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# AGROMETEOROLOGICAL BULLETIN

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## 2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 1<sup>ST</sup> – 10<sup>TH</sup> JANUARY.

DEKAD 1 PERIOD: 1<sup>ST</sup> – 10<sup>TH</sup> JANUARY, 2024.

### 1.0 HIGHLIGHTS

- During the period under review, there was reduction in rainfall across several parts of the country compared to the previous dekad.
- The Kakamega station reported the highest rainfall at 137.9 mm, followed by the Kericho Meteorological Stations, recording 128.7 mm (refer to Figures 3.1 and 3.3).
- There was a general decrease in mean air temperature across most areas in the country when compared to the preceding dekad (refer to Figures 3.2 and 3.4).
- Total pan evaporation readings indicated a slight decrease in most stations relative to the last dekad.
- In the next ten days, southern half of the country is expected to experience moderate to high rainfall. Alternatively, North-eastern and North-western Kenya are expected to remain generally dry.

### 2.1 WESTERN AND NYANZA REGION

Several stations in the region reported marginal fluctuations in rainfall levels. Kisumu and Kisii observed a slight increase in rainfall compared to the preceding dekad.

Most stations documented an elevated mean air temperature, ranging from 21.1°C to 24.4°C. Throughout the dekad, scattered cloud cover was noted over most stations in the region.

#### 2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 137.9 mm which is above its long-term dekad mean of 27.0 mm.

The average mean air temperature at the station decreased from 22.3°C to 22.0°C. Scattered cloud cover was reported throughout the entire dekad.

Maize crops are being harvested with a normal expected yield.

Beans crop already harvested.

## **2.2.2 KISII:**

The station recorded a cumulative rainfall of 45.9 mm, surpassing its long-term dekadal mean of 33.2 mm. The average mean air temperature at the station decreased from 21.7°C to 21.1°C in the current decade.

Broken cloud cover prevailed throughout the dekadal over the station.

The maize crop has been harvested.

## **RIFT VALLEY REGION**

### **2.3.1 KITALE:**

The station received rainfall amount of 28.7 mm which is above its dekadal mean of 11.2 mm. Mean air temperature increased slightly from 20.2°C to 20.4°C. Scattered cloud cover was observed throughout the dekadal.

### **2.3.2 KERICHO:**

The station reported 128.7.1 mm of rainfall which is above its long-term dekadal mean of 26.5 mm. Its average mean temperature increased from 17.0°C to 18.6 °C.

Farmers have already harvested both maize and beans.

## **2.4 CENTRAL AND NAIROBI REGION.**

Most stations from the region reported an increase in rainfall amounts compared to the previous dekadal (Fig 3.2). Mean air temperatures either slightly increased or decreased and ranged between 17.0°C and 22.5°C. Broken cloud cover was observed in the region throughout the dekadal.

### **2.4.1 NYERI:**

The station reported a cumulative rainfall amount of 15.7 mm which is below from the long-term dekadal mean of 16.4 mm. Scattered cloud cover was observed at the station throughout the dekadal. Mean air

temperature an increase from 19.3°C to 20.6 °C in the dekadal.

Maize is in flowering stage while beans are in maturity stage and in fair condition.

### **2.4.2 THIKA:**

The station reported 22.5 mm rainfall which is below its normal dekadal mean of 25.2 mm. Total pan evaporation was 40.5 mm. Broken cloud cover was observed at the station throughout the dekadal.

Maize is at the flowering stage and in fair state corresponding to normal growth.

Beans crop is at maturity stage corresponding to normal growth.

### **2.4.3 DAGORETTI**

The station received a cumulative rainfall amount of 77.9 mm which is above its long-term dekadal mean of 21.7 mm. The mean air temperature increased from 20.2°C to 20.5 °C in the dekadal. Broken cloud cover was observed at the station throughout the dekadal.

Maize crop is at post flowering phase and in fair state corresponding to normal growth.

Beans crop is at maturity stage. Normal yield is expected.

### **2.4.4 KABETE:**

The station received a cumulative rainfall amount of 58.0 mm which is slightly above its long-term dekadal mean of 19.2 mm. The mean air temperature at the station increased from 19.6°C to 20.1 °C. Broken cloud cover was observed at the station throughout the dekadal.

### **2.4.5 NYAHURURU:**

The station received a total rainfall amount of 16.5 mm, a positive deviation from its long-term dekadal mean of 10.7 mm. The average mean air temperature at the station increased from 15.0°C to 17.0 °C. Scattered cloud cover was observed throughout the dekadal.

Harvesting of maize crop is complete.

### **2.5 EASTERN REGION:**

Several stations in the region received decreased rainfall amounts. Makindu and Katumani however, received an increase as compared to the previous dekad (refer to the graphs and the maps). Mean air temperature slightly decreased ranging between 19.6°C and 24.9°C. Scattered cloud cover was observed in the region throughout the dekad.

#### **2.5.1 MERU:**

The station received a cumulative rainfall of 28.3 mm which is below its long-term dekad mean of 37.0 mm. Mean air temperature was 19.6°C. Scattered cloud cover was observed at the station throughout the dekad.

#### **2.5.2 EMBU:**

No rainfall was received during the dekadal period. The average mean air temperature increased from 19.9°C to 21.0°C. Scattered cloud cover was observed at the station throughout the dekad.

Maize has reached the flowering stage and in fair state corresponding to normal growth.

Bean crop is being harvested and normal yield is expected.

#### **2.5.3 KATUMANI:**

The station reported 54.5 mm of rainfall during the dekad. Broken cloud cover was observed at the station throughout the dekad.

Maize crop is at post flowering stage and corresponding to normal growth.

Bean crop is at the harvesting stage.

### **2.6 COASTAL REGION:**

Most stations in the region reported a decrease in rainfall amounts as compared to the previous dekad. The mean air temperature generally decreased during the dekad and ranged between 27.0°C and 29.8°C.

#### **2.6.1 MTWAPA:**

The station received a total rainfall amount of 0.31 mm below its long-term dekad mean of 6.1 mm. Mean air temperature increased from 28.3°C to 29.3°C. Scattered cloud cover was observed at the station throughout the dekad.

Maize crop at maturity stage in fair state corresponding to normal growth. However, the crop is being affected by insufficient rain, army worms, other animals and diseases.

#### **2.6.2 MSABAHA:**

No rainfall was received during the dekadal period. The mean air temperature increased from 28.6°C to 29.4°C. Scattered cloud cover was observed throughout the dekad.

Maize crop is at maturity stage and are corresponding to the normal crop growth. However, there has been insufficient rain during the period leading to wilting of some crops.

### **2.7 NORTH EASTERN REGION:**

The region did not receive rainfall during the dekadal period. Mean air temperature ranged between 24.6°C and 29.8°C.

Few clouds cover was observed in the region throughout the dekad.

Due to the past moderate to high rainfall amounts in the region, pasture and forage in the region has developed.

# DEKAD 1 2024 RAINFALL AND TEMPERATURE MAPS/ CHARTS

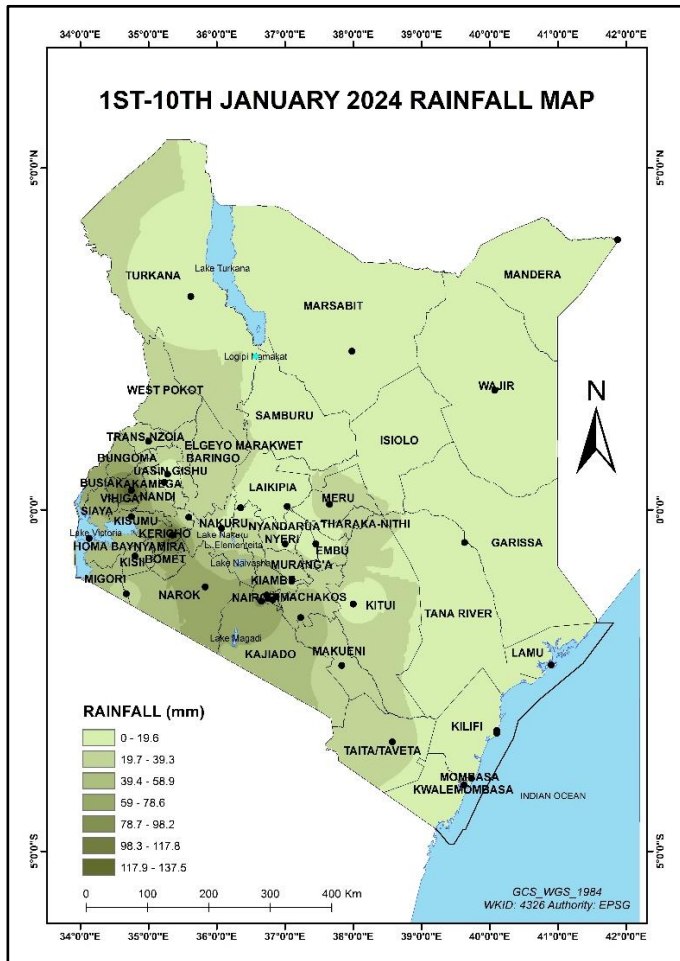


Fig 3.1

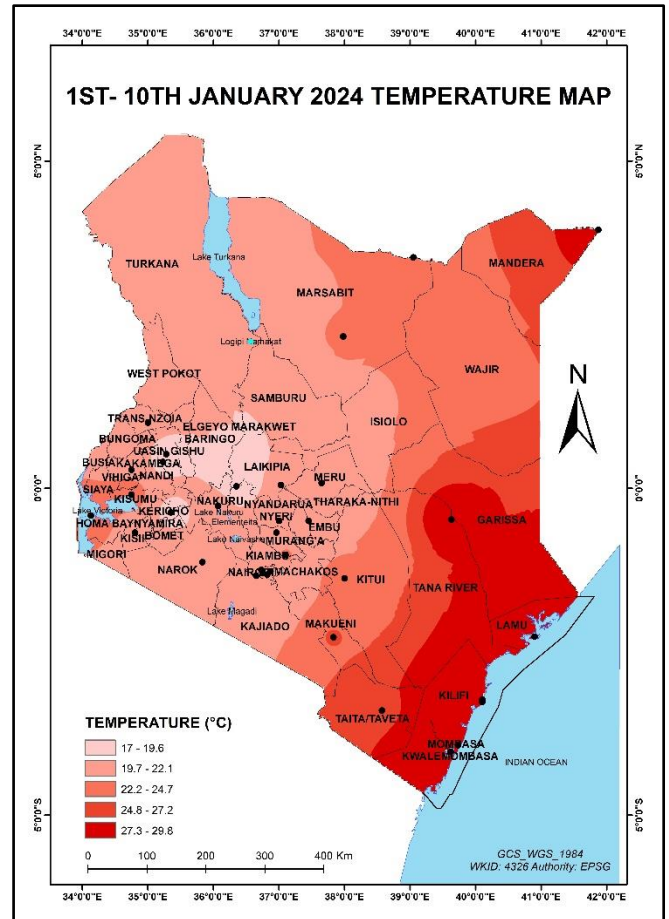
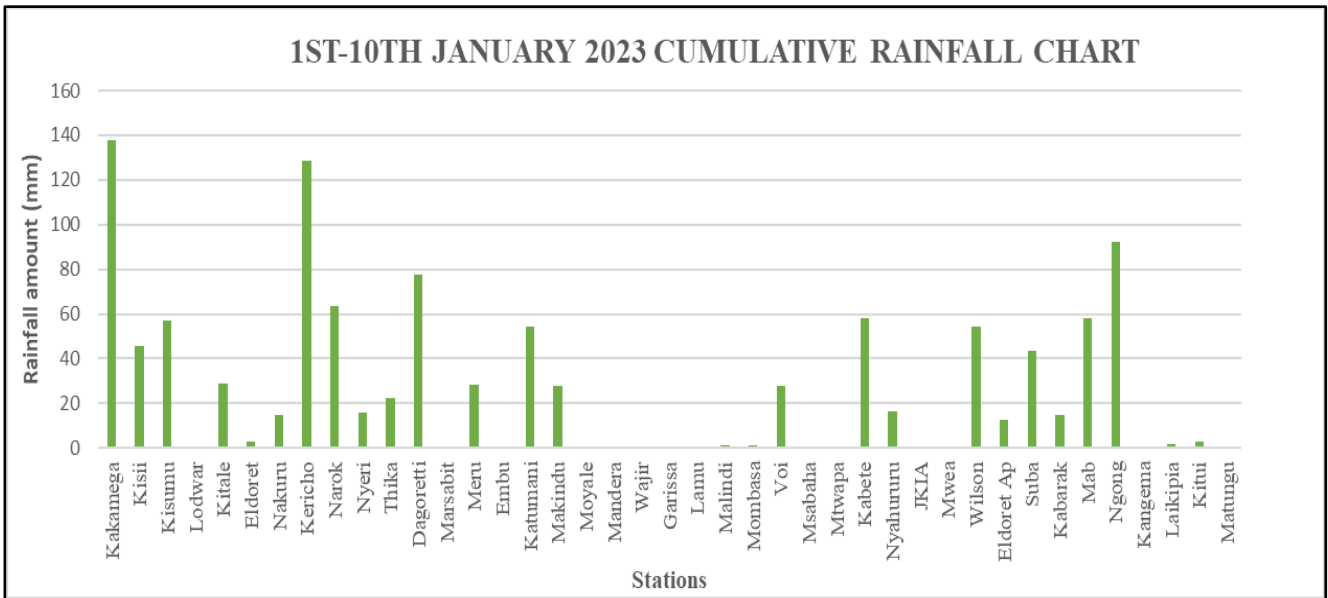
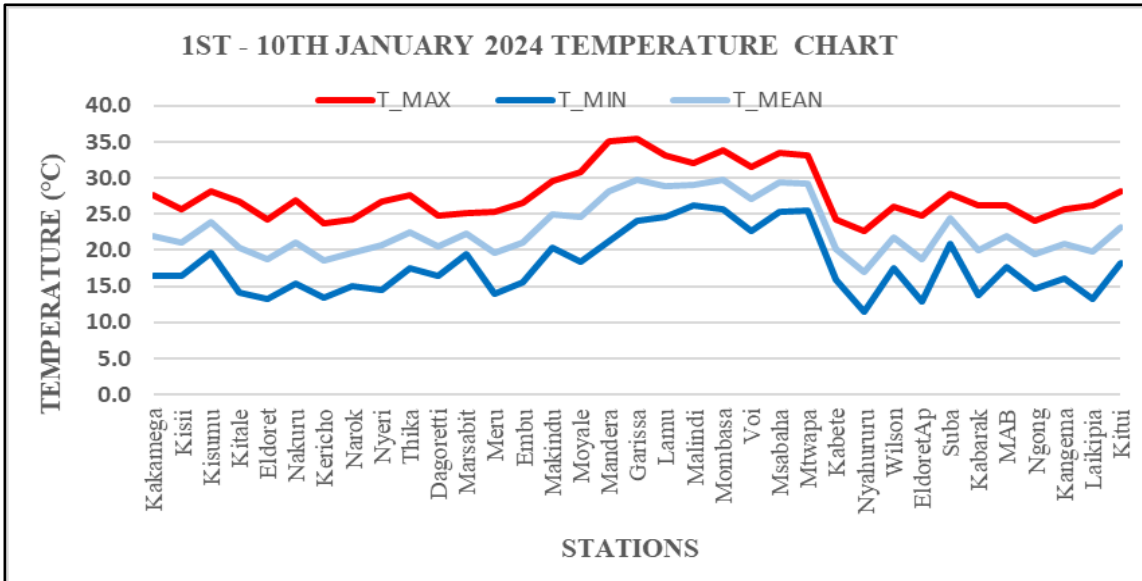


Fig 3.2



**Fig 3.3**



**Fig 3.4**

Station	Cummulative rainfall	Maximum consecutive wet days	Maximum consecutive dry days	Number of rainy days
Kakamega	137.9	4	2	7
Kisii	45.92	3	1	3
Kitale	57	3	3	2
Kericho	128.7	4	1	5
Nyeri	15.7	2	2	1
Thika	22.5	1	4	1
Dagoretti	77.92	2	3	4
Meru	28.3	2	3	2
Embu	0	0	10	0
Katumani	54.5	2	3	2
Msabaha	0	0	10	0
Mtwapa	0.31	0	4	0
Kabete	58	3	3	4
Nyahururu	16.52	2	3	2
Kabarak	14.73	1	2	2

**Fig 3.5**

#### **4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 11TH -20TH JANUARY, 2024.**

In the next ten-day period, isolated heavy rainfall events are expected over some parts of the Highlands East of the Rift Valley, the South-eastern lowlands and the South Rift Valley.

Northeastern and North-western Kenya are projected to remain predominantly dry.

In the **Western and Nyanza regions**, morning rains, along with afternoon and night showers, are anticipated in specific areas, with occasional extension to multiple areas.

Isolated heavy rainfall may occur over some parts of Narok county.

In the **Central region, Nairobi, and Eastern parts of the country**, mornings are likely to be sunny. Afternoon and night showers are likely to occur over few places occasionally spreading to several places during the second half of the forecast period.

Isolated heavy rainfall may occur over some parts of Tharaka Nithi county.

The **North Western Region** Days are likely to be sunny and nights partly cloudy. However, a few areas in Samburu are likely to experience rainfall between Friday and Sunday.

The available moisture is expected to sustain the growth and regeneration of pastures.

In the **South Eastern lowlands and Coastal regions**, mornings are likely to be sunny. A few areas may experience rain during the second half of the forecast period. Afternoon and night showers are likely to occur over few places occasionally spreading to several places during the second half of the forecast period.

Isolated heavy rainfall may occur over some parts of Kajiado, Taita Taveta, Makueni, Machakos and Kitui counties.

#### **4.1 AGRO – ADVISORY:**

- ❖ Farmers across the nation, particularly those in Western, Nyanza, North Rift, and the central Rift Valley regions, are encouraged to promptly harvest mature crops to mitigate potential damage caused by expected rainfall.

Additionally, they have the opportunity to capitalize on the expected rainy conditions by keeping on planting various crops such as arrowroots, bananas, sugarcane, horticultural crops, cassava, Napier grass, etc. This proactive approach aims to boost crop production and alleviate concerns related to food insecurity.

❖ Farmers should optimize their harvest's value with effective Post-Harvest Management. They should carefully employ harvesting techniques to reduce losses and preserve crop quality. Also, they should ensure proper storage conditions to fend off spoilage. By implementing these practices, farmers not only safeguard their hard work but also contribute to long-term agricultural sustainability.

❖ Pastoralists residing in North Western Kenya, North Eastern region, South Rift Valley, and certain areas of the South Eastern Lowland should ensure sustainable forage availability by planning grazing patterns.

Also, they should identify and manage water sources wisely. Proactive water and forage management will optimize livestock health and support long-term agricultural sustainability.

❖ Farmers who have already harvested their crops, should maximize profits by exploring market opportunities. They should connect with agricultural extension services for valuable market information.

They can boost their bargaining power by forming or joining farmer groups. Strategic market access will ensure a better return on their agricultural investment.

❖ Farmers are advised to establish robust collaborations with Agricultural Extension officers and actively engage with diverse stakeholders to deepen their understanding of weather patterns and their implications for agricultural activities such as weeding, fertilizer application, and chemical spraying.

❖ In rain expected areas, both national and county governments should contribute to fostering the development of water storage infrastructure, including dams, weirs, and gabions, to facilitate sustainable water conservation practices in the long run.

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



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