Climate DataUpdate May

FSNAU
Food Security and Nutrition Analysis Unit - Somalia
FEWS NET FAMINE EARLY WARNING SYSTEMS NETWORK
JRC EUROPEAN COMMISSION
SWALIM

Monthly Rainfall and NDVI, Issued June 15th, 2012

Highlights

The *Gu* rainy season normally comes to cessation in May over most parts of Somalia. However, the northwestern and southern coastal areas continue to receive significant amounts of rainfall in June to August (*Haggai* rains). Most rainfall activities were experienced in the 1st and 2nd *dekads* of May, with a significant reduction in the 3rd *dekad* (Table 1). Rainfall performance in the month of May 2012 varied from place to place within the country. The northern parts of the country received significant rains ranging from normal to above normal. The highest amount of rainfall was recorded in Ballidhin (101mm), Burtinle (151mm) and Lasanood (104mm) all in northeastern regions. The rainfall has trigerred some flash floods in various parts of these regions. The southern and central parts of the country experienced uneven spatial and temporal distribution of rains. Bardheere in Gedo region recorded a total of 123 mm of rains that precipitated in two separate days. Parts of Hiraan, Middle Shabelle, Gedo and Middle Juba recorded depressed rains in the month of May 2012.

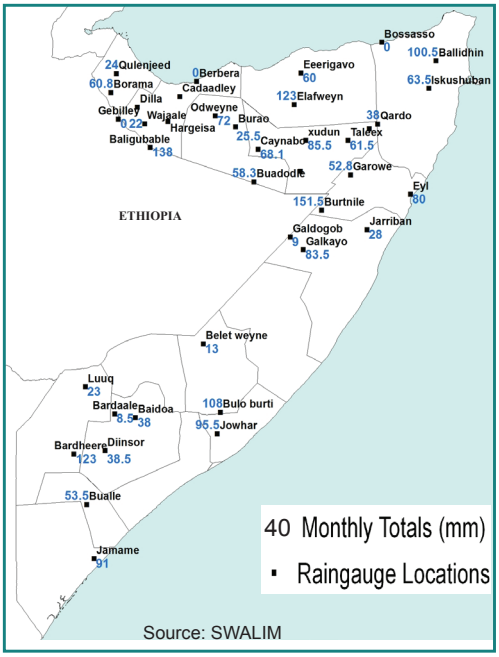
Satellite derived Rainfall Estimates (RFE) also show reducing rainfall activity across the country as the *Gu* rains begin to subside towards the end of the month. The RFE images indicate a reduction of rains in the third dekad (Maps 3 -5). Field reports also confirm rainfall, however the spatial distribution is poor across all regions.

The Normalized Difference Vegetation Index (NDVI) indicates little change from the previous month in most areas, while significant areas in southern and central Somalia still shows below normal vegetation conditions. Below average vegetation conditions remain evident in Central and Southern Agro-Pastoral areas of M. Shabelle and Galgadud; Southern Inland Pastoral areas (camel pastoralists) of Gedo and Juba; pockets of the West Golis Pastoral area of Awdal and W. Galbeed; and the Golis of Sanaag (Map 10).

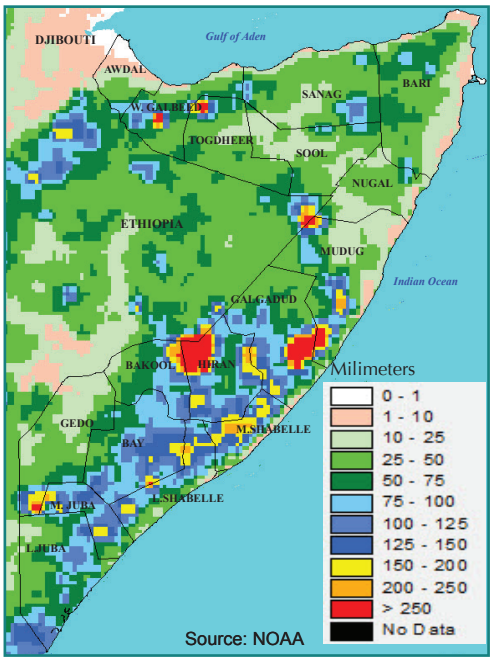
Localised river floods caused by artificial river breakages were recorded in Jowhar district. However, river levels have declined to below normal due to reduction in rainfall activity both in Somalia and the Ethiopian highlands, thereby reducing risk of flooding. Flash floods have been reported in parts of *Karkar Dharoor* livelihood zones and Qardo district in Bari region and in the towns of Garowe and Burtinle in Nugal region. Field reports also indicate normal pasture and water conditions in many parts of the country. Livestock body conditions are generally good with normal livestock migration reported across the country. Pest infestation is reported in the central cowpea areas in Galgadud, Bay, Bakool and parts of Middle Juba.

This report is a compilation of climate data and field reports on Somalia that FSNAU and FEWSNET regularly review for analysis. For more information on data sources, please refer to page 2.

Map 1: May 2012 Monthly Rain Gauge Data (mm)

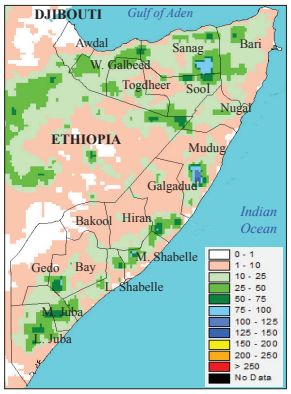


Map 2: May 2012 Monthly Rainfall Estimates

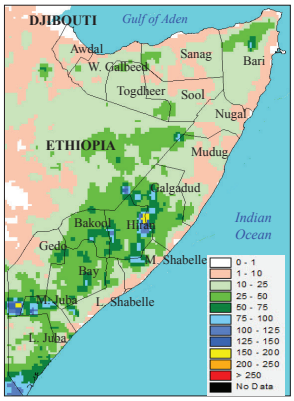


May 2012: Dekadal Rainfall Estimates (RFE)

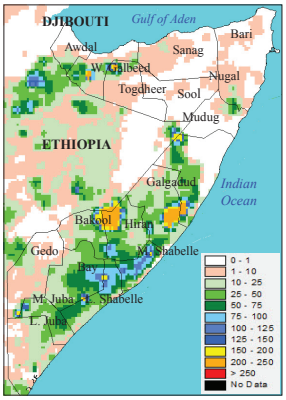
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)

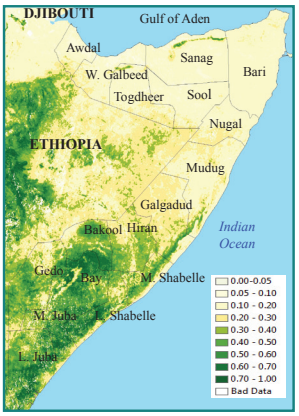


Map 5: 3rd Dekad (21-30)

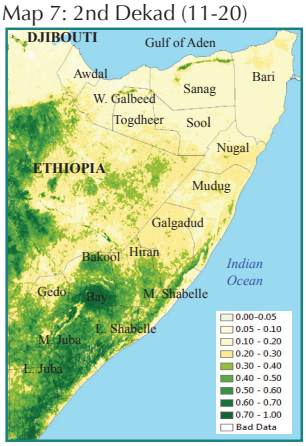


May 2012: Dekadal Normalized Difference Vegetation Index (NDVI)

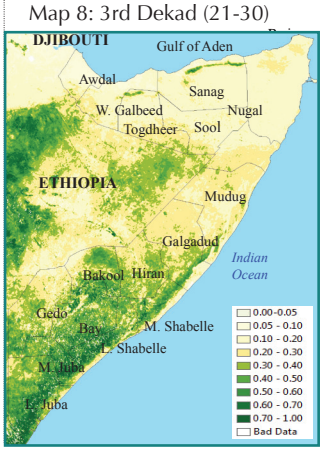
Map 6: 1st Dekad (1-10)



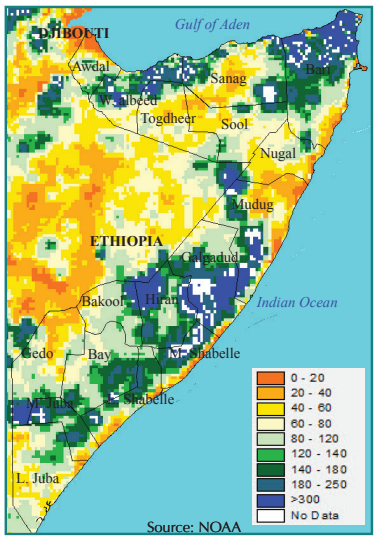
Map 7: 2nd Dekad (11-20)



Map 8: 3rd Dekad (21-30)



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



Map 10: May 2012 NDVI absolute difference from long term mean

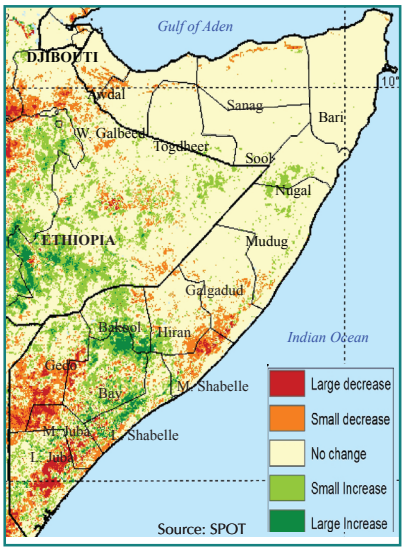


Table 1: May 2012: Observed rain gauge data compared to long term monthly averages

Northern Somalia stations

Region	Station_Name	Agency	dek 1	dek 2	dek 3	May-12	LTM
Awdal	Borama		12.8	41.5	6.5	**61.0**	**57.0**
Awdal	Qulenjeed	SWALIM	13.5	10.5	0.0	**24.0**	
Bari	Bossasso	SWALIM	0.0	0.0	0.0	**0.0**	**1.0**
Bari	Qardo	SWALIM	13.0	6.5	18.5	**38.0**	**31.0**
Bari	Iskushuban	SWALIM	28.5	28.5	6.5	**64.0**	**20.0**
Bari	Dangoroyo	SWALIM	24.0	0.0	16.0	**40.0**	**36.0**
Bari	Ballidhin	SWALIM	45.8	54.7	0.0	**101.0**	**18.0**
Mudug	Jarriban	SWALIM	13.0	15.0	0.0	**28.0**	**43.0**
Mudug	Galdogob	SWALIM	0.0	9.0	0.0	**9.0**	**55.0**
Nugaal	Garowe	SWALIM	36.5	11.7	4.6	**53.0**	**43.0**
Nugaal	Eyl	SWALIM	21.0	49.0	10.0	**80.0**	**57.0**
Nugaal	Burtnile	SWALIM	41.5	110.0	0.0	**152.0**	**49.0**
Sanaag	Eeerigavo	SWALIM	39.4	20.6	0.0	**60.0**	**59.0**
Sanaag	Elafweyn	SWALIM	29.0	48.0	46.0	**123.0**	*
Sool	Caynabo	SWALIM	30.0	38.1	0.0	**68.0**	*
Sool	Las Aanod	SWALIM	46.0	58.0	0.0	**104.0**	**52.0**
Sool	xudun	SWALIM	55.5	30.0	0.0	**86.0**	**43.0**
Sool	Taleex	SWALIM	19.0	34.0	8.5	**65.0**	**40.0**
Togdheer	Burao	SWALIM	23.0	0.0	2.5	**26.0**	**68.0**
Togdheer	Odweyne	SWALIM	39.0	25.0	8.0	**72.0**	**59.0**
Togdheer	Wajaale	SWALIM	17.5	0.0	4.5	**22.0**	*
Togdheer	Buadodle	SWALIM	23.7	31.0	3.6	**59.0**	**57.0**
Wogooyi Galbeed	Hargeisa	SWALIM	32.5	0.0	19.0	**56.0**	**65.0**
Wogooyi Galbeed	Dilla		19.0	11.5	6.0	**37.0**	*
Wogooyi Galbeed	Gebilley	SWALIM	0.0	0.0	0.0	**0.0**	**60.0**
Wogooyi Galbeed	Berbera	SWALIM	0.0	0.0	0.0	**0.0**	**0.0**
Wogooyi Galbeed	Daraweyne	SWALIM	2.9	7.8	0.0	**11.0**	**59.0**
Wogooyi Galbeed	Cadaadley	SWALIM	5.5	22.0	7.0	**35.0**	**53.0**
Wogooyi Galbeed	Dhubato	SWALIM	13.0	31.5	45.0	**90.0**	**57.0**
Wogooyi Galbeed	Baligubable	SWALIM	136.5	1.0	0.5	**138.0**	**67.0**

*indicates missing data

Southern Somalia stations

Region	Station_Name	dek 1	dek 2	dek 3	May-12	LTM
Bay	Baidoa	64.0	12.5	14.5	**91.0**	**95.0**
Bay	Diinsor	8.0	19.5	19.0	**47.0**	**70.0**
Bay	Bardaale	7.0	1.5	0.0	**9.0**	*
Gedo	Bardheere	32.0	0.0	91.0	**123.0**	**71.0**
Gedo	Luuq	17.0	6.0	0.0	**23.0**	**52.0**
Hiraan	Belet weyne	13.0	0.0	0.0	**13.0**	**86.0**
Hiraan	Bulo burti	28.0	56.5	23.5	**108.0**	**64.0**
Lower Juba	Afmadow				**0.0**	**81.0**
Lower Juba	Jamame	18.0	0.0	73.0	**91.0**	**99.0**
Lower Shabelle	Genale	*	*	*	**0.0**	**87.0**
Middle Juba	Marere	*	*	*	**0.0**	**167.0**
Middle Juba	Bualle	4.5	49.0	0.0	**54.0**	*
Middle Shabelle	Jowhar	79.5	0.0	16.0	**96.0**	**97.0**
Mudug	Galkayo	35.5	41.0	7.0	**84.0**	**50.0**

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.devcocast.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

Monthly rainfall and NDVI perfomance 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

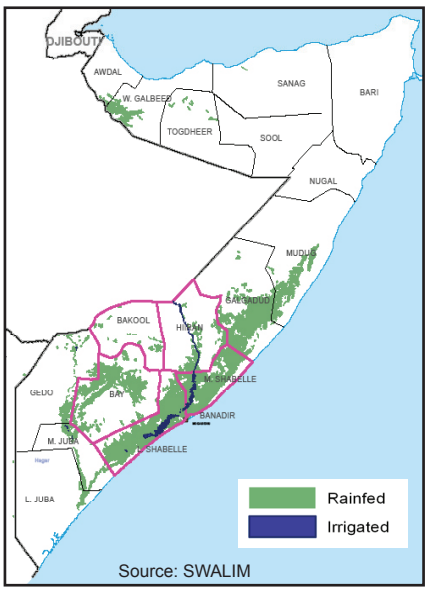
The maps and graphs on the following pages (3 & 4) are produced in collaboration with the FOODSEC Action of the Joint Research Centre of the European Commision. The graphs present seasonal trends of crop specific NDVI (Normalised Difference Vegetation Index) as lines and rainfall values (RFE) as bars 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.

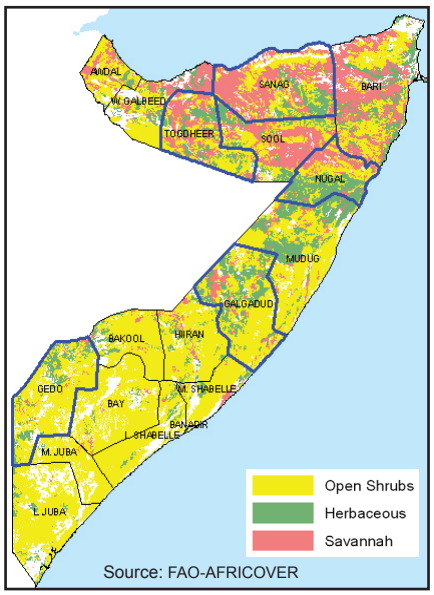
For information on FOODSEC Action of JRC, please refer to http://mars.jrc.ec.europa.eu/mars/About-us/FOODSEC

Seasonal rainfall and NDVI trends by region

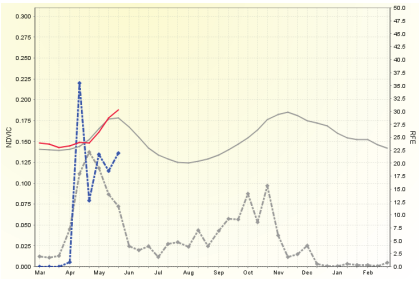
Map 11: Agricultural Areas



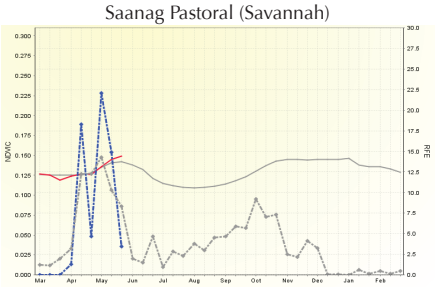
Map 12: Pastoral Areas



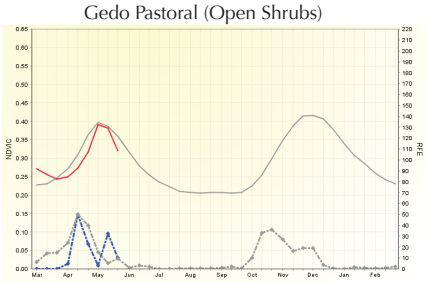
Togdheer Pastoral (Savannah)



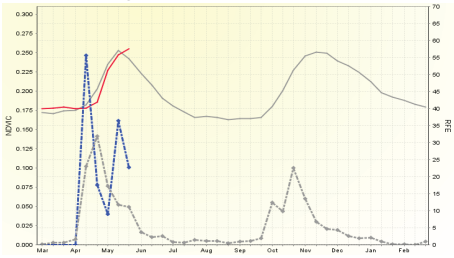
Saanag Pastoral (Savannah)



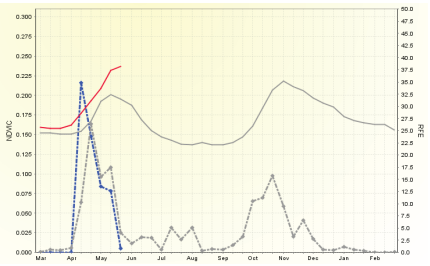
Gedo Pastoral (Open Shrubs)



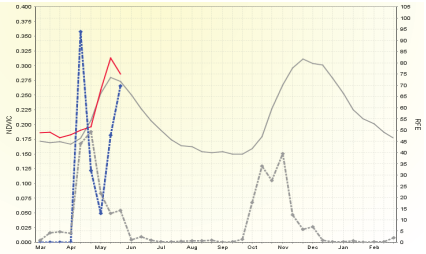
Galgadud Pastoral (Herbaceous)



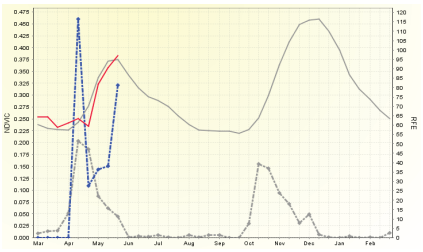
Nugal Pastoral (Savannah)



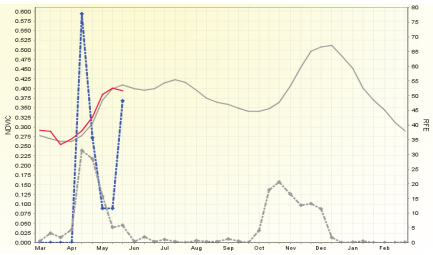
Hiran Agropastoral (Rainfed)



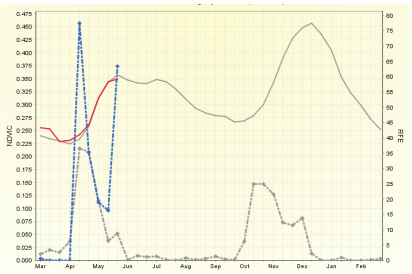
Middle Shabelle Agropastoral (Rainfed)



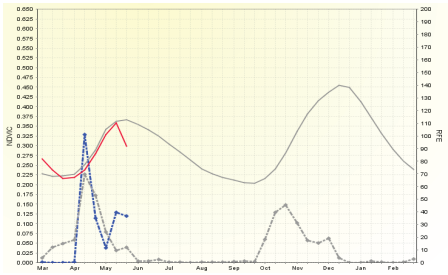
Lower Shabelle Riverine (Irrigated)



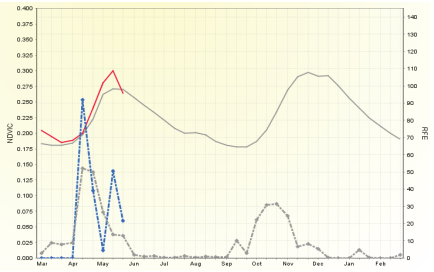
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



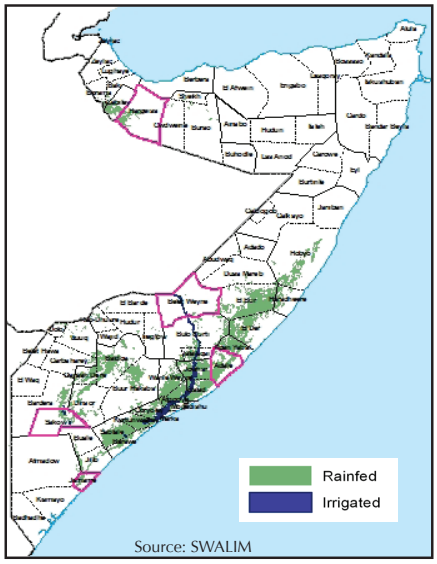
Bakool Agropastoral (Rainfed)



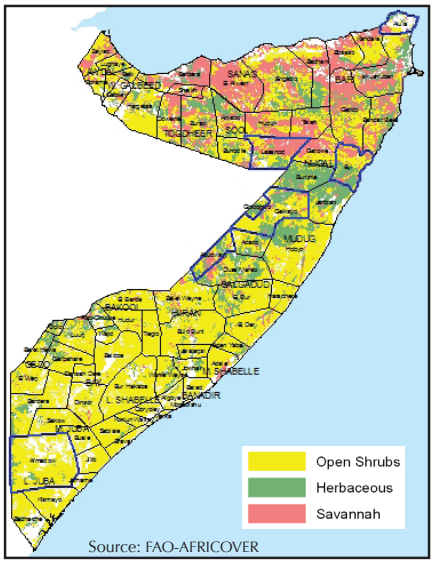
RFE-2012 — RFE Avg: 1999-2012 — NDVIC 2011 — NDVIC LTA-MEAN

Seasonal rainfall and NDVI trends for selected districts

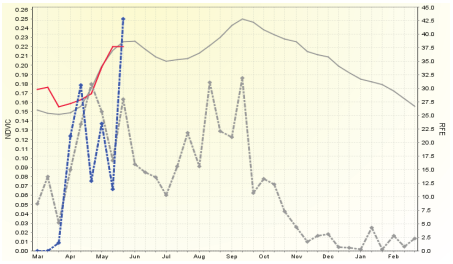
Map 13: Agricultural Areas



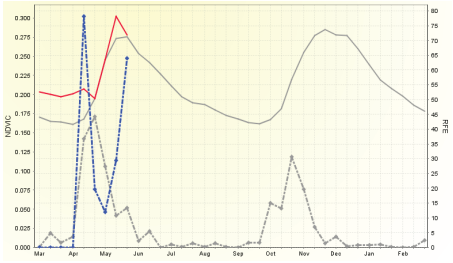
Map 14: Pastoral Areas



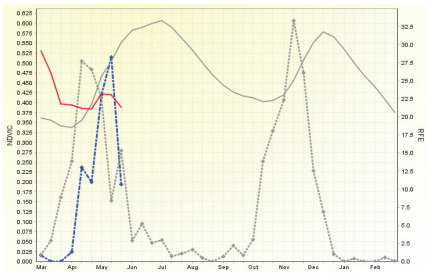
Hargeisa Agropastoral (Rainfed)



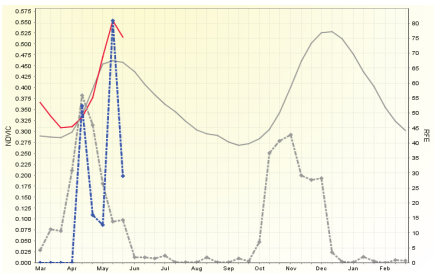
Beletweyn Riverine (Irrigated)



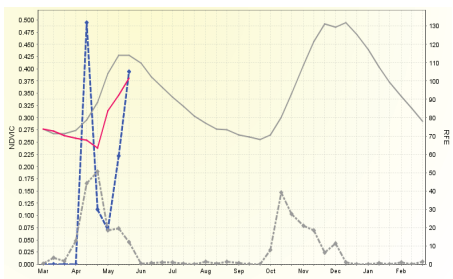
Jamame Riverine (Irrigated)



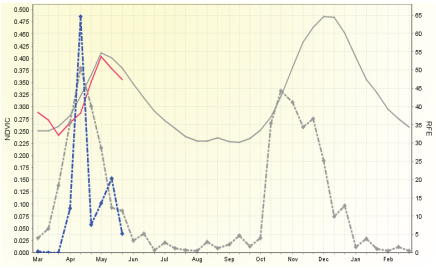
Sakow Agropastoral (Rainfed)



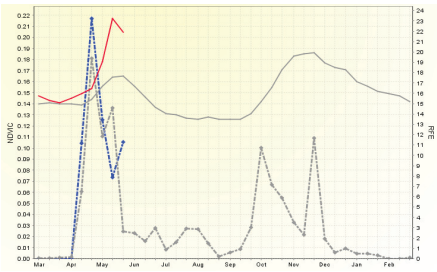
Adale Agropastoral (Rainfed)



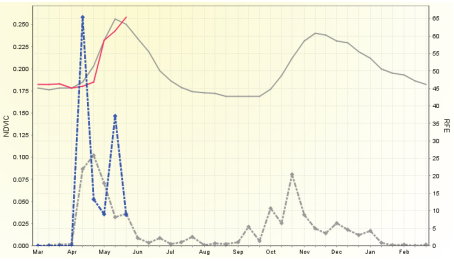
Afmadow Pastoral (Herbaceous)



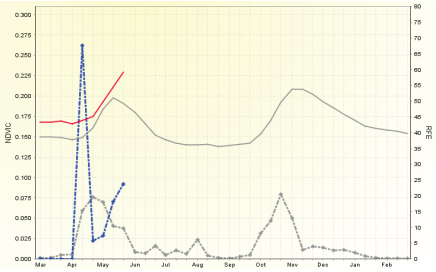
Eyl Open Shrubs



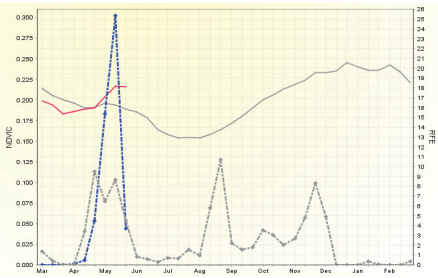
Abudwak Pastoral (Herbaceous)



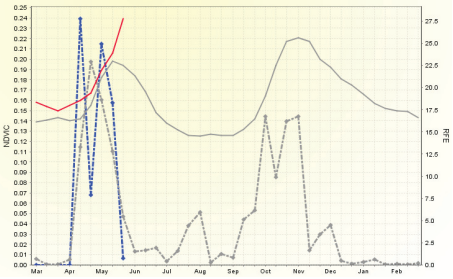
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



RFE 2012 — RFE Avg: 1999–2012 — NDVIC 2011 — NDVIC LTA-MEAN

Technical and Managerial Support

Funding Agencies