



**KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 20, 2011
11 – 20 JULY, 2011**

1. WEATHER HIGHLIGHTS

There was a reduction of rainfall intensity during the dekad over the western parts while the coastal strip experienced moderate rainfall. Eldoret airport Meteorological station in Rift Valley recorded the highest amount of rainfall of 55.5mm while Kericho, Nakuru and Kabarak stations reported 55.2mm, 43.6mm, and 37.5mm respectively. Kakamega in Western Province reported 30.6mm while in Nyanza, Kisii and Kisumu stations recorded 23.7mm and 0.1mm of rainfall respectively. Stations in Nairobi, Eastern and North Eastern Provinces recorded insignificant rainfall during the dekad while in Central Province, Nyahururu recorded 20.3mm. Over the coastal region, Lamu, Malindi and Msabaha reported 51.4mm, 29.8mm and 26.7mm of rainfall respectively.

Day time (maximum) temperature generally decreased over much of the country except in Western, Rift Valley, South Eastern lowlands and over Nairobi area where night time (minimum) temperatures decreased across the whole country. For 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 20; 11TH TO 20TH JULY 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

This station recorded rainfall amount, average air temperature and total pan evaporation of 30.6, 20.0^oc and 37.6mm respectively. There was no record of Sunshine hours.

Maize (KSTP 94) was at 100% flowering stage and in good state with normal yield being expected.

2.1.2 Kisii

The station recorded rainfall amount, mean average air temperature and total pan evaporation of 37.7mm, 20.1^oC and 34.9mm respectively.

Maize was at maturity stage and in poor state due to damage by excessive rainfall and therefore below normal yield are being expected.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The station recorded rainfall, and average air temperature of 2.6mm and 18.7^oC respectively. Total pan evaporation and Sunshine hours records were not available.

Maize (HB628) was at 70% tasseling and 50% flowering stage while beans were at maturity stage with some farmers harvesting their beans. Both crops are in good state and normal yield is being expected.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall, average air temperature and total pan evaporation of 29.2 mm, 16.0⁰c and 36.7mm respectively. There was no report on sunshine hours.

Maize(HB628) were at 100% after ninth leaf in moderate state while Beans were at flowering stage and in fair state with normal yield being expected for both crops.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded no rainfall, average air temperature and total pan evaporation of 17.4⁰c and 43.0 mm respectively. No sunshine hours were recorded.

Maize (H513) was at 48% tasseling stage and 48% flowering and in unsatisfactory state due to moisture stress while Beans (GRB/92) were at 98% ripeness stage and also in unsatisfactory state due to damage by aphids and therefore below normal yield is expected for both crops.

2.3.2 Kabete

The station recorded nil rainfall while average air temperature and total pan evaporation recorded were 17.1⁰c and 34.0mm respectively.

Maize was at flowering while Beans at harvest stages respectively and in poor state with below normal yield being expected for both crops. Coffee (SL34) was at 100% berry hard stage and in moderate state, though damaged by leaf rust and leaf minor at less than 25% each. Bananas (Dwarf Caven Dish) were at 100% appearance of suckers' stage and in moderate state, however they were damaged by thrips and cigar end rot at less than 10% each.

2.3.3 Thika

The dekadal rainfall, mean air temperature and total pan evaporation recorded at the station was 0.0mm, 18.3⁰c and 32.0mm respectively. There was no report on sunshine hours.

Maize was at after flowering stage and in good state with normal yield being expected.

2.3.4. Nyahururu

The decadal rainfall, mean air temperature and total pan evaporation recorded at the station was 20.3mm, 13.5⁰c and 34.8mm. Sunshine hours recorded were 6.8 hours per day.

Maize was at flowering stage while Beans and Potatoes were at harvest stage with normal yield being expected for all the crops.

2.3.5. Dagoretti

The station recorded rainfall, average air temperature and total pan evaporation of 0.1 mm, 16.9⁰c and 35.6 mm respectively. Sunshine hours recorded were 7.1 hours per day.

Maize (DH04) was at after flowering stage and in good state though damaged by stalkborer at less than 10% with normal being expected.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 0.0mm, 16.9⁰c and 35.6 mm respectively. Sunshine hours recorded were 7.1 hours per day. *No phonological report was received.*

2.4.2 Embu

The station recorded rainfall amount of 1.8mm while the average air temperature reported was 18.4⁰c.

Maize is at harvest stage and in fair state with normal yield expected.

2.4.3 Katamani (Machakos)

The station reported an average air temperature of 17.2⁰c and nil rainfall. There was no report on evaporation and sunshine parameters.

Maize crop wilted even before the formation of maize cobs due to too much sun.

2.5 COASTAL PROVINCE

2.5.1. Msabaha

The station recorded rainfall, average air temperature and total pan evaporation of 26.7mm, 25.6⁰c and 36.7mm respectively.

Mangoes (Ngowe type) were at 100% fruit ripeness stage and in good state while Maize was at harvest stage and in fair state.

2.5.2 Mtwapa

The station recorded 6.0mm of rainfall, average air temperature and pan evaporation of 25.8⁰c and 40.4mm respectively. There was no report on sunshine hours.

Maize was at 100% wax ripeness stage and in moderate state. However, it had been damaged by stalk borer. Mangoes were at 100% ripeness stage and in moderate state. Watermelon were at consumer ripeness and in moderate state though damaged by leaf minor, fruit flies, and drought.

3.0 ANALYSIS OF RAINFALL AND TEMPERATURE

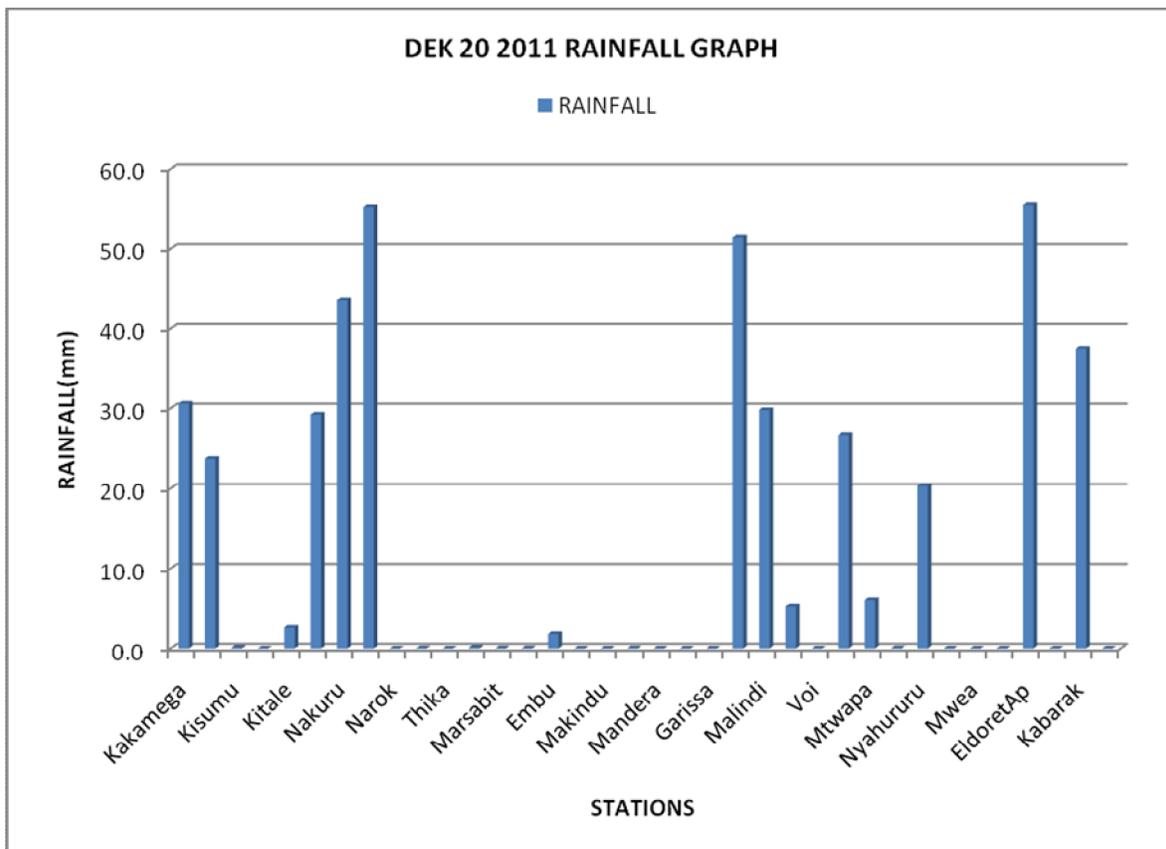


Figure 3.1: Actual Rainfall

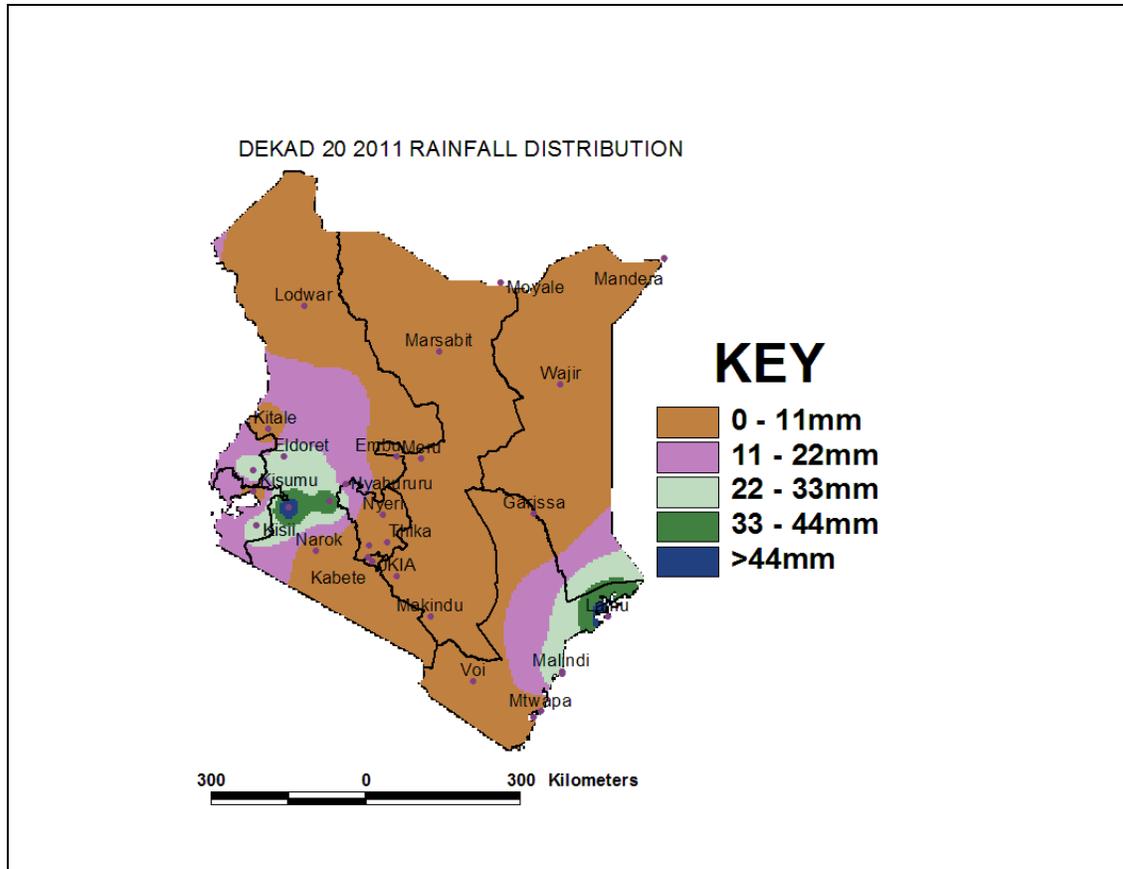


Figure 3.2: Rainfall distribution

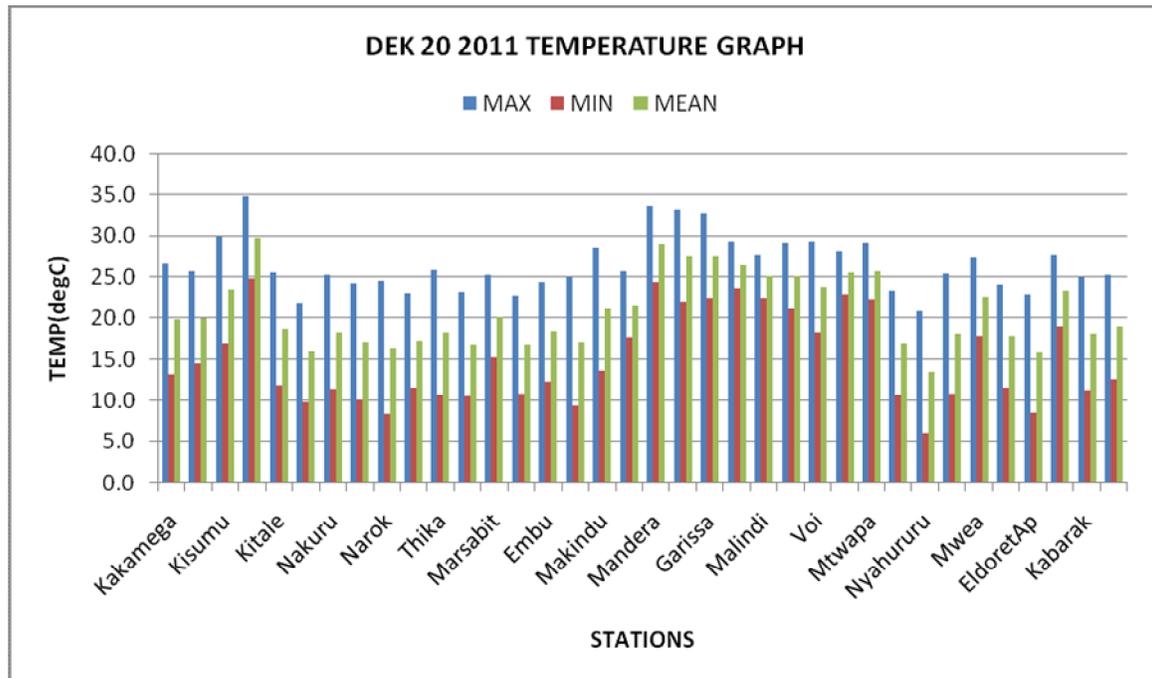


Figure 3.3: Mean Temperature

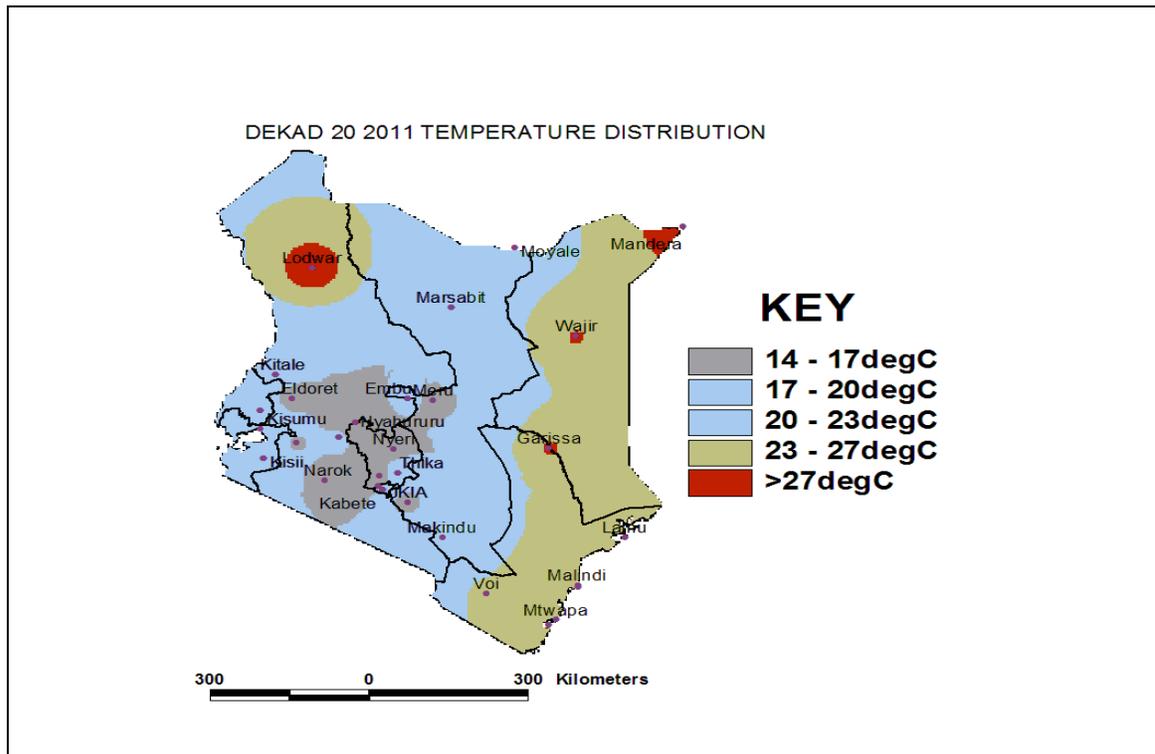


Figure 3.4 Mean Temperature Distribution

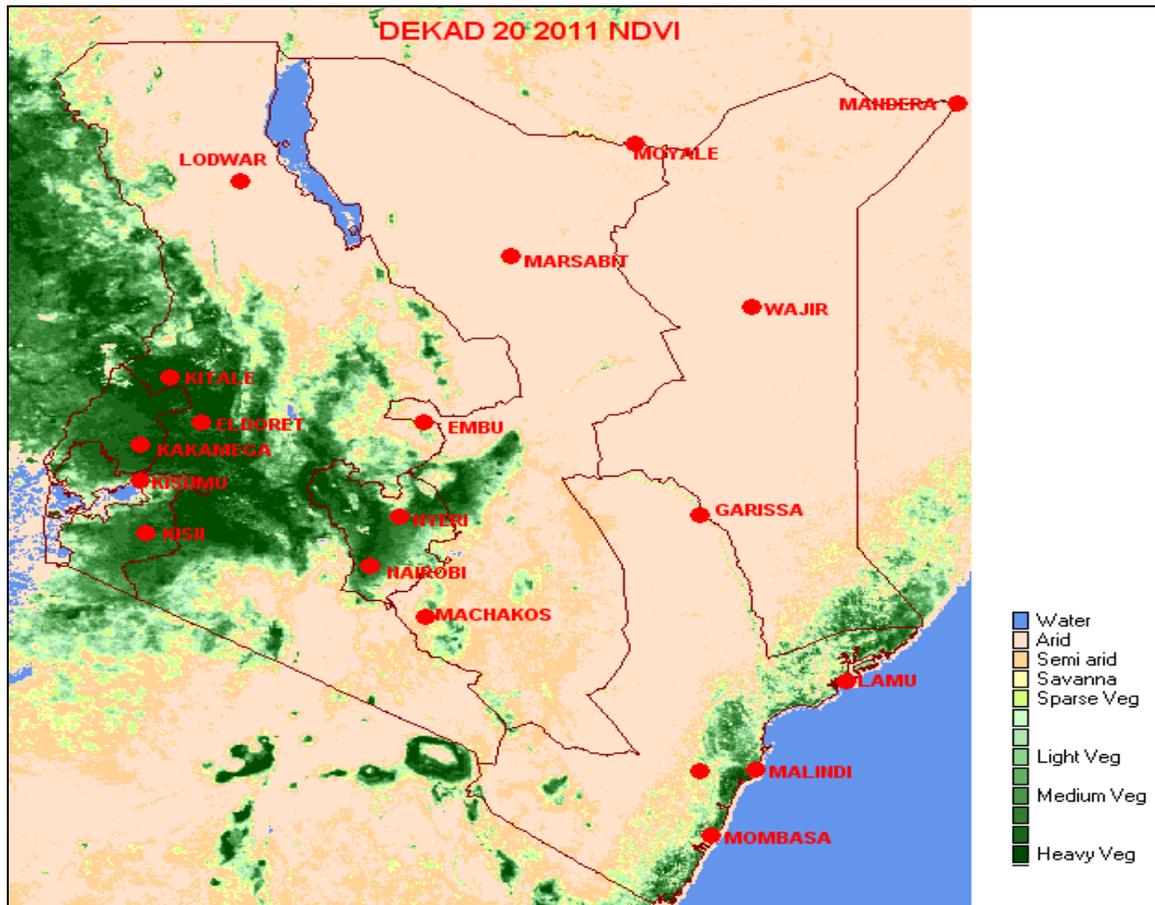


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21ST - 31ST JULY 2011

- **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)** will experience mainly sunny intervals in the morning and afternoon/night showers and thunderstorms over several places in the first half reducing in intensity and spatial coverage to few places in the second half of the forecast period. *This will be a boost to the maize crop which is in flowering stage in most areas.*
- **The Northwestern counties (Turkana, West Pokot etc),** will experience mainly sunny intervals over most areas for much of the forecast period. Areas bordering Uganda and Sudan are expected to continue receiving light to moderate afternoon showers during the forecast period. *The livestock kept in these areas are likely to benefit from the replenished pastures and water.*
- **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** will experience cool cloudy mornings with light rains/drizzle and afternoon/night showers over few places during the forecast period. *Therefore, the crops grown in these areas are expected to continue faring well due to increase of moisture during the forecast period.*
- **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, etc),** will experience mainly sunny intervals throughout the forecast period. *These weather conditions are expected to further diminish water and pasture hence negatively affecting the livestock in the region.*
- **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)** will experience mainly sunny intervals throughout the forecast period. *This will continue to have a negative impact on the crops which are currently in poor state.*
- **The Coastal strip (counties Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** will experience light to moderate morning/afternoon showers over few places during the forecast period. *The crops grown in these areas are therefore expected to continue doing well.*

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