



KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN
WEATHER AND CROP REVIEW FOR DEKAD 19, 2012
11– 20 JULY 2012

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

There was a decrease in rainfall activities both in space and in intensity countrywide during the current dekad. Most stations in North Eastern region continued to report dry conditions. Eldoret station in Rift valley region still received the highest amount of rainfall of 56.4mm which was a drastic reduction from 129.2mm reported in the previous dekad. Nyahururu station reported 43.3mm as the highest rainfall in the Central region. In Nyanza region Kisii station recorded 37.6mm as the highest rainfall. Kakamega Station in Western region received the highest rainfall of 31.2mm. The highest rainfall observed in the coastal strip was 16.8mm at Mtwapa station. In the Eastern region Embu station reported 16.7mm as the highest rainfall. Lodwar station recorded 4.3 mm as the highest rainfall amount in this region. Ngong Station in Nairobi received 0.5 mm being the highest rainfall in this region.

Most stations continued reporting a decreasing trend in maximum temperatures, with only a few stations reporting an increase. Minimum temperatures also continued on a decreasing trend in most stations apart from a few stations recording an increase in temperatures especially in the Coast region. The highest maximum temperature recorded countrywide, was 33.3⁰C at Lodwar station in the North Eastern. This was a decrease from the previous maximum temperature of 34.4⁰C at the same station. The lowest maximum temperature was 19.2⁰c recorded at Nyeri station in Central region.

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

2.0 CROP AND WEATHER REVIEW FOR DEKAD 19; 11 – 20 JULY 2012

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

This station received 31.2 mm of rainfall which was a decrease from 62.5 mm reported in the previous dekad. The mean air temperature and total pan evaporation recorded were 19.6⁰c and 31.2 mm respectively. There was no report on sunshine hours.

Maize and beans were at flowering and harvesting stages respectively. Both crops were in good state and normal yield is expected.

2.1.2 Kisii

This station recorded 37.6 mm of rainfall compared to 60.2 mm in the previous dekad. The mean air temperature and total pan evaporation recorded were 19.7⁰C and 30.6 mm respectively. There was no report on sunshine.

Maize was at flowering stage and in fair state while beans harvesting is over.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received rainfall of 27.1 mm compared to 57.2 mm reported in the previous dekad. The average air temperature and pan evaporation recorded were 17.8⁰C and 23.6mm respectively. There was no report on sunshine.

Maize and beans were at flowering and maturity stages respectively. Both crops were in fair state and normal yield is expected.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall amount of 56.4 mm compared to 129.2 mm in the previous dekad. The average air temperature and total pan evaporation recorded were 16.2⁰c and 35.4mm respectively. There was no sunshine report.

Both maize and beans were at flowering stage and in fair state with normal yield expected.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received 2.7mm compared to 37.2 mm of rainfall in the previous dekad. The average air temperature and total pan evaporation recorded were 15.7⁰c and 18.2 mm respectively. There was no report on sunshine hours.

Maize and beans were at flowering and maturity stages respectively. Maize was in fair condition though adversely affected by stalk borers and insects and normal yield is still expected. Beans were in poor state having been adversely affected by insects hence failure yield is expected.

2.3.2 Kabete

The station recorded rainfall amount of 0.11 mm compared to 20.1 mm in the previous dekad. The average air temperature and pan evaporation recorded were 16.4⁰c and 22.6mm respectively. Sunshine hours reported were 3.7 hours per day.

Maize and beans were at flowering and maturity stages respectively. Maize was in fair condition with normal yield expected, while beans were in poor state and below normal yield is expected. Coffee were at 100% pinhead stage and in moderate state but damaged by leaf rust, coffee berry disease and leaf minor at less than 10% each. Bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips and cigar end rot at 25% and less than 10% respectively.

2.3.3 Thika

The station reported 3.2mm of rainfall compared to 3.6mm in the previous dekad. The total mean air temperature and pan evaporation recorded at the station were 17.9⁰c and 21.7 mm respectively. There was no report on sunshine hours.

Maize and beans were at flowering and harvesting stages respectively. Maize was in fair state and normal yield is expected. Beans are in poor state, having been adversely affected by excessive rainfall hence below normal yield is expected. Potatoes were in

maturity stage and in fair state with normal yield being expected as harvesting is in progress.

2.3.4. Nyahururu

The station received rainfall of 43.3mm compared to 45.9 mm reported in the previous dekad. The mean air temperature and pan evaporation recorded were 13.8⁰c and 36.8mm respectively. There was 5.6 hours of sunshine recorded per day.

Maize and beans were at emergence and flowering stages respectively. Maize was in good state while beans and potatoes were in fair state with normal yield expected for all the crops.

2.3.5. Dagoretti

The station reported rainfall amount of 0.03 mm compared to 16.0mm recorded in the previous dekad. The average air temperature recorded was 16.5⁰c. The pan evaporation data was missing and there was no sunshine report.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station reported 7.1mm of rainfall compared to 17.0mm in the previous dekad. The average air temperature recorded was 16.5⁰c. The pan evaporation and sunshine data were missing.

Maize was at flowering stage and in fair state as normal yield is expected.

2.4.2 Embu

The station recorded rainfall of 16.7mm compared to 18.0mm in the previous dekad. The average air temperature and pan evaporation were 16.2⁰c and 14.2 mm respectively. Sunshine hours reported were 0.8 hrs per day.

Maize was at flowering stage and in fair state as normal yield is expected.

2.4.3 Katumani (Machakos)

The station reported dry conditions compared to 13.4mm of rainfall in the previous dekad. The average air temperature recorded was 16.6⁰c. There was no report on pan evaporation and sunshine parameters.

Maize and beans were at flowering and harvesting stages respectively. Both crops are in good state with normal yield expected.

2.5 COASTAL REGION

2.5.1. Msabaha

The station received rainfall of 2.04mm compared to 70.41mm in the previous dekad. The average air temperature and pan evaporation recorded were 25.9⁰c and 35.0 mm respectively. There was no sunshine report.

Maize was at flowering and in fair state hence normal yield is expected. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

This station recorded rainfall of 16.82mm compared to 25.72mm in the previous dekad. The average air temperature and pan evaporation were 25.4⁰c and 37.8 mm respectively. There was no report on sunshine parameter.

Maize was at flowering stage and in fair state as had been adversely affected by stalk borer, excessive weed growth and animal interference but normal yield is still expected.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

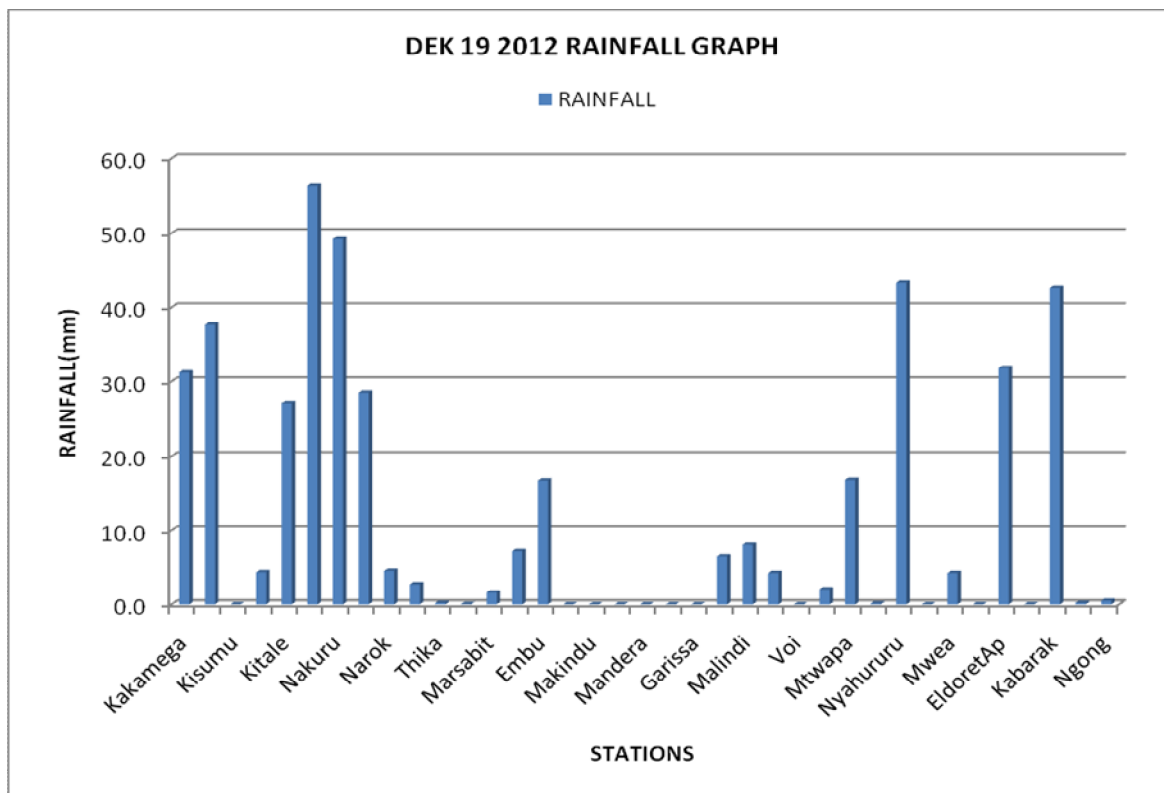


Figure 3.1: Dekadal rainfall totals for 11-20 July 2012

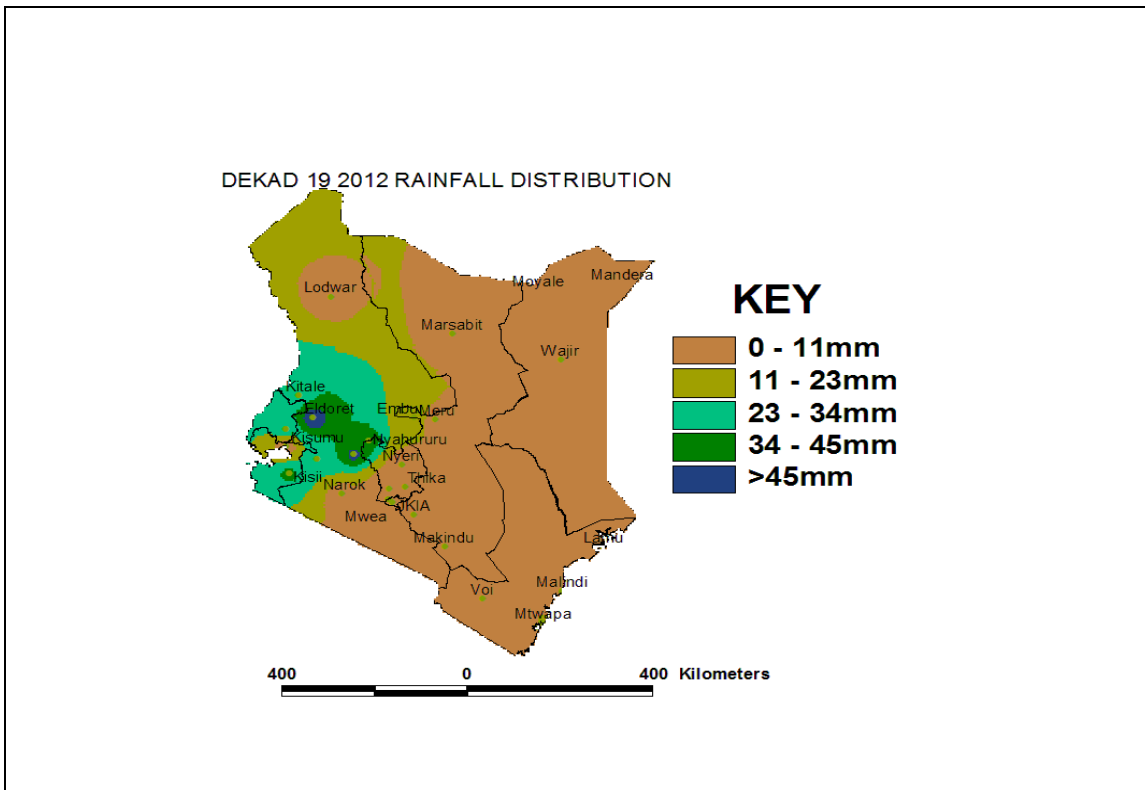


Figure 3.2: Dekadal rainfall distribution

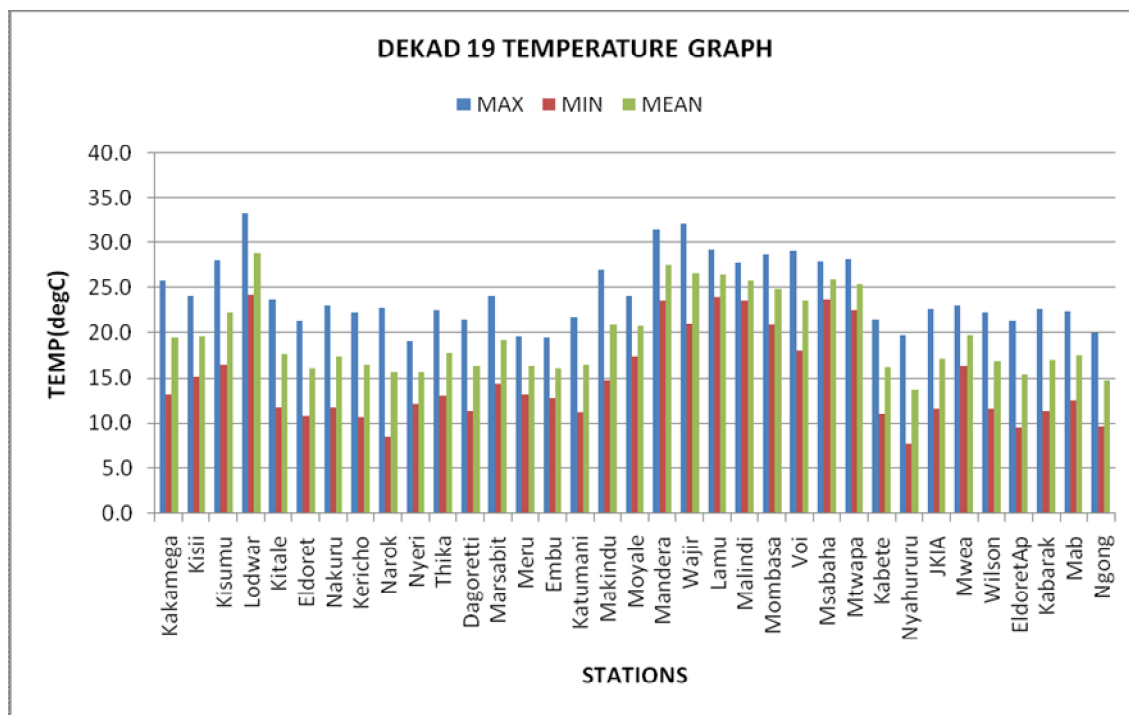


Figure 3.3: Maximum, Minimum and Average temperature in ⁰c

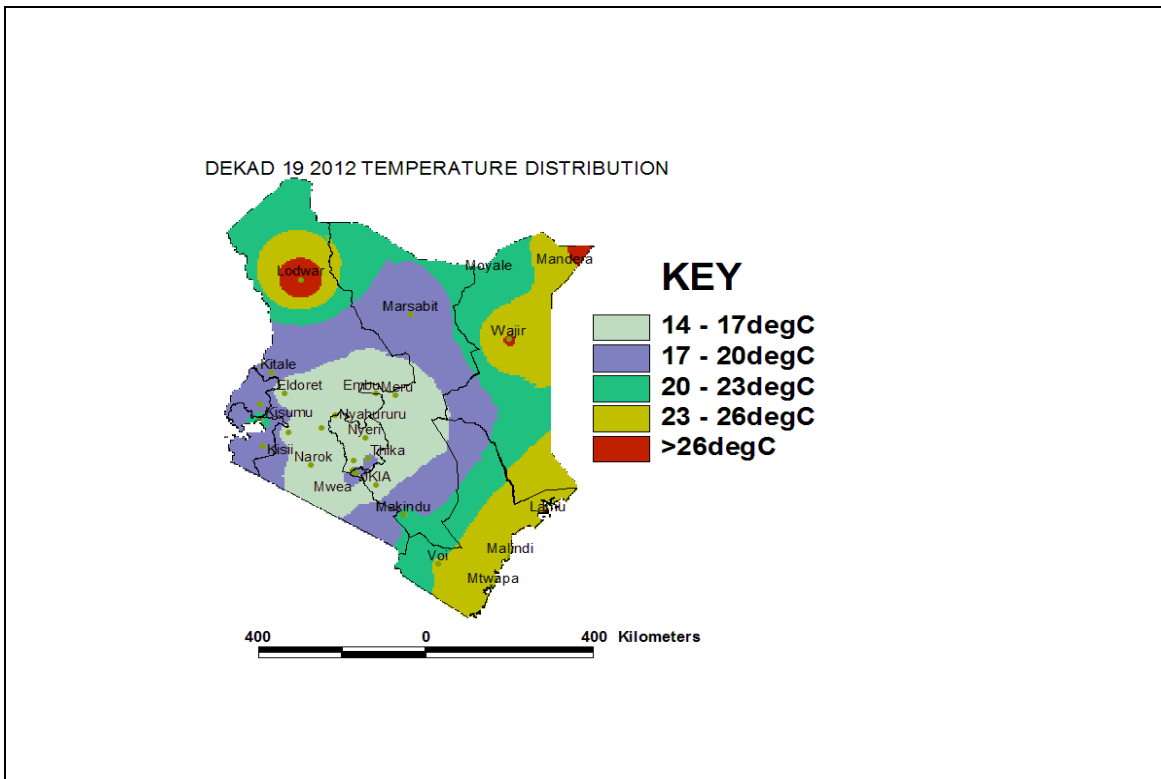


Figure 3.4: Mean temperature distribution

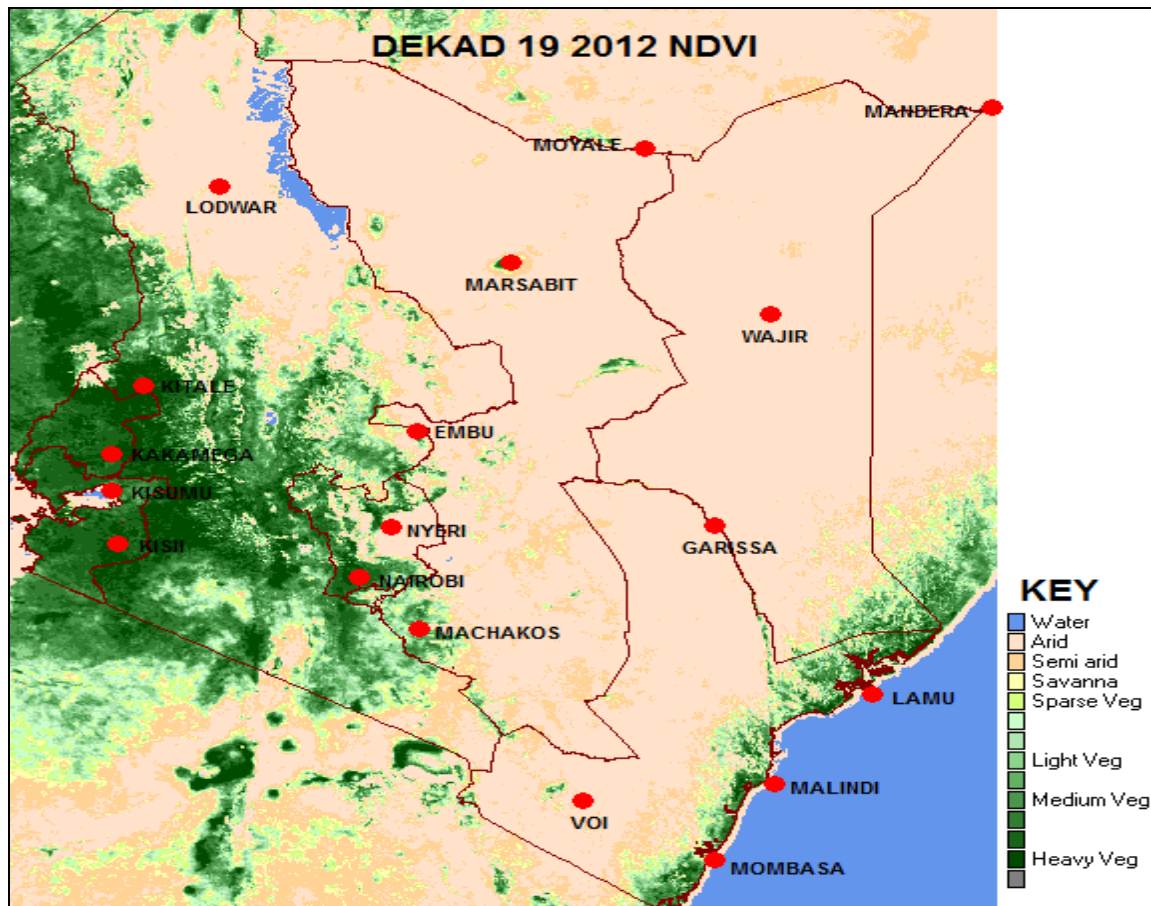


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 JULY 2012

- ✚ **Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Central and south Rift Valley (Kitale, Kakamega, Kisumu, Kisii, Migori, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Nyandarua, etc)** , are expected to experience sunny intervals in the morning and light afternoon/night showers accompanied by thunderstorms over several places for much of the period. The rainfall is expected to reduce towards the end of the forecast period over south Nyanza area. Low temperatures are expected over parts of the rift valley which include the Narok county.

The showers will continue flourishing the crops which are in maturity stages in this region.

- ✚ **Over the Northwestern counties (Turkana, West Pokot etc)** ,are expected to experience mainly sunny intervals at the beginning of the forecast period, afternoon showers over a few places in the afternoon are expected from the third to fourth day of the forecast period, especially to the west of Lake Turkana.

The showers will continue to replenish the pasture and general vegetation of the region.

- ✚ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** , are expected to experience cool cloudy conditions with light rains/drizzle in the mornings which will give way to sunny intervals in the afternoons, occasional afternoon showers are expected over a few places which may intensify on the third to fifth days of the forecast. Relatively low temperatures are expected at the beginning with slight improvement of the forecast period.

The showers will continue benefiting the growing crops in the region especially maize which is approaching the maturity stage.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc)**, are expected to experience mainly sunny intervals throughout the forecast period.

The continued sunny conditions have started having a negative impact on the pasture and crops grown in this region.

- ✚ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)**, mainly sunny intervals is expected for much of the forecast period.

The sunny intervals have started having a negative impact on the pasture for livestock kept in this region.

- ✚ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)**, occasional light to moderate morning showers are expected over few places on the first and last two of the forecast period.

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