

# Climate Update



Food and Agriculture  
Organization of the  
United Nations



Food Security and Nutrition  
Analysis Unit - Somalia

July 2020 Monthly Rainfall and Vegetation Cover (NDVI) (Issued August 25, 2020)

## Highlights

July marks the start of the mostly dry *Hagaa* (July-September) season where scattered showers are expected in some parts of Somalia. This year, some areas received considerable amount of rainfall in July in parts of northwest and southern Somalia, as shown in Maps 2-5. The areas in the North that received moderate to above rainfall include: Erigavo (155mm), Wajaale (113.5mm), Dilla 95mm and Gebiley (84.5mm) in the north and Jowhar (136mm) as shown on Map 1 and Table 1. Consistent with normal seasonal patterns, eastern portions of Sool and Sanaag regions and most parts of northeastern and central regions received little or no rainfall during the month of July.

In southern Somalia, Hiran and Shabelle regions continued to experience flooding due to heavy rains both in the upper catchments of the Shabelle River in the eastern Ethiopian highlands and within Somalia. Flooding has been reported in parts of Belet Weyne district, Mahadey Weyne/Jowhar, Balcad and Afgooye districts, inundating additional farmlands.

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI), shows a continued deterioration in vegetation cover in many areas, due to the short duration of the Gu (April-June) rains as shown in Maps 6- 8 and Map 10. However, continued rainfall in some parts of Somalia in July has helped slow down the deterioration of vegetation cover in these areas. Available green as well as dry pasture and browse (fodder biomass) are sufficient to support livestock until the start of the 2020 Deyr season rainfall in October. Accordingly, water prices also remained stable in most livelihoods.

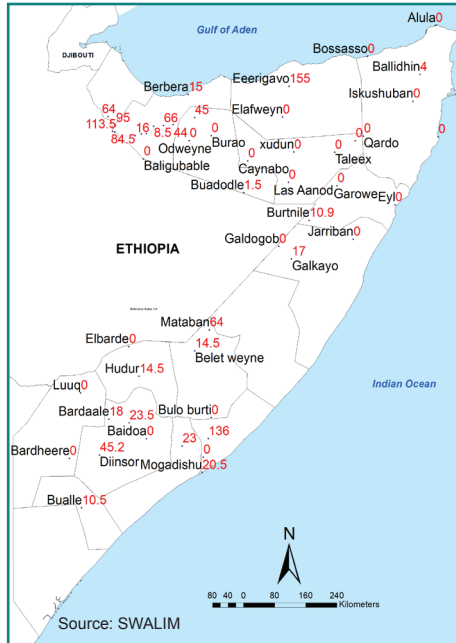
Livestock body conditions in most livelihoods is average to good due to continued sufficient pasture/browse and availability of migration options. Contagious camel disease which was reported in central and northern Somalia and which caused some abortions and deaths in June 2020 has dissipated in July. During the 2020 Gu season, medium kidding has been reported for small ruminants and low to medium calving has been reported for big ruminants. There have been no abnormal livestock migration reported during the month of July.

Milk production for both subsistence and sale is currently below average due to low to medium calving rates among large ruminants that reduced the number of animals that can be milked. As a result, this has led to increases in milk prices in many areas.

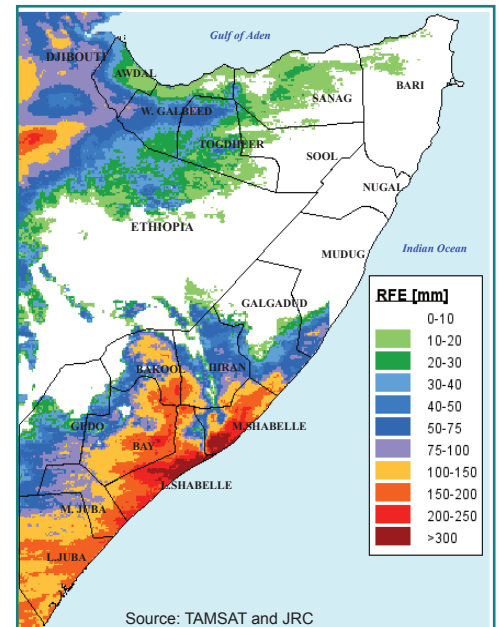
Desert locust continued to cause damage to crops, pasture and browse in some parts of northern and central Somalia, including Northern Inland Pastoral, Guban Pastoral and East Golis pastoral livelihoods. Moderate to severe locust damage is also reported in horticulture areas of Awdal and early planted sorghum in Odweyne of Tog-dheer region. Desert locust pose a risk to rangeland resources and late planted crops in agropastoral and riverine areas of the country.

The 2020 Gu season crop harvest is completed in most agropastoral (rainfed areas) where planting was done early or on time. In some agropastoral where crops were planted late, harvest is currently ongoing. However, in most parts riverine livelihood, crops were planted later in the Gu season and are currently at different stages of development. Floods in April and May and more recently in July and August have adversely affected crop harvest prospects in riverine livelihoods.

Map 1: July 2020 Monthly Rain Gauge Data (mm)

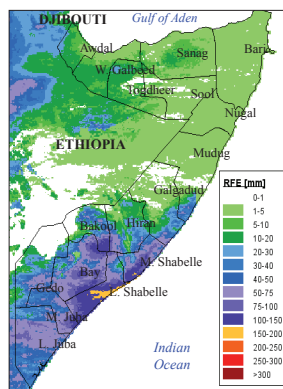


Map 2: July 2020 Monthly Rainfall Estimates (mm)

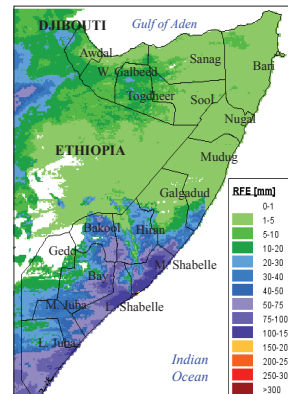


July 2020: Dekadal Rainfall Estimates (RFE) Progression

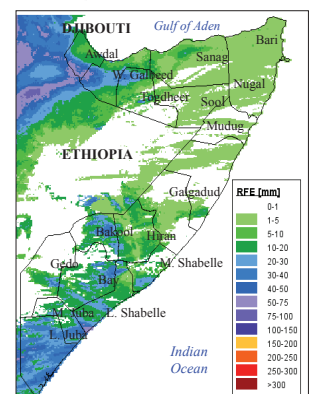
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

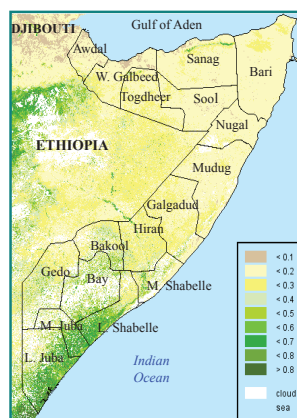


Map 5: 3rd Dekad (21-30)

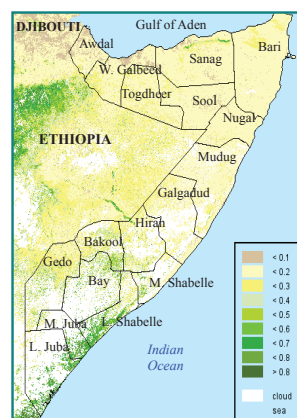


July 2020: Dekadal Vegetation Cover (NDVI) Progression

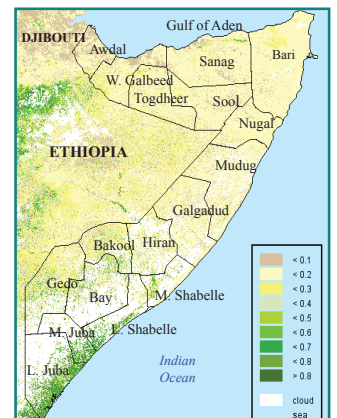
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

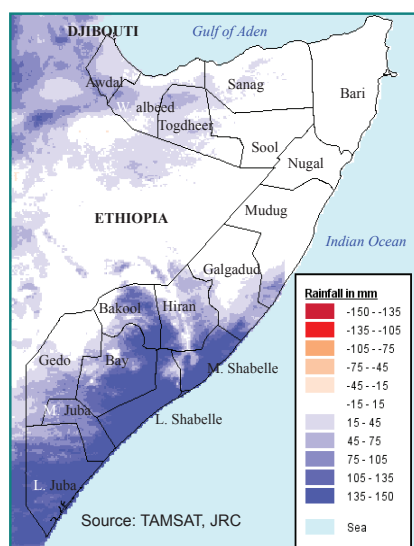


Map 8: 3rd Dekad (21-30)



# Monthly rainfall and NDVI performance

Map 9: July 2020 Rainfall Difference from Short Term Average (2001-2019)



Map 10: July 2020 NDVI Absolute Difference from Short Term Average (1999-2019)

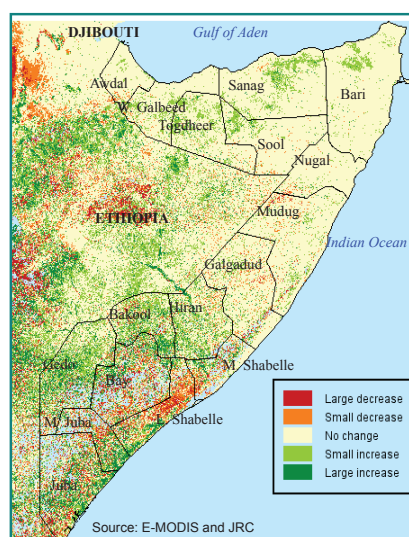


Table 1: Observed rain gauge data compared to Short term averages - STA (July 2020)

## Northern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jul-20	STA
Borama	Awdal	9.0	10.0	45.0	64.0	67.0
Gebilley	Wogooyi Galbeed	13.5	9.0	62.0	84.5	71.0
Malawle	Wogooyi Galbeed	0.0	0.0	19.0	19.0	43.0
Wajaale	Wogooyi Galbeed	27.0	2.0	84.5	113.5	68.0
Hargeisa	Wogooyi Galbeed	15.0	0.0	4.5	19.5	38.0
Daraweyne	Wogooyi Galbeed	2.5	0.0	6.0	8.5	34.0
Cadaadley	Wogooyi Galbeed	18.5	0.0	25.5	44.0	32.0
Dilla	Wogooyi Galbeed	8.0	0.0	87.0	95.0	65.0
Aburin	Wogooyi Galbeed	0.0	0.0	16.0	16.0	48.0
Dhubato	Wogooyi Galbeed	15.0	0.0	51.0	66.0	32.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	45.0
Berbera	Wogooyi Galbeed	0.0	0.0	15.0	15.0	0.0
Burao	Togdheer	0.0	0.0	0.0	0.0	9.0
Sheikh	Togdheer	10.0	6.5	28.5	45.0	33.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	28.0
Buadodle	Togdheer	1.5	0.0	0.0	1.5	2.0
Eerigavo	Sanaag	0.0	0.0	155.0	155.0	8.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	5.0
Caynabo	Sool	0.0	0.0	0.0	0.0	0.0
Xudun	Sool	0.0	0.0	0.0	0.0	2.0
Taleex	Sool	0.0	0.0	0.0	0.0	0.0
Las Aanod	Sool	0.0	0.0	0.0	0.0	0.0
Bossasso	Bari	0.0	0.0	0.0	0.0	0.0
Qardo	Bari	0.0	0.0	0.0	0.0	0.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	0.0
Ballidhin	Bari	0.0	0.0	4.0	4.0	6.0
Alula	Bari	0.0	0.0	0.0	0.0	0.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	0.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	0.0
Garowe	Nugaal	0.0	0.0	0.0	0.0	0.3
Eyl	Nugaal	0.0	0.0	0.0	0.0	0.0
Burtnile	Nugaal	0.0	0.0	10.9	10.9	0.6
Galdogob	Mudug	0.0	0.0	0.0	0.0	0.3
Jarriban	Mudug	0.0	0.0	0.0	0.0	0.0
Galkayo	Mudug	0.0	0.0	17.0	17.0	1.0

## Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jul-20	STA
Hudur	Bakool	0.0	3.0	11.5	14.5	0.0
Elbarde	Bakool	0.0	0.0	0.0	0.0	0.0
Baidoa	Bay	0.8	6.0	16.7	23.5	15.0
Diinsor	Bay	12.1	0.0	33.1	45.2	11.0
Bardaale	Bay	1.5	2.5	14.0	18.0	11.0
BurHakaba	Bay	0.0	0.0	0.0	0.0	12.0
Luuq	Gedo	0.0	0.0	0.0	0.0	1.0
Bardheere	Gedo	0.0	0.0	0.0	0.0	11.0
Belet weyne	Hiraan	0.0	12.0	2.5	14.5	0.0
Bulo burti	Hiraan	0.0	0.0	0.0	0.0	3.0
Mataban	Hiraan	34.0	30.0	0.0	64.0	0.0
Balad	Lower Shabelle	0.0	0.0	0.0	0.0	17.0
Wanleweyne	Lower Shabelle	0.0	8.0	15.0	23.0	31.0
Mogadishu	Banadir	3.0	9.0	8.5	20.5	77.0
Buaille	Middle juba	5.0	1.5	4.0	10.5	29.0
Jowhar	Middle Shabelle	0.0	110.0	26.0	136.0	19.0

\*indicates missing data

## Monthly rainfall and NDVI performance 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 Commission. 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](http://www.devcocast.eu)) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

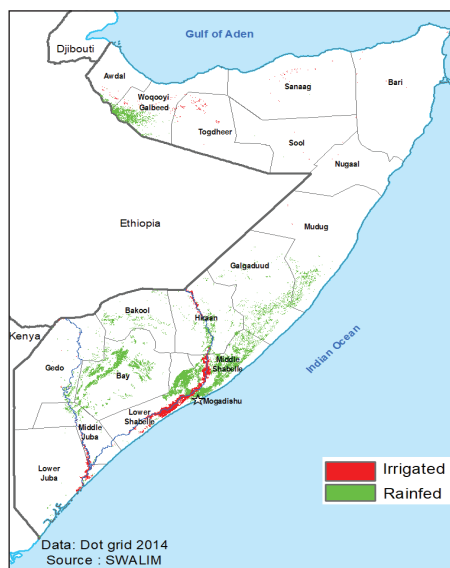
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

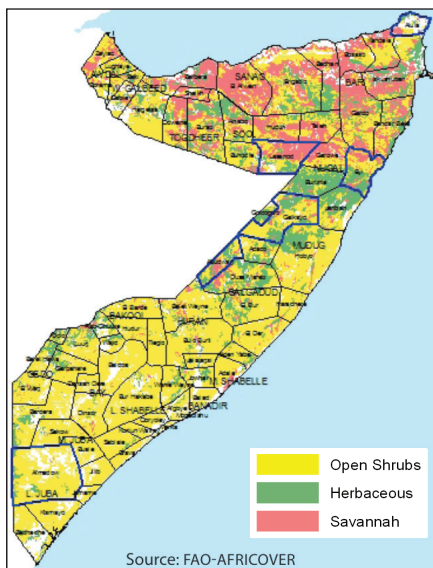
The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

## Seasonal rainfall and NDVI trends by region

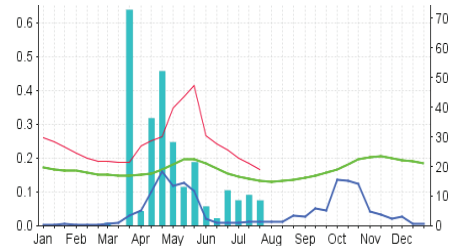
Map 11: Agricultural Areas



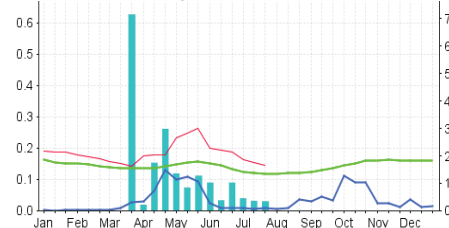
Map 12: Pastoral Areas



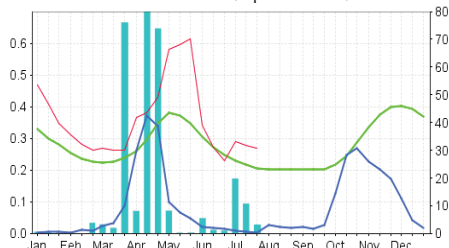
Togdheer Pastoral (Savannah)



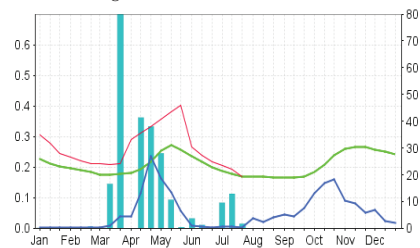
Saanag Pastoral (Savannah)



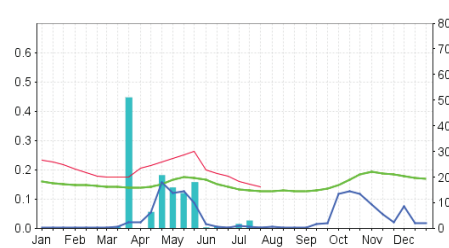
Gedo Pastoral (Open Shrubs)



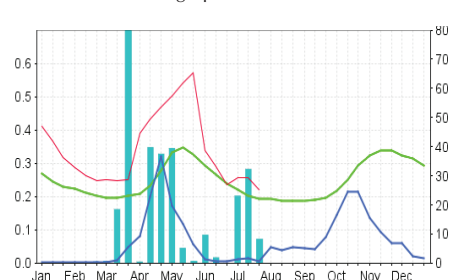
Galgaduud Pastoral (Herbaceous)



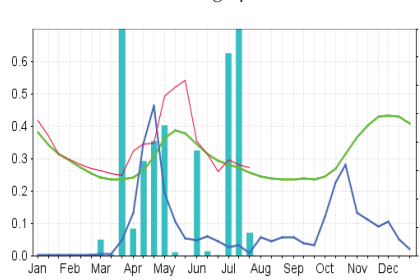
Nugal Pastoral (Open Shrubs)



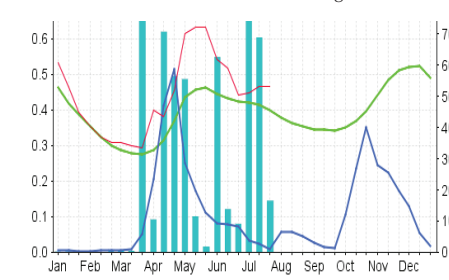
Hiran Agropastoral (Rainfed)



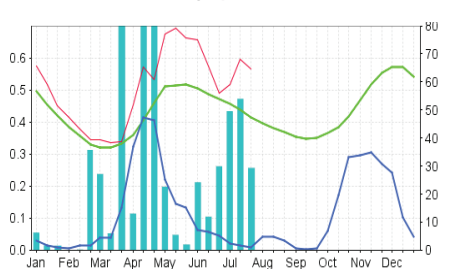
Middle Shabelle Agropastoral (Rainfed)



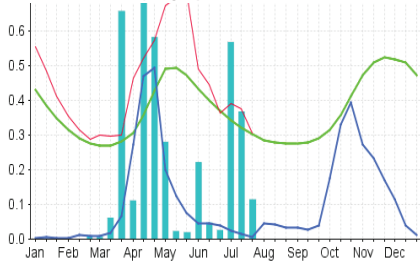
Lower Shabelle Riverine (Irrigated)



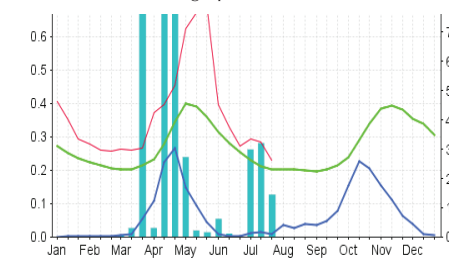
Lower Juba Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



Bakool Agropastoral (Rainfed)

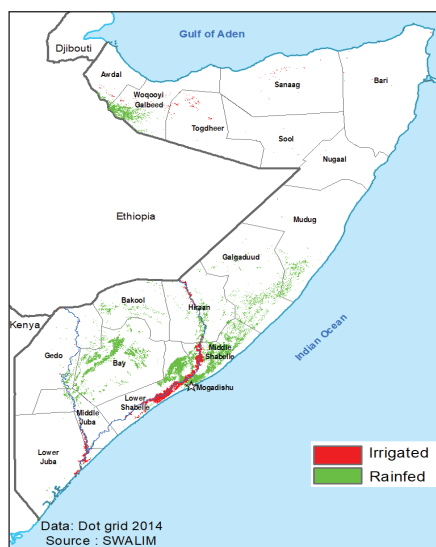


RFE 2020 RFE STA (2001-2019) NDVI 2020 NDVI STA (1999-2019)

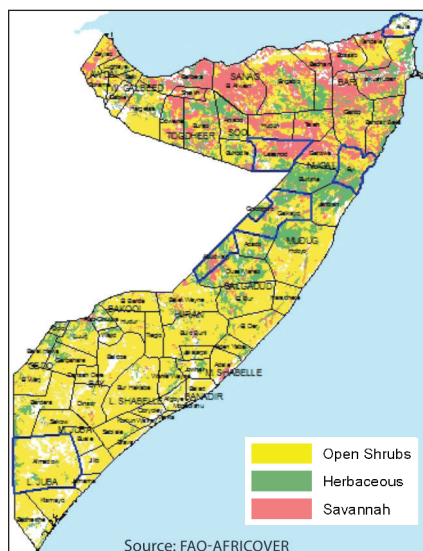


## Seasonal rainfall and NDVI trends for selected districts

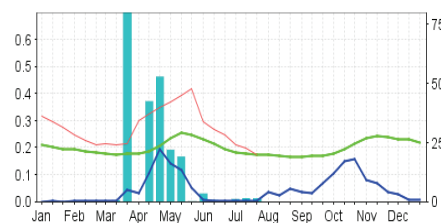
Map 13: Agricultural Areas



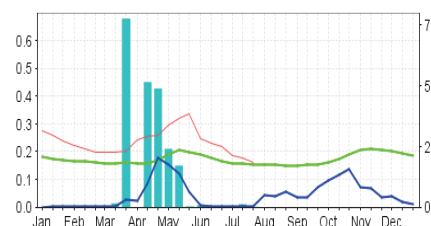
Map 14: Pastoral Areas



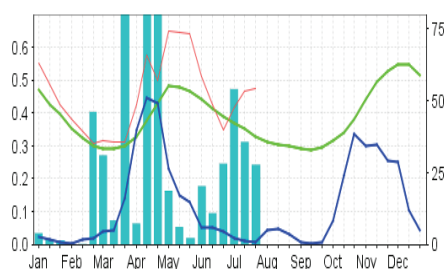
Abudwak Pastoral (Open Shrubs)



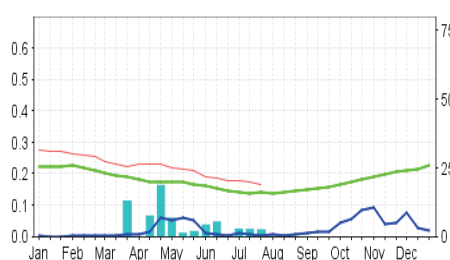
Adado Riverine (Irrigated)



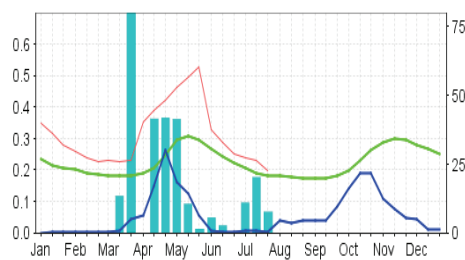
Afmadow Riverine (Irrigated)



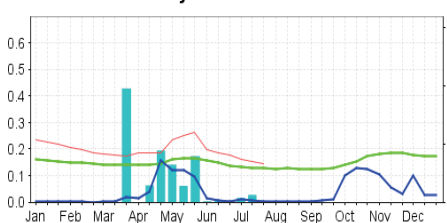
Alula Agropastoral (Rainfed)



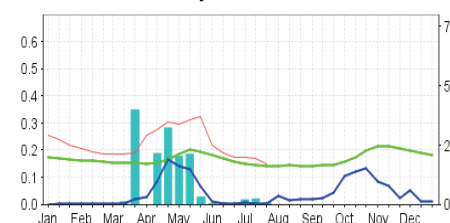
Beletwyne Agropastoral (Herbaceous)



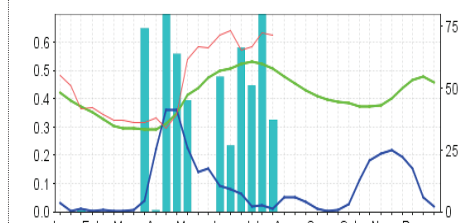
Eyl Pastoral (Open Shrubs)



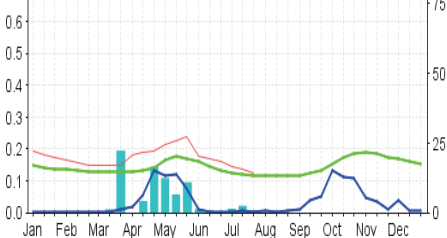
Galkayo (Open Shrubs)



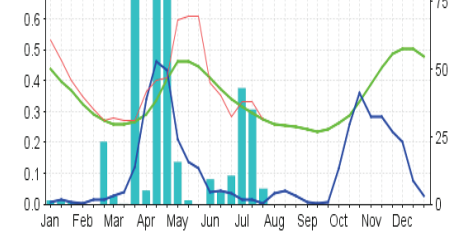
Jamame Pastoral (Herbaceous)



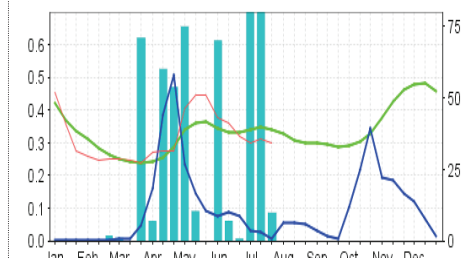
Lasanod Pastoral (Herbaceous)



Sakow (Open Shrubs)



Afgooye Riverine (Irrigated)



RFE 2020 
 RFE STA (2001-2019) 
 NDVI 2020 
 NDVI STA (1999-2019)