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AGROMETEOROLOGICAL BULLETIN

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DEKAD 33 PERIOD: 21ST – 30TH NOVEMBER, 2023.

1.0 HIGHLIGHTS

- Throughout the reviewed period, a majority of regions in the country experienced a reduction in rainfall compared to the previous dekad.
- Nyaroya station in Migori documented the highest rainfall at 209.8 mm, followed closely by Meru Meteorological Stations, reporting 197.5 mm (refer to Figs. 3.1 & 3.3).
- The mean air temperature exhibited a slight increase across most areas in the country in comparison to the preceding dekad (refer to Figs. 3.2 & 3.4).
- Total pan evaporation readings showed a slight rise in most stations relative to the past dekad.
- Looking ahead to the next ten days, a forecast indicates that the majority of the country will experience moderate to heavy rainfall. Conversely, North-eastern and North-western Kenya are expected to remain generally dry.

2.0 WEATHER AND CROP REVIEW FOR THE PERIOD: 21ST – 30TH NOVEMBER.

2.1 WESTERN AND NYANZA REGION

Most stations from the region reported a decrease in rainfall amounts. Kisumu and Migori however, reported a slight increase in their rainfall amounts compared to the previous dekad.

Most stations recorded a decrease in Mean air temperature ranging between 20.3˚C to 23.6˚C.

Scattered cloud cover was observed over most stations in the region during the dekad.

2.2.1 KAKAMEGA:

The station reported a cumulative rainfall amount of 60.1 mm which is above its long-term mean of 46.2 mm.

The average mean air temperature at the station decreased from 22.5˚C to 22.2˚C. Scattered cloud cover was reported throughout the entire dekad.

Maize crops are at post flowering stage and in good condition.

Beans are at maturity stage and farmers are still harvesting.

2.2.2 KISII:

The station reported a cumulative rainfall amount of 95.1 mm, which is above its long-term dekadal mean of 58.4 mm.

The average mean air temperature at the station decreased from 20.9˚C to 20.3˚C in the current decade. Broken cloud cover prevailed over the station during the dekad.

Both the maize and bean crops have reached the flowering stage and are progressing satisfactorily, in line with typical growth patterns. Some instances of adverse effects due to excessive rainfall have been reported specifically in the bean crop.

RIFT VALLEY REGION

2.3.1 KITALE:

The station received a reduced amount of rainfall of 10.3 mm which is below its dekadal mean of 32.3 mm. Mean air temperature decreased slightly from 20.1˚C to 19.7˚C. Broken cloud cover was observed throughout the dekad

2.3.2 KERICHO:

The station reported 122.0 mm of rainfall which is a above its long-term dekadal mean of 54.1 mm. Its average mean temperature maintained at 18.2˚C from the last dekad.

Maize crop is at emergence stage and in poor state thus below normal growth condition due to excessive rainfall.

Beans crop is at flowering stage and in poor state due to excessive rainfall.

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 slightly increased and ranged between 14.8˚C and 23.8˚C. Broken cloud cover was observed in the region throughout the dekad.

2.4.1 NYERI:

The station reported a cumulative rainfall amount of 61.3 mm which is a positive deviation from the long-term mean of 30.6 mm. Broken cloud cover was observed at the station throughout the dekad. Mean air temperature decreased from 20.0˚C to 19.7˚C in the dekad.

Maize in the region is at ninth leave stage while beans are in post budding stage.

2.4.2 THIKA:

The station reported 63.8 mm rainfall which is a above its normal dekadal mean of 57.0 mm. Total pan evaporation was 36.8 mm. Broken cloud cover was observed at the station throughout the dekad.

Both maize and beans crop are in post emergence stage and in fair state due to the prevailing short rains season.

2.4.3 DAGORETTI

The station received a cumulative rainfall amount of 74.7 mm which is a above normal from its long-term dekadal mean of 59.6 mm. The mean air temperature increased from 19.2˚C to 19.7˚C in the dekad. Broken cloud cover was observed at the station throughout the dekad.

Maize in the region is at ninth leave stage while beans are at post emergence stage and are corresponding to the normal crop growth**.**

2.4.4 KABETE:

The station received a cumulative rainfall amount of 51.7 mm which is slightly below its long-term dekadal mean of 60.4 mm. The mean air temperature at the station increased from 18.7˚C to 19.2˚C. Broken cloud cover was observed at the station throughout the dekad.

2.4.5 NYAHURURU:

The station received a total rainfall amount of 32.8 mm, a positive deviation from its long-term dekadal mean of 22.2 mm. The average mean air temperature at the station decreased from 15.4˚C to 14.8˚C. Broken 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 increased rainfall amounts as compared to the previous dekad (refer to the graphs and the maps). Mean air temperature slightly decreased ranging between 22.7˚C and 23.6˚C. Scattered cloud cover was observed in the region throughout the dekad.

2.5.1 MERU:

The station received a cumulative rainfall of 197.5 mm which is above its long-term dekadal mean of 86.3 mm. Mean air temperature slightly decreased by 0.1˚C from the previous 20.0˚C. Broken to scattered cloud cover was observed at the station throughout the dekad.

2.5.2 EMBU:

The station received a cumulative rainfall amount of 117.0 mm a positive deviation from its long-term dekadal mean of 61.4 mm. The average mean air temperature decreased from 20.9˚C to 20.1˚C. Broken cloud cover was observed at the station throughout the dekad.

Maize has reached the 9th leaf stage and beans are in flowering stage; all corresponding to normal growth.

2.5.3 KATUMANI:

The station reported 100.2 mm of rainfall during the dekad, a above its long-term dekadal mean of 49.9 mm. Scattered cloud cover was observed at the station throughout the dekad.

Maize have attained the 9^{th} leaf stage and beans are at flowering. Both are in better condition than normal**.**

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 25.6˚C and 28.4˚C.

2.6.1 MTWAPA:

The station received a total rainfall amount of 110.0 mm against its long-term dekadal mean of 23.6 mm. Mean air temperature increased from 27.0˚C to 27.7˚C. Scattered cloud cover was observed at the station throughout the dekad.

Maize crop at flowering stage. Substantial rainfall received hence corresponds to normal growth only excessive weeds growth.

2.6.2 MSABAHA:

The station received a total rainfall amount of 61.0 mm against its long-term dekadal mean of 22.9 mm. The mean air temperature increased from 27.6˚C to 28.4˚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 23.4˚C and 28.3˚C.

Scattered cloud cover was observed in the region throughout the dekad.

Pasture and forage in the region is well developing due to the continuing OND rainfall.

DEKAD 33 2023 RAINFALL AND TEMPERATURE MAPS/ CHARTS

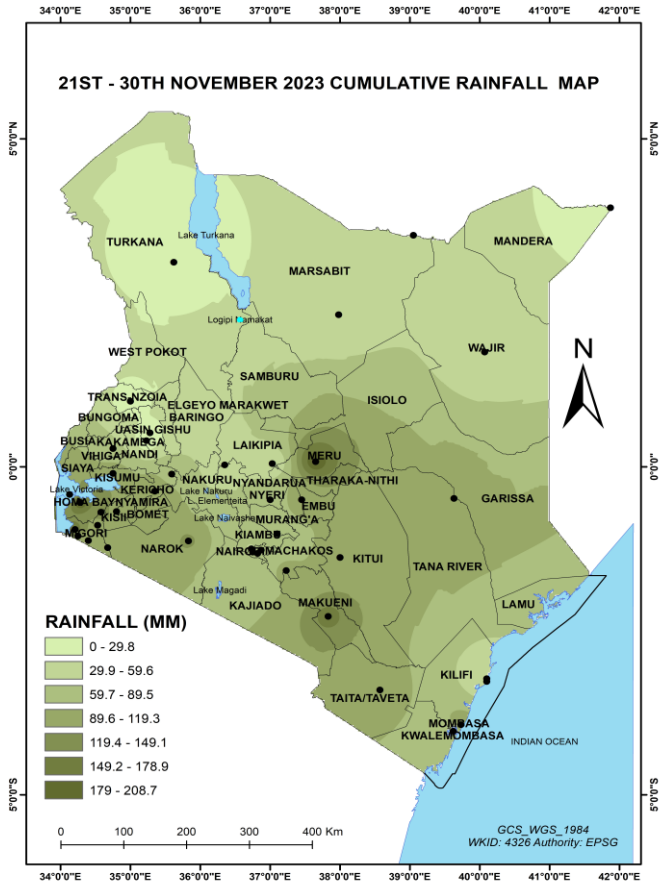

Fig 3.1

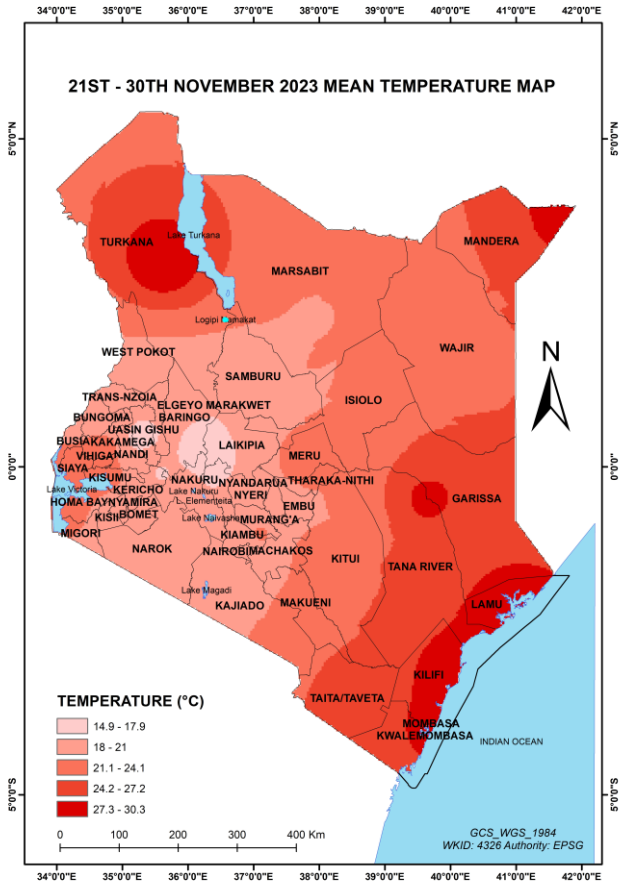

Fig 3.2

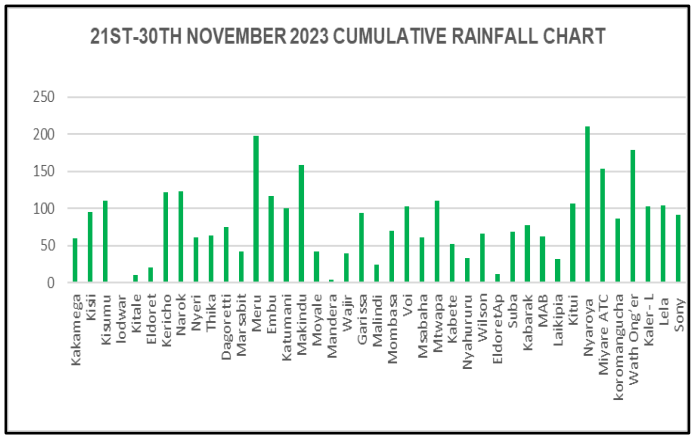

Fig 3.3

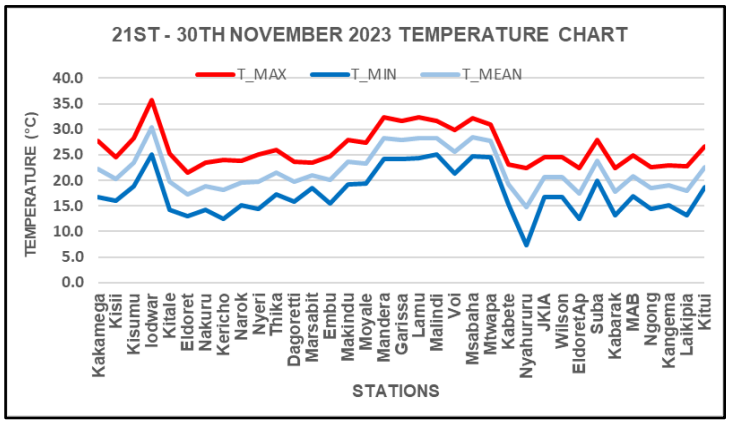

Fig 3.4

Station	Cummulative rainfall	Maximum consecutive wet days	Maximum consecutive dry days	Number of rainy days
Kakamega	1060.86	3	2	4
Kisii	1121.84	8	1	5
Kitale	459.13	1	4	1
Kericho	935.72	4	2	6
Nyeri	698.09	6	2	4
Thika	772.53	6	1	4
Dagoretti	895.09	7	3	5
Meru	1152.15	6	1	4
Embu	907.41	8	2	6
Katumani	644.73	6	4	6
Msabaha	855.9	2	3	3
Mtwapa	1223.32	4	2	4
Kabete	899.86	5	2	3
Nyahururu	420.82	6	4	4
Kabarak	648.38	6	4	4

Fig 3.5

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

During the next ten (10) days, rainfall is expected to continue over most parts of the country. North-eastern and North-western Kenya are likely to be generally dry.

Over **Western and Nyanza regions**, Morning rains as well as afternoon and night showers are expected over few places occasionally spreading to several places. f Kakamega, Vihiga, Migori, Homa Bay, Kisii and Narok Counties are expected to receive heavy rainfall compared to the rest of the country.

The enhanced rainfall is expected to cause an adverse effect on beans crop.

In the **Central region, Nairobi, and Eastern parts** of the country, morning rains as well as afternoon and night showers are expected over several places. Some parts of Murang'a, Nyeri, Kiambu, Tharaka Nithi, Embu and Meru Counties may receive heavy rainfall.

The enhanced rainfall is expected to keep the crop in good growth condition.

North Western is likely to experience sunny conditions during the day and nights partly cloudy conditions at night.

The available moisture will sustain the growth and regeneration of pastures.

South Eastern lowlands and Coastal regions are expected to receive occasional morning, afternoon and night showers over a several places during the next ten days.

Makueni, Kitui and Taita Taveta Counties are expected to receive heavy rainfall.

The high rainfall is expected to keep the crops growing and developing.

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 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.

- Farmers are urged to exercise caution concerning the elevated risk of seasonal flu brought about by cold and humid weather conditions. It is strongly recommended that they take proactive measures to ensure the well-being of their animals, especially poultry birds and young calves, by keeping them warm. This precautionary step aims to

mitigate the adverse effects of the cold weather prevalent during the current rainy season.

- Pastoralists residing in North Western Kenya, North Eastern region, South Rift Valley, and certain areas of the South Eastern Lowland are encouraged to gather surplus pasture and preserve it for future utilization.

  Additionally, it is recommended for them to cultivate various pasture varieties such as boma Rhodes grass and sorghum to ensure a sustainable supply for the future.

- Farmers are encouraged to collaborate closely with Agricultural Extension officers and engage with other stakeholders to enhance their comprehension of weather patterns and their impact on various agricultural tasks such as weeding, fertilizer application, and chemical spraying.

- In regions facing drainage difficulties, such as relatively flat terrains like the Mwea irrigation scheme and areas along river basins, it is recommended that farmers establish furrows and channels. This proactive measure helps eliminate stagnant water, enhancing air spaces in the soil. The improved aeration fosters optimal root development, intensifies bacterial activity, and promotes oxidation processes.

- Both the national and county governments should play a role in supporting the development of water storage infrastructure such as dams, weirs, and gabions to promote sustainable water conservation over the long term.

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

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