



REPUBLIC OF KENYA  
MINISTRY OF ENVIRONMENT, CLIMATE CHANGE & FORESTRY  
KENYA METEOROLOGICAL DEPARTMENT  
Dagoretti Corner, Ngong Road, P. O. Box 30259-00100, GPO, Nairobi, Kenya  
Telephone: +254 (0) 20 38567880-7, +254 724 255 153-4  
E-mail: [director@meteo.go.ke](mailto:director@meteo.go.ke), [info@meteo.go.ke](mailto:info@meteo.go.ke) Website: <http://www.meteo.go.ke>

# AGROMETEOROLOGICAL BULLETIN

Ref: MET/7 /28 / 2

Issue No: 10/2023

Date: 12/04/2023

DEKAD 10 PERIOD: 01<sup>ST</sup> – 10<sup>TH</sup> April 2023

## 1.0 HIGHLIGHTS

- Several parts of the country recorded a decrease in the amount of rainfall received especially over the highland west of the rift valley, north east, coast and the south east regions where moderate to heavy rainfall was reported.
- Dagoretti station in Nairobi province reported the highest amount of rainfall in the Country (148.8 mm) during the ten day period under review.
- Average mean air temperature rose over most parts of the country except over highlands east and the Coastal strip. The cooler regions in the Country had mean air temperatures ranging between 15.9 °C – 21.4 °C while the warmer regions had average mean air temperature of up to 31.7°C (Figs. 3.3 & 3.4).
- Total pan evaporation, dropped over most stations with highest readings of 72.5 mm being recorded at Mandera station in North Eastern Kenya.
- Several parts of the country are expected to receive moderate to heavy rainfall during the next 10 days (10<sup>th</sup> – 20<sup>th</sup> April 2023).

## **2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 01<sup>ST</sup> – 10<sup>TH</sup> APRIL 2023**

### **2.1 SUMMARY**

During the dekad, (01<sup>st</sup> – 10<sup>th</sup> April 2023) several parts of the country recorded a decrease in the amount of rainfall received especially over the highland west of the rift valley, north east, coast and the south east regions where Light to heavy rainfall was reported. Dagoretti station in Nairobi province reported the highest amount of rainfall in the Country (148.8 mm) during the ten day period under review.

Over Western, Nyanza and some parts of Rift Valley, farmers are weeding and top dressing their crops. In Central, Nairobi, Eastern and the Coastal regions, both maize and beans are past third leaf stage. The pastoral regions in North Eastern, North Western, South rift and over the game reserves, pasture and forage regeneration has improved with the current rains and most Water/Earth pans are being recharged hence improving the status of water resources in these regions.

### **2.2 WESTERN AND NYANZA REGION**

Most stations from the region reported decreased rainfall amounts compared to the previous dekad. However, the cumulative rainfall recorded during the dekad surpassed their long-term dekadal means. Moderate to heavy rainfall was reported by all stations in the region during the dekad. Average mean air temperatures dropped in the region and ranged between 20.8 °C and 24.4°C. Scattered to Broken cloud cover dominated the sky during the morning and afternoon hours.

#### **2.2.1 KAKAMEGA:**

The station reported a cumulative rainfall amount of 57.5 mm against its Long term dekadal mean of 86.23 mm, the station had a total of three (3) consecutive rainy days with all the three (3) days recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the station in the morning and afternoon hours throughout the dekad. Average mean air temperature at the station increased from 21.9 °C to 22.5 °C. Total pan evaporation was 61.4 mm. Most farmers completed weeding top dressing their crops and both maize and beans in moderate state which corresponds to normal growth.

#### **2.2.2 KISII:**

The station received moderate to heavy rainfall during the dekad. A cumulative rainfall amount of 94.5 mm was received against its long-term dekadal mean of 82.43 mm. The station had a total of six (6) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate to heavy rainfall). Mean air temperature increased from 19.9 °C in the previous dekad to 20.8 °C. Scattered to broken cloud cover persisted during both morning and afternoon hours respectively throughout the dekad. Total pan evaporation was 32.0 mm. Most farmers completed weeding top dressing their crops and both maize and beans in moderate state which corresponds to normal growth.

## **2.3 RIFT VALLEY PROVINCE**

Several stations from the region reported moderate to heavy rainfall that was less than their long-term decadal means. Moderate to heavy rainfall was reported by all stations in the region during the dekad. Average mean air temperatures generally rose in the region and ranged between 18.2 °C and 20.1 °C. Scattered to broken cloud cover dominated the sky during the morning and afternoon hours.

### **2.3.1 KITALE:**

The station received a cumulative rainfall amount of 24.9 mm against its long-term decadal mean of 50.18 mm. The station reported two (2) consecutive rainy days with one (1) day receiving more than 5.0 mm of rainfall (moderate to heavy rainfall). Broken cloud cover dominated the station in the morning and afternoon hours throughout the dekad. Average mean air temperature rose from 19.9°C to 20.1°C. Total pan evaporation was 35.9 mm. Both maize and beans are at the emergence stage and in good state.

### **2.3.2 KERICHO:**

A cumulative amount of 49.0 mm of rainfall was reported against its long-term decadal mean of 68.84mm. The station had a total of seven (7) consecutive rainy days with five (5) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature increased from 18.2 °C in the previous dekad to 18.3 °C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Most farmers completed weeding top dressing their crops and both maize and beans in moderate state, which corresponds to normal growth.

### **2.3.3 KABARAK:**

The station reported a cumulative amount of 71.1 mm of rain against its long-term decadal mean of 41.9 mm. The station had a total of four (4) consecutive rainy days with one (1) day recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature dropped from 19.3 °C in the previous dekad to 18.5 °C in the current dekad. Scattered to broken cloud cover persisted over the station in the morning and in the afternoon hours throughout the dekad. Most farmers completed weeding top dressing their crops and both maize and beans in moderate state, which corresponds to normal growth.

## **2.4 CENTRAL AND NAIROBI PROVINCES.**

Several stations from the region reported moderate to heavy rainfall that was above their long-term decadal means. Moderate to heavy rainfall was reported by all stations in the region. Average mean air temperatures generally dropped in the region and ranged between 15.9 °C and 21.4 °C. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad

#### **2.4.1 NYERI:**

Received a total cumulative amount of 18.64 mm against its long-term dekadal mean rainfall of 25.39 mm. The station had a total of eight (2) consecutive rainy days with one (1) day recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature was 19.6 °C which was a decrease from 20.4 °C in the previous dekad. Maize and beans are at the emergence stage and in good state.

#### **2.4.2 THIKA:**

Received a total cumulative amount of 101.8 mm against its long-term dekadal mean rainfall of 75.70 mm. The station had a total of three (3) consecutive rainy days with five (5) days recording more than 5.0 mm (moderate to heavy rainfall). Total pan evaporation was 47.3 mm. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Both maize and beans are at the emergence stage and in good state.

#### **2.4.3 KABETE:**

The station received a total cumulative amount of 121.9 mm against its long-term dekadal mean of 71.89 mm of rainfall. The station had a total of three (3) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate to heavy) rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Both maize and beans are at emergence stage and in good state.

Coffee variety *Ruiru hybrid II* is at 100% berry soft and the crop state is fair which corresponds to normal growth. The extent of spread of weeds is not much in the farm though 40% of the crop has been affected by leaf rust.

Banana variety *Giant Cavendish* is at 90% suckers and 10% ripeness stage and there is a considerable amount of weeds but they do not affect the plant. However, 40% of the crop has been affected by Panama banana disease.

#### **2.4.4 NYAHURURU:**

The station received a total cumulative amount of 23.1 mm against its long-term dekadal mean of 31.04 mm of rainfall. The station had a total of one (1) consecutive rainy day with two (2) days recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 15.9 °C. Maize is at emergence stage and in fair state.

#### **2.5 EASTERN REGION:**

Several stations in the region reported Moderate to heavy rainfall with Meru leading the region with 137.4 mm of rainfall. Scattered cloud cover which increased to broken in the afternoon was

generally observed in the region during the entire period under review. Average mean air temperatures decreased and ranged between 19.9 °C and 25.4 °C.

### **2.5.1 MERU:**

Received a total cumulative amount of 137.4 mm against its long-term dekadal mean of 51.42 mm of rainfall. The station had a total of three (3) consecutive rainy days with three (3) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 19.9 °C. Some farmers are still weeding and top dressing their crops. Maize and beans are at the emergence stage and in good state.

### **2.5.2 EMBU:**

Reported a total cumulative amount of 72.1 mm against its long-term dekadal mean of 70.5 mm of rainfall. The station had a total of four (4) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 20.8 °C. Total pan evaporation was 43.6 mm. Farmers have started weeding for their crops. Both maize and beans are at emergence stage and in fair state.

### **2.5.3 KATUMANI:**

Received a total cumulative amount of 30.3 mm against its long-term dekadal mean of 49.26 mm of rainfall. The station had a total of four (4) consecutive rainy days with two (2) days recording more than 5.0 mm (moderate) rainfall. Scattered cloud cover during the morning increasing to broken during the afternoon dominated the sky throughout the dekad. Total pan evaporation was 45.3 mm.

Both maize and beans are at emergence stage.

Mangoes (variety apple) are at 100% ripeness stage and the crop condition is poor which corresponds to below normal state. Infestation by aphids are affecting the phase. Oranges (Washington Navel) were at 100% fruit setting and the crop condition was fair corresponding to normal growth.

## **2.6 COASTAL REGION:**

Several stations in the region reported Moderate to heavy rainfall with Mtwapa leading the region with 65.3 mm of rainfall. Broken cloud cover dominated the region during the morning hours decreasing to scattered clouds during the afternoon hours. Mean air temperature increased and ranged between 28.7 °C and 29.9 °C.

### **2.6.1 MTWAPA:**

The station received a total cumulative amount of 65.3 mm against its long-term dekadal mean of 41.30 mm of rainfall. Average mean air temperature was 28.7 °C. The station had a total of two (2) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate) rainfall.

Total pan evaporation was 59.3 mm. Broken cloud cover dominated the sky during the morning decreasing to scattered clouds in the afternoon hours. Crops are at the emergence stage.

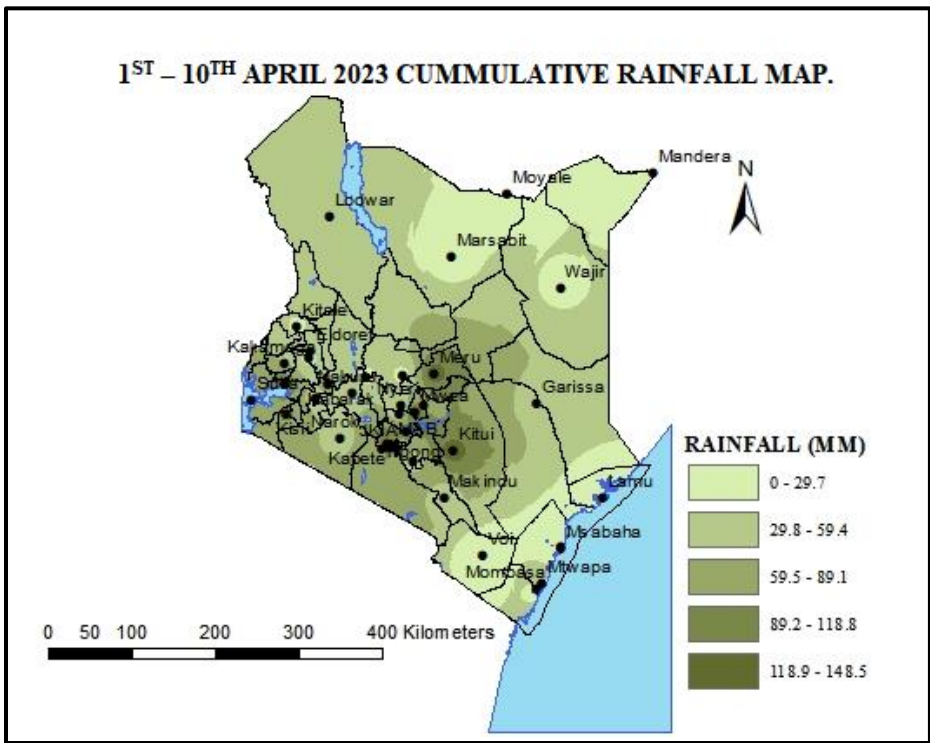
**2.6.1 MSABAHA:**

Reported a total cumulative amount of 15.4 mm against its long-term dekadal mean of 30.16 mm of rainfall. The station had a total of three (3) consecutive rainy days with one (1) day recording more than 5.0 mm (moderate) rainfall. Broken cloud cover dominated the sky during the morning decreasing to scattered clouds in the afternoon hours. Total pan evaporation was 47.4 mm. Crops are at the emergence stage.

**2.7 NORTH EASTERN REGION:**

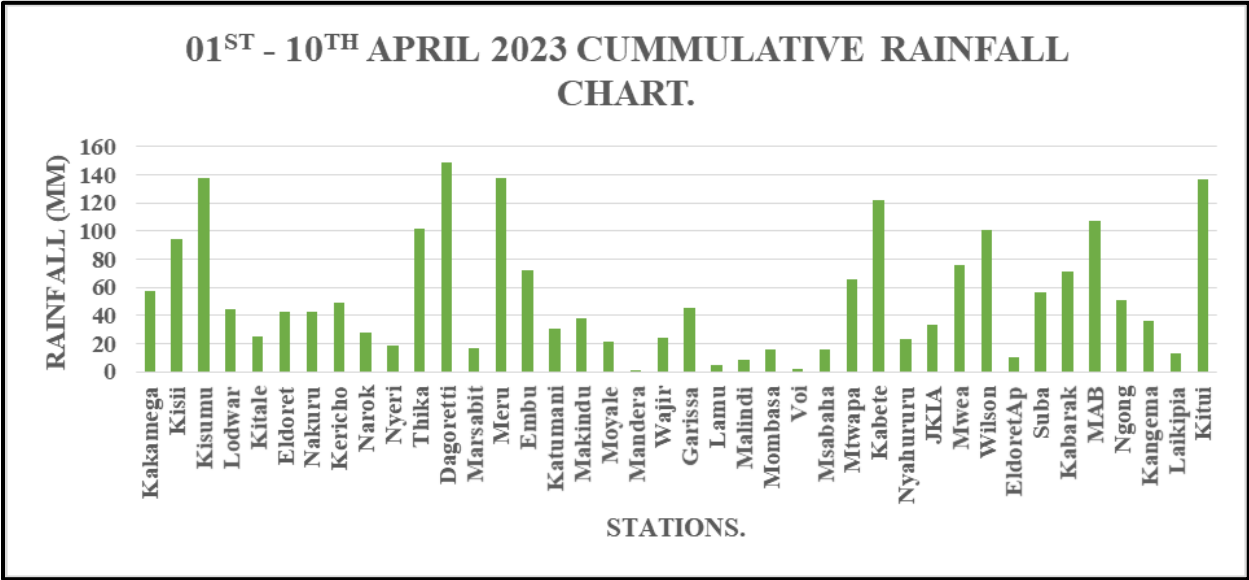
Several stations in the region reported light to heavy rainfall with Garissa leading the region with 45.4 mm of rainfall. Wajir reported 24.1 mm and Mandera station reported the lowest amount of 0.02 mm. Scattered/Broken cloud cover was generally observed over the region during the morning and afternoon hours. Mean air temperature ranged between 30.6 °C and 31.7 °C.

Pasture and forage regeneration is slowly improving and Water/Earth pans in the region are being recharged.

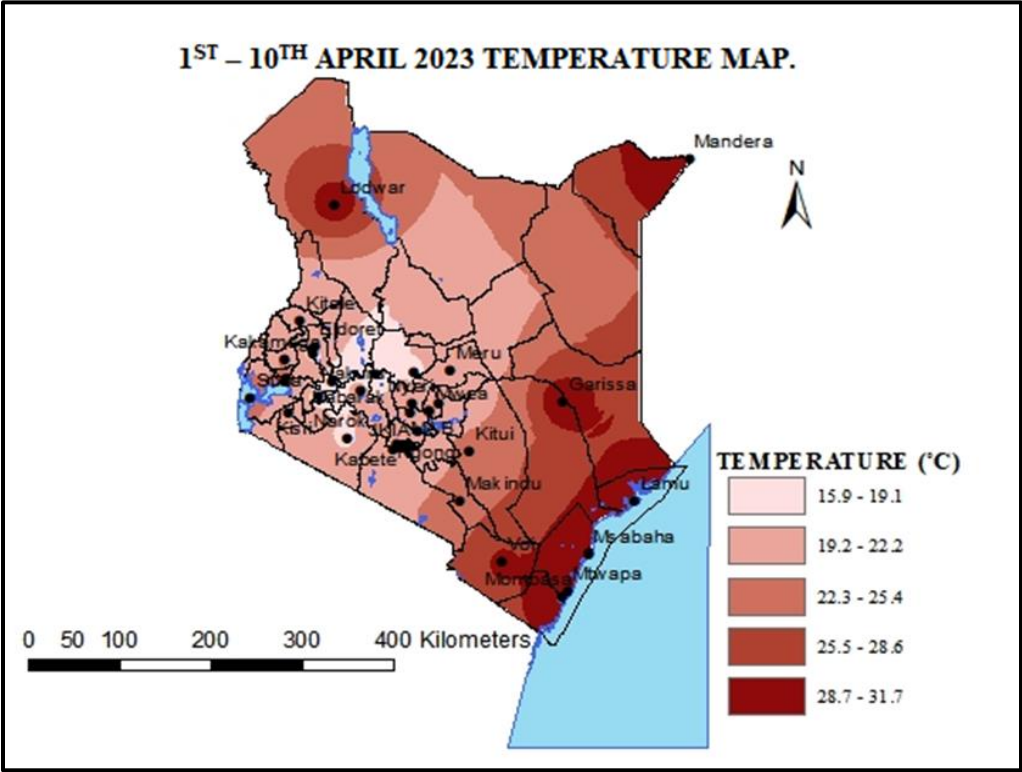


**Fig: 3.1 Cumulative**

**Rainfall Map.**

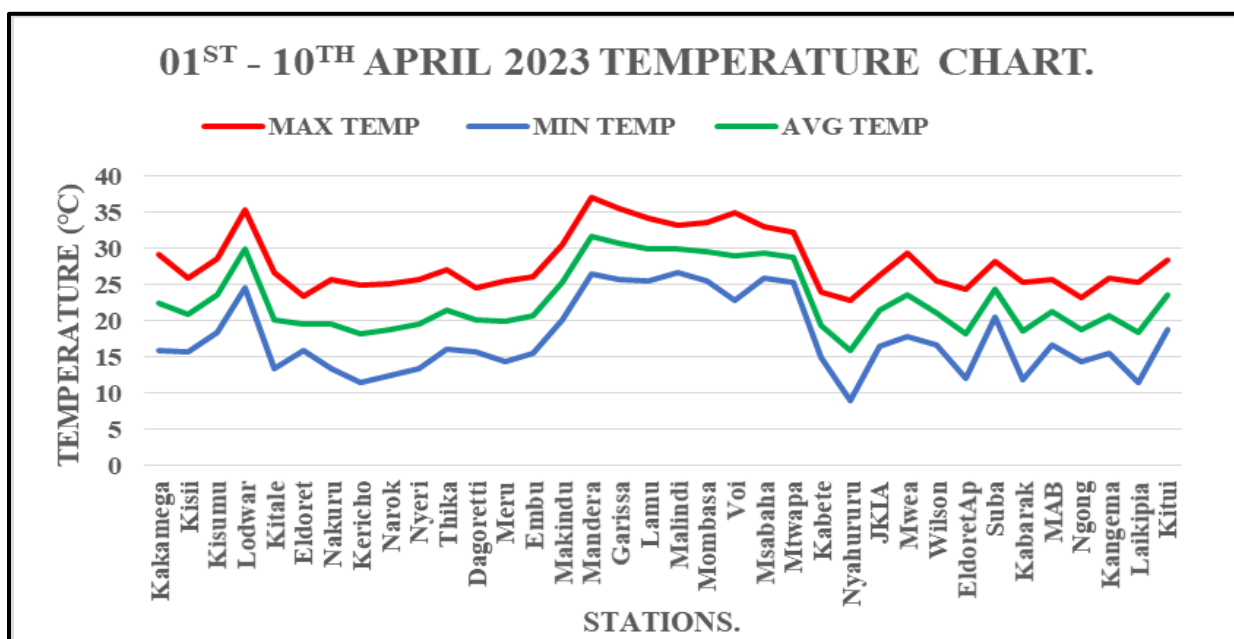


**Fig: 3.2 Cumulative rainfall graph.**



**Mean Temperature Map.**

**Fig: 3.3**



**Fig: 3.4 Temperature Graphs**

Station	Maximum consecutive wet days (>1.0 mm)	Maximum consecutive dry days	Number of rainy days (> 5.0 mm)	Cumulative Rainfall from start of MAM 2023 rainfall (mm) season
Kakamega	3	4	3	344.62
Kisii	6	0	4	467.9
Kitale	2	1	1	148.74
Thika	3	2	5	251.7
Nyeri	2	2	1	109.51
Dagoretti	3	3	5	369.3
Embu	4	1	4	186.7
Katumani	2	2	4	89
Msabaha	3	5	1	103.8
Mtwapa	2	2	4	138.8
Kabete	3	3	4	331.5
Nyahururu	1	2	2	71.7
Kabarak	4	2	1	181.7

**Fig: 3.5 : Table showing the number of consecutive wet days, maximum consecutive dry days, number of rainy days from 01<sup>st</sup> – 10<sup>th</sup> April 2023, and the cumulative rainfall amounts from the start of March, April and May (MAM) season, 2023.**



**4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 11<sup>TH</sup> – 20<sup>TH</sup> APRIL 2023.**

During the next ten (10) days, moderate rainfall is expected to fall over most parts of the country including over south eastern lowlands and the coastal region.

Over Western and Nyanza regions, most farmers are expected to complete weeding and top dressing their farms.

In Central Nairobi and Eastern parts of the country, moderate rainfall is expected and since crops are currently past third leaf stage, weeding and top dressing is, expected to take place.

North Western/Eastern are likely to receive light to moderate rainfall during the next dekad. This is likely to help in the regeneration of pasture/forage in the region and recharge water/earth pans in the area.

Communities in these areas are therefore, advised to de-silt all earth/water pans and employ other water harvesting means to maximize on water storage.

South Eastern lowlands and the coastal regions are expected to receive moderate rainfall during the coming dekad and therefore farmers are advised to start weeding and top-dress their crops

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



Mary Githinji

**FOR: DIRECTOR OF METEOROLOGICAL SERVICES.**