Climate Update

Food and Agriculture Organization of the United Nations

FSNAU
Food Security and Nutrition Analysis Unit - Somalia

October 2018 Monthly Rainfall and Vegetation Cover (Issued November 20, 2018)

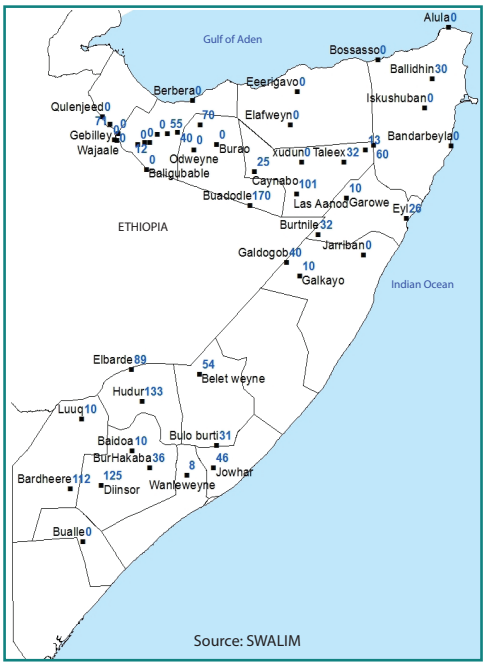
Highlights

The *Deyr* 2018 (Oct-Dec) rains started in the second and the third dekad of October in most of the country with a few places receiving rains earlier than usual in the last week of September. In general, the rains were characterized by poor temporal and spatial distribution with little or no rains in some parts of the country especially in parts of central, Sool and Sanaag regions. On the other hand, some stations in the south recorded significant amounts of rainfall during the second and third dekads of October, including: Hudur (133mm), Elbarde (89mm), Bardhere (112mm), Beleteweyn (54mm), and Jowhar (46mm). A few stations in the northeastern regions also received high amounts of rains, which were associated with the passage of Tropical Cyclone LUBAN. This includes stations such as Buhodle (170mm), Lasaanod (101mm), Qardo (60mm) and Borama (71mm) {Map 1; Table1}. Most stations in the North West regions of Somaliland remained dry during the period under review with a few stations recording light to moderate rainfall amounts. The Juba and Shabelle river levels remained low in October with a slight increase towards the end of the month following high amounts of rainfall in the Ethiopian highlands.

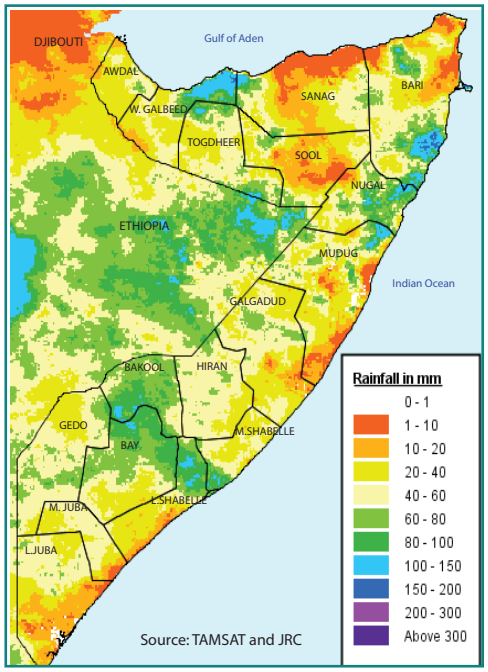
Satellite derived rainfall estimates (RFE) confirm the commencement of the 2018 *Deyr* season rainfall in October in the second and third dekad but with low intensity (Map 2-5). Significant amount of rainfall was mainly concentrated in localized areas in northern regions in October. Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) shows deterioration of vegetation conditions in most regions in the south with the exception of small pockets (very localized) in Bakool, Hiran and parts of central and northern regions which indicated marginal improvement of biomass conditions (Maps 6-8 and 10). In the north and central, the satellite indicates close to normal conditions however, field reports indicate poor pasture in Northern Inland Pastoral (NIP), and *Hawd* and *Addun* pastoral livelihoods in central.

Overall, October rains have marginally rejuvenated pasture/browse conditions, and improved water availability by partially recharging surface water catchments. Some of the main cropping activities in the south in October are planting/ replanting, canal unblocking, weeding and harvesting of off-season crops in riverine areas. Due to the late start and poor amount and distribution of October rains, some farmers in Bakool, Shabelle and Hiran were forced to replant due to insufficient of moisture to after the crops germinated. The survival of crops and the overall Deyr crop harvest prospect in central and southern Somalia will largely depended on performance of Deyr rains in November. Rainfall performance in early to mid-November remained far below normal in most parts of the country, further exacerbating concerns about the performance of the current Deyr season and implications for crop and livestock performance in the coming months.

Map 1: Oct 2018 Monthly Rainfall Data (in mm)

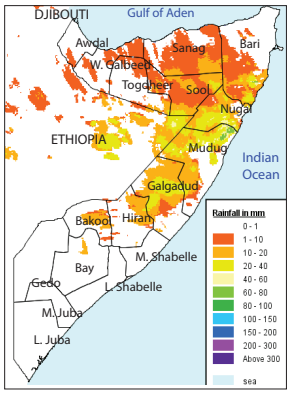


Map 2: Oct 2018 TAMSAT Monthly Rainfall Estimates

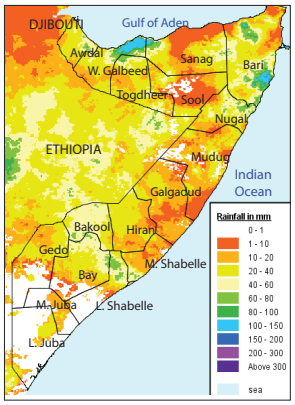


October 2018: Dekadal Rainfall (RFE) Progression

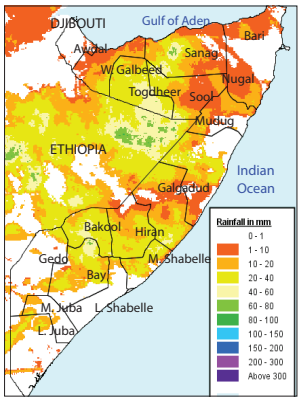
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

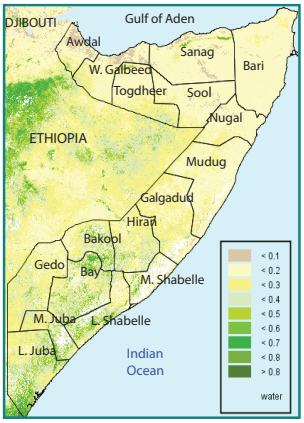


Map 5: 3rd Dekad (21-30)

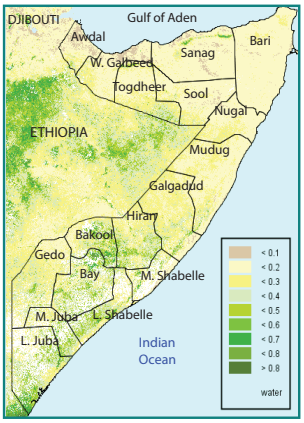


October 2018: Dekadal Vegetation Cover (NDVI) Progression

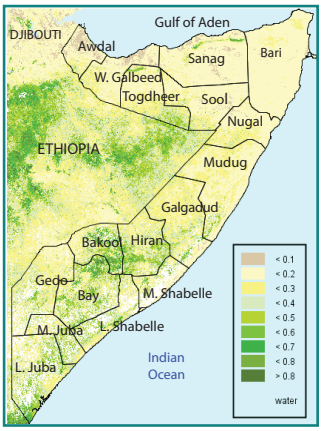
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

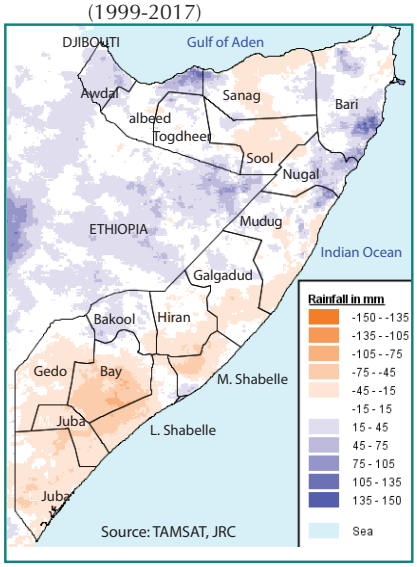


Map 8: 3rd Dekad (21-30)



Monthly rainfall and Vegetation Cover performance

Map 9: October 2018 TAMSAT Rainfall Difference from Short Term Average (1999-2017)



Map 10: October 2018 NDVI Absolute Difference from Short Term Average (2001- 2017)

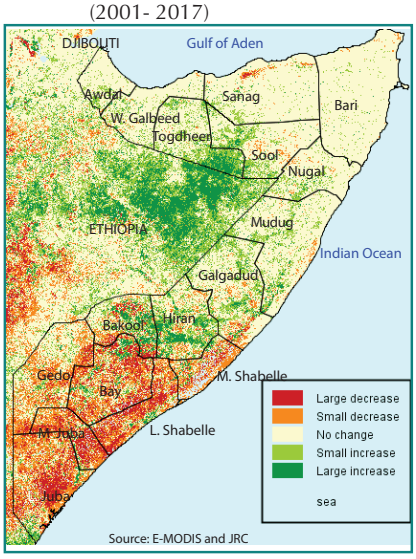


Table 1: Observed rain gauge data for October 2018 compared to short term monthly averages (STA)

Northern Regions

Region	Station Name	dek 1	dek 2	dek 3	Oct-18	STA
Borama	Awdal	0.0	71.0	0.0	71.0	19.0
Qulenjeed	Awdal	0.0	0.0	0.0	0.0	25.0
Bossasso	Bari	0.0	0.0	0.0	0.0	2.0
Qardo	Bari	0.0	0.0	60.0	60.0	26.0
Dangoroyo	Bari	13.0	0.0	0.0	13.0	24.0
Ballidhin	Bari	0.0	30.0	0.0	30.0	9.0
Alula	Bari	0.0	0.0	0.0	0.0	1.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	17.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	6.0
Galdogob	Mudug	0.0	0.0	40.0	40.0	49.0
Jarriban	Mudug	0.0	0.0	0.0	0.0	32.0
Galkayo	Mudug	0.0	0.0	10.0	10.0	48.0
Garowe	Nugaal	5.0	2.0	3.0	10.0	29.0
Eyl	Nugaal	8.0	0.0	18.0	26.0	41.0
Burtnile	Nugaal	25.0	7.0	0.0	32.0	36.0
Eeerigavo	Sanaag	0.0	0.0	0.0	0.0	4.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	21.0
Caynabo	Sool	4.0	21.0	0.0	25.0	30.0
Xudun	Sool	0.0	0.0	0.0	0.0	26.0
Taleex	Sool	32.0	0.0	0.0	32.0	25.0
Las Aanod	Sool	93.0	0.0	8.0	101.0	30.0
Burao	Togdheer	0.0	0.0	0.0	0.0	34.0
Sheikh	Togdheer	21.0	9.0	40.0	70.0	71.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	36.0
Buadodle	Togdheer	25.0	50.0	95.0	170.0	40.0
Gebilley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	17.0
Malawle	Wogooyi Galbeed	0.0	0.0	0.0	0.0	32.0
Wajaale	Wogooyi Galbeed	0.0	0.0	0.0	0.0	25.0
Hargeisa	Wogooyi Galbeed	0.0	5.0	7.0	12.0	29.0
Daraweyne	Wogooyi Galbeed	0.0	0.0	0.0	0.0	32.0
Cadaadley	Wogooyi Galbeed	0.0	12.0	28.0	40.0	35.0
Dilla	Wogooyi Galbeed	0.0	0.0	0.0	0.0	25.0
Aburin	Wogooyi Galbeed	0.0	0.0	0.0	0.0	32.0
Dhubato	Wogooyi Galbeed	0.0	10.0	45.0	55.0	33.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	36.0
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	0.0

Southern Regions

Region	Station Name	dek 1	dek 2	dek 3	Oct-18	LTM
Hudur	Bakool	0.0	32.0	101.0	133.0	100.0
Elbarde	Bakool	0.0	64.0	25.0	89.0	87.0
Baidoa	Bay	38.0	2.0	54.0	94.0	135.0
Diinsor	Bay	*	*	*	*	64.0
Bardaale	Bay	0.0	5.0	32.0	37.0	89.0
Bur Hakaba	Bay	0.0	0.0	36.0	36.0	112.0
Wanleweyne	Bay	0.0	8.0	0.0	8.0	*
Luuq	Gedo	0.0	0.0	10.0	10.0	48.0
Bardheere	Gedo	0.0	0.0	112.0	112.0	82.0
Belet weyne	Hiraan	0.0	3.0	51.0	54.0	86.0
Bulo burti	Hiraan	0.0	0.0	31.0	31.0	90.0
Bualle	Middle Juba	0.0	0.0	0.0	0.0	48.0
Jowhar	Middle Shabelle	0.0	0.0	46.0	46.0	99.0

*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

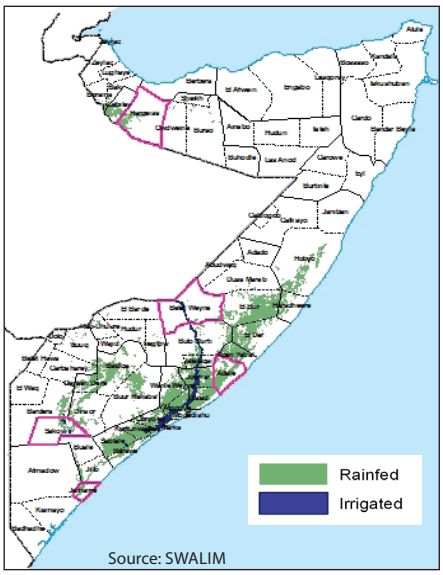
Primary data sources are NOAA/USGS, European Centre for Medium- range Weather Forecast (ECMWF), MARS-JRC, FSNAU and SWALIM. Maps and graphs on this bulletin are produced from four sources.

- 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/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.

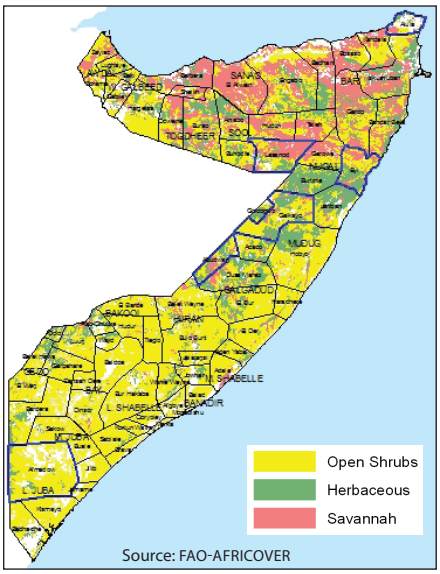
The TAMSAT information is available on http://www.met.reading.ac.uk/tamsat/about/

Seasonal rainfall and Vegetation Cover trends by region

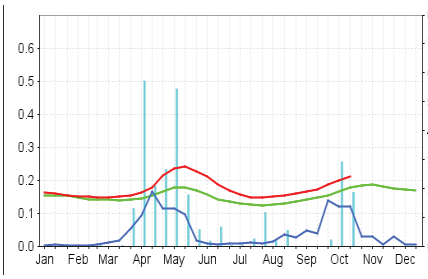
Map 11: Agricultural Areas



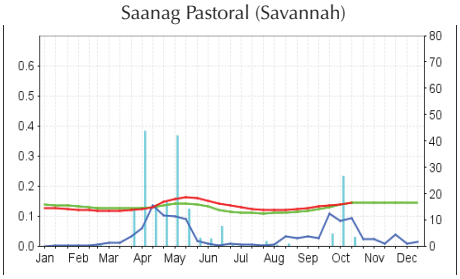
Map 12: Pastoral Areas



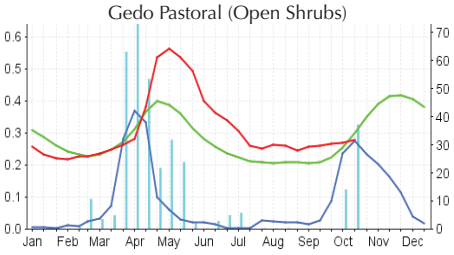
Togdheer Pastoral (Savannah)



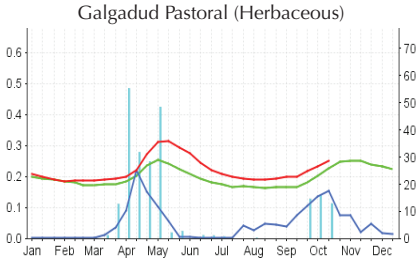
Saanag Pastoral (Savannah)



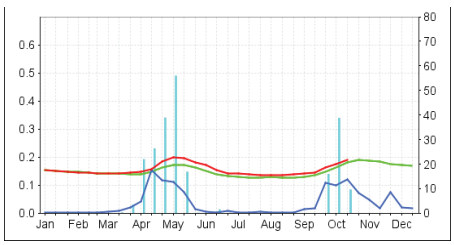
Gedo Pastoral (Open Shrubs)



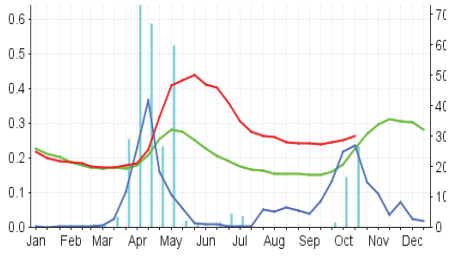
Galgadud Pastoral (Herbaceous)



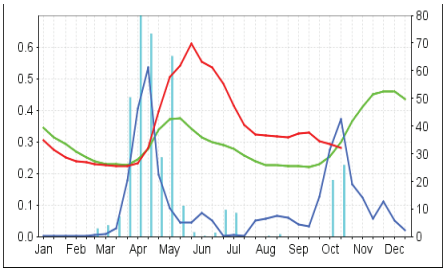
Nugal Pastoral (Open Shrubs)



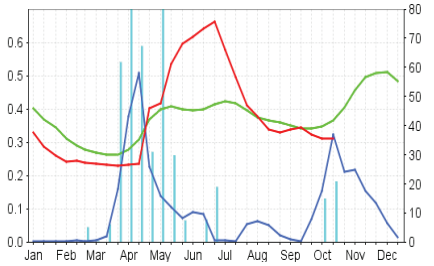
Hiran Agropastoral (Rainfed)



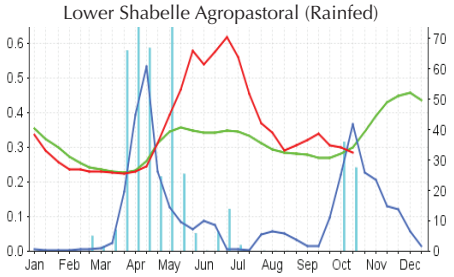
Middle Shabelle Agropastoral (Rainfed)



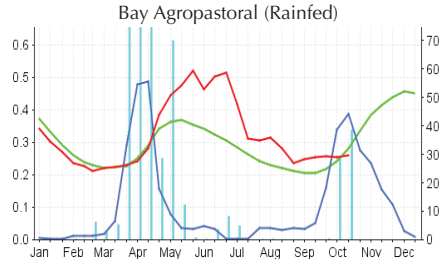
Lower Shabelle Riverine (Irrigated)



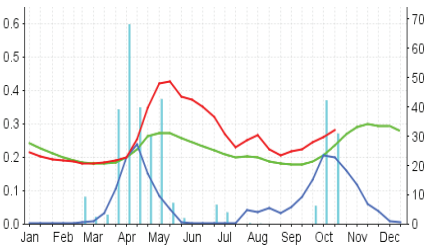
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



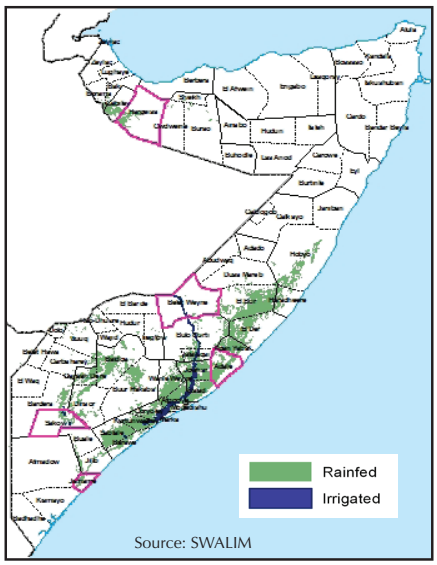
Bakool Agropastoral (Rainfed)



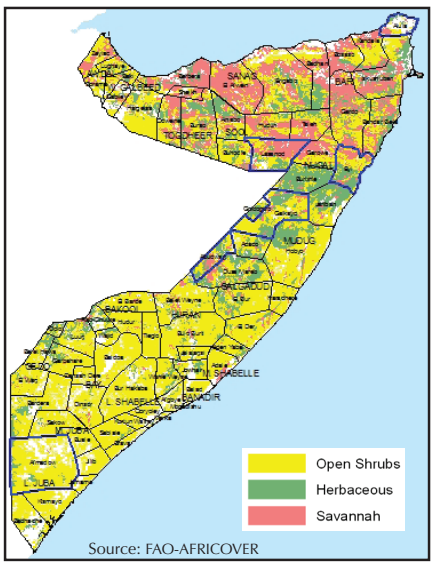
RFE 2018 | RFE STA: 2001-2017 | NDVI-C 2018 | NDVI-C STA (1999-2017)

Seasonal rainfall and Vegetation Cover trends for selected districts

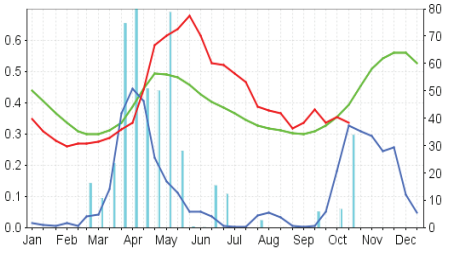
Map 13: Agricultural Areas



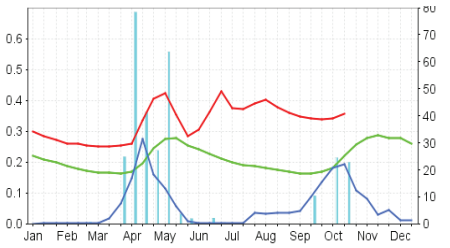
Map 14: Pastoral Areas



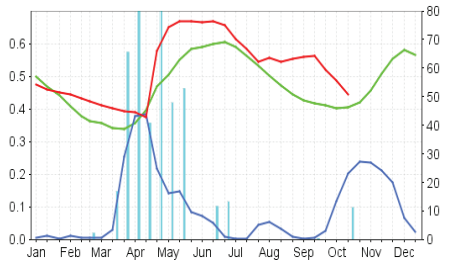
Afmadow Pastoral (Open Shrubs)



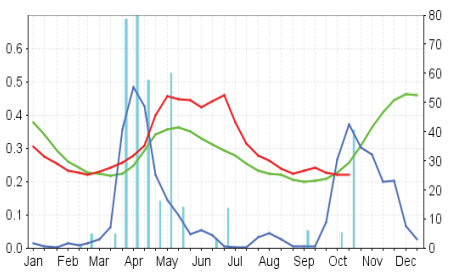
Beletweyn Riverine (Irrigated)



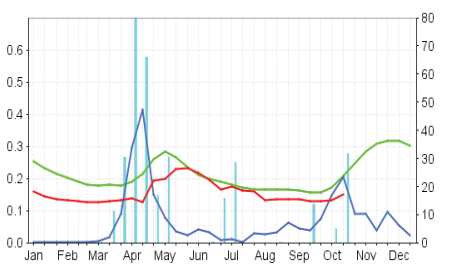
Jamame Riverine (Irrigated)



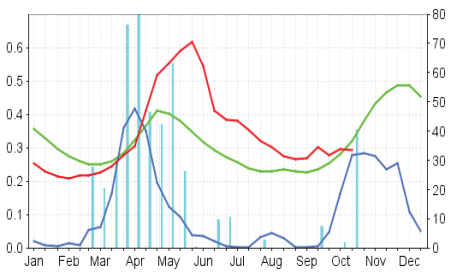
Sakow Agropastoral (Rainfed)



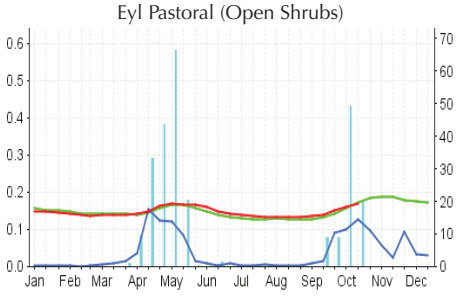
Adale Agropastoral (Herbaceous)



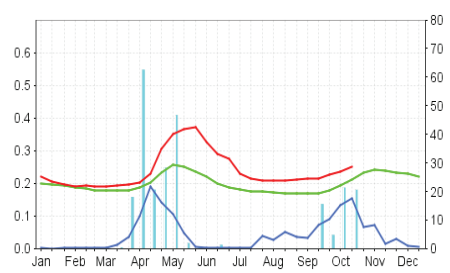
Afmadow Pastoral (Herbaceous)



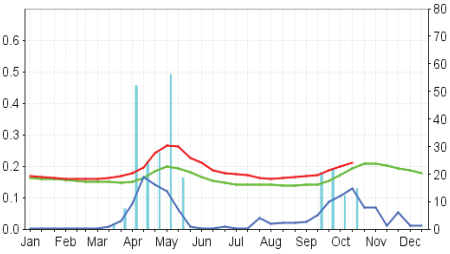
Eyl Pastoral (Open Shrubs)



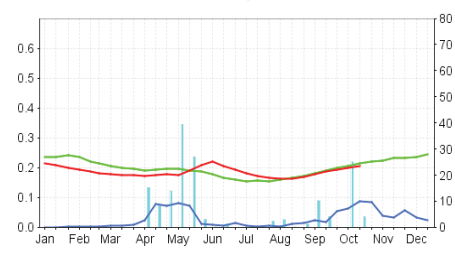
Abudwak Pastoral (Herbaceous)



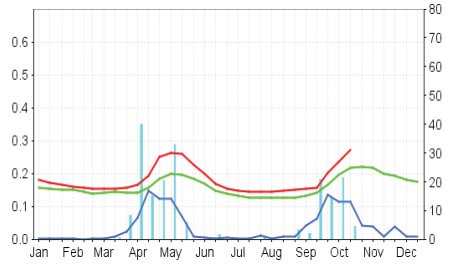
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



RFE 2018 | RFE STA: 2001-2017 | NDVI-C 2018 | NDVI-C STA (1999-2017)

FSNAU Managed by
Food and Agriculture Organization of the United Nations

FSNAU Technical Partners
FEWS NET
World Food Programme
World Health Organization
SWALIM
unicef
JRC EUROPEAN COMMISSION
UNHCR The UN Refugee Agency

FSNAU Resource Partners
USAID FROM THE AMERICAN PEOPLE
UKaid
SWEDEN
WORLD BANK