

KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 8, 2014 11-20 MARCH, 2014

1. HIGHLIHTS ON RAINFALL AND TEMPERATURE

Rainfall activities increased **tremendous**ly in the country as compared to the previous dekad marking the onset of the long rainfall season (MAM). Eastern Region received the highest amount of rainfall countrywide with Embu station recording 177.6mm as compared to 47.7mm recorded in Mwea station in same region during the previous dekad. In Western region Kakamega received 67.7mm which was a considerable improvement as the previous dekad was silent. In North Eastern region Garissa managed to record the highest amount with 36.8mm. In Rift Valley region, Kericho station recorded the highest amount of rainfall of 112.6mm. In the Coastal region, Mombasa station received the highest amount of rainfall with 46.0mm. In Nairobi region Kabete received the highest amount of rainfall of 101.3mm as in Lake region, Suba station recorded 170.9mm which was the highest in the area. In Central region, Thika station recorded the highest amount of rainfall of 85.3mm as compared to 5.2mm the previous dekad.

There was a holistic decrease in the maximum temperature country wide. Wajir station recorded the highest maximum temperature of 36.6° C compared to 38.4° C recorded in the Lodwar station in the previous dekad. The minimum temperature tended to increase in most stations in the country with Nyahururu station in Central region recording the lowest temperature of 9.4° C compared to 7.0° C reported in the same station in the previous dekad.

For a more comprehensive summary of rainfall and other meteorological parameters, see Figures 3.1 to 3.4 as shown below.

2. CROP AND WEATHER REVIEW FOR DEKAD 7; 1-10 MARCH 2014

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station recorded rainfall amount of 67.7mm during the dekad. The mean air temperature and Pan Evaporation were 21.5°C and 47.2mm respectively. There was no record on sunshine duration.

No phenological report

2.1.2 Kisii

The station recorded rainfall amount of 77.4mm. The mean air temperature and Pan Evaporation were 19.8C and 31.6mm respectively. No records on Sunshine duration.

No phenological report

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station recorded rainfall amount of 77.2mm. There were no records of average air temperature and sunshine duration. The Pan Evaporation record was 44.7mm.

No phenological report.

2.2.2 Eldoret-Kapsoya

The station received rainfall amount of 77.6mm and the average air temperature reported was 18.1°C. There was no report on sunshine duration and Pan Evaporation.

No phenological report.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 68.1mm over the dekad. The average air temperature was 18.9°C. There was no report on pan evaporation and sunshine parameters.

Maize crop was at the wax ripeness stage and in failure state due to insufficient rainfall with below normal yield being expected.

2.3.2 Kabete

The station recorded rainfall amount of 101.3mm over the dekad. The average air temperature recorded was 19.1° C. There was no report on sunshine duration and the Pan Evaporation was 61mm.

Maize was at flowering stage and in poor state due to insufficient rainfall. Below normal yield is expected.

2.3.3 Thika

The station recorded rainfall amount of $85.3 \, \text{mm}$. The mean air temperature and pan evaporation recorded were $21.60 \, \text{C}$ and $45.8 \, \text{mm}$ respectively. There was no report on sunshine duration.

Maize was at harvest stage and in poor state as it had been adversely affected by insufficient rainfall. Below normal yield is expected for the crop.

2.3.4. Nyahururu

The station recorded rainfall amount of 61.0mm. The mean air temperature and pan evaporation recorded were 15.7° C and 51.0mm respectively. There was no report on sunshine duration.

No phenological report.

2.3.5. Dagoretti

The station reported rainfall amount of 91.7mm during the dekad. The average air temperature was 19.8°C.. No report on sunshine duration and Pan Evaporation.

Maize had been disposed at their wax ripeness stage.

2.4 EASTERN KENYA REGION

2.4.1 **Meru**

The station recorded rainfall amount of 59.3mm. The average air temperature and recorded were 24.6°C. No report on Sunshine duration and Pan Evaporation.

Most farmers have started planting their crops as others are still harvesting their late maize crops

2.4.2 **Embu**

The station reported rainfall amount of 177.6mm. There was no report on Temperature, Van Evaporation and Sunshine duration respectively.

No phenological report.

2.4.3 Katumani (Machakos)

The station recorded rainfall amount of 114.7mm. The average air temperature reported was 20.7°C. There was no report on pan evaporation and Sunshine duration.

Planting is underway.

2.5. COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 46.0mm. The average air temperature and Pan Evaporation recorded was 28.4°C and 50mm respectively. There was no report on sunshine duration.

Planting of maize crops and beans is underway.

Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

The station received rainfall amount of 16.0mm. The average air temperature recorded was 28.2°C. There was no report on sunshine duration and Pan Evaporation.

Mangoes were at flowering stage and in good state.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

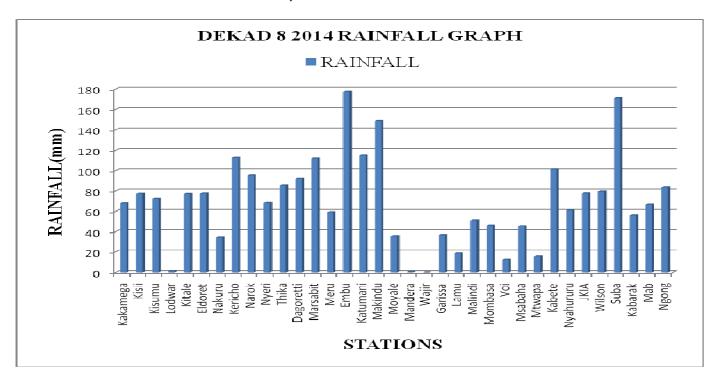


Figure 3.1: Dekadal rainfall totals for 1^{St} to 10^{th} March 2014

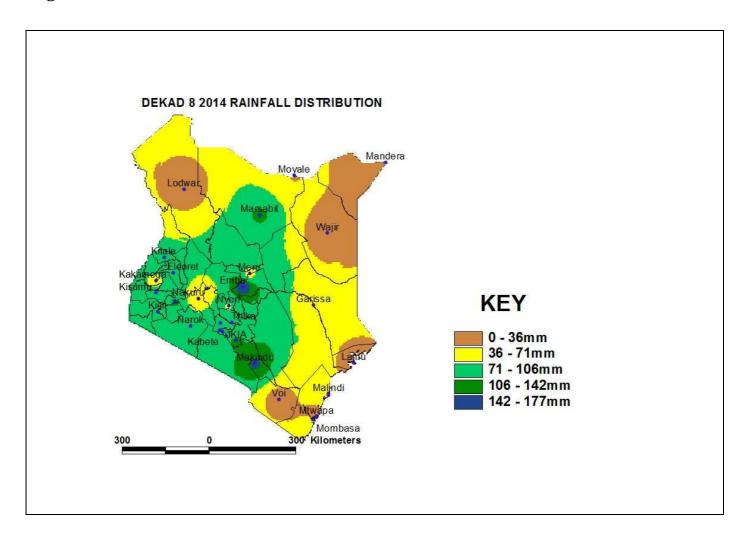


Figure 3.2: Dekadal rainfall distribution for dekad 7, 2014

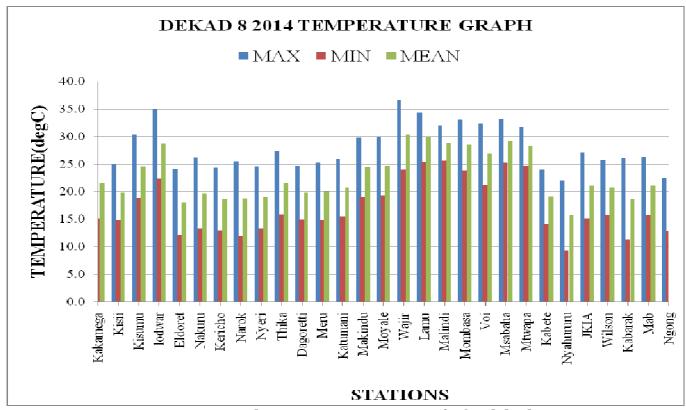


Figure 3.3: Maximum, Minimum and Average temperature in °C for dekad 7, 2014

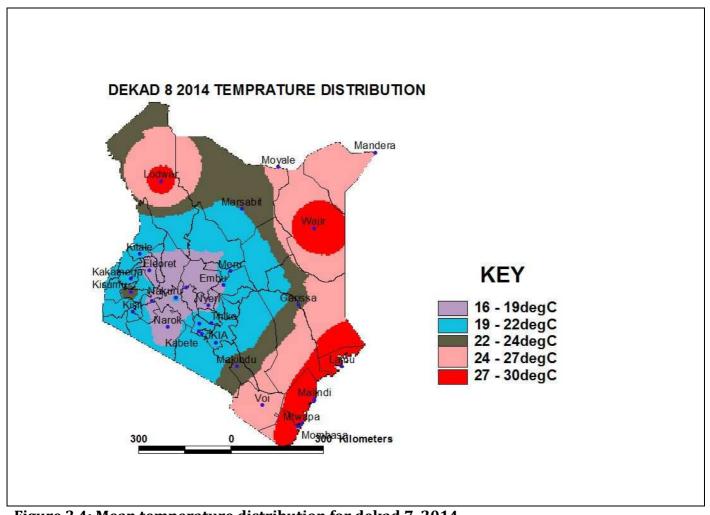


Figure 3.4: Mean temperature distribution for dekad 7, 2014

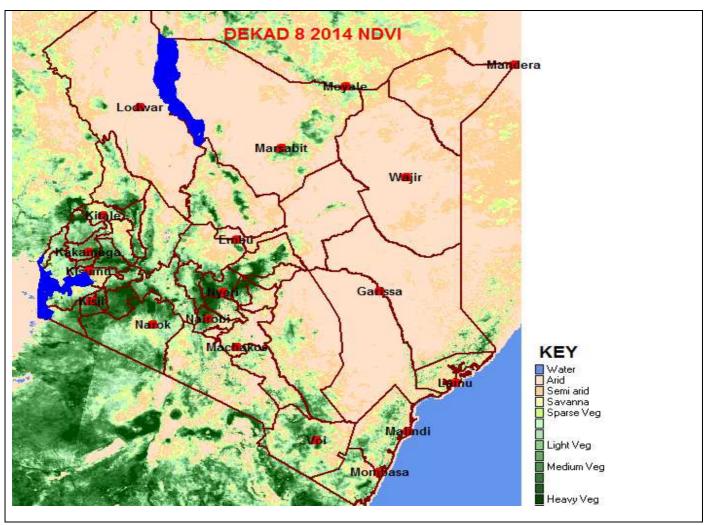


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

- 4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 MARCH 2014
 - Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Trans Nzoia, Elgeyo Marakwet, Nandi, Laikipia, Kajiado, Vihiga and Busia), are expected to experience Sunny interval during the morning session. In the afternoons, there would be showers and thunderstorms in few places throughout the forecast period.
 - The afternoon showers will be expected to develop the state of the crops and the vegetation.
 - ❖ Over the Northwestern counties (Turkana, West Pokot and Samburu), Sunny intervals in the morning are expected during the forecast period. In the afternoons, expect mainly sunny intervals with showers and thunderstorms over few places throughout the forecast period.

The wet condition is expected to improve the state of pasture and vegetation in this region.

❖ The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga), are expected to experience mainly cloudy early morning in the first few days and then sunny intervas

throughout the forecast period. In the afternoons, sunny intervals, showers and thunderstorms are expected over few places throughout the forecast period.

The expected showers will continue to enhance the state of the crops and vegetation in the region.

❖ Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo), are expected to experience sunny intervals during the first few days with chances of rain in few places in the morning. In the afternoons, there will be sunny intervals with a chance of showers on 31st day of the month.

The availability of showers in the dekad will be expected to reverse the situation of the state of pasture and vegetation in this region.

❖ Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui), are expected to experience rains over few places intermingling with sunny intervals in the morning session over the forecast period and during the afternoon session showers over few places giving way to sunny intervals throughout the forecast period.

The wet conditions forecasted will regenerate the crops, pasture and vegetation in the region.

❖ In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc), is expected to experience mainly showers over few places, giving way to sunny intervals during the morning session and sunny intervals in the afternoon throughout the forecast period.

The showers expected will have a refreshing impact on the crops in this region.

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