

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

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# AGROMETEOROLOGICAL BULLETIN

DEKAD 30 PERIOD:  $21^{ST} - 31^{ST}$  NOVEMBER, 2023.

#### 1.0 HIGHLIGHTS

- During the period under review, **most parts** of the country reported decreased amount of rainfall as compared to the previous dekad except for a few stations over North Eastern and Highland West part of Kenya.
- Marsabit Meteorological station in North Eastern region reported the highest amount of rainfall of 234.8mm followed by Meru and Kakamega Meteorological Stations (Figs; 3.1 & 3.2).
- Mean air temperature decreased slightly in most parts of the country as compared to the previous dekad. (Figs. 3.3 & 3.4).
- Total pan evaporation readings slightly increased in most stations as compared to the previous dekad.
- During the next ten (10) days, most parts of the Country are expected to receive moderate to heavy rains over most places in Western, Central, Rift Valley, South Eastern lowlands, North Eastern and Coastal areas of the country.

**2.0** WEATHER AND CROP REVIEW FOR THE PERIOD: 21ST – 31ST NOVEMBER, 2023.

# 2.1 SUMMARY

In Western, Nyanza, and several parts of Rift Valley, most farmers have already planted and their crops are past ninth leaf stage and in good state which corresponds to normal growth. In Central, Eastern, and Coastal regions most farmers finished planting and the crops are at emergence and post emergence stages.

In Northwestern and Eastern regions pasture and forage condition is getting regenerated due to the ongoing moderate to heavy rains.

# 2.2 WESTERN AND NYANZA REGION

All stations from the region reported enhanced rainfall with Kakamega Station in Western reporting the highest.

There was a significant decrease in Mean air temperature in the region and ranged between  $21.5^{\circ}C$  and  $24.0^{\circ}C$ .

Scattered/broken cloud cover dominated the region during the dekad.

# **2.2.1** KAKAMEGA:

The station reported a cumulative rainfall amount of 136.6 mm which is above its long-term mean.

The average mean air temperature at the station decreased from 22.0°C to 21.9 °C. Scattered cloud cover was reported throughout the entire dekad.

Maize is at its nineth leaf and in a good state, while beans are flowering and doing well due to prevailing weather conditions.

#### 2.2.2 KISII:

The station reported a cumulative rainfall amount of 78.2 mm, which is above the long-term dekadal mean. The average mean air temperature at the station slightly increased by 0.2°C from the previous dekad. Scattered cloud cover during the morning increasing to broken during the afternoon hours prevailed over the station during the dekad.

Maize and beans are at emergence stage and are corresponding to the normal crop growth.

#### RIFT VALLEY REGION

#### **2.3.1 KITALE:**

The station received of 12.8 mm, which is below the long-term dekadal mean. Mean air temperature increased slightly from 20.1 °C to 20.2 °C. Scattered to broken cloud cover was observed throughout the dekad

Farmers have completed harvesting their maize crops.

#### **2.3.2 KERICHO:**

The station reported 75.1 mm of rainfall which is a below normal from its long-term mean. The station reported a decrease in mean air temperature from 18.5 °C to 18.2°C.

Some farmers have planted maize whereas others have not. Maize is at emergence stage and are in good condition growing better than normal.

Beans are in flowering stage and in good state; growing better than normal.

#### **2.3.3 KABARAK**:

The station reported a cumulative amount of 8.8 mm which is a below normal of its long-term dekadal mean. Mean air temperature decreased from 19.1°C to 18.4°C.

Scattered to broken cloud cover was observed throughout the dekad.

# 2.4 CENTRAL AND NAIROBI REGION.

Most stations from the Central region reported a decrease in rainfall compared to the previous dekad (Fig 3.2). Mean air temperatures slightly decreased and ranged between 20.8°C and 22.5°C. Scattered to broken cloud cover was observed in the region throughout the dekad.

# **2.4.1 NYERI:**

The station reported a cumulative rainfall amount of 11.1 mm which is a negative deviation from the long-term mean. Broken cloud to scattered cloud cover was observed at the station throughout the dekad. Mean air temperature decreased from 21.2°C to 21.0 °C in the dekad.

Both crops are in post emergence stage and in fair state.

#### 2.4.2 THIKA:

The station reported 25.7 mm rainfall which is a negative deviation from its normal. Total pan evaporation was 47.1 mm. Broken to scattered cloud cover was observed at the station throughout the dekad.

Planting of crops is underway in most farms.

#### 2.4.3 DAGORETTI

The station received a cumulative rainfall amount of 7.9 mm which is a below normal from its long-term decadal mean. The mean air temperature decreased from 21.3°C to 20.8°C to in the dekad. Broken cloud cover was observed at the station throughout the dekad.

Maize and beans are at emergence stage and are corresponding to the normal crop growth.

#### **2.4.4 KABETE:**

The station received a cumulative rainfall amount of 7.2 mm which is also below normal from its long-term mean. The mean air temperature at the station increased from 20.8°C to 24.8°C. Broken to Scattered cloud cover was observed at the station throughout the dekad.

Maize and beans are at emergence stage and are corresponding to the normal crop growth.

#### 2.4.5 NYAHURURU:

The station received 11.8 mm, which is below normal from its long-term dekadal mean. The average mean air temperature at the station increased from 16.1°C to 15.6°C. Scattered to Broken cloud cover was observed throughout the dekad.

Maize crop has reached full ripeness but not yet completely dry for harvesting.

# 2.5 EASTERN REGION:

Most stations in the region received more rainfall as compared to the previous dekad. Mean air temperature decreased slightly and ranged between 20.4°C and 22.6°C. Scattered/broken cloud cover was observed in the region throughout the dekad.

# 2.5.1 MERU:

The station received a cumulative rainfall of 227.1 mm. Mean air temperature slightly increased from 21.8°C to 20.7 °C. Broken to scattered cloud cover was observed at the station throughout the dekad.

# 2.5.2 EMBU:

The station received a cumulative rainfall amount of 98.2mm a positive deviation from its long-term mean. The average mean air temperature decreased from 22.0°C to 21.7°C to in the dekad. Broken to scattered cloud cover was observed at the station throughout the dekad.

Maize and beans are at emergence stage and are corresponding to the normal crop growth.

#### **2.5.3 KATUMANI:**

The station reported 7.1mm of rainfall during the dekad, a negative deviation from its long-term mean. Scattered cloud cover was observed at the station throughout the dekad.

Planting has started in most farms around.

# 2.6 COASTAL REGION:

Most stations in the region reported an increase in rainfall amounts except Malindi and Msabaha as compared to the previous dekad. The mean air temperature generally increased during the dekad and ranged between 27.5°C and 28.6°C.

#### **2.6.1 MTWAPA:**

The station received a total rainfall amount of 60.5mm against its long term dekadal mean of 47.4mm. Mean air temperature increased from 27.5°c to 28.0°c. Scattered to broken cloud cover was observed at the station throughout the dekad.

Maize crop is at emergence stage and are corresponding to the normal crop growth.

Mangoes are at dormant stage.

#### **2.6.2 MSABAHA:**

The station received a total rainfall amount of 8.7mm against its long-term dekadal mean of 44.3mm. The mean air temperature increased from 27.5°C to 28.2 °C. Broken to scattered cloud cover was observed throughout the dekad.

Maize crop is at emergence stage and are corresponding to the normal crop growth.

#### 2.7 NORTH EASTERN REGION:

Most stations in the region, received an increased amount of rainfall as compared to the previous dekad. Mean air temperature ranged between 20.4°C and 31.1°C.

Scattered to broken cloud cover was observed in the region throughout the dekad. Water levels in most water/earth pans/seasonal rivers in the region are filling up and pasture and forage in the region are fast growing due to the prevailing OND rains.

# DEKAD 30 2023 RAINFALL AND TEMPERATURE MAPS/ CHARTS

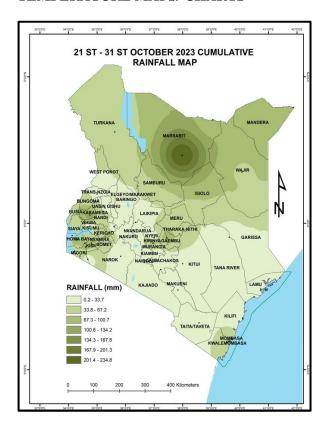


Fig: 3.1

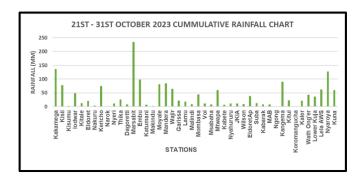
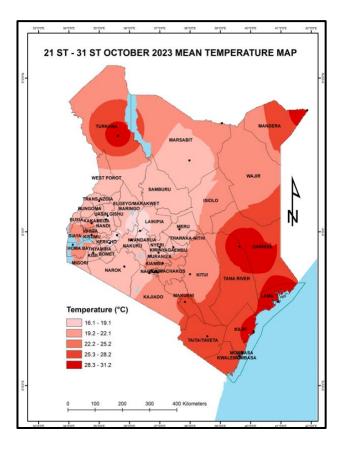


Fig:3.2



**Fig 3.3** 

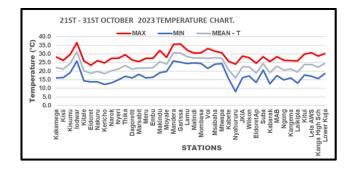


Fig: 3.4

				Cummulative Rainfall from the start of the OND 2023 rainfall
Station	Maximum co	Maximum o	Number of	season
Kakamega	4	3	5	327.7
Kisii	3	1	5	151.2
Kitale	2	2	0	115.4
Kericho	4	1	6	231.9
Nyeri	2	2	2	70.8
Thika	2	4	2	81.7
Dagoretti	2	5	1	63.2
Meru	8	2	9	389.8
Embu	4	1	4	224.8
Katumani	2	4	0	8.9
Msabaha	2	3	0	69.2
Mtwapa	3	3	4	126.9
Kabete	2	5	2	27.8
Nyahurur	2	4	0	29.5
Kabarak	2	3	0	109.0

**Fig 3.5** 

# 4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 1<sup>ST -</sup> 10<sup>TH</sup> NOVEMBER, 2023.

During the next ten (10) days, several parts of the Country are expected to receive moderate to heavy rains over several places in the Highland East of the Rift Valley and North Eastern parts of the country.

Over **Western and Nyanza regions**, Morning rains as well as afternoon and night showers are expected over few places occasionally spreading to several places

In the Central region, Nairobi, and Eastern parts of the country, morning rains as well as afternoon and night showers are expected over several places.

**North Western** is likely to receive morning rains as well as afternoon and night showers over few places.

**South Eastern lowlands and Coastal regions** are expected to receive occasional morning, afternoon and night showers over a several places during the next ten days.

# 4.1 AGRO - ADVISORY:

❖ Farmers in all regions of the country especially Western, Nyanza North Rift and central Rift Valley are advised to take advantage of the prevailing rain by planting various types of crops like Root crops, Cereals, Bananas, Sugar cane, horticultural crops etc. in order to

- enhance their crop production and ease food insecurity.
- ❖ Pastoralists in North Western Kenya, North eastern and South Rift valley and parts of south eastern Lowland are advised to be cautious of their animals from flood prone areas. They are also advised to plant pastures like boma Rhodes grass, sorghum etc. for future use.
- ❖ Farmers are advised to work closely with Agricultural Extension officers and other stakeholders to have a better understanding of weather patterns and how they affect agricultural activities like weeding, fertilizer application, chemical spraying etc.
- ❖ Areas with drainage challenges like fairly flat lands e.g., Mwea irrigation scheme and along River Nzoia basin; farmers are advised to construct furrows and channels to remove stagnant waters to increase the air spaces in the soil thus improving aeration for great root development, more intense bacterial activity and promotion of oxidation processes.
- The national Government and the county government should facilitate in construction of water storage facilities like dams, weirs, gabions for long term water conservation

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

Mary Githinji

FOR: DIRECTOR OF METEOROLOGICAL SERVICES