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# AGROMETEOROLOGICAL BULLETIN

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**DEKAD 21 PERIOD: 21<sup>ST</sup> – 31<sup>ST</sup> July 2023**

## 1.0 HIGHLIGHTS

- During the current dekad several parts of the country reported light to moderate rainfall. Most stations in western, Nyanza some parts of Rift-valley and Eastern region reported an increase in the total amount of rainfall received compared to the previous dekad.
- Eldoret Meteorological station in Uasin Gishu reported the highest amount of rainfall followed by Kitale and Kisii station in Nyanza. (Figs; 3.1 & 3.2).
- Mean air temperature generally increased over the Western parts of the country and Rift Valley regions. In Central and eastern regions, mean air temperatures dropped over most stations. The cooler regions in the Country had mean air temperatures ranging between 14.2°C – 19.3°C while in the

warmer regions mean air temperature reached 29.8°C (Figs. 3.3 & 3.4).

- Low total pan evaporation reported over most stations with the highest readings of 68.8 mm being recorded at Kitui station in Eastern Kenya.
- During the next ten (10) days, cool cloudy conditions are expected over most of the Country with occasional light to moderate rains over a few places in western and high ground areas of the country.

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

### 2.1 SUMMARY

During the period under review, several parts of the country reported light to moderate rainfall. Most stations in western and Nyanza some parts of Rift-valley and Eastern region reported an increase in the total amount of rainfall received compared to the previous dekad. Eldoret Kapsoya station in Uasin

Gishu County reported the highest amount of rainfall 68.5 mm followed by Kitale and Kisii stations.

In Western, Nyanza, and some parts of Rift Valley, maize is at full ripeness stage and some farmers have started harvesting and normal yield is expected. In Central, Eastern and Coastal regions maize is at maturity stage and is also being harvested with normal yield expected.

In Northwestern/Eastern and south rift valley, pasture and forage condition is slowly getting depleted due to over grazing by both domestic and wild life.

## **2.2 WESTERN AND NYANZA REGION**

The stations from the region reported increased rainfall as compared to their long-term decadal means. Light to moderate rainfall was reported by all stations in the region during the dekad. Average mean air temperatures increased in the region and ranged between 21.2 °C and 22.5 °C. Broken cloud cover during the morning and afternoon hours was observed over most stations in the region during the dekad.

### **2.2.1 KAKAMEGA:**

The station reported a cumulative rainfall amount of 12.5 mm against its Long-term decadal mean of 21.0 mm. The station had a total of three (3) consecutive rainy days with three (3) days recording more than 5.0 mm (moderate rainfall). Broken cloud cover dominated the station in the morning and afternoon hours throughout the whole dekad. The average mean air temperature at the station increased from 22.1 to 22.5°C. Maize is at harvesting stage while beans have been harvested.

### **2.2.2 KISII:**

The station received heavy rainfall during the dekad. A cumulative rainfall amount of 44.3 mm was received against its long-

term dekadal mean of 35.9mm. The station reported two (2) consecutive rainy days with two (2) days recording more than 5.0 mm (moderate to heavy rainfall). The mean air temperature increased from 20.9°C in the previous dekad to 21.2°C. Broken cloud cover persisted during the morning and afternoon hours throughout the dekad. Maize is at harvesting stage while beans have been harvested.

## **2.3 RIFT VALLEY PROVINCE**

Several stations from the region reported increased rainfall compared to the previous dekad. Moderate to heavy rainfall was reported by all stations in the region during the dekad. The average mean air temperature increased as compared to the previous dekad and ranged between 17.8°C and 19.8°C. Broken cloud cover during the morning and afternoon hours was observed throughout the region during the dekad.

### **2.3.1 KITALE:**

The station generally received light to moderate rainfall during the dekad. A cumulative rainfall amount of 54.2 mm was received against its long-term dekadal mean of 55.7 mm. The station reported two (2) consecutive rainy days with two days (2) receiving more than 5.0 mm of rainfall. Broken cloud cover was observed at the station in the morning and afternoon hours throughout the whole dekad. The average mean air temperature increased to 19.8°C from 19.3°C in the previous dekad. Maize is at the maturity stage and in a good state. Farmers are harvesting beans and normal yield is expected for both crops.

### **2.3.2 KERICHO:**

A cumulative amount of 19.1 mm of rainfall was reported against its long-term dekadal mean of 49.3 mm. The station had two (2) consecutive rainy days with two (2) days recording more than 5.0 mm

of rainfall during the dekad. The average mean air temperature increased from 17.9°C in the previous dekad to 18.8°C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Maize is at the maturing stage and beans at harvesting. Normal yield is expected for both crops.

### **2.3.3 KABARAK:**

The station reported a cumulative amount of 27.7 mm of rain against its long-term decadal mean of 57.5mm. The station reported only one (1) rainy day with more than 5.0 mm of rainfall during the dekad. The average mean air temperature increased from 19.0°C in the previous dekad to 19.8°C in the current dekad. Scattered cloud cover persisted over the station in the morning and in the afternoon hours throughout the entire dekad. Maize is at the flowering of the tassel stage and beans are at the harvesting stage. Normal yield is expected for both crops.

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

Several stations from the Central region reported decreased rainfall by all stations in the region. Average mean air temperatures as compared to their long-term decadal mean. Light to moderate rainfall was reported decreased in the region and ranged between 15.5°C and 19.7°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 9.8 mm against its long-term decadal mean rainfall of 15.3 mm. The station had two (2) consecutive rainy day with two (2) days recording more than 5.0 mm of rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout

the dekad. The average mean air temperature decreased from 18.1°C to 17.4°C in the previous dekad. Maize is at wax ripeness stage and in fair state while beans are in the maturing stage. Some farmers have started harvesting beans and normal yield is expected for both crops.

### **2.4.2 THIKA:**

The station received a total cumulative amount of 1.9 mm against its long-term decadal mean of 3.5 mm. Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Maize is at the maturity stage and beans are at the harvesting stage. Maize in some areas is ready for harvesting while in some they are yet to achieve full ripeness.

### **2.4.3 DAGORETTI**

The station remained dry during the the whole dekad. The average mean air temperature increased from 17.6°C to 18.2°C in the current dekad. Broken cloud cover was observed at the station during the morning and afternoon hours. Maize is at harvesting stage and normal yield is expected.

### **2.4.4 KABETE:**

The station received a total cumulative amount of 0.3 mm against its long-term decadal mean of 7.1mm of rainfall. The average mean air temperature at the station was 17.6°C. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad.

Coffee variety *Ruiru hybrid 11* is at 70% berry soft and the crop state is fair which corresponds to normal growth and 20% ripeness. 30% of the crop has been affected by leaf rust and Coffee Berry Disease (CBD) and pests. Maize is at the flowering stage and beans are at the harvesting stage. The maize crop is doing well and some farmers have

already started harvesting beans. Farmers are advised to do post-harvesting practices on beans to avoid losses.

#### **2.4.5 NYAHURURU:**

The station received a total cumulative amount of 8.0 mm against its long-term dekadal mean of 56.2 mm of rainfall. The station had two (2) rainy days with one day (1) recording more than 5.0 mm (moderate rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature at the station increased from 14.2°C to 15.5 °C. Maize is at ripeness stage and in good condition.

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

Several stations in the region received decreased rainfall as compared to their long-term dekadal mean. Broken cloud cover during the morning and afternoon hours was observed in the region throughout the dekad. Average mean air temperatures increased and ranged between 17.9°C and 22.2 °C.

##### **2.5.1 MERU:**

The station received a total cumulative of 4.5 mm against its a long-term dekadal mean rainfall of 6.9 mm. The average mean air temperature remained same as in the previous dekad 18.4°C . Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Maize is at harvesting stage and some farmers have started harvesting their crop and normal yield is expected.

##### **2.5.2 EMBU:**

The station received a total cumulative rainfall of 1 5.5 mm during the dekad against its long-term dekadal mean rainfall of 10.6 mm. The average mean air temperature decreased from 18.8°C to 17.8°C in the current dekad. Broken

cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Maize is at maturity stage and beans at harvesting stage. Farmers have finished harvesting beans and normal yield is expected for both crops.

##### **2.5.3 KATUMANI:**

The station received a total cumulative rainfall of 0.2 mm against its long-term dekadal mean of 2.5 mm of rainfall. Broken cloud cover was observed during the morning and afternoon hours throughout the dekad.

Maize is at the full ripeness stage while beans have been harvested. Maize crop has generally been affected by too much sun and therefore, below normal yield is expected.

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 fair state.

#### **2.6 COASTAL REGION:**

Several stations in the region reported light to moderate rainfall with Mtwapa station leading the region with 31.6 mm of rainfall. Scattered/Broken cloud cover was mainly observed in the region during the morning and afternoon hours. The mean air temperature generally increased during the current dekad and ranged between 23.4 °C and 26.5°C.

##### **2.6.1 MTWAPA:**

The station received a total cumulative amount of 31.6 mm against its long-term dekadal mean of 31.0 mm of rainfall. The station had three (3) consecutive rainy days with three (3) days recording more than 5.0 mm of rainfall. The average mean air temperature was 26.0°C. Broken cloud cover during the morning

and afternoon hours was reported at the station. Maize is at the harvesting stage and normal yield is expected. Mangoes are at the maturity stage and in a fair state. Normal yield is expected for mangoes.

**2.6.1 MSABAHA:**

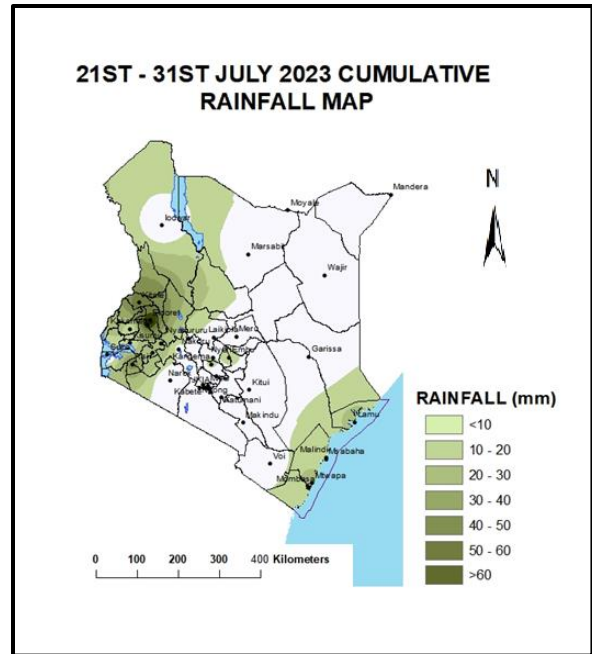
The station received a total cumulative amount of 15.7mm against its long-term dekadal mean of 28.5 mm of rainfall. The station had two (2) consecutive rainy days with two (2) days recording more than 5.0 mm (moderate) rainfall. Broken cloud cover was mainly observed during the morning and afternoon hours throughout the dekad. Maize is at the harvesting stage and in good state. Normal yield is expected.

**2.7 NORTH EASTERN REGION:**

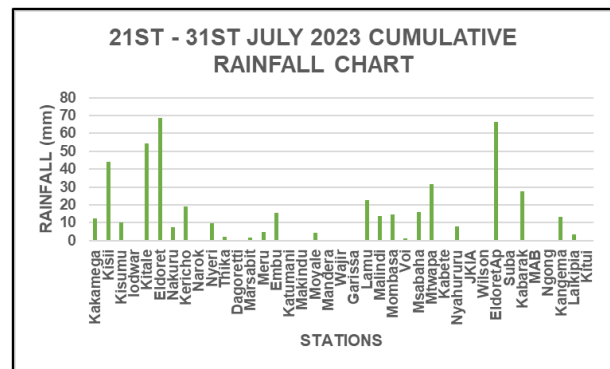
Several stations in the region remained dry during the dekad. Mean air temperature increased and ranged between 28.0°C and 29.2 °C.

Pasture and forage in the region is slowly getting depleted due to overgrazing by livestock and wildlife. Water levels in most water/earth pans in the region are also decreasing and could dry up soon unless it rains

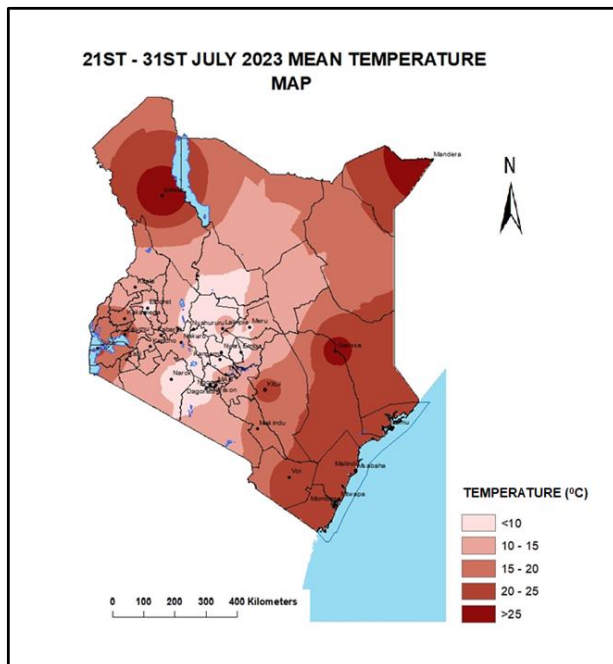
**3.0 DEKAD 21 2023 RAINFALL AND TEMPERATURE MAPS/CHARTS**



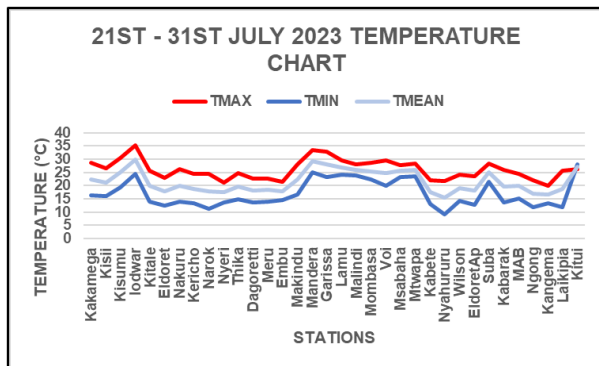
**Fig: 3.1**



**Fig: 3.2**



**Fig: 3.3**



**Fig: 3.5**

Station	Maximum consecutive wet days (>1.0 mm)	Maximum consecutive dry days	Number of rainy days (> 5.0 mm)	Cumulative Rainfall from the start of JJA 2023
Kakamega	3	3	3	315.3
Kisii	2	2	2	275.1
Kitale	2	2	2	300.1
Kericho	2	2	2	238.6
Nyeri	2	2	2	57.9
Thika	0	0	0	38.9
Dagoretti	0	0	0	40.6
Meru	1	1	1	54.6
Embu	6	6	6	51.4
Katamani	0	0	0	6.5
Msabaha	2	2	2	230.6
Mtwapa	3	3	3	270.3
Kabete	0	0	0	80.1
Nyahururu	2	1	1	165.8
Kabarak	1	1	1	113.0

**Fig: 3.6**

**4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 1<sup>ST</sup> – 10<sup>TH</sup> AUGUST 2023.**

During the next ten (10) days, cool cloudy conditions are expected over most of the

Country with occasional light to moderate rains over a few places in western and high ground areas of the country.

Over Western and Nyanza regions, to moderate rain is likely to occur over a few places therefore, farmers who are still harvesting and carrying out post-harvest activities drying of cereals are advised to take advantage of sunny periods within the dekad in order to avoid postharvest losses. Farmers are also advised to start preparing their land for the next cropping season.

In the Central region, Nairobi, and Eastern parts of the country, light rains are expected over a few places during the next dekad. The expected rains will supply the necessary soil moisture required by maize which is at the flowering of the tassel and wax ripeness stage.

North Western/Eastern is 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 they search for pasture hence increasing the possibility of arising conflicts.

South Eastern low lands and Coastal regions are expected to experience occasional cloudiness giving way to sunny intervals during the next dekad.

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

Mary Githinji

**FOR: DIRECTOR OF METEOROLOGICAL SERVICES**