Climate Update



February 2018 Monthly Rainfall and NDVI (Issued March 26, 2018)

Highlights

In most parts of Somalia, Jilaal (January-March) season dry weather conditions persisted in February 2018, characterized by mostly dry winds and elevated temperatures. Few stations such as Qulenjeed (Awdal), Daraweyn (W. Galbeed) and Beletweyn (Hiran) recorded some rainfall (Map 1 and table 1). According to FSNAU field reports, there has been little rainfall in parts of Togwajaale, Gabiley and Lughaya in northwest, Bakool (Hudur, Wajid and Elbarde) and M. Shabelle (Adenyabal, Cadale, Mahaday). Shebelle river level is very low and it has nearly dried up around Sablale, in the lower catchments of the river, leaving brackish water which is not suitable for human and animal use.

Satellite derived rainfall estimates (RFE) confirms prevalence of dry weather conditions across the country during the month of February (Map 2-5). According to the United States Geological Survey (USGS) land surface temperatures (LST) for February remained elevated in West Golis, Northern Inland Pastoral (NIP) and in parts of Addun, Hiran agropastoral, Cowpea belt, Southern rainfed maize and Juba pastoral livelihood zones.

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) for February indicates continued deterioration of pasture and vegetation conditions especially in parts of Guban, Golis of Sanaag, Allula District in Bari region in northern parts of the country. In southern Somalia, Middle and Lower Shabelle, Bay, Bakool, Gedo, Middle Juba and Lower Juba show small to large decreases in vegetation cover compared to average. Large decrease of vegetation is evident in parts in Cowpea Belt, Southern Rained, and Juba Pastoral livelihoods (Map 10).

Consistent with seasonal trends, during the current Jilaal dry season, poor pasture and inadequate water availability has been reported in most parts of the country due to prevailing dry weather conditions and high evaporation rates. Increased water prices from permanent water sources have been reported in Addun, Coastal Deeh, NIP and Hiran Agropastoral livelihood zones. Opportunistic livestock migration towards more favorable permanent water sources is evident across the country.

Further deterioration in pasture and water conditions, consequent increase in water prices, increased livestock migration and continued reduction in Shablle river levels are expected until the start of *Gu* (April-June) rains in April, especially in areas that have been highlighted above. These adverse impacts are expected to be more pronounced in areas that have experienced poor 2017 *Deyr* (October-December) season rainfall.





Map 2: February 2018 TAMSAT Monthly Rainfall Estimates

February 2018: Dekadal RFE Progression





Map 5: 3rd Dekad (21-30)



February 2018: Dekadal NDVI Progression

Map 6: 1st Dekad (1-10)







Map 8: 3rd Dekad (21-30)







 Table 1: Observed rain gauge data compared to long term monthly averages (February 2018)

 Northern Regions

 Southern Regions

Region	Station Name	dek 1	dek 2	dek 3	Feb-18	LTM
Awdal	Borama	0.0	0.0	0.0	0.0	21.0
Awdal	Qulenjeed	0.0	0.0	8.0	8.0	19.0
Bari	Bossasso	0.0	0.0	0.0	0.0	0.0
Bari	Qardo	0.0	0.0	0.0	0.0	1.0
Bari	Dangoroyo	0.0	0.0	0.0	0.0	2.0
Bari	Ballidhin	0.0	0.0	0.0	0.0	1.0
Bari	Alula	0.0	0.0	0.0	0.0	0.0
Bari	Bandarbeyla	0.0	0.0	0.0	0.0	1.0
Bari	Iskushuban	0.0	0.0	0.0	0.0	0.0
Mudug	Galdogob	0.0	0.0	0.0	0.0	2.0
Mudug	Jarriban	0.0	0.0	0.0	0.0	2.0
Mudug	Galkayo	0.0	0.0	0.0	0.0	0.0
Nugaal	Garowe	0.0	0.0	0.0	0.0	3.0
Nugaal	Eyl	0.0	0.0	0.0	0.0	5.0
Nugaal	Burtnile	0.0	0.0	0.0	0.0	2.0
Sanaag	Eeerigavo	0.0	0.0	0.0	0.0	48.0
Sanaag	Elafweyn	0.0	0.0	0.0	0.0	4.0
Sool	Caynabo	0.0	0.0	0.0	0.0	4.0
Sool	xudun	0.0	0.0	0.0	0.0	3.0
Sool	Taleex	0.0	0.0	0.0	0.0	3.0
Sool	Las Aanod	0.0	0.0	0.0	0.0	1.0
Togdheer	Burao	0.0	0.0	0.0	0.0	4.0
Togdheer	Sheikh	0.0	0.0	0.0	0.0	13.0
Togdheer	Odweyne	0.0	0.0	0.0	0.0	8.0
Togdheer	Buadodle	0.0	0.0	0.0	0.0	4.0
Wogooyi Galbeed	Gebilley	0.0	0.0	0.0	0.0	6.0
Wogooyi Galbeed	Malawle	0.0	0.0	0.0	0.0	11.0
Wogooyi Galbeed	Wajaale	0.0	0.0	7.0	7.0	11.0
Wogooyi Galbeed	Hargeisa	0.0	0.0	0.0	0.0	11.0
Wogooyi Galbeed	Daraweyne	0.0	0.0	0.0	0.0	10.0
Wogooyi Galbeed	Cadaadley	0.0	0.0	0.0	0.0	9.0
Wogooyi Galbeed	Dilla	0.0	0.0	0.0	0.0	14.0
Wogooyi Galbeed	Aburin	0.0	0.0	0.0	0.0	12.0
Wogooyi Galbeed	Dhubato	0.0	0.0	0.0	0.0	9.0
Wogooyi Galbeed	Baligubable	0.0	0.0	1.0	1.0	11.0
Wogooyi Galbeed	Berbera	0.0	0.0	0.0	0.0	0.0
Wogooyi Galbeed	Lughaya	0.0	0.0	0.0	0.0	*

Region	Station Name	dek 1	dek 2	dek 3	Feb-18	LTM
Вау	BurHakaba	0.0	0.0	0.0	0.0	4.0
Вау	Wanleweyne	0.0	0.0	0.0	0.0	*
Gedo	Luuq	0.0	0.0	0.0	0.0	1.0
Gedo	Bardheere	3.0	0.0	0.0	3.0	6.0
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
Hiraan	Mataban	0.0	0.0	0.0	0.0	1.0
Lower Shabelle	Balad	0.0	0.0	0.0	0.0	1.0
Banadir	Mogadishu	0.0	0.0	0.0	0.0	2.0

*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

