

## Highlights

During the month of May, most rainfall stations in northern Somalia recorded above average rains which led to localized flash floods in areas such as West Golis. Stations that recorded above average rains include: Qulenjeed (121mm), Qardo (102mm), Garowe (139mm), Burtinle (103mm), Laasanod (159mm), Buhodle (125mm) and Hargeisa (130mm) while in southern Somalia, Dinsor station recorded 141mm of rain. There has been a significant reduction in rainfall in southern parts of the country which received moderate to poor rains. In June, rainfall declined significantly in the north, whereas in the south localized light rains were reported in Juba and Shabelle regions. Field reports also indicate poor performance of rains in the central and southern Somalia.

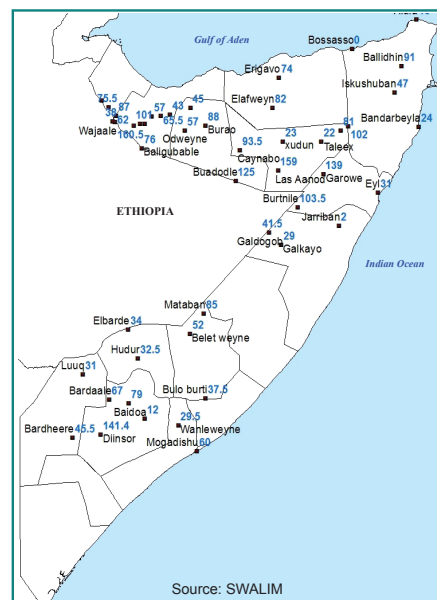
Significant rainfall reduction are also observed from satellite derived Rainfall Estimates (RFE), as shown on Maps 2 and 3. Accordingly, many parts of the country received rains in early May but rainfall diminished in the third dekad of May to less than 20mm with limited rainfall observed in June. Analysis of vegetation cover based on the Normalized Difference Vegetation Index (NDVI) indicates small to large vegetation deficits in parts of Addun, Coastal Deeh (central and Middle Shabelle), Agropastoral of Shabelle and Hiran, and Southern Inland Pastoral (SIP) of Bakool, Gedo and Juba pastoral livelihood zones.

Field reports confirm that pasture and water conditions in many parts of the country have improved and remain favorable. Livestock body conditions are generally improving with normal opportunistic livestock migration reported across the country. In the south crop moisture stress has been reported in agropastoral livelihoods of Bay (Qansadere and Dinsor) Hiran, Bakool, Lower Juba, Middle Shabelle, Lower shabelle and Gedo regions.

May and June vegetation cover based on the Normalized Difference Vegetation Index (NDVI) indicates small to large vegetation deficits in parts of Addun, Coastal Deeh (central and Middle Shabelle), Agropastoral of Shabelle and Hiran, and Southern Inland Pastoral (SIP) of Bakool, Gedo and Juba pastoral livelihood zones. Shabelle and Juba River levels remain above average; however, Juba river levels have reduced significantly in May.

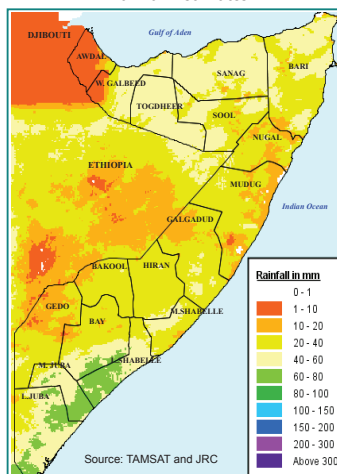
Combined effects of poor performance of *Gu* rains with early cessation, reduction of planted area and pest damage on germinated crops will have a negative impact on *Gu* season harvest prospects. Browse and water conditions are expected to deplete before the start of *Deyr* (Oct-Dec) rains in October due to delayed onset, poor performance and early cessation of *Gu* rains.

Map 1: May 2017 Monthly Rain Gauge Data

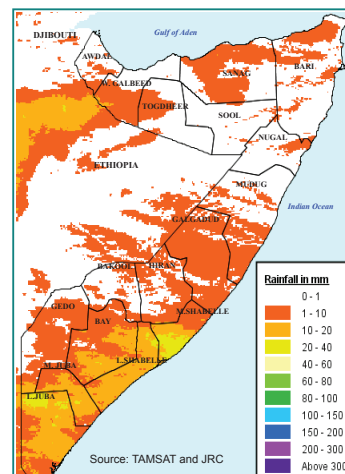


May-June 2017: Monthly Rainfall (RFE) Progression

Map 2: May 2017 TAMSAT Monthly Rainfall Estimates



Map 3: June 2017 TAMSAT Monthly Rainfall Estimates



May-June 2017: Monthly NDVI (Vegetation Cover) Progression

Map 4: May Dekad (21-30)

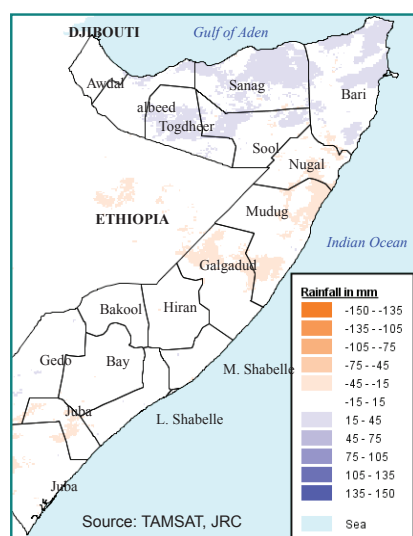


Map 5: June Dekad (21-30)

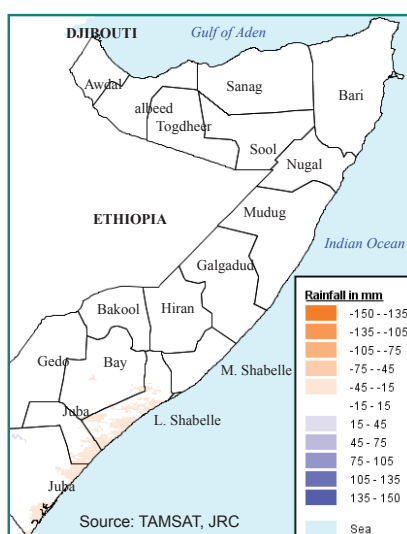


# Monthly rainfall and NDVI performance

Map 6: May 2017 TAMSAT Rainfall Difference from short term mean (1999-2016)



Map 7: June 2017 TAMSAT Rainfall Difference from short term mean (1999-2016)



Map 8: June 2017 NDVI Absolute Difference from Short Term Mean (2001- 2016)

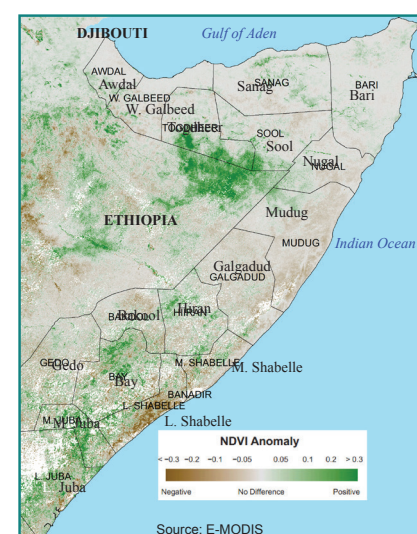


Table 1: Observed rain gauge data compared to long term monthly averages (May 2017)

## Northern Regions

Region	Station_Name	dek 1	dek 2	dek 3	May-15	LTM
Awdal	Borama	24.5	38.5	12.5	75.5	57.0
Awdal	Qulenjeed	36	75.5	10	121.5	63.0
Bari	Bossasso	0.0	0.0	0.0	0.0	1.0
Bari	Qardo	2.0	66.0	34.0	102.0	31.0
Bari	Dangoroyo	31.0	50.0	0.0	81.0	36.0
Bari	Ballidhin	33.0	58.0	0.0	91.0	18.0
Bari	Alula	0.0	0.0	10.0	10.0	1.0
Bari	Bandarbeyla	0.0	17.0	7.0	24.0	28.0
Bari	Iskushuban	4.0	24.5	18.5	47.0	21.0
Mudug	Galdogob	34.0	4.0	3.5	41.5	55.0
Mudug	Jarriban	2.0	0.0	0.0	2.0	43.0
Mudug	Galkayo	18.0	0.0	11.0	29.0	50.0
Nugaal	Garowe	64.0	75.0	0.0	139.0	43.0
Nugaal	Eyl	9.0	22.0	0.0	31.0	57.0
Nugaal	Burtnile	24.0	69.5	10.0	103.5	49.0
Sanaag	Erigavo	10.0	54.0	10.0	74.0	59.0
Sanaag	Elafweyn	17.0	0.0	65.0	82.0	45.0
Sool	Caynabo	0.0	93.5	0.0	93.5	55.0
Sool	xudun	5.0	8.0	10.0	23.0	43.0
Sool	Taleex	4.5	17.5	0.0	22.0	40.0
Sool	Las Aanod	2.0	146.0	11.0	159.0	52.0
Togdheer	Burao	66.0	19.0	3.0	88.0	68.0
Togdheer	Sheikh	0.0	28.0	17.0	45.0	76.0
Togdheer	Odweyne	30.0	27.0	0.0	57.0	59.0
Togdheer	Buadodle	67.0	33.5	24.5	125.0	57.0
Wogooyi Galbeed	Gebilly	4.0	22.0	12.0	38.0	61.0
Wogooyi Galbeed	Malawle	0.0	56.0	45.0	101.0	65.0
Wogooyi Galbeed	Wajaale	15.5	6.0	40.5	62.0	67.0
Wogooyi Galbeed	Hargeisa	23.0	63.0	44.5	130.5	65.0
Wogooyi Galbeed	Darawayne	0.0	54.0	3.0	57.0	59.0
Wogooyi Galbeed	Cadaadley	1.5	19.5	22.0	43.0	53.0
Wogooyi Galbeed	Dilla	0.0	36.0	51.0	87.0	65.0
Wogooyi Galbeed	Aburin	0.0	75.5	85.0	160.5	65.0
Wogooyi Galbeed	Dhubato	0.0	21.5	44.0	65.5	57.0
Wogooyi Galbeed	Baligubable	0.0	0.0	76.0	76.0	67.0

## Southern Regions

Region	Station_Name	dek 1	dek 2	dek 3	May-15	LTM
Bakool	Hudur	28.0	0.0	4.5	32.5	75.0
Bakool	Elbarde	34.0	0.0	0.0	34.0	75.0
Banadir	Mogadishu	24.0	32.0	4.0	60.0	75.0
Bay	Baidoa	79.0	0.0	0.0	79.0	95.0
Bay	Diinsor	136.7	4.7	0.0	141.4	70.0
Bay	Bardaale	60.0	4.0	3.0	67.0	79.0
Bay	BurHakaba	12.0	0.0	0.0	12.0	130.0
Bay	Wanleweyne	16.0	13.5	0.0	29.5	*
Gedo	Luuq	4.0	9.0	18.0	31.0	52.0
Gedo	Bardheere	45.5	0.0	0.0	45.5	71.0
Hiraan	Belet weyne	40.5	6.5	5.0	52.0	86.0
Hiraan	Bulo burti	28.5	0.0	9.0	37.5	64.0
Hiraan	Mataban	85.0	0.0	0.0	85.0	75.0

\*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 Graph0

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 FEWS-NET.

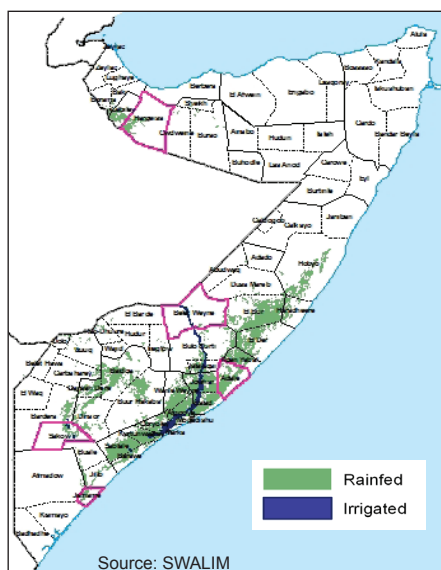
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC>. For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- 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.

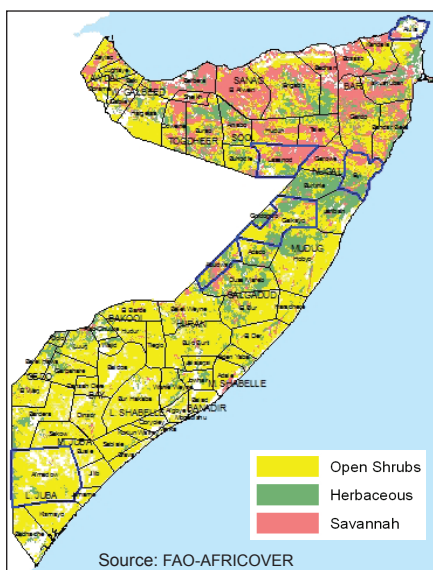
The TAMSAT informatio is available on <http://www.met.reading.ac.uk/tamsat/about/>

## Seasonal rainfall and NDVI trends by region

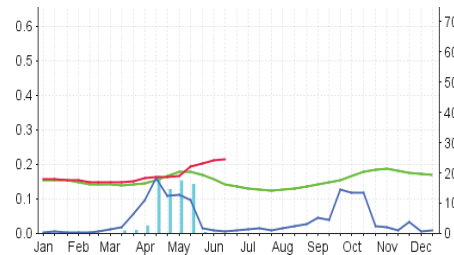
Map 9: Agricultural Areas



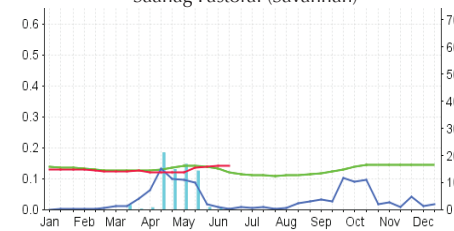
Map 10: Pastoral Areas



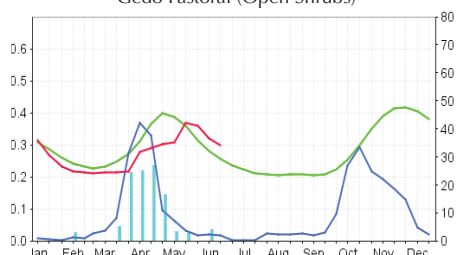
Togdheer Pastoral (Savannah)



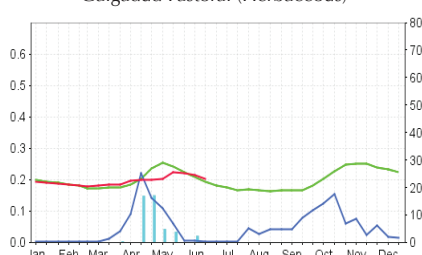
Saanag Pastoral (Savannah)



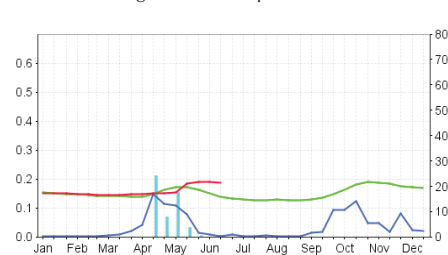
Gedo Pastoral (Open Shrubs)



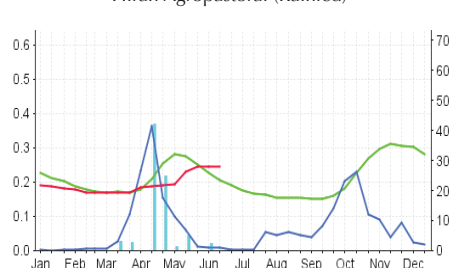
Galgadud Pastoral (Herbaceous)



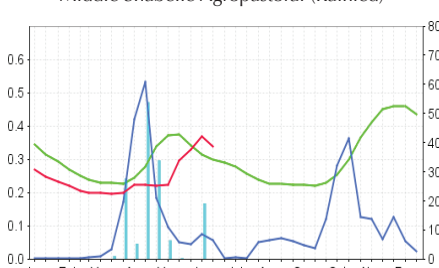
Nugal Pastoral (Open Shrubs)



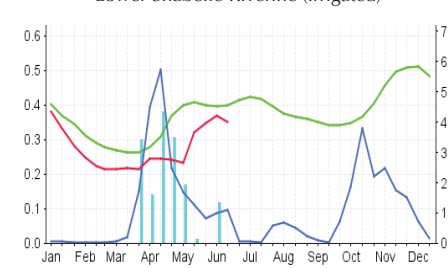
Hiran Agropastoral (Rainfed)



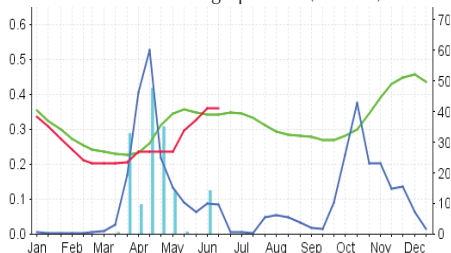
Middle Shabelle Agropastoral (Rainfed)



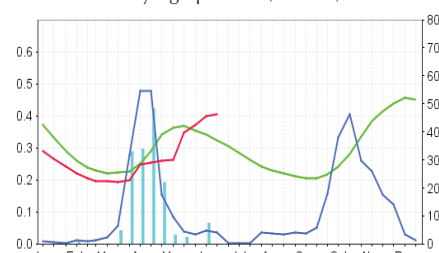
Lower Shabelle Riverine (Irrigated)



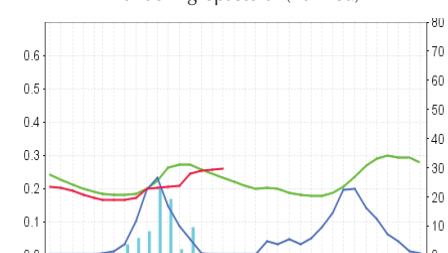
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



Bakool Agropastoral (Rainfed)

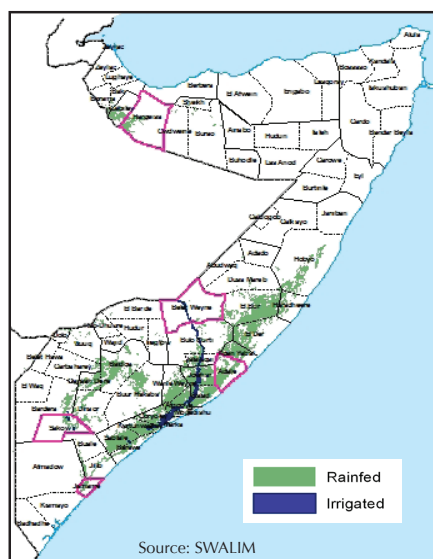


 RFE 2017 
  RFE AVG: 2001-2016 
  NDVI-C 2017 
  NDVI-C LTA MEAN (1999-2016)

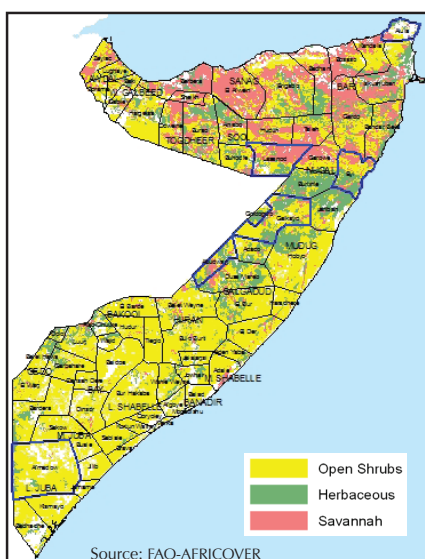


## Seasonal rainfall and NDVI trends for selected districts

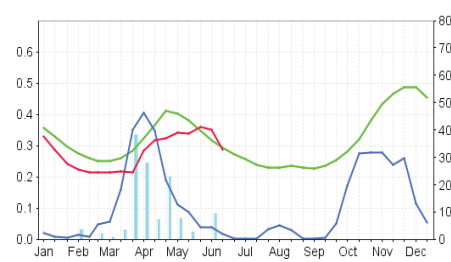
Map 11: Agricultural Areas



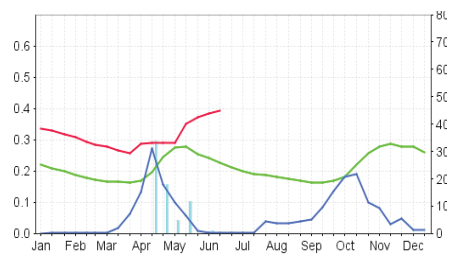
Map 12: Pastoral Areas



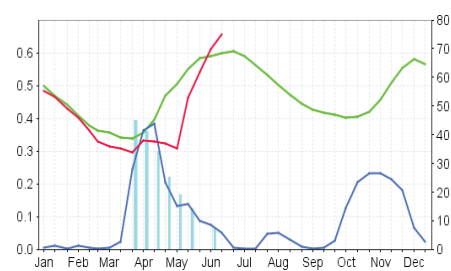
Afmadow Pastoral (Herbaceous)



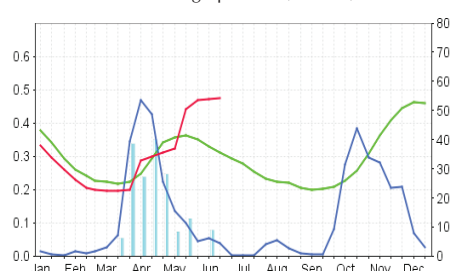
Beletweyn Riverine (Irrigated)



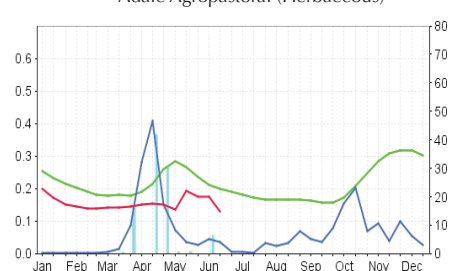
Jamame Riverine (Irrigated)



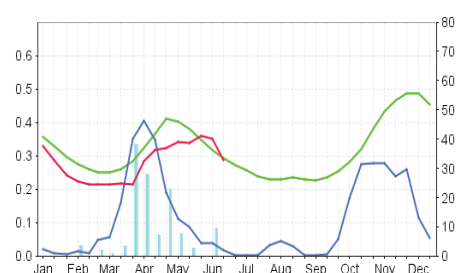
Sakow Agropastoral (Rainfed)



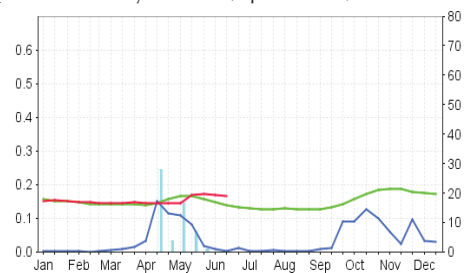
Adale Agropastoral (Herbaceous)



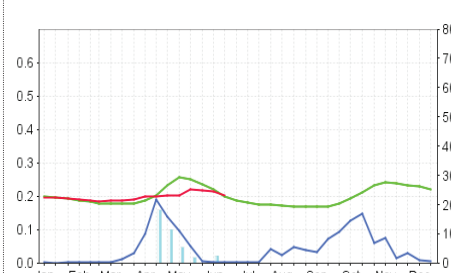
Afmadow Pastoral (Herbaceous)



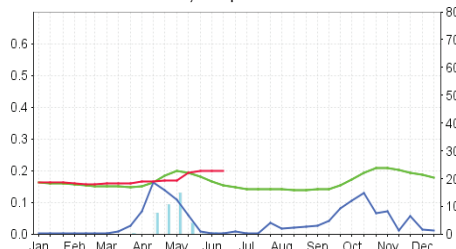
Eyl Pastoral (Open Shrubs)



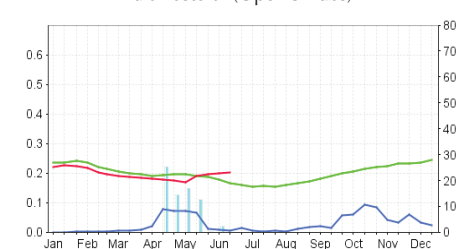
Abudwak Pastoral (Herbaceous)



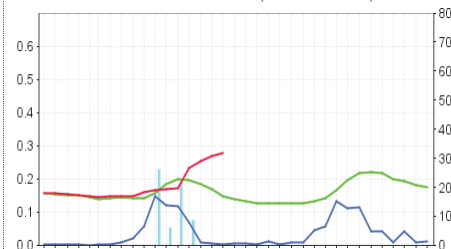
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



 RFE 2017 
  RFE AVG: 2001-2016 
  NDVI-C 2017 
  NDVI-C LTA MEAN (1999-2016)