# Climate Update



January 2018 Monthly Rainfall and NDVI (Issued March 1, 2018)

# Highlights

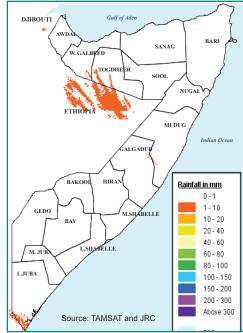
During the month of January 2018, hot and dry conditions prevailed throughout the country as expected at this time of the year. There was no rainfall recorded at rain-gauge stations nationwide (Map 1 and Table 1). Field reports confirm the presence of dry conditions across the country.

Satellite derived rainfall estimates (RFE) confirm prevalence of dry weather conditions across the country in the month of January 2018 (Map 2-5). According to the United States Geological Survey (USGS) large areas of Guban Pastoral, Shabelle's, Bay - High potential livelihood zone, south Gedo pastoral and the Juba's indicate above average temperatures (Map 9). Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) for January 2018 indicates rapid deterioration of vegetation conditions in southern regions of Hiran, Shabelle's, Bay, Bakool, Gedo and the Juba's. Large vegetation deficits are evident in Cowpea Belt, Southern Rainfed, Juba Pastoral and small areas of Sorghum high potential livelihood in Bay (Map 10).

On-going agricultural activities in southern regions comprise harvesting of late planted crops such as sesame and sorghum. Due to consecutive below average rains, pasture conditions are degenerating rapidly in Northern Inland Pastoral (NIP), parts of Hawd of northeast and large parts of pastoral livelihoods in central and southern regions. Temporary water catchments (Berkad) are being depleted, leading to early motorized water trucking for human and livestock consumption in NIP and Hawd of Hargeisa. The drought conditions in the above mentioned water deficit areas are expected to persist until the start of the 2018 Gu (April –June) rains.

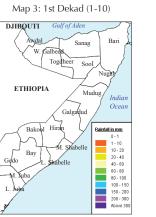
According to the 48<sup>th</sup> Forum of Greater Horn of Africa Climate Outlook there is an increased likelihood of near normal to below normal March to May *Gu* rainfall in most parts of Somalia (Map 11).

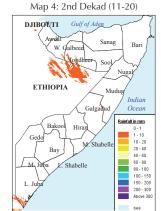




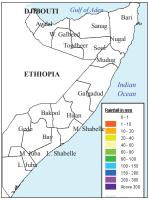
Map 2: January 2018 TAMSAT Monthly Rainfall Estimates

January 2018: Dekadal RFE Progression

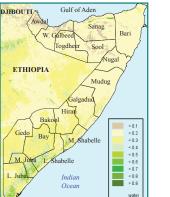




Map 5: 3rd Dekad (21-30)







#### January 2018: Dekadal NDVI Progression

Map 7: 2nd Dekad (11-20)

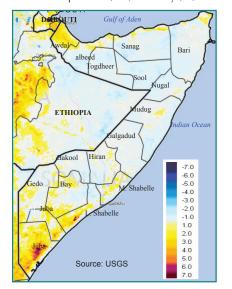


Map 8: 3rd Dekad (21-30)



### Monthly rainfall and NDVI performance

#### Map 9: January 2018 USGS Land Surface Temperature (LST) Anomaly (°C)



Map 10: January 2018 NDVI Absolute Difference from Short Term Mean (2001- 2016)

DJIBOUTI Gulf of Aden 16 Sanag Bari Galh Tøgdl ıgal Mudug ETHIOPIA Large decrease Small decreas No change Shabelle Small increase Large increase sea Source: E-MODIS and JRC

Map 11: Consensus Rainfall Outlook for the March to May 2018

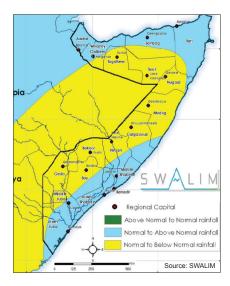


Table 1: Observed rain gauge data compared to long term monthly averages (January 2018)Northern RegionsSouthern Regions

Region	Station_Name	dek 1	dek 2	dek 3	Jan-2018	LTM
Awdal	Borama	0.0	0.0	0.0	0.0	4.0
Awdal	Qulenjeed	0.0	0.0	0.0	0.0	*
Bari	Bossasso	0.0	0.0	0.0	0.0	0.0
Bari	Qardo	0.0	0.0	0.0	0.0	0.0
Bari	Iskushuban	0.0	0.0	0.0	0.0	*
Bari	Dangoroyo	0.0	0.0	0.0	0.0	*
Bari	Ballidhin	0.0	0.0	0.0	0.0	*
Mudug	Jarriban	0.0	0.0	0.0	0.0	*
Mudug	Galdogob	0.0	0.0	0.0	0.0	*
Nugaal	Garowe	0.0	0.0	0.0	0.0	*
Nugaal	Eyl	0.0	0.0	0.0	0.0	5.0
Nugaal	Burtnile	0.0	0.0	0.0	0.0	*
Sanaag	Eeerigavo	0.0	0.0	0.0	0.0	10.0
Sanaag	Elafweyn	0.0	0.0	0.0	0.0	*
Sool	Caynabo	0.0	0.0	0.0	0.0	*
Sool	Las Aanod	0.0	0.0	0.0	0.0	1.0
Sool	xudun	0.0	0.0	0.0	0.0	*
Sool	Taleex	0.0	0.0	0.0	0.0	*
Togdheer	Burao	*	*	*	*	2.0
Togdheer	Odweyne	0.0	0.0	0.0	0.0	*
Togdheer	Wajaale	0.0	0.0	0.0	0.0	*
Togdheer	Buadodle	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Hargeisa	0.0	0.0	0.0	0.0	2.0
Wogooyi Galbeed	Dilla	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Gebilley	0.0	0.0	0.0	0.0	1.0
Wogooyi Galbeed	Aburin	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Berbera	0.0	0.0	0.0	0.0	6.0
Wogooyi Galbeed	Malawle	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Daraweyne	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Cadaadley	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Dhubato	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Baligubable	0.0	0.0	0.0	0.0	*

Region	Station_Name	dek 1	dek 2	dek 3	Jan-17	LTM
Banadir	Mogadishu	0.0	0.0	0.0	0.0	*
Вау	Baidoa	0.0	0.0	0.0	0.0	3.0
Вау	Diinsor	0.0	0.0	0.0	0.0	3.0
Вау	Bardaale	0.0	0.0	0.0	0.0	*
Gedo	Bardheere	*	*	*	*	3.0
Gedo	Luuq	0.0	0.0	0.0	0.0	1.0
Hiraan	Belet weyne	0.0	0.0	0.0	0.0	0.0
Hiraan	Bulo burti	0.0	0.0	0.0	0.0	3.0
Lower Juba	Afmadow	*	*	*	*	5.0
Lower Juba	Jamame	*	*	*	*	2.0
Lower Shabelle	Genale	*	*	*	*	2.0
Middle Juba	Marere	*	*	*	*	2.0
Middle Juba	Bualle	0.0	0.0	0.0	0.0	*
Middle Shabelle	Jowhar	0.0	0.0	0.0	0.0	0.0
Mudug	Galkayo	0.0	0.0	0.0	0.0	0.0

\*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 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.

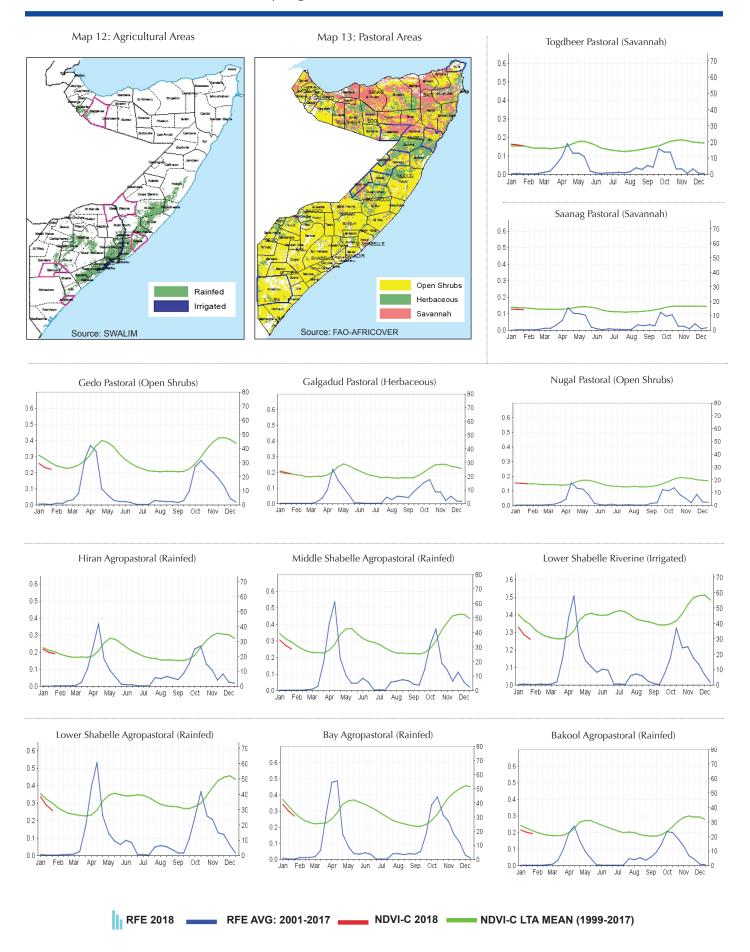
Current Rainfall Estimates and NDVI data are derived from NOAA/CPC and DEVCOCAST (www.devcocast.eu) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

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.

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

# Seasonal rainfall and NDVI trends by region



# Seasonal rainfall and NDVI trends for selected districts

