

Climate Update



Food and Agriculture
Organization of the
United Nations



Food Security and Nutrition
Analysis Unit - Somalia

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

Highlights

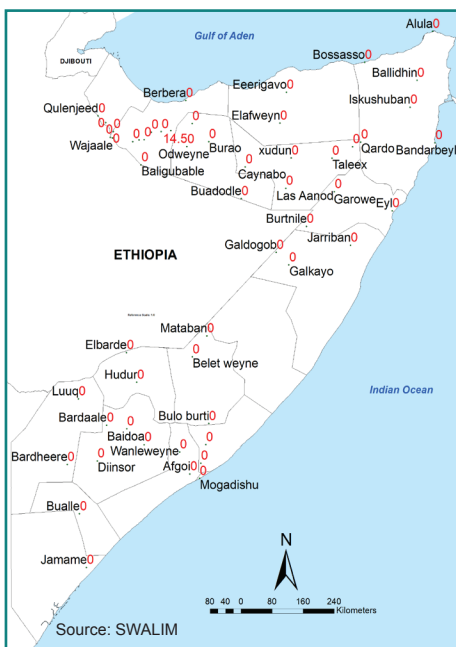
February 2020, marked the continuation of the dry *Jilaal* (January-March) season across Somalia (Maps 1-2), with elevated temperatures and winds, which has had a negative impact on off-season crop production in some riverine areas. Consistent with normal seasonal trends, most stations did not record any rainfall during the month of February, with the exception of Cadaadley (Northwest) which recorded 14.5mm during the second dekad of the month (Table 1). Satellite derived rainfall estimates (RFE) indicate the prevalence of dry weather conditions across the country during the month of February as shown in Maps 2-5.

Vegetation conditions measured through the Normalized Difference Vegetation Index (NDVI) for February 2020 indicate continued deterioration of pasture and vegetation across the country as shown in the maps 6 – 8. However, vegetation conditions remain above average levels in most rural livelihoods, except some riverine areas that have witnessed deterioration to below normal levels.

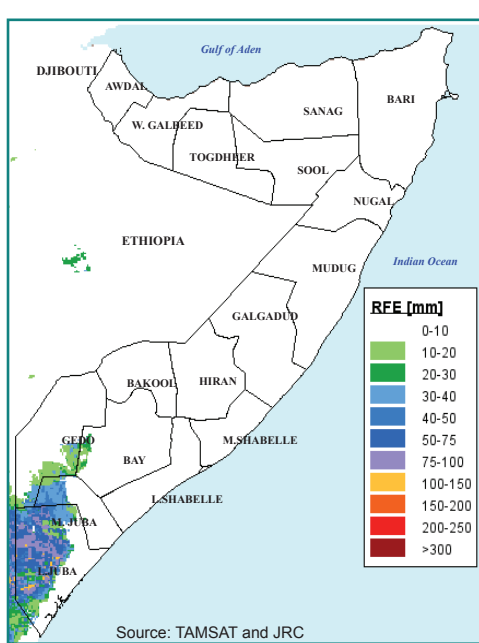
Off-season crop harvesting is ongoing in February in some agropastoral livelihoods where crops were planted late during the 2019 *Deyr* season. Shabelle and Juba river levels have continued to decline, consistent with seasonal trends. However, current river levels remain near or above normal levels and can sustain off-season crop irrigation if current trends continue. In Beletweyne where river levels have decline to below normal levels since mid-January, this is likely to affect off-season crop yields in riverine livelihoods.

Livestock births (kidding and calving) during February were medium to low across Somalia. Due to continued availability of pasture and water across most parts of the country, livestock migration remain normal, except in some part of Northern Inland Pastoral livelihood of Rako where tick infestation has prompted return of migrated animals back to their original livelihoods.

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

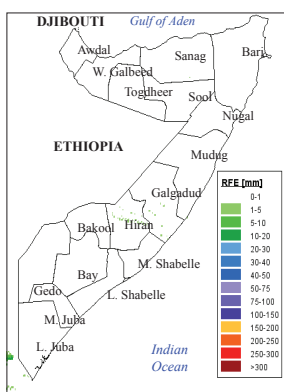


Map 2: February 2020 TAMSAT Monthly Rainfall Estimates

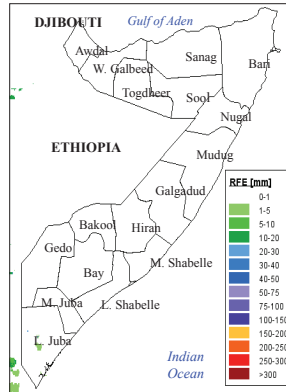


February 2020: Dekadal Rainfall Estimates (RFE) Progression

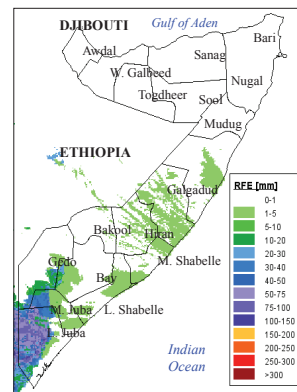
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

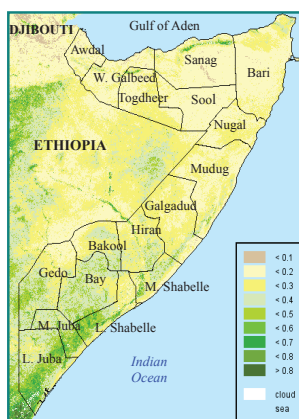


Map 5: 3rd Dekad (21-30)

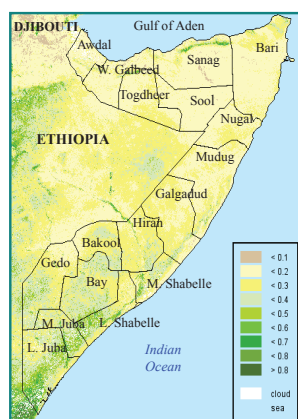


February 2020: Dekadal Vegetation Cover (NDVI) Progression

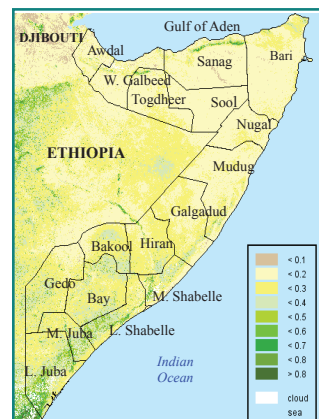
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

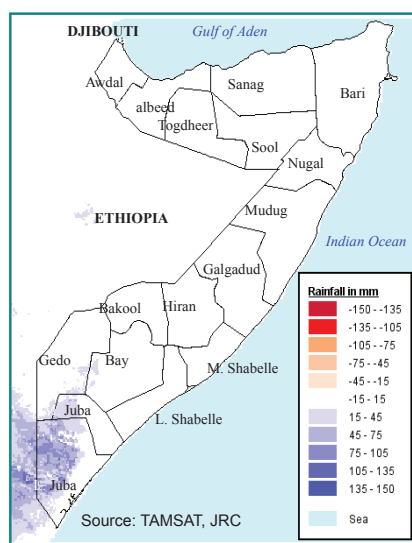


Map 8: 3rd Dekad (21-30)



Monthly rainfall and NDVI performance

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



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

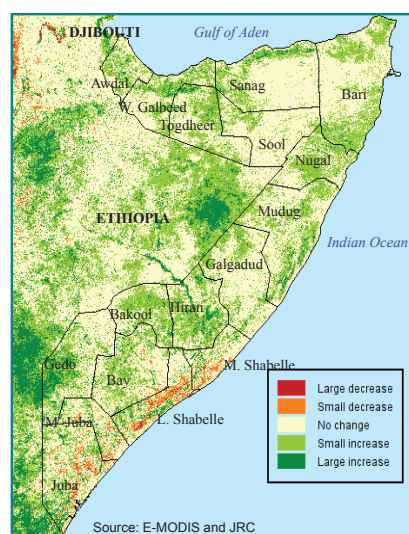


Table 1: Observed rain gauge data compared to Short term averages (February 2020)

Northern Regions

Station Name	Region	dek 1	dek 2	dek 3	Feb 20	STA
Borama	Awdal	0.0	0.0	0.0	0.0	21.0
Qulenjeed	Awdal	0.0	0.0	0.0	0.0	19.0
Gebilley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	6.0
Malawle	Wogooyi Galbeed	0.0	0.0	0.0	0.0	11.0
Wajaale	Wogooyi Galbeed	0.0	0.0	0.0	0.0	11.0
Hargeisa	Wogooyi Galbeed	0.0	0.0	0.0	0.0	11.0
Darawayne	Wogooyi Galbeed	0.0	0.0	0.0	0.0	10.0
Cadaadley	Wogooyi Galbeed	0.0	14.5	0.0	14.5	9.0
Dilla	Wogooyi Galbeed	0.0	0.0	0.0	0.0	14.0
Aburin	Wogooyi Galbeed	0.0	0.0	0.0	0.0	12.0
Dhubato	Wogooyi Galbeed	0.0	0.0	0.0	0.0	9.0
Baligubable	Wogooyi Galbeed	0.0	0.0	0.0	0.0	11.0
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	0.0
Burao	Togdheer	0.0	0.0	0.0	0.0	4.0
Sheikh	Togdheer	0.0	0.0	0.0	0.0	13.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	8.0
Buadodle	Togdheer	0.0	0.0	0.0	0.0	4.0
Eerigavo	Sanaag	0.0	0.0	0.0	0.0	48.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	4.0
Caynabo	Sool	0.0	0.0	0.0	0.0	4.0
Xudun	Sool	0.0	0.0	0.0	0.0	3.0
Taleex	Sool	0.0	0.0	0.0	0.0	3.0
Las Aanod	Sool	0.0	0.0	0.0	0.0	1.0
Bossasso	Bari	0.0	0.0	0.0	0.0	0.0
Qardo	Bari	0.0	0.0	0.0	0.0	1.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	2.0
Ballidhin	Bari	0.0	0.0	0.0	0.0	1.0
Alula	Bari	0.0	0.0	0.0	0.0	0.0
Bandarbeyla	Bari	0.0	0.0	0.0	0.0	1.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	0.0
Garowe	Nugaal	0.0	0.0	0.0	0.0	3.0
Eyl	Nugaal	0.0	0.0	0.0	0.0	5.0
Burtnile	Nugaal	0.0	0.0	0.0	0.0	2.0
Galdogob	Mudug	0.0	0.0	0.0	0.0	2.0
Jarriban	Mudug	0.0	0.0	0.0	0.0	2.0
Galkayo	Mudug	0.0	0.0	0.0	0.0	0.0

Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Feb 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
Bur Hakaba	Bay	0.0	0.0	0.0	0.0	4.0
Wanleweyne	Bay	0.0	0.0	0.0	0.0	0.0
Luq	Gedo	0.0	0.0	0.0	0.0	1.0
Bardheere	Gedo	0.0	0.0	0.0	0.0	6.0
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	1.0
Afgoi	Lower Shabelle	0.0	0.0	0.0	0.0	0.0
Mogadishu	Banadir	0.0	0.0	0.0	0.0	2.0
Buulle	Middle juba	0.0	0.0	0.0	0.0	1.0
Jowhar	Middle Shabelle	0.0	0.0	0.0	0.0	0.0
Jamame	Lower Juba	0.0	0.0	0.0	0.0	1.0

*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.

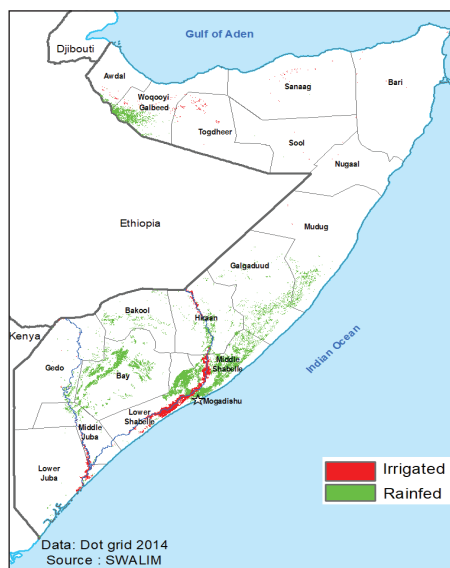
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

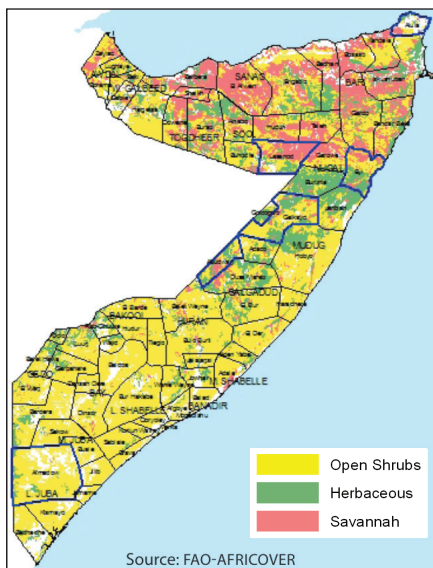
The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

Seasonal rainfall and NDVI trends by region

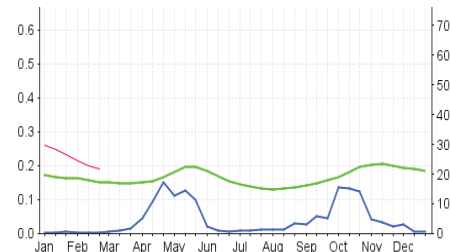
Map 11: Agricultural Areas



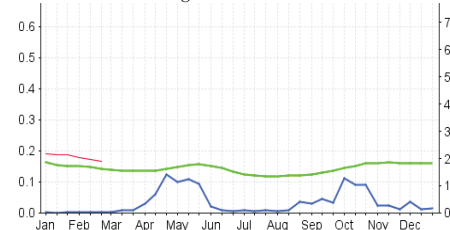
Map 12: Pastoral Areas



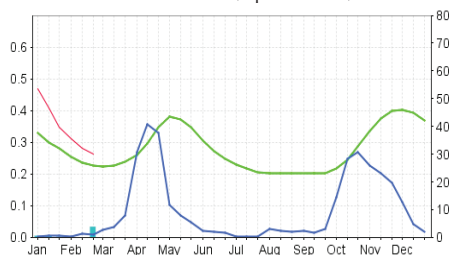
Togdheer Pastoral (Savannah)



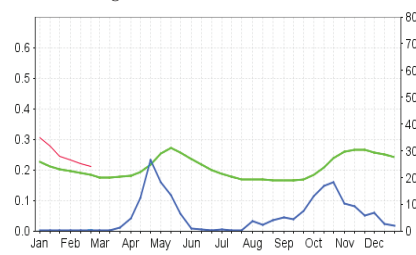
Saanag Pastoral (Savannah)



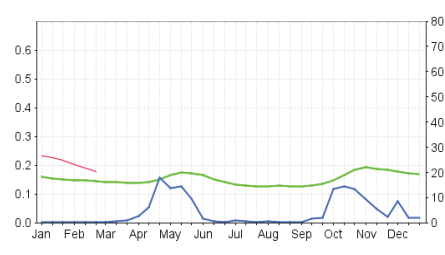
Gedo Pastoral (Open Shrubs)



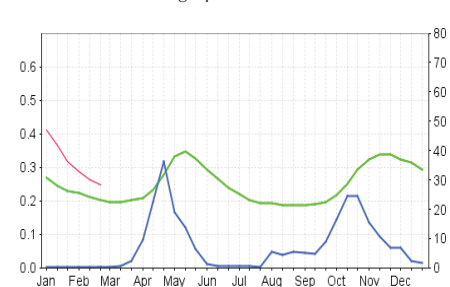
Galgaduud Pastoral (Herbaceous)



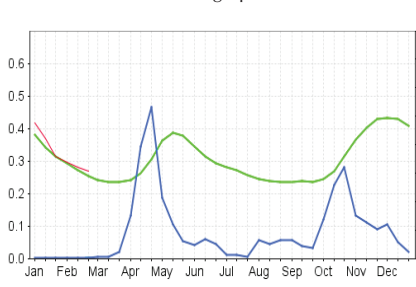
Nugaal Pastoral (Open Shrubs)



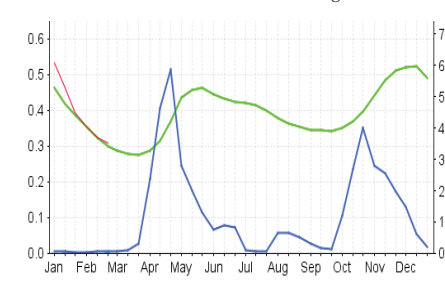
Hiran Agropastoral (Rainfed)



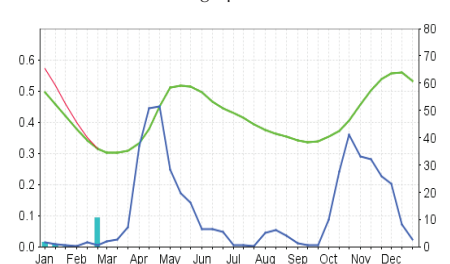
Middle Shabelle Agropastoral (Rainfed)



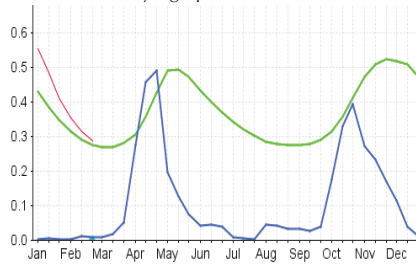
Lower Shabelle Riverine (Irrigated)



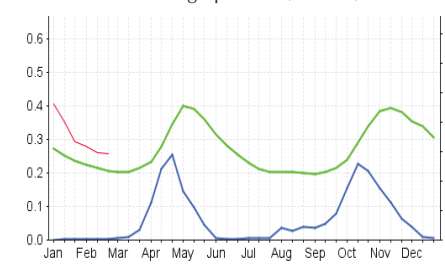
Middle Juba Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)

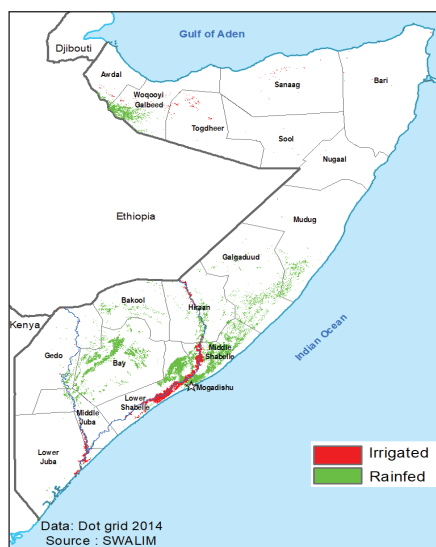


Bakool Agropastoral (Rainfed)

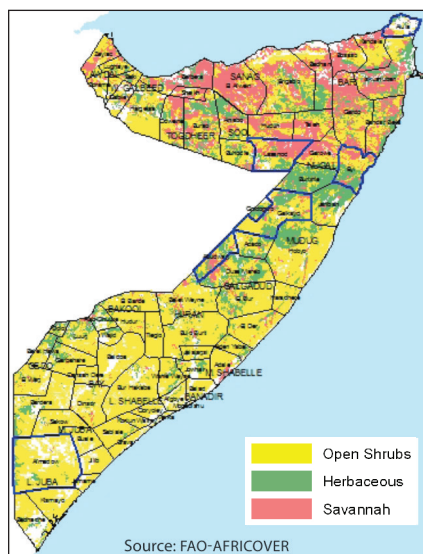


Seasonal rainfall and NDVI trends for selected districts

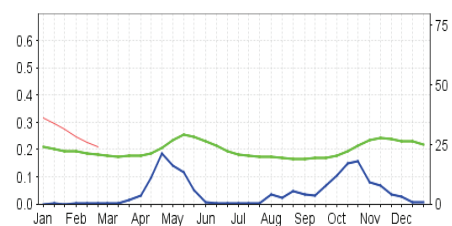
Map 13: Agricultural Areas



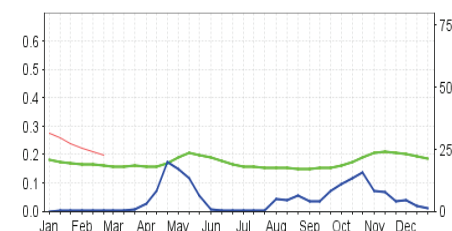
Map 14: Pastoral Areas



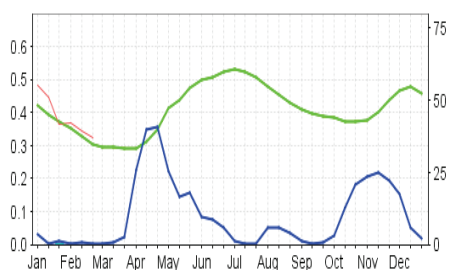
Abudwak Pastoral (Open Shrubs)



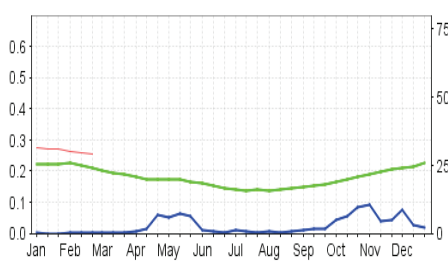
Adado Riverine (Irrigated)



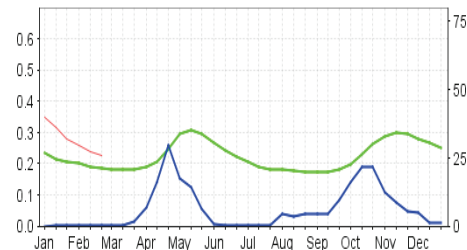
Afmadow Riverine (Irrigated)



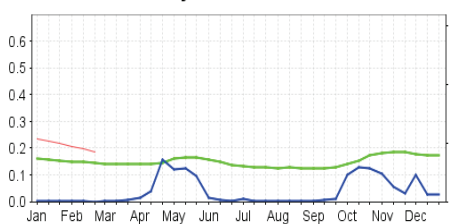
Alula Agropastoral (Rainfed)



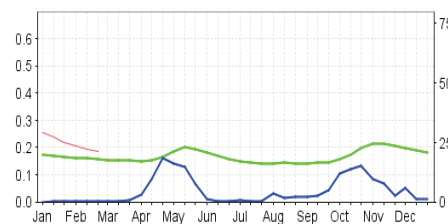
Beletwyne Agropastoral (Herbaceous)



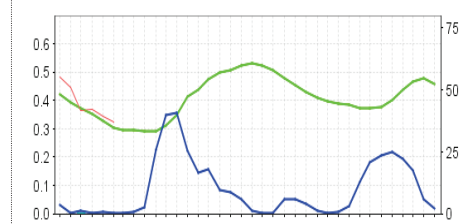
Eyl Pastoral (Open Shrubs)



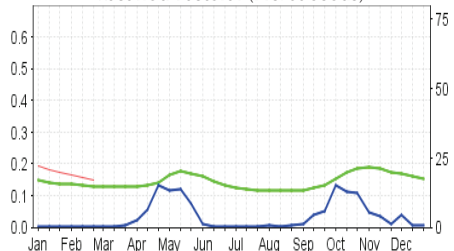
Galkayo (Open Shrubs)



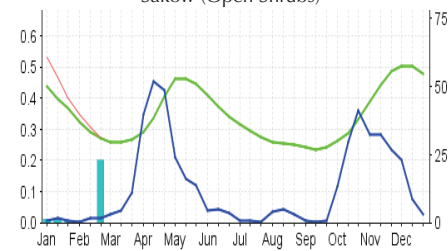
Jamame Pastoral (Herbaceous)



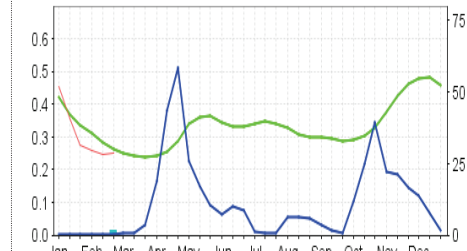
Lasanod Pastoral (Herbaceous)



Sakow (Open Shrubs)



Afgooye Riverine (Irrigated)



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