

Climate Update



Food and Agriculture
Organization of the
United Nations

FSNAU
Food Security and Nutrition
Analysis Unit - Somalia

SWALIM

February 2019 Monthly Rainfall and Vegetation Cover (Issued March 21, 2019)

Highlights

In most parts of Somalia, *Jilaal* (January–March) season dry weather conditions persisted in February 2019, characterized by mostly dry winds and elevated temperatures. No rain gauge station recorded rainfall as evident in (Map 1 and table 1). Satellite derived rainfall estimates (RFE) confirm the prevalence of dry weather conditions across the country during the month of February (Map 2-5).

Vegetation cover measured through the Normalized Difference Vegetation Index (NDVI) for February indicates continued deterioration of pasture and vegetation conditions across the country. Especially in parts of Guban, Golis of Sanaag, parts of Bari region (Allula District) in northern parts of the country. In southern Somalia, Middle and Lower Shabelle, Bay, Bakool, Gedo, Middle Juba and Lower Juba show small to large decreases in vegetation cover compared to average as evident in (Map 10).

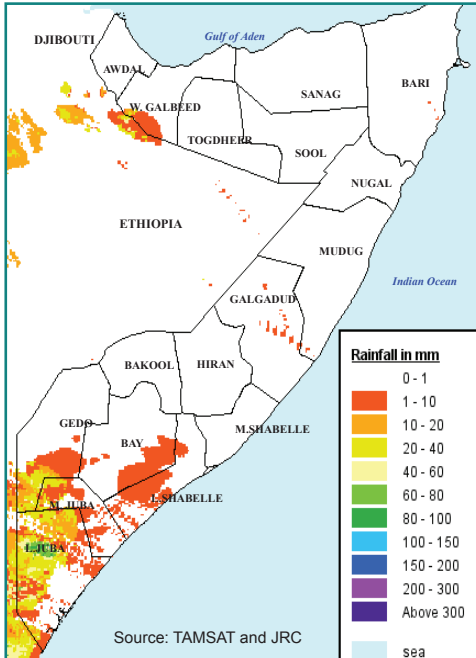
Harvesting is still ongoing in some southern parts of the country (for the off-season crops) like Middle and Lower shabelle. Water prices across the country are on an increasing trend due to the harsh Jilaal period. This is expected to continue until the onset of the *Gu* (April-June) rains.

Warmer than normal temperature combined with below normal rainfall during the previous *Deyr* (October-December) season are leading to faster depletion of pasture and water resources in parts of northern Somalia. Drought conditions are evident in the worst affected areas, leading to severe water shortages and earlier than normal water trucking at high prices. Whether the condition deteriorates to widespread drought or improves will depend on the timeliness, amount and distribution of the forthcoming *Gu* season rainfall.

Map 1: February 2019 Monthly Rainfall Station Data (in mm)

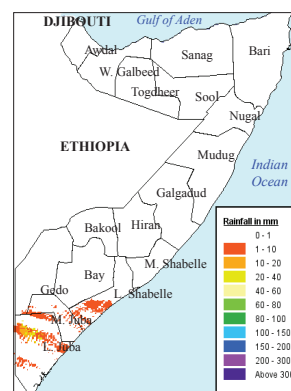


Map 2: February 2019 Monthly Rainfall Satellite Data (in mm)

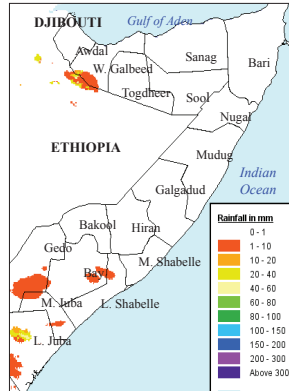


February 2019: Dekadal Rainfall (RFE) Progression

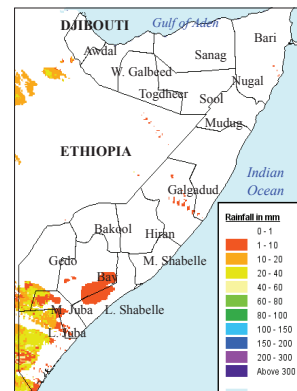
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

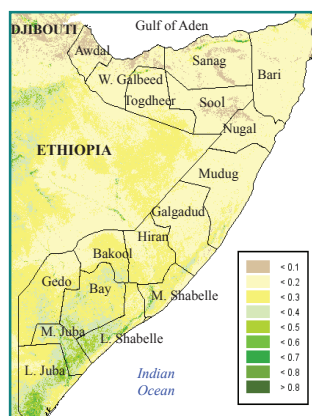


Map 5: 3rd Dekad (21-30)

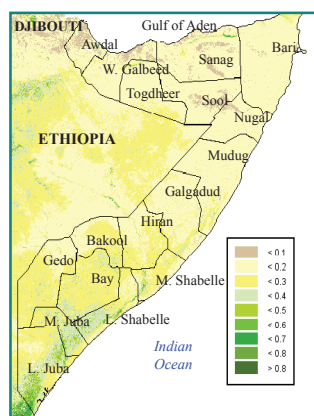


February 2018: Dekadal Vegetation Cover (NDVI) Progression

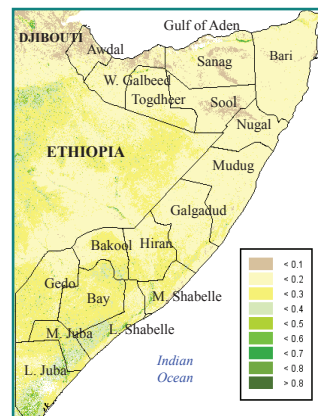
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

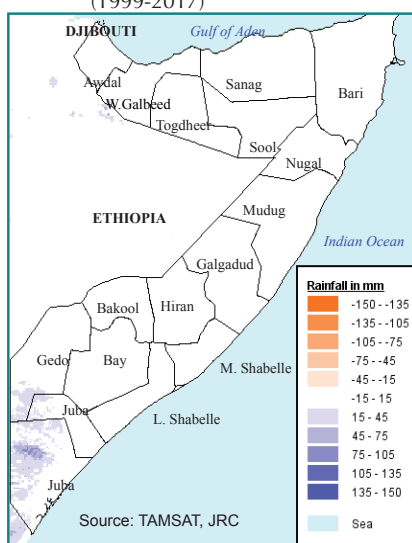


Map 8: 3rd Dekad (21-30)



Monthly rainfall and Vegetation Cover performance

Map 9: February 2019 TAMSAT Rainfall Difference from Short Term Average (1999-2017)



Map 10: February 2019 NDVI Absolute Difference from Short Term Average (2001-2017)

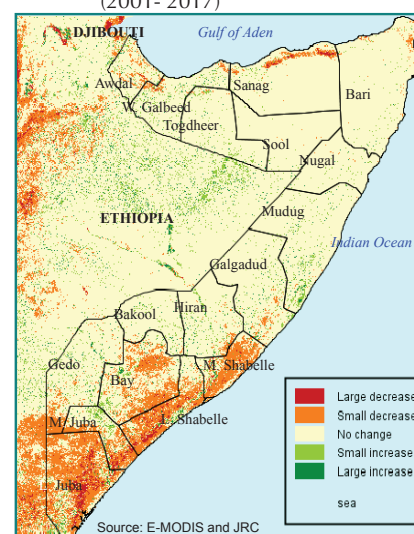


Table 1: Observed rain gauge data for February 2019 compared to short term monthly averages (STA)

Northern Regions

Station_Name	Region	dek 1	dek 2	dek 3	Feb-19	LTM
Borama	Awdal	0.0	0.0	0.0	0.0	21.0
Qulenjeed	Awdal	0.0	0.0	0.0	0.0	19.0
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
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
Garowe	Nugaal	0.0	0.0	0.0	0.0	3.0
Eyl	Nugaal	0.0	0.0	0.0	0.0	5.0
Burntile	Nugaal	0.0	0.0	0.0	0.0	2.0
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
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
Buadodde	Togdheer	0.0	0.0	0.0	0.0	4.0
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	0.0	0.0	0.0	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

Southern Regions

Station Name	Region	dek 1	dek 2	dek 3	Feb-19	LTM
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	4.0
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	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
Bualle	Middle Juba	0.0	0.0	0.0	0.0	1.0
Sakow	Middle Juba	0.0	0.0	0.0	0.0	0.0
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 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 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: 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.devcoast.eu) respectively, while the rain gauge data is collected by FAO-SWALIM and FEWSNET.

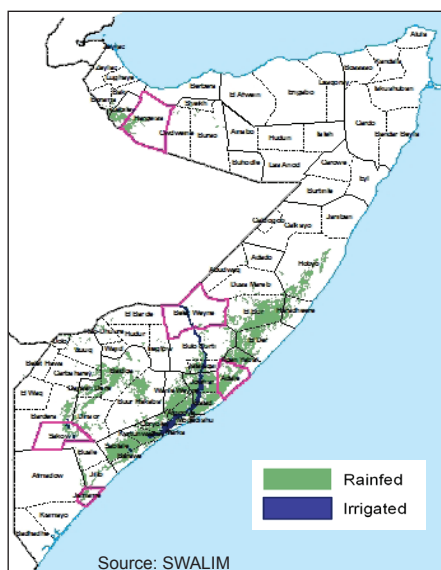
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

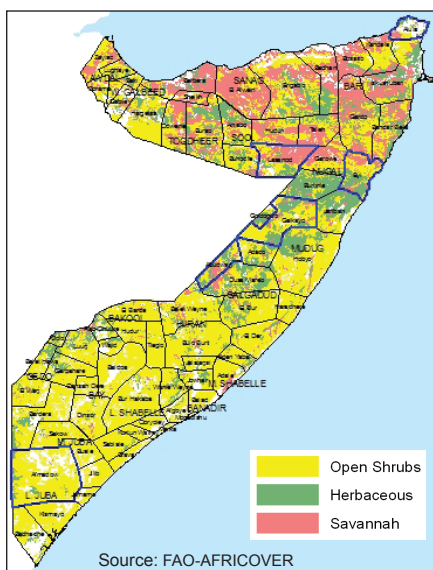
The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

Seasonal rainfall and Vegetation Cover trends by region

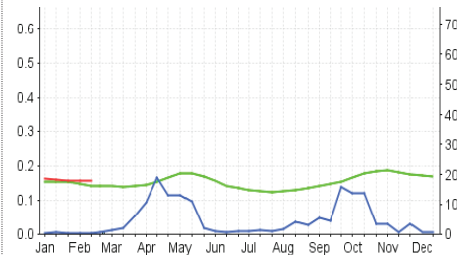
Map 11: Agricultural Areas



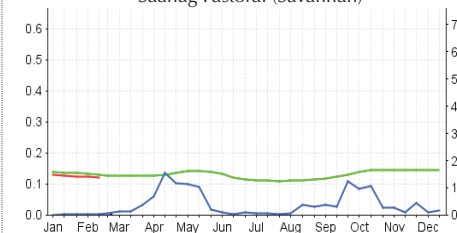
Map 12: Pastoral Areas



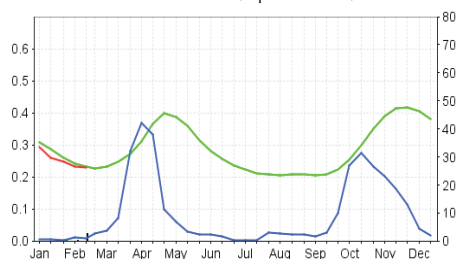
Togdheer Pastoral (Savannah)



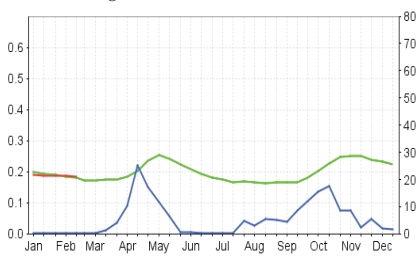
Saanag Pastoral (Savannah)



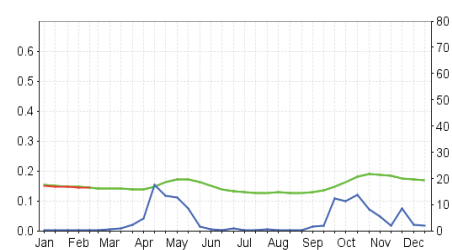
Gedo Pastoral (Open Shrubs)



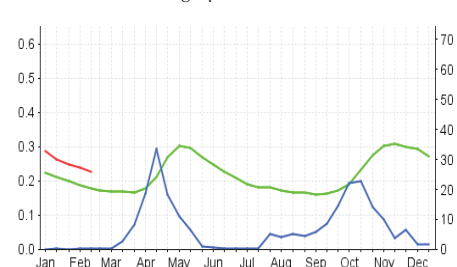
Galgadud Pastoral (Herbaceous)



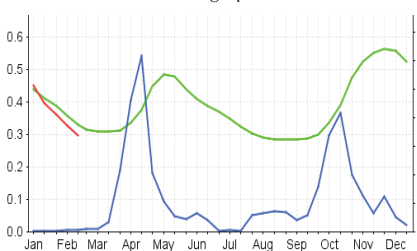
Nugal Pastoral (Open Shrubs)



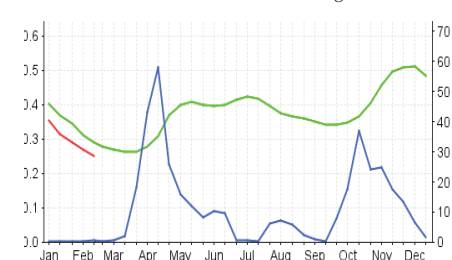
Hiran Agropastoral (Rainfed)



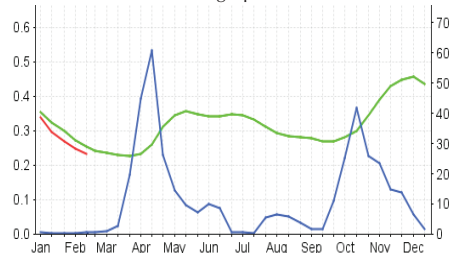
Middle Shabelle Agropastoral (Rainfed)



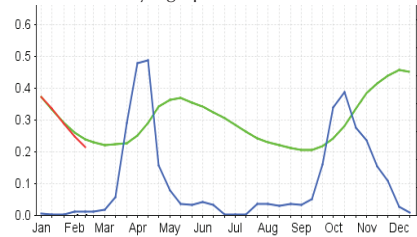
Lower Shabelle Riverine (Irrigated)



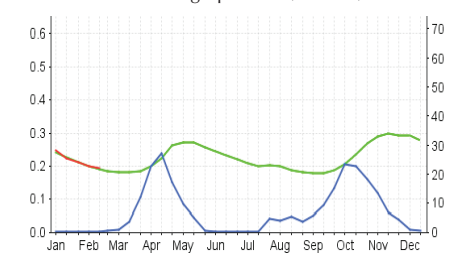
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



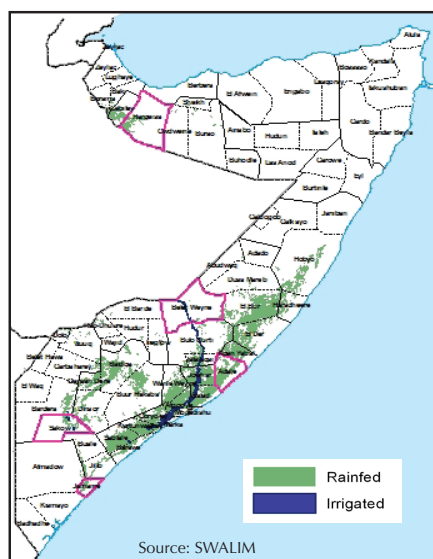
Bakool Agropastoral (Rainfed)



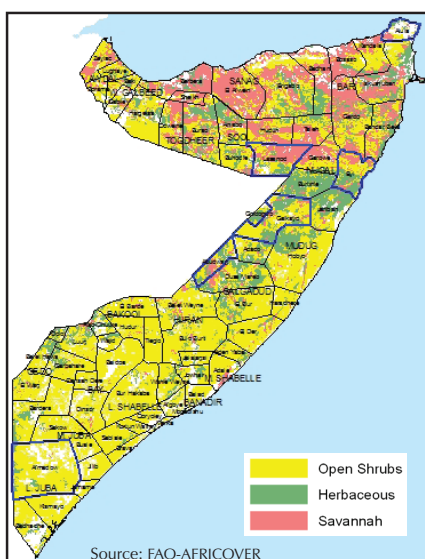
RFE 2019 RFE STA: 2001-2018 NDVI-C 2019 NDVI-C STA (1999-2018)

Seasonal rainfall and Vegetation Cover trends for selected districts

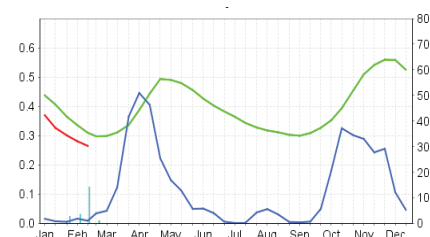
Map 13: Agricultural Areas



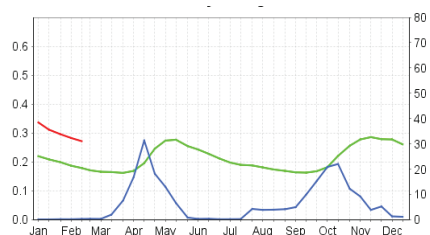
Map 14: Pastoral Areas



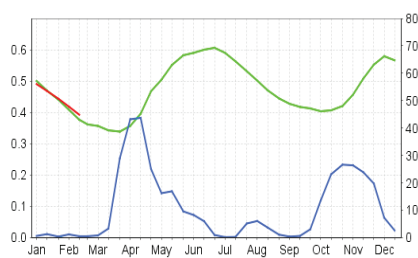
Afmadow Pastoral (Open Shrubs)



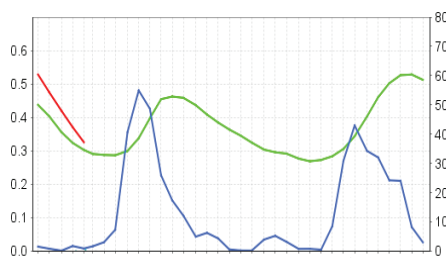
Beletweyn Riverine (Irrigated)



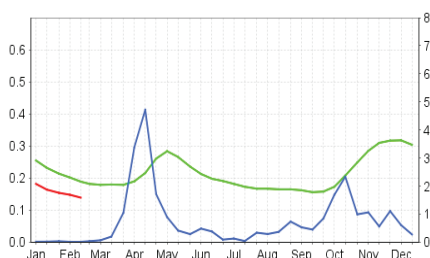
Jamame Riverine (Irrigated)



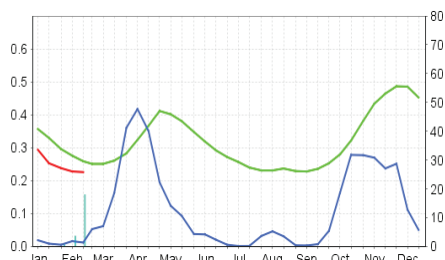
Sakow Agropastoral (Rainfed)



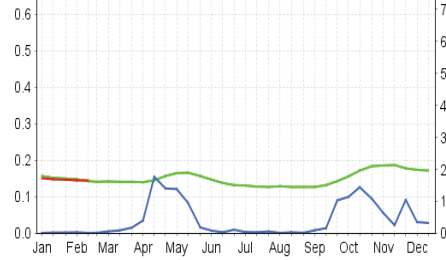
Adale Agropastoral (Herbaceous)



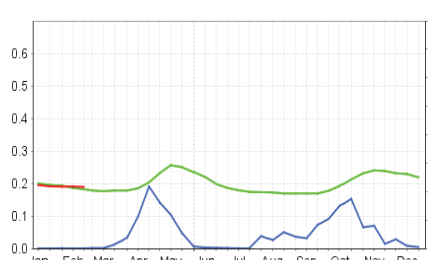
Afmadow Pastoral (Open Shrubs)



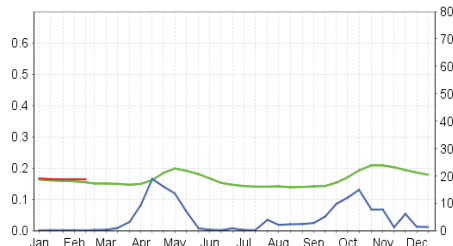
Eyl Pastoral (Open Shrubs)



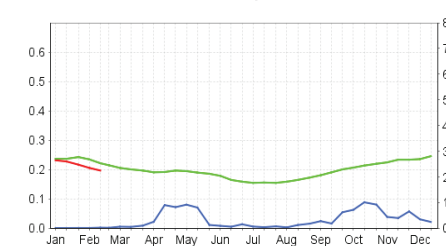
Abudwak Pastoral (Herbaceous)



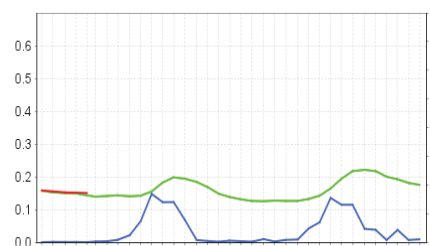
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



RFE 2019 — RFE STA: 2001-2018 — NDVI-C 2019 — NDVI-C STA (1999-2018)