a general improvement of vegetation conditions in areas that received rains during the month of August 2019. Pockets of depressed vegetation conditions can be seen in some of the inland southern regions and the northern coastal areas (Maps 6-8 and 10).

As a result of recent Karan rains, pasture, water and browse, livestock body condition and productivity improved in parts of Awdal and W. Galbeed. Pastoralists remained in their permanent settlements with their herds. On the other hand, reports from agro pastoral livelihood zones indicate heavy pest infestation on lateplanted crops (stalk borer and armyworms). The most affected crop is late-planted/replanted maize as farmers tried to take advantage of Karan rains. Reports stated that there was complete destruction of late planted maize crops. However, recent Karan rains are likely to improve the yield of the early planted and well-established sorghum crops in Galbeed agro pastoral (northwest regions).

On the other hand, poor rangeland condition prevailed in central and large parts of the southern regions as a result of below average Gu and Hagaa rains. Water trucking with high water prices was experienced in Hawd, Addun and parts of Cowpea Belt agro pastoral in central regions. Exceptions were parts of Bay and Lower Shabelle where localized moderate Hagaa rains improved standing crops, pasture and browse with significant improvement in Southern Rainfed Maize Agropastoral livelihood of Middle and Lower Juba regions.





Map 2: Aug 2019 TAMSAT Monthly Rainfall Estimates

August 2019: Dekadal RFE Progression



Map 6: 1st Dekad (1-10)

W Galbeed

Togdheer

DJIBOUTI

ETHIOPIA

Gulf of Aden

Galgadu

M/Shabelle

abelle

Indian

Ocean

Sanag

Sool

Bar

< 0.1

Source: SWALIM









Map 7: 2nd Dekad (11-20)



Map 8: 3rd Dekad (21-30)





Map 9: Aug 2019 TAMSAT Rainfall Difference from short term mean (1999-2017)

Map 10: Aug 2019 NDVI Absolute Difference from Short Term Mean (2001- 2017)



Table 1: Observed rain gauge data compared to Short term averages (August 2019)Northern RegionsSouthern Regions

Region	Station Name	dek 1	dek 2	dek 3	Aug-19	STA
Awdal	Borama	51.0	98.0	36.5	185.5	107.0
Awdal	Qulenjeed	41.5	63.0	8.0	112.5	102.0
Wogooyi Galbeed	Gebilley	22.5	34.0	71.5	128.0	82.0
Wogooyi Galbeed	Malawle	19.0	27.0	51.0	97.0	65.0
Wogooyi Galbeed	Wajaale	11.0	59.0	86.5	156.5	91.0
Wogooyi Galbeed	Hargeisa	30.5	39.5	48.0	118.0	55.0
Wogooyi Galbeed	Daraweyne	25.0	12.5	0.0	37.5	58.0
Wogooyi Galbeed	Cadaadley	13.0	6.0	42.5	61.5	43.0
Wogooyi Galbeed	Dilla	6.0	10.0	71.0	87.0	95.0
Wogooyi Galbeed	Aburin	15.5	53.0	42.5	111.0	68.0
Wogooyi Galbeed	Dhubato	96.0	0.0	0.0	96.0	54.0
Wogooyi Galbeed	Baligubable	0.0	0.0	0.0	0.0	66.0
Wogooyi Galbeed	Berbera	0.0	0.0	0.0	0.0	3.0
Togdheer	Burao	0.0	0.0	0.0	0.0	8.0
Togdheer	Sheikh	10.0	15.0	59.5	84.5	47.0
Togdheer	Odweyne	0.0	24.0	7.5	31.5	40.0
Togdheer	Buadodle	0.0	0.0	0.0	0.0	14.0
Sanaag	Eeerigavo	0.0	0.0	0.0	0.0	31.0
Sanaag	Elafweyn	0.0	0.0	0.0	0.0	18.0
Sool	Caynabo	0.0	0.0	0.0	0.0	15.0
Sool	xudun	0.0	0.0	0.0	0.0	9.0
Sool	Taleex	0.0	0.0	0.5	0.5	8.0
Sool	Las Aanod	0.0	0.0	0.0	0.0	3.0
Bari	Bossasso	0.0	0.0	0.0	0.0	0.0
Bari	Qardo	0.0	0.0	0.0	0.0	4.0
Bari	Dangoroyo	0.0	0.0	0.0	0.0	3.0
Bari	Ballidhin	0.0	0.0	5.0	5.0	4.0
Bari	Alula	0.0	0.0	0.0	0.0	0.0
Bari	Bandarbeyla	0.0	0.0	0.0	0.0	3.0
Bari	Iskushuban	0.0	0.0	14.5	14.5	4.0
Nugaal	Garowe	0.0	0.0	0.0	0.0	6.0
Nugaal	Eyl	0.0	0.0	0.0	0.0	1.0
Nugaal	Burtnile	0.0	0.0	0.0	0.0	6.0
Mudug	Galdogob	0.0	0.0	0.0	0.0	3.0
Mudug	Jarriban	0.0	0.0	0.0	0.0	3.0
Mudug	Galkayo	0.0	0.0	0.0	0.0	1.0

Region	Station Name	dek 1	dek 2	dek 3	Aug-19	STA	
Bakool	Hudur	0.0	0.0	0.0	0.0	0.0	
Bakool	Elbarde	0.0	0.0	0.0	0.0	4.0	
Bay	Baidoa	0.0	0.0	5.0	5.0	9.0	
Bay	Diinsor	0.0	0.0	3.7	3.7	11.0	
Bay	Bardaale	3.0	0.0	0.5	3.5	6.0	
Bay	BurHakaba	0.0	0.0	0.0	0.0	6.0	
Bay	Wanleweyne	0.0	0.0	0.0	0.0	6.0	
Gedo	Luuq	0.0	0.0	0.0	0.0	1.0	
Gedo	Bardheere	0.0	0.0	0.0	0.0	5.0	
Hiraan	Belet weyne	0.0	0.0	0.0	0.0	1.0	
Hiraan	Bulo burti	0.0	0.0	0.0	0.0	3.0	
Hiraan	Mataban	0.0	0.0	0.0	0.0	4.0	
Lower Shabelle	Balad	0.0	0.0	0.0	0.0	21.0	
Banadir	Mogadishu	0.0	0.0	0.0	0.0	39.0	
Middle juba	Bualle	2.0	0.0	3.0	5.0	27.0	
Middle Shabelle	Jowhar	0.0	0.0	0.0	0.0	12.0	
*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@ fsnau.org.

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/ fileadmin/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 to page 2.

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



Seasonal rainfall and NDVI trends for selected districts

