Climate Update





Map 2: January 2019 Monthly Rainfall Satellite Data (in mm)

January 2019 Monthly Rainfall and Vegetation Cover (Issued February 25, 2019)

Highlights

January represents the first month of the dry *Jilaal* (January–March) season. Dry weather conditions and relatively high temperatures prevailed during the month in most parts of the country. Observed rain gauge stations also indicate a similar trend across the country with most rain gauge stations reporting zero amounts of rainfall instead of the usual 1-10 mm of rainfall that is typically expected. (Map 1 and Table 1). Satellite –derived Rainfall Estimates (Map 2-5) also indicate a similar situation.

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) shows continued deterioration in vegetation cover in the southern regions of Shabelles, parts of Bay, Gedo and Juba regions, which may be attributed to above average temperatures and below average 2018 *Deyr* (October-December) rains in most of these areas (Map 6-8).

While the absence of rainfall in January is normal for most parts of the country, dry conditions combined with warmer than normal temperatures are contributing to faster deterioration of pasture and water resources, especially in northern and central regions that received below average rainfall during the 2018 Deyr season. Due to below average rains, pasture conditions are degenerating in Guban pastoral, Northern Inland Pastoral (NIP), Parts of Hawd of northeast and large pastoral livelihoods in central and southern regions. Water scarcity is major concern in the pastoral livelihood zones of northeast and central regions (Hawd, Addun, parts of East Golis and Nothern Inland pastoral), which has already triggered earlier than normal water trucking at high prices. The dry conditions in the above mentioned water deficit areas are expected to prevail until the start of the 2019 Gu season rainfall in April.

On-going agricultural activities in the southern regions comprise harvesting of late planted crops such as sesame, maize and Sorghum. According to the statement issued by the Greater Horn of Africa Climate Outlook Forum (GHACOF51), there is increased likelihood of near normal to above normal March to May (Gu) season rainfall in most parts of Somalia.

However, below average to near average rainfall is more likely in the coastal parts of central regions and adjacent areas of northern and southern regions. Map 1: January 2019 Monthly Rainfall Station Data (in mm)





January 2019: Dekadal Rainfall (RFE) Progression



November 2018: Dekadal Vegetation Cover (NDVI) Progression

Map 6: 1st Dekad (1-10)

Galbeer

ogdhee

. 1abelle

Ocean

Gulf of Aden

Galgadud

والقطه

Sanag

Mudua

Bari

< 0.1 < 0.2

< 0.4 < 0.5 < 0.6 < 0.7 < 0.8

> 0 :

DJIBOUTI

ETHIOPIA

Map 7: 2nd Dekad (11-20)

DJBOUTL Awdal W. Gatheet Togdheet Sanag W. Gatheet Sool Nugah Hiran Galgadud Hiran Bakoo Bay M. Shabelle Indian Ocean Ocean Map 8: 3rd Dekad (21-30)



Monthly rainfall and Vegetation Cover performance





 Table 1: Observed rain gauge data for January 2019 compared to short term monthly averages (STA)

 Northern Regions

 Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jan-19	LTM
Borama	Awdal	0.0	0.0	0.0	0.0	4.0
Qulenjeed	Awdal	0.0	0.0	0.0	0.0	6.0
Bossasso	Bari	0.0	0.0	0.0	0.0	0.0
Qardo	Bari	0.0	0.0	0.0	0.0	1.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	3.0
Ballidhin	Bari	0.0	0.0	0.0	0.0	2.0
Alula	Bari	0.0	0.0	0.0	0.0	1.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	2.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	0.0
Galdogob	Mudug	0.0	0.0	0.0	0.0	1.0
Jarriban	Mudug	0.0	0.0	0.0	0.0	3.0
Galkayo	Mudug	0.0	0.0	0.0	0.0	0.0
Garowe	Nugaal	0.0	0.0	0.0	0.0	2.0
Eyl	Nugaal	0.0	0.0	0.0	0.0	5.0
Burtnile	Nugaal	0.0	0.0	0.0	0.0	3.0
Eeerigavo	Sanaag	0.0	0.0	0.0	0.0	10.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	4.0
Caynabo	Sool	0.0	0.0	0.0	0.0	3.0
Xudun	Sool	0.0	0.0	0.0	0.0	2.0
Taleex	Sool	0.0	0.0	0.0	0.0	2.0
Las Aanod	Sool	0.0	0.0	0.0	0.0	1.0
Burao	Togdheer	0.0	0.0	0.0	0.0	3.0
Sheikh	Togdheer	0.0	0.0	0.0	0.0	5.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	4.0
Buadodle	Togdheer	0.0	0.0	0.0	0.0	3.0
Gebilley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	1.0
Malawle	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Wajaale	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Hargeisa	Wogooyi Galbeed	0.0	0.0	0.0	0.0	2.0
Daraweyne	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Cadaadley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Dilla	Wogooyi Galbeed	0.0	0.0	0.0	0.0	5.0
Aburin	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Dhubato	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	5.0
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	6.0

Station Name	Region	dek 1	dek 2	dek 3	Jan-19	LTM
Hudur	Bakool	0.0	0.0	0.0	0.0	0.0
Elbarde	Bakool	0.0	0.0	0.0	0.0	0.0
Baidoa	Bay	0.0	0.0	0.0	0.0	3.0
Diinsor	Вау	0.0	0.0	0.0	0.0	3.0
Bardaale	Вау	0.0	0.0	0.0	0.0	2.0
BurHakaba	Вау	0.0	0.0	0.0	0.0	0.0
Wanleweyne	Вау	0.0	0.0	0.0	0.0	0.0
Luuq	Gedo	0.0	0.0	0.0	0.0	1.0
Bardheere	Gedo	0.0	0.0	0.0	0.0	2.0
Belet weyne	Hiraan	0.0	0.0	0.0	0.0	0.0
Bulo burti	Hiraan	0.0	0.0	0.0	0.0	3.0
Mataban	Hiraan	0.0	0.0	0.0	0.0	1.0
Bualle	Middle juba	0.0	0.0	0.0	0.0	1.0
Sakow	Middle juba	0.0	0.0	0.0	0.0	0.0
Jowhar	Middle Shabelle	3.0	0.0	0.0	3.0	0.0

*indicates missing data

Monthly rainfall and NDVI perfomance maps

The Mapped NDVI and RFE above represent the differences from Short 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: fsnau@ fao.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/ fileadmi/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 information is available on http://www.met.reading.ac.uk/tamsat/about/



Seasonal rainfall and Vegetation Cover trends by region

Seasonal rainfall and Vegetation Cover trends for selected districts

