# Climate DataUpdate June

Food Security and Nutrition Analysis Unit - Somalia







Monthly Rainfall and NDVI, Issued July 17th, 2012

# **Highlights**

The month of June 2012 was generally dry in most parts of Somalia with the exception of Northwest (Awdal, W. Galbeed, Togdheer, Sool and Sanaag), Bari region in northeast and the coastal areas of Shabelle and Juba regions which received light to moderate rains. Above average rains were recorded in Odweyne, Wajaale, Elafweyn, Qardo and Iskushuban with 33 mm, 31 mm, 27 mm, 32 mm and 22 mm of rains respectively (Table 1). In the Southern parts below average rains of 9 mm and 20mm were recorded in Jowhar and Jamamme stations respectively. Additional field reports indicate occurrence of light to moderate rainfall with poor spatial distribution in Bay, Bakool and Sool plateau in Bari region.

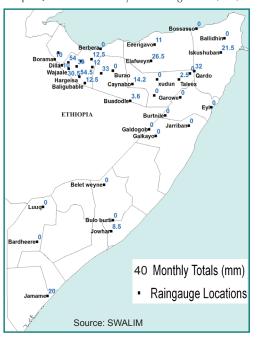
Similar trends of significant reduction in rainfall is shown by satellite derived rainfall estimates (RFE) as presented on Maps 2, 3, 4 and 5. Accordingly, many parts of the country remained dry in the 1<sup>st</sup> and 2<sup>nd</sup> dekads of June, while in the 3<sup>rd</sup> dekad the Northwest, small pockets of Northeast and the coastal areas of Shabelle show minor rainfall activity.

The Normalized Difference Vegetation Index (NDVI) shows general normal vegetation conditions in the Northern and Central regions of the country. In the South some areas show continued deterioration of vegetation. Small decrease in vegetation conditions remain evident in small to large areas in Shabelle, Bay, Bakool, Gedo and the Jubas (Map 10). Large decrease in vegetation vigor is evident in Lower Shabelle (Riverine, L & M Agro-pastoral, and South - East pastoral livelihood zones) and Juba (Lower Juba agropastoral and riverrine, parts of Southern Inland and South - East pastoral livelihood zones).

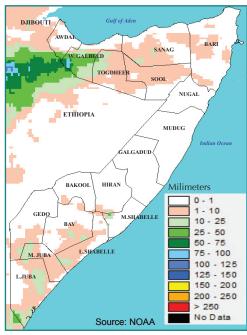
Field reports also indicate a general normal to slightly below normal pasture and water conditions in many parts of the country. Deterioration of water and drying up water catchments in Lower Shabelle and Bay has been reported. Livestock body conditions are generally good with normal livestock migration reported across the country. Crop moisture stress has been reported in rainfed maize crops planted in early May (late planting) in lower Shabelle and in Middle Juba. In the Eastern side of Jilib district rainfed areas, standing crops have already started to wilt. Advancement to maturity of these crops will dependent upon the performance of Hagga rains. Isolated incidences of stalk borer infestation in maize have been reported in the riverine areas 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: June 2012 Monthly Rain Gauge Data (mm)

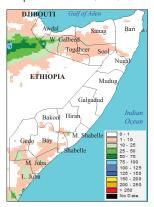


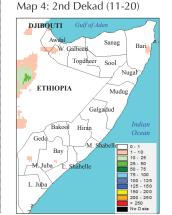
Map 2: June 2012 Monthly Rainfall Estimates

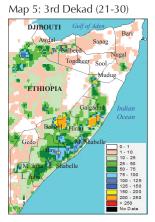


June 2012: Dekadal Rainfall Estimates (RFE)

Map 3: 1st Dekad (1-10)







June 2012: Dekadal Normalized Difference Vegetation Index (NDVI)

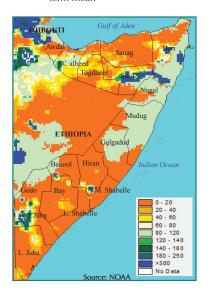
Map 6: 1st Dekad (1-10)







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



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

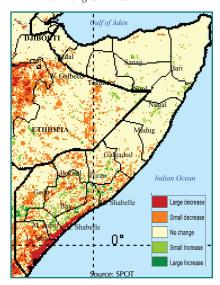


Table 1: June 2012: Observed rain gauge data compared to long term monthly averages

Northern Somalia stations Station\_ dek 1 dek 2 dek 3 Jun-12 LTM Region Agency Name 10.0 Awdal 0.0 0.0 10.0 27.0 Borama Awdal Qulenjeed SWALIM 0.0 0.0 35.5 35.5 33.0 Bari Bossasso SWALIM 0.0 0.0 0.0 0.0 0.0 Bari Qardo SWALIM 32.0 0.0 0.0 32.0 4.0 Iskushuban SWALIM 21.5 0.0 0.0 21.5 2.0 Bari SWALIM 0.0 0.0 0.0 Bari Dangoroyo 0.0 4.0 Bari Ballidhin SWALIM 0.0 0.0 0.0 0.0 4.0 Mudug Jarriban SWALIM 0.0 0.0 0.0 0.0 6.0 Galdogob SWALIM 0.0 0.0 0.0 0.0 7.0 Muduq Nugaal Garowe SWALIM 0.0 0.0 0.0 0.0 9.0 Nugaal Eyl SWALIM 0.0 0.0 0.0 0.0 0.0 Nugaal Burtnile SWALIM 0.0 0.0 0.0 0.0 9.0 0.0 38.0 SWALIM 0.0 11.0 11.0 Sanaag Eeerigayo Elafweyn SWALIM 0.0 26.5 0.0 26.5 18.0 Sanaag

0.0

0.0

0.0

2.5

0.0

30.0

4.0

0.0

6.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

1.5

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

3.0

0.0

0.0

0.0

0.0

0.0

3.5

0.0

0.0

14.2

0.0

0.0

0.0

0.0

3.0

3.6

26.5

45.5

10.0

54.0

0.0

39.0

3.3

9.0

12.0

11.0

14.2

0.0

0.0

2.5

0.0

33.0

30.5

3.6

54.5

10.0

54.0

0.0

39.0

3.3

12.5

12.0

12.5

20.0

1.0

2.0

9.0

23.0

28.0

2.0

16.0

33.0

50.0

51.0

0.0

10.0

36.0

6.0

31.0

38.0

Sool

Sool

Sool

Sool

Togdheer

Togdheei

Togdheer

Togdheer

Wogooyi

Galbeed Wogooyi

Woqooyi

Galbeed

Wogooyi

Galbeed Wogooyi

Galbeed

Wogooy

Wogoovi

Galbeed

Wogooyi

Galbeed Wogooyi Caynabo

xudun

Taleex

Burao

Odweyne

Wajaale

Buadodle

Hargeisa

Gebilley

Berbera

Malawle

Daraweyne

Cadaadley

Dhubato

Baliqubable

Dilla

Las Aanod

SWALIM

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

Southern Somalia stations

Region	Station_Name	dek 1	dek 2	dek 3	Jun-12	LTM
Gedo	Bardheere	0.0	0.0	0.0	0.0	5.0
Gedo	Luuq	0.0	0.0	0.0	0.0	2.0
Hiraan	Belet weyne	0.0	0.0	0.0	0.0	15.0
Hiraan	Bulo burti	0.0	0.0	0.0	0.0	5.0
Lower Juba	Jamame	0.0	4.0	16.0	20.0	
Middle Shabelle	Jowhar	0.0	6.0	2.5	8.5	41.0
Mudug	Galkayo	0.0	0.0	0.0	0.0	6.0

### 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 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).

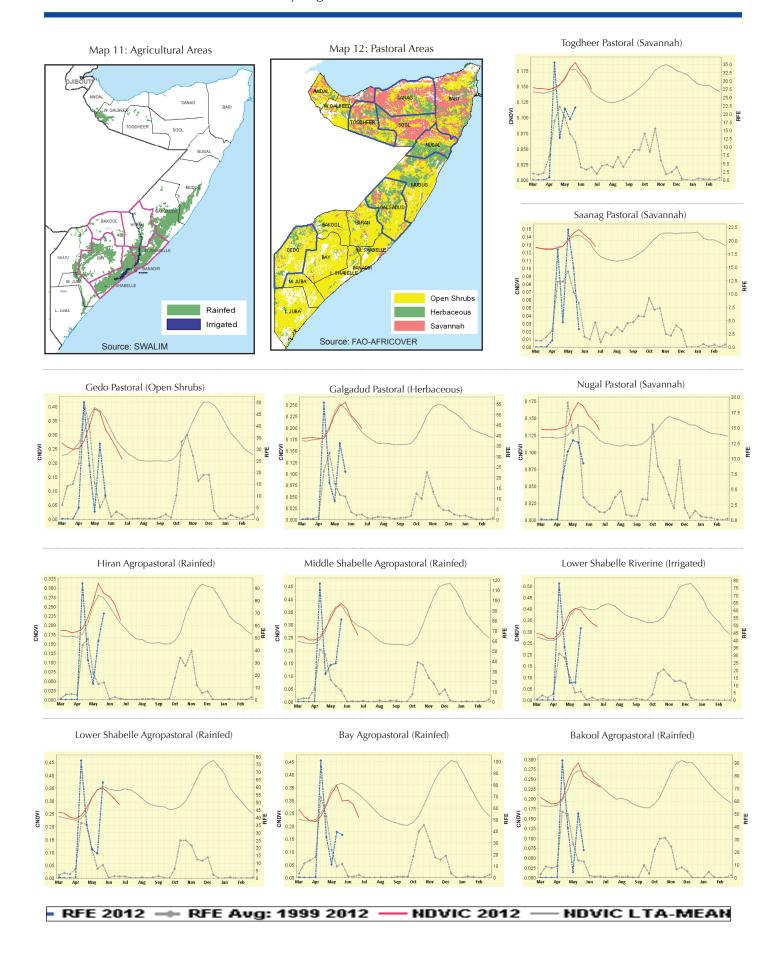
For more information or request on available data, please send an email to data@fsnau.org.

Primary data sources are NOAA/USGS, European Centre for Mediumrange 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 NOAW CPC and DEVCOCAST (www.devcocast.eu) respectively, while the 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

<sup>\*</sup>indicates missing data



# Seasonal rainfall and NDVI trends for selected districts

