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AGROMETEOROLOGICAL BULLETIN

DEKAD 35
PERIOD: 11TH - 20TH DECEMBER
2022

1.0 HIGHLIGHTS

- Most stations within the Country reported less rainfall than the previous dekad.
- Moderate cloud cover during morning and afternoon hours.
- Most stations reported lower mean air temperature except in Central Kenya and Nairobi area.
- During the next ten days, (21st – 31st December 2022) moderate rainfall (> 5.0 mm) is expected over Western and Nyanza region, South Rift valley, southern parts of Eastern and the coastal strip.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 11TH – 20TH DECEMBER 2022

Most stations reported less rainfall during the current dekad than the previous one. Only stations within Western and the Coastal strip reported more rainfall than previously reported. Kisii Meteorological station reported the highest amount of rainfall (figure 3.2) followed by Makindu and Kericho stations. The amounts

reported surpassed both their long-term dekadal mean and what had been reported in the previous dekad.

Cloud cover was mainly scattered during morning hours increasing to broken state during the afternoon hours.

Mean air temperature dropped slightly over some stations though some regions either maintained or registered a slight increase of mean air temperature.

In Central and some parts of Eastern Kenya maize has attained ninth leaf stage while in Western, Nyanza and central rift valley, it is at wax ripeness stage. Beans had attained budding stage and both crops were in a fair state which corresponds to normal growth. Over south eastern and coastal regions, few farmers planted as others avoided planting because some areas did not have a clear onset this short rain season.

2.1 WESTERN AND NYANZA REGION

Kisii and Kakamega stations recorded higher rainfall readings compared to the previous dekad. Nyanza led in the region with the highest rainfall recorded in Kisii station followed by Suba and Kakamega stations. Kisii station reported three days of moderate rainfall (> 5.0 mm) and three consecutive dry days during the dekad.

Kakamega station reported two rainy days and three consecutive dry days during the same period. Except for Kisii station, all stations from the region reported below normal rains (< their long term dekadal mean) during the current dekad.

Cloud cover in Nyanza and Western was mainly scattered during morning hours increasing to broken state during the afternoon hours.

Mean air temperature dropped slightly within the region except over Kakamega station where there was a slight increase of 0.5 °C. The temperatures in the region generally ranged between 20.0 °C - 23.0 °C.

Maize was at wax ripeness stage in Kisii and Kakamega counties and the crop was in a good state which corresponds to above normal growth. Above normal yield is expected this season from the region.

2.2 RIFT VALLEY REGION.

Most stations from the region reported less rainfall than in the previous dekad. Kericho station reported the highest value from the region followed by Nakuru and Kabarak stations. Kericho reported four days with moderate rainfall (> 5.0mm/day) and two consecutive dry days during the dekad. The rest of the stations reported light rain with either six or seven consecutive dry days during the dekad. Except for Kericho which surpassed its long term dekadal rainfall mean, all stations from the region reported below normal rains (< their long term dekadal mean) during the current dekad.

Total pan evaporation at Kitale was 34.3 mm and 37.4 mm at Kericho station. Cloud cover was mainly scattered during morning hours and increased to broken state in the afternoon and evening hours. Mean air temperature dropped slightly

within the region except over Narok and Nakuru stations where there was a slight increase of 0.8 and 0.3 °C respectively. The temperatures in the region generally ranged between 17.0 °C - 19.0 °C.

Maize was at wax ripeness stage in Kericho and the crop was in a fair state which corresponds to normal growth and normal yield is expected.

At Kitale most farmers have completed harvesting maize and normal yield was obtained.

Over the pastoral areas in the south rift valley and Northwest regions, the prevailing weather conditions are likely to slow down pasture/forage regeneration and improvement of the water resources in these areas. Communities living in these areas are therefore advised to ensure right strategies are in place to manage prudently all grazing and watering places.

Its advised that all livestock be vaccinated and dewormed to ensure they are protected from parasitic infestation and all vector bone diseases.

2.3 CENTRAL AND NAIROBI AREA REGION.

The entire Central region and Nairobi area reported rainfall amounts that were below their normal dekadal mean. The reported amount were less than what the region had received in the previous dekad. All stations from the region reported a single rainy day (> 5.0 mm of rainfall per day) during the entire period.

Cloud cover in the region remained scattered both during morning hours and afternoon hours. Mean air temperature slightly increased over several places in the region with Nyahururu recording 14.9 °C and Wilson airport 22.0°C .

Total pan evaporation in the region was 43.0 mm in Thika and 57.0 mm at Kabete station.

Maize at Nyahururu was at flowering stage but the crop state was poor due to insufficient rainfall. Below normal normal yield is expected.

In Nyeri, and Thika, maize is at ninth leaf stage and beans at budding stage, both crops are in a fair state which corresponds to normal growth. No adverse effects have been reported from the region.

2.4 EASTERN REGION.

The entire Eastern region reported less rainfall than in the previous dekad. Makindu station reported the highest amount of rainfall and had two days of moderate rainfall (> 5.0 mm/day) and seven consecutive dry days during the dekad. Meru and Mwea stations followed closely having reported five days with moderate rainfall each during the same period.

Cloud cover in the region was mostly scattered during morning hours and increasing to broken in the afternoon hours.

Mean air temperature in Meru and Embu counties ranged between 19.4°C and 19.7 °C. Over Kitui, Makueni and Marsabit counties, mean air temperature ranged between 21.2 °C and 23.5 °C.

Total pan evaporation at Katumani was 63.9 mm, 38.2 mm at Embu and 40 mm at Marsabit and Moyale stations.

Farmers within the central parts of Eastern region (Meru and Embu) planted during the onset of the short rain season and currently both maize and beans crops are at emergence stage.

Mangoes (variety apple) were at 100% fruit setting stage. The crop condition was fair which corresponds to normal growth. Weeds were seen very seldom within the farm, insufficient rains seemed to have adversely affected the mangoes, which were at a sensitive phase.

Oranges (Washington Navel) were at 100% fruit setting and the crop condition was fair corresponding to normal growth. Infestation by aphids and insufficient rainfall are affecting the phase. Weeds were seen very seldom within the farms.

2.5 NORTH EASTERN REGION

The region received less rainfall than in the previous dekad. Scattered to broken cloud cover was predominant in the region during both morning and afternoon hours. Mean air temperature in the region ranged between 29.2 °C and 29.9 °C and total pan evaporation 55.5 mm at Mandera station.

Pasture and forage regeneration was expected to continue deteriorate due to the dry spell reported during the dekad.

2.6 COASTAL REGION.

Few stations reported moderate rainfall as the rest reported light or nil.

Scattered to broken cloud cover during both morning and afternoon hours was the most predominant situation during the past dekad. Mean air temperatures slightly increased over some stations but within Malindi and Lamu mean air temperature slightly dropped.

Malindi meteorological station reported total pan evaporation of 60.1 mm during the dekad. Some farmers in the region are yet to start planting because they haven't received sufficient rains.

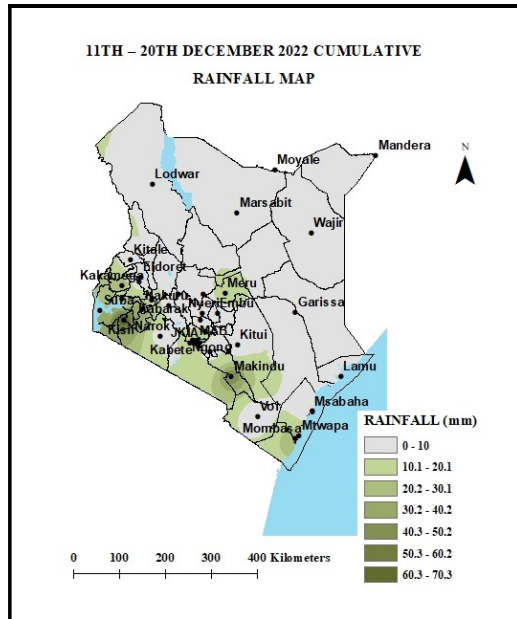


Figure 3.1: Actual rainfall totals for dekad 35, 2022

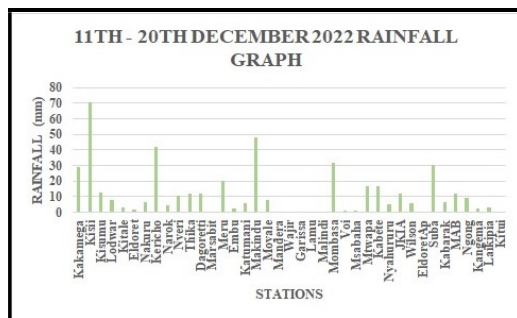


Figure 3.2: Dekadal rainfall totals in (mm)

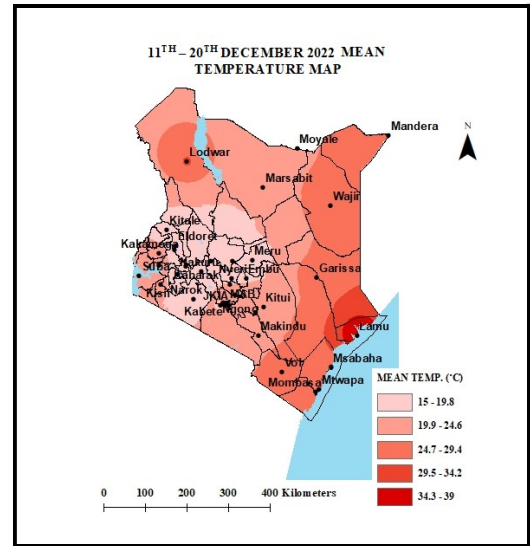


Figure 3.3: Mean temperature distribution for dekad 35, 2022

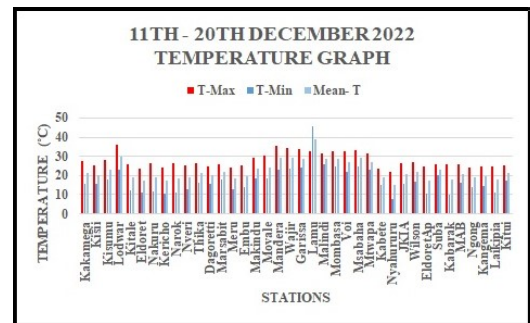


Figure 3.4 Dekadal mean temperatures in (°C).

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21ST – 31ST DECEMBER 2022.

During the next 10 days, Counties in western Kenya, Nyanza and Central Rift Valley are expected to experience moderate to heavy rainfall during the coming dekad.

The expected rain over these regions is likely to support maize which has already started forming grains in Kisii and Kericho to attain the next phase.

Central Highlands, Nairobi area and the surrounding are likely to experience

moderate to heavy rainfall during the the next dekad (21st – 31st Dec. 2022).

Farmers within the region (Nyeri, Thika and Kabete) whose crops have attained third leaf stage could start weeding and top dress the crops. In Nyahururu the forecasted rain is expected to support maize attain wax ripeness stage.

Northern part of Eastern and the North Eastern regions are likely to experience moderate rainfall during the next dekad. The expected rains will support some food crops in the region and improve pasture and forage regeneration in the region. The current status of water resources in the region is also expected to continue improving as most earth/water pans will be recharged by the rains.

South Eastern lowlands and the coastal regions are expected to receive light to moderate rainfall (greater than 5.0 mm) during the next dekad. The expected rains will support both maize and beans which are both at emergence stage.

The North western region is expected to receive light to moderate rainfall during the next dekad. The expected rains will support some food crops within the region and supply the necessary soil moisture for pasture and forage regeneration in the region. The current status of water resources in the region is also expected to continue improving as most earth/water pans will be recharged by the rains. Desilting of all earth/water pans in the area is highly recommended to maximize on the amount of water that is going to be harvested during the season.

During the coming dekad 21st – 31st December 2022, some of the farm management decisions like weeding and top dressing of crops may be necessary in order to improve productivity especially in central eastern region.

For clarification, feedback or further guidance, please Contact:

**The Director,
Kenya Meteorological Department,**