

Climate Update



FSNAU

Food Security and Nutrition
Analysis Unit - Somalia

May 2018 Monthly Rainfall and NDVI (Issued June 27, 2018)

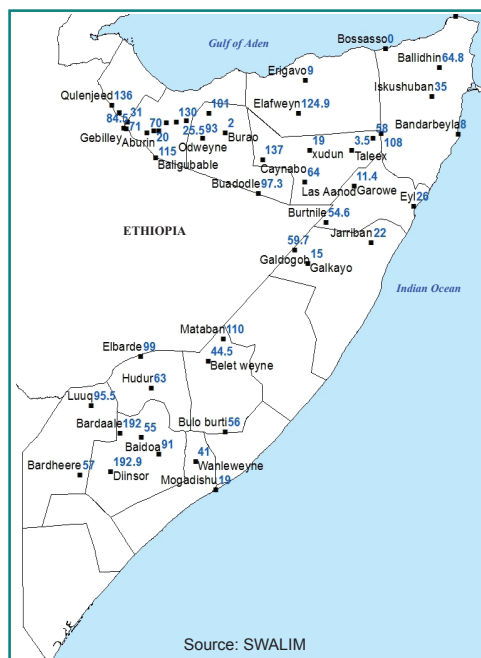
Highlights

Above average *Gu* (April-June) seasonal rains continued in May, 2018 across many parts of the country. Some of the stations that recorded significant rainfall in the country include: Borama (159mm), Qardo (108mm), Elafweyn (124mm), Caynabo (137mm), Sheikh (101mm), Dhubato (130mm) in the north, while in the south Elbarde, Dinsor and Mataban recorded 99mm, 192mm 110mm respectively. Shabelle and Juba river levels in May were stable and below the flood risk level due to a reduction in rainfall activities in the upper catchments of the river as reported by SWALIM. River flooding continued in early May but later subsided. However water logging is still widespread in the flooded areas.

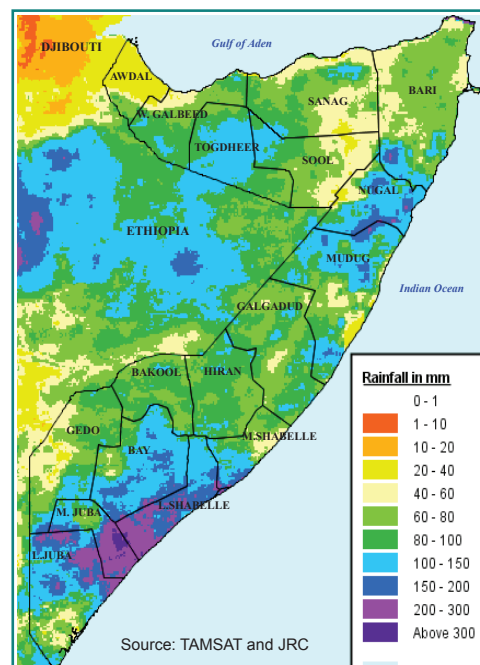
Satellite derived Rainfall estimates (RFE) previously confirm enhanced rainfall across all livelihoods in May especially in the Juba's, Shabelle's, Bay, parts of Nugal and Localized areas in Galgaduud (Maps 3-5). Vegetation cover based on Normalized Difference Vegetation Index shows significant improvement in vegetation conditions across all livelihoods due to favorable rains in April and May. There is no change in vegetation and vigor in deficit areas in Bari, Sanaag and Nugaal regions. Hawd and Agropastoral and pastoral areas in Bay, Juba's Gedo, Bakool, Hiran, large areas in Shabelle display large increase in vegetation conditions.

As a result of above average *Gu* rains in April and May in most livelihoods, livestock body conditions of all species, pasture conditions, as well livestock conception have shown optimum improvement. Milk production improved at household level particularly, milk from small ruminant, while milk from camel and cattle is expected to improve over the coming six months as more livestock give birth in the coming *Hagaa* (July-September) and the subsequent *Deyr* (October – December) season. Following the planting in April and May, there has been moderate damage to crops at the early stages of sowing and development especially in drought affected areas. Weeding activities is ongoing and majority of the crop are at different stages of growth.

Map 1: May 2018 Monthly Rain Gauge Data

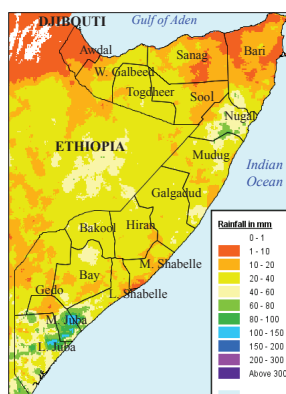


Map 2: May 2018 Monthly Rainfall Estimates (TAMSAT)

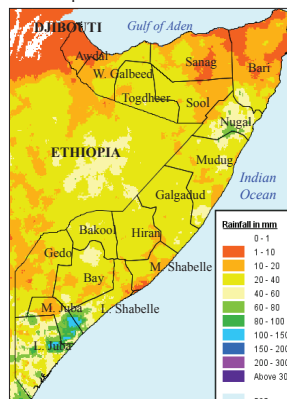


May 2018: Dekadal Rainfall (RFE) Progression

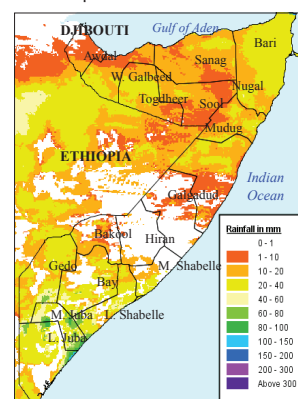
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

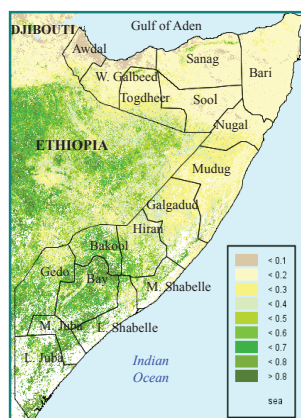


Map 5: 3rd Dekad (21-30)

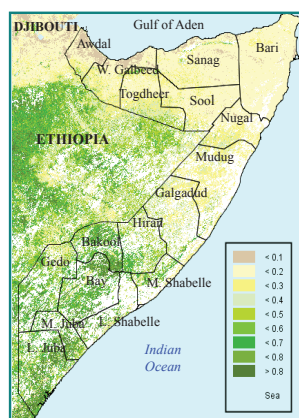


May 2018: Dekadal Vegetation Cover (NDVI) Progression

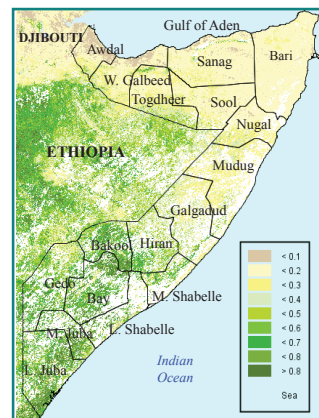
Map 6: 1st Dekad (1-10)



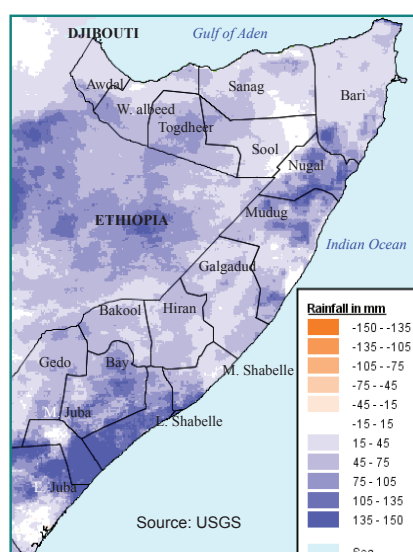
Map 7: 2nd Dekad (11-20)



Map 8: 3rd Dekad (21-30)



Map 9: May 2018 Estimated Rainfall Difference (in mm) From Short Term Mean (1999-2017)



Map 10: May 2018 Vegetation Cover (NDVI) Absolute Difference from Short Term Mean (2001-2017)

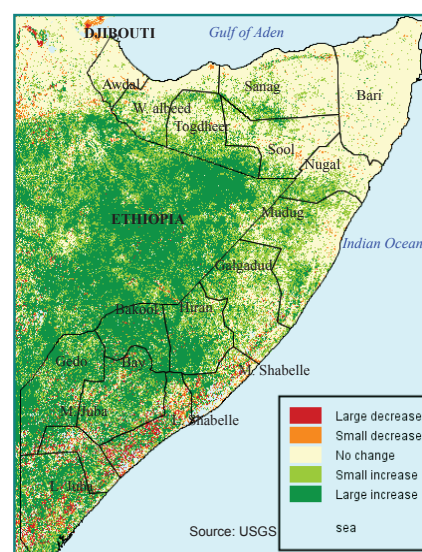


Table 1: Observed rain gauge data compared to long term monthly averages (April 2018)

Northern Regions

Region	Station Name	dek 1	dek 2	dek 3	May-18	LTM
Awdal	Borama	0.0	151.0	8.5	159.5	57.0
Awdal	Qulenjeed	4.0	106.5	25.5	136.0	63.0
Bari	Bossasso	0.0	0.0	0.0	0.0	1.0
Bari	Qardo	26.0	82.0	0.0	108.0	31.0
Bari	Dangoroyo	28.0	30.0	0.0	58.0	36.0
Bari	Ballidhin	21.0	43.8	0.0	64.8	18.0
Bari	Alula	0.0	17.0	0.0	17.0	1.0
Bari	Bandarbeyla	0.0	8.0	0.0	8.0	28.0
Bari	Iskushuban	9.0	17.0	9.0	35.0	21.0
Mudug	Galdogob	59.7	0.0	0.0	59.7	55.0
Mudug	Jarriban	22.0	0.0	0.0	22.0	43.0
Mudug	Galkayo	15.0	0.0	0.0	15.0	50.0
Nugaal	Garowe	2.2	9.2	0.0	11.4	43.0
Nugaal	Eyl	22.0	4.0	0.0	26.0	57.0
Nugaal	Burtnile	31.0	23.6	0.0	54.6	49.0
Sanaag	Erigavo	9.0	0.0	0.0	9.0	59.0
Sanaag	Elafweyn	0.0	124.9	0.0	124.9	45.0
Sool	Caynabo	8.0	129.0	0.0	137.0	55.0
Sool	xudun	0.0	19.0	0.0	19.0	43.0
Sool	Taleex	0.0	3.5	0.0	3.5	40.0
Sool	Las Aanod	22.0	42.0	0.0	64.0	52.0
Togdheer	Burao	2.0	0.0	0.0	2.0	68.0
Togdheer	Sheikh	19.0	75.0	7.0	101.0	76.0
Togdheer	Odweyne	56.0	37.0	0.0	93.0	59.0
Togdheer	Buadodile	13.1	84.2	0.0	97.3	57.0
Wogooyi Galbeed	Gebilley	5.0	77.0	2.5	84.5	61.0
Wogooyi Galbeed	Malawle	0.0	0.0	20.0	20.0	65.0
Wogooyi Galbeed	Wajaale	0.0	56.0	15.0	71.0	67.0
Wogooyi Galbeed	Hargeisa	34.0	29.5	4.0	67.5	65.0
Wogooyi Galbeed	Darawayne	1.5	6.0	4.0	11.5	59.0
Wogooyi Galbeed	Cadaadley	0.0	25.5	0.0	25.5	53.0
Wogooyi Galbeed	Dilla	0.0	9.0	22.0	31.0	65.0
Wogooyi Galbeed	Aburin	0.0	43.0	27.0	70.0	65.0
Wogooyi Galbeed	Dhubato	55.0	50.0	25.0	130.0	57.0
Wogooyi Galbeed	Baligubable	40.0	50.0	25.0	115.0	67.0

Southern Regions

Region	Station Name	dek 1	dek 2	dek 3	May-18	LTM
Bakool	Hudur	48.0	11.5	3.5	63.0	75.0
Bakool	Elbarde	54.0	45.0	0.0	99.0	75.0
Banadir	Mogadishu	0.0	17.0	2.0	19.0	75.0
Bay	Baidoa	20.0	23.5	11.5	55.0	95.0
Bay	Diinsor	121.7	61.0	10.2	192.9	70.0
Bay	Bardaale	114.0	55.0	23.0	192.0	79.0
Bay	Burhakaba	45.0	46.0	0.0	91.0	130.0
Bay	Wanleweyne	10.0	21.0	10.0	41.0	*
Gedo	Luuq	16.5	4.0	75.0	95.5	52.0
Gedo	Bardheere	57.0	0.0	0.0	57.0	71.0
Hiraan	Belet weyne	35.5	9.0	0.0	44.5	86.0
Hiraan	Bulo burti	28.0	28.0	0.0	56.0	64.0
Hiraan	Mataban	110.0	0.0	0.0	110.0	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 Graph

The maps and graphs on pages 3 and 4 are produced in collaboration with 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.

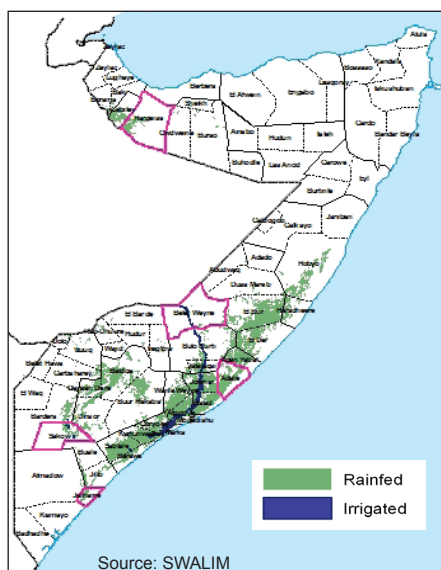
Primary data sources are NOAA/USGS, European Centre for Medium- range Weather Forecast (ECMWF), MARS-JRC, FSNAU and SWALIM. Maps and graphs on this bulletin are produced from four sources.

- 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.

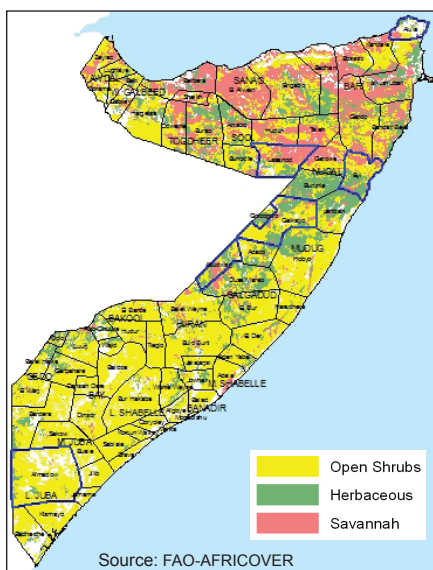
- The seasonal profiles on page 3 and 4 are produced in collaboration with JRC-MARS. For more information visit <http://mars.jrc.europa.eu/mars/About-us/FOODSEC> For more information on NDVI visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

- This report is a compilation of climate data and field reports on Somalia that FSNAU and FEWS NET regularly review for analysis. The TAMSAT information is available on <http://www.met.reading.ac.uk/tamsat/about/>

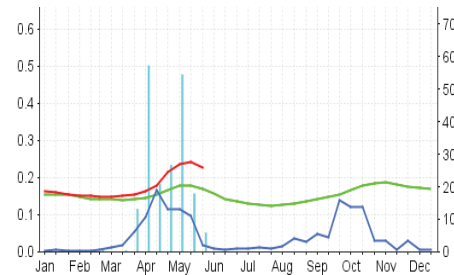
Map 12: Agricultural Areas



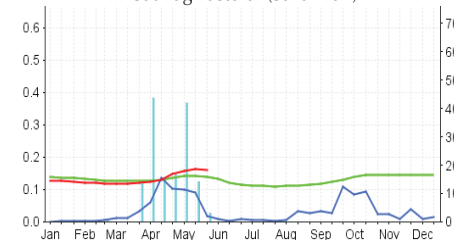
Map 13: Pastoral Areas



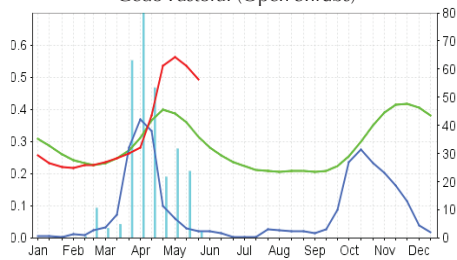
Togdheer Pastoral (Savannah)



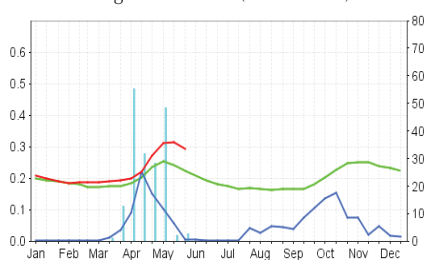
Saanag Pastoral (Savannah)



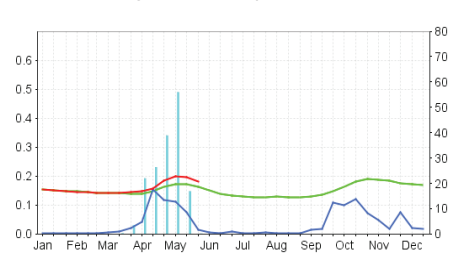
Gedo Pastoral (Open Shrubs)



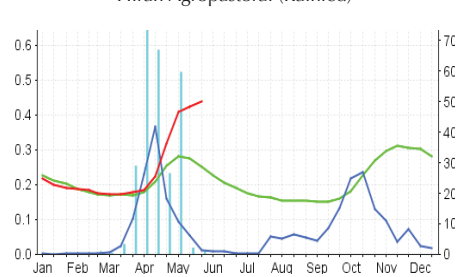
Galgadud Pastoral (Herbaceous)



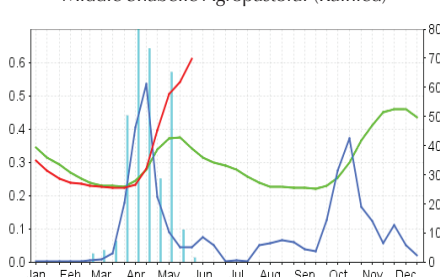
Nugal Pastoral (Open Shrubs)



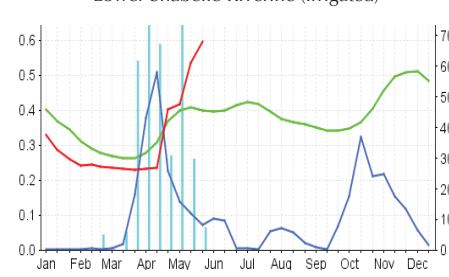
Hiran Agropastoral (Rainfed)



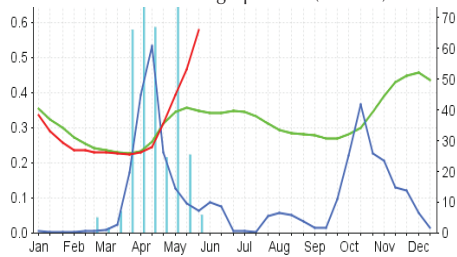
Middle Shabelle Agropastoral (Rainfed)



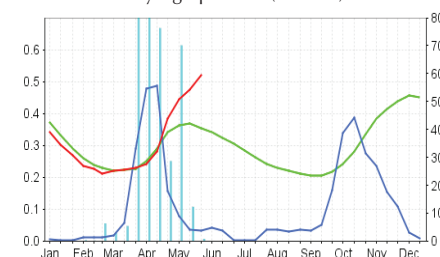
Lower Shabelle Riverine (Irrigated)



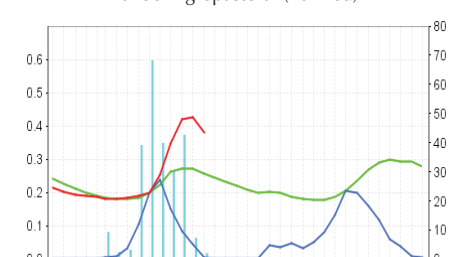
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)

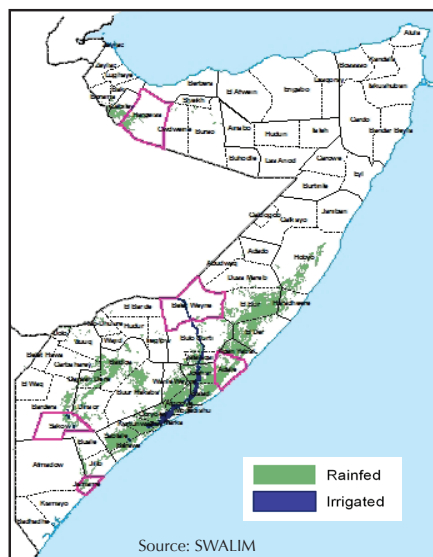


Bakool Agropastoral (Rainfed)

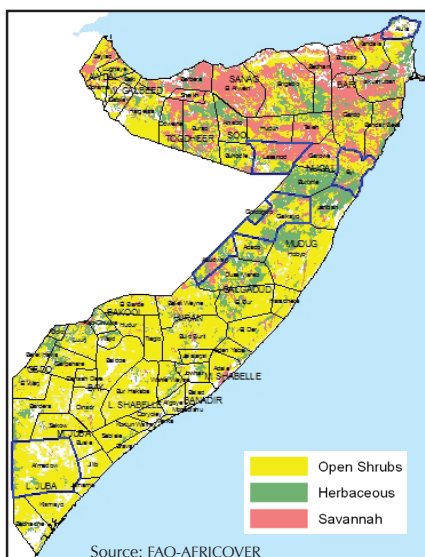


RFE 2018 RFE AVG: 2001-2017 NDVI-C 2018 NDVI-C LTA MEAN (1999-2017)

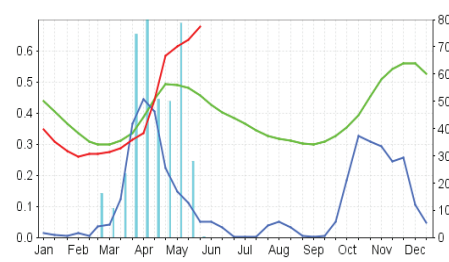
Map 14: Agricultural Areas



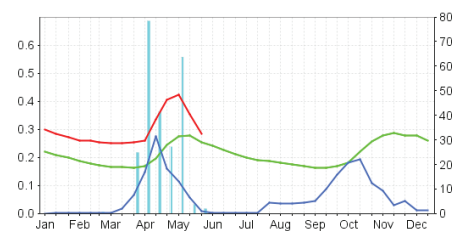
Map 15: Pastoral Areas



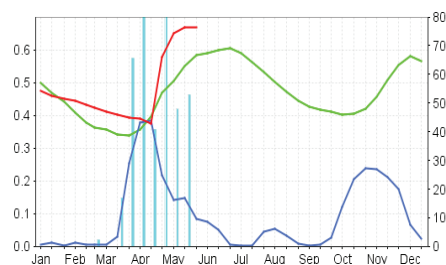
Aimadow Pastoral (Open Shrubs)



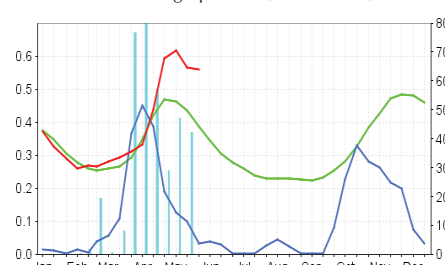
Beletweyn Riverine (Irrigated)



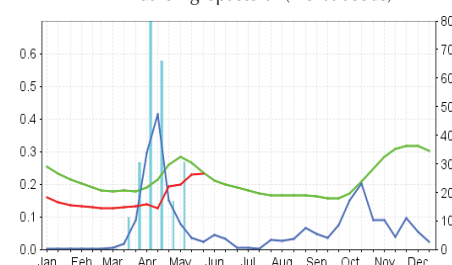
Jamame Riverine (Irrigated)



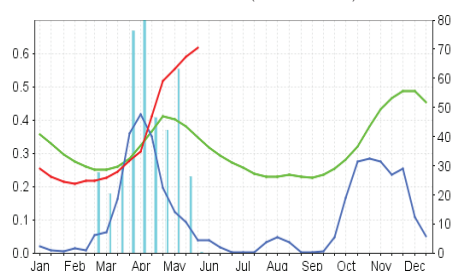
Sakow Agropastoral (Herbaceous)



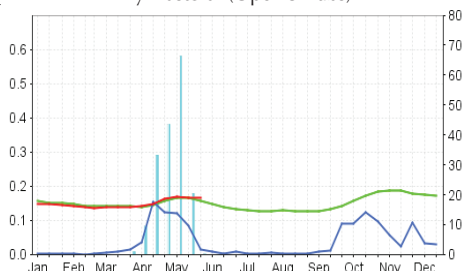
Adale Agropastoral (Herbaceous)



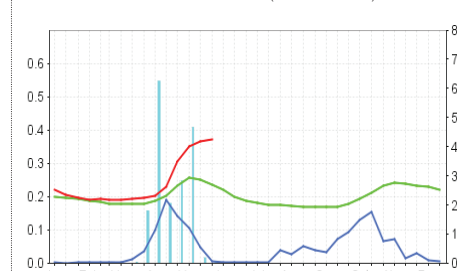
Aimadow Pastoral (Herbaceous)



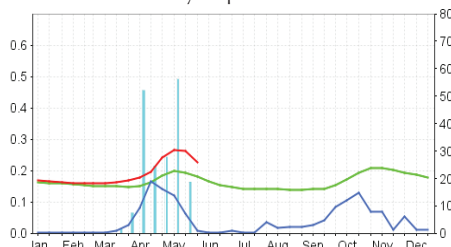
Eyl Pastoral (Open Shrubs)



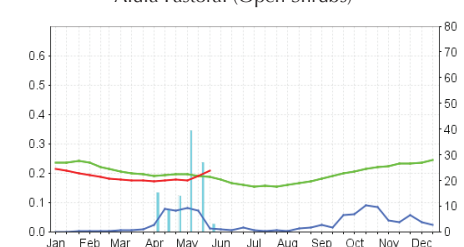
Abudwak Pastoral (Herbaceous)



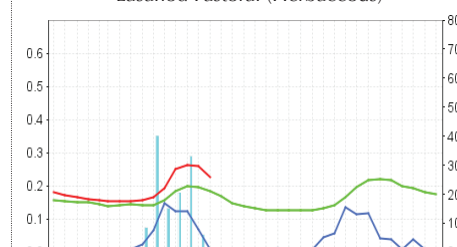
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



RFE 2018
 RFE AVG: 2001-2017
 NDVI-C 2018
 NDVI-C LTA MEAN (1999-2017)