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EAST AFRICA Seasonal Monitor

March 8, 2013

Average to below average March to May rainfall totals forecast for eastern Horn

KEY MESSAGES

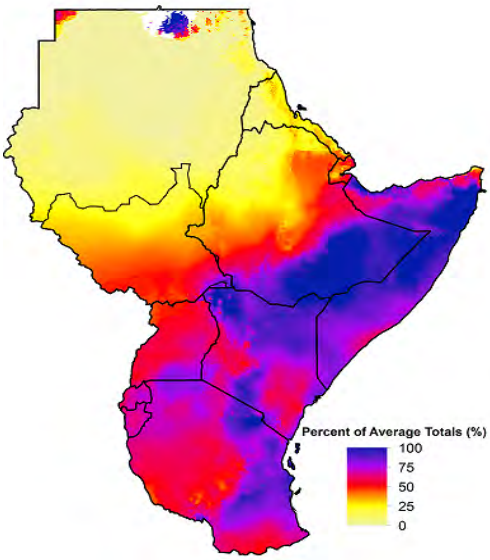
- The IGAD Climate Prediction and Application Center's (ICPAC) March to May forecast is for near normal to below normal rainfall totals over much of the northern parts of South Sudan, southern Sudan, northern and eastern Ethiopia, Eritrea, Djibouti, the eastern half of Kenya, Somalia, and the eastern parts of Tanzania. The forecast has an increased likelihood of normal to above normal rainfall over the western sector of the region including Burundi, Rwanda, Uganda, the southern parts of South Sudan, southwestern and central Ethiopia, western and central Kenya, and the western half of Tanzania (Figure 2).
- The onset of February to May *Belg* rains in Ethiopia has been delayed by about three weeks. This will have an impact on the maturation of sweet potatoes in Southern Nations, Nationalities, and Peoples' Region (SNNPR) and the planting of long-cycle and *Belg* crops.
- Severe water shortages and limited availability of pasture are being reported in northwestern Somalia and the southeast pastoral livelihood zones across the border in Djibouti. The dry conditions are a result of the repeated poor performance of the December to February *Hays/Dadaa* rains since 2010.

SEASONAL PROGRESS

Performance of the October to December rains was close to average in most parts of the region except for parts of the southern agropastoral areas in Gedo and Lower and Middle Juba and northeastern Somalia, parts of Somali region in Ethiopia, the northeastern parts of Kenya, eastern parts of Rwanda, and Kagera and Mara Regions in Tanzania (Figure 3).

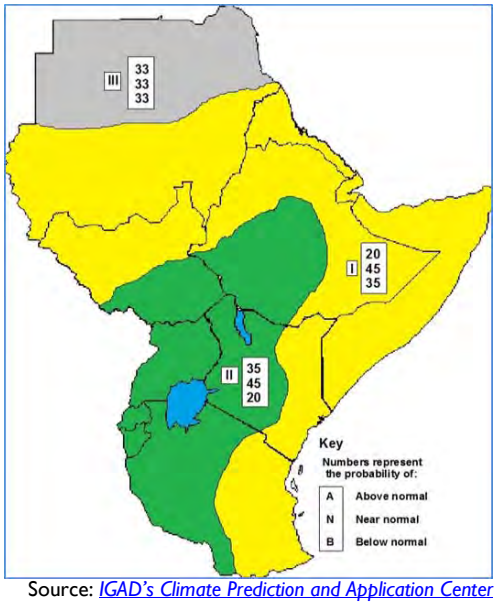
The October to December *Deyr* 2012 rains were average to above average in Somalia. However, there were some areas that received below average rains including the agropastoral areas of Lower Juba, Middle Juba, and southern Gedo Regions where crop production was also below average. Below average rains in the pastoral areas in the Sool Plateau, parts of the Golis Mountains, Dharoor pastoral livelihood zone in Sanaag Region, and the Nugal Valley in Sool Region led to poorer rangeland conditions. Following the good rains in most parts of the country, *Deyr* crop production in January and February was much higher than average, especially in Bay, which produces more than half of Somalia's sorghum, and in Lower Shabelle and Middle Shabelle Regions. Rangeland conditions in most pastoral parts of the country are near average.

Figure 1. Percent contribution of March to May rains to annual totals, 1920 -1980



Source: National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS)/Climate Prediction Center (CPC)

Figure 2. March to May 2013 rainfall forecast



Source: IGAD's Climate Prediction and Application Center (ICPAC)

Please see http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/ and http://earlywarning.usgs.gov/?l=en for more information on remote sensing.

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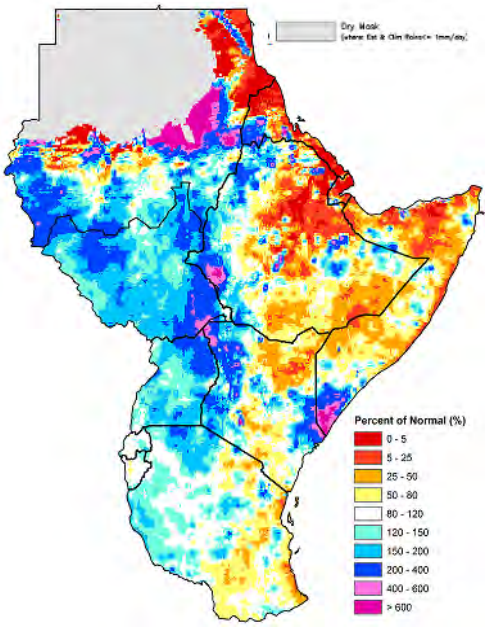
The northwestern part of Somalia is typically dry in October and November. Instead, it receives December to February *Hays* rains. Performance of the *Hays* rains was good in December but it has not rained since the beginning of January. Some parts of the Guban pastoral livelihood zone have faced repeated failure of seasonal rains since late 2010 resulting in poor water and pasture availability.

Performance of the October to February *Hays/Dadaa* rains was also similar across the border in Djibouti. Severe water shortages and depleted pasture and browse are reported from these area due to repeated below average rains since late 2010 including poor performance of the current *Hays/Dadaa* rains.

Performance of the October to December *Deyr/Hageya* rains was close to average in the southern and southeastern parts of Ethiopia. In these areas, pasture and water availability is declining, as usual, with the progress of the dry season beginning in January. Shebelle (formerly Gode), Afder, and Liben Zones in Somali Region received below average rains. Water shortages are reported in Shebelle, Afder, and Liben beginning in January. Pasture shortages are also reported.

Figure 3. October 1 to December 31, 2012 rainfall anomaly, percent of 1983-2011 average



Source: *U.S. Geological Survey (USGS)/FEWS NET*

The eastern parts of Southern Nations, Nationalities and Peoples' Region (SNNPR) receives a few days of very light showers in December and January locally known as the *Sapie* rains. These showers support sweet potato production, which is harvested from March to May for use as a transitional food during the lean season. Performance of *Sapie* rains this year was reported to be close to average. Sweet potatoes planted in September/October are at normal growth stages. Area planted is below average because of a shortage of sweet potato cuttings.

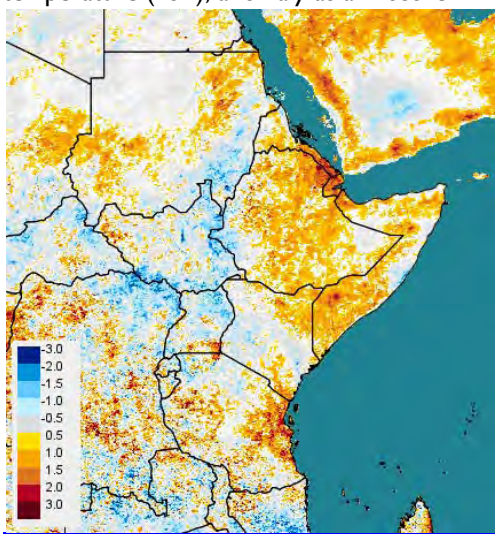
Performance of the February to May *Belg* rains has also been below average so far. The rains have began in the western part of SNNPR only; their performance has been below average in terms of total rainfall (Figure 5). This will have an impact on the maturation of sweet potatoes well as delaying land preparation and the planting of long-cycle and *Belg* crops.

In Kenya, despite the late onset of the October to December short rains and dry spells that followed in most of the marginal agricultural livelihood zones, the October to December short rains performed better than expected due to the resurgence of the rains in December and early January. Overall, maize production was slightly above the five-year average volume while the other cereal crops were 10 to 35 percent above average according to the Kenya Food Security Steering Group (KFSSG) 2013 short rains assessment. However, compared to the five-year average, a small, national maize deficit will start around June, so commercial imports, including from within the region, will likely increase to cover this gap. Compared to the June to September lean season, improvements in grazing conditions sustained livestock body conditions and boosted milk production and consequently, milk consumption. However, available food stocks are expected to deplete two months earlier than usual in June/July instead of August/September in localized areas of the marginal mixed farming zones including in Kwale, Makueni, Kajiado, Mwingi, Kilifi, Taita Taveta, and Kitui Counties where rainfall distribution was poor. In addition, grazing conditions in the northeastern pastoral livelihood zone including in Mandera, Wajir, Isiolo, Garissa, and Ijara are likely to deteriorate following the January to March dry season, which has been characterized by higher than normal temperature (Figure 4).

In Uganda, the bimodal areas of the country received average to above average September to December second season rains that led to overall favorable crop harvests between November 2012 and January 2013. The above average rains, however, caused water logging and conditions conducive for fungal growth on sorghum, the main staple in Karamoja, leading to poor performance of the season and below average harvests of the staple sorghum crop in most parts of Karamoja. Some areas in the Teso and Lango Districts also experienced flooding and water logging that caused crop damage and losses.
October to December short rains were below average in the eastern parts of Rwanda, particularly in six sectors of Kayonza—Ndego, Murama, Kabare, Rwinkwavu, Mwili, and Murundi—and in five sectors of Kirehe—Nyamugali, Kigarama, Mahama, Mpanga, and Nasho—that adversely impacted both crop and livestock production. In the western parts of the country, on the other hand, there was severe flooding in November that damaged crops, especially in Rusizi District.

October to December rains are a continuation of the main season June to October rains in South Sudan. These rains are important for the maturation of long-cycle sorghum that is typically planted in June especially in Bahr el Ghazal, Upper Nile, and parts of Equatoria. Last year's October to December rains continued well into November and part of December. This favored the late maturing sorghum crop in all areas except in Jonglei State where agricultural activities were affected by displacements from insecurity and flooding. The above average rainfall also contributed to improved availability of pasture and water, delaying livestock migration to dry season grazing areas by up to a month.

Figure 4. February 2013 land surface temperature (LST), anomaly as a Z-score



Source: USGS/FEWS NET

In the bimodal areas of Tanzania, including Kilimanjaro, Mara, Kigoma, Kagera, and Arusha Regions, the harvesting of *Vuli* season maize, potatoes, and beans took place in January and February . As a result of the poorly distributed rains from September to December with dry spells at the beginning of the season and heavier than typical rains at the end of the season, bean production was below average in Kagera and Mara. Performance of the November to February *Msimu* rains in the unimodal, central, and southern areas of the country has been close to average, and crops are developing normally in these areas. Pasture and water availability is also good in both the unimodal and bimodal areas of the country, following the good *Msimu* rains.

FORECAST

The March to May rains are the main rainy season for the pastoral and agropastoral parts of the eastern Horn of Africa, contributing 50 to 80 percent of their annual total rainfall (Figure 1). The rains regenerate rangeland resources in the agropastoral and pastoral livelihood zones of northeastern and northwestern Kenya, Somali region, the lowlands of Oromia Region, and South Omo Zone of Southern Nations, Nationalities, and Peoples' Region (SNNPR) in Ethiopia, the Hawd, and central Somalia. These rains are also very important in the other parts of the East Africa region contributing 20 to 50 percent of total annual rainfall in some western parts of the region including in the bimodal areas of Uganda, Rwanda, Burundi, and parts of Tanzania (Figure 1). The March to May rains are important in the following cropping areas:

- the *Belg* cropping areas of Ethiopia
- the highlands of the Rift Valley, Western, Nyanza, Central and Eastern Provinces of Kenya
- The south and central *Gu*-dependant areas of Somalia
- northern *Masika*-dependant areas of Tanzania
- northern and central Uganda

The Karamoja and Kapchorwa pastoral areas of northern Uganda also benefit from these rains.

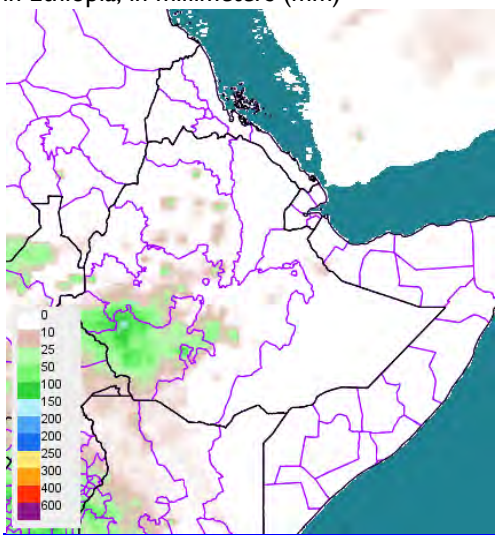
The Intergovernmental Authority on Development's (IGAD) Climate Prediction and Application Center (ICPAC) forecasts that the March to May rains will be near normal to below normal over much of the northern parts of South Sudan, southern Sudan, northern and eastern Ethiopia, Eritrea, Djibouti, the eastern half of Kenya, Somalia, and the eastern parts of Tanzania. The forecast has an increased likelihood of normal to above normal rainfall over the western sector of the region including in Burundi, Rwanda, Uganda, the southern parts of South Sudan, southwestern and central Ethiopia, western and central Kenya, and the western half of Tanzania (Figure 2). Forecasts for the March to May season, however, typically have low skill, meaning that there are high levels of uncertainty in the forecast. In addition, this year, the signals from both the oceanic as well as the atmospheric indicators that enable seasonal forecasting have been weak, leading to even higher levels of uncertainty regarding the forecast.

If the forecasts holds, all areas predicted to have below average rains will likely be negatively affected with expected reductions in crop and livestock production along with potential water shortages. However the areas that received below average October to December 2012 rains will be more seriously affected. Areas of highest concern, based on this forecast, in the region include:

- Lower Juba and Gedo agropastoral in southern Somalia and pastoral areas in the Sool Plateau and parts of the Nugal Valley in Somalia
- *Belg* crop-producing parts of Ethiopia, including the sweet potato-producing parts of SNNPR, June to September *Kiremt* -receiving areas that received below average *Kiremt* rains in 2012, most of Zone 4 in Afar region, and woredas in Somali Region that received below average October to December *Deyr/Hageya* rains
- The pastoral Northeast and parts of the southeastern and coastal marginal cropping areas in Kenya
- Pastoral areas in the southeastern parts of Djibouti

In addition, areas that are predicted to receive below average rainfall this season include the northern part of South Sudan and the eastern part of Tanzania.

Figure 5. February 2013 *Belg* rainfall (RFE2) in Ethiopia, in millimeters (mm)



Source: USGS/FEWS NET