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DEKAD 12 PERIOD: 21ST – 30TH April 2023

1.0 HIGHLIGHTS

- Several parts of the country recorded an increase in the amount of rainfall received especially over the coastal, northeastern, highland west, and east of the rift valley where moderate to very heavy rainfall was reported.
- Lamu station in the coastal province reported the highest amount of rainfall in the Country (474.9 mm) during the ten-day period under review.
- The average mean air temperature dropped over most parts of the country except over the southeastern, rift valley, and eastern regions. The cooler regions in the Country had mean air temperatures ranging between 14.8°C – 21.7 °C while the warmer regions had average mean air temperatures of up to 29.2°C. (Figs. 3.3 & 3.4).
- Total pan evaporation, decreased over most stations with the highest readings of 96.5 mm being recorded at Mandera station in North Eastern Kenya.
- Several parts of the country are still expected to receive moderate to very heavy rainfall during the next 10 days (01st – 10th May 2023). However, rainfall amounts and spatial coverage is likely to reduce.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 21ST – 30TH APRIL 2023

2.1 SUMMARY

During the dekad, (21st – 30th April 2023) several parts of the country recorded an increase in the amount of rainfall received. However, some stations in the Northwestern, eastern, highland east, and western regions recorded a decrease in the cumulative amount of rainfall reported compared to the previous dekad.

Lamu station in the coastal province reported the highest amount of rainfall in the Country (474.9 mm) during the ten-day period under review.

Over Western, Nyanza, and some parts of Rift Valley, Maize is past the ninth leaf stage and in a fair state while beans are at the flowering stage and in a good state. In Central, Nairobi, Eastern, and Coastal regions, maize is past the ninth leaf stage and in a good state while beans are at their budding stage and in a good state. However, in Nyeri, maize crops in some areas have been adversely attacked by stock borer and fall armyworms. The pasture, and forage regeneration over the pastoral regions in North Eastern, northwestern, and over game reserves, have continued to improve with the current rains and most Water/Earth pans recharged hence improving the status of water resources in these regions.

2.2 WESTERN AND NYANZA REGION

Most stations from the region reported increased rainfall amounts compared to the previous dekad, however, the cumulative rainfall recorded during the dekad was below the long-term dekadal means for a few stations (Kitale Station) in the region. Moderate to very heavy rainfall was reported by all stations in the region during the dekad. The average mean air temperatures dropped in the region and ranged between 20.2 °C and 23.3°C. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad.

2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 186.1 mm against its long-term dekadal mean of 93.06 mm, the station had a total of ten (10) consecutive rainy days with eight (8) days recording more than 5.0 mm (moderate to heavy rainfall). Broken cloud cover dominated the station in the morning hours and the afternoon hours throughout the dekad. The average mean air temperature at the station decreased from 22.0°C to 21.9 °C. Maize is past the ninth leaf stage while beans are at the flowering stage and normal yield is expected.

2.2.2 KISII:

The station received moderate to very heavy rainfall during the dekad. A cumulative rainfall amount of 119.8 mm was received against its long-term dekadal mean of 96.15 mm. The station had a total of ten (10) consecutive rainy days with seven (7) days recording more than 5.0 mm (moderate to heavy rainfall). Mean air temperature decreased from 19.9 °C in the previous dekad to 19.8 °C. Broken cloud cover dominated the station in the morning hours and the afternoon hours throughout the dekad. Total pan evaporation was 31.8 mm. Maize is past the ninth leaf stage while beans are at the flowering stage and in a good state and a normal yield is expected.

2.3 RIFT VALLEY PROVINCE

Several stations from the region reported moderate to heavy rainfall that was above their long-term dekadal means. The average mean air temperatures generally dropped in the region and ranged between 18.1 °C and 20.2 °C. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad.

2.3.1 KITALE:

The station received moderate to heavy rainfall during the dekad. A cumulative rainfall amount of 78.6 mm was received against its long-term dekadal mean of 78.01 mm. The station reported four (4) consecutive rainy days with four (4) days receiving more than 5.0 mm of rainfall (moderate to heavy rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature dropped from 20.7°C to 20.2°C. Total pan evaporation was 28.1 mm. Maize is past the ninth leaf stage while beans are at their flowering stage and in a good state.

2.3.2 KERICHO:

A cumulative amount of 98.0 mm of rainfall was reported against its long-term dekadal mean of 100.06 mm. The station had a total of six (6) consecutive rainy days with six (6) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. The average mean air temperature increased from 18.6 °C in the previous dekad to 18.1 °C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Maize is past the ninth leaf stage while beans are at their flowering stage and in a good state.

2.3.3 KABARAK:

The station reported a cumulative amount of 87.0 mm of rain against its long-term dekadal mean of 56.04 mm. The station had a total of two (2) consecutive rainy days with five (5) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. The average mean air temperature rose from 17.9 °C in the previous dekad to 19.1 °C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours throughout the dekad. Maize is past the ninth leaf stage while beans are at their flowering stage and in a good state.

2.4 CENTRAL AND NAIROBI PROVINCES.

Several stations from the region reported moderate to heavy rainfall that was below their long-term decadal means. The average mean air temperatures generally dropped in the region and ranged between 14.8 °C and 21.7 °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 146.4 mm against its long-term dekadal mean rainfall of 97.28 mm. The station had a total of nine (9) consecutive rainy days with six (6) 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 20.2 °C which was a decrease from 20.3 °C in the previous dekad. Maize is past the ninth leaf stage and is affected by stack borer and fall armyworms in some areas while beans are at their flowering stage and in a fair state.

2.4.2 THIKA:

Received a total cumulative amount of 75.3 mm against its long-term dekadal mean rainfall of 78.96 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). Total pan evaporation was 34.8 mm. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Maize is past the ninth leaf stage while beans are at their flowering stage and both in a good state.

2.4.3 KABETE:

The station received a total cumulative amount of 103.9 mm against its long-term dekadal mean of 109.08 mm of rainfall. 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. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Maize is past the ninth leaf stage while beans are at their budding stage and both in a good state.

Coffee variety *Ruiru hybrid II* is at 100% berry soft and the crop state is fair which corresponds to normal growth. The extent of the spread of weeds is not much on the farm though 30% of the crop has been affected by leaf rust.

Banana variety *Giant Cavendish* is at 90% suckers and 10% ripeness stage and there is a considerable amount of weeds but they do not affect the plant. However, Panama banana disease has affected 40% of the crop.

2.4.4 NYAHURURU:

The station received a total cumulative amount of 142.4 mm against its long-term dekadal mean of 46.95mm of rainfall. The station had a total of five (5) consecutive rainy days with six (6) 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

at the station was 14.8 °C. Maize is past the ninth leaf stage while beans are at their budding stage and both are in a good state.

2.4.5 DAGORETTI:

The station received a total cumulative amount of 60.91 mm against its long-term dekadal mean of 87.53 mm of rainfall. The station had a total of three (3) consecutive wet 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 past the ninth leaf stage while beans are at their budding stage and both are in a fair state.

2.5 EASTERN REGION:

Several stations in the region reported moderate to heavy rainfall with Embu leading the region with 185.4 mm of rainfall. Broken cloud cover dominated the region during the period under review. The average mean air temperatures slightly increased and ranged between 19.8 °C and 23.9 °C.

2.5.1 MERU:

The station received a total cumulative amount of 134.8 mm against its long-term dekadal mean of 104.16 mm of rainfall. The station had a total of seven (7) consecutive rainy days with seven (7) 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 at the station was 19.77 °C. Maize is past the ninth leaf stage while beans are at their budding stage and both are in a good state.

2.5.2 EMBU:

The station received a total cumulative amount of 185.4 mm against its long-term dekadal mean of 127.41 mm of rainfall. The station had a total of three (3) consecutive rainy days with seven (7) 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 at the station was 20.6 °C. Maize is past the ninth leaf stage while beans are at their budding stage and both are in a good state.

2.5.3 KATUMANI:

The station received a total cumulative amount of 79.2 mm against its long-term dekadal mean of 46.35 mm of rainfall. The station had a total of three (3) consecutive rainy days with six (6) 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 total pan evaporation was 30.7 mm. Maize is past the ninth leaf stage while beans are still at their budding stage and both are in a good state.

Mangoes (variety apple) are at 50% appearance of new leaves and the crop condition is poor which corresponds to below normal state. Infestation by aphids is affecting the phase. Oranges (Washington Navel) were at 100% flowering stage and the crop condition was fair corresponding to normal growth.

2.6 COASTAL REGION:

Several stations in the region reported Moderate to very heavy rainfall with Lamu leading the region with 474.9 mm of rainfall. Broken cloud cover dominated the region during the morning and afternoon hours throughout the dekad. Mean air temperature generally decreased and ranged between 26.7 °C and 27.5 °C.

2.6.1 MTWAPA:

The station received a total cumulative amount of 225.1 mm against its long-term dekadal mean of 102.49 mm of rainfall. The average mean air temperature was 26.7 °C. The station had a total of six (6) consecutive rainy days with seven (7) days recording more than 5.0 mm (moderate to heavy) rainfall. Broken cloud cover dominated the region during the morning and afternoon hours throughout the dekad. Maize is past the emergence stage and in a fair state while mangos are still at their flowering stage and in a fair state.

2.6.1 MSABAHA:

The station received a total cumulative amount of 44.6 mm against its long-term dekadal mean of 69.08 mm of rainfall. The station had a total of three (3) consecutive rainy days with three (3) days recording more than 5.0 mm (moderate to heavy) rainfall. Broken cloud cover dominated the region during the morning and afternoon hours throughout the dekad. Maize is past the emergence stage and in a fair state.

2.7 NORTH EASTERN REGION:

Several stations in the region reported light to very heavy rainfall with Marsabit leading the region with 420.8 mm of rainfall. Mandera reported 144.5 mm, Wajir reported 27.3mm, Moyale reported 85.3mm while Garissa station reported the lowest amount of 2.22 mm. Broken cloud cover was generally observed over the region during the morning and afternoon hours. Mean air temperature ranged between 25.0 °C and 29.3°C.

Pasture and forage regeneration has continued to improve and Water/Earth pans in the region are filled up with water.

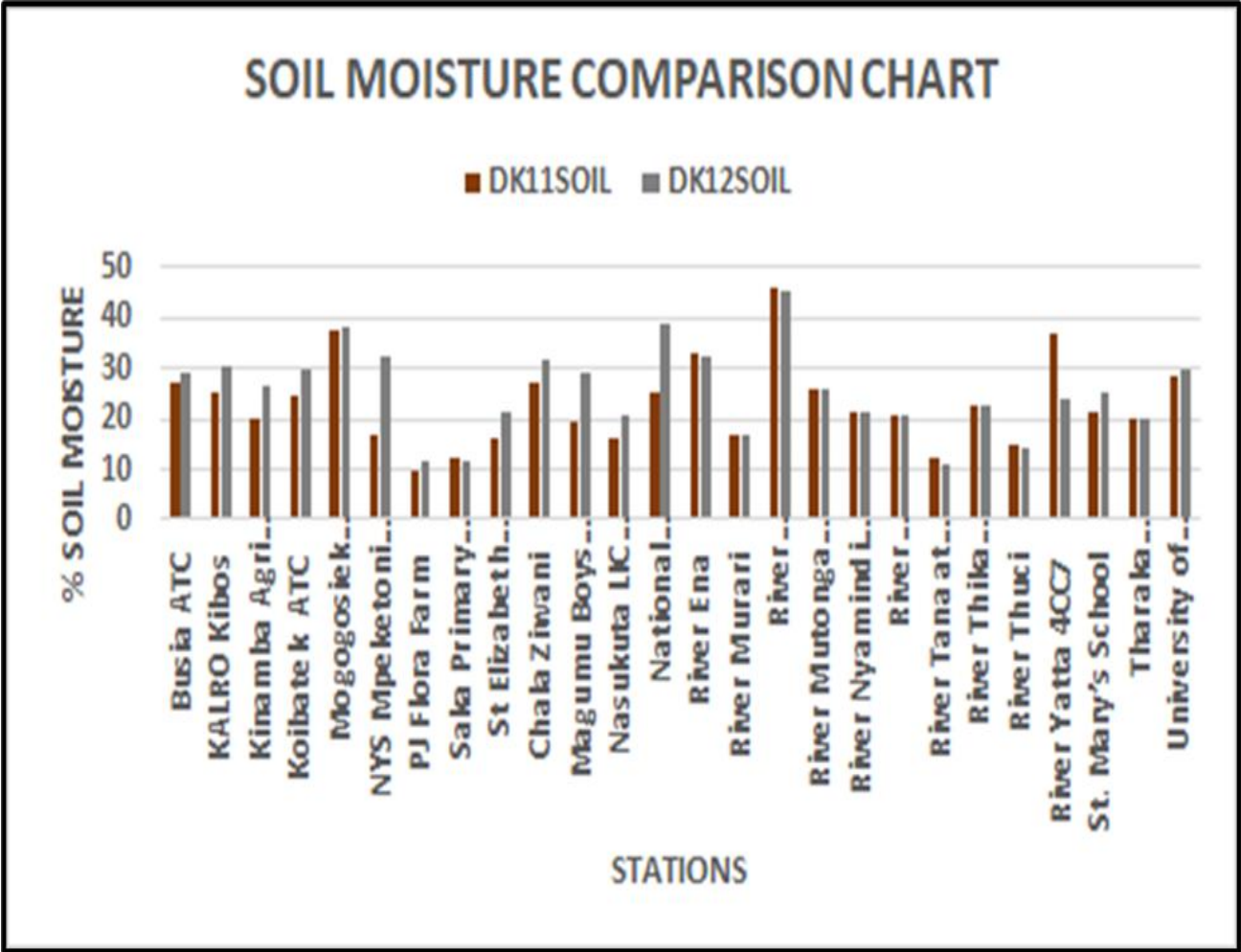


Fig: 3.1 Volumetric water content comparison graph.

The soil water content comparison chart above indicates that soil moisture content increased over most stations between the current and the previous dekad. Soil water content affects the moisture and amount of nutrients available to plants and soil aeration status, therefore since there was no indication of soil stress, the above conditions are expected to be favorable for the growth and development of crops.

21ST - 30TH APRIL 2023 CUMULATIVE RAINFALL MAP

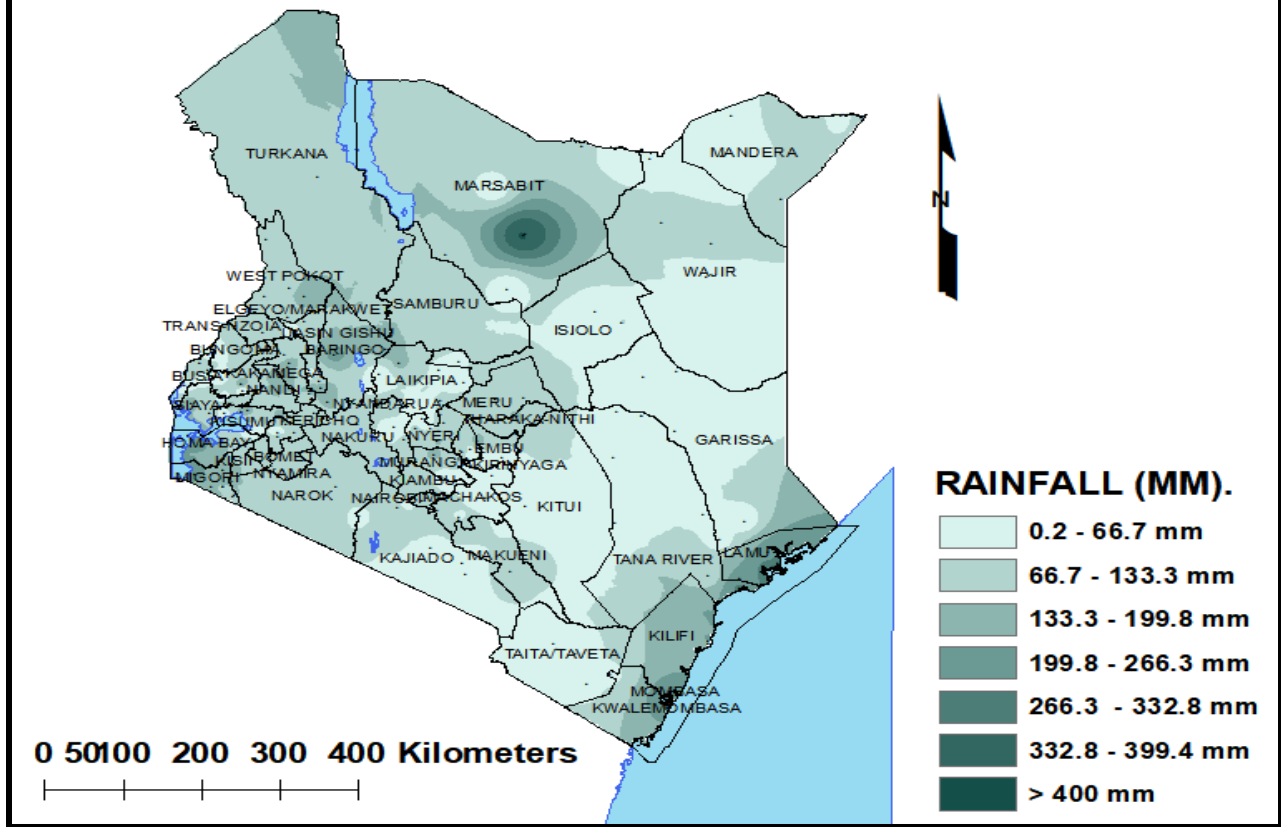


Fig: 3.2 Cumulative Rainfall Map.

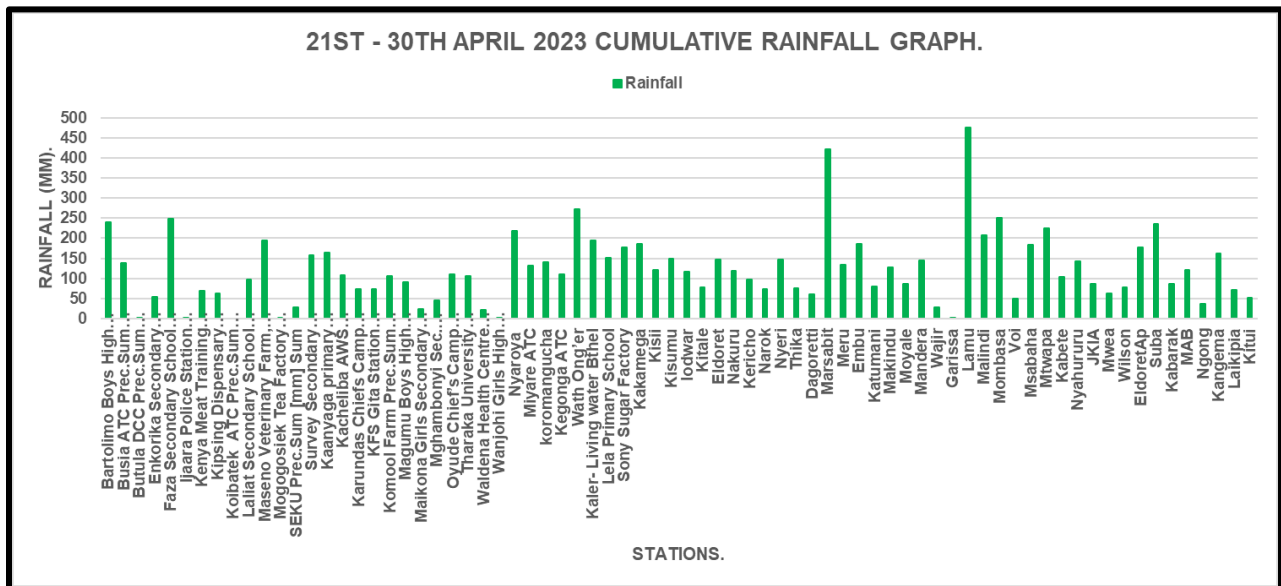


Fig: 3.3 Cumulative rainfall graph.

21ST - 30TH APRIL 2023 MEAN TEMPERATURE MAP.

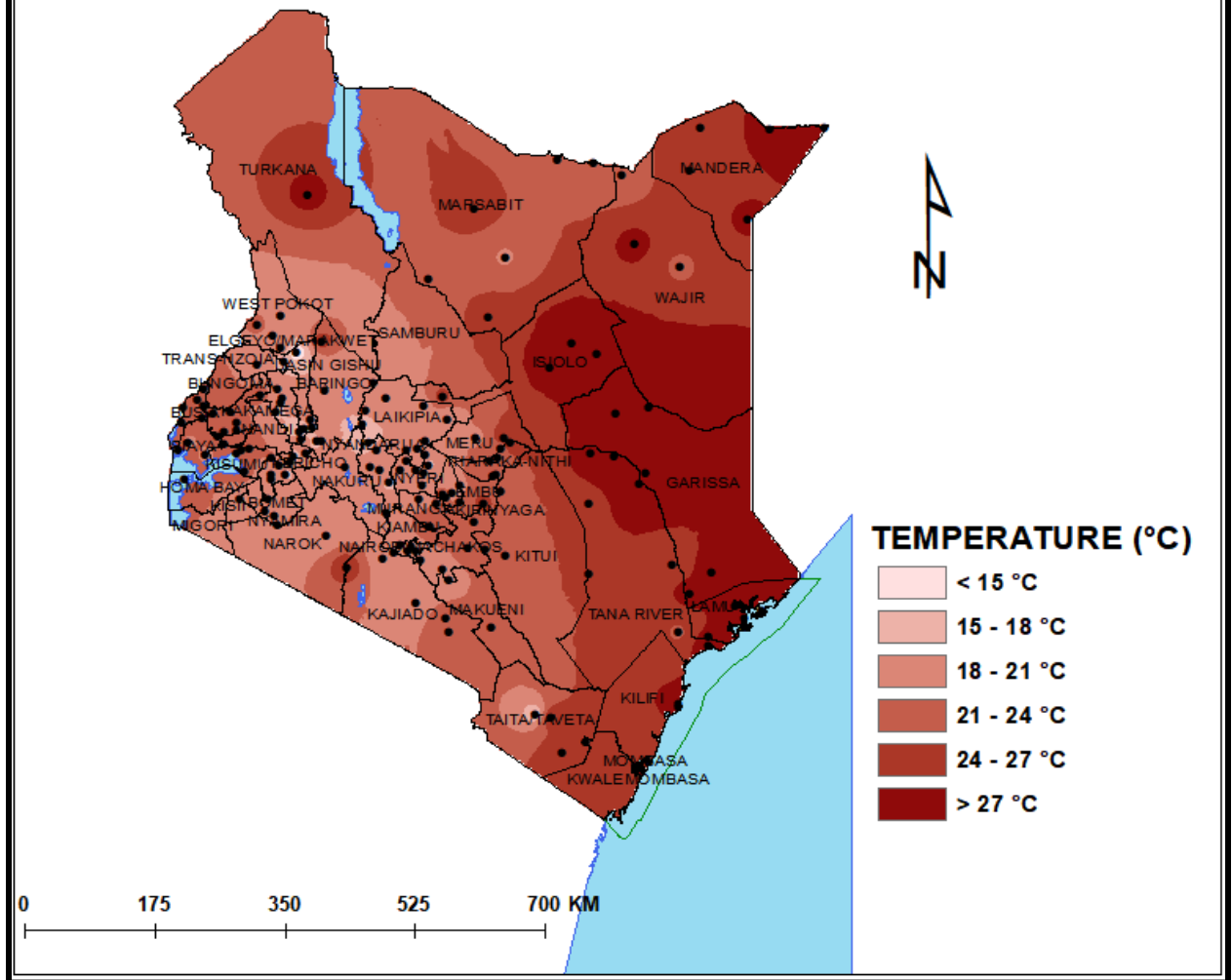


Fig: 3.4 Mean Temperature Map.

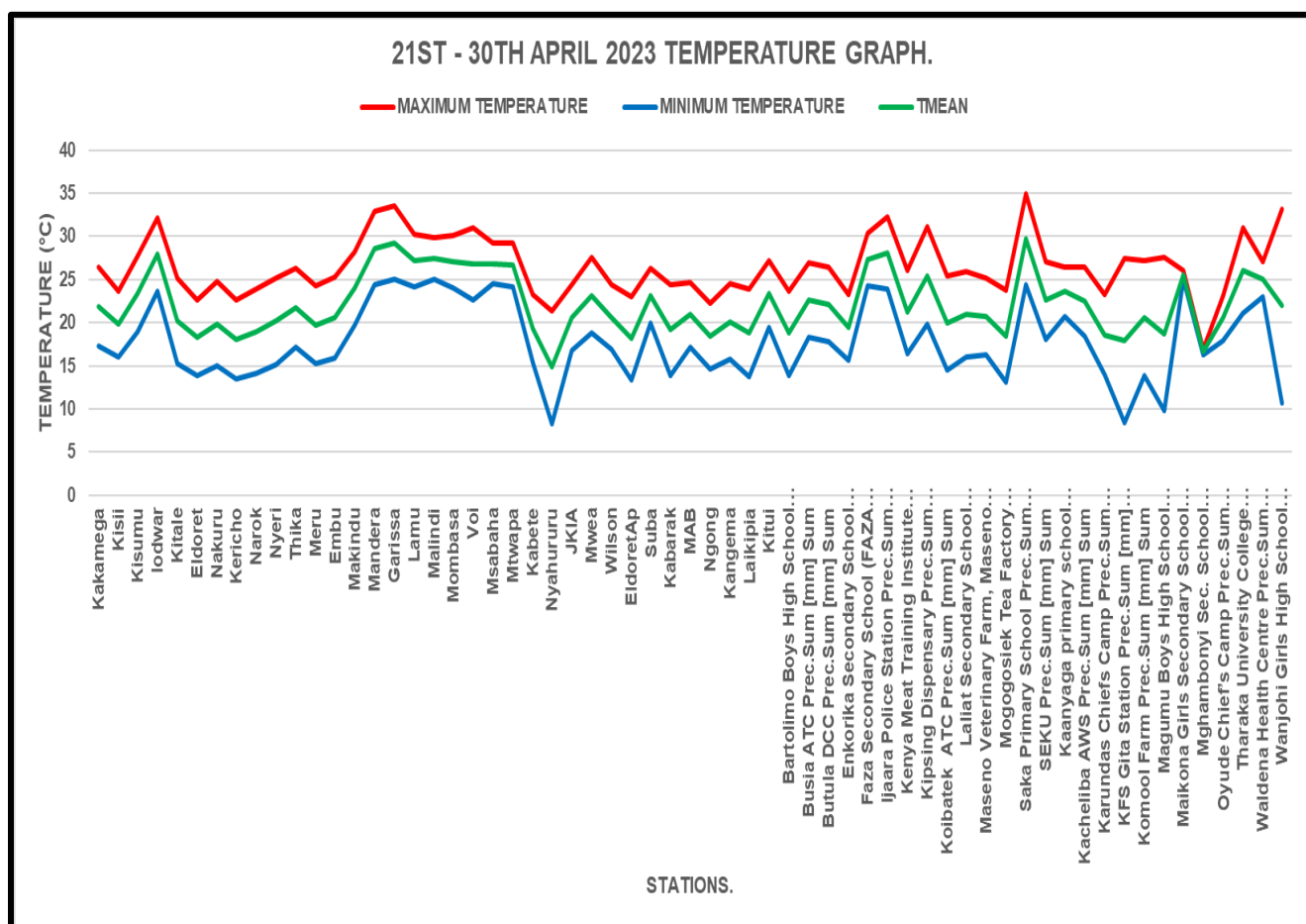


Fig. 3.5 Temperature Graph.

Station	Maximum consecutive wet days (>1.0 mm)	Maximum consecutive dry days	Number of rainy days (> 5.0 mm)	Cumulative Rainfall from the start of the MAM 2023 rainfall (mm) season
Kakamega	10	0	8	719.9
Kisii	10	0	7	634.3
Kitale	4	1	4	233.1
Thika	3	2	4	408.7
Nyeri	9	0	6	275.3
Dagoretti	3	1	3	445.5
Embu	3	1	7	438.1
Katumani	3	1	6	214.5
Msabaha	5	3	6	331.1
Mtwapa	6	1	7	431.7
Kabete	3	1	4	491.0
Nyahururu	5	3	6	221.5
Kabarak	2	1	5	298.6

Fig. 3.6: Table showing the number of consecutive wet days, maximum consecutive dry days, number of rainy days from 21st – 30th April 2023, and the cumulative rainfall amounts from the start of March, April, and May (MAM) season, 2023.

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10)

DAYS; 01ST – 10TH MAY 2023.

During the next ten (10) days, moderate to very heavy rainfall is expected to fall over most parts of the country, especially over the western, rift valley, central, some parts of the southeastern lowlands, some parts of the northeastern/western and north-coast regions.

Over Western and Nyanza regions, moderate to very heavy rainfall is expected during the dekad. Some farmers are expected to complete top-dressing their farms. Maize is expected to start tasseling while beans are expected to continue flowering in most parts of the region.

In Central Nairobi and Eastern parts of the country, light to heavy rainfall is expected and since crops are currently past the ninth leaf stage farmers should continue focusing on top-dressing their crops.

North Western/Eastern is likely to receive light to moderate rainfall during the dekad. This is likely to continue helping in the regeneration of pasture/forage in the region and recharging water/earth pans in the area.

South Eastern lowlands and the coastal regions are also expected to receive light to very heavy (especially over the north-coast region) rainfall during the coming dekad and therefore farmers are advised to focus on top-dressing their crops since some crops are currently past their ninth leaf stage.

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



Mary Githinji

FOR: DIRECTOR OF METEOROLOGICAL SERVICES.