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SPECIAL ALERT

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Prolonged and severe drought exacerbates food insecurity

Highlights

- Prevailing severe dry weather conditions, virtually since October 2016, have affected rangelands and crops in large parts of East Africa, causing a serious deterioration of food security conditions in the subregion.
- Major areas of concern are central and southern Somalia, southeastern Ethiopia, northern and eastern Kenya, northern United Republic of Tanzania, and northeastern and southwestern Uganda.
- Localized Fall armyworm infestations are likely to further affect yields in the affected areas.
- Soaring prices of cereals are limiting food access for large numbers of poor households.
- The purchasing power of pastoral households in Somalia, Kenya and Ethiopia is severely constrained by plunging prices of livestock and rising prices of cereals.
- Recurrent climatic shocks have undermined household resilience. Urgent support to agricultural livelihoods is critically needed.

The failed October-to-December 2016 rains and the harsh dry season of January/February 2017 were followed by a poor March-to-May rainy season in several areas of East Africa. The delayed onset, erratic temporal and spatial distribution and far below-average amounts of rain have resulted in a further deterioration of the already poor rangeland conditions. In pastoral areas severe emaciation of animals and widespread deaths are reported. In several cropping areas, poor rains have caused sharp reductions in plantings and wilting of crops currently being harvested. The most affected areas, which received less than half of their normal seasonal rainfall, are central and southern Somalia, southeastern Ethiopia, northern and eastern Kenya, northern United Republic of Tanzania and northeastern and southwestern Uganda (see *Annex*). Despite some late rainfall in May, damages to crops are often irreversible and rangeland conditions remain generally poor. Fall armyworm infestations, mainly affecting maize, have been widely reported. Production prospects for the current crops are generally unfavourable and most vulnerable households are

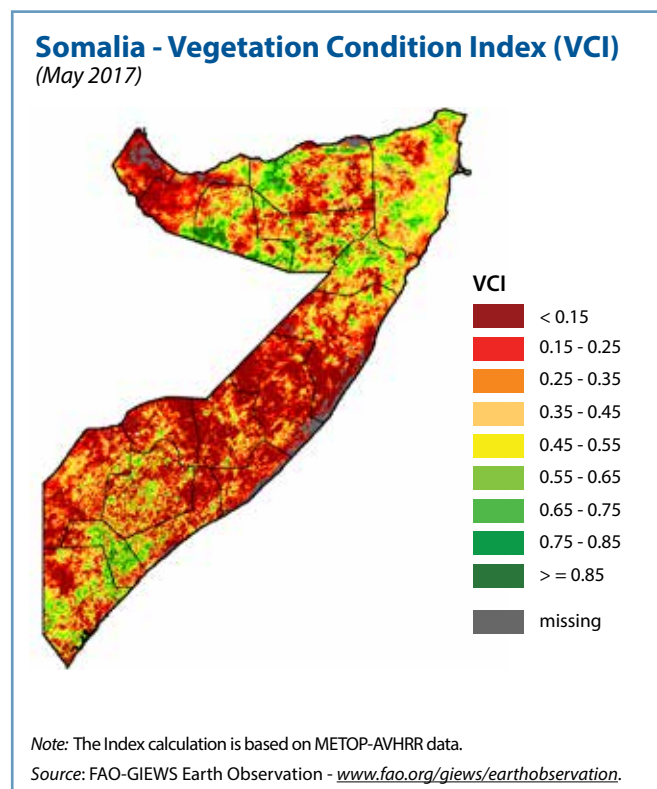
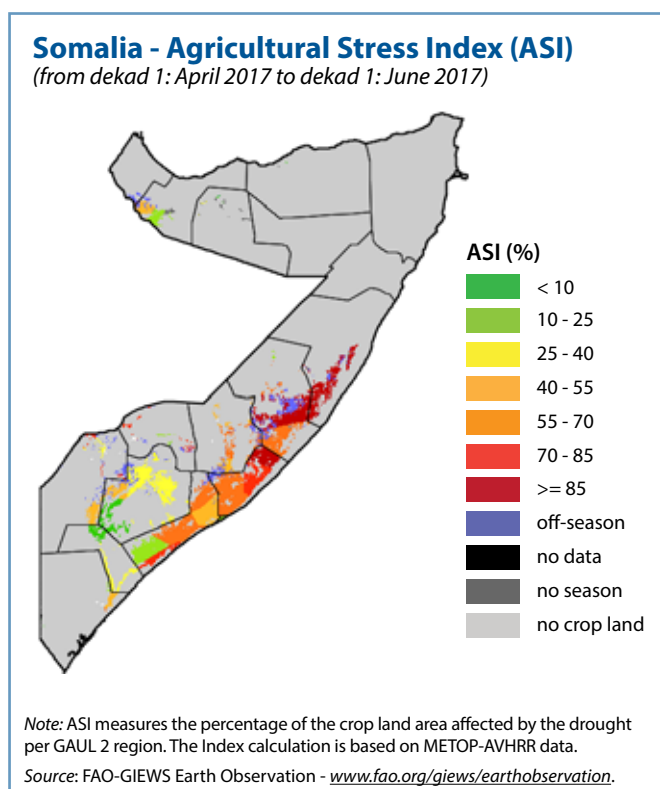
expected to enter the next lean season much earlier than usual. Cereal prices are surging since early 2016, driven by the sharply reduced secondary 2016/17 outputs and by concerns over the performance of current crops. Prices in May were at record to near-record levels in most markets and up to twice their year-earlier levels. Food insecurity for pastoralists is worsening due to declining livestock prices and reduced availability of livestock products. The situation is expected to further deteriorate in the coming months as grazing resources entered the ongoing dry season with already very poor conditions. The sequence of three failed rainy seasons, starting with the El Niño-induced drought in 2015, has eroded the resilience capacity of a large number of households and a timely and effective support to the agricultural sector is urgently required. The aggregate number of people in need of humanitarian assistance, currently estimated at about 16 million, has increased by about 30 percent since late 2016 and is expected to further expand in the coming months with the onset of the dry season and an anticipated early start of the lean season.

## Somalia

- Unfavourable prospects for the 2017 main “gu” crops.
- Poor rangeland conditions affecting pastoral livelihoods.

The April-June “gu” rainy season has been characterized by a late onset, poor rainfall amounts and erratic distribution over most areas of the country. In the Lower Shabelle region, the main maize producing area, seasonal rainfall was about 50 percent below average and, according to FAO’s Agricultural Stress Index (ASI), drought conditions are currently affecting up to 85 percent of the cropland. In the “sorghum belt” in Bay region, rainfall amounts were near-average, but precipitations were unevenly distributed in time, with delayed onset and early cessation. Here, ASI indicates that up to 55 percent of the cropland is affected by drought. As “hagaa” coastal rains in July-August are not expected to support the development of late-planted crops, which have been affected by dry conditions in June, a yield recovery of “gu” crops, to be harvested by August 2017, is highly

unlikely. Agricultural activities have been affected by the depletion of productive assets, lack of seeds and other agricultural inputs, protracted insecurity and large scale population displacements<sup>1</sup>. Production prospects are generally unfavourable and may lead to a third consecutive reduced cereal production, after the poor 2016/17 “deyr” harvest gathered last January and the reduced 2016 “gu” output<sup>2</sup>. In pastoral areas, where pasture and water availability were affected by the failed October-December “deyr” rains and a harsh “jilaal” dry season<sup>3</sup>, the poor performance of the “gu” rainy season had a further negative impact on rangeland resources. The most severe rainfall deficits were recorded in central Galgaduud, Mudug and Middle Shabelle Regions, where the cumulative rainfall between April and mid-June was 60-80 percent lower than the long-term average, and current pasture conditions are very poor. Although recent rains in May supported some pasture regeneration, these improvements are limited and will be short-lived as rains did not continue into June and the “xagaa” July-to-September dry season is about to start. As a result of the persisting pasture and water shortages, livestock body conditions are poor, with low milk productivity and birth rates. In the areas most affected



<sup>1</sup> Between November 2016 and May 2017, about 740 000 persons were displaced due to drought or drought-related factors.

<sup>2</sup> The 2016/17 “deyr” harvest was estimated at 32 000 tonnes, 75 percent below the average of the previous five years, and the 2016 “gu” harvest at 65 000 tonnes, 20 percent below the five year-average.

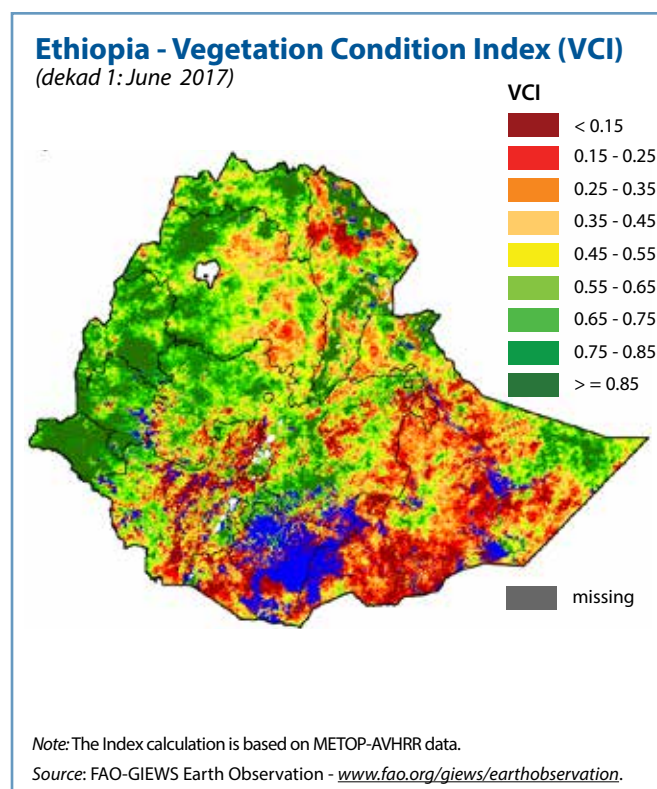
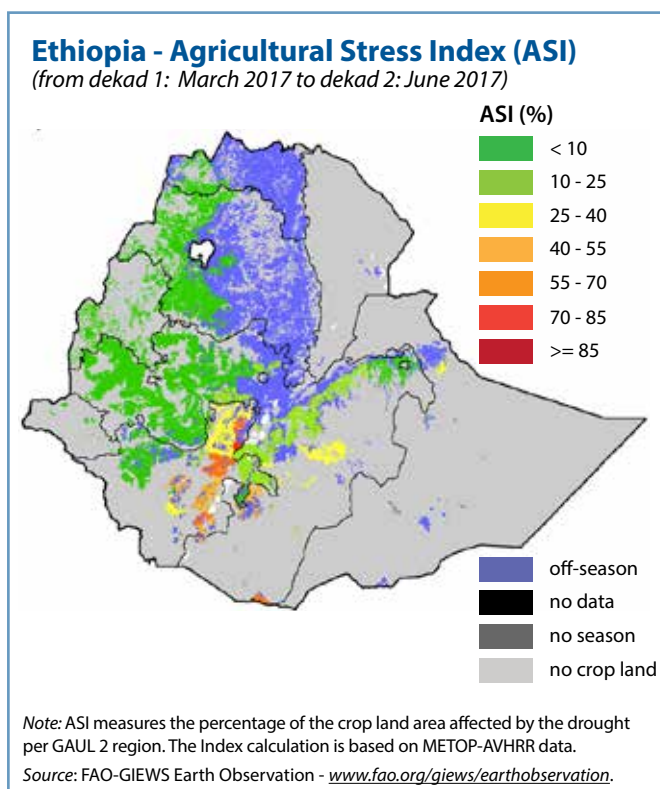
<sup>3</sup> Land surface temperatures recorded in January and February were 10-25 percent higher than normal.

by drought, herds are estimated to have shrunk by 40 to 60 percent since December 2016 due to mortality and distress sales. Prices of cereals are at very high levels due to the tight supply situation. In Marka and Baidoa markets, located in the key-producing Lower Shabelle and Bay regions, prices of locally-produced maize and sorghum, after having declined by about 15 percent in January-February following the “deyr” harvest, surged by 25-30 percent in April-May. In May, overall prices of coarse grains in main markets of central and southern Somalia, including the capital, Mogadishu, were up to twice their levels of 12 months earlier. As a result of declining livestock prices due to poor animal conditions, coupled with increasing cereal prices, terms of trade for pastoralists sharply deteriorated over the last 12 months. For example, the equivalent in maize of one medium size goat declined in Middle Juba from 97 kg in May 2016 to 30 kg in May 2017. In Mogadishu, unskilled labour wages rates sharply decreased over the last 12 months as the sustained immigration from the drought-affected rural areas resulted in increased competition for available labour opportunities. Here, the maize/labour terms of trade declined by about 65 percent over the same period, indicating severe food access constraints also for urban consumers.

## Ethiopia

- Unfavourable “belg” rains in southern cropping areas likely to result in localized cereal production shortfalls.
- Severe drought in southeastern pastoral areas affecting livestock conditions.

Prolonged drought conditions are severely affecting crops and availability of pasture and water in most southern regions. In cropping areas of Southern Nations, Nationalities and Peoples’ Region (SNNPR), the March-June “belg” rainy season was characterized by a delayed onset and below-average precipitations in April. The most severe rainfall deficits were recorded in Wolayita, Gamo Gofa, Gedio and South Omo zones, where cumulative rainfall between February and April was up to 35 percent below average. Some above-average precipitations in May were not sufficient to completely offset the severe moisture deficits and, according to ASI, between 25 and 85 percent of the cropland is currently affected by drought. The “belg” harvest, normally gathered in June/July, will be delayed by about



one month and is forecast at below-average levels in these areas. Here, the area planted with “meher” long-cycle crops (maize, sorghum and millet), to be harvested from October, is expected to decline due to the late onset of the “belg” rains that prevented farmers from a timely preparation of land. Fall armyworm infestations, mainly affecting maize and sorghum crops, have been reported in 233 of the country’s 800 districts (woredas). In particular, the pest has now affected about 53 000 hectares in 144 districts in three of the major maize-growing regions (Gambella, Oromia and SNNPR). In pastoral areas of southern Oromia and Southern Somali regions, the failure of the 2016 October-December “deyr/hageya” rainy season was followed by a harsh dry season, characterized by higher-than-normal land surface temperatures. Subsequently, the poor performance of the 2017 March-May “gu/genna” rainy season has caused a further deterioration of rangeland conditions to extremely poor levels. In some areas of Southern Somali Region (Liben, Gode and Koraha zones), significant rains were received only in the last dekad of April and in the first dekad of May, and the cumulative seasonal rainfall was up to 60 percent below average. Although late-season rains had a positive impact on forage and water resources, vegetation conditions remain poor.

Improvements are expected to be short-lived as rains tapered off from mid-May and the dry season already started in June. The severe forage and water deficits resulted in extremely poor livestock body conditions, high animal mortality rates and a sharp decline of milk production. With the next rainy season starting in October, rangeland and livestock conditions are expected to further deteriorate in the coming months. In drought-affected southeastern areas, prices of livestock have declined to very low levels as animal body conditions have substantially deteriorated and pastoralists have been forced to reduce their herd sizes. In Warder market, located in Dollo zone in Southeastern Somali Region, prices of sheep and goats have declined by about 20 percent between February and March 2017 when they were about 50 percent below average.

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## Kenya

- Drought affects yields in central, southeastern and coastal areas.
- Poor rangeland conditions in most pastoral and agro-pastoral areas.

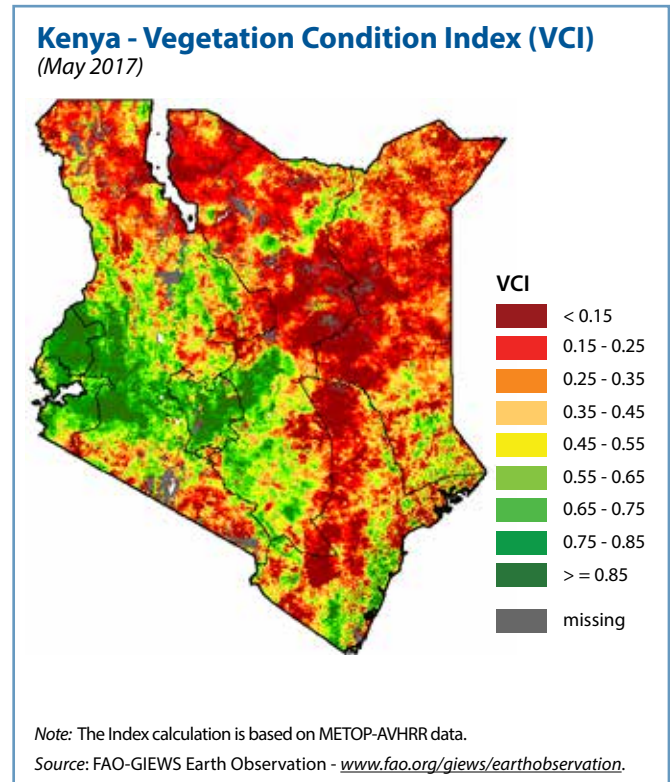
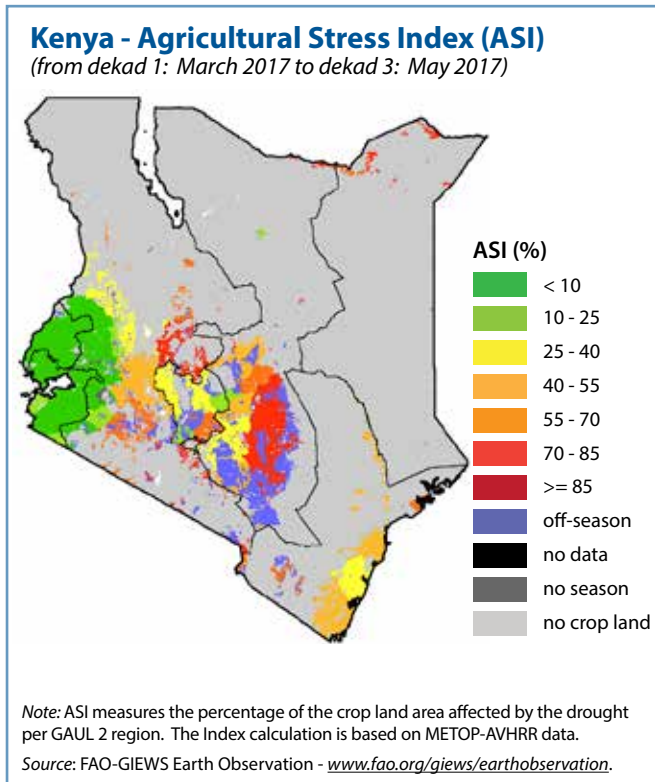
The “long-rains” season started in April, with about a one month delay, over most of the country except in westernmost counties. In high potential cropping areas of the southwestern “maize basket”, above-average rainfall in May offset the early season dryness in Nandi and Kericho counties, while in Trans Nzoia, Uasin Gishu and Nakuru counties accumulated rainfall between March and mid-June remained between 15 and 45 percent below average. In southwestern Kenya, the “long-rains” season normally extends until August and, with rainfall forecasts<sup>4</sup> pointing to generally favourable rains for the remainder of the rainy season, a full recovery of water-stressed crops is still possible. In central medium potential cropping areas and in southeastern and coastal marginal agriculture livelihood zones, rainfall deficits are more severe, with accumulated seasonal precipitations up to 60 percent below average and an erratic temporal distribution.

In these areas, ASI indicates that up to 85 percent of cropland is affected by drought. In coastal Kwale, Kilifi and Lamu counties, up to 70 percent of the cumulative seasonal precipitation was concentrated in the first dekad May. The torrential rains led to high runoff and low moisture recharge, resulting in limited improvements in vegetation conditions but triggering floods which affected about 2 500 households and caused the destruction of infrastructures and losses of standing crops. As the rainy season ended in mid-June in these areas outside the “grain basket”, damage to crops, to be harvested from July, is irreversible and production prospects are unfavourable. The forecast below-average harvests will potentially result in a third consecutive reduced output in these areas, after the sharply-reduced 2016/17 “short-rains” harvest, gathered last February, and the below-average 2016 “long-rains” harvest<sup>5</sup>. Fall armyworm infestations affecting maize and wheat crops, initially reported in Busia, Trans Nzoia, Bungoma,

<sup>4</sup> Statement from the 46<sup>th</sup> Greater Horn of Africa Climate Outlook Forum (GHACOF 46), May 2017.

<sup>5</sup> The 2016/17 “short-rains” maize production was estimated at 150 000 tons, 70 percent below the average of the previous five years, with a near-total failure reported in coastal areas, and the 2016 “long-rains” output was estimated at 2.6 million tonnes, 10 percent below average.





Uasin Gishu and Nandi counties in the southwest, subsequently spread to Kericho, Bomet, Narok, Nakuru and Baringo counties in the centre and in the south. The pest has so far affected about 200 000 hectares of crops. In pastoral areas, where pasture and water availability were affected by the failed October-December "short-rains", the poor performance of the "long-rains" had a further negative impact on pasture, browsing and water availability. The most severe rainfall deficits were recorded in northwestern (Turkana, Samburu, Marsabit) and northeastern (Mandera, Isiolo, and Tana River) counties, where the cumulative rainfall from March to mid-June was 45-65 percent lower than the long-term average. Above-average rainfall received in May had some positive impacts on rangeland conditions, but these limited improvements will be short-lived, as the dry season has already started. As a result of prolonged dry conditions, livestock trekking distances to watering points from grazing fields have substantially increased over the last 12 months. In Garissa, Mandera, Turkana and Tana River counties, they are currently between two and three times the average distance. Due

to the severe water and pasture stress, livestock body conditions are generally very poor, with drought-related deaths being reported in seven counties in May. Milk production is at extremely low levels, in particular in Turkana, Mandera and Tana River counties, where in May it was estimated at less than 4 percent of the long-term average. Prices of maize surged on average by about 70 percent between January and May 2017, reaching record levels in most markets due to the failure of the 2016/17 "short-rains" harvest and by concerns over the performance of the 2017 "long-rains" harvest. The sharpest price increases were recorded in coastal counties, where crop losses and market disruptions due to floods provided further support. In Kilifi County, prices of maize surged by about 90 percent between March and May, when they were more than twice their year-earlier levels. Pastoralist households are facing increasing staple food prices, coupled with declining livestock prices, with a negative impact on purchasing power and food access. For instance, in Turkana, Marsabit and Mandera counties the goats-to-maize terms of trade declined over the last 12 months by 25-35 percent.

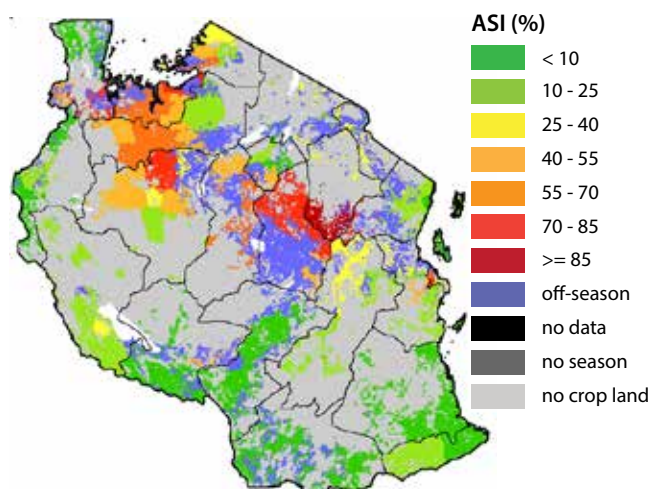
## The United Republic of Tanzania

- Unfavourable rains likely to result in localized cereal production shortfalls in northern and central areas.

In bi-modal rainfall areas, "masika" crops are currently being harvested and yields in northern parts have been affected by below-average rains. March to May rains have been 20-35 below average in Arusha, Mwanza and in Shinyanga region. In these areas, ASI indicates that drought conditions are currently affecting 25-70 percent of cropland. In uni-modal rainfall central and southern areas, the major "msimu" harvest started in June/July with a delay of more than one month, as dry weather conditions between December 2016 and February 2017 hampered planting operations and had a negative impact on crop germination and establishment. Average to above-average rainfall between February and May reduced soil moisture deficits and lifted production prospects in southern key-growing areas, including Mbeya Rukwa, Katavi and Iringa regions. By contrast, in central Tabora, Singida and Dodoma regions, where the early-season dryness was most severe, the improved rains were not sufficient to offset moisture deficits and the accumulated November-April rainfall remained up to 25 percent below average. In these regions, vegetation conditions are generally poor and, according to ASI, in several cropping areas between 40 and 85 percent of cropland is affected by drought. Fall armyworm infestations, reported in several regions both in uni-modal rainfall areas (Songwe, Katavi, Mbeya, Iringa, Njombe, Ruvuma, Lindi, Mtwara, Morogoro and Rukwa regions) and in bi-modal rainfall areas (Arusha, Manyara, Shinyanga and Kilimanjaro regions), are likely to further constrain yields. In recent months, prices of maize followed a sustained increasing trend in most markets due to the upward pressure exerted by two consecutive reduced outputs (2016 "masika" and 2017 "vuli") and by concerns over the performance of the current harvests. Prices surged by up to 75 percent between December 2016 and May 2017, when they were more than twice their year-earlier levels.

### United Republic of Tanzania - Agricultural Stress Index (ASI)

(from dekad : 1 November 2016 to dekad: 2 May 2017)



Note: ASI measures the percentage of the crop land area affected by the drought per GAUL 2 region. The Index calculation is based on METOP-AVHRR data.

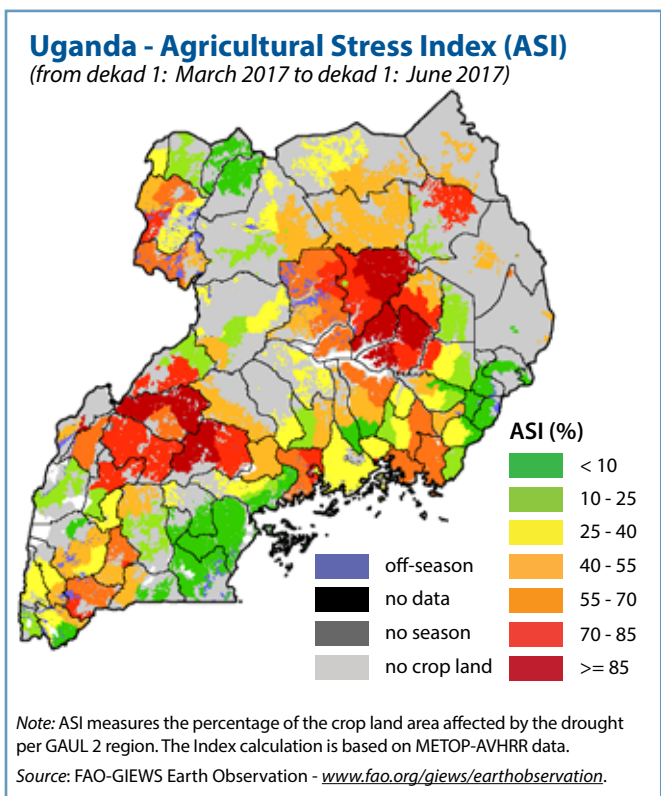
Source: FAO-GIEWS Earth Observation - [www.fao.org/giews/earthobservation](http://www.fao.org/giews/earthobservation).

## Uganda

- Unfavourable production prospects for first season crops in southwestern and northern districts.

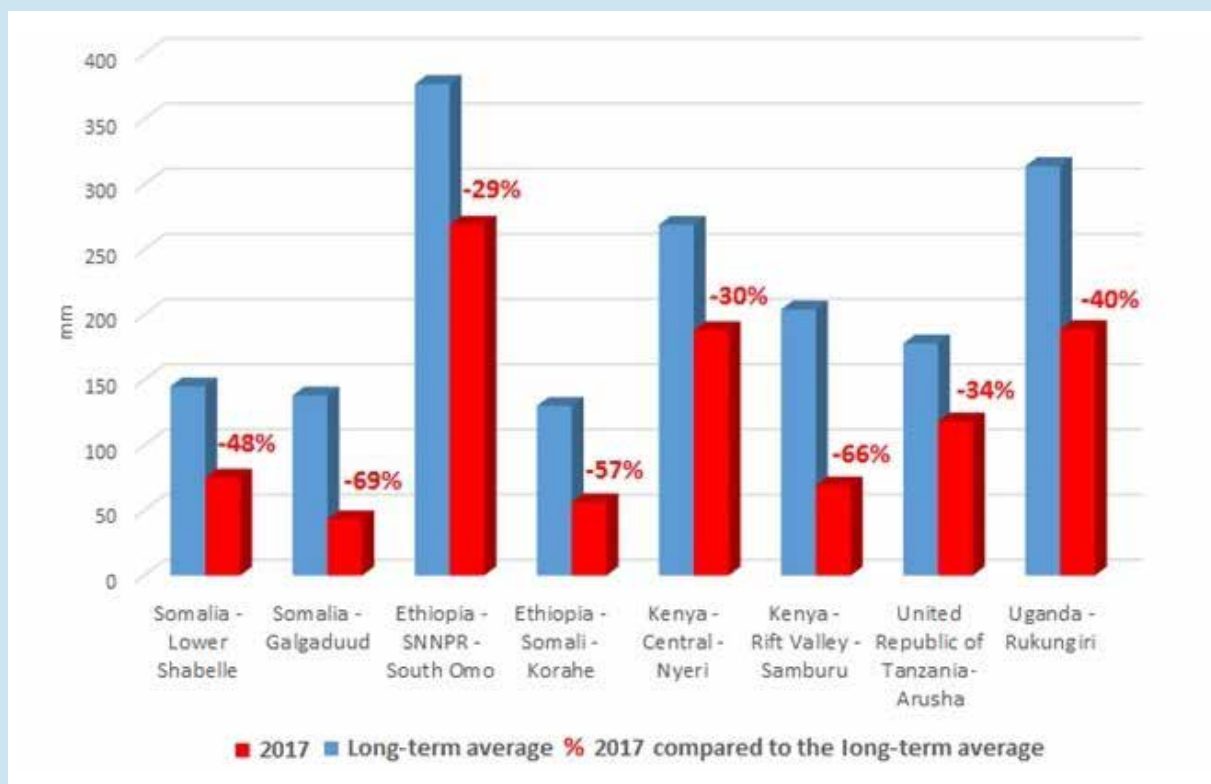
Harvesting of the 2017 first season crops is underway in bi-modal rainfall areas and production prospects are unfavourable. Seasonal rainfall has been erratic and below-average in several southwestern and northern districts, where the poor weather conditions had a negative impact on crop establishment and development. The most severe rainfall deficits have been recorded in southwestern Kibaale, Bushenyi, Kanungu and Rukungiri districts, where March-May accumulated rainfall was 30-40 percent below the long-term average. In northern districts, rainfall amounts were near-average, but had an erratic temporal distribution, with a prolonged dry spell in the first two dekads of April. According to the ASI, the areas of major concern, where more than 70 percent of cropland is affected by drought, are northeastern

Otuke, Alebtong, Soroti, Amuria, Kaberamaido, Lira, Serere and Dokolo districts and southwestern Kibaale, Kyenjojo, Kyegegwa, Kamwenge, Hoima and Mubende districts. In uni-modal rainfall areas of northeastern Karamoja region, harvest is expected to start in September with about a one-month delay due to a late onset of seasonal rains. In Kaabong, Moroto and Nakapiripirit districts, the accumulated rainfall between April and mid-June was between 30 and 45 percent below average. Rainfall amounts and distribution in the coming weeks will be crucial for crop development performance. Localized Fall armyworm infestations have been reported in 60 of the country's 111 districts and are likely to further constrain yields in the affected areas. Prices of maize surged by 40-50 percent between January and May 2017, reaching record levels in most markets, driven by tight supplies from the reduced 2016 cereal output and concerns over the performance of the 2017 first season crop. Sustained demand from neighbouring countries provided further support.



## ANNEX

### Estimated seasonal cumulative rainfall compared to the long-term average in selected areas of Somalia, Ethiopia, Kenya, the United Republic of Tanzania and Uganda



Note: The long-term average is calculated for the 1989-2012 period.

Source: FAO-GIEWS Earth Observation - [www.fao.org/giews/earthobservation](http://www.fao.org/giews/earthobservation).

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