

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

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AGROMETEOROLOGICAL BULLETIN

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DEKAD 13 PERIOD: 1ST – 10TH May 2023

1.0 HIGHLIGHTS

- During the current dekad several parts of the country received light to moderate rainfall. The total amount reported over most stations was generally less than the previous dekad except at Ngong station in Nairobi.
- Kisii station in Nyanza region reported the highest amount of rainfall followed by Kangema in Central Kenya (Figs; 3.1 & 3.2).
- Average mean air temperature dropped over most parts of the country except along the Coastal strip and some regions within Nyanza where a slight increase was registered. The cooler regions in the Country had mean air temperatures ranging between 14.8°C 20.3 °C while the warmer regions had mean air temperature reaching 29.5°C (Figs. 3.3 & 3.4).
- Total pan evaporation, dropped over most stations with highest readings of
 64.5 mm being recorded at Garissa station in North Eastern Kenya.
- During the next 10 days (11th 20th May 2023 several parts of the country are expected to continue receiving light to moderate rainfall.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 1ST - 10TH MAY 2023

2.1 SUMMARY

During the period under review, several parts of the country reported light to moderate rainfall unlike the previous dekad where moderate to heavy rainfall was reported. The rainfall amount reported over most stations was generally less in amount compared to the

previous dekad. Kisii station reported the highest rainfall readings in the Country (120.9 mm) followed by Kangema station which reported (116.3 mm).

Over Western, Nyanza and some parts of Rift Valley, beans have attained flowering stage while maize is past ninth leaf stage. In Central, Nairobi, Eastern and the Coastal regions, beans have attained flowering stage while maize is past ninth leaf stage. In the pastoral regions in North Eastern and over the game reserves, pasture and forage regeneration has greatly improved since the beginning of the rain season and most Water/Earth pans have also been recharged hence improving the poor status of water resources in these regions.

2.2 WESTERN AND NYANZA REGION

Most stations from the region reported enhanced rainfall as compared to their long-term dekadal means. Light to moderate rainfall was reported by all stations in the region during the dekad. Average mean air temperatures dropped in the region and ranged between 19.9 °C and 23.1 °C. Broken cloud cover dominated the sky during the morning and afternoon hours.

2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 24.03 mm against its Long term dekadal mean of 90.9 mm, the station had a total of three (3) consecutive rainy days with two (2) 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. Average mean air temperature at the station dropped from 22.4 °C to 21.9 °C. Most farmers have completed planting. Beans have attained flowering stage while maize is past ninth leaf stage and both crops are in a moderate state, which corresponds to normal growth. Normal yield is expected since no adverse effects have been reported.

2.2.2 KISII:

The station received moderate to heavy rainfall during the dekad. A cumulative rainfall amount of 120.9 mm was received against its long-term dekadal mean of 103.5 mm. The station reported two (2) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate to heavy rainfall). Mean air temperature rose from 19.9 °C in the previous dekad to 20.7 °C. Broken cloud cover persisted during both morning and afternoon hours throughout the dekad.

2.3 RIFT VALLEY PROVINCE

Several stations from the region reported reduced rainfall compared to the previous dekad. Moderate to heavy rainfall was reported by all stations in the region during the dekad. Average mean air temperatures generally dropped in the region and ranged between 17.8 °C and 19.2 °C. Broken cloud cover dominated the sky during the morning and afternoon hours.

2.3.1 KITALE:

The station generally received moderate to heavy rainfall during the dekad. A cumulative rainfall amount of 66.01 mm was received against its long-term dekadal mean of 64.2

mm. The station reported three (3) consecutive rainy days with three (3) days receiving more than 5.0 mm of rainfall (moderate to heavy rainfall). Broken cloud cover dominated the station in the morning and afternoon hours throughout the whole dekad. Average mean air temperature was 19.9°C just like in the previous dekad. Maize has attained ninth leaf stage and beans flowering stage and both crops are in a good state. Most farmers are currently weeding their farms.

2.3.2 KERICHO:

A cumulative amount of 81.8 mm of rainfall was reported against its long-term dekadal mean of 108.47 mm. The station had five (5) consecutive rainy days with all the five (5) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature dropped from 18.2 °C in the previous dekad to 17.8 °C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Maize is at ninth leaf stage, whereas beans have attained flowering stage. Second weeding is ongoing in most farms.

2.3.3 KABARAK:

The station reported a cumulative amount of 64.2 mm of rain against its long-term dekadal mean of 57.68 mm. The station had a total of three (3) consecutive rainy days with four (4) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature dropped from 19.3 °C in the previous dekad to 18.7 °C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours throughout the entire dekad.

2.4 CENTRAL AND NAIROBI PROVINCES.

Several stations from the Central region reported reduced rainfall as compared to their long-term decadal mean. Moderate to heavy rainfall was reported by all stations in the region. Average mean air temperatures generally rose in the region and ranged between 19.2 °C and 23.4°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 45.01 mm against its long-term dekadal mean rainfall of 91.48 mm. The station had two (2) consecutive rainy days with two (2) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature was 19.6°C which was a decrease from 20.39°C in the previous dekad. Maize is at past ninth leaf stage, whereas beans have attained flowering stage. Maize stalk borer and fall worms are attacking maize in the region.

2.4.2 THIKA:

Received a total cumulative amount of 25.7 mm against its long-term dekadal mean rainfall of 62.76 mm. The station had two (2) consecutive rainy days with the two (2) days recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Maize is at emergence tasseling stage and beans at flowering stage.

2.4.3 DAGORETTI

Received a total cumulative amount of 62.83 mm against its long-term dekadal mean rainfall of 68.63 mm. The station had a total of three (3) rainy days with the three (3) days recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature was 19.6 °C and total pan evaporation was 34.8 mm. Maize is at ninth leaf stage and beans at flowering stage and generally doing well. Fall worms have started attacking maize though not in a large extent.

2.4.4 KABETE:

The station received a total cumulative amount of 37.01 mm against its long-term decadal mean of 72.88 mm of rainfall. The station had two (2) consecutive rainy days with three (3) days recording more than 5.0 mm (moderate to heavy) rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Maize is at ninth leaf stage and beans at flowering stage and generally doing well. Fall worms have started attacking maize though not in a large extent.

Coffee variety *Ruiru hybrid 11* is at 90% berry soft and the crop state is fair which corresponds to normal growth. 30% of the crop has been affected by leaf rust and Coffee Berry Disease (CBD). Weeding is in state three.

2.4.5 NYAHURURU:

The station received a total cumulative amount of 22.5 mm against its long-term dekadal mean of 44.08 mm of rainfall. The station had three (3) rainy days with one (1) day recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 14.8°C.

2.5 EASTERN REGION:

Several stations in the region reported Moderate to heavy rainfall with Moyale leading the region with 62.91 mm of rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperatures decreased and ranged between 19.2 °C and 23.9 °C.

2.5.1 MERU:

The station received a total cumulative amount of 29.42 mm against its long-term dekadal mean of 68.78 mm of rainfall. The station reported two (2) days with more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 19.2 °C. Maize is at the tasselling stage while beans are at flowering stage. Normal yield is expected.

2.5.2 EMBU:

The station received a total cumulative amount of 39.8mm against its long-term dekadal mean of 92.99 mm of rainfall. The station had two (2) consecutive rainy days with three

(3) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Average mean air temperature at the station was 20.3 °C. Maize is at the tasselling stage while beans at flowering stage and both crops are in moderate state which corresponds to normal growth.

2.5.3 KATUMANI:

The station received a total cumulative amount of 24.71 mm against its long-term dekadal mean of 34.38 mm of rainfall. The station had one (1) consecutive rainy day with one (1) day recording more than 5.0 mm (moderate) rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Total pan evaporation was 32.2 mm.

Maize is at the tasselling stage while beans at flowering stage and both crops are in moderate state which corresponds to normal growth.

Mangoes (variety apple) are at 50% appearance of new leaves stage and the crop condition is poor due to infestation with aphids. There are not too much weeds within the farm.

Oranges (Washington Navel) were at 100% flowering. There are not too much weeds within the farm.

2.6 COASTAL REGION:

Several stations in the region reported Moderate to heavy rainfall with Mtwapa leading the region with 58.7 mm of rainfall. Broken cloud cover dominated the region during the morning and afternoon hours. Mean air temperature ranged between 26.4 °C and 28.8 °C.

2.6.1 MTWAPA:

The station received a total cumulative amount of 58.7 mm against its long-term dekadal mean of 145.15 mm of rainfall. Average mean air temperature was 27.1 °C. Broken cloud cover dominated the sky during the morning and afternoon hours. Maize in the area has attained third leaf stage and doing well.

2.6.1 MSABAHA:

The station received a total cumulative amount of 44.8 mm against its long-term dekadal mean of 116.78 mm of rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Maize in the area has attained third leaf stage and doing well.

2.7 NORTH EASTERN REGION:

Several stations in the region reported reduced rainfall amounts with Garissa reporting 1.0 mm of rainfall. Scattered/Broken cloud cover was generally observed over the region during the morning and afternoon hours. Mean air temperature was 29.5°C.

Pasture and forage regeneration has greatly improved since the beginning of the rain season and most Water/Earth pans have been recharged hence improving the poor status of water resources in these regions.

3.0 DEKAD 13 2023 RAINFALL AND TEMPERATURE MAPS/CHARTS

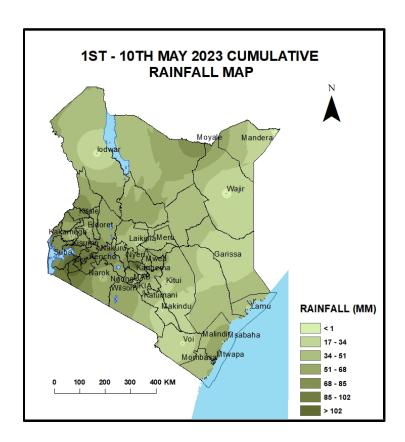


Fig: 3.1

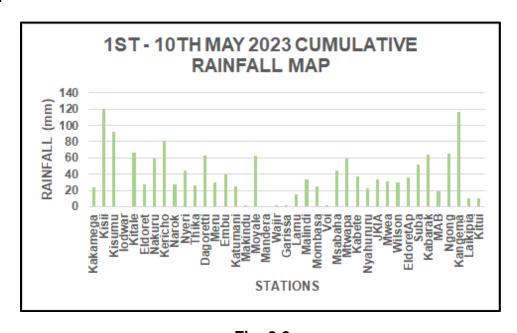


Fig: 3.2

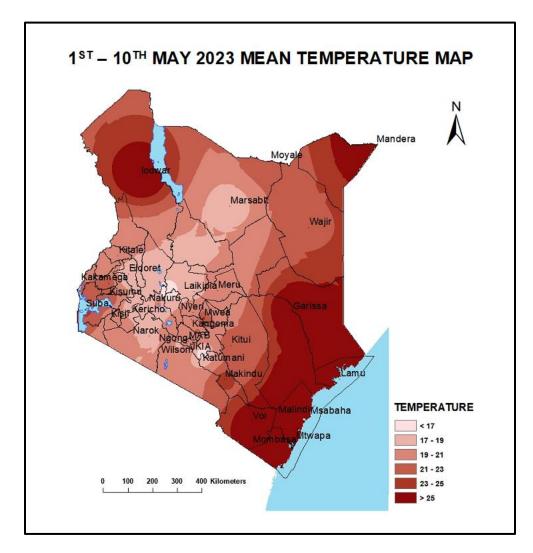


Fig: 3.3

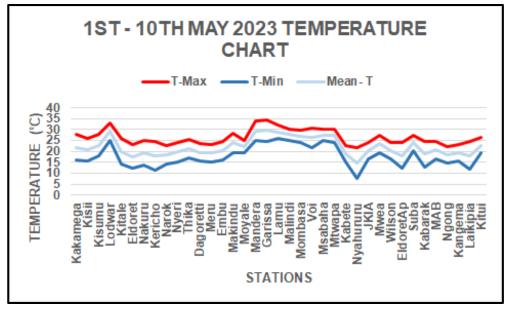


Fig: 3.4

Station	Maximum	Maximum	Number of rainy	Cumulative
	consecutive wet	consecutive dry	days (> 5.0 mm)	Rainfall from start
	days (>1.0 mm)	days		of MAM 2023
				RFseason
Kakamega	3	1	2	743.95
Kisii	2	1	4	755.22
Kitale	3	2	3	299.09
Kericho	5	2	5	506.91
Nyeri	2	3	2	320.37
Thika	2	4	2	434.42
Dagoretti	3	1	3	508.36
Meru	1	4	2	472.34
Embu	2	1	3	477.91
Katumani	1	6	1	239.23
Msabaha	3	1	3	375.94
Mtwapa	4	2	4	490.42
Kabete	2	4	3	528.02
Nyahururu	3	7	1	244.02
Kabarak	3	2	4	362.83

Fig: 3.5

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; $11^{TH} - 20^{TH}$ MAY 2023.

During the next ten (10) days, rainfall is likely to decline over most parts of the country including over southeastern lowlands and the Coastal region.

Over Western and Nyanza regions, rainfall is likely to continue therefore farmers are expected to start preparing for the second weeding.

In Central Nairobi and Eastern parts of the country, light rains are expected, since maize, beans are at ninth leaf, and flowering stages, farmers should focus on second weeding.

North Western/Eastern are likely to have sunny intervals during the next dekad. The expected weather conditions will be ideal for grazing animals and pastoralists are advised to deworm and spray their livestock for pest control.

South Eastern lowlands and the coastal regions are also expected to light showers during the coming dekad and therefore farmers are advised to continue managing their farms.

For inquiry or any clarification, please use the contacts on the letter head.

Mary Githinji

FOR: DIRECTOR OF METEOROLOGICAL SERVICES.