

Kenya long rains rapid crop assessment

updated September 24th, 2019

Highlights

- Planted area of the long rains maize crop in Kenya was significantly reduced compared to the previous year due to delayed onset of the March to May rains and widespread drought over the marginal agricultural areas of eastern, central, and coastal Kenya.
- Long rains maize production outlook is estimated at 20 percent below the 2018 bumper harvest and 10 percent below the average 2016 harvest.
- In agropastoral and marginal agricultural areas of central, southeastern and coastal Kenya, long rains maize harvest finished in August and production is estimated at about 50-60 percent below-average, with a near failure of the harvest reported in southeastern areas (Figure 1).
- By contrast, in key growing areas of Rift Valley and western provinces, where the long rains season (which normally extends from March to August) improved rains from May onwards, mostly offsetting rainfall deficits and resulting in a partial recovery of water-stressed and late-planted crops.
- Maize harvest over the West and Rift Valley will begin in late October to November and while yields are expected to be average due to improved rains from mid-May onwards (Figure 1), production prospects are below-average due to a delay in onset of the long rains and erratic rainfall, which caused an estimated 25 percent decrease in planted area.

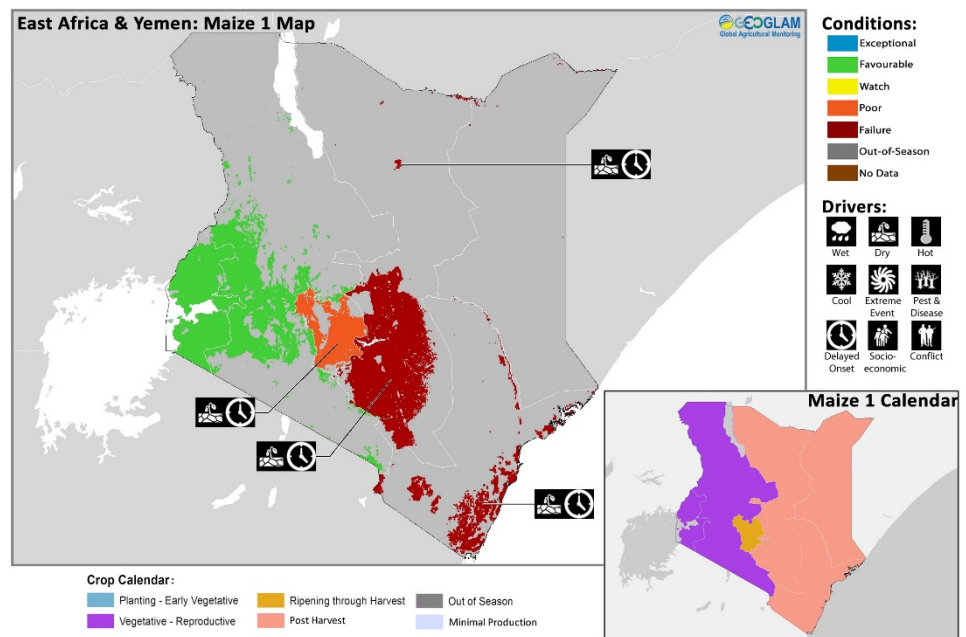


Figure 1. Kenya crop condition map summarizing conditions as of September 24th (source: GEOGLAM CM4EW). Note: updated crop conditions for Kenya will be published October 3rd, in the CM4EW October Bulletin.

Summary:

In August, a rapid crop assessment was undertaken by the USAID Famine Early Warning System (FEWSNET) and the IGAD Climate Prediction and Application Centre (ICPAC) to assess the status of long rains maize production in Kenya. From this assessment, 2019 long rains maize production in Kenya is estimated to be approximately 20 percent below the 2018 bumper harvest and close to 10 percent below 2016 production (2016 is considered as an average year). The assessment found that national total planted area for the long rains maize was reduced by an estimated 45 percent (1.2 million hectares compared to a normal baseline of approximately 2.1-2.2 million hectares) due to the delayed onset of the March to May rains and drought (Figure 3), which resulted in extensive maize crop wilting and failure (Figure 2) over much of **eastern, central and coastal** marginal cropping areas. These areas account for about 25 to 30 percent of total long rains maize acreage in the country. This decrease in planted area is visible from satellite imagery over both marginal (Figure 4) and high producing areas (Figure 5), where significantly lower presence and vigor of crop and pasture vegetation is present close to the end of the cropping season compared with the same time in the 2016 season, which resulted in average production.



Figure 2. Whole field crop failure (left) and wilted maize plants (right) over the east and central region, Kenya. (Source: FEWSNET/ICPAC rapid crop assessment)

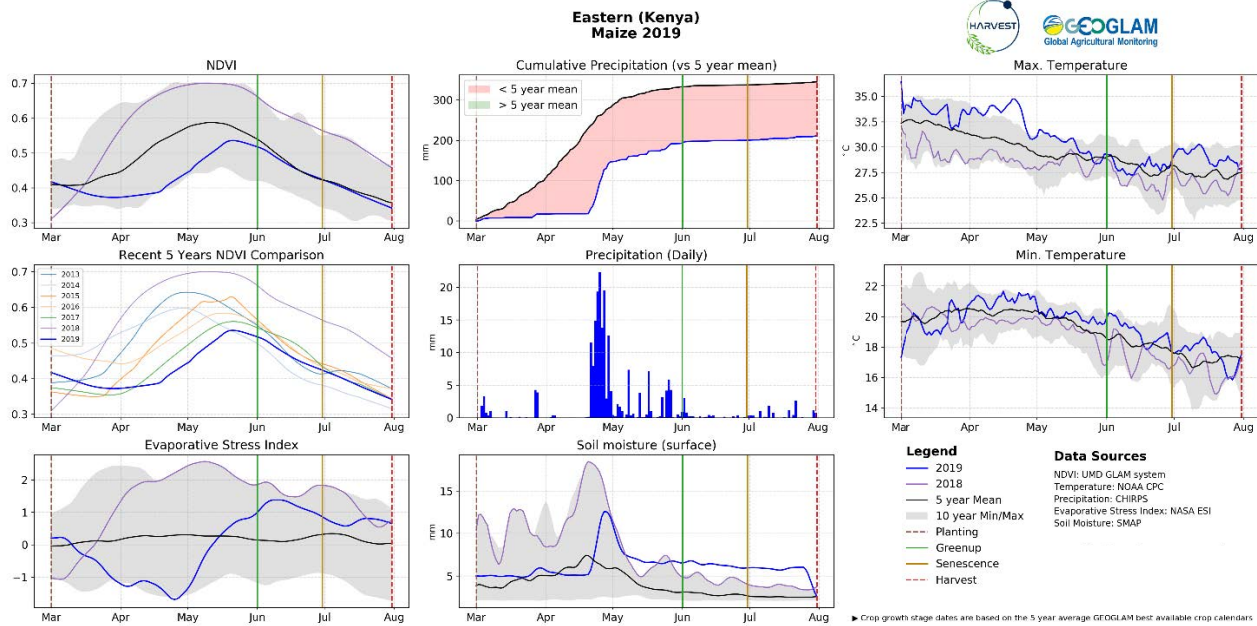


Figure 3. Agro-climatic indicators over the 2019 long rains season in Eastern Kenya (source: NASA Harvest)



Figure 4. Landsat-8 Imagery showing crop and pastoral areas in Kenya, Kitui county, in 2019 (top) and in 2016 (considered as an average year) (bottom). Active vegetation is shown in red and bare soil in green. The top image for May 2019 shows that many agricultural areas are bare, while at the same time of the year in 2016 most fields had active crops. Bare areas in the top image represent areas of crop failure given that in May the season is already close to complete. (source: JRC ASAP)

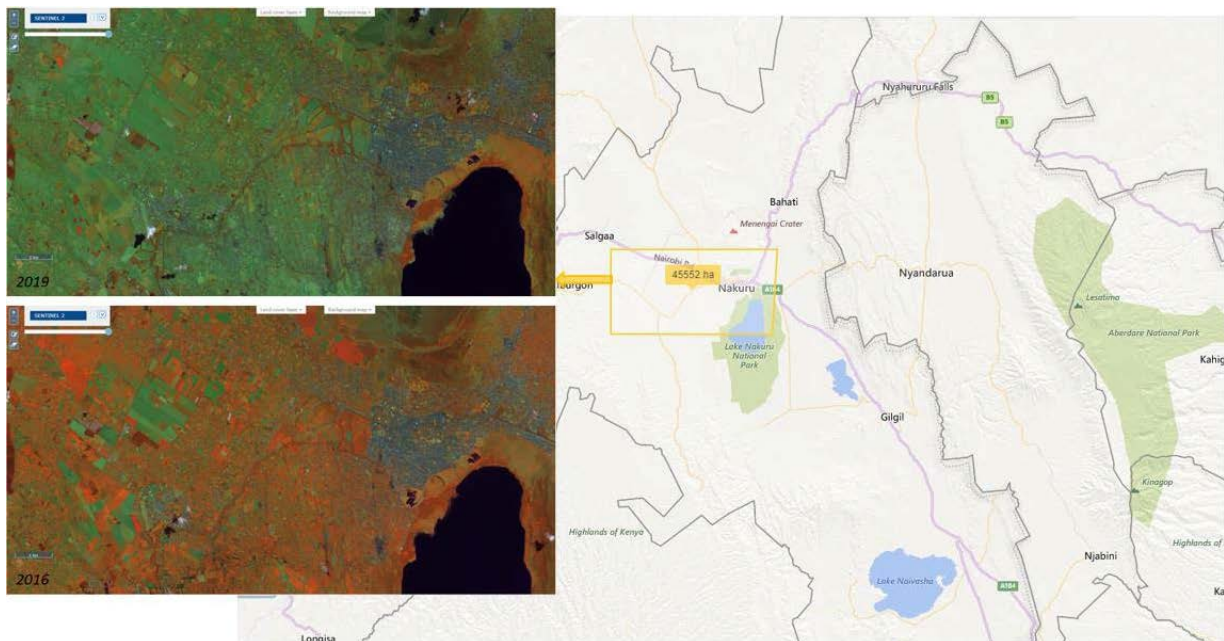


Figure 5. Sentinel-2 Imagery showing crop and pastoral areas in Kenya, Nakuru county, in 2019 (top) and in 2016 (considered as an average year) (bottom). Active vegetation is shown in red and bare soil in green. The top image for May 2019 shows that many agricultural areas are bare, while at the same time of the year in 2016 most fields had active crops. (source: JRC ASAP)

While failure resulted in the marginal producing regions, the FEWSNET/ICPAC rapid crop assessment found that the 2019 long rains maize yield prospects look largely favorable in the main producing **west**, despite delayed rains and farming challenges throughout the season. While cumulative rainfall over western Kenya was below-average at the start of the season, rains from mid-May onwards improved conditions and vegetation indices look largely above-average (Figure 8). Meanwhile, parts of the medium-to-high maize production zones of the Rift Valley, Nyanza and western counties experienced an estimated 25 percent reduction in their total planted area compared to previous seasons, largely due to erratic and delayed onset of the rains by more than a month (Figure 7), prolonged dry spells, fall armyworm (FAW) infestation and relatively high additional cost of replanting, along with high uncertainties early in the season (April and May) on the overall rainfall performance outlook for the remainder of the cropping season. In much of **west**, **north**, and **south** Rift, while planted area and overall production decreased compared to the previous year, the yield prospects are estimated to be only slightly below the 2018 high levels due to the improved rainfall across these counties from mid-May onwards, shown in the near average cumulative rainfall in Figure 7. Most of **western** and **south** Rift crops are near maturity, shown in Figure 6, and harvest is expected to start in October. In north Rift, the maize crop is still in late vegetative to early reproductive stages and presenting generally favorable conditions due to recently improved rains. The estimated time of harvest is late October through November. However, forecasts indicate that rainfall is likely to continue through the coming months and this poses a challenge during the harvest period. Farmers are anticipating post-harvest losses and wheat, in particular, is likely to be severely affected.



Figure 6. Maize crops in western Kenya. (Source: FEWSNET/ICPAC rapid crop assessment)

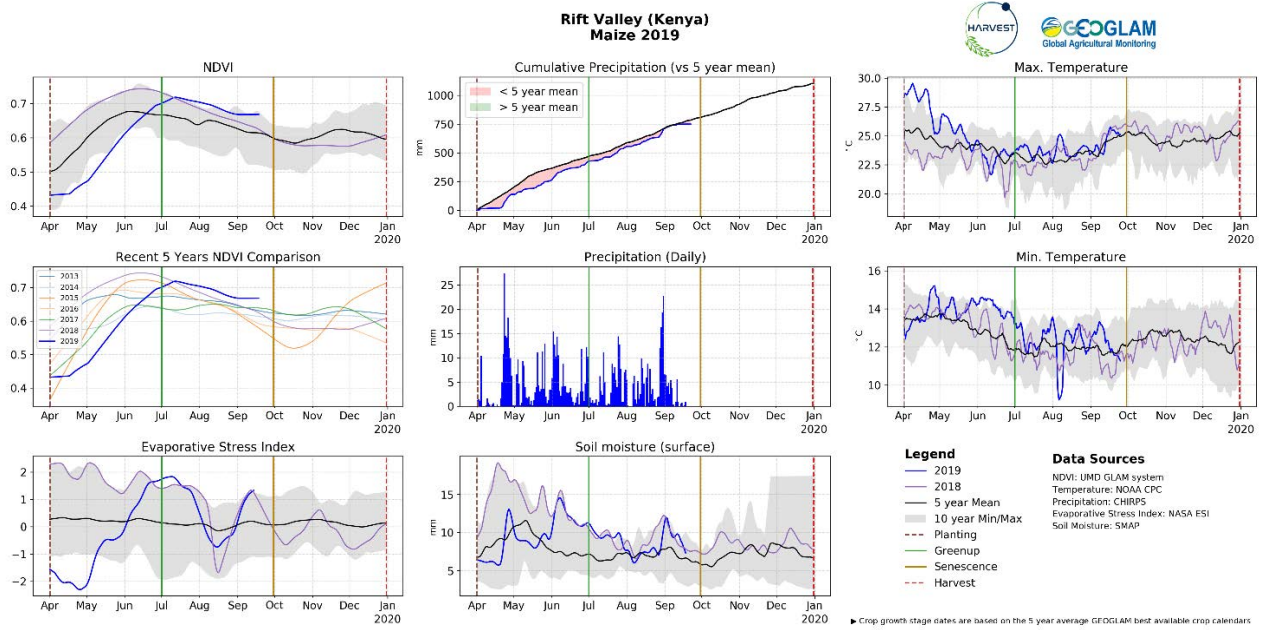


Figure 7. Agro-climatic indicators over the current 2019 long rains season in Rift Valley, Kenya. (source: NASA Harvest)

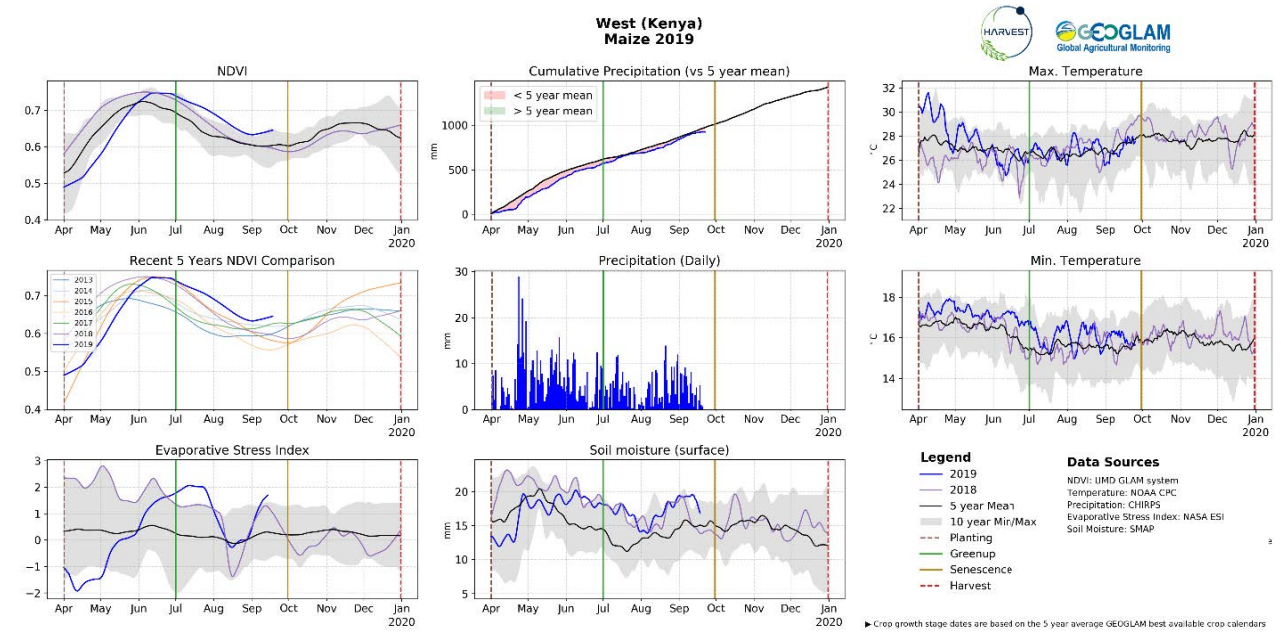


Figure 8. Agro-climatic indicators over the current 2019 long rains season in Western Kenya. (source: NASA Harvest)

Prepared in Collaboration with:



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