

# Climate DataUpdate

February



Food Security and Nutrition  
Analysis Unit - Somalia



Monthly Rainfall and NDVI, Issued March 19<sup>th</sup>, 2013

## Highlights

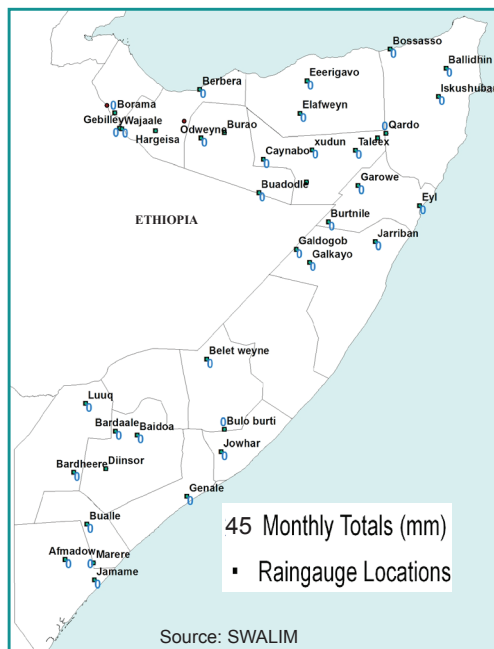
During the month of February 2013, the *Jilaal* dry season (January – March) continued to prevail throughout the country, marked by dry weather conditions with strong winds and elevated temperatures. No rainfall was recorded in the rain-gauge stations nationwide. Field reports confirm the continued dryness in the entire country apart from Janale district in the Lower Shabelle region, which received light showers. The satellite derived Rainfall Estimates (RFE) also indicate prevalence of dry weather conditions across Somalia and cessation of *Hays* rains in Northwest (Maps 2-5 and 9).

In contrary to the above-mentioned information on rainfall performance, the Normalized Difference Vegetation Index (NDVI) for February 2013 (Maps 6-8 and 10) depicts advancement of vegetation vigour in Sool-Sanag Plateau (Bari region), Nugal valley (Nugal region), Addun (Mudug and Galgadud regions) and in large areas of Hiran region. In the South, small decrease of vegetation compared to the long-term mean (LTM) is still evident in parts of Juba regions and pockets of Shabelle and Bay regions.

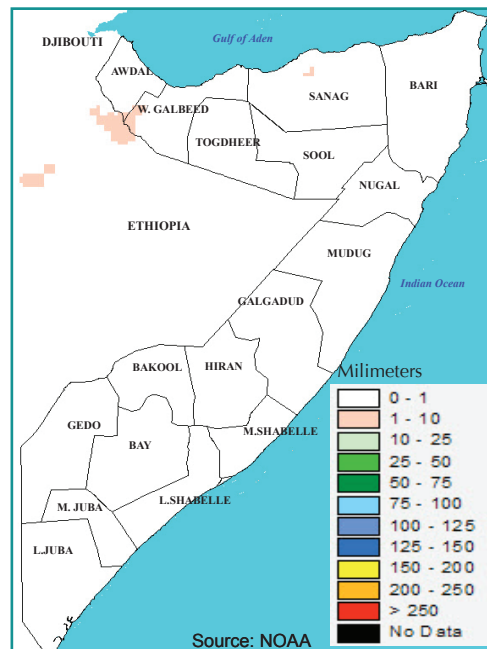
Reduced pasture and water availability is reported in most parts of the country due to the prevailing dry weather conditions. Poor rangeland conditions due to poor performance of the recent *Hays* and *Deyr* rains are reported in Guban pastoral of Awdal and W.Galbeed regions, Nugal Valley of Sanaag region, northern Gedo and the Coastal *Deeh* of Lower Shabelle and the Juba regions. In most parts of the country, opportunistic normal livestock migration in search of better pasture and water is observed.

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.

Map 1: February 2013 Monthly Rain Gauge Data (mm)

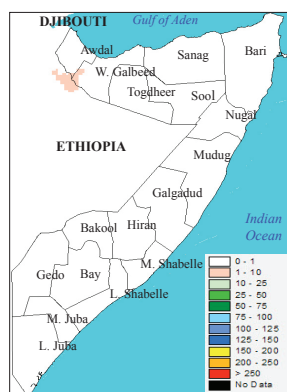


Map 2: February 2013 Monthly Rainfall Estimates

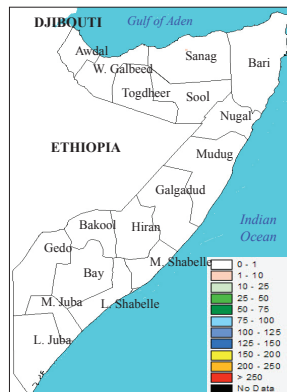


February 2013: Dekadal Rainfall Estimates (RFE)

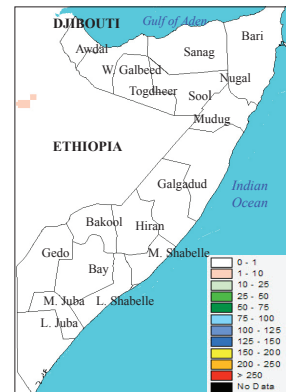
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

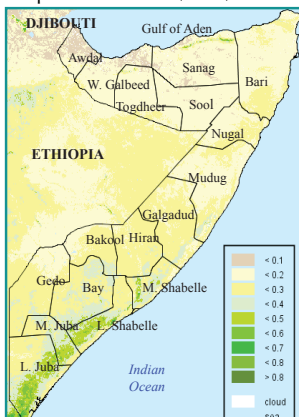


Map 5: 3rd Dekad (21-30)

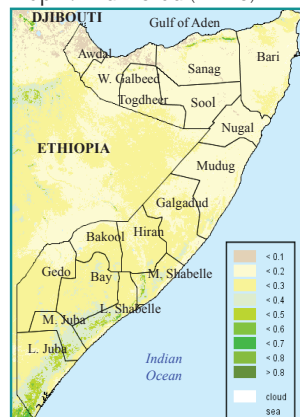


February 2013: Dekadal Normalized Difference Vegetation Index (NDVI)

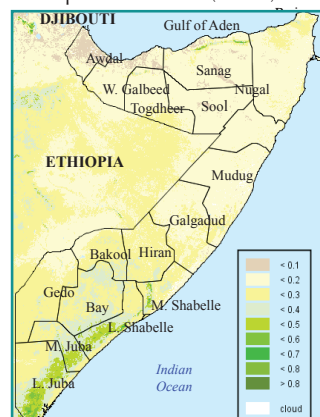
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)



Map 8: 3rd Dekad (21-30)



# Monthly rainfall and NDVI performance

Map 9: February 2012 Rainfall as % of long term mean



Map 10: February 2013 NDVI absolute difference from long term mean

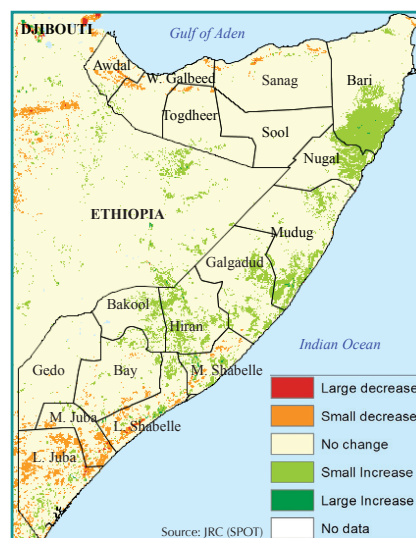


Table 1: February 2013: Observed rain gauge data compared to long term monthly averages

Northern Somalia stations

Northern Regions						
Station_Name	Region	dek 1	dek 2	dek 3	Feb-13	LTM
Borama	Awdal	0.0	0.0	0.0	0.0	21.0
Qulenjeed	Awdal	0.0	0.0	0.0	0.0	*
Bossasso	Bari	0.0	0.0	0.0	0.0	0.0
Qardo	Bari	0.0	0.0	0.0	0.0	1.0
Iskushuban	Bari	0.0	0.0	0.0	0.0	0.0
Dangoroyo	Bari	0.0	0.0	0.0	0.0	2.0
Ballidhin	Bari	0.0	0.0	0.0	0.0	1.0
Jarriban	Mudug	0.0	0.0	0.0	0.0	2.0
Galdogob	Mudug	0.0	0.0	0.0	0.0	2.0
Garowe	Nugaal	0.0	0.0	0.0	0.0	*
Eyl	Nugaal	0.0	0.0	0.0	0.0	5.0
Burtile	Nugaal	0.0	0.0	0.0	0.0	2.0
Eerigavo	Sanaag	0.0	0.0	0.0	0.0	8.0
Elafweyn	Sanaag	0.0	0.0	0.0	0.0	*
Caynabo	Sool	0.0	0.0	0.0	0.0	*
Las Aanod	Sool	0.0	0.0	0.0	0.0	1.0
xudun	Sool	0.0	0.0	0.0	0.0	3.0
Taleex	Sool	0.0	0.0	0.0	0.0	3.0
Burao	Togdheer	0.0	0.0	0.0	0.0	4.0
Odweyne	Togdheer	0.0	0.0	0.0	0.0	8.0
Wajaale	Togdheer	0.0	0.0	0.0	0.0	11.0
Buadodle	Togdheer	0.0	0.0	0.0	0.0	4.0
Hargeisa	Wogooyi Galbeed	0.0	0.0	0.0	0.0	11.0
Dilla	Wogooyi Galbeed	0.0	0.0	0.0	0.0	*
Gebilley	Wogooyi Galbeed	0.0	0.0	0.0	0.0	4.0
Aburin	Wogooyi Galbeed	0.0	0.0	0.0	0.0	*
Berbera	Wogooyi Galbeed	0.0	0.0	0.0	0.0	0.0

\*indicates missing data

For information on FOODSEC Action of JRC, please refer to <http://mars.jrc.ec.europa.eu/mars/About-us/FOODSEC>

Southern Somalia stations

Southern Regions						
Station_Name	Region	dek 1	dek 2	dek 3	Feb-13	LTM
Baidoa	Bay	0.0	0.0	0.0	0.0	3.0
Diinsor	Bay	0.0	0.0	0.0	0.0	0.0
Bardaale	Bay	0.0	0.0	0.0	0.0	*
Bardheere	Gedo	0.0	0.0	0.0	0.0	6.0
Luuq	Gedo	0.0	0.0	0.0	0.0	1.0
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
Afmadow	Lower Juba	0.0	0.0	0.0	0.0	12.0
Jamame	Lower Juba	0.0	0.0	0.0	0.0	3.0
Genale	Lower Shabelle	0.0	0.0	0.0	0.0	0.0
Marere	Middle Juba	0.0	0.0	0.0	0.0	4.0
Buaille	Middle Juba	0.0	0.0	0.0	0.0	*
Jowhar	Middle Shabelle	0.0	0.0	0.0	0.0	1.0
Galkayo	Mudug	0.0	0.0	0.0	0.0	0.0

## Monthly rainfall and NDVI performance maps

The Mapped NDVI and RFE above represent the differences from Long Term Mean. SPOT-NDVI is presented as absolute difference from Long Term Mean for the same period (current - long term mean), while NOAA-RFE is presented as the relative difference from Long Term Mean (Current\*100)/LTM.

## Seasonal trend graphs

The maps and graphs on the following pages (3 & 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](mailto:data@fsnau.org).

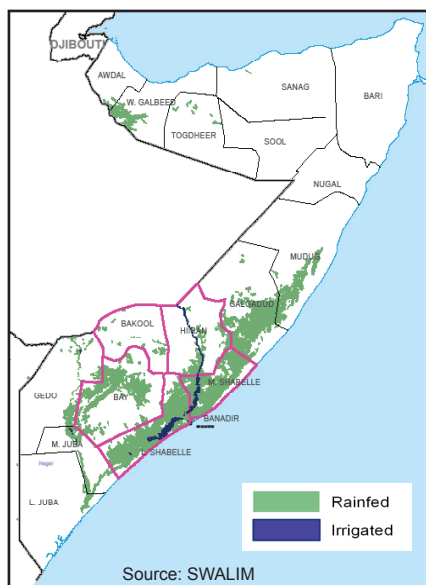
Primary data sources are NOAA/USGS, European Centre for Medium-range Weather Forecast (ECMWF), MARS-JRC, FSNAU and SWALIM. Maps and graphs on this bulletin are produced from four sources.

- Current Rainfall Estimates and NDVI data are derived from NOAA/CPC and DEVCOCAS ([www.devcoast.eu](http://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>

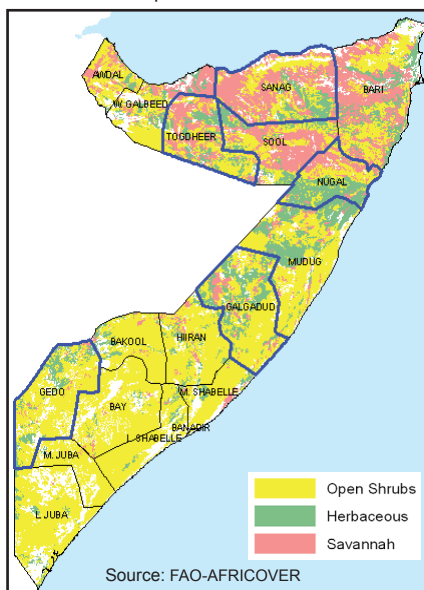
For more information on NDVI, visit <http://earlywarning.usgs.gov/adds> and <http://fsausomali.org/fileadmin/uploads/1308.pdf>

## Seasonal rainfall and NDVI trends by region

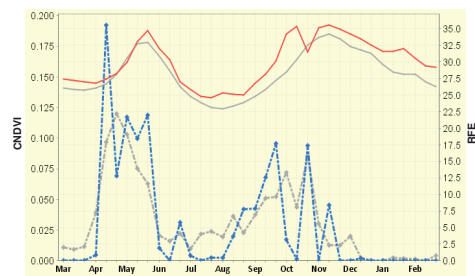
Map 11: Agricultural Areas



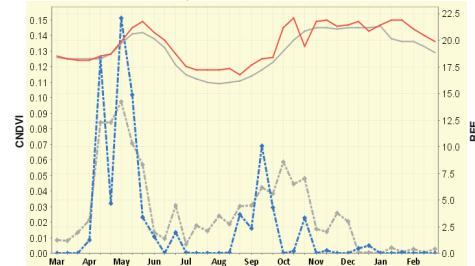
Map 12: Pastoral Areas



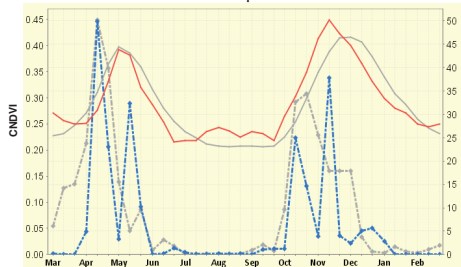
Togdheer Pastoral (Savannah)



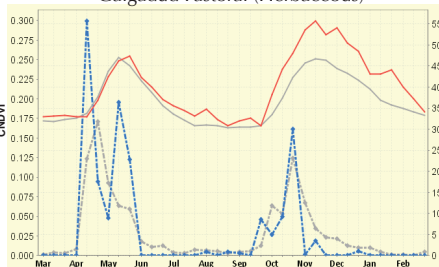
Saanag Pastoral (Savannah)



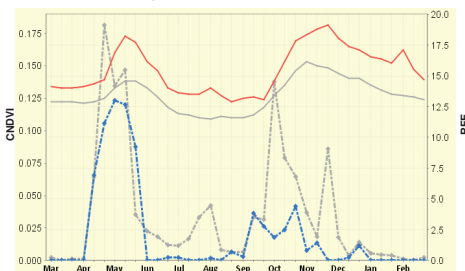
Gedo Pastoral (Open Shrubs)



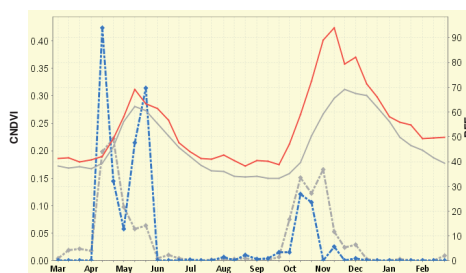
Galgadud Pastoral (Herbaceous)



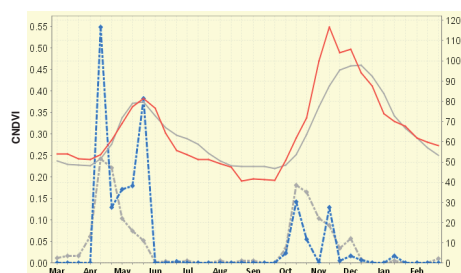
Nugal Pastoral (Savannah)



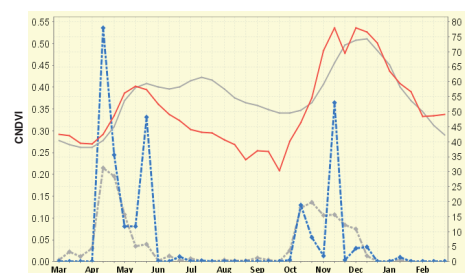
Hiran Agropastoral (Rainfed)



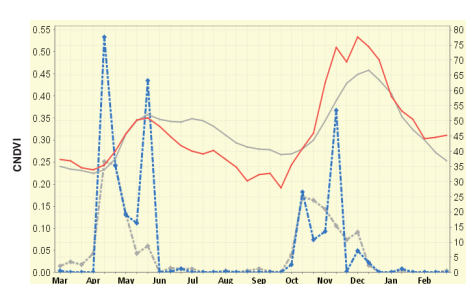
Middle Shabelle Agropastoral (Rainfed)



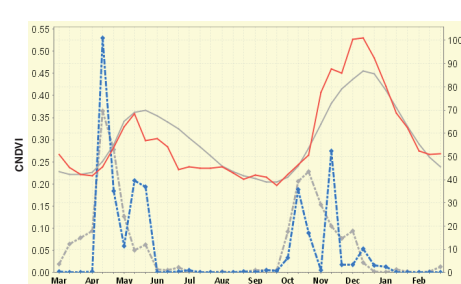
Lower Shabelle Riverine (Irrigated)



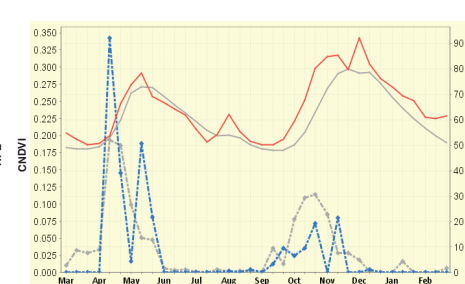
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



Bakool Agropastoral (Rainfed)



RFE 2012/13

RFE AVG: 1999-2012

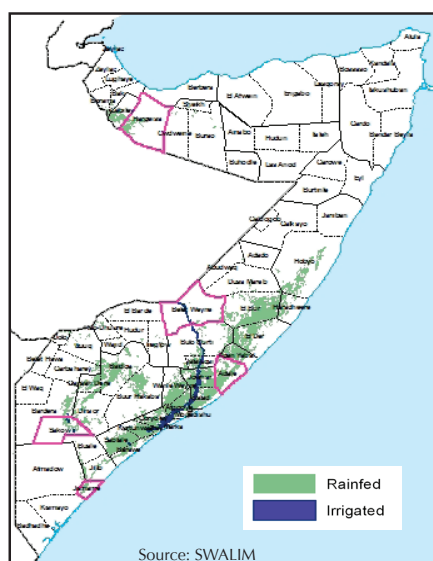
NDVI-C 2012/13

NDVI-C LTA MEAN

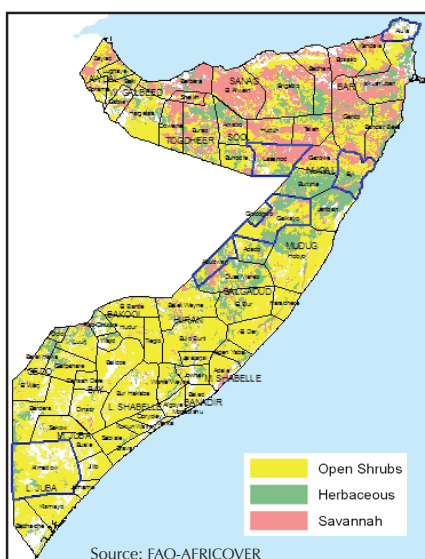


## Seasonal rainfall and NDVI trends for selected districts

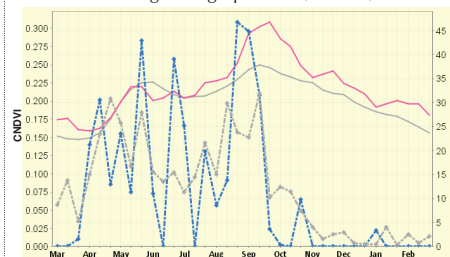
Map 13: Agricultural Areas



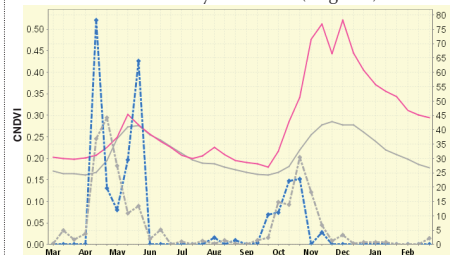
Map 14: Pastoral Areas



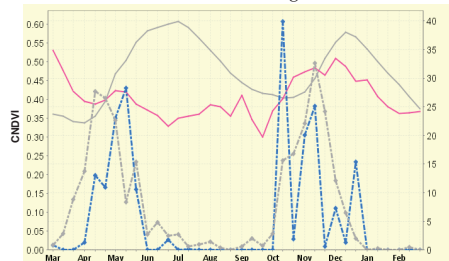
Hargeisa Agropastoral (Rainfed)



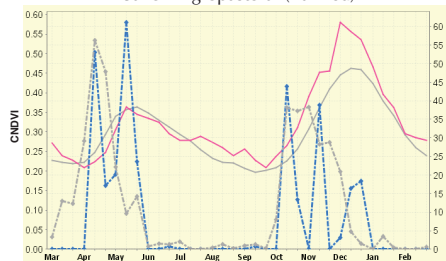
Beletweyn Riverine (Irrigated)



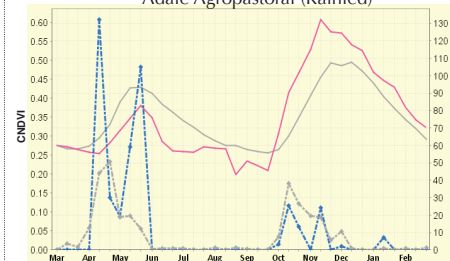
Jamame Riverine (Irrigated)



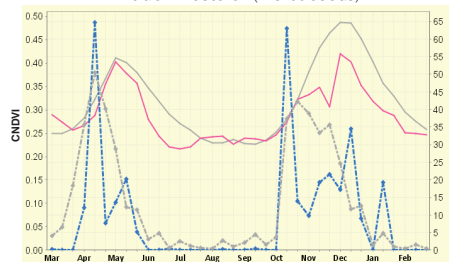
Sakow Agropastoral (Rainfed)



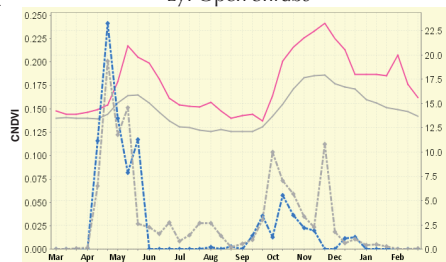
Adale Agropastoral (Rainfed)



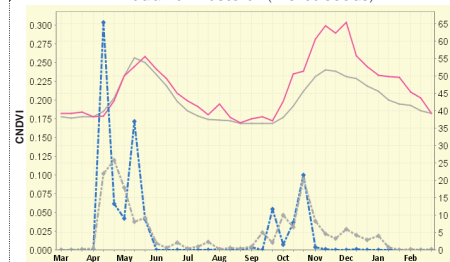
Afmadow Pastoral (Herbaceous)



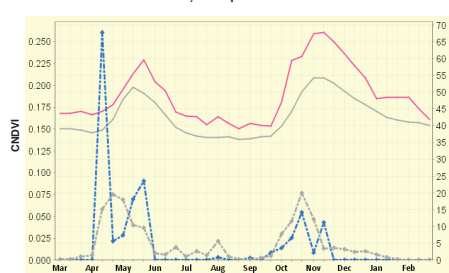
Eyl Open Shrubs



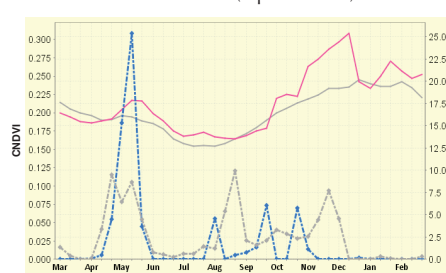
Abudwak Pastoral (Herbaceous)



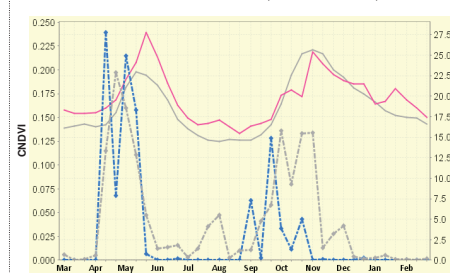
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



RFE 2012/13

RFE AVG: 1999-2012

NDVI-C 2012/13

NDVI-C LTA MEAN

Funding Agencies

