

## REPUBLIC OF KENYA MINISTRY OF ENVIRONMENT, CLIMATE CHANGE & FORESTRY KENYA METEOROLOGICAL DEPARTMENT

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### AGROMETEOROLOGICAL BULLETIN

**DEKAD 24 PERIOD: 21**ST – 31ST AUGUST 2023.

#### 1.0 HIGHLIGHTS

- During the period under review, few stations reported moderate rainfall especially in the western sector of the Country
- Kisii Meteorological station in Nyanza region reported the highest amount of rainfall followed by Kakamega and Kitale stations. (Figs; 3.1 & 3.2).
- Mean air temperature continued to rise over most stations except at Kakamega, Dagoretti and Katumani stations. (Figs. 3.3 & 3.4).
- Total pan evaporation readings decreased over most stations as cloud cover remained scattered almost throughout the dekad.
- During the next ten (10) days, several parts of Western, Nyanza, Rift valley and the Central region are expected to receive moderate to heavy rainfall.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 21<sup>ST</sup> – 31<sup>ST</sup> August 2023

#### 2.1 SUMMARY

Most stations within Western, Nyanza and Rift Valley regions, reported an improvement in the amount of rainfall received compared to the previous dekad. Kisii Meteorological station reported the highest fall (90.4 mm) followed by Kakamega and Kitale stations with 64.5 and 54.4 mm of rainfall respectively.

Farmers in Western, Nyanza and some parts of Rift valley finished harvesting maize, and are now preparing their farms for the next season.

In Central, Eastern, and Coastal regions farmers finished harvesting maize, and are now preparing their farms for the next season. In Northwestern/Eastern and south rift valley, pasture and forage condition is in a poor state posing a challenge to the livestock in the region.

## 2.2 WESTERN AND NYANZA REGION

Only few stations from within the region reported moderate rainfall during the dekad. Mean air temperature in the region ranged between 21.8 °C - 25.8 °C.

Scattered cloud cover during the morning and afternoon hours was reported over region during the dekad.

#### 2.2.1 KAKAMEGA:

The station reported 64.5 mm against its Long-term dekadal mean of 75.2 mm. Three (3) days with moderate rainfall were recorded during the dekad. The average mean air temperature at the station reduced from 22.7 to 22.2°C.

During the coming dekad 1<sup>st</sup> – 10<sup>th</sup> September 2023, there is (31,48,21) % chance that the station will receive below 49.5mm, 49.5 - 82.5 mm (normal), above 82.5mm of rainfall.

Land preparation for the October – November 2023 cropping season is ongoing.

#### 2.2.2 KISII:

The station reported a cumulative rainfall amount of 90.4 mm against its Long-term dekadal mean of 69.7 mm. The station reported five (5) days with moderate rainfall during the dekad. Mean air temperature at the station increased from 21.2 °C to 21.8 °C. Cloud cover was few during morning hours increasing to scattered in the afternoon throughout the whole dekad.

During the coming dekad 1st – 10th September 2023, there is (44,23,33) % chance for the station to receive below 46.1 mm of rainfall, (46.1 – 76.8 mm) normal and above 76.8 mm of rainfall.

Land preparation for the October – November 2023 cropping season is ongoing

#### 2.3 RIFT VALLEY PROVINCE

The region reported increased rainfall compared to the previous dekad. Light to moderate rainfall was reported by few stations in the region during the dekad. Mean air temperature increased and ranged between 19.8°C and 20.2°C. Cloud cover was mainly scattered during the morning increasing to broken in the afternoon hours.

#### 2.3.1 KITALE:

The station received 54.4 mm was received against its long-term dekadal mean of 55.4 mm. The station reported one (1) rainy day of which it received more than 5.0 mm of rainfall. Scattered cloud cover during morning and afternoon hours throughout the dekad. Mean air temperature increased from 19.5 °C to 20.1°C. Maize is at maturity stage and in a moderate state. Rainfall received towards the end of the dekad has positively affected maize fields which had been planted late. Some farmers have started harvesting maize.

#### **2.3.2 KERICHO:**

The station reported 37.2 mm of rainfall against its long-term dekadal mean of 66.5 mm. Mean air temperature was 18.5 °C. there was broken cloud cover during the morning and afternoon hours throughout the dekad.

During the coming dekad 1st – 10th September 2023, there is 47 % chance for the station to receive below normal rainfall, 16% chance normal (46.1 – 76.8 mm) and 37% chance above normal rainfall.

Farmers are planning for the second seasonal planting.

#### **2.3.3 KABARAK**:

The station reported a cumulative amount of 1.6 mm of rain against its long-term dekadal mean of 41.6 mm. Mean air temperature increased from 20.0°C in the previous dekad to 20.2°C in the current dekad. There was

scattered cloud cover during the morning and in the afternoon throughout the whole dekad.

## 2.4 CENTRAL AND NAIROBI PROVINCES.

Most stations from the Central region reported a decrease in the amount of rainfall reported as compared to the previous dekad. Mean air temperatures slightly went up and ranged between 21.1 °C and 21.2 °C. Broken cloud cover during the morning and afternoon hours was observed in the region throughout the dekad.

#### 2.4.1 NYERI:

The station reported 2.6 mm against its long-term dekadal mean rainfall of 15.9 mm. Broken cloud cover during the morning and afternoon was observed at the station throughout the dekad. Mean air temperature increased from 18.6°C to 19.1 °C in the current dekad. Maize is at the full ripeness stage and harvesting/land preparation for the next season is underway.

#### 2.4.2 THIKA:

The station reported 0.5 mm rainfall against its long-term decadal mean of 4.6 mm. Total pan evaporation was 50.0 mm. Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Maize is at the full ripeness stage and harvesting/land preparation for the next season is underway.

#### 2.4.3 DAGORETTI

The station received 1.7 mm against its long-term decadal mean of 9.5 mm of rainfall. The mean air temperature decreased from 19.2 °C to 19.0 °C in the current dekad. Broken cloud cover was observed at the station during the morning and afternoon hours.

#### **2.4.4 KABETE:**

The station received 2.5 mm against its longterm decadal mean of 11.8 mm of rainfall. The mean air temperature at the station increased from 18.3 °C to 18.6 °C in the current dekad. Broken cloud cover during the morning and afternoon hours was observed at the station throughout the dekad.

#### 2.4.5 NYAHURURU:

The station received a total cumulative amount of 11.8 mm against its long-term dekadal mean of 50.6 mm of rainfall. The station reported one (1) rainy day and one day (1) recording more than 5.0 mm (moderate rainfall). Scattered cloud cover dominated the sky during the morning and afternoon throughout the dekad. The average mean air temperature at the station increased from 14.4 °C to 14.6 °C.

During the coming dekad 1st – 10th September 2023, there is 47 % chance that the station shall receive below normal rainfall, 17% chance normal (33.1 – 55.1 mm) and 36% chance above normal rainfall

#### 2.5 EASTERN REGION:

All stations in the region received more rainfall as compared to the previous dekad. Broken and scattered cloud cover during the morning and afternoon hours was observed in the region throughout the dekad. Mean air temperatures decreased and ranged between 22.5 °C and 20.2 °C.

#### 2.5.1 MERU:

The station received a cumulative rainfall of 5.0 mm against its a long-term dekadal mean rainfall of 5.0 mm. Mean air temperature increased from 19.0°C to 19.5 °C. Scattered cloud cover was observed at the station during the morning and in the afternoon hours throughout the dekad. Total pan evaporation was 57 mm.

#### 2.5.2 EMBU:

The station received light rainfall of 13.3 mm against its long-term dekadal mean rainfall of 11.9 mm. The average mean air temperature increased from 19.7 °C to 20.2°C in the current dekad. Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Total pan evaporation was 42.8 mm.

During the coming dekad 1st – 10th September 2023, there is 54 % chance for the station to receive below normal rainfall (6.2 – 10.4 mm), 23% chance normal and 23% chance above normal rainfall.

#### **2.5.3 KATUMANI:**

The station reported nil rainfall against its long-term dekadal mean of 2.6 mm of rainfall. Scattered cloud cover was observed at the station during the morning and afternoon hours throughout the dekad.

Mangoes (variety apple) are at 100% appearance of the new leaves though the mango trees have been infested with aphids.

Oranges (Washington Navel) are at 100% flowering stage and in a fair state.

#### 2.6 COASTAL REGION:

Several stations in the region reported light to moderate rainfall with Lamu station leading the region with 25.1 mm of rainfall. The mean air temperature generally increased during the current dekad and ranged between 26.8 °C and 27.0°C.

#### 2.6.1 MTWAPA:

DEKAD 24-2023 RAINFALL AND TEMPERATURE MAPS/ CHARTS.

The station received a total cumulative amount of 5.5 mm against its long-term dekadal mean of 17.9 mm of rainfall. The station reported two (2) consecutive wet days during the entire dekad. Mean air temperature increased from 25.5°c to 26.3°c. Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Mangoes are at the maturity stage and in a fair state. Normal yield is expected for mangoes.

During the coming dekad 1st – 10th September 2023, there is 54 % chance for the station to receive below normal rainfall (15.2 – 25.2 mm), 30% chance normal and 26% chance above normal rainfall.

#### 2.6.1 MSABAHA:

The station received a total cumulative amount of 11.6 mm against its long-term dekadal mean of 14.5 mm of rainfall. Broken cloud cover was mainly observed during the morning and afternoon hours throughout the dekad. Farmers have finished harvesting.

#### 2.7 NORTH EASTERN REGION:

Several stations in the region remained dry during the dekad. Broken and scattered cloud cover was observed in the region during the morning and in the afternoon hours throughout the dekad. Mean air temperature ranged between 23.0 °C and 30.9 °c.

Pasture and forage in the region are slowly getting depleted due to overgrazing and water levels in most water/earth pans in the region also decreasing and could dry up soon.

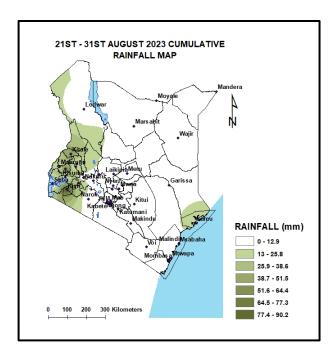


Fig: 3.1

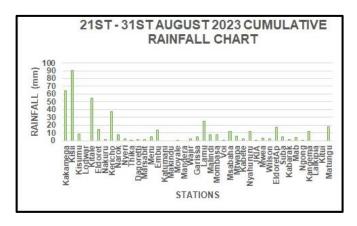


Fig: 3.2

STATION	Maximun	Maximun	Number	Cumulati
Kakameç	2	2	3	532
Kisii	5	2	5	416.28
Kitale	1	4	1	438.84
Kericho	2	4	3	354.28
Nyeri	1	6	0	73.92
Thika	0	7	0	50.42
Dagorett	1	3	0	52.49
Meru	1	6	0	70.5
Embu	1	6	1	105.46
Katuman	0	10	0	6.55
Msabaha	2	2	0	279.69
Mtwapa	2	2	0	305.03
Kabete	1	8	0	89.23
Nyahuru	2	5	1	231.91
Kabarak	1	8	0	174.64

Fig 3.3

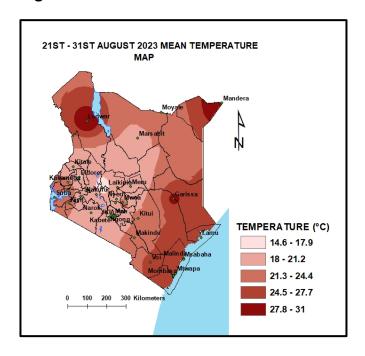


Fig: 3.4

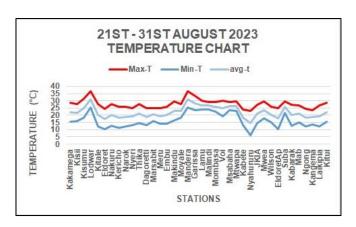


Fig: 3.5

# 4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; $1^{ST} - 10^{TH}$ SEPTEMBER 2023.

During the next ten (10) days, several parts of Western, Nyanza, Rift valley and the Central region are expected to receive moderate to heavy rainfall.

Farmers are advised to take advantage of the rains and prepare their land for the next season.

In Central region and Nairobi area, occasional light to moderate rain is likely to occur over a few places therefore, farmers are advised to take advantage of the expected weather conditions and prepare their land for the next season.

Eastern and North eastern regions are likely to have sunny intervals with cloudy nights during the next dekad. The expected weather conditions will be ideal for grazing, animal movement is expected to increase in search for pasture increasing the possibility of resource based conflicts.

South Eastern lowlands and Coastal regions are expected to experience occasional cloudiness with occasional showers over a few places during the next dekad. Farmers are advised to take advantage of the rains and prepare their land for the next season.

For inquiries or any clarification, please use the contacts on the letterhead.

Mary Githinji

FOR: DIRECTOR OF METEOROLOGICAL SERVICES