

Climate Update



Food and Agriculture
Organization of the
United Nations

FSNAU
Food Security and Nutrition
Analysis Unit - Somalia

March 2020 Monthly Rainfall and Vegetation Cover (NDVI) (Issued April 17, 2020)

Highlights

March marks the end of the dry *Jilaal* (January-March) season. However, it also marks the commencement of early *Gu* (April-June) rains in some parts of the country. Observed rain gauge data for March indicates mostly dry and hot weather conditions during the first two dekads of March. However, significant amounts of rainfall were recorded across most parts of the country in the third dekads as shown in Map 1 and Table 1. Wajaale, Odweyne and Dinsor rain gauge stations recorded the highest amount of rainfall with over 80mm all recorded in the third dekad.

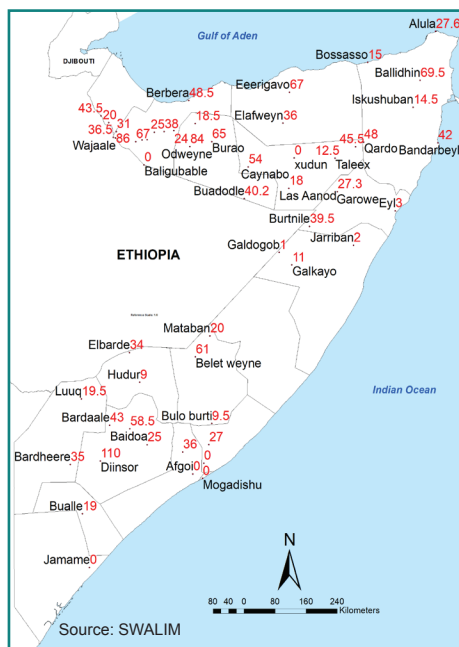
Vegetation conditions measured through the Normalized Difference Vegetation Index (NDVI) for March indicate continued deterioration of pasture and vegetation across the country as shown on Maps 6 – 8. Although there was deterioration in rangeland conditions, this was much better than vegetation condition during a typical *Jilaal* season, owing to average to above average rainfall received during the preceding Deyr (October – December 2019) season. Rainfall during March partially replenished natural water-catchments and Berkads and subsequently improved water availability and pasture/browse regenerations. However, flash floods were reported in the Golis of Northwest, with damages to some roads.

Livestock body condition remains average and small ruminants continued to give birth, thereby improving herd sizes.

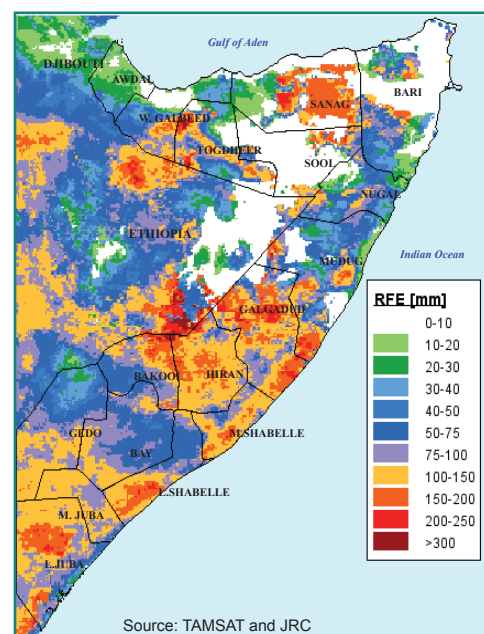
Land preparation for the current *Gu* season has begun in most parts of southern Somalia and limited areas of the northwest agro pastoral in northern Somalia. Some farmers have already dryplanted in anticipation of the start of *Gu* rains in later March/early April.

Desert Locust continues to pose a major threat to pasture and crop throughout 2020. Desert Locust swarms are still present in some parts of the Northwest, including Guban (Lughaya and Bullahar districts), East Golis and the coastal parts of Erigavo and Lasqoray districts. However, damages to pasture remain localized.

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

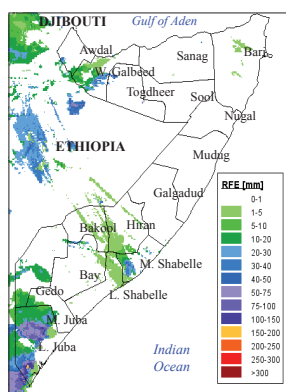


Map 2: March 2020 TAMSAT Monthly Rainfall Estimates

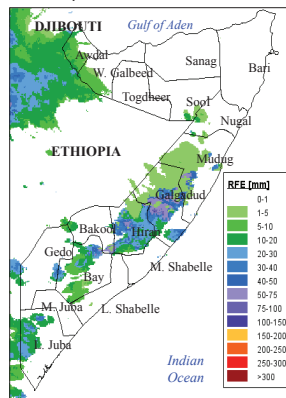


March 2020: Dekadal Rainfall Estimates (RFE) Progression

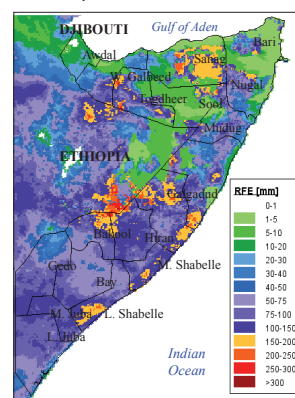
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

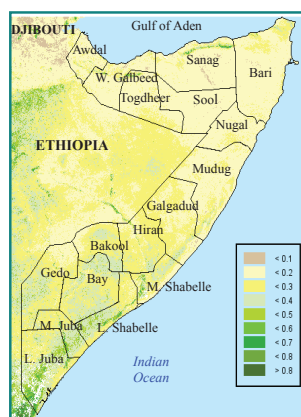


Map 5: 3rd Dekad (21-30)

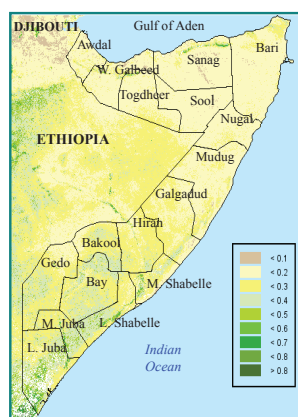


March 2020: Dekadal Vegetation Cover (NDVI) Progression

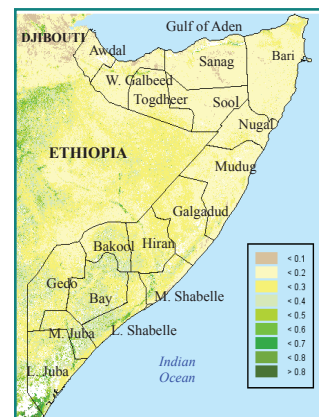
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

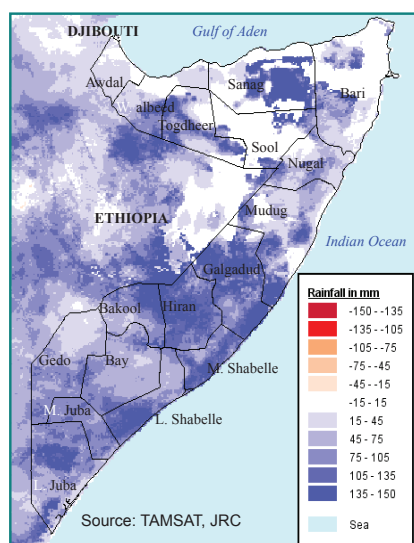


Map 8: 3rd Dekad (21-30)



Monthly rainfall and NDVI performance

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



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

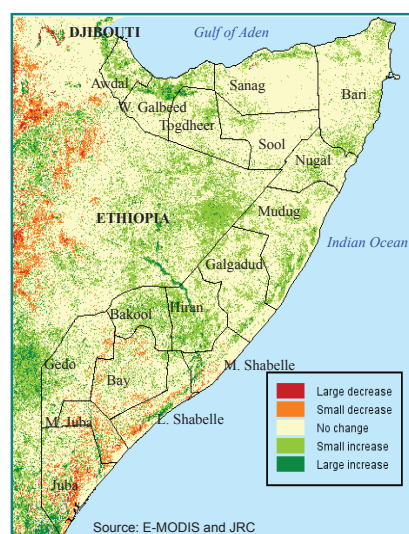


Table 1: Observed rain gauge data compared to Short term averages (March 2020)

Northern Regions

Station Name	Region	dek 1	dek 2	dek 3	Mar-20	STA
Borama	Awdal	0.0	0.0	20.0	20.0	44.0
Qulenjeed	Awdal	0.0	0.0	43.5	43.5	40.0
Gebilley	Wogooyi Galbeed	0.0	0.0	36.5	36.5	30.0
Malawle	Wogooyi Galbeed	0.0	0.0	25.0	25.0	28.0
Wajaale	Wogooyi Galbeed	0.0	0.0	86.0	86.0	36.0
Hargeisa	Wogooyi Galbeed	0.0	0.0	71.0	71.0	25.0
Darawayne	Wogooyi Galbeed	0.0	0.0	25.0	25.0	25.0
Cadaadley	Wogooyi Galbeed	0.0	0.0	24.0	24.0	22.0
Dilla	Wogooyi Galbeed	0.0	0.0	31.0	31.0	36.0
Aburin	Wogooyi Galbeed	0.0	0.0	67.0	67.0	29.0
Dhubato	Wogooyi Galbeed	0.0	0.0	38.0	38.0	25.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	30.0
Berbera	Wogooyi Galbeed	0.0	0.0	48.5	48.5	0.0
Burao	Togdheer	0.0	0.0	65.0	65.0	5.0
Sheikh	Togdheer	0.0	0.0	18.5	18.5	33.0
Odweyne	Togdheer	0.0	0.0	84.0	84.0	21.0
Buadodle	Togdheer	0.0	0.0	40.2	40.2	12.0
Eerigavo	Sanaag	0.0	0.0	67.0	67.0	22.0
Elafweyn	Sanaag	0.0	0.0	36.0	36.0	12.0
Caynabo	Sool	0.0	0.0	54.0	54.0	12.0
Xudun	Sool	0.0	0.0	0.0	0.0	8.0
Taleex	Sool	0.0	0.0	12.5	12.5	7.0
Las Aanod	Sool	0.0	0.0	18.0	18.0	4.0
Bossasso	Bari	0.0	0.0	15.0	15.0	0.0
Qardo	Bari	0.0	0.0	48.0	48.0	7.0
Dangoroyo	Bari	0.0	0.0	45.5	45.5	6.0
Ballidhin	Bari	0.0	0.0	69.5	69.5	5.0
Alula	Bari	0.0	0.0	27.6	27.6	0.0
Bandarbeyla	Bari	0.0	0.0	42.0	42.0	5.0
Iskushuban	Bari	0.0	0.0	14.5	14.5	3.0
Garowe	Nugaal	0.0	0.0	27.3	27.3	7.0
Eyl	Nugaal	0.0	0.0	3.0	3.0	5.0
Burtnile	Nugaal	0.0	0.0	39.5	39.5	7.0

Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Mar-20	STA
Galdogob	Mudug	0.0	0.0	1.0	1.0	4.0
Jarriban	Mudug	0.0	0.0	2.0	2.0	6.0
Galkayo	Mudug	0.0	0.0	11.0	11.0	5.0
Hudur	Bakool	0.0	0.0	9.0	9.0	5.0
Elbarde	Bakool	0.0	0.0	34.0	34.0	13.0
Baidoa	Bay	0.0	0.0	58.5	58.5	23.0
Diinsor	Bay	1.2	0.0	108.8	110.0	26.0
Bardaale	Bay	0.0	0.0	43.0	43.0	17.0
Burhakaba	Bay	0.0	0.0	25.0	25.0	9.0
Luuq	Gedo	0.0	0.0	19.5	19.5	1.0
Bardheere	Gedo	0.0	0.0	35.0	35.0	27.0
Belet weyne	Hiraan	0.0	0.0	61.0	61.0	9.0
Bulo burti	Hiraan	0.0	0.0	9.5	9.5	11.0
Mataban	Hiraan	0.0	0.0	20.0	20.0	11.0
Balad	Lower Shabelle	0.0	0.0	0.0	0.0	1.0
Afgoi	Lower Shabelle	0.0	0.0	0.0	0.0	1.0
Wanleweyne	Lower Shabelle	0.0	0.0	36.0	36.0	0.0
Mogadishu	Banadir	0.0	0.0	0.0	0.0	0.0
Buaille	Middle juba	0.0	0.0	19.0	19.0	1.0
Jowhar	Middle Shabelle	0.0	0.0	27.0	27.0	14.0
Jamame	Lower Juba	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) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

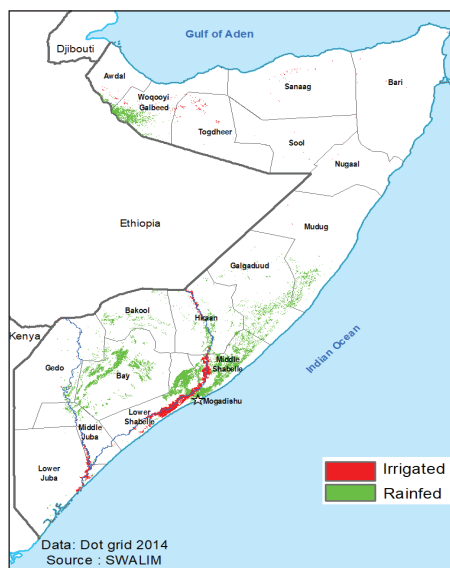
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

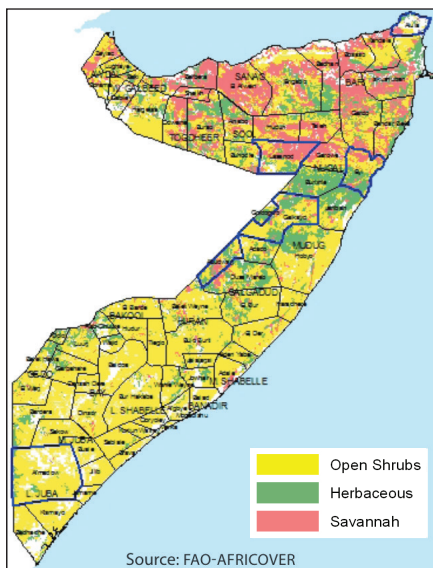
The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

Seasonal rainfall and NDVI trends by region

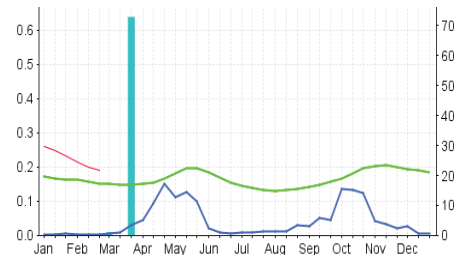
Map 11: Agricultural Areas



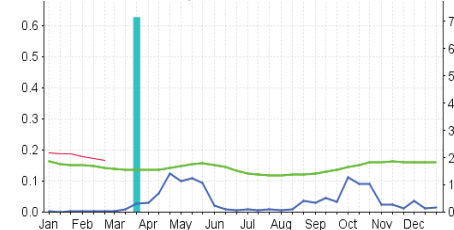
Map 12: Pastoral Areas



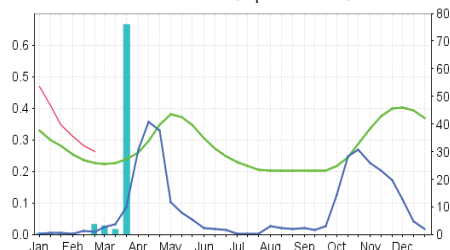
Togdheer Pastoral (Savannah)



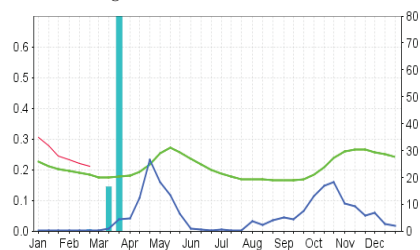
Saanag Pastoral (Savannah)



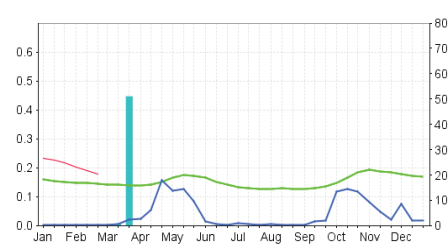
Gedo Pastoral (Open Shrubs)



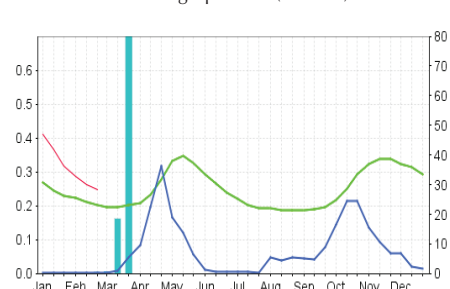
Galgaduud Pastoral (Herbaceous)



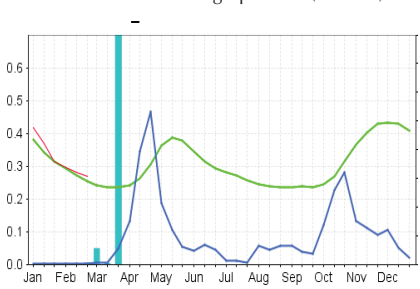
Nugal Pastoral (Open Shrubs)



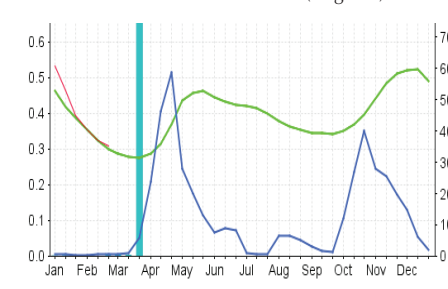
Hiran Agropastoral (Rainfed)



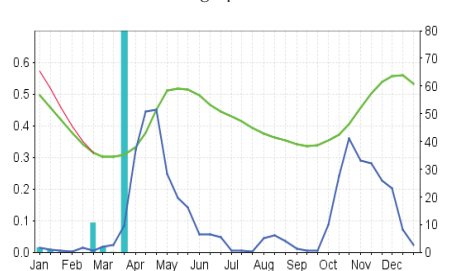
Middle Shabelle Agropastoral (Rainfed)



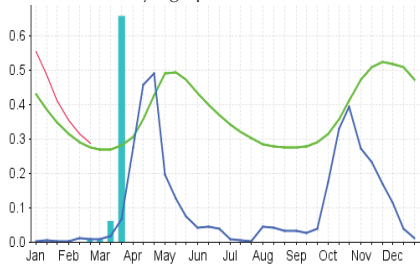
Lower Shabelle Riverine (Irrigated)



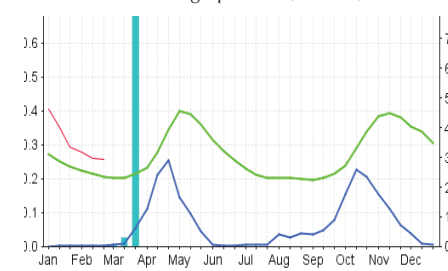
Middle Juba Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



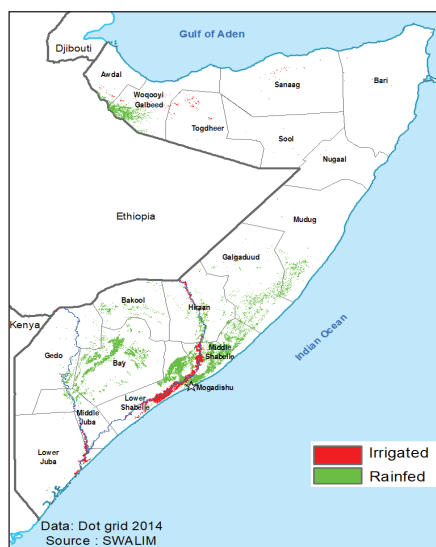
Bakool Agropastoral (Rainfed)



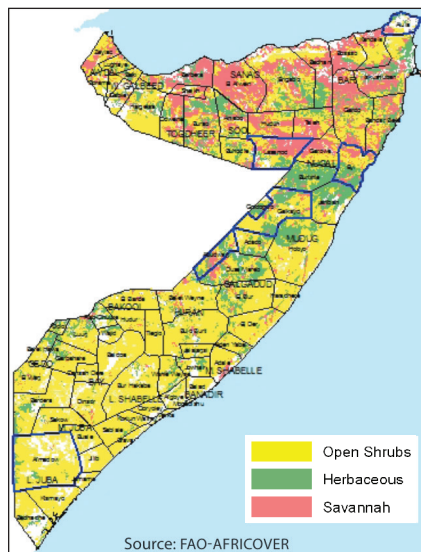
RFE 2020 RFE STA (2001-2019) NDVI 2020 NDVI STA (1999-2019)

Seasonal rainfall and NDVI trends for selected districts

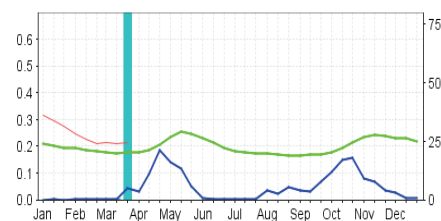
Map 13: Agricultural Areas



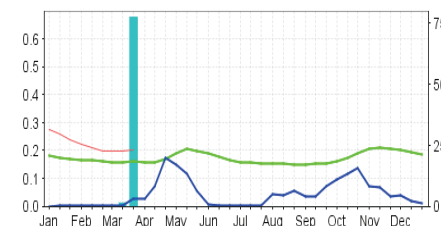
Map 14: Pastoral Areas



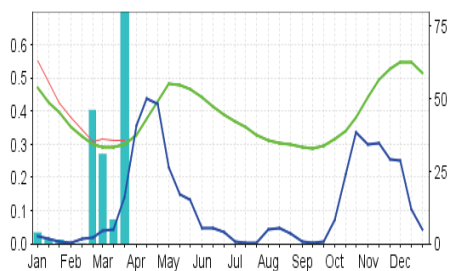
Abudwak Pastoral (Open Shrubs)



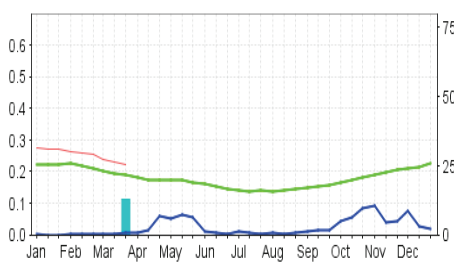
Adado Riverine (Irrigated)



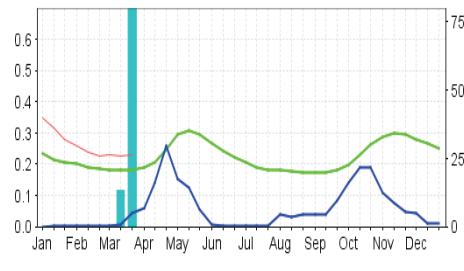
Afmadow Riverine (Irrigated)



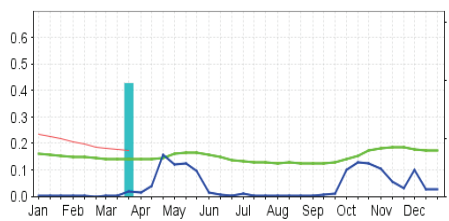
Alula Agropastoral (Rainfed)



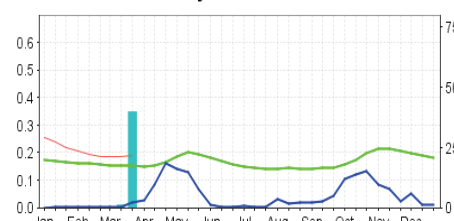
Beletwyne Agropastoral (Herbaceous)



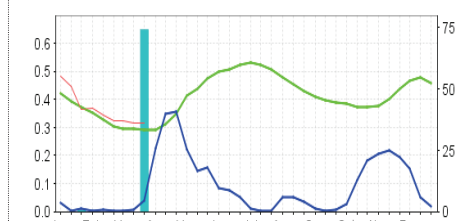
Eyl Pastoral (Open Shrubs)



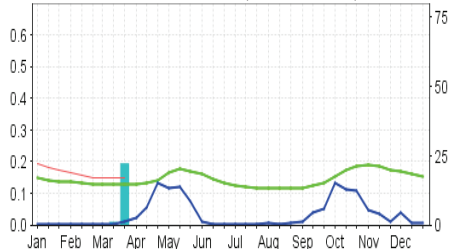
Galkayo (Open Shrubs)



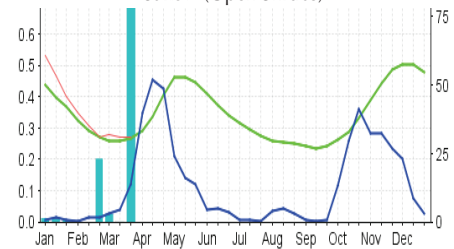
Jamame Pastoral (Herbaceous)



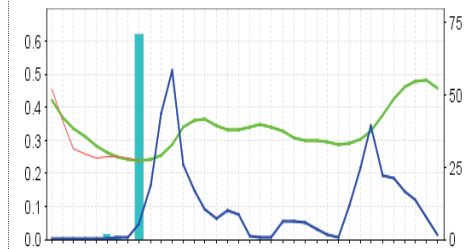
Lasanod Pastoral (Herbaceous)



Sakow (Open Shrubs)



Afgooye Riverine (Irrigated)



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