

Climate Data Update



Food Security and Nutrition Analysis Unit - Somalia



Monthly Rainfall and NDVI, August, 2011

Highlights

August was generally dry throughout most parts of Somalia with the exception of Northwest (Awdal, W.Galbeed and Togdheer) and coastal areas of Shabelle regions, which received good *Karan* and *Hagaa* rains respectively. Out of 16 stations in the Northwest, above normal rainfall was recorded in 4 stations, including Wajale in Togdheer region (129mm) and Gebiley (115mm), Aburin (105mm) and Hargeisa (93mm) in W. Galbeed region (Map1 and Table 1). In southern Somalia, the rain gauges data show above average rainfall in Jowhar (Middle Shabelle), Jamame (Lower Juba) and Jenale (Lower Shabelle). All other stations in Somalia recorded zero rainfall. FSNAU field reports for August indicate that rains were received in Awdal region in addition to the areas mentioned above.

Similar trends of rainfall distribution are shown by satellite derived rainfall estimates (RFE) as presented on Maps 2,3,4 and 5. According to RFE, many parts of the country remained dry during August with the exception of the Northwest and coastal areas of Juba and Shabelle regions in the South.

Vegetation conditions are normal in most of northern and central Somalia, as indicated by vegetation index (NDVI) for August 2011, which is close to the long-term average (LTA). Most of southern agricultural areas show below average vegetation as a consequence of the prolonged drought and poor *Gu* rainfall performance. The worst vegetation is depicted in Sakow (Middle Juba) and parts of Lower Shabelle. Only in some pockets of Shabelle riverine areas good vegetation establishment can be observed, which can be attributed to the off-season crops under irrigation.

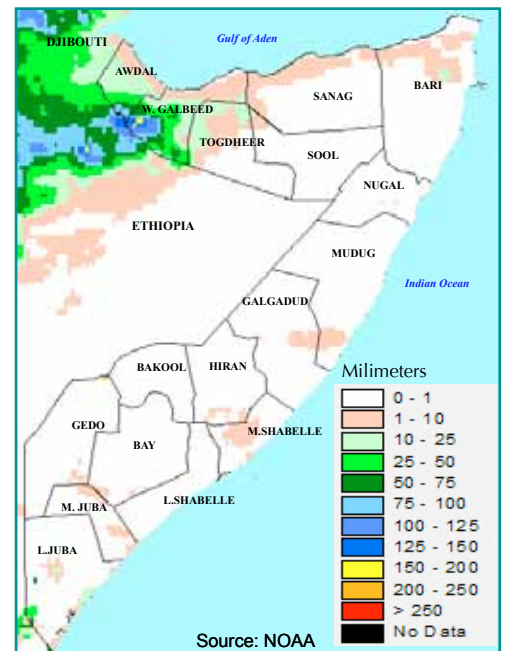
High livestock migration is reported towards riverine areas of Shabelle regions to access fodder and water, which are currently scarce in other areas of the South.

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: August 2011: Monthly Rain Gauge data (mm)

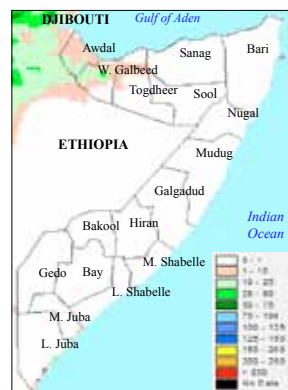


Map 2: August 2011: Monthly Rainfall Estimates



August 2011: Dekadal Rainfall Estimates (RFE)

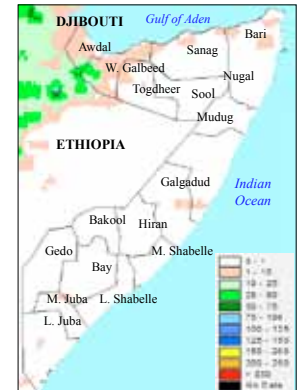
Map 3: 1st Dekad (1-10)



Map 4: 2nd Dekad (11-20)



Map 5: 3rd Dekad (21-30)



August 2011: Dekadal Normalized Difference Vegetation Index (NDVI)

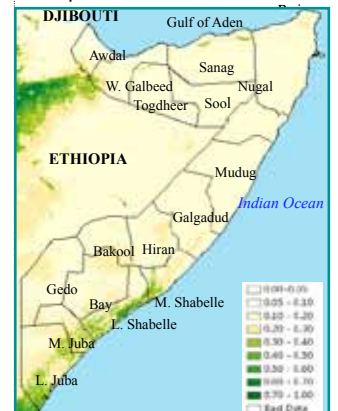
Map 6: 1st Dekad (1-10)



Map 7: 2nd Dekad (11-20)

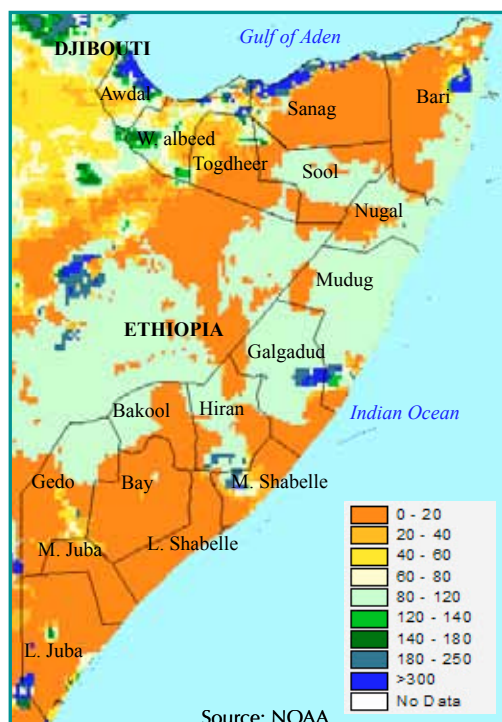


Map 8: 3rd Dekad (21-30)



Monthly rainfall and NDVI performance

Map 9: August 2011: Rainfall as % of long term mean



Map 10: August 2011: NDVI absolute difference from long term mean

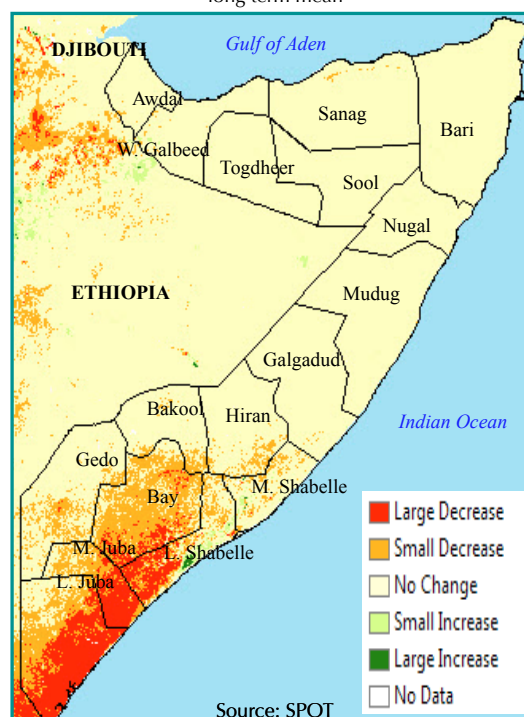


Table 1: August 2011: Observed rain gauge data compared to long term monthly averages

Northern Somalia stations

Region	Station_Name	dek 1	dek 2	dek 3	Aug-11	LTM
Bari	Bossasso	0.0	0.0	0.0	0.0	*
Bari	Ballidhin	0.0	0.0	0.0	0.0	*
Sanaag	Elafweyn	0.0	0.0	0.0	0.0	*
Sool	Caynabo	0.0	0.0	0.0	0.0	*
Sool	Las Aanod	0.0	0.0	0.0	0.0	*
Sool	xudun	0.0	0.0	0.0	0.0	*
Sool	Taleex	0.0	0.0	0.0	0.0	*
Togdheer	Odweyne	0.0	0.0	5.0	5.0	*
Togdheer	Wajaale	28.5	90.0	10.5	129.0	*
Togdheer	Buadodtle	0.0	0.0	0.0	0.0	*
Wogooyi Galbeed	Hargeisa	16.0	66.0	11.0	93.0	55.0
Wogooyi Galbeed	Gebilley	44.5	7.5	63.0	115.0	82.0
Wogooyi Galbeed	Aburin	20.0	61.5	23.0	105.0	
Wogooyi Galbeed	Berbera	0.0	0.0	0.0	0.0	3.0

Southern Somalia stations

Region	Station_Name	dek 1	dek 2	dek 3	Aug-11	LTM
Bay	Baidoa	0.0	0.0	0.0	0.0	8.0
Bay	Diinsor	0.0	0.0	0.0	0.0	11.0
Gedo	Bardheere	0.0	0.0	0.0	0.0	5.0
Gedo	Luuq	0.0	0.0	0.0	0.0	1.0
Hiraan	Belet weyne	0.0	0.0	0.0	0.0	1.0
Hiraan	Bulo burti	0.0	0.0	0.0	0.0	3.0
Middle Juba	Marere	0.0	0.0	0.0	0.0	41.0
Middle Shabelle	Jowhar	45.0	0.0	0.0	45.0	12.0
Mudug	Galkayo	0.0	0.0	0.0	0.0	1.0
Lower Shabelle	Genale	23.0	5.0	0.0	28.0	52.0
Lower Juba	Afmadow	0.0	0.0	0.0	0.0	13.0
Lower Juba	Jamame	38.0	22.0	0.0	60.0	24.0

*N/A indicates missing data

Primary data sources are NOAA/USGS, 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>

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

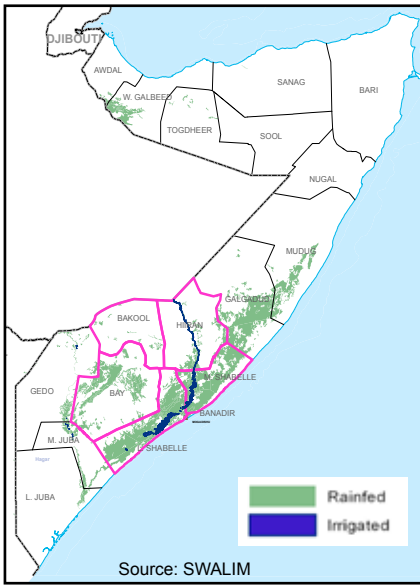
The maps and graphs on the following pages (3 & 4) are produced in collaboration with the FOODSEC Action of the Joint Research Centre of the European Commission. The graphs present seasonal trends of crop specific NDVI (Normalised Difference Vegetation Index) as lines and rainfall values (RFE) as bars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

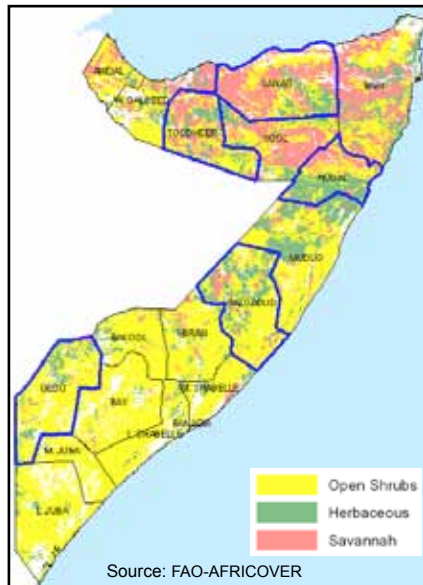
For information on FOODSEC Action of JRC, please refer to <http://mars.jrc.ec.europa.eu/mars/About-us/FOODSEC>

Seasonal rainfall and NDVI trends by region

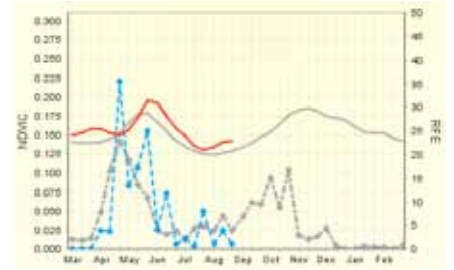
Map 11: Agricultural Areas



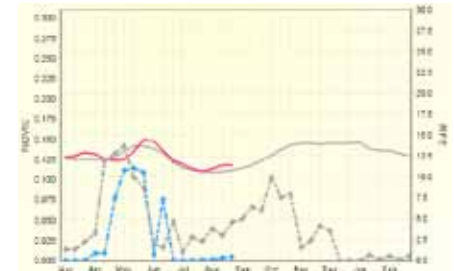
Map 12: Pastoral Areas



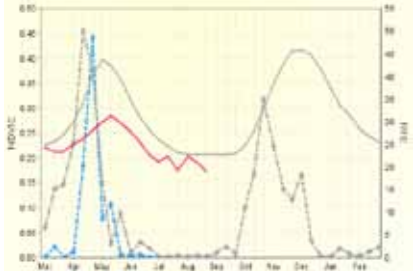
Togdheer Pastoral (Savannah)



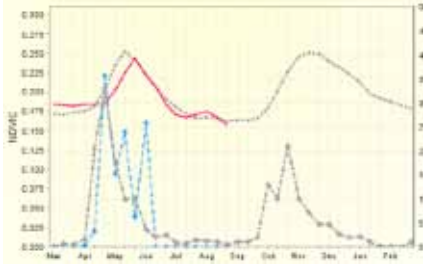
Saanag Pastoral (Savannah)



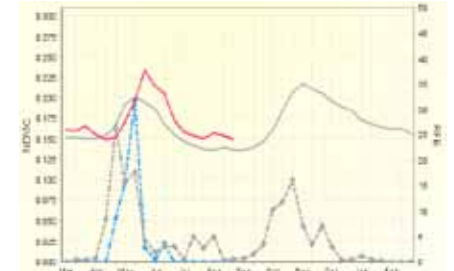
Gedo Pastoral (Open Shrubs)



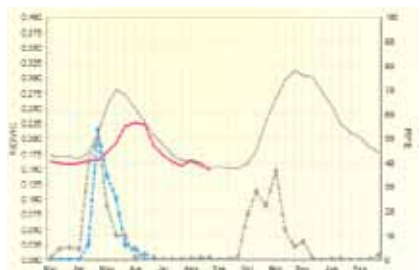
Galgadud Pastoral (Herbaceous)



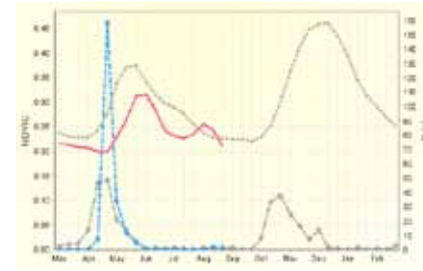
Nugal Pastoral (Savannah)



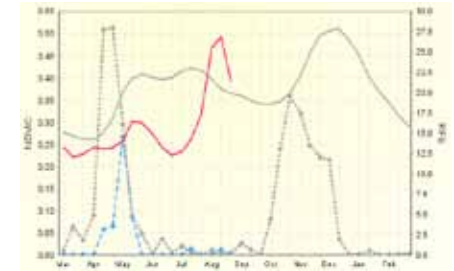
Hiran Agropastoral (Rainfed)



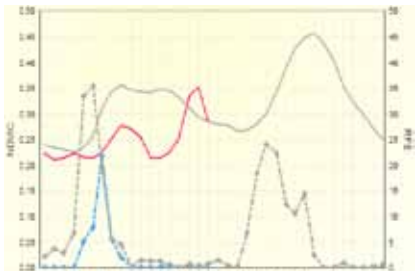
Middle Shabelle Agropastoral (Rainfed)



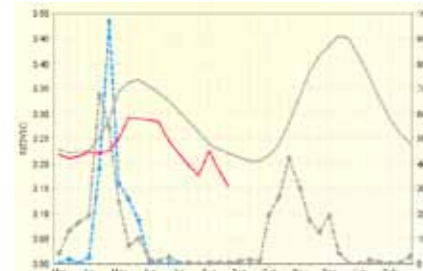
Lower Shabelle Riverine (Irrigated)



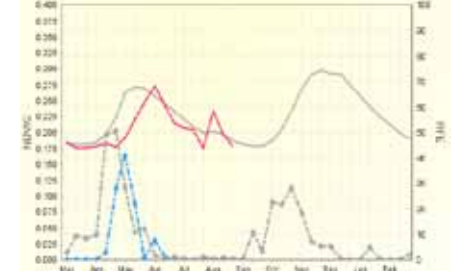
Lower Shabelle Agropastoral (Rainfed)



Bay Agropastoral (Rainfed)



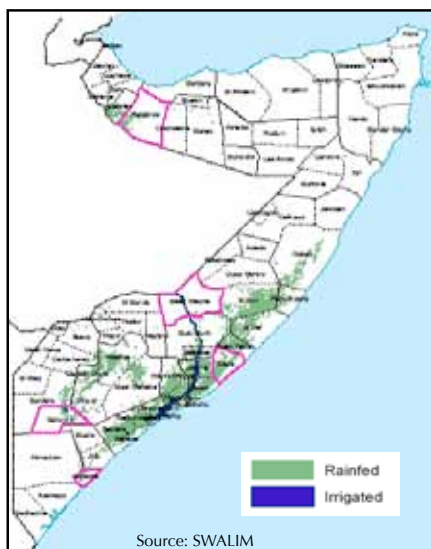
Bakool Agropastoral (Rainfed)



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

Seasonal rainfall and NDVI trends for selected districts

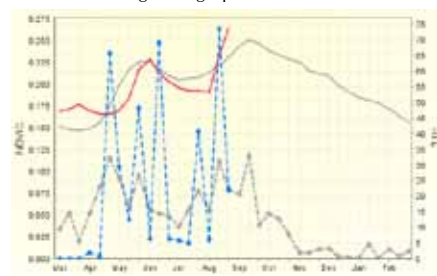
Map 13: Agricultural Areas



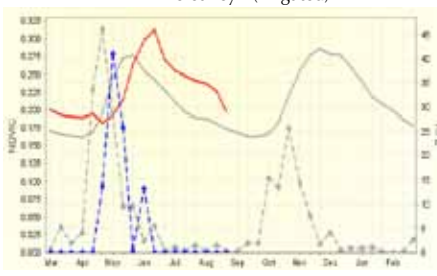
Map 14: Pastoral Areas



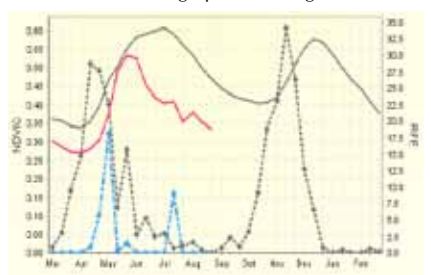
Hargeisa Agropastoral (Rainfed)



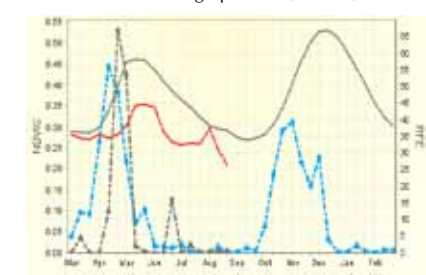
Beletweyn (Irrigated)



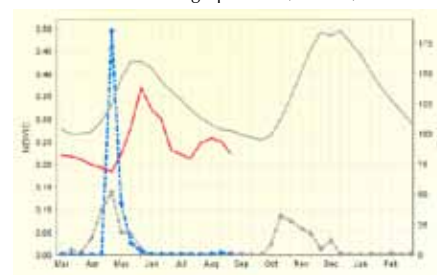
Jamame Agropastoral (Irrigated)



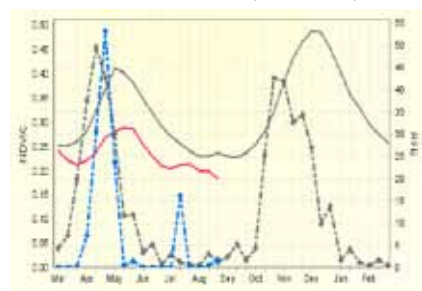
Sakow Agropastoral (Rainfed)



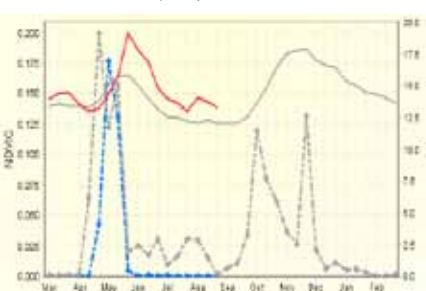
Adale Agropastoral (Rainfed)



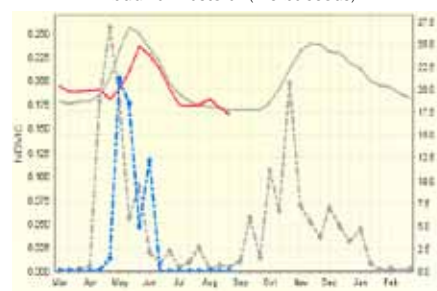
Afmadow Pastoral (Herbaceous)



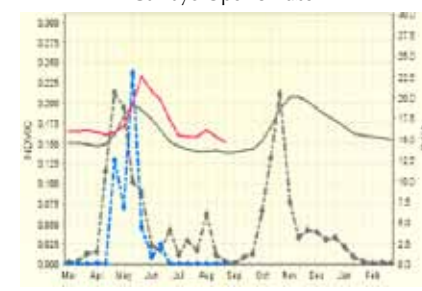
Eyl Open Shrubs



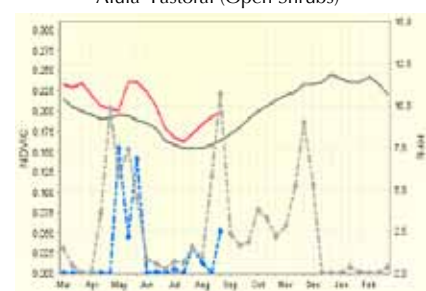
Abudwak Pastoral (Herbaceous)



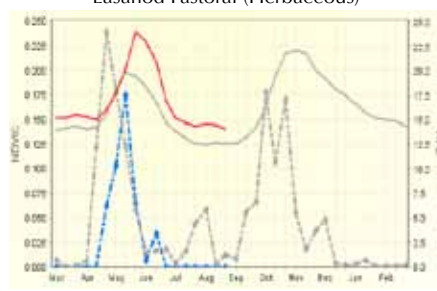
Galkayo Open Shrubs



Alula Pastoral (Open Shrubs)



Lasanod Pastoral (Herbaceous)



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

Technical and Managerial Support



Funding Agencies

