

# East Africa: The 2017 Season

Somalia again on the brink of drought



Bulletin 2017 – 4, Eastern Africa

November 2017

# Contents

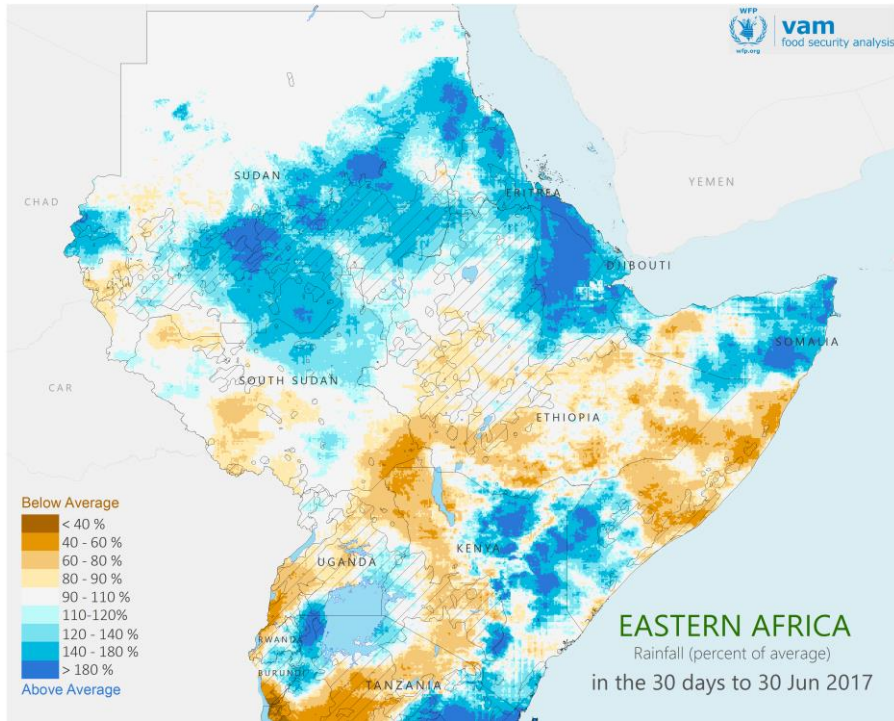
HIGHLIGHTS .....	2
MAY TO JUNE 2017 .....	3
JULY TO SEPTEMBER 2017 .....	4
SHORT RAINS 2017 .....	5
SEASONAL CHARTS.....	6
LA NINA and SEASONAL FORECASTS ...	7

# Highlights

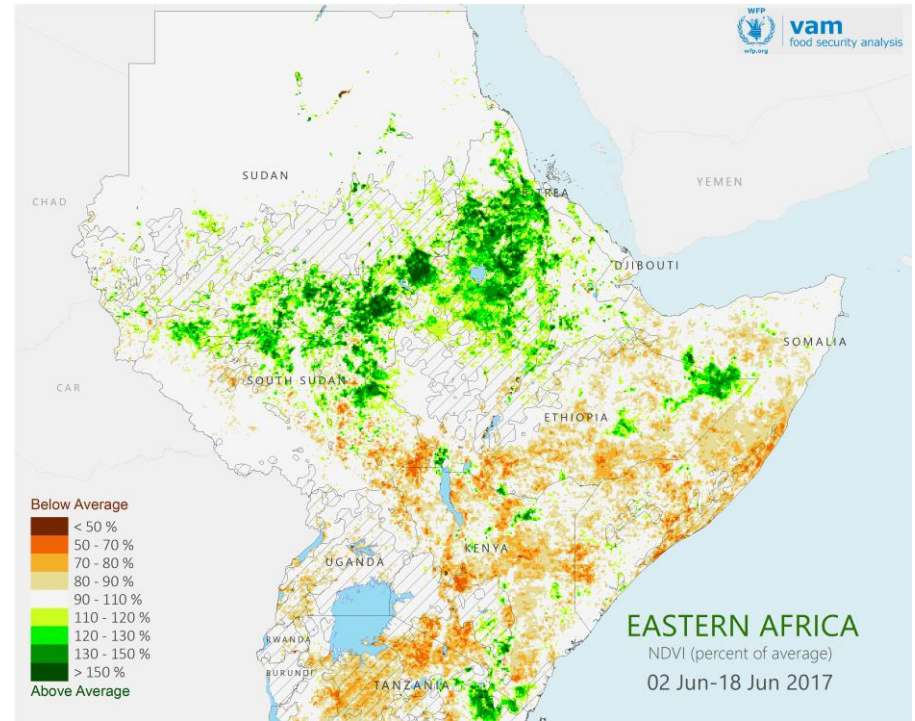
- Somalia and parts of eastern Kenya are likely to face yet another poor growing season. Drier than average conditions thus far coupled with a poor rainfall forecast for November will likely cause an unprecedented fourth consecutive drought. This will further worsen the already critical humanitarian situation.
- The current seasonal forecasts predict average rainfall for the Horn of Africa. However, specific analysis for Somalia indicates pessimistic outcomes also for the next season.
- Drier than average conditions have led to markedly below average vegetation cover in marginal agricultural areas of Sudan and Eritrea. This signals poor local crop and pasture development.
- A La Nina has now been officially declared. Even though this event is forecast to be weak and short lived, it can still lead to significant rainfall deficits in Somalia, eastern Kenya and SE Ethiopia

# East Africa: May - June 2017

As the Long Rains drought ended, wetter conditions spread across East Africa



June 2017 rainfall as a percent of average.  
Blues for wetter than average, browns for drier than average.



Mid June 2017 vegetation cover as a percent of average.  
Greens for above average, oranges for below average.

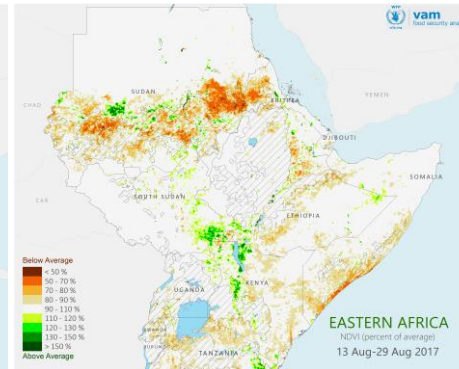
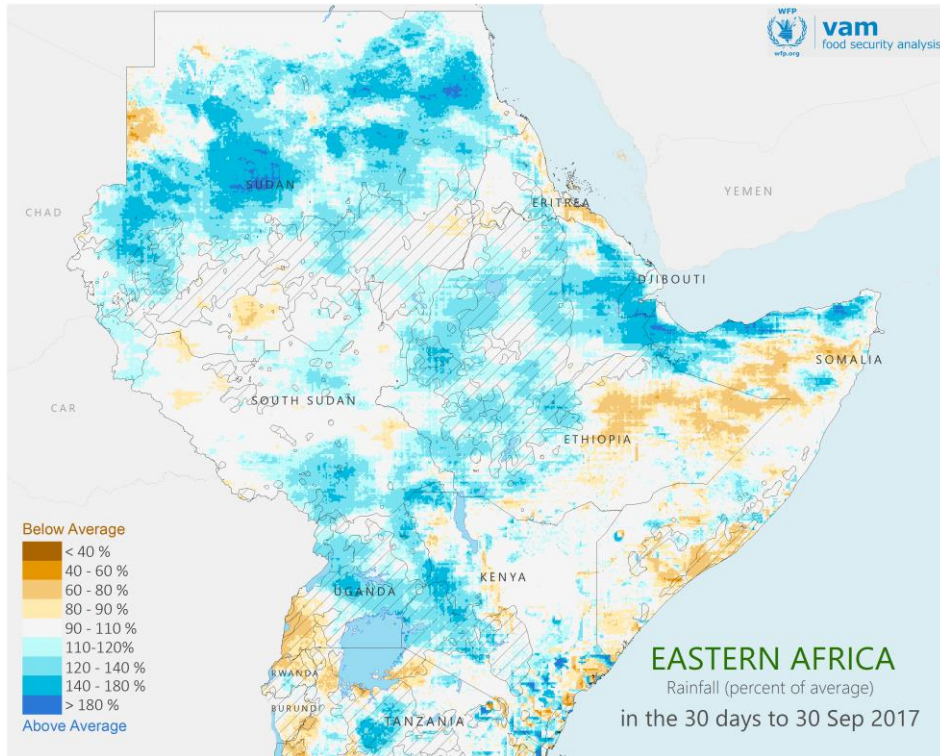
The Long Rains season (March-May) performed poorly across East Africa, with severe drought conditions affecting Somalia, SE Ethiopia and parts of Kenya for the third consecutive time.

These dry conditions extended until late June which led to a poor first growing season in Uganda, SE South Sudan and SW Ethiopia.

Central South Sudan, NE Sudan, Eritrea and parts of NE Ethiopia enjoyed regular and well above average rainfall until end of June. This led to better than average vegetation cover, with good pasture conditions and an early start to the crop growing season.

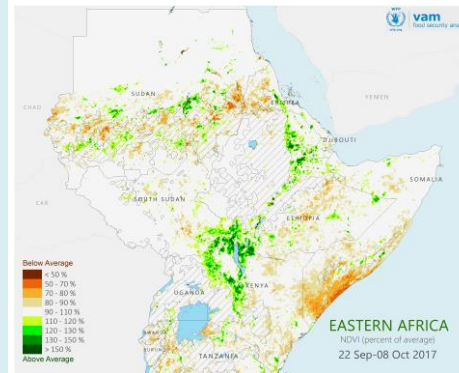
# East Africa: July - September 2017

Generally wetter than average conditions prevail, but localized problems remain



September 2017 rainfall as a percent of average (map far left). Blues for above average, browns for below average.

Mid August 2017 vegetation cover as a percent of average (map left above). Late September vegetation cover as a percent of average (map left below).. Greens for above average, oranges for below average.



Note improvement in vegetation cover from mid August to late September following wetter than average conditions in September.

Since July moderately above average rainfall across the region benefitted the main growing season in South Sudan, Sudan and central and western Ethiopia.

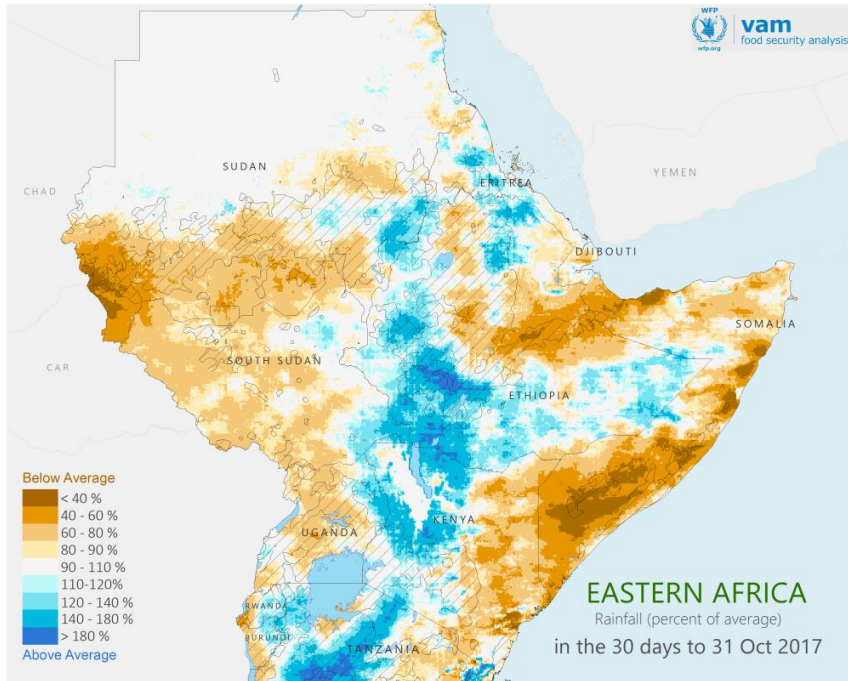
However, rainfall distribution was uneven in the semiarid regions of NE Sudan, NW Eritrea and parts of Afar in Ethiopia. This resulted in below average vegetation cover and poor local sorghum crop and pasture resources.

Across Uganda and most of central and northern Ethiopia, continued wetter than average conditions have led to good prospects for the coming harvests. In South Sudan, however only conflict free areas (North Bahr-el-Ghazal, Warrap) will be able to benefit.

Marginal semiarid regions also saw some recovery in vegetation cover following a wetter than average September, allowing for an improvement in pasture and water resources.

# Horn of Africa: Short Rains 2017

After an extended drought, Somalia is facing yet another poor growing season

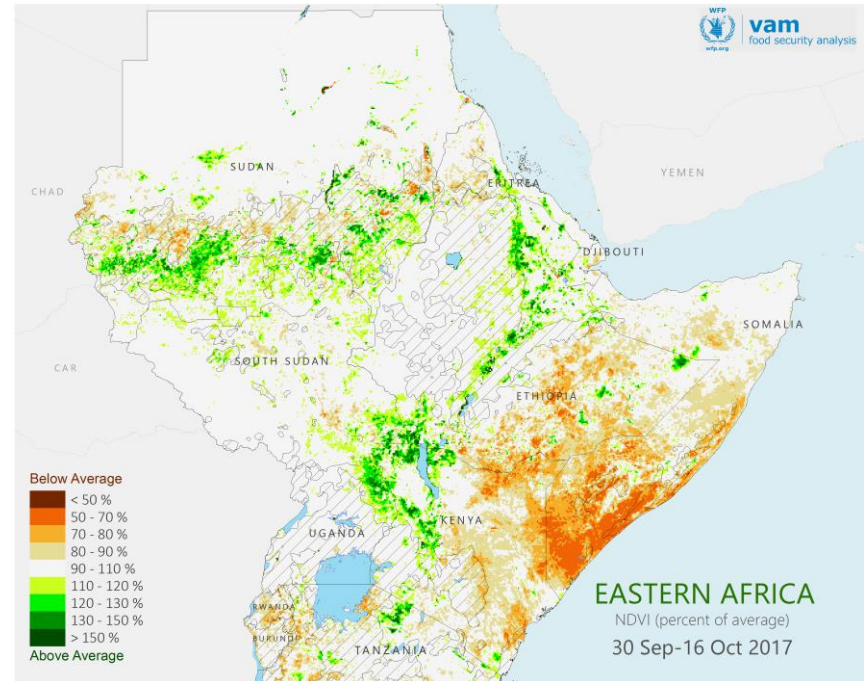


October 2017 rainfall as a percent of average.  
Blues for wetter than average, browns for drier than average.

The Short Rains / Deyr season (October–December) is now entering its mid point across East Africa (Somalia, SE Ethiopia, Kenya). Elsewhere in the region, this period corresponds to the end of the current growing season.

October was markedly drier than average in Somalia and eastern Kenya. Southern Somalia has been particularly affected – the provinces of Gedo, Bay, Bakool, Shabelles and Juba show pronounced rainfall deficits: in some areas only a third of the usual rainfall has been received thus far.

In contrast, Ethiopia's Somali region is enjoying favourable rainfall. The dryness in Somaliland and Ethiopia, south of Djibouti affects only the late stages of the local growing season.



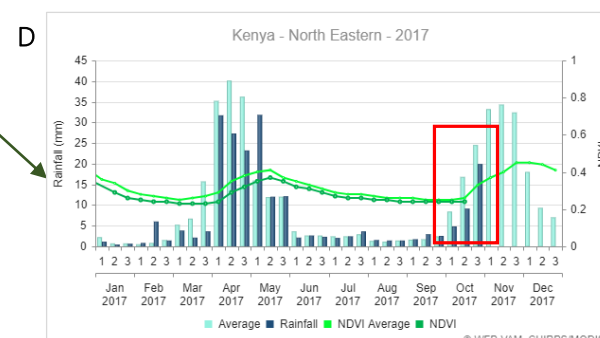
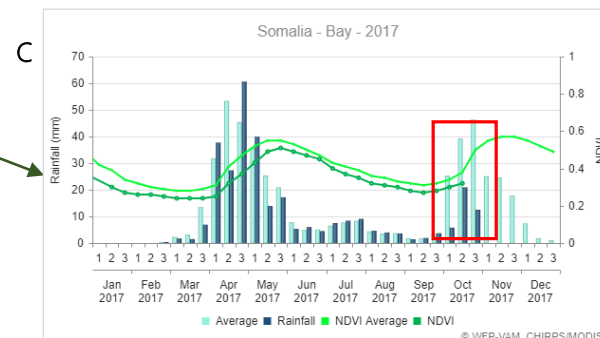
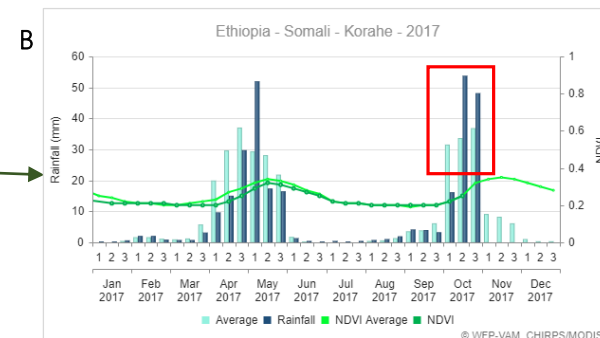
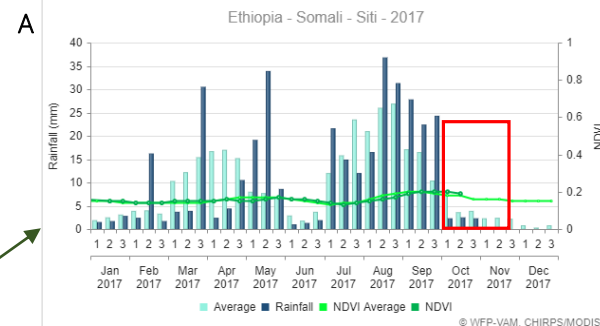
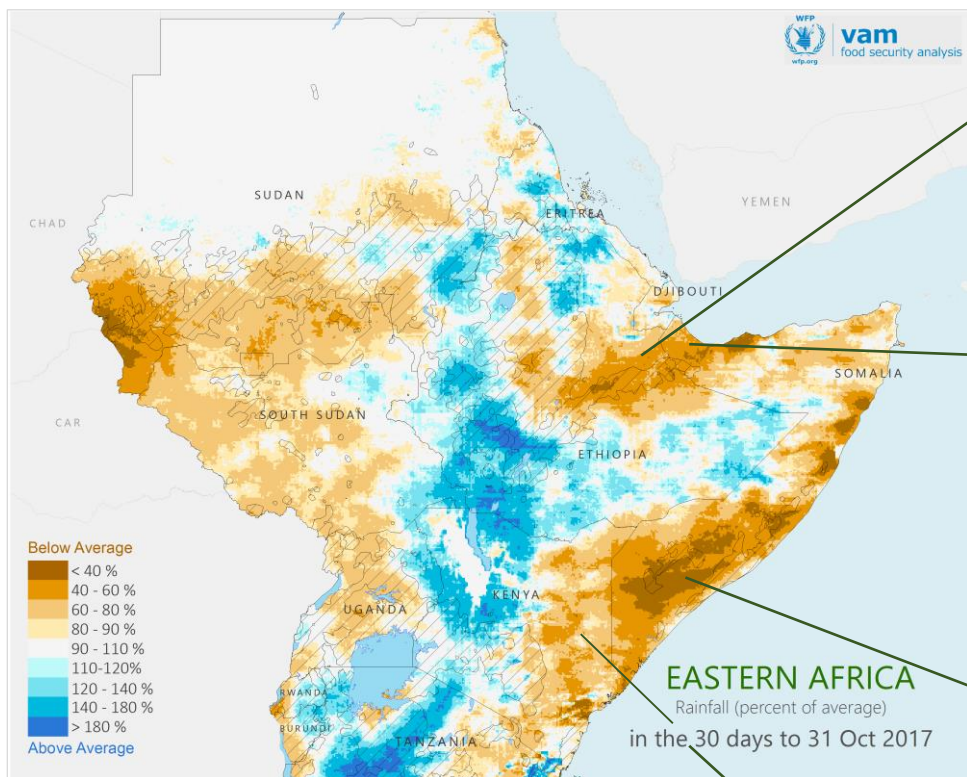
Mid October 2017 vegetation cover as a percent of average.  
Greens for above average, oranges for below average.

The rains in Somalia are insufficient to allow suitable crop development or the recovery of pasture. Vegetation cover is extremely depressed due to long term continuous dryness.

There are only four weeks till the end of the rainfall season for most of Somalia. Therefore, only sustained, regular and better than average rainfall from now onwards could redress the damage. Current short range forecasts do not support this outcome.

So, for a fourth consecutive season, significant negative impacts on crop production, pasture development and water availability are nearly inevitable. This will further worsen the already critical humanitarian situation.

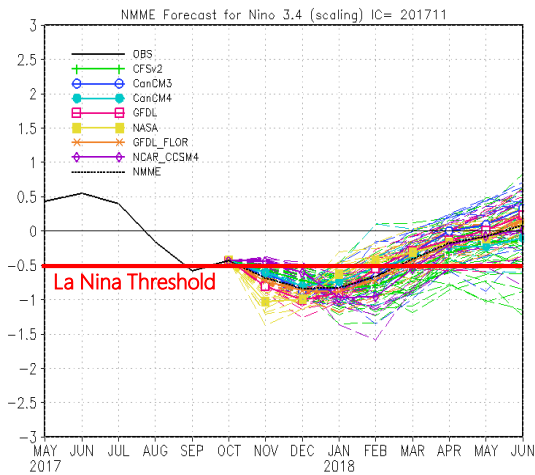
# Seasonal Charts



Seasonal charts show:

- A. Northern part of the Somali province of Ethiopia unaffected (late season)
- B. Favourable rains in SE Ethiopia
- C. Drought in central southern Somalia
- D. Dryness in NE Kenya

# La Nina Outlook and Seasonal Forecasts

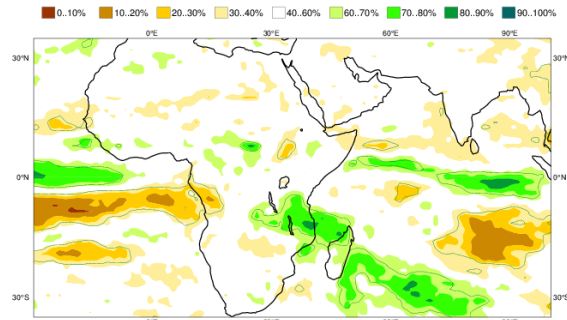


Sea surface temperature forecasts until mid 2018, from a range of models. The La Nina threshold is also indicated. Most models point to the event ending by early Spring 2018

A La Nina event has just been declared by International climate centers. Forecasts of sea surface temperatures (plot above) from a wide range of models indicate that La Nina conditions will remain in place until the early Spring of 2018 (most SST curves go over the La Nina threshold)

Therefore this la Nina event is forecast to be short lived and of low intensity. However, a weak La Nina intensity may lead to significant changes in rainfall patterns in vulnerable areas around the world.

ECMWF Seasonal Forecast  
Prob(precipitation > median)  
Forecast start reference is 01/10/17  
Ensemble size = 51, climate size = 450

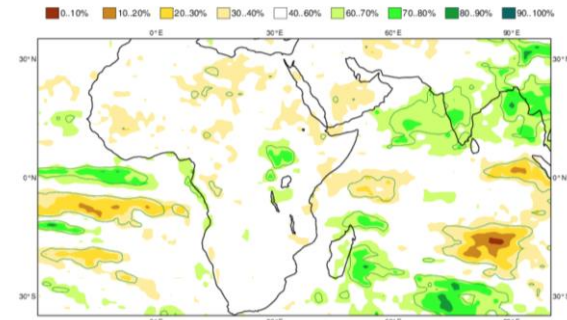


System 4  
NDJ 2017/18  
Solid contour at 1% significance level

Seasonal rainfall forecasts indicate average rainfall for the current season in East Africa, but may be too optimistic in view of the recent La Nina conditions.

For the next season (March-May 2018) some forecasts point to moderately drier than average conditions (below left)

ECMWF Seasonal Forecast  
Prob(precipitation > median)  
Forecast start reference is 1990-2016  
Ensemble size = 51, climate size = 600



System 5  
MAM 2018  
Solid contour at 1% significance level

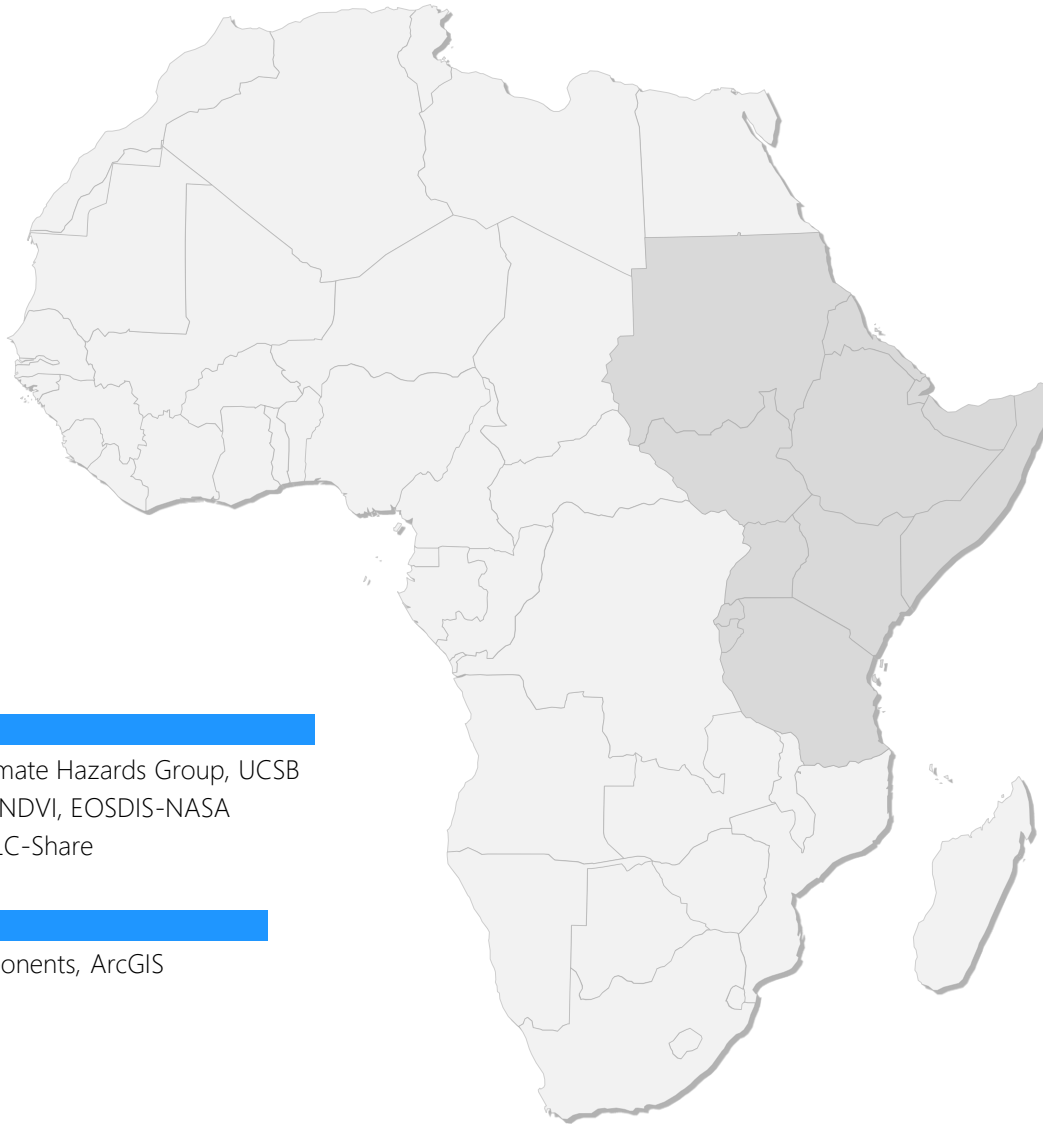
The Climate Hazards Group (University of California, Santa Barbara) have developed an alternative approach for Somalia and SE Ethiopia, based on a recalibration of the current forecasts with historical datasets.

Results indicate a greater likelihood of lower than average rainfall for **both the current and the next season in March-May 2018**. Their forecast is consistent with the developments in the current season and forecasts for below average November rainfall.

Full technical details can be found at:

<http://blog.chg.ucsb.edu/>

ECMWF seasonal forecasts: Nov-Jan rainfall above and March-May rainfall below.  
Greens for wetter than usual, oranges for drier than usual.



**FOR FURTHER INFORMATION:**

Rogério Bonifácio  
[rogerio.bonifacio@wfp.org](mailto:rogerio.bonifacio@wfp.org)  
+39 06 6513 3917

**DATA SOURCES:**

Rainfall: CHIRPS, Climate Hazards Group, UCSB  
Vegetation: MODIS NDVI, EOSDIS-NASA  
Land Cover: FAO GLC-Share

**PROCESSING:**

VAM software components, ArcGIS



**vam**  
food security analysis