

*Heavy rains characterized the onset of March to May rains in Eastern Africa*

**KEY MESSAGES**

- The onset of March to May rains have been timely across the cropping, agropastoral, and pastoral areas of Somalia, Kenya, Tanzania, Rwanda, Burundi, Uganda, and Tanzania in the areas that receive these rains. The rains started between mid-March and the first week of April. They have been heavier-than-normal in most areas (Figure 1).
- Planting of crops is ongoing across much of the region, and favorable germination has occurred in several areas. However, the delay in the start of the rains in some areas, especially in the *Belg*-cropping areas in Ethiopia, delayed planting.
- Rangelands have regenerated substantially in many agropastoral and pastoral areas in Kenya, Somalia, Ethiopia, northern Tanzania, Uganda, and Rwanda. Pasture and browse availability has increased in most areas with the exception of Karamoja.

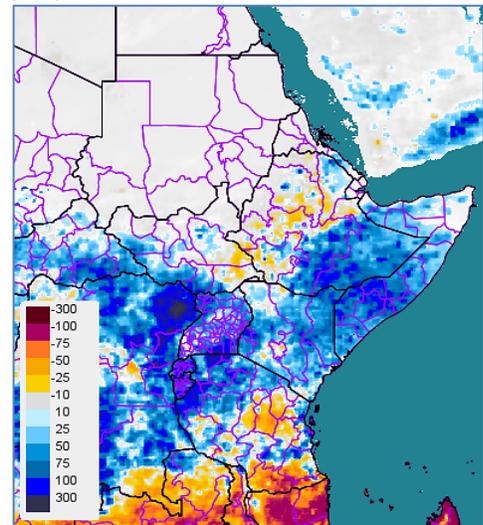
**SEASONAL PROGRESS**

The March to May rainfall season is well underway in most parts of the greater Horn of Africa. The March to May rains are important rains in several cropping and livestock-production areas accounting for up to 80 percent of total annual rainfall in some areas (Figure 1 in the [March East Africa Seasonal Monitor](#)). Cropping areas where the March to May rains support all or part of the primary agricultural season include most livelihood zones of Rwanda and Burundi, northern and central Uganda, northern bimodal areas of Tanzania, the highlands of the Rift Valley, Western, Nyanza, Central, and Eastern Provinces in Kenya, the *Belg* cropping areas in Ethiopia, and southern and central Somalia. The March to May rains are also the principal wet season among pastoral and agropastoralists in the eastern Horn including the agropastoral and pastoral livelihood zones of northeastern and northwestern Kenya, Somali Region, the lowlands of Oromia Region, and South Omro Zone of Southern Nations, Nationalities, and Peoples' Region (SNNPR) in Ethiopia, the northern Hawd, and central Somalia.

In general, the onset of the 2013 March to May long rains has been timely. Above normal rains have occurred in several areas including northern and western Tanzania, Rwanda, Burundi, the Lake Victoria Basin, western, southern, and northeastern Kenya, southern and central Somalia, and eastern and southeastern Ethiopia. Above normal rains have caused significant flooding in the Lake Victoria basin in Uganda and Kenya, the southern, Maasai rangelands in Kenya, and along the Wabi Shabelle in Ethiopia in late March and early April (Figure 2).

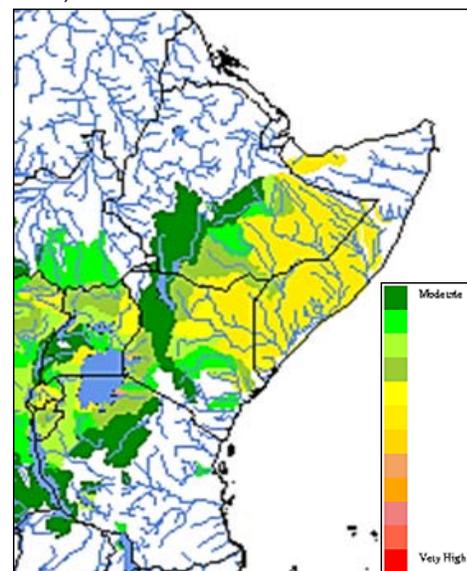
Please see [http://www.cpc.ncep.noaa.gov/products/african\\_desk/cpc\\_intl/](http://www.cpc.ncep.noaa.gov/products/african_desk/cpc_intl/) and <http://earlywarning.usgs.gov/?l=en> for more information on remote sensing.

**Figure 1.** Rainfall anomalies in millimeters (mm), March 1-31, 2013



Source: [National Oceanic and Atmospheric Administration \(NOAA\)/National Weather Service \(NWS\)/Climate Prediction Center \(CPC\)](#) and [U.S. Geological Survey \(USGS\)/FEWS NET](#)

**Figure 2.** Flood risk, basin excess rainfall (BERM), March 21-31, 2013



Source: [NOAA/NWS/CPC](#) and [USGS/FEWS NET](#)

Exceptionally higher-than-normal surface temperatures in January and February have since eased to near-normal due to increased cloud cover and rains. Crop and rangeland conditions are anticipated to improve significantly, in response to favorable early rains and the lowered temperatures. The primary exception is the *Belg* cropping areas in southern Tigray and eastern Amhara in Ethiopia where the normal February onset of the rains was delayed by three to four weeks.

The onset of the 2013 February to May *Belg* rains was three to four weeks late in most areas of **Ethiopia** with exceptions in parts of the Southwest. However, mostly above normal rainfall occurred in most parts of the SNNPR, southern and eastern Oromia, most parts of Somali, and northern Afar from March 21 to 31. Additional rainfall in Shabelle River catchment in Somali Region is likely to result in more flooding downstream. Land preparation and planting of *Belg* crops started in February continuing into March though it is not yet complete. Planting progress remains well below normal in southern Tigray and eastern Amhara due to the delayed onset. *Belg* planting is nearly complete in most areas in SNNPR. The quality of land preparation was poor in areas where the rains were delayed, and this could cause a rapid proliferation of weeds and reduce yields. Planting of the long-cycle *Meher* crop has also started, and progress will depend largely on continuation of rainfall through April.

High land surface temperatures in January through February accelerated the depletion of water, pasture, and browse in most parts of Afar, the lowlands in eastern and southern Tigray, eastern Amhara, and northern Somali in **Ethiopia**. Subsequently, March 21 to 31 rains have had only limited impact in regenerating pasture, browse, and water, unlike in other areas of the eastern Horn. Some livestock from Afar have not yet returned from eastern Tigray and Amhara Regions to their normal seasonal grazing areas.

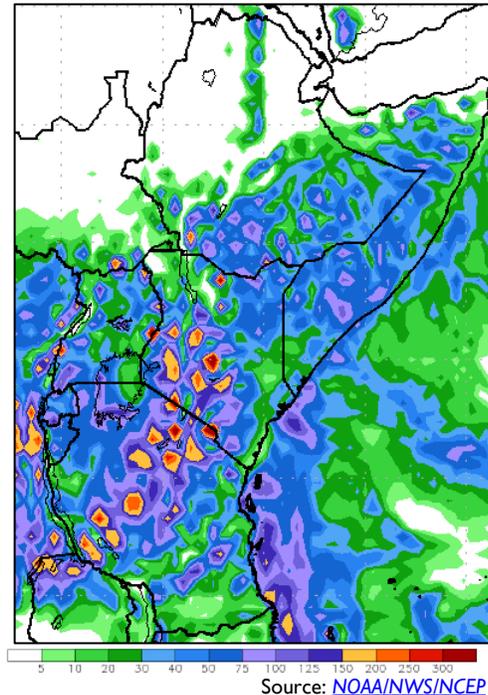
The *Gu* rains typically begin in April, but this year, between March 21 and 31, light to moderate rain fell across southern and central **Somalia**. Most of Lower and Middle Juba, Gedo, Bay, Bakol, Hiran, and Middle Shabelle received moderate to heavy rains at the end of March and in early April, facilitating germination of planted *Gu* crops though planting is still ongoing. Pastoral areas of northern Somalia also received rain, replenishing water, pasture, and browse. However, localized areas of northern Somalia including parts of the Sool Plateau and the Nugal Valley remained seasonably dry, and there has yet to be rain in the Coastal Deeh livelihood zone, following on from below average October to December *Deyr* rains in these areas.

The onset of the March to May seasonal rains was timely in most parts of Greenbelt and Hill and Mountain livelihood zones in the Equatoria region in **South Sudan**, resulting in widespread germination of crops. Light, unusual rains were also received in Bahr El Ghazal and Upper Nile States. Other areas of South Sudan, outside the Equatorial Region, predominately receive rains that begin in May and June. Land preparation is ongoing across those other areas of the country, and planting is expected to start in mid-April and to continue through mid-May. Recent rains have revitalized and improved pasture conditions in pastoral zones. As the result, herders are likely to migrate back to wet season grazing areas in May. While March to May is the dry season over most parts of **Sudan**, projected near normal rains suggest that early showers are likely to occur starting in May in the southern parts of South Kordofan, South Darfur, West Darfur, and Blue Nile States. Normally, early showers are beneficial to livestock as pasture and browse begin regenerating and water sources begin recharging.

The *Diraa/Sugum* seasonal rains started in **Djibouti** in late March. While the rains were heavy for only a limited number of days, they enhanced the availability of pasture, browse, and water, thus improving conditions for livestock. Excessively heavy rains damaged urban infrastructure and have created an environment conducive for malaria.

The onset of the 2013 March to May long rains has been timely across **Kenya**. Rains typically begin in February in the western and southwestern parts of the country in the western, Nyanza, and Rift Valley cropping highlands. However, rains begin from mid-March to early April in the eastern half of the country, comprising the eastern and northeastern pastoral areas, the

**Figure 3.** Global Forecast System (GFS) precipitation forecast in millimeters (mm), April 9-15, 2013



eastern and central cropping highlands, and the southeastern and coastal cropping lowlands. Planting is ongoing though delayed by late provision of inputs from both the public and private sectors, particularly fertilizer. Pasture and browse have regenerated in pastoral and marginal agricultural livelihood zones. Water points have recharged considerably from late March through the first week of April. Excessive rains have caused severe flooding in the Lake Victoria basin, along the Tana River, in Baringo, and in the Maasai rangelands in Kajiado and Narok Districts. Floods have resulted in the loss of life, displacements of large numbers of people, the destruction of crops, and damage to infrastructure.

The March to May rains are the first season in the bimodal areas of **Uganda**, and all major staple crops are grown during this season. Crops were planted starting in early March, and thus far, prospects are favorable as rains have been normal to above normal rains and started near their usual time. Heavy rains in the Lake Victoria basin and in parts of the North have led to flooding and washed away some of the already planted crops starting in mid-March and continuing through early April. The availability of pasture, browse, and water has improved substantially, and unseasonable rains in January and February minimized dry season depletion of these resources, leading to better conditions for livestock than usual. Unlike in most of the country, poor and sporadic rains in Karamoja will reduce availability of grazing resources for livestock.

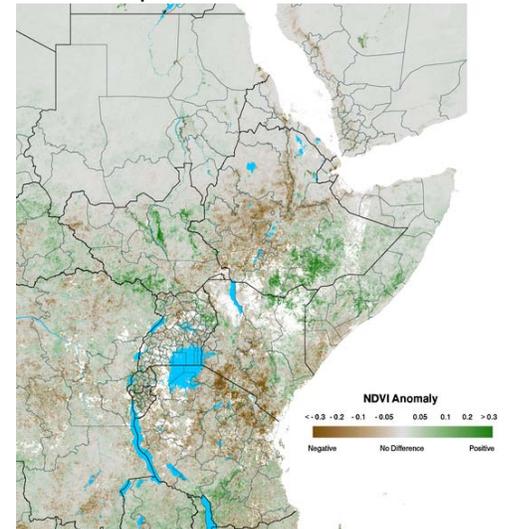
Rains have performed well across **Rwanda** and **Burundi** since the onset of Season B in early March, following planting and land preparation in February. Subsequently, crop prospects are at the early stages of development, and prospects are favorable. However, excessive rains caused damage to crops, small stock, and household items in the western part of Rwanda, particularly in the West Congo Nile Crest Tea and Food Crops livelihood zone and the Lake Kivu Coffee and Food Crop livelihood zone. Increased erosion in unprotected hilly areas of Western Province is also likely to reduce Season B crop output in affected areas due to heavy rains.

Rains started and intensified across the bimodal and unimodal areas of **Tanzania** in March and early April following the seasonal February to March dry spell. The March rains signal the onset of the March to June *Masika* season in bimodal areas and the continuation of the *Msimu* rains that started in November in unimodal areas. Following planting in early March, the crop is still in the early development stages in bimodal areas, including the northeastern areas of Arusha and Manyara. Overall, crop prospects are favorable across most areas of the country. Over the past three weeks, rangeland conditions have improved markedly for livestock in the northern and northeastern agropastoral areas. The rains are expected to recede in the central areas of Dodoma and parts of Singida, as the inter-tropical convergence zone (ITCZ) moves to the north of Tanzania during April.

## FORECAST

Rains are likely to continue through May. The Intergovernmental Authority on Development (IGAD) Climate Prediction and Application Center's (ICPAC) March to May forecast (Figure 2 in the [March East Africa Seasonal Monitor](#)) suggests 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. However, near normal to below normal rainfall is forecast 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. While rains have been above normal even in areas anticipated to experience normal rains to below normal rains, these forecasts suggest that it is too early in the season to conclude that the overall seasonal rains are likely to be more favorable than anticipated. The short-term, seven-day forecast suggests continued intense rains through the second week of April (Figure 3).

**Figure 4.** Anomaly in eMODIS Normalized Difference Vegetation Index (NDVI), March 26-April 5, 2013



Source: [USGS/FEWS NET](#)