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AGROMETEOROLOGICAL BULLETIN

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DEKAD 9 PERIOD: 21ST – 31ST March 2023

1.0 HIGHLIGHTS

- During the current dekad several parts of the country continued to report moderate to heavy rainfall. The total amount reported over most stations was generally less than the previous dekad except over Central and Nairobi area, Eastern and the Coastal regions.

- Ngong station in Kajiado County reported the highest amount of rainfall followed by Kitui in Eastern region (Figs; 3.1 & 3.2).

- Average mean air temperature dropped over most parts of the country except along the Coastal strip. The cooler regions in the Country had mean air temperatures ranging between 16.4 ˚C – 21.9 ˚C while the warmer regions had mean air temperature reaching 31.0˚C (Figs. 3.3 & 3.4).

- Total pan evaporation, dropped over most stations with highest readings of 75 mm being recorded at Garissa station in North Eastern Kenya.

- During the next 10 days (01st – 10th April 2023 several parts of the country are expected to continue receiving moderate to heavy rainfall).

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

2.1 SUMMARY

During the current dekad (21st – 31st March 2023), several parts of the country reported moderate to heavy rainfall like in the previous dekad. The rainfall amount reported over most stations was generally less compared the previous dekad except over Central,

Nairobi area, Eastern and the Coastal regions. Ngong station reported the highest rainfall readings in the Country (190.2 mm) followed by Kitui station which reported 163.1 mm.

Over Western, Nyanza and some parts of Rift Valley, both maize and beans are past third leaf stage and farmers are now weeding and top dressing their crops. In Central, Nairobi, Eastern and the Coastal regions, both maize and beans are at emergence stage. The pastoral regions in North Eastern and over the game reserves, pasture and forage regeneration has improved 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 enhanced rainfall that surpassed their long-term dekadal means. Heavy to very heavy 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 123.2 mm against its Long term dekadal mean of 76.26 mm, the station had a total of three (3) consecutive rainy days with five (5) days recording more than 5.0 mm (moderate to heavy 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. Both maize and beans are at emergence stage.

2.2.2 KISII:

The station received heavy to very heavy rainfall during the dekad. A cumulative rainfall amount of 114 mm was received against its long-term dekadal mean of 95.3 mm. The station had a total of eleven (11) consecutive rainy days with only nine (9) days recording more than 5.0 mm (moderate to heavy rainfall). Mean air temperature dropped from 20.3 ˚C in the previous dekad to 19.9 ˚C. Broken cloud cover persisted during both morning and afternoon hours throughout the dekad. Total pan evaporation was 28.7 mm. Maize is past third leaf stage and the crop is in moderate state which corresponds to normal growth. Most farmers are weeding and top dressing their crops.

2.3 RIFT VALLEY PROVINCE

Several stations from the region except Kitale, reported enhanced rainfall that surpassed their long-term decadal means. 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 17.7 ˚C and 19.9 ˚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 39.7 mm was received against its long-term dekadal mean of 49.7 mm. The station reported two (2) 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 dropped from 20.4˚C to 19.9˚C. Total pan evaporation was 30.2 mm. Farmers have started planting their farms anticipating that the rains will continue.

2.3.2 KERICHO:

A cumulative amount of 160.3 mm of rainfall was reported against its long-term dekadal mean of 80.0 mm. The station had a total of eight (8) consecutive rainy days with all the eight (8) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature dropped from 18.3 ˚C in the previous dekad to 18.2 ˚C in the current dekad. Broken cloud cover persisted over the station in the morning and in the afternoon hours. Maize is past third leaf stage, most farmers are weeding and top dressing their crops.

2.3.3 KABARAK:

The station reported a cumulative amount of 45.6 mm of rain against its long-term dekadal mean of 41.4 mm. The station had a total of two (2) consecutive rainy days with all the two (2) days recording more than 5.0 mm (moderate to heavy) rainfall during the dekad. Average mean air temperature dropped from 19.9 ˚C in the previous dekad to 19.3 ˚C in the current dekad. Scattered to broken cloud cover persisted over the station in the morning and in the afternoon hours throughout the entire dekad. Most farmers in the area have completed planting and both maize and beans and the two crops are at emergence stage.

2.4 CENTRAL AND NAIROBI PROVINCES.

Several stations from the Central region reported enhanced rainfall which surpassed their long-term decadal mean. Moderate to heavy rainfall was reported by all stations in the region. Average mean air temperatures generally dropped in the region and ranged between 16.4 ˚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 42.41 mm against its long-term dekadal mean rainfall of 31.88 mm. The station had a total of four (4) 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. The average mean air temperature was 20.39 ˚C which was a decrease from 21.7 ˚C in the previous dekad. Some farmers in the area have started planting both maize and beans.

2.4.2 THIKA:

Received a total cumulative amount of 120.11 mm against its long-term dekadal mean rainfall of 52.28 mm. The station had a total of five (5) rainy days with all the five (5) 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. Most farmers in the area completed planting and both maize and beans are at emergence stage and generally doing well.

2.4.3 DAGORETTI

Received a total cumulative amount of 131.5 mm against its long-term dekadal mean rainfall of 47.2 mm. The station had a total of five (5) rainy days with all the five (5) 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 20.6 ˚C and total pan evaporation was 57.0 mm. Most farmers in the area completed planting and both maize and beans are at emergence stage and generally doing well.

2.4.4 KABETE:

The station received a total cumulative amount of 162 mm against its long-term dekadal mean of 51.1 mm of rainfall. The station had a total of five (5) rainy days with all the five (5) 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. Most farmers have completed planting. Both maize and beans are at emergence stage.

Coffee variety *Ruiru hybrid 11* is at 100% berry soft and the crop state is fair which corresponds to normal growth. The extent of spread of weeds is not much in the farm though 40% 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, 40% of the crop has been affected by Panama banana disease.

2.4.5 NYAHURURU:

The station received a total cumulative amount of 37.4 mm against its long-term dekadal mean of 31.88 mm of rainfall. The station had a total of five (5) 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. Average mean air temperature at the station was 16.4 ˚C. Most farmers in the area completed planting and both maize and beans are at emergence stage and generally doing well.

2.5 EASTERN REGION:

Several stations in the region reported Moderate to heavy rainfall with Moyale leading the region with 118.41 mm of rainfall. Scattered cloud cover which increased to broken in the afternoon was generally observed in the region during the entire period under review. Average mean air temperatures ranged between 20.4 ˚C and 25.8 ˚C.

2.5.1 MERU:

The station received a total cumulative amount of 50.51 mm against its long-term dekadal mean of 39.61 mm of rainfall. The station had a total of four (4) 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. Average mean air temperature at the station was 20.4 ˚C. Maize is past third leaf stage, most farmers have started weeding and top dressing their crops.

2.5.2 EMBU:

The station received a total cumulative amount of 21.7 mm against its long-term dekadal mean of 55.1 mm of rainfall. The station had a total of four (4) 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. Average mean air temperature at the station was 21.7 ˚C. Most farmers have completed planting and both maize and beans are at emergence stage.

2.5.3 KATUMANI:

The station received a total cumulative amount of 48.5 mm against its long-term dekadal mean of 25.2 mm of rainfall. The station had a total of three (3) consecutive rainy days with all the three (3) days recording more than 5.0 mm (moderate) rainfall. Scattered cloud cover during the morning increasing to broken during the afternoon dominated the sky throughout the dekad. Total pan evaporation was 60.5 mm.

Most farmers have completed planting and both maize and beans are at emergence stage.

Mangoes (variety apple) are at 100% ripeness stage and the crop condition is poor which corresponds to below normal state. Weeds are seldom seen within the farm. Due to prolonged dry conditions below normal yield is expected for mangoes.

Oranges (Washington Navel) were at 100% fruit setting and the crop condition was fair corresponding to normal growth. Infestation by aphids and insufficient rainfall are affecting the phase. Weeds are seldom seen within the farms.

2.6 COASTAL REGION:

Several stations in the region reported Moderate to heavy rainfall with Mtwapa leading the region with 70.5 mm of rainfall. Scattered to broken cloud cover dominated the region during the morning decreasing to few during the afternoon hours. Mean air temperature ranged between 28.9 ˚C and 29.3 ˚C.

2.6.1 MTWAPA:

The station received a total cumulative amount of 70.5 mm against its long-term dekadal mean of 21.95 mm of rainfall. Average mean air temperature was 28.5 ˚C. Broken cloud cover dominated the sky during the morning decreasing to scattered in the afternoon hours. Farmers are planting and others are preparing their land.

2.6.1 MSABAHA:

The station received a total cumulative amount of 31.81 mm against its long-term dekadal mean of 19.65 mm of rainfall. Broken cloud cover dominated the sky during the morning and afternoon hours throughout the dekad. Total pan evaporation was 40.8 mm. Farmers are planting and others are preparing their land.

2.7 NORTH EASTERN REGION:

Several stations in the region reported Moderate to heavy rainfall with Mandera leading the region with 114.3 mm of rainfall. Garissa reported 78.9 mm and Wajir station reported the highest amount 37.2 mm. Scattered/Broken cloud cover was generally observed over the region during the morning and afternoon hours. Mean air temperature ranged between 30.39 ℃ and 30.95 ℃.

Pasture and forage regeneration has started improving and Water/Earth pans in the region are being filled up with water.

3.0 DEKAD 9 2023 RAINFALL AND TEMPERATURE MAPS/CHARTS

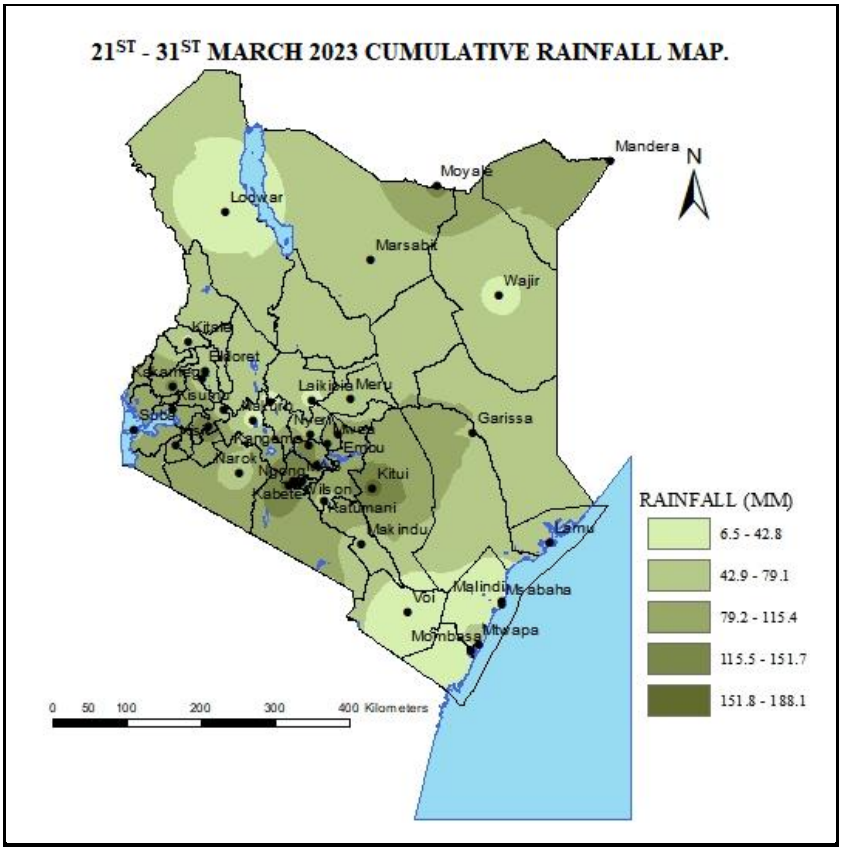

Fig: 3.1

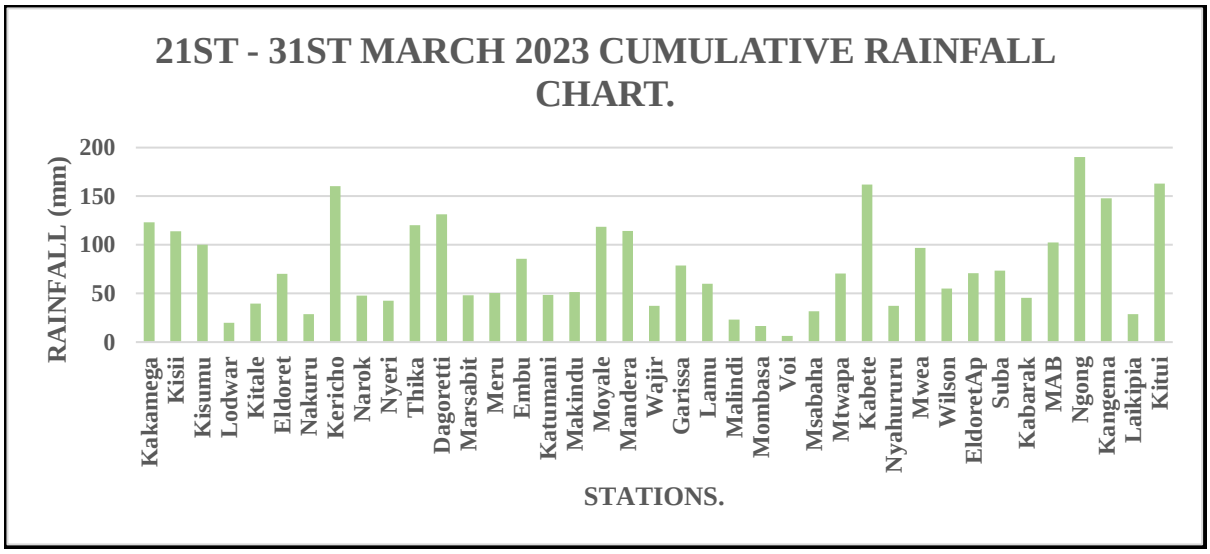
21ST - 31ST MARCH 2023 CUMULATIVE RAINFALL CHART.
RAINFALL (mm)
200
150
100
50
0
Kakamega
Kisii
Kisumu
Lodwar
Kitale
Eldoret
Nakuru
Kericho
Narok
Nyeri
Thika
Dagoretti
Marsabit
Meru
Embu
Katumani
Makindu
Moyale
Mandera
Wajir
Garissa
Lamu
Malindi
Mombasa
Voi
Msabaha
Mtwapa
Kabete
Nyahururu
Mwea
Wilson
EldoretAp
Suba
Kabarak
MAB
Ngong
Kangema
Laikipia
Kitui
STATIONS.

Fig: 3.2

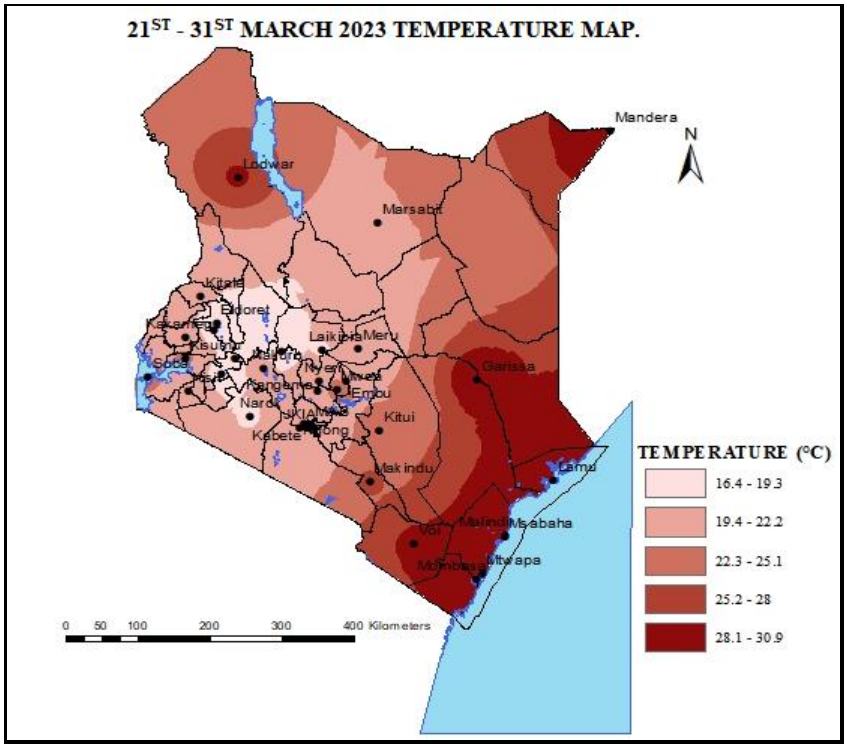
21ST - 31ST MARCH 2023 TEMPERATURE MAP.
Mandera
N
Lodwar
Marsabit
Kitale
Eldoret
Laikipia
Meru
Garissa
Embu
Kitui
Kabete
Makindu
Lamu
Malindi
Msabaha
Voi
Mtwapa
Mombasa
TEMPERATURE (°C)
16.4 - 19.3
19.4 - 22.2
22.3 - 25.1
25.2 - 28
28.1 - 30.9
0 50 100 200 300 400 Kilometers

Fig: 3.3

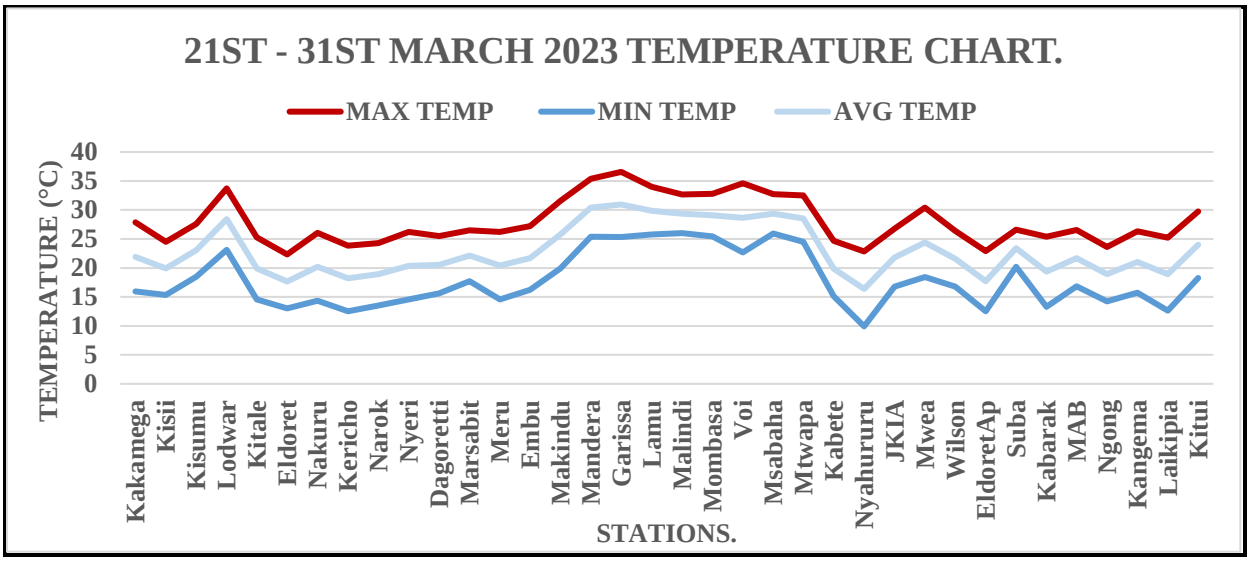

Fig: 3.4

Station	Maximum consecutive wet days (>1.0 mm)	Maximum consecutive dry days	Number of rainy days (> 5.0 mm)	Cumulative Rainfall from start of MAM 2023 RFseason
Kakamega	3	1	5	287.12
Kisii	11	0	9	373.4
Kitale	2	2	3	123.84
Thika	5	4	5	149.9
Nyeri	4	3	3	90.91
Dagoretti	5	2	5	220.5
Embu	4	3	3	114.6
Katumani	3	3	3	58.7
Msabaha	1	3	1	88.4
Mtwapa	2	3	1	73.5
Kabete	5	6	5	209.6
Nyahururu	5	2	3	48.6
Kabarak	2	1	2	110.6

Fig: 3.5

4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT TEN (10) DAYS; 01ST – 10TH APRIL 2023.

During the next ten (10) days, moderate rainfall is expected to fall over most parts of the country including over south eastern lowlands and the Coastal region.

Over Western and Nyanza regions, most farmers are expected to have completed weeding and should now focus on top dressing their farms.

In Central Nairobi and Eastern parts of the country, moderate rainfall is expected and since crops are currently at emergence stage farmers should focus on weeding and top dressing their crops.

North Western/Eastern are likely to receive light to moderate rainfall during the next dekad. This is likely to help in the regeneration of pasture/forage in the region and recharge water/earth pans in the area.

Communities in these areas are therefore advised to de-silt all earth/water pans and other water reservoirs to maximize on water storage

South Eastern lowlands and the coastal regions are also expected to receive moderate rainfall during the coming dekad and therefore farmers are advised to plant drought tolerant crop varieties and maximize on the rains since the area has received its onset.

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

Mary Githinji

***FOR*: DIRECTOR OF METEOROLOGICAL SERVICES.**