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AGROMETEOROLOGICAL BULLETIN

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DEKAD 19 PERIOD: 1ST – 10TH July 2023

1.0 HIGHLIGHTS

- During the next ten (10) days, sunny intervals are expected though rains may occur over a few places within the country.
- During the current dekad several parts of the country received light to moderate rainfall. Most stations reported an increase in the total amount of rainfall received compared to the previous dekad.
- Malindi station in the Coastal region reported the highest amount of rainfall followed by Kakamega station in the western. (Figs; 3.1 & 3.2).
- Mean air temperature has generally decreased over most parts of the country due to the cold air mass from the south. The cooler regions in the Country had mean air temperatures ranging between 14.2°C – 20.1 °C while in the warmer regions mean air temperature reached 29.2°C (Figs. 3.3 & 3.4).
- Total pan evaporation, decreased over most stations with the highest readings of 63.5 mm being recorded at Mandera station in North Eastern Kenya.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 1ST – 10TH JULY 2023

2.1 SUMMARY

During the period under review, several parts of the country reported light to moderate rains just as in the previous dekad. The rainfall amount reported over most stations generally increased in amount compared to the previous dekad. Malindi station in Kilifi

County reported the highest amount of rainfall, 101.2 mm followed by Kakamega station with 99.0 mm.

Over Western, Nyanza, and some parts of Rift Valley, maize is at the wax ripeness stage and in the moderate state, which corresponds to normal growth.

In Central, Nairobi, Eastern, and Coastal regions, beans are at the maturity stage while maize is at the wax ripeness stage. Harvesting of beans has commenced.

In the pastoral regions of Northwestern/Eastern and south rift valley, pasture and forage condition remains satisfactory and most Water/Earth pans still have sufficient water for both domestic and wildlife.

2.2 WESTERN AND NYANZA REGION

The stations from the region reported increased rainfall as compared to their long-term decadal means. Light to moderate rainfall was reported by all stations in the region during the dekad. Average mean air temperatures decreased in the region and ranged between 20.1 °C and 21.6 °C. Scattered cloud cover during the morning and afternoon hours was observed over most stations in the region during the dekad.

2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 99.0 mm against its Long term decadal mean of 36.24mm, the station had a total of four(4) consecutive rainy days with four (4) 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. The average mean air temperature at the station decreased slightly from 21.89 to 21.63°C. Maize is at the wax ripeness stage while beans have been harvested.

2.2.2 KISII:

The station received light to moderate rainfall during the dekad. A cumulative rainfall amount of 51.01 mm was received against its long-term decadal mean of 36.49mm. The station reported three (3) consecutive rainy days with five (5) days recording more than 5.0 mm (moderate to heavy rainfall). The mean air temperature dropped from 20.5°C in the previous dekad to 20.1°C. Broken cloud cover persisted during the morning and afternoon hours throughout the dekad.

2.3 RIFT VALLEY PROVINCE

Several stations from the region reported decreased rainfall compared to the previous dekad. Light to moderate rainfall was reported by all stations in the region during the dekad. The average mean air temperature dropped as compared to the previous dekad and ranged between 17.6°C and 19.2°C. Scattered/Broken cloud cover during the morning and afternoon hours was observed throughout the region during the dekad.

2.3.1 KITALE:

The station generally received light to moderate rainfall during the dekad. A cumulative rainfall amount of 92.91mm was received against its long-term dekad mean of 41.94 mm. The station reported two (2) consecutive rainy days with four (4) days receiving more than 5.0 mm of rainfall. Broken cloud cover was observed at the station in the morning and afternoon hours throughout the whole dekad. The average mean air temperature dropped to 19.2°C from 20.0 °C in the previous dekad. Maize is at the flowering stage and in a good state. Farmers have started harvesting beans. The rainfall is sufficient for maize crop growth.

2.3.2 KERICHO:

A cumulative amount of 59.42 mm of rainfall was reported against its long-term dekad mean of 42.74 mm. The station had five (5) consecutive rainy days with four (4) days recording more than 5.0 mm of rainfall during the dekad. The average mean air temperature decreased from 18.04°C in the previous dekad to 17.64°C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Maize is at the maturing stage and some farmers are planning for June – August 2023 season's planting.

2.3.3 KABARAK:

The station reported a cumulative amount of 22.5 mm of rain against its long-term dekad mean of 21.44mm. The station had three (3) consecutive rainy days with one (1) day recording more than 5.0 mm of rainfall during the dekad. The average mean air temperature decreased from 19.42°C in the previous dekad to 17.86°C in the current dekad. Scattered cloud cover persisted over the station in the morning and in the afternoon hours throughout the entire dekad. Maize is at the flowering of the tassel stage and beans are at the harvesting stage. Normal yield is expected for both crops.

2.4 CENTRAL AND NAIROBI PROVINCES.

Several stations from the Central region reported decreased rainfall as compared to their long-term decadal mean. Light to moderate rainfall was reported by all stations in the region. Average mean air temperatures decreased in the region and ranged between 14.24°C and 18.6°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 7.91mm against its long-term dekad mean rainfall of 9.01mm. The station had three (3) consecutive rainy days with no day recording more than 5.0 mm of rainfall during the dekad. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature decreased to 16.8 from 17.34°C in the previous dekad. Maize is at wax ripeness stage whereas beans are in the maturing stage and farmers have started harvesting beans. Maize crop is fairly doing well due to sufficient rainfall.

2.4.2 THIKA:

Received a total cumulative amount of 1.1mm against its long-term dekadal mean rainfall of 5.55mm. The station had one (1) consecutive rainy day with no (0) day recording more than 5.0 mm of rainfall during the dekad. Broken cloud cover was observed at the station during the morning and afternoon hours throughout the dekad. Maize is at the flowering of the tassel stage and beans are at the harvesting stage. Harvesting of beans is ongoing.

2.4.3 DAGORETTI

Received a total cumulative amount of 2.42mm against its long-term dekadal mean rainfall of 4.29mm. The station reported a single (1) rainy day (more than 5.0 mm of rainfall) during the dekad. Broken cloud cover was observed during the morning and afternoon hours throughout the dekad. The average mean air temperature decreased from 18.11 °C to 16.69°C in the current dekad. Maize is at wax ripeness stage and generally doing well while beans have been harvested.

2.4.4 KABETE:

The station received a total cumulative amount of 3.81mm against its long-term dekadal mean of 4.39 mm of rainfall. The station reported a single rainy day (more than 5.0 mm (moderate) rainfall). The average mean air temperature at the station was 16.1°C. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad.

Coffee variety *Ruiru hybrid 11* is at 70% berry soft and the crop state is fair which corresponds to normal growth and 20% ripeness. 30% of the crop has been affected by leaf rust and Coffee Berry Disease (CBD) and pests. Maize is at the flowering stage and beans are at the harvesting stage. The maize crop is doing well and some farmers have already started harvesting beans. Farmers are advised to do post-harvesting practices on beans to avoid losses.

2.4.5 NYAHURURU:

The station received a total cumulative amount of 33.51mm against its long-term dekadal mean of 45.09mm of rainfall. The station had two (2) rainy days with two (2) days recording more than 5.0 mm (moderate rainfall). Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. The average mean air temperature at the station dropped from 15.5°C to 14.24°C. Maize is approaching tasseling stage and doing well due to sufficient rainfall.

2.5 EASTERN REGION:

Several stations in the region reported light rains with Meru reporting 20.02 mm of rainfall. Broken cloud cover during the morning and afternoon hours was observed in the region throughout the dekad. Average mean air temperatures decreased and ranged between 17.6°C and 18.08°C.

2.5.1 MERU:

The station reported 20.02 mm of rainfall during the current dekad. The station had one (1) day with (light) rainfall and two (2) days recording more than 5.0 mm (moderate rainfall).

Broken cloud cover was observed during the morning and afternoon hours throughout the dekad. The average mean air temperature at the station was 17.6°C. Maize is at wax ripeness stage and beans are at maturing stage. Normal yield is expected for both crops.

2.5.2 EMBU:

The station received a total cumulative amount of 6.3mm against its long-term dekadal mean of 8.36mm of rainfall. The station had two (2) consecutive days with (light) 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 18.08°C. Maize is at the full wax ripeness stage and beans have been harvested.

2.5.3 KATUMANI:

The station remained dry during the current dekad. It has a long-term dekadal mean of 0.71mm of rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Total pan evaporation was 34.0mm.

Maize is at the full ripeness stage while beans have been harvested. Maize crop has generally been affected by too much sun. Therefore, farmers should prepare harvesting of maize to avoid further losses on maize produce.

Mangoes (variety apple) are at the appearance of the new leaves stage and 100% development phase. Mangoes have been infested with aphids therefore it is advisable for them to spray mango fields to counter the attack of aphids if the aim is commercial production.

Oranges (Washington Navel) are at the flowering stage and 100% development phase.

2.6 COASTAL REGION:

Several stations in the region reported light to moderate rainfall with Malindi station leading the region with 101.2 mm of rainfall. Broken cloud cover was mainly observed in the region during the morning and afternoon hours. The mean air temperature generally decreased during the current dekad and ranged between 23.6 °C and 26.6°C.

2.6.1 MTWAPA:

The station received a total cumulative amount of 86.0 mm against its long-term dekadal mean of 29.15mm of rainfall. The station had four (4) consecutive rainy days with six (6) days recording more than 5.0 mm (light to moderate) rainfall. The average mean air temperature was 25.1°C. Broken cloud cover dominated the sky during the morning and afternoon hours. Maize is at the maturity stage and in a good state. Mangoes are at the maturing stage and in a fair state. Normal yield is expected for mangoes. Rainfall was sufficient during the dekad under review and normal yield is expected for the maize crop.

2.6.1 MSABAHA:

The station received a total cumulative amount of 92.9mm against its long-term dekadal mean of 35.96mm of rainfall. The station had four (4) consecutive rainy days with five (5) days recording more than 5.0 mm (light to moderate) rainfall. Broken cloud cover was

mainly observed during the morning and afternoon hours throughout the dekad. Maize is at the maturing stage with expected yield to be normal. There has been sufficient rainfall in the current dekad.

2.7 NORTH EASTERN REGION:

Several stations in the region remained dry or received light rainfall during the dekad. Mean air temperature decreased significantly and ranged between 18.9°C and 28.9°C.

Most Water/Earth pans in the region continue holding water and Pasture/forage condition remains satisfactory for livestock and wildlife.

3.0 DEKAD 19 2023 RAINFALL AND TEMPERATURE MAPS/CHARTS

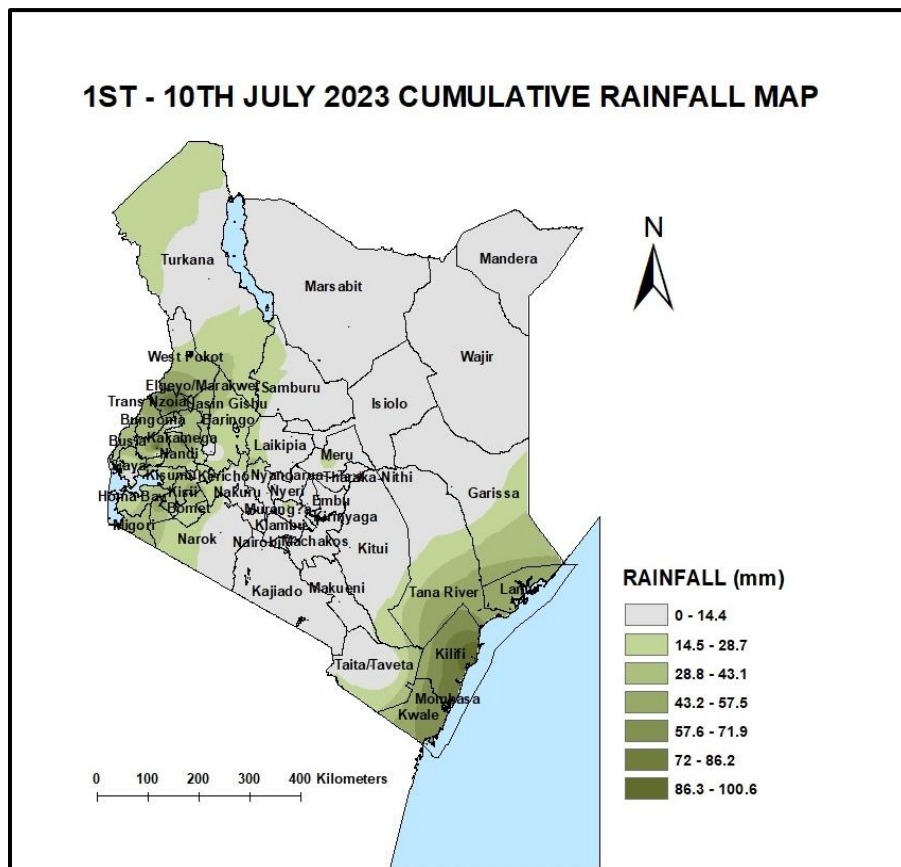


Fig: 3.1

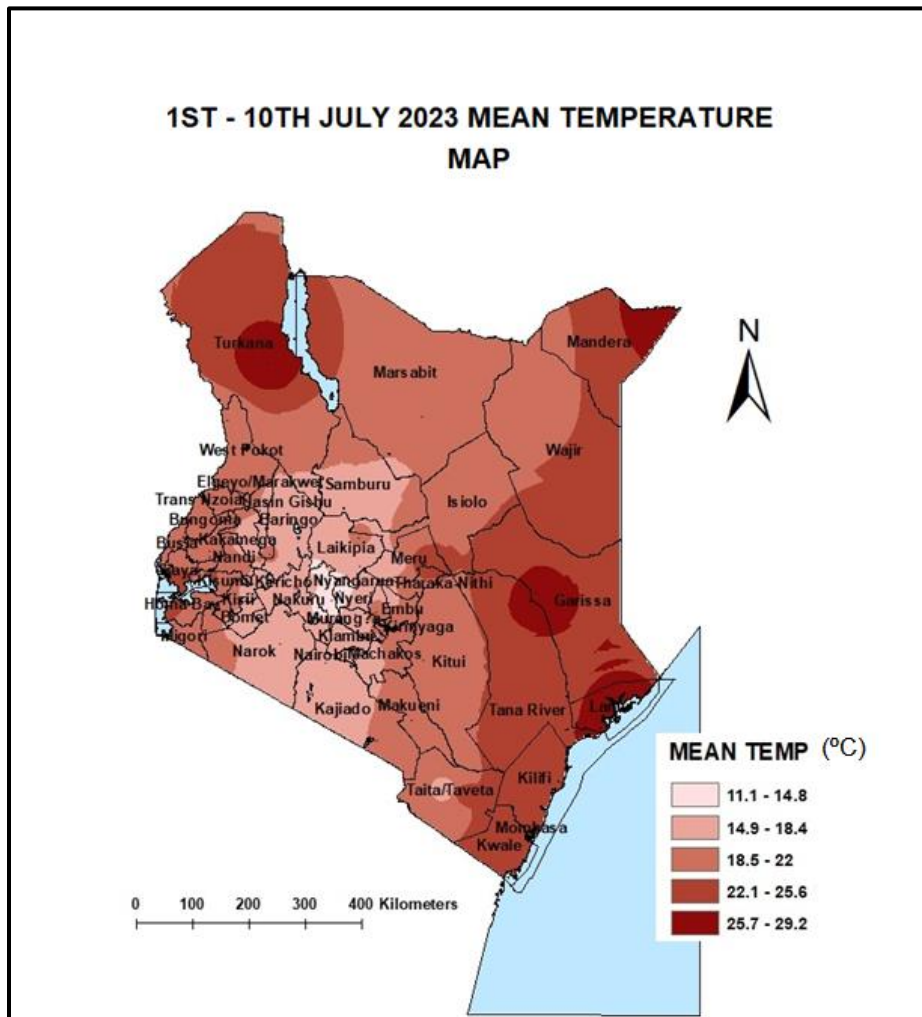


Fig: 3.2

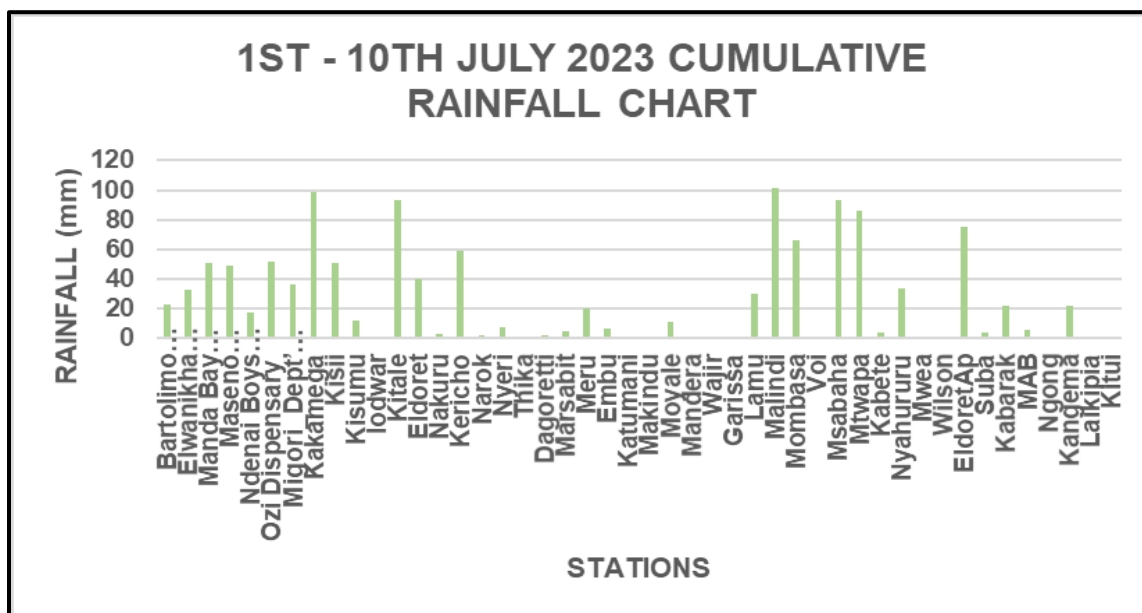


Fig: 3.3

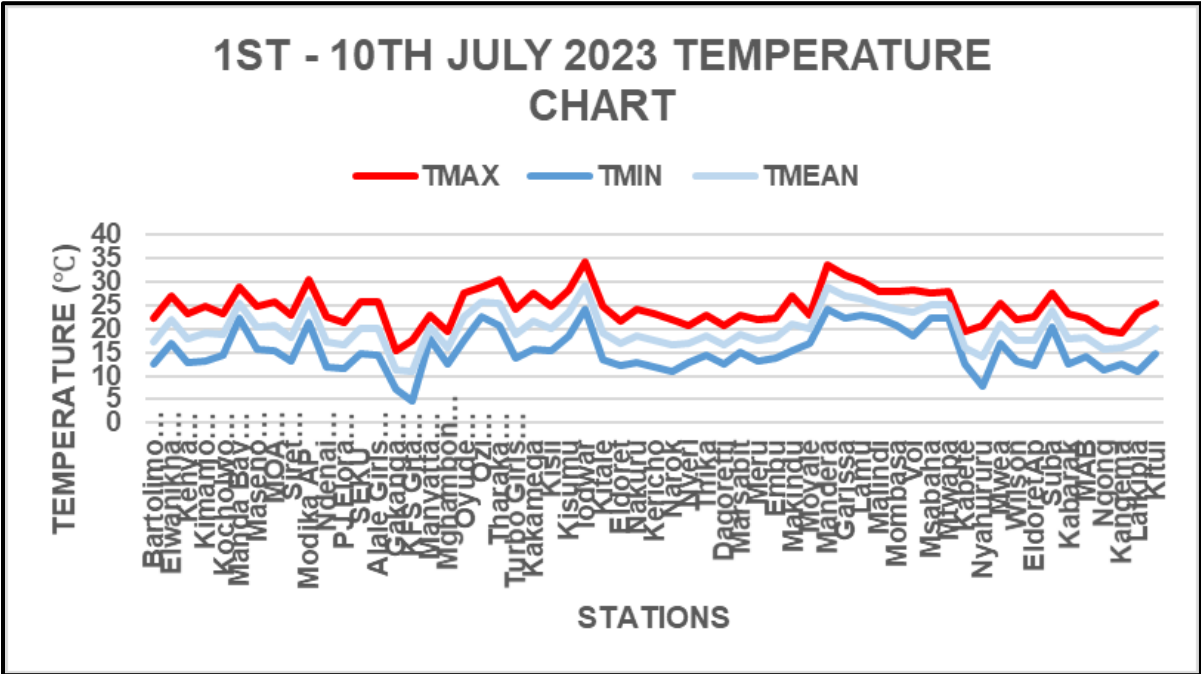


Fig: 3.4

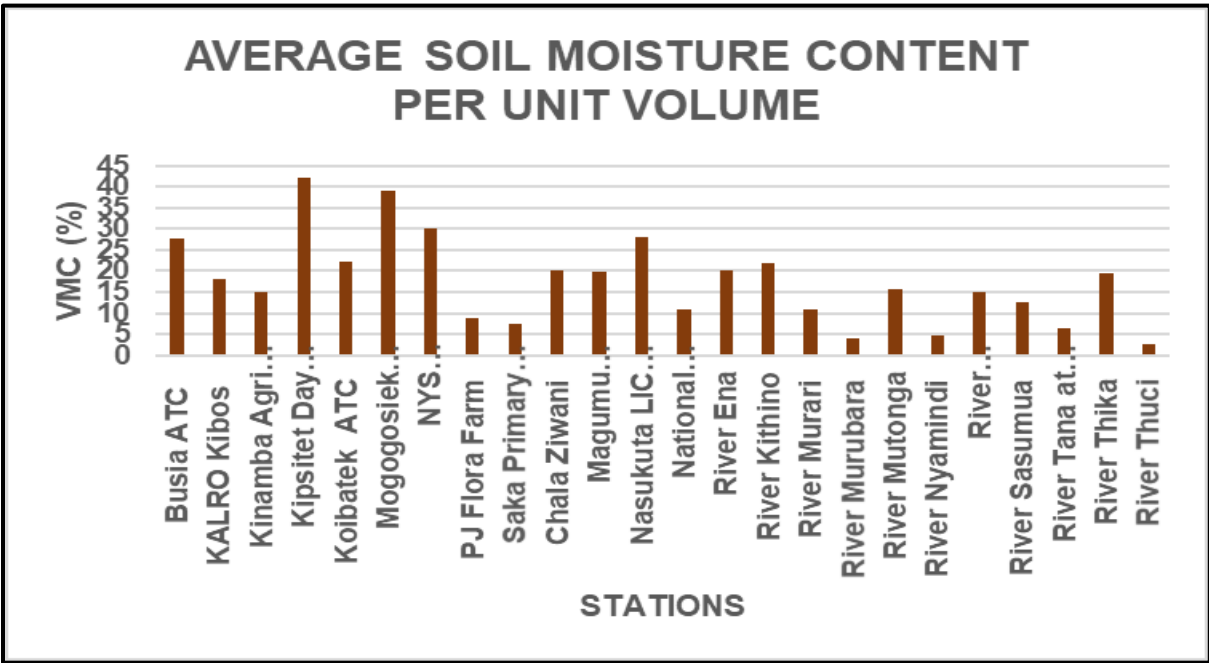


Fig: 3.5

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 JJA 2023
Kakamega	4	2	4	294.7
Kisii	3	2	5	229.7
Kitale	2	1	4	228.2
Kericho	5	1	4	199.7
Nyeri	3	3	0	46.5
Thika	1	5	0	37.0
Dagoretti	1	4	0	40.6
Meru	1	4	2	50.1
Embu	2	4	0	35.9
Katumani	0	10	0	6.3
Msabaha	4	2	5	180.1
Mtwapa	4	2	6	201.1
Kabete	1	3	0	62.6
Nyahururu	2	4	2	137.4
Kabarak	3	2	1	76.2

Fig: 3.6

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 11TH – 20TH JULY 2023.

During the next ten (10) days, sunny intervals are expected though rains may occur over a few places within the country.

Over Western and Nyanza regions, rains are likely to occur over a few places therefore farmers who are still harvesting and carrying out activities like winnowing, threshing, and drying of beans are advised to take advantage of sunny periods within the dekad in order to avoid postharvest losses. Farmers are also advised to start preparing their land for the next.

In the Central region, Nairobi, and Eastern parts of the country, light rains are expected over a few places during the next dekad. The expected rains will supply the necessary soil moisture required by maize which is at the flowering of the tassel and wax ripeness stage. Since beans are at the maturing stage, farmers should focus on harvesting to avoid losses due to the prevailing wet conditions.

North Western/Eastern is likely to have sunny intervals with cloudy nights 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 and disease control.

South Eastern lowlands regions are expected to experience occasional cloudiness giving way to sunny intervals during the next dekad.

The Coastal regions are likely to be sunny with occasional light showers during the next dekad period. Farmers are advised to focus on maintaining their crop fields.

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



Mary Githinji

FOR: DIRECTOR OF METEOROLOGICAL SERVICES.