

# Climate Update



Food and Agriculture  
Organization of the  
United Nations



Food Security and Nutrition  
Analysis Unit - Somalia

January 2020 Monthly Rainfall and NDVI (Issued February 28, 2020)

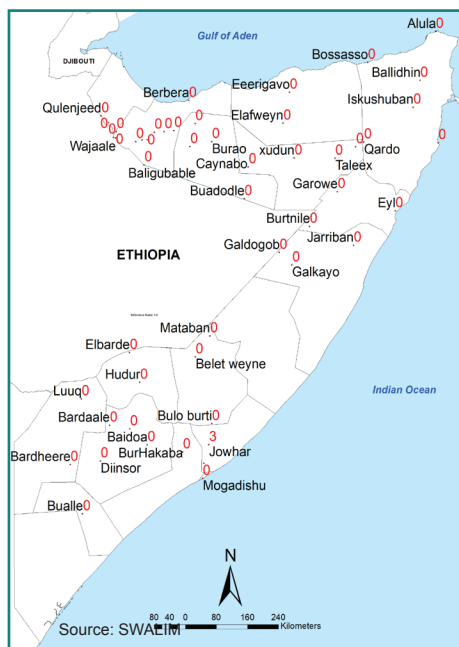
## Highlights

During the month of January 2019, hot and dry conditions prevailed throughout the country, consistent with seasonal trends for this time of the year. January marks the beginning of the *Jilaal* season (January- March), that is usually characterized by high temperatures. Rain gauge readings recorded mostly zero/no rainfall in most stations with only Sheikh in the northwest part of the country recording the highest reading of 24.5mm, the rest were below 10mm as observed in (Map 1 and Table 1). Satellite derived rainfall estimates (RFE) confirm this (Map 2 to Map5). Dry weather conditions are expected to continue till the end of *Jilaal* March 2020, when the onset of *Gu* (April-June) rains is expected.

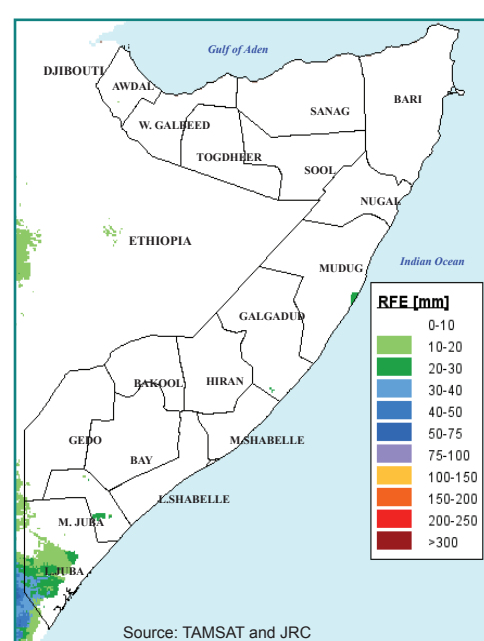
Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) for January indicates some deterioration Maps 6 to Map 8 and Map 10. The deterioration is consistent with seasonal trends for this time of the year.

Due to average to above average rainfall received in the 2019 *Deyr* (October – December) season, pasture and water remain available across most parts of the country. As a result, livestock body conditions throughout the country is average to good (PET score of 3-4). While Desert Locust infestation and upsurge pose a significant threat to pasture availability for livestock (and crop cultivation during the forthcoming *Gu* season), the impact to date remains localized and minimal.

Map 1: January 2020 Monthly Rain Gauge Data

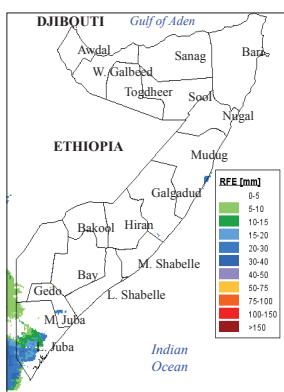


Map 2: January 2020 TAMSAT Monthly Rainfall Estimates

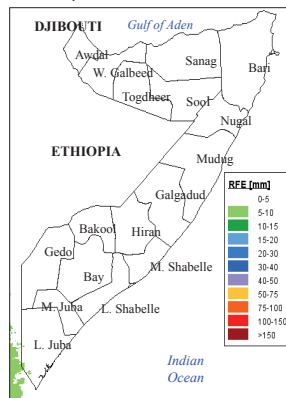


### January 2020: Dekadal RFE Progression

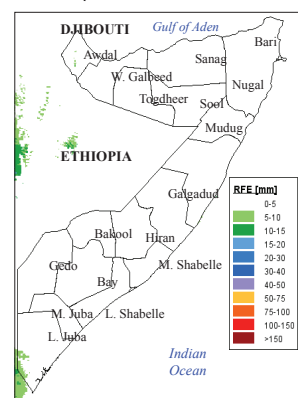
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

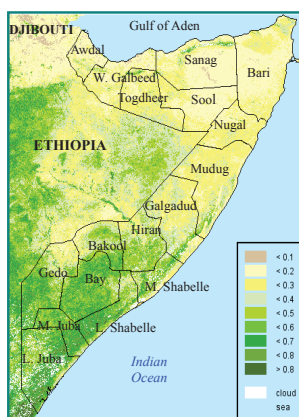


Map 5: 3rd Dekad (21-30)

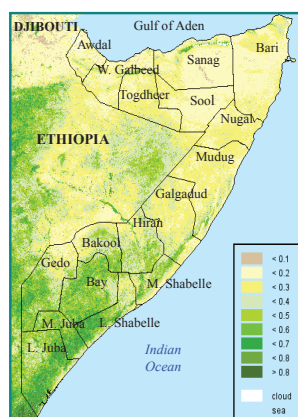


### January 2020: Dekadal NDVI Progression

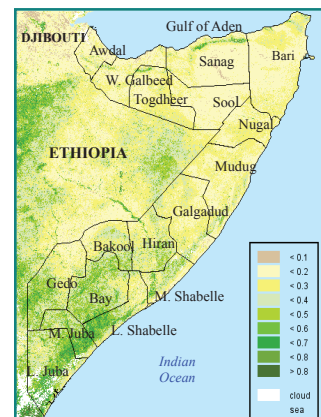
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

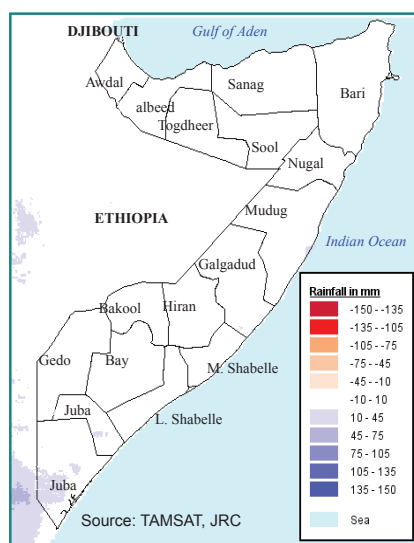


Map 8: 3rd Dekad (21-30)



# Monthly rainfall and NDVI performance

Map 9: Jan 2020 TAMSAT Rainfall Difference from Short Term Average (1999-2019)



Map 10: Jan 2020 NDVI Absolute Difference from Short Term Average (2001-2019)

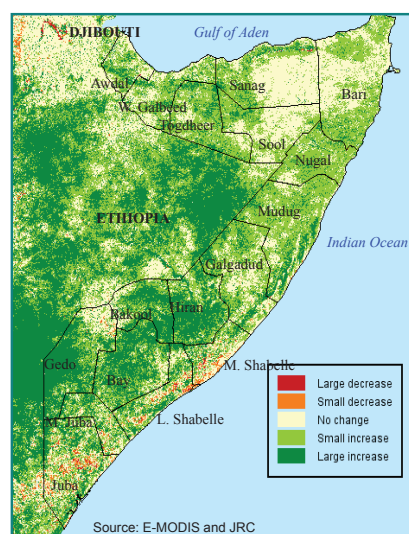


Table 1: Observed rain gauge data compared to Short term averages (January 2020)

## Northern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jan-20	STA
Borama	Awdal	0.0	0.0	9.0	9.0	4.0
Qulenjeed	Awdal	0.0	0.0	6.0	6.0	6.0
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
Darawayne	Wogooyi Galbeed	0.0	1.5	5.0	6.5	4.0
Cadaadley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Dilla	Wogooyi Galbeed	0.0	0.0	2.0	2.0	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	2.5	0.0	2.5	6.0
Burao	Togdheer	0.0	0.0	0.0	0.0	3.0
Sheikh	Togdheer	0.0	11.0	13.5	24.5	5.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	4.0
Buadodde	Togdheer	0.0	0.0	0.0	0.0	3.0
Eerigavo	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	4.5	0.0	4.5	2.0
Bossasso	Bari	0.0	10.0	0.0	10.0	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	5.6	0.0	0.0	5.6	1.0
Bandarbeyla	Bari	4.0	0.0	0.0	4.0	2.0
Iskushuban	Bari	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
Galdogob	Mudug	0.0	1.0	0.0	1.0	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

## Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Jan-20	STA
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	Bay	0.0	0.0	0.0	0.0	3.0
Bardaale	Bay	0.0	0.0	0.0	0.0	2.0
Burhakaba	Bay	0.0	0.0	0.0	0.0	0.0
Wanleweyne	Bay	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
Balad	Lower Shabelle	0.0	0.0	0.0	0.0	0.0
Mogadishu	Banadir	0.0	0.0	0.0	0.0	0.0
Buaille	Middle Juba	0.0	4.5	0.0	4.5	1.0
Jowhar	Middle Shabelle	0.0	0.0	0.0	0.0	0.0

\*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.devcoast.eu](http://www.devcoast.eu)) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

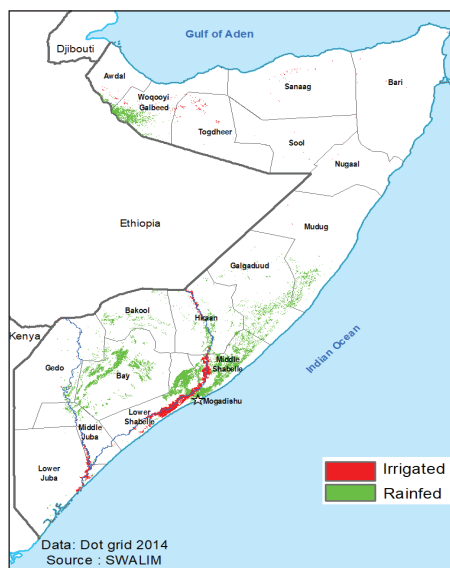
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

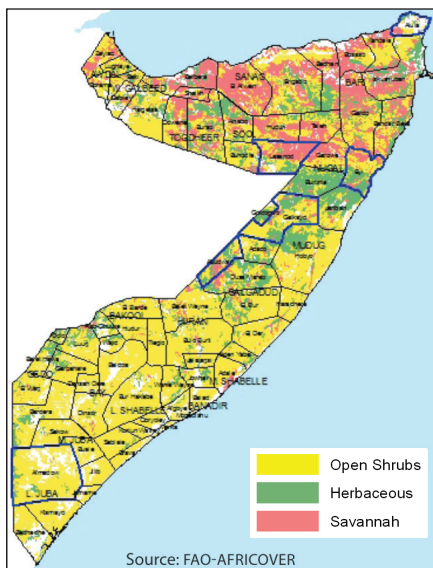
The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

## Seasonal rainfall and NDVI trends by region

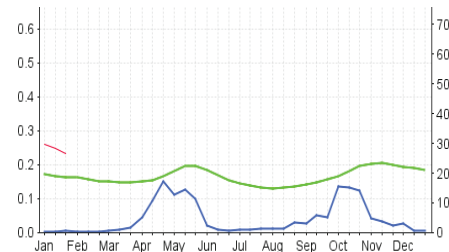
Map 11: Agricultural Areas



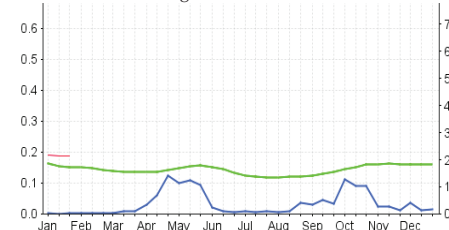
Map 12: Pastoral Areas



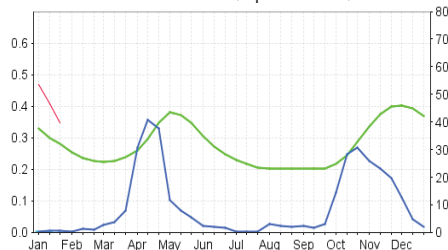
Togdheer Pastoral (Savannah)



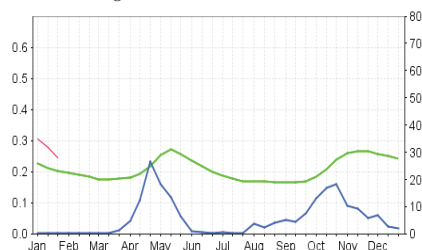
Saanag Pastoral (Savannah)



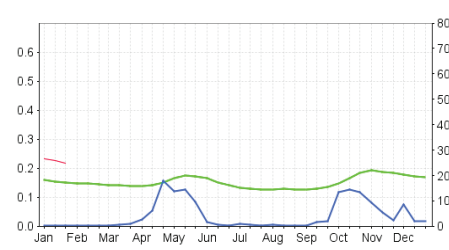
Gedo Pastoral (Open Shrubs)



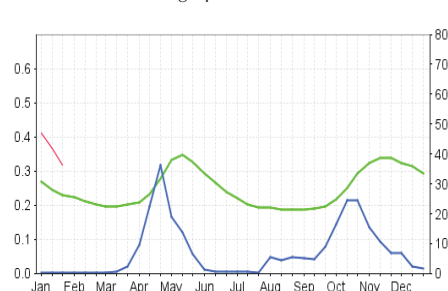
Galgaduud Pastoral (Herbaceous)



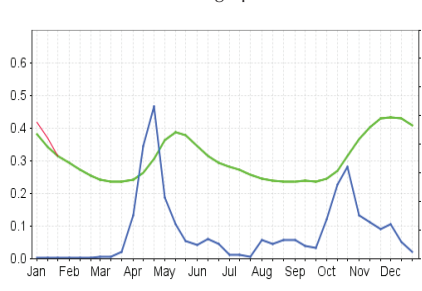
Nugaal Pastoral (Open Shrubs)



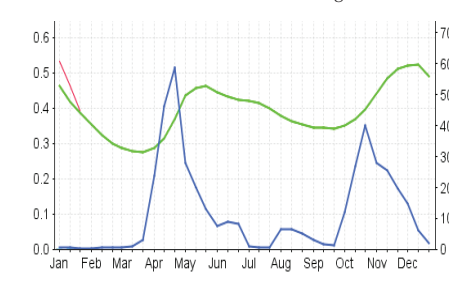
Hiran Agropastoral (Rainfed)



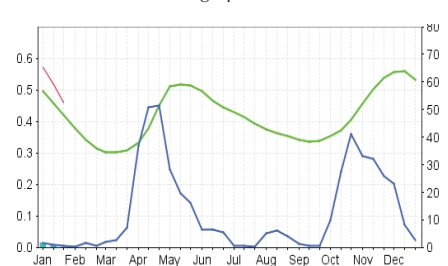
Middle Shabelle Agropastoral (Rainfed)



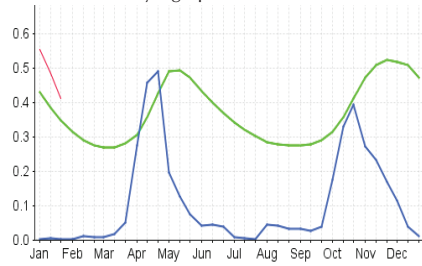
Lower Shabelle Riverine (Irrigated)



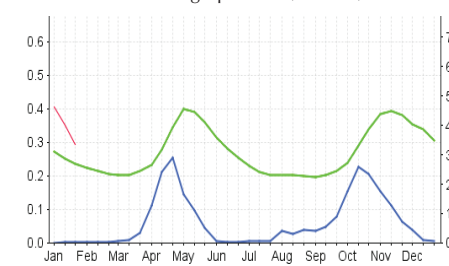
Middle Juba Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



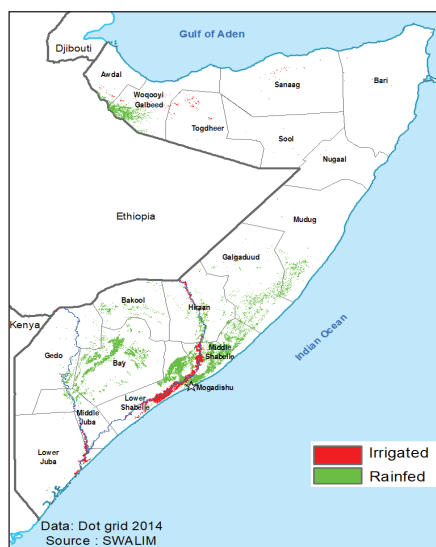
Bakool Agropastoral (Rainfed)



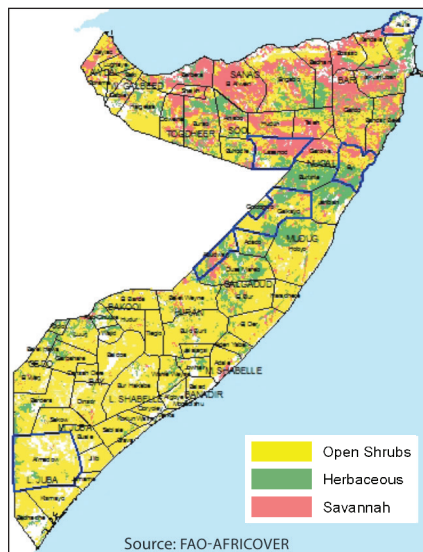


## Seasonal rainfall and NDVI trends for selected districts

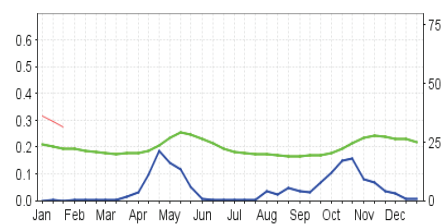
Map 13: Agricultural Areas



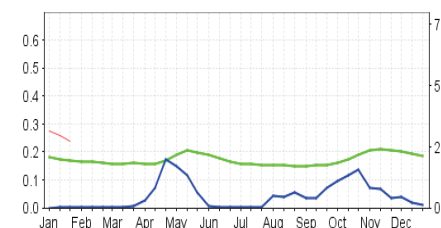
Map 14: Pastoral Areas



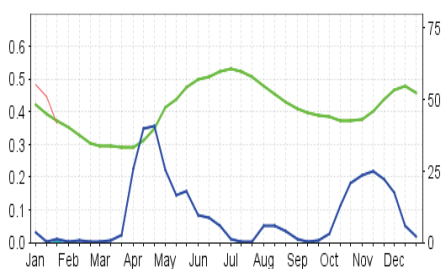
Abudwak Pastoral (Open Shrubs)



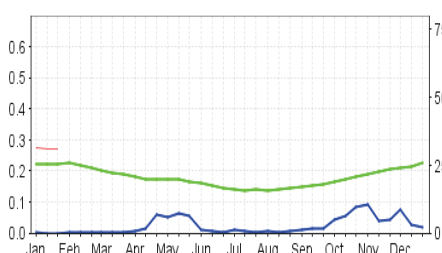
Adado Riverine (Irrigated)



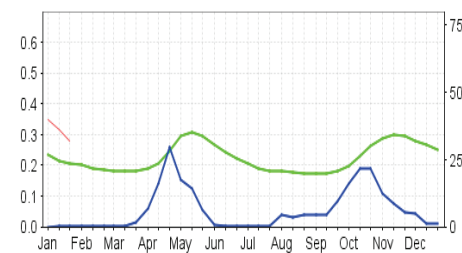
Afmadow Riverine (Irrigated)



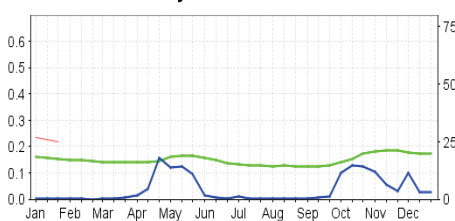
Alula Agropastoral (Rainfed)



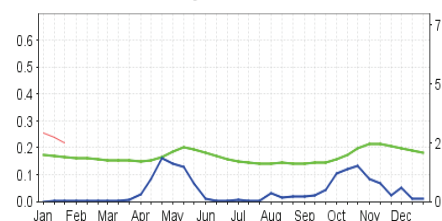
Beletwyne Agropastoral (Herbaceous)



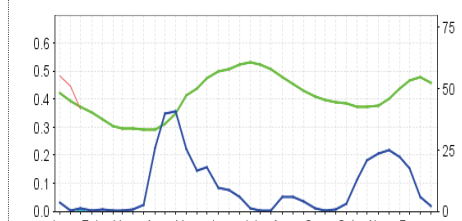
Eyl Pastoral (Open Shrubs)



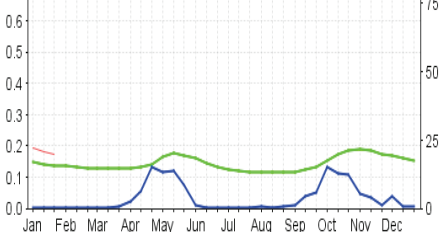
Galkayo (Open Shrubs)



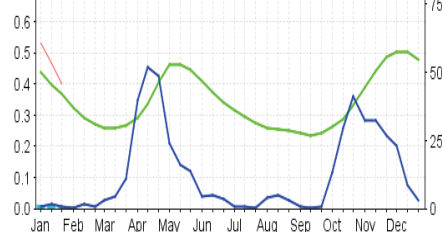
Jamame Pastoral (Herbaceous)



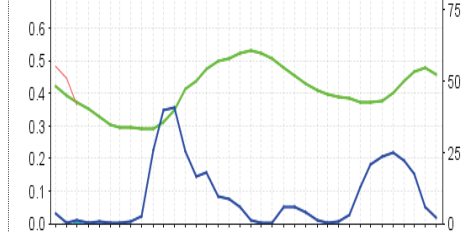
Lasanod Pastoral (Herbaceous)



Sakow (Open Shrubs)



Afmadow Riverine (Irrigated)



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