



**KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 19, 2011
01 - 10 JULY, 2011**

1. WEATHER HIGHLIGHTS

There was a reduction of rainfall activities observed during the dekad compared to the previous dekad. Eldoret (Kapsoya) in Rift Valley recorded the highest amount of rainfall of 68.6mm with *Kericho*, *Kitale*, Nakuru and Kabarak stations reporting 48.3mm, 42.2mm, 37.3mm, and 15.0mm of rainfall respectively. Western Province had Kakamega reporting 53.3mm of rainfall while Kisii and Kisumu stations in Nyanza recorded 19.7mm and 2.2mm of rainfall respectively. Stations in Nairobi Province recorded no rainfall while Central Province had Nyahururu, and Nyeri stations reporting 8.7mm and 1.0mm of rainfall respectively. *No rainfall was reported from Eastern and North Eastern Provinces during the dekad.* Stations at the Coast i.e. Malindi, Msabaha, Lamu and Mtwapa recorded 11.5mm, 8.6mm, 7.4mm and 3.3mm respectively.

Day time (maximum) temperature generally increased over much of the country except over North Eastern while night time (minimum) temperatures decreased. 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 DEKAD19; 1ST TO 10TH 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 53.3, 20.7⁰c and 39.8mm respectively. Sunshine hours recorded were 7.1 hours per day.

Maize (HBKSK 94) was at 50% flowering stage and in good state with normal yield being expected.

2.1.2 Kisii

The station recorded rainfall, mean average air temperature and total pan evaporation of 19.7mm, 20.4⁰C and 32.1mm respectively.

Maize was at maturity stage while beans have been harvested. The maize crop was in poor state due to damage by excessive rainfall.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The station recorded rainfall, average air temperature and total pan evaporation of 42.2mm, 19.0⁰C and 27.2mm respectively. Sunshine hours recorded were 6.7 hours per day.

Maize (HB628) was at 8% tasseling stage while beans were at maturity stage. Both crops were 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 68.6 mm, 17.0⁰c and 39.6mm respectively. There was no report on sunshine hours.

Maize and beans were both at flowering stage and in fair state though damaged by hailstones. Normal yield is being expected for both crops.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded rainfall, average air temperature and total pan evaporation of 1.0 mm, 16.9⁰c and 31.0 mm respectively. No sunshine hours were recorded.

Maize was at 50% tasseling stage and 30% flowering and in unsatisfactory state due to moisture stress while beans were at 93% ripeness stage and also in unsatisfactory state due to damage by aphids. Below normal yields are expected for both crops.

2.3.2 Kabete

The rainfall, average air temperature and total pan evaporation recorded were 0.4mm, 17.3⁰c and 29.5mm respectively.

Maize was at flowering stage while beans were at harvest stages. Below normal yields are expected for both crops. Coffee was at 100% berry hard stage and in moderate state, though damaged by leaf rust and leaf minor. Bananas were at 100% appearance of suckers' stage and in moderate state, however they were damaged by thrips and cigar end rot.

2.3.3 Thika

The dekadal rainfall, mean air temperature and total pan evaporation recorded at the station was 0.0mm, 18.3⁰c and 29.0mm respectively. There was no report on sunshine hours.

Maize was at maturity stage and in fair state while Beans harvesting is almost over. Normal yield is being expected for both crops.

2.3.4. Nyahururu

The decadal rainfall, mean air temperature and total pan evaporation recorded at the station was 8.7mm, 14.2⁰c and 35.1mm. Sunshine hours recorded were 7.2 hours per day.

Maize, beans and potatoes were at flowering, maturity and harvesting stages respectively. Normal yields are expected for all the crops.

2.3.5. Dagoretti

The station recorded rainfall, average air temperature and total pan evaporation of 0.0 mm, 17.7⁰c and 36.5 mm respectively. Sunshine hours recorded were 5.4 hours per day.

Maize (DH04) was at flowering stage and in good state though damaged by stalkborer at less than 10% while beans have been harvested.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 0.0mm, 17.2⁰c and 35.0 mm respectively. Sunshine hours recorded were 6.7 hours per day. *No phenological report was received.*

2.4.2 Embu

The station recorded nil rainfall while the average air temperature reported was 18.1⁰c. *Maize is at harvest stage and in fair state while beans harvesting is complete with normal yield being expected for both crops.*

2.4.3 Katumani (Machakos)

The station reported an average air temperature of 18.1⁰c and nil rainfall. There was no report on evaporation and sunshine parameters.

Maize was at maturity stage and in poor state due to insufficient rain and therefore below normal yield is expected.

2.5.0 COAST PROVINCE

2.5.1. Msabaha

Rainfall, average air temperature and pan evaporation recorded at the station were 8.6mm, 26.3⁰c, and 45.1mm respectively.

Mangoes (Ngowe type) were at 100% fruit ripeness stage and in good state while maize was at harvest stage and in fair state though affected by insufficient rain.

2.5.2 Mtwapa

The station recorded 3.3mm of rainfall, average air temperature and pan evaporation of 25.9⁰c and 38.3mm respectively. There was no report on sunshine hours.

Maize was at 80% flowering stage and in moderate state. However, it had been damaged by stalk borer. Mangoes were at 100% ripeness stage and in moderate state though damaged by fruit flies. Watermelon was at 80% consumer ripeness and in moderate state though affected by leaf minor, fruit flies, and drought.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITION

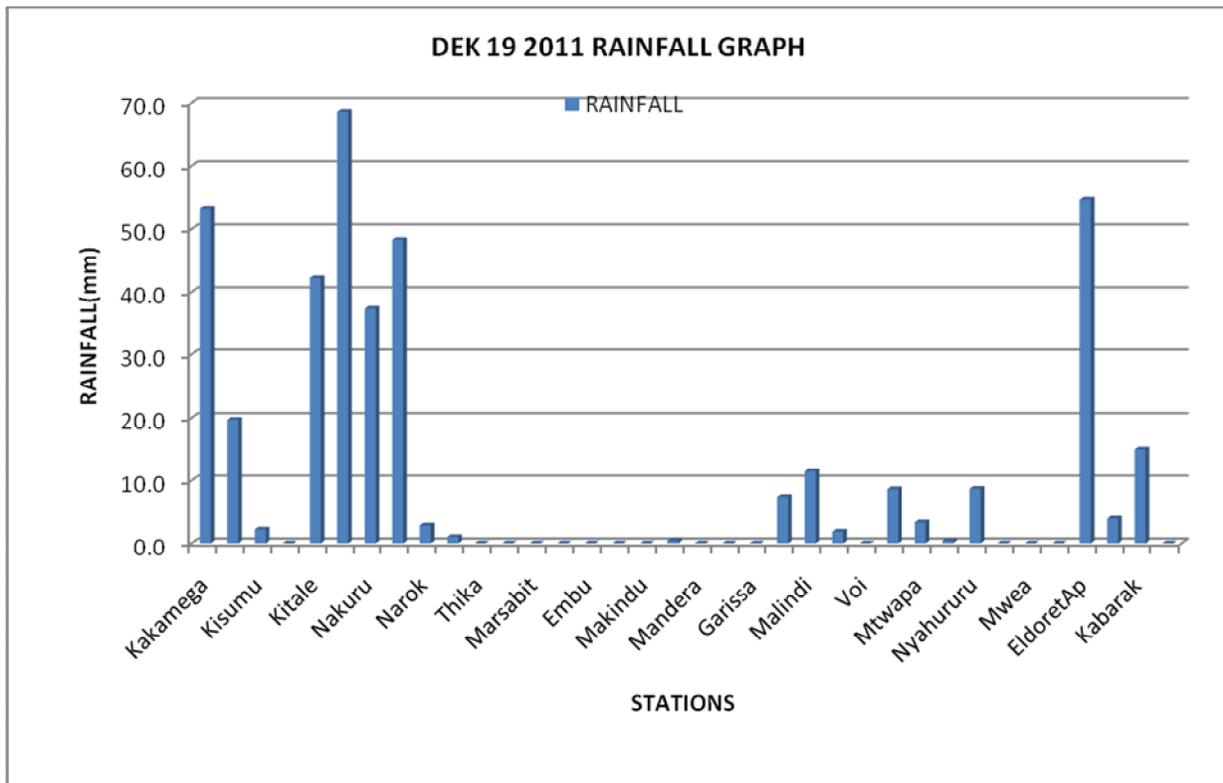


Figure 3.1: Actual Rainfall

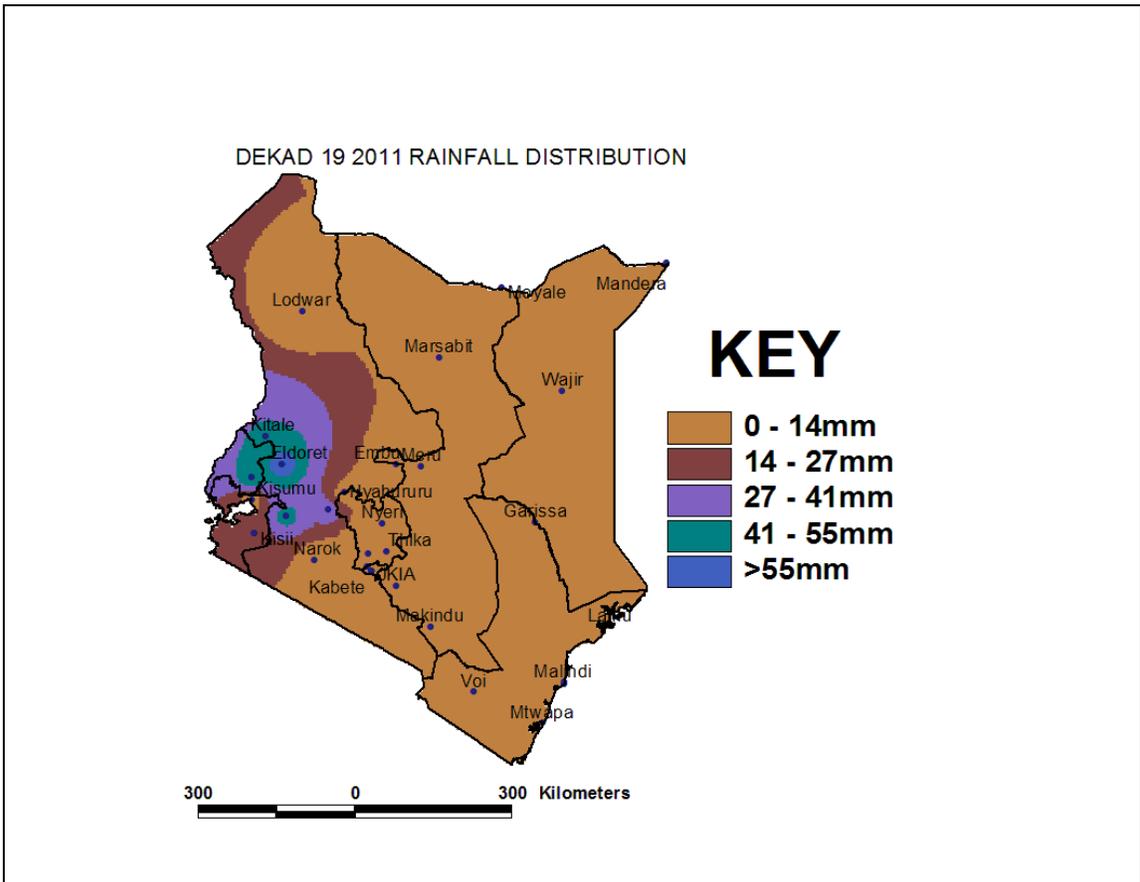


Figure 3.2: Rainfall distribution

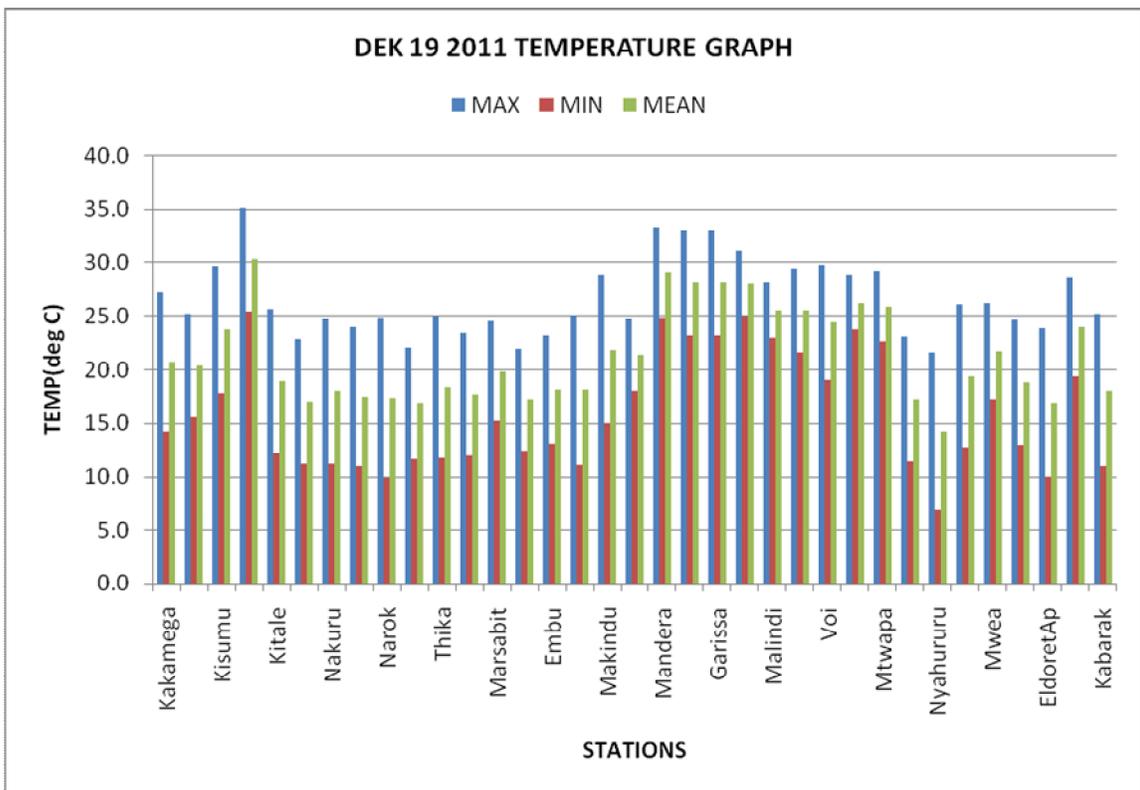


Figure 3.3: Mean Temperature

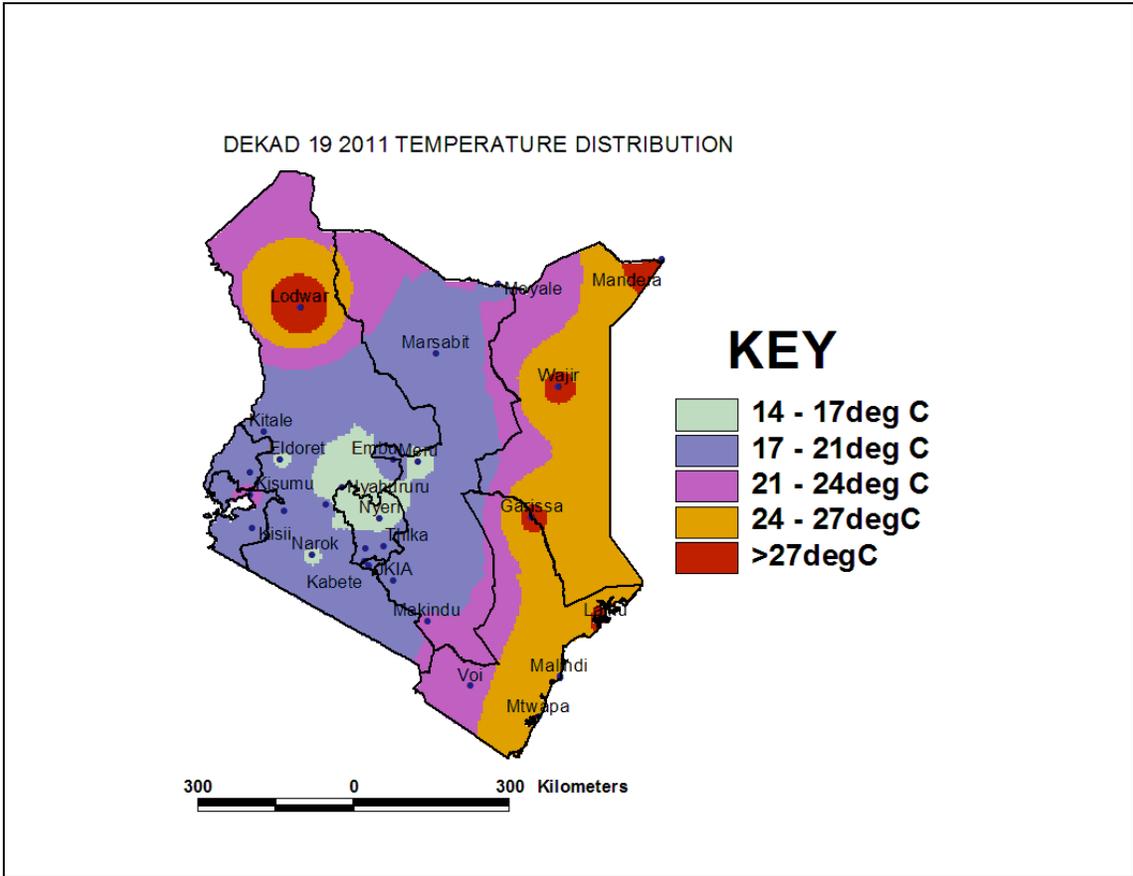


Figure 3.4 Mean Temperature Distributions

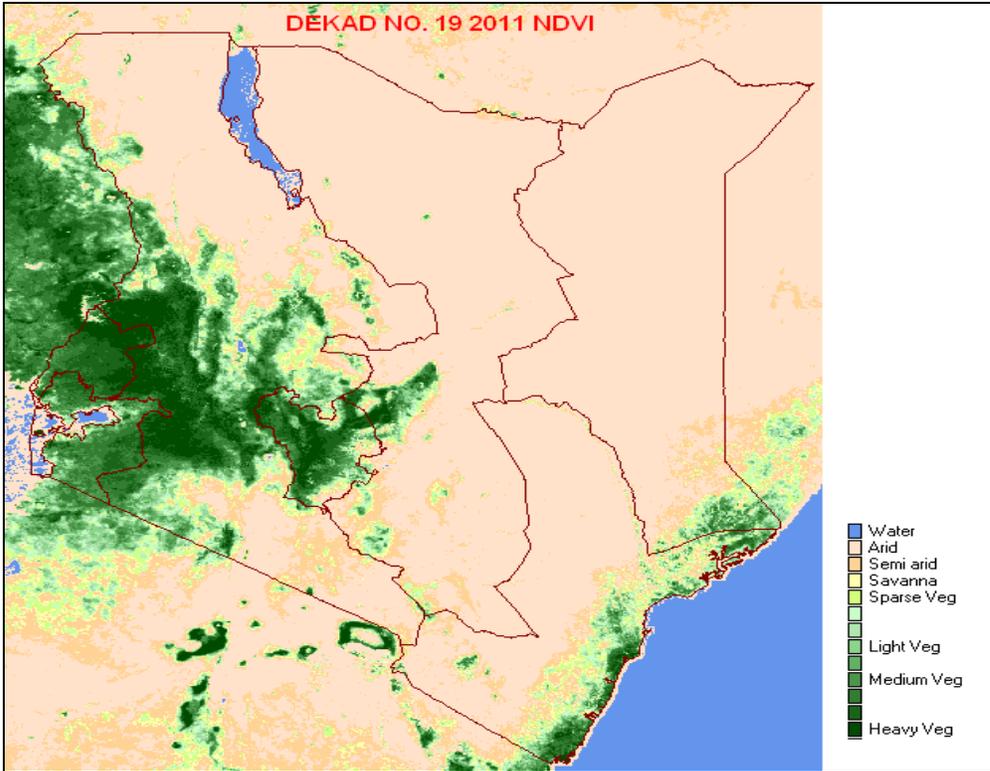


Figure 3.5: Normalized difference vegetation index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 11TH TO 20TH 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 for much of the forecast period.. *This will be a boost to the maize which are in their 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 still expected to receive light to moderate afternoon showers during the forecast period. *The livestock kept in these areas are likely to experience lack of adequate pasture 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 fare well due to minimal loss 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 morning showers over few places at the beginning increasing to several places in the second half of the forecast period. *The crops grown in these areas are therefore expected to continue suffering due to moisture stress.*

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