



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 18, 2011 21ST - 30TH JUNE, 2011

1. WEATHER HIGHLIGHTS

There was a reduction of rainfall activities observed during the dekad compared to the previous dekad. Kakamega in Western Province recorded the highest amount of rainfall of 97.1mm. Rift Valley Province had *Eldoret airport*, *Kericho*, Kitale, Nakuru and Narok stations reporting 77.2mm, 43.1mm, 23.5mm, 17.2mm, and 15.0mm of rainfall respectively.

Nyanza province had Kisii and Kisumu stations recording 67.0mm and 4.3mm of rainfall respectively. *Dagoretti*, *Wilson* and *Kabete* stations in Nairobi Province received 91.8mm, 83.5mm and 16.4mm of rainfall respectively. Central Province had *Nyahururu*, and *Nyeri* stations reporting 52.8mm, and 0.6mm of rainfall. Eastern Province had *Embu*, *Mwea*, and *Meru* reporting 3.9mm, 2.0mm and 1.4mm of rainfall respectively.

Both day time (maximum) and night time (minimum) temperatures decreased over much of the 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 DEKAD18; 21ST TO 30TH JUNE 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

This station recorded rainfall amount, average air temperature and total pan evaporation of 97.1mm, 20.3⁰c and 41.6mm respectively. Sunshine hours recorded were 6.2 hours per day.

Maize (HBKSK 94) was at flowering stage and in good state while beans were at harvest stage and in fair state with normal yield being expected for both crops.

2.1.2 Kisii

The station recorded rainfall amount, mean average air temperature and total pan evaporation of 67.0mm, 20.1⁰C and 32.5mm respectively.

Maize was at flowering stage while beans were at harvesting stage. Both crops are in poor state due to damage by excessive rainfall and therefore below normal yield is being expected.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The station recorded rainfall, average air temperature and total pan evaporation of 23.5mm, 18.6⁰C and 27.0mm respectively. Sunshine hours recorded were 6.0 hours per day.

Maize (HB628) was after ninth leaf stage while beans were at maturity stage. 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 32.8mm, 17.1⁰c and 31.8mm respectively. There was no report on sunshine hours.

Maize (HB628) was at 100% after the ninth leaf and in good state while Beans were at flowering stage and in fair state. 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 0.6 mm, 17.9⁰c and 29.1 mm respectively. No sunshine hours were recorded.

Maize (H513) was at 8% tasseling stage and 5% flowering and in unsatisfactory state due to moisture stress while Beans (GRB/92) were at 33% 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 rainfall and average air temperature recorded were 16.4mm and 17.5⁰c respectively.

Maize and Beans were at after flowering and at harvest stages respectively and in fair state with below normal yield being expected for maize but normal for beans. Coffee (SL34) was at 100% berry hard stage and in moderate state, though damaged by leaf rust and die bark at less than 10% each. Bananas (Dwarf Cavendish) 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 and mean air temperature at the station were 0.0mm and 19.4⁰c respectively. There was no report on sunshine hours.

Maize was at flowering stage and in fair state while beans were at harvesting stage and in fair state. Normal yield is being expected for both crops.

2.3.4. Nyahururu

Total rainfall of 52.8mm, average air temperature of 14.5⁰c, total pan evaporation of 39.3mm, and 6.4 hours of sunshine per day were recorded at the station during the dekad.

Maize was at flowering stage while beans were at maturity stage with potatoes being at harvesting stage. Normal yield is expected for all the crops.

2.3.5. Dagoretti

This station reported rainfall and mean air temperature of 91.8mm and 17.9⁰c respectively while sunshine hours were 4.2 hours per day.

Maize (DH04) was at 100% flowering stage and at less than 10% being damaged by stalk borer though in good state, while beans were at 100% ripeness stage and in moderate state. Normal yields are expected for both crops.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 1.4mm, 17.9⁰c and 31.4 mm respectively. Sunshine hours recorded were 6.2 hours per day.

No phenological report was received.

2.4.2 Embu

The rainfall, average air temperature and total pan evaporation reported at the station were 3.9 mm, 19.0⁰c and 25.9mm respectively.

Maize and beans were at flowering and maturity stages and in fair state with normal yields being expected.

2.4.3 Katumani (Machakos)

The station reported an average air temperature of 19.0⁰c and nil rainfall. There was no report on evaporation and sunshine parameters.

Maize was at flowering stage while harvesting of beans is complete. Both crops were affected by insufficient rain. As a result below normal yields are expected.

2.5.0 COAST PROVINCE

2.5.1. Msabaha

The station recorded rainfall, average air temperature and pan evaporation of 4.0mm, 26.6⁰c and 42.5mm respectively.

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

2.5.2 Mtwapa

The station recorded rainfall, average air temperature of 8.7 mm, and 26.0⁰c respectively. There was no report on sunshine hours.

Maize (DH4) was at 80% tasseling stage and in moderate state. However, it had been damaged by stalk borer. Mangoes (Apple) were at 100% ripeness stage and in moderate state though damaged by insects. Watermelons (sugar baby) were 60% flowering and in moderate state though adversely affected by leaf rust, aphids, moths and drought.

3.0 ANALYSIS OF DEKADAL RAINFALL AND TEMPERATURE

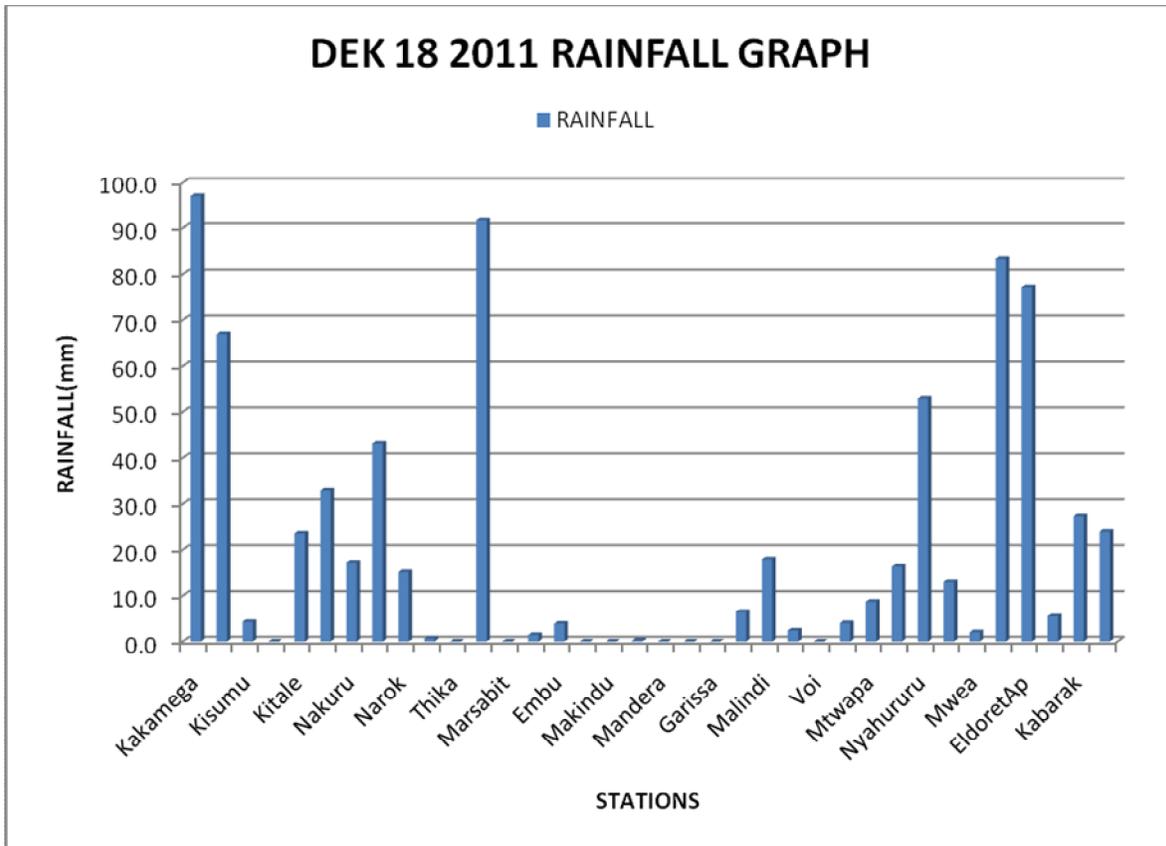


Figure 3.1: Actual Rainfall

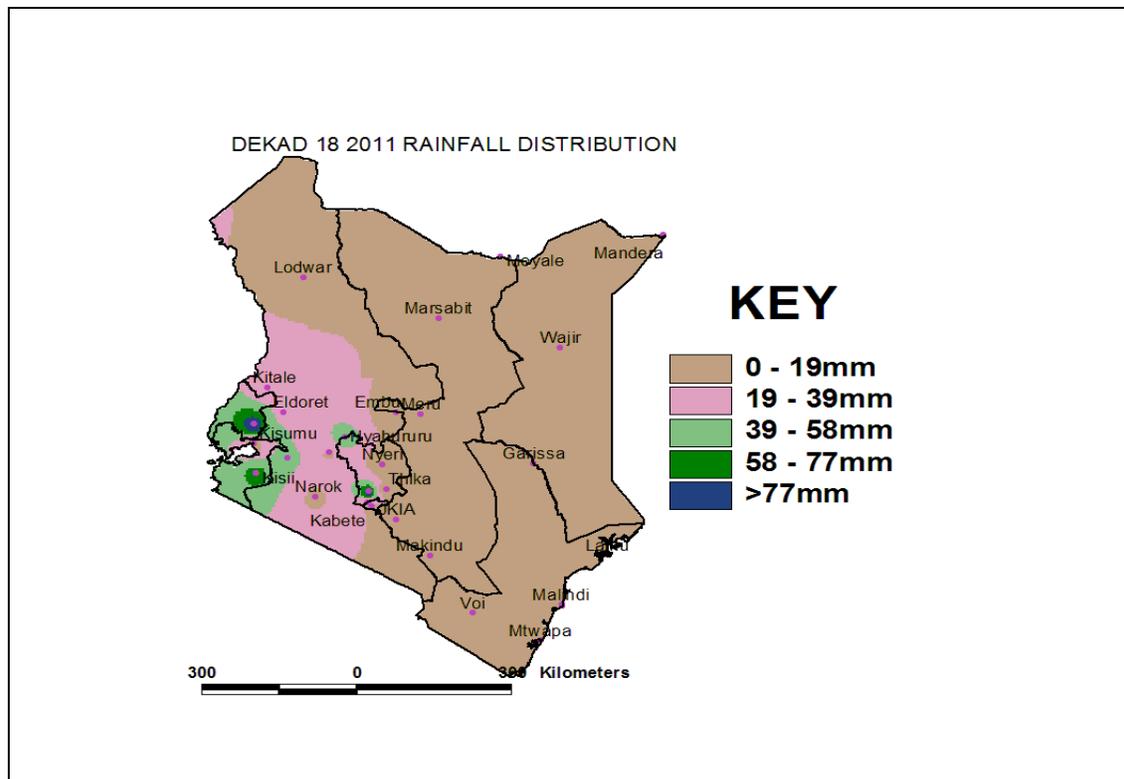


Figure 3.2: Rainfall distribution

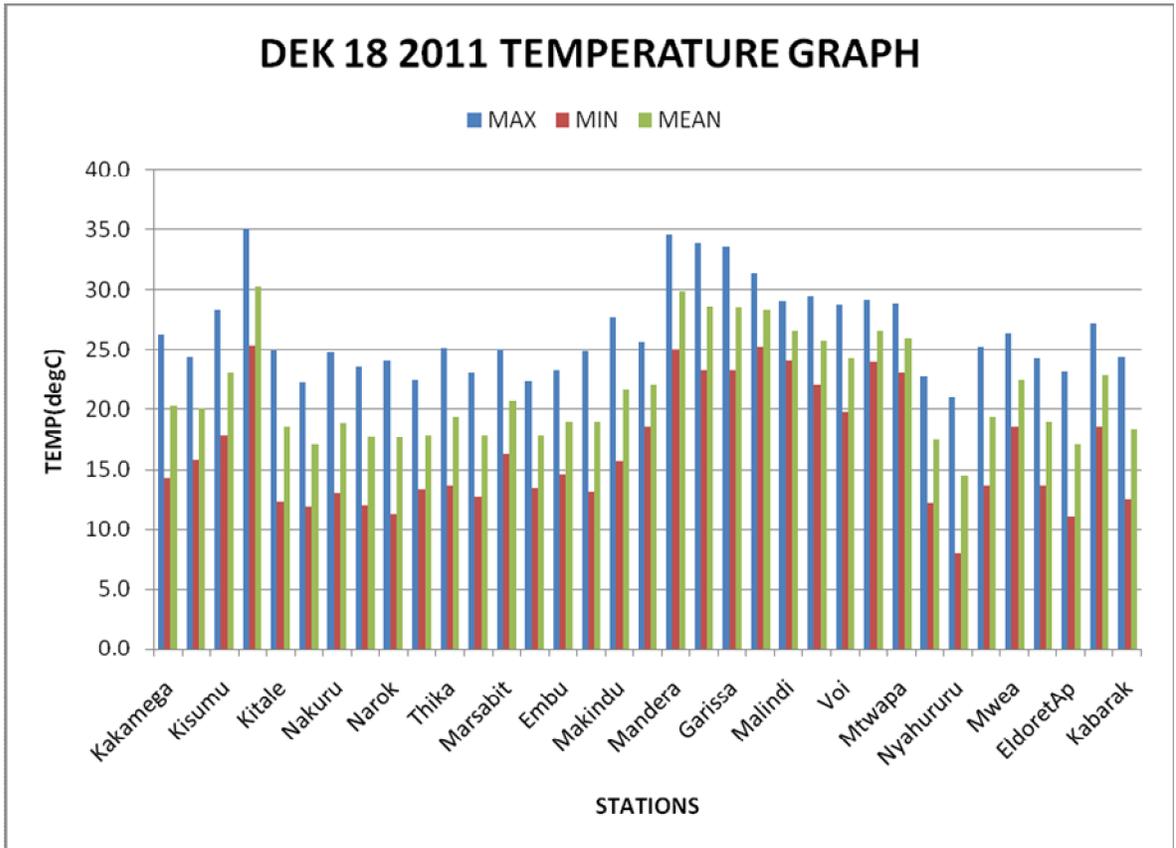


Figure 3.3: Mean Temperature

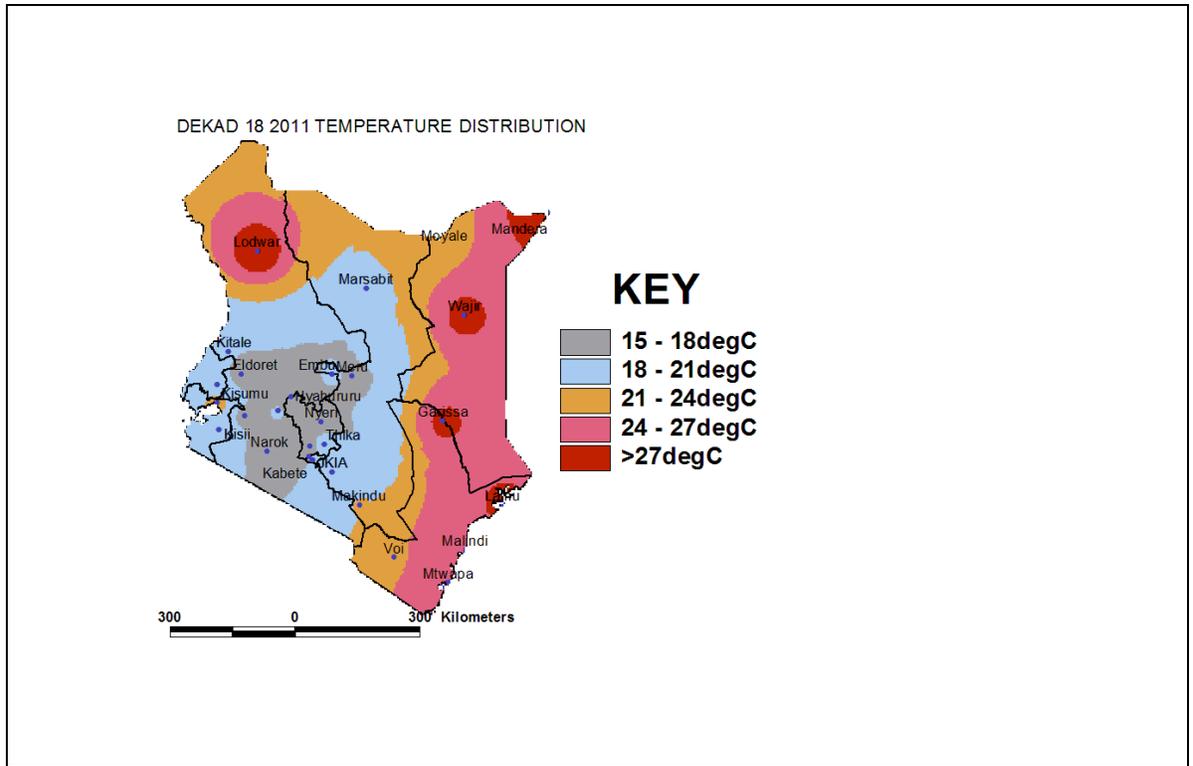


Figure 3.4 Mean Temperature Distributions

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1ST TO 10TH 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. Localized intense rainfall will pound some areas on diverse days during the 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 first half of 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 over few places occasionally increasing to several places. Light afternoon/night showers are also expected over few places in the first half of the forecast period. *Therefore, the crops grown in these areas are expected to fare well 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 diminish water and pasture resources 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 of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** will experience light morning showers over few places throughout the forecast period. This weather will continue to adversely affect the crops in these areas which are already experiencing moisture stress.

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