CROP CONDITIONS BULLETIN: February 2019

National Synthesis (Maize, Beans and Wheat)

SUMMARY
Late onset of the short rains, erratic rains and early cessation adversely affected crop production in most parts of the country during the short rains season. Below average yields were realized in most parts of the country except in Narok, Nyandarua, Migori, Busia and Kakamega. Parts of South Rift and Lower Nyanza experienced total crop failure. Low acreage was established especially due to late onset of the rains. Land preparation for the Long Rains has commenced and is expected to continue into March in most parts of the country. Dry planting of the long rains maize crop has begun in some areas. In Bomet, the long rains crop was planted in December. In parts of the North Rift, the poor performance of the short rains resulted in poor farm gate prices.

OUTLOOK (Kenya Meteorological Department (KMD)/State Department of Crops Development (SDCD))
Expected enhanced rains are likely to bring some relief especially in areas that had experienced moisture deficits in the previous season (OND 2018). In general, good crop projections are expected if the rains do not exceed the specific crop requirements. Conditions in March are ideal for ongoing land preparation and planting.

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Assessment by Region

In **central region**, the long rains season is expected to commence in March with planting starting in mid-March. However, land preparation for the planting of maize and beans is ongoing in most parts of the region. In Kirinyaga County, dry planting of maize has already started in the lower parts of South Ngariama and Mwea East sub counties. The prevailing dry conditions are favorable for land preparation.

**Outlook:** The short rains season crop performed poorly due to late onset of rains and dry conditions with below average yields realized.

In **Coast Region**, the short rains maize and bean crops which are being harvested are in poor condition due to late of the rains and cessation; and dry conditions during critical crop growth stages. Due to late onset of the short rains, beans were not planted. In Kwale County, favourable yields were realized during the short rains. Land preparation is ongoing and dry planting for the long rains season has commenced.

**Outlook:** Below average maize and beans yields are being realized for the short rains season except in in Kwale County where above average yields were realized.

In **North Rift**, about 50% of the land has been prepared for the long rains planting. However, planting has begun in small pockets under irrigation in Trans Nzoia. In West Pokot, conditions are under watch since the Fall Army Worm and MLND (Maize Lethal Necrosis Disease) has been observed in the areas under irrigation.

**Outlook:** the short rains maize and bean crops yields were poor due to dry conditions during the season and this also affected farm gate prices. However, conditions are favorable for the long rains preparations. In Trans Nzoia, Laikipia and Nandi, the cropped area is expected to reduce slightly due to poor farm gate prices and expected increase in farm input prices. However, in other areas in the region, the cropped area is expected to increase due to favorable farm gate prices. In West Pokot, invasion by FAW and MLND is expected to affect production if the situation is not urgently contained.

In **South Rift region**, the short rains season was poor due to delayed onset and early cessation of the rains, except in Kajiado and Nyandarua where conditions were favorable. Harvesting of the short rains crop is complete in Kajiado, but the rest of the counties experienced total crop failure. In Bomet, the long rains maize crop was planted in late November and is ready for top dressing. In Narok, land preparation is ongoing, but in Narok West, 80% of the cropped area has been planted. In Nakuru, around 15% of the land has been prepared and the preparations are expected to continue with planting expected to start in the third week of March.

**Outlook:** Poor yields were realized in most counties except in Kajiado and Nyandarua where favorable yields were realized. In Bomet, harvesting for the long rains is expected to begin in May. In Narok, due to diverse agro-ecological zones, planting is expected to continue until April.

In **Lower Nyanza region**, the short rains maize crop performed poorly in Homa Bay, Kisumu, Migori and Siaya due to delayed rains, poor distribution, early cessation of the rains and FAW infestation. Some farmers experienced total crop failure. Land preparation is ongoing with approx. 50% of the cropped area completed in Homa Bay and Migori. In Kisumu, land preparation is only complete in Nyatike sub-county, while in the rest of the county, only 10% is complete.

**Outlook:** In areas where harvesting is complete, a reduction of approximately 50% was observed due to late onset and erratic nature of the short rains. Planting is expected to commence in March in Homa Bay and Kisumu. Planting has already started in parts of Migori County.
In **Upper Nyanza region**, in Kisii and Nyamira Counties, favorable yields were achieved during the short rains. Harvesting is complete in 95% of Kisii County and land preparation is ongoing with 70% of the cropped area completed (Approx. 21000ha). Approximately 5% of the cropped area has been planted.

**Outlook:** Normal yields were being obtained in Kisii and Nyamira. Planting is expected to continue in March and end by the fourth week of March.

In **Western region**, conditions were favourable during the short rains with average maize yields realized in Busia and Kakamega. In Bungoma the crop performed poorly due to depressed rainfall coupled with early cessation of the short rains. Land preparation is ongoing with 90% of cropped area ready in Vihiga, 70% in Kakamega and 20% in Bungoma.

**Outlook:** Average yields were achieved in Busia and Kakamega for the short rains but yields were poor in Bungoma. Planting is expected to start in the march. In Kakamega, planting has commenced in the lowland areas of Matungu in Mumias.

In **the Lower Eastern Region**, late onset of the rains and prevailing dry conditions resulted in poor conditions for maize and beans. The crops were experienced water stress leading to poor grain filling and poor or failure to cob in maize. Harvesting of the short rains crop is ongoing.

**Outlook:** In areas where the crop has been harvested, below average yields were realized. Land preparation and dry planting of the crops for the long rains season is expected to start in March.

In **the Upper Eastern Region**, the rains were low compared to the long-term average, except in Embu where conditions were favorable. Beans and maize performed poorly during the short rains. The early planted wheat crop is mature and in fair condition in Buuri Sub-county, Meru, while the late planted crop was affected by low rainfall. Land preparation is ongoing.

**Outlook:** Fair to low maize and beans yields are being realized in the region. In Meru and Embu, favorable beans yields are being realized. Planting is expected to start in mid-March.
Vegetation Conditions

The Vegetation map represents a 16-day anomaly image for 10th to 17th February. The brown areas represent areas where conditions are the vegetation conditions are worse than "normal" (long term average for the 2000 to 2018). The green color represents areas where conditions are better than "normal". The white color represent values normal conditions are being experienced while gray areas are areas where no data were collected due to cloud cover.

The Graph provides a comparison between current vegetation conditions (red) when compared to the average conditions. The dotted line displays the standard deviation showing how values tend to spread-out from the mean. While values for April to July 2018 where significantly above average, during the October 2018 to January 2019 vegetation conditions across Kenya were below average.

Analysis
The drier than normal conditions in most parts of the crop growing areas are ideal land preparation and planting. However, in the rangelands, the below normal conditions in most areas represent reduced pasture availability during the month of February.
Climate outlook

Regional Outlook: Forecast for March-April-May (MAM) 2019 Outlook

Good crop and pastoral prospects are generally expected. Further, there is a likelihood of a reduction in fall army worm infestation as high rains are unfavorable for their multiplication and thus high prospects for food security. Expected enhanced rains are likely to bring some relief especially in areas that had experienced moisture deficits in the previous season (OND 2018). In general, good crop projections are expected if the rains do not exceed the specific crop requirements. In Kenya, early onset of the long rains is expected.

December 2018 forecast

According to the Kenya Meteorological Department, most parts of the country are expected to be sunny and dry. Parts of Western and Northern Rift valley will experience occasional rainfall. The sunny and dry weather conditions experienced over much of the country are conducive for land preparation in readiness for March-April-May 2019 rainfall season.

Figure 1: March 2019 Rainfall Outlook

Figure 2: GHACOF MAM 2019 rainfall Outlook
Market information
The section provides the early morning wholesale monthly average prices of maize, beans and wheat in major markets across the country.
Mombasa recorded the highest prices in Green maize at Ksh. 3790, while beans recorded the highest prices in Kisumu for the Canadian and Rosecoco variety at Ksh. 8000, and Eldoret for the Mwitemania variety at Ksh. 8100.

Dry maize was selling at an average price of Ksh. 2280 with the highest prices observed in Kisumu at Ksh. 2600 and lowest prices recorded in Nakuru at Ksh.1505. The prices remained stable compared to January.

Green Maize was selling at an average price of Ksh. 2390 with the highest prices observed in Mombasa at Ksh. 3790 and the lowest prices recorded in Eldoret at Ksh. 1820. The prices remained stable when compared with January and except in Mombasa where a notable increase was observed.
Canadian Beans variety was selling at an average price of Ksh. 5360 with the highest prices observed in Kisumu at Ksh. 8000 and the lowest prices recorded in Eldoret at Ksh. 3000. Prices remained stable across all the markets compared to January although a slight decline in price was observed in Nakuru.

Rosecoco Beans variety was selling at an average price of Ksh. 5360 with the highest prices observed in Kisumu at Ksh. 8000 and the lowest prices recorded in Nakuru at Ksh. 5000.

Mwitemania Beans variety was selling at an average price of Ksh. 5420 with the highest prices observed in Eldoret at Ksh. 8250 and the lowest prices recorded in Nakuru at Ksh. 3540.
Wheat was selling at an average price of Ksh.4500 with the highest prices observed in Eldoret at Ksh. 6500 and the lowest prices recorded in Eldoret at Ksh. 3000.
Definitions

Crop Conditions:
Exceptional: Conditions are much better than average* at time of reporting. This label is only used during the grain-filling through harvest stages.
Favourable: Conditions range from slightly lower to slightly better than average* at reporting time.
Watch: Conditions are not far from average* but there is a potential risk to final production. The crop can still recover to average or near average conditions if the ground situation improves. This label is only used during the planting-early vegetative and the vegetative-reproductive stages.
Poor: Crop conditions are well below average. Crop yields are likely to be 10-25% below average. This is used when crops are stunted and are not likely to recover, and impact on production is likely.
Failure: Crop conditions are extremely poor. Crop yields are likely to be 25% or more below average.
Out of Season: Crops are not currently planted or in development during this

Drivers:
These represent the key climatic drivers that are having an impact on crop condition status. They result in production impacts and can act as either positive or negative drivers of crop conditions.
Wet: Higher than average wetness that results in destruction ie due to water logging and leaching of nutrients
Extreme Events: This is a catch-all for all other climate risks (i.e. frost, hailstorms, mudslides etc.)
Late rains: Late start of the season. Flood: Area is flooded
Early Rains Cessation: Rains end earlier than expected in the season
Pests: Destructive insects, birds or animals. Diseases: Destructive plant diseases. Dry: Drier than average
Socio-economic: Social or economic factors that impact crop conditions (i.e. policy changes, agricultural subsidies, government intervention, etc.)
Conflict: Armed conflict or civil unrest that is preventing the planting, or harvesting of the fields by the farmers.
Wildlife Damage: Crop destruction by wildlife

Partnerships

Republic of Kenya
Ministry of Agriculture & Irrigation

USAID
Group on Earth Observations
NASA
RCMRD
SERVIR
University of Maryland