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AGROMETEOROLOGICAL BULLETIN

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DEKAD 34 PERIOD: 1ST – 10TH DECEMBER, 2023.

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 Kisumu station reported the highest rainfall at 142.5 mm, followed by the Kisii Meteorological Stations, recording 111.0 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, it is predicted that several parts of the country will experience moderate to high rainfall. Conversely, North-eastern and North-western Kenya are expected to remain generally dry.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 1ST – 10TH DECEMBER.

2.1 WESTERN AND NYANZA REGION

The majority of 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 21.7˚C to 24.1˚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 26.8 mm which is below its long-term dekadal mean of 34.8 mm.

The average mean air temperature at the station increased from 22.2˚C to 22.3˚C. Scattered cloud cover was reported throughout the entire dekad.

Maize crops are at maturity stage and in good condition.

Beans crop already harvested.

2.2.2 KISII:

The station recorded a cumulative rainfall of 103.2 mm, surpassing its long-term dekadal mean of 34.8 mm. The average mean air temperature at the station rose from 20.3˚C to 21.7˚C in the current decade.

Scattered cloud cover prevailed throughout the dekad over the station.

The maize crop has reached the flowering stage and is in excellent condition, exceeding the normal expectations. The beans crop is at the maturity stage, indicating an anticipated bumper harvest.

RIFT VALLEY REGION

2.3.1 KITALE:

The station received a reduced amount of rainfall of 15.3 mm which is below its dekadal mean of 35.0 mm. Mean air temperature increased slightly from 19.7˚C to 20.2˚C. Scattered cloud cover was observed throughout the dekad.

2.3.2 KERICHO:

The station reported 39.1 mm of rainfall which is a above its long-term dekadal mean of 35.4 mm. Its average mean temperature reduced from 18.2˚C to 17.0 ˚C.

Maize crop is at flowering stage and in good state corresponding to normal growth condition due to reduced rainfall.

Beans crop harvesting is in progress.

2.4 CENTRAL AND NAIROBI REGION.

Most stations from the Central region reported a decrease in rainfall amounts compared to the previous dekad (Fig 3.2). Mean air temperatures either slightly increased or decreased and ranged between 15.0˚C and 21.7˚C. Scattered cloud cover was observed in the region throughout the dekad.

2.4.1 NYERI:

The station reported a cumulative rainfall amount of 6.3 mm which is below from the long-term dekadal mean of 37.0 mm. Scattered cloud cover was observed at the station throughout the dekad. Mean air temperature decreased from 19.7˚C to 19.3 ˚C in the dekad.

Maize is in ninth leaf stage and affected by stalk borer while beans are in flowering stage and in fair state due to sufficient rain. Weeding in progress for those who have not done so.

2.4.2 THIKA:

The station reported 1.8 mm rainfall which is below its normal dekadal mean of 37.1 mm. Total pan evaporation was 49.3 mm. 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 crop is at flowering stage; all corresponding to normal growth.

2.4.3 DAGORETTI

The station received a cumulative rainfall amount of 13.2 mm which is below its long-term dekadal mean of 36.8 mm. The mean air temperature increased from 19.7˚C to 20.2 ˚C in the dekad. 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 crop is at flowering stage corresponding to normal growth.

2.4.4 KABETE:

The station received a cumulative rainfall amount of 11.1 mm which is slightly below its long-term dekadal mean of 36.7 mm. The mean air temperature at the station increased from 19.2˚C to 19.6 ˚C. Scattered cloud cover was observed at the station throughout the dekad.

2.4.5 NYAHURURU:

The station received a total rainfall amount of 8.8 mm, a negative deviation from its long-term dekadal mean of 36.4 mm. The average mean air temperature at the station increased from 14.8˚C to 15.0 ˚C. Scattered cloud cover was observed throughout the dekad.

Harvesting of maize crop under way. Above normal yield is expected.

2.5 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 decreased ranging between 18.7˚C and 19.9˚C. Scattered cloud cover was observed in the region throughout the dekad.

2.5.1 MERU:

The station received a cumulative rainfall of 16.7 mm which is below its long-term dekadal mean of 37.7 mm. Mean air temperature slightly decreased by 5.1˚C from the previous 23.8˚C. Scattered cloud cover was observed at the station throughout the dekad.

2.5.2 EMBU:

The station received a cumulative rainfall amount of 3.7 mm a negative deviation from its long-term dekadal mean of 37.5 mm. The average mean air temperature decreased from 20.1˚C to 19.9˚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 crop is at flowering stage; all corresponding to normal growth.

2.5.3 KATUMANI:

The station reported 0.11 mm of rainfall during the dekad, which is below its long-term dekadal mean of 37.2 mm. 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 crop is at flowering stage; all corresponding to normal growth. Too much sun during the decade has adversely affected flowering of the beans.

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 26.4˚C and 28.7˚C.

2.6.1 MTWAPA:

The station received a total rainfall amount of 28.9 mm against its long-term dekadal mean of 39.7 mm. Mean air temperature increased from 27.7˚C to 28.3˚C. Scattered cloud cover was observed at the station throughout the dekad.

Maize crop at flowering stage and being affected by army worms, other insects and excessive weed growth.

2.6.2 MSABAHA:

The station received a total rainfall amount of 65.1 mm against its long-term dekadal mean of 40.1 mm. The mean air temperature increased from 28.4˚C to 28.6˚C. Scattered cloud cover was observed throughout the dekad.

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

2.7 **NORTH EASTERN REGION:**

Most stations in the region, received decreased amount of rainfall as compared to the previous dekad. Mean air temperature ranged between 21.2˚C and 29.0˚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 34 2023 RAINFALL AND TEMPERATURE MAPS/ CHARTS

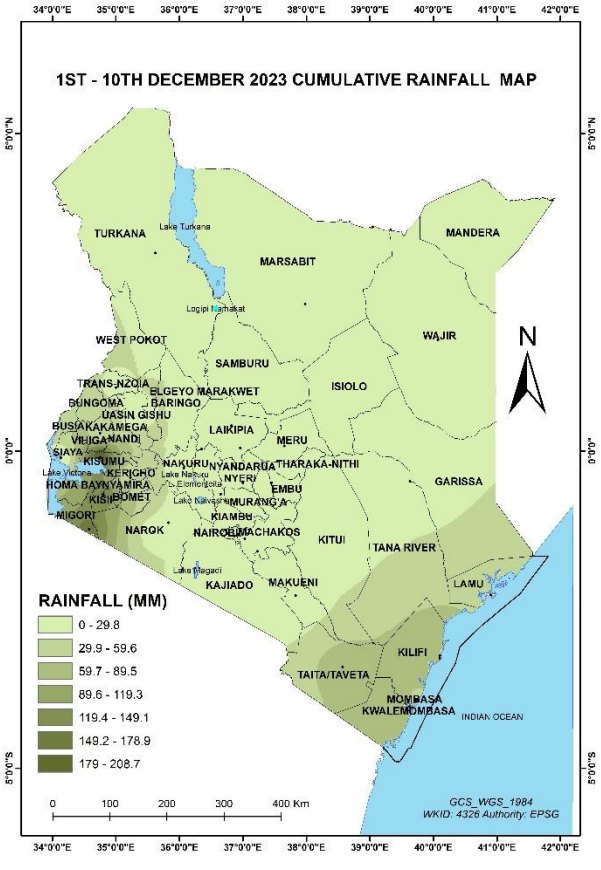

Fig 3.1

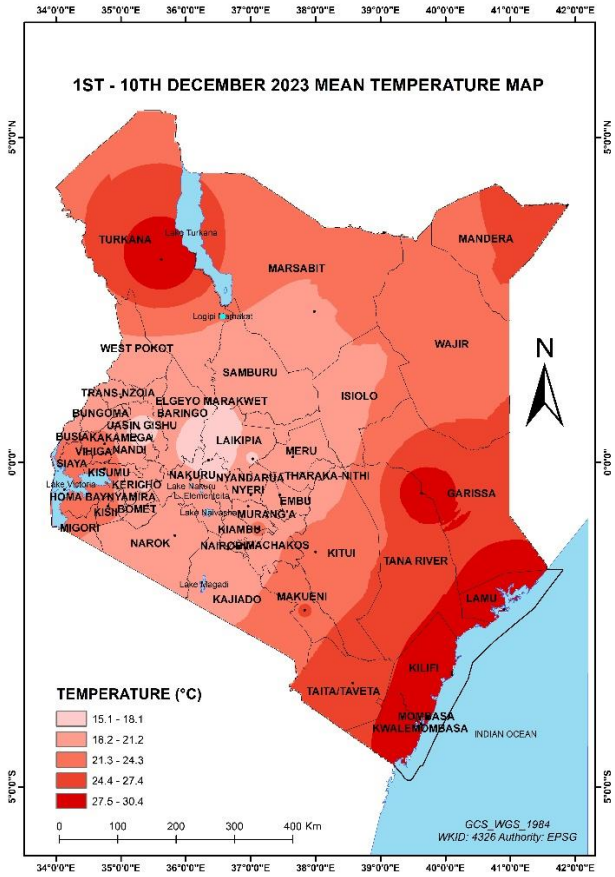

Fig 3.2

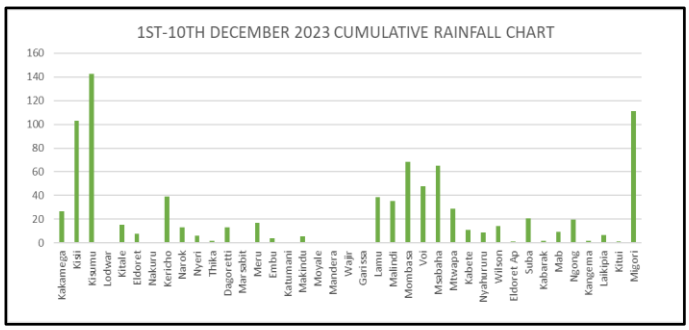

Fig 3.3

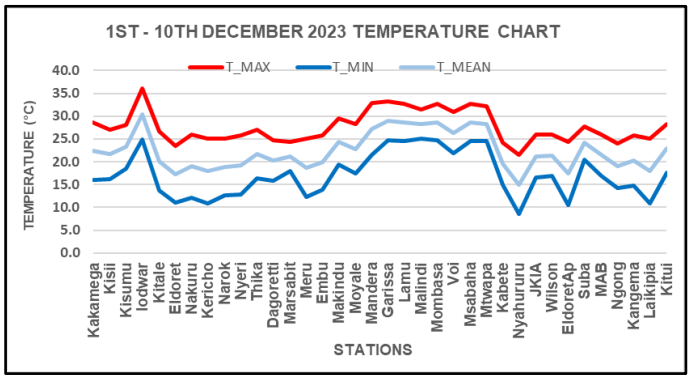

Fig 3.4

Station	Cummulative rainfall	Maximum consecutive wet days	Maximum consecutive dry days	Number of rainy days
Kakamega	1087.7	2	2	1
Kisii	1225.04	3	2	4
Kitale	474.43	2	8	2
Kericho	974.82	2	2	3
Nyeri	704.39	2	3	0
Thika	774.33	1	6	0
Dagoretti	908.3	1	5	1
Meru	1168.86	1	2	1
Embu	911.12	1	5	0
Katumani	644.84	0	5	0
Msabaha	921.03	1	1	2
Mtwapa	1252.22	3	5	2
Kabete	910.96	1	5	1
Nyahururu	429.62	1	5	1
Kabarak	649.88	1	5	0

Fig 3.5

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 1ST – 10TH DECEMBER, 2023.

Over the upcoming **ten-day period**, precipitation is anticipated in selected areas, with intermittent extension to multiple locations in the southern sector of the country. Northeastern and North-western Kenya are projected to remain predominantly dry, although some areas may experience irregular light to moderate rainfall, especially in the North-western region.

Certain parts of the **Highlands East and West** of the Rift Valley and the Lake Victoria Basin are forecasted to receive substantial rainfall.

In the **Western and Nyanza regions**, morning rains, along with afternoon and night showers, are anticipated in specific areas, with occasional extension to multiple places. Heavy rainfall is expected in certain parts of Kisii, Narok, Migori, Nyamira, Kisumu, and Vihiga Counties. This increased rainfall may have adverse effects on bean crops.

In the **Central region, Nairobi, and Eastern parts of the country**, morning rains, along with afternoon and night showers, are expected over multiple places. Some areas in Murang'a, Nyeri, Kiambu, Tharaka Nithi, Kirinyaga, Embu, and Meru Counties may experience heavy rainfall. 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. Selected areas may receive morning rains, afternoon, and night showers on Thursday, 14th, and Friday, 15th. The available moisture is expected to sustain the growth and regeneration of pastures.

In the **South Eastern lowlands and Coastal regions**, occasional morning, afternoon, and night showers are expected over several places during the next ten days. The forecasted rainfall will contribute to the ongoing growth and development of crops.

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 excessive rainfall.

  Additionally, they have the opportunity to capitalize on the current 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.

- Famers should optimize their harvest's value with effective Post-Harvest Management. They should careful 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.

- 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.

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

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