



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, info@meteo.go.ke Website: <http://www.meteo.go.ke>

AGROMETEOROLOGICAL BULLETIN

Ref: MET/7 /31 / 2

Issue No: 36/2023

Date: 4/01/2024

DEKAD 36 PERIOD: 21ST – 31ST DECEMBER 2023.

1.0 HIGHLIGHTS

- During the reviewed period, a notable reduction in rainfall was observed over western and the Coastal regions as the rest of the country reported increased rainfall compared to the previous dekad.
- The Kisii station reported the highest rainfall at 73.1 mm, followed closely by Meru Meteorological Station, recording 67.6 mm (refer to Figures 3.1 and 3.3).
- There was a slight increase 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 rise in most stations relative to the past dekad.
- Looking ahead to the next ten days, rainfall is expected over the southern half of the country while the North-eastern and North-western regions of the country are expected to remain generally dry.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 21ST – 31 DECEMBER 2023.

2.1 WESTERN AND NYANZA REGION

The majority of stations in the region reported reduced rainfall amounts compared to the preceding dekad.

Mean air temperature increased, ranging from 21.0°C to 24.0°C. Scattered cloud cover was observed over most stations in the region throughout the dekad.

2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 41.4 mm which is above its long-term decadal mean of 35.6 mm.

The average mean air temperature at the station slightly decreased from 22.7°C to 22.6°C. Scattered cloud cover was reported throughout the entire dekad.

Maize has attained maturity stage and is in good condition.

Beans have already been harvested.

2.2.2 KISII:

The station reported 73.1 mm of rainfall which is the highest in the country. The average mean air temperature at the station increased from 21.0 °C to 22.5°C in the current decade.

Scattered cloud cover was observed.

Maize has reached the flowering stage and is in excellent condition. Above normal yield is expected. The beans have attained the maturity stage and are in good state, indicating an anticipated bumper harvest.

RIFT VALLEY REGION

2.3.1 KITALE:

The station received 24.9 mm of rainfall. Mean air temperature decreased slightly from 20.3 °C to 20.2 °C. Scattered cloud cover was observed at the station during the morning and afternoon hours throughout the dekad.

2.3.2 KERICHO:

The station reported 24.33 mm of rainfall which is below its long-term dekad mean of 47.6 mm. Its average mean temperature slightly decreased from the previous 18.8 °C to 18.6 °C.

Maize crop is at flowering stage and in good state corresponding to normal growth.

Harvesting of beans is in progress.

2.4 CENTRAL AND NAIROBI REGION.

Most stations from the Central region reported less rainfall compared to the previous dekad (Fig 3.2). Mean air temperatures either slightly increased or decreased and ranged between 16.0°C and 22.0°C. Scattered cloud cover was observed in the region throughout the dekad.

2.4.1 NYERI:

The station reported a cumulative rainfall amount of 15.31 mm which is a negative deviation from the long-term mean of 28.5 mm. Broken cloud cover was observed at the station throughout the dekad. Mean air temperature increased from 15.8°C to 19.8 °C in the dekad.

Maize is above ninth leaf stage and beans are in post flowering stage and in fair state due to sufficient rain.

2.4.2 THIKA:

The station reported 8.51 mm rainfall which is below its normal dekad mean of 27.5 mm. Total pan evaporation was 44 mm lower than in the previous dekad. 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.

Beans crop is at flowering stage; all corresponding to normal growth.

2.4.3 DAGORETTI

The station received a cumulative rainfall amount of 9.5 mm, which is below its long-term dekad mean of 31.9 mm. The mean air temperature was 20.5 °C. Scattered cloud cover was observed at the station throughout the dekad.

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

Beans are approaching maturity and being in good state, normal yield is expected.

2.4.4 KABETE:

The station received a cumulative rainfall amount of 22.81 mm which is below its long-term dekad mean of 36.4 mm. The mean air temperature at the station increased to 19.8 °C from the previous dekad. Scattered clouds were observed at the station throughout the dekad.

2.4.5 NYAHURURU:

The station recorded no rainfall. The average mean air temperature at the station decreased from 16.0 °C to 15.8 °C. Broken cloud cover during the morning and in the afternoon was observed throughout the dekad.

Harvesting of maize crop under way in some parts of Nyahururu while in other areas, the crop is at tasseling stage. Above normal yield is expected.

EASTERN REGION:

Most stations in the region received decreased rainfall amounts as compared to the previous dekad (refer to the graphs and the maps). Mean air temperature slightly increased ranging between 19.9 °C and 24.8 °C. Scattered cloud cover was observed throughout the dekad.

2.5.1 MERU:

The station received the second highest amount of rainfall in the country of 67.6 mm which was above its long-term dekad mean of 37.6 mm. Mean air temperature at the station was 19.9 °C. Broken cloud cover was observed at the station throughout the dekad.

2.5.2 EMBU:

The station received a cumulative rainfall amount of 7.7 mm, which was below its long-term dekad mean of 23.2 mm. The average mean air temperature remained constant at 20.7 °C. Scattered cloud cover was observed at the station throughout the dekad.

Maize has reached the 9th leaf stage and in fair state corresponding to normal growth.

Beans have attained flowering stage and in good state; all corresponding to normal growth.

2.5.3 KATUMANI:

The station reported 23.0 mm of rainfall during the dekad, which was below its long-term dekad mean of 32.4 mm. Broken sky during the morning reducing to scattered cloud cover in the afternoon was observed at the station throughout the dekad.

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

Beans crop is at maturity stage and moderate state; corresponding to normal growth.

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 increased during the dekad and ranged between 28.2°C and 28.8°C.

2.6.1 MTWAPA:

The station received a total rainfall amount of 6.3 mm against its long-term dekad mean of 8.8 mm. Mean air temperature was 29.1°C. Broken sky during the morning reducing to scattered cloud cover in the afternoon was observed at the station throughout the dekad.

Maize crop at flowering stage corresponding to normal growth.

2.6.2 MSABAHA:

The station received a total rainfall amount of 1.31 mm against its long-term dekad mean of 7.4 mm. The mean air temperature increased from 28.6°C to 29.4 °C. Broken sky during the morning reducing to scattered cloud cover in the afternoon observed at the station throughout the dekad.

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

2.7 NORTH EASTERN REGION:

Some stations in the region, received light rainfall unlike during the previous dekad. Mean air temperature was averagely 30°C

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

Due to the past moderate to heavy rainfall amounts in the region, pasture and forage condition in the region has really improved.

DEKAD 36 2023 RAINFALL AND TEMPERATURE MAPS/ CHARTS

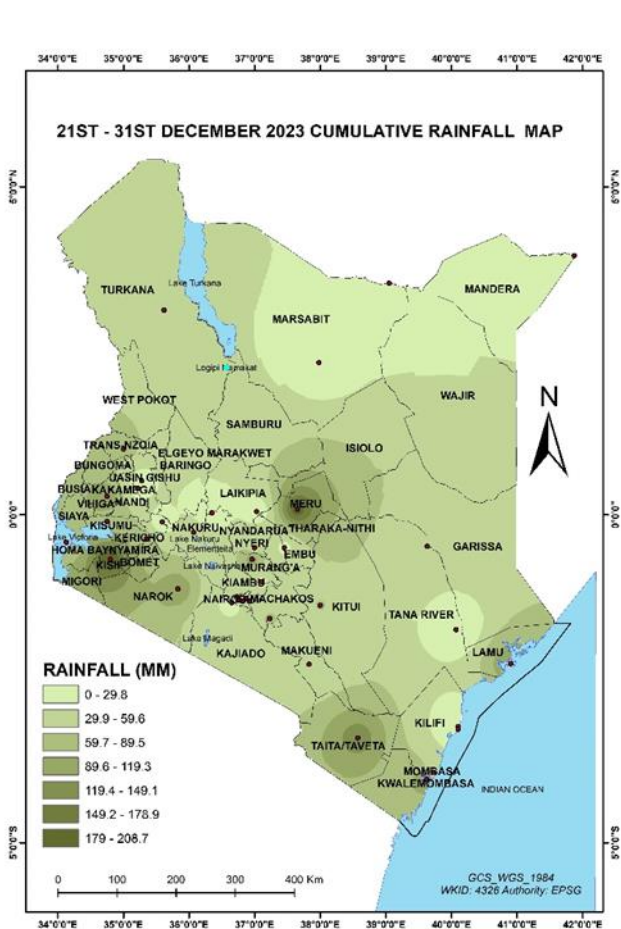


Fig 3.1

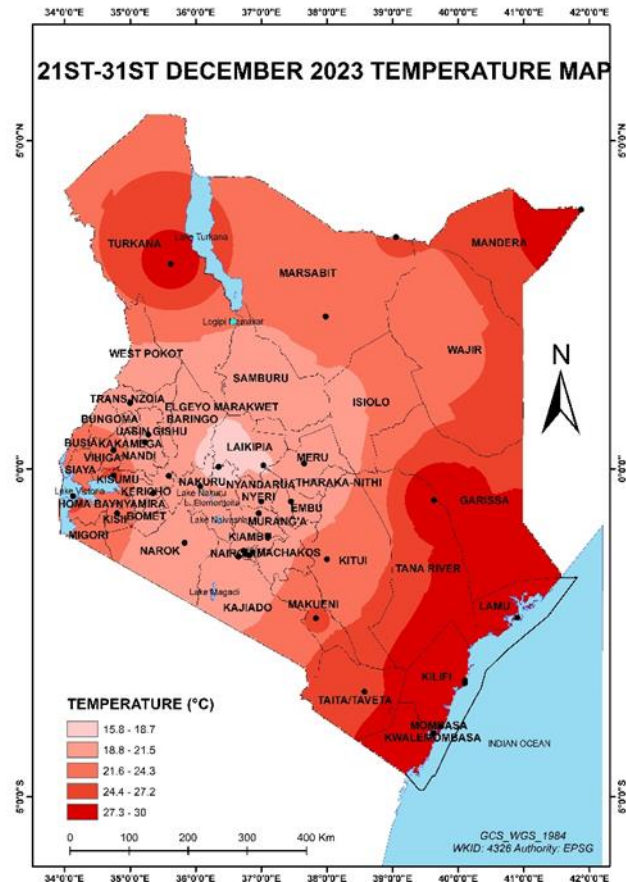


Fig 3.2

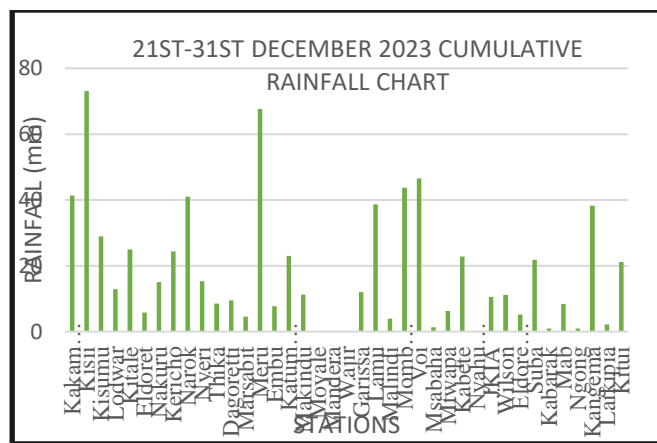


Fig 3.3

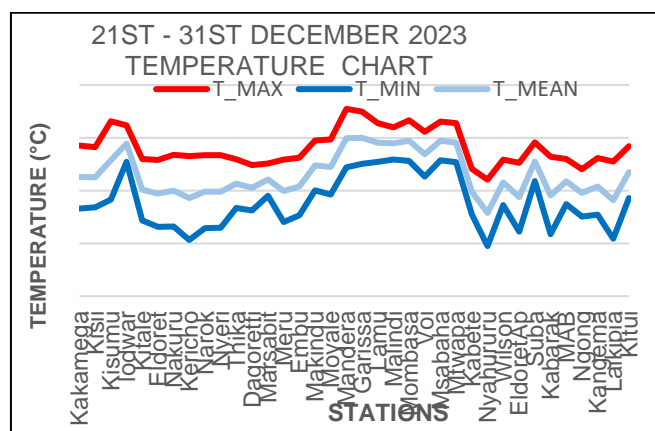


Fig 3.4

Station	Cumulative rainfall	Maximum consecutive wet days	Maximum consecutive dry days	Number of rainy days
Kakamega	1141.4	1	4	3
Kisii	1343.54	3	2	4
Kitale	499.34	1	4	1
Kericho	1002.96	1	4	1
Nyeri	719.7	1	3	1
Thika	782.84	2	5	0
Dagoretti	959.9	1	6	1
Meru	1336.97	3	3	3
Embu	955.72	1	3	0
Katamani	719.54	2	5	2
Msabaha	947.55	0	2	0
Mtwapa	1304.02	2	7	0
Kabete	991.77	1	5	1
Nyahururu	433.02	0	11	0
Kabarak	699.4	0	8	0

Fig 3.5

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 1ST - 10TH JANUARY 2024.

Over the upcoming **ten-day period**, moderate to heavy precipitation is anticipated in the southern sector of the country. Northeastern and Northwestern Kenya are projected to remain predominantly dry.

Certain parts of the **Highlands East and West** of the Rift Valley and the Lake Victoria Basin are forecasted to receive substantial rainfall. The expected rainfall will be of great benefit to the crops in the region.

In the **Western and Nyanza regions**, morning rains, along with afternoon and night showers and thunderstorms, are anticipated over few places, with

occasional extension to multiple places. The expected rainfall may be of benefit to the maize crop in the field.

In the **Central region, Nairobi, and Eastern parts of the country**, cloudiness accompanied by light morning rains, along with afternoon and night showers, are likely to occur over a few places spreading to several areas. The anticipated rainfall is conducive to maintaining the crops in favorable growth conditions.

The **North Western region** is likely to experience sunny conditions during the day and partly cloudy conditions at night. The available moisture is expected to sustain the growth and redevelopment of pastures.

In the **southeastern lowlands and Coastal regions**, occasional morning, afternoon, and night showers are expected over a few areas during the next ten days. The forecasted rainfall will support crop development.

4.1 AGRO – ADVISORY:

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

Additionally, they have the opportunity to capitalize on the current rainy conditions by 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.

- ❖ Famers should optimize their harvests' value with effective Post-Harvest Management. They should attentively employ good harvesting techniques to reduce losses and preserve crop quality. In addition, they should ensure proper storage conditions to fend off spoilage.

- ❖ 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 new and current market opportunities. They should connect with agricultural extension services for valuable marketing information.
- ❖ Farmers are advised to establish long-term collaborations with technical staff on the ground such as Meteorological personnel/Agricultural Extension officers and actively engage with diverse stakeholders to deepen their understanding of weather patterns and their implications on agricultural activities such as weeding, fertilizer application, and chemical spraying.
- ❖ 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 for long term use.

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



Mary Githinji

**FOR: DIRECTOR OF
METEOROLOGICAL SERVICES**

**Kindly send feedback to
The director,
Kenya meteorological department,
P.O Box 30259 – 00100
NAIROBI.
Email: Agrometkenya@gmail.com**