



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 30, 2011 21 – 31 OCTOBER 2011

1. RAINFALL AND TEMPERATURE HIGHLIGHTS

Compared to the previous dekad, there was an increase in rainfall countrywide with all regions reporting significant amounts. The highest rainfall received in the country during the dekad was 111.5mm at Marsabit meteorological station in the Eastern province while the second highest was 107.9mm at Kakamega station in Western province. In Nairobi area, the highest rainfall was 106.2mm at Kabete University Campus station while the lowest was 95.4mm at the Meteorological Headquarters station in Dagoretti Corner. The highest rainfall observed in Rift Valley province was 98.1mm at Narok station while in Nyanza region, Kisii recorded the highest rainfall of 87.8mm. The highest in the Central region was 82.1mm at Nyeri Wambugu farm, while at the Coast, the highest reported rainfall amount was 53.9mm at Malindi.

There was a general increase in the maximum (day) air temperature over much of the country, apart from a few places in the Rift valley region. Similarly, the minimum (night) air temperature increased over most parts 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 DEKAD 30; 21ST TO 31ST OCTOBER 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

This station recorded rainfall amount, mean air temperature and average sunshine hours of 107.9mm, 20.7⁰c and 5.7 hours per day respectively. There was no report on evaporation.

Maize and beans were at emergence and flowering stages respectively and in moderate state. Normal yield is expected.

2.1.2 Kisii

The rainfall, mean air temperature and pan evaporation observed at the station were 87.8mm, 20.7⁰C and 39.8mm respectively while sunshine was 5.6 hours per day.

Maize and beans were at 100% ninth leaf and 95% flowering stages respectively. In addition, both crops were in good and moderate states respectively though black aphids have damaged beans slightly. Normal yield is predicted for both crops.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The total rainfall, average air temperature and total pan evaporation recorded at the station during the dekad were 50.6mm, 19⁰C and 31.6mm respectively while the average sunshine hours were 5.5 hours per day.

Harvesting of the maize crop is ongoing with normal yield predicted.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall, average air temperature and total pan evaporation of 43.2 mm, 17.5⁰c and 55.6mm respectively. The sunshine hours recorded was 6.5 hours per day.

Maize was at harvesting stage and in good state. However, poor rainfall has adversely affected the crop.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded rainfall, average air temperature and total pan evaporation of 82.1mm, 18.9⁰c and 51.1mm respectively. There was no report on Sunshine hours.

Maize and beans both at 100% emergence stage were also in good state. However, slight damage (10%) by spotted leafhoppers occurred during the dekad on beans.

2.3.2 Kabete

The rainfall, mean air temperature and pan evaporation observed at the station were 106.2 mm, 19.4⁰C and 39.8mm respectively. There was no report on sunshine.

Both maize and beans were at emergence stage and in fair state. Coffee was at 30% ripeness stage and in moderate state though it was damaged by leaf rust, CBD and die back at 10% each. Bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips at 25% and cigar end rot at 10%.

2.3.3 Thika

The rainfall and mean air temperature recorded at the station were 58.8 mm and 20.9⁰c respectively. There was no report received on sunshine and evaporation parameters.

Maize, beans and potatoes were at emergence stage and in fair state.

2.3.4. Nyahururu

The rainfall, mean air temperature and total pan evaporation recorded at the station was 56.0mm, 15.3⁰c and 44mm respectively while the average sunshine hours were 6.3 hours per day.

Maize and Potatoes were at 47% full ripeness and harvest stages respectively. Both crops were in fair state with normal yield expected.

2.3.5. Dagoretti

The station recorded rainfall and average air temperature of 95.4 mm and 19.8⁰c respectively. There was no report on evaporation and sunshine parameters.

Both maize and beans were at emergence stage and in fair state.

2.4 EASTERN PROVINCE

2.4.1 Meru

The rainfall, average air temperature and total evaporation reported in Meru during the dekad was 85.5mm, 19.1⁰c and 51.6mm respectively while the sunshine hours reported were 6.4 hours per day.

Maize and beans were at emergence stage and in fair state.

2.4.2 Embu

The station recorded rainfall and average air temperature of 106.1mm and 19.8⁰c respectively. There was no report on evaporation and sunshine parameters.

Maize and beans were at emergence stage and in fair state.

2.4.3 Katumani (Machakos)

The station reported rainfall and average air temperature of 17.7mm and 21.0⁰c respectively. There was no report on evaporation and sunshine parameters.

Maize and beans were at emergence and planting is still underway.

2.5.0 COAST PROVINCE

2.5.1. Msabaha

The rainfall, average air temperature and total evaporation reported in at Msabaha during the dekad was 5.2mm, 26.9⁰c and 50.2mm respectively while there was no report on sunshine.

Mangoes (Ngowe type) were at 70% fruit setting stage and in good state while Maize is at emergence and in fair state.

2.5.2 Mtwapa

The station recorded rainfall, average air temperature and pan evaporation of 12.7mm, 26.7⁰c and 56.2mm respectively. There was no sunshine report.

Mangoes (Apple) were at 100% fruit setting stage and in moderate state. Maize was at emergence and in fair state.

3.0 ANALYSIS OF RAINFALL AND TEMPERATURE

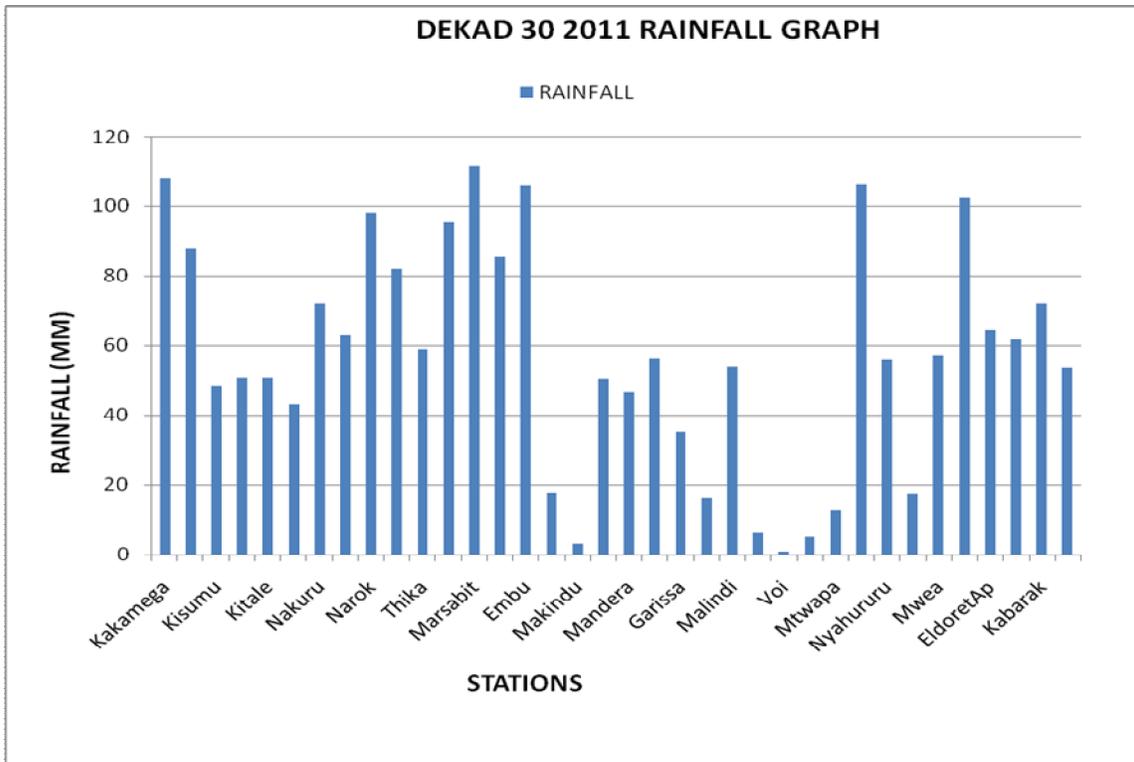


Figure 3.1: Dekadal Rainfall

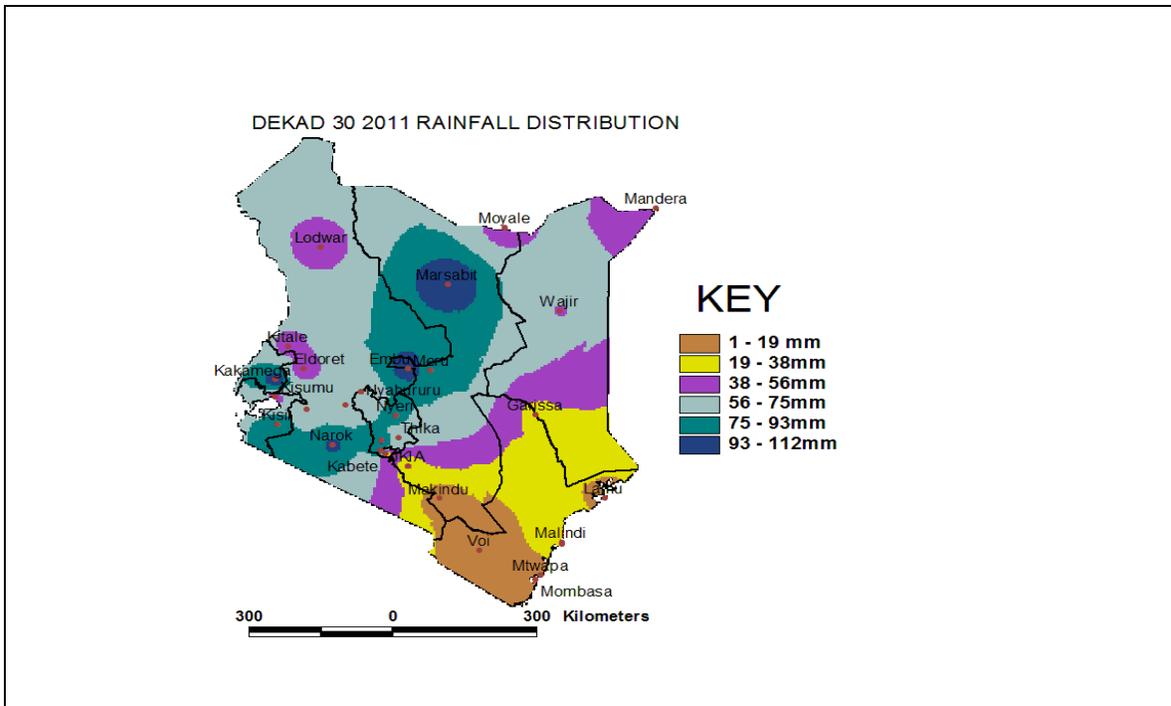


Figure 3.2: Dekadal Rainfall distribution

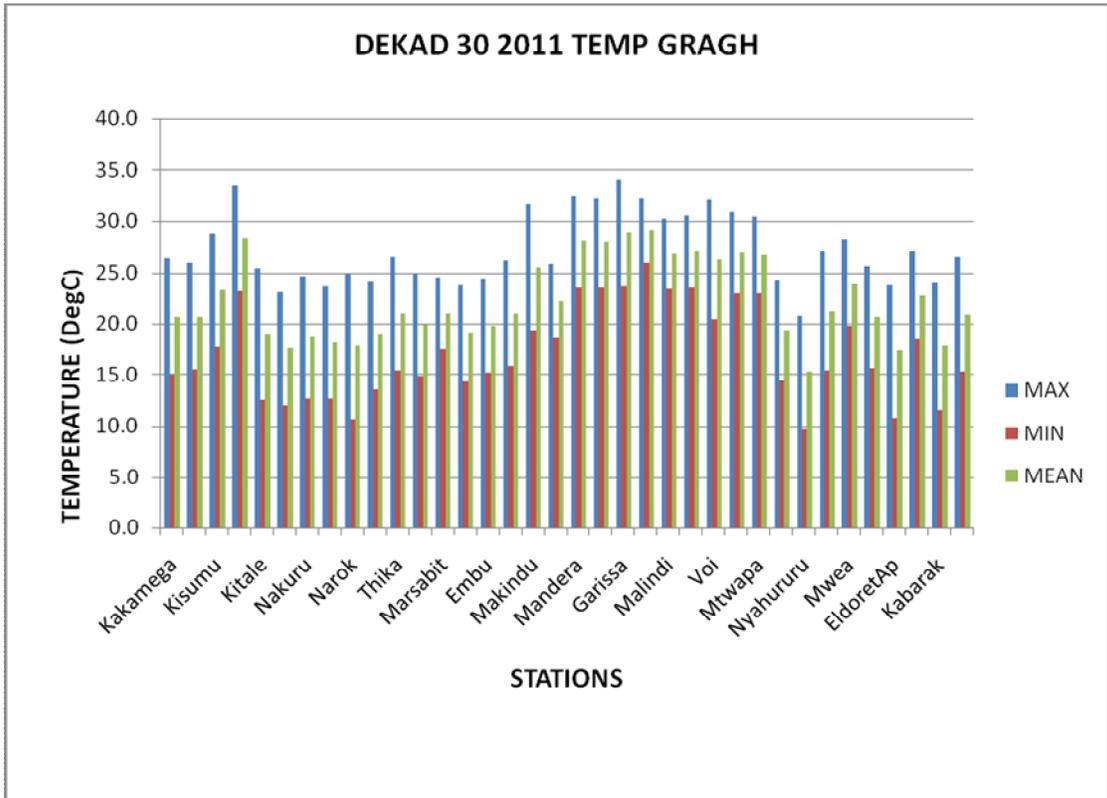


Figure 3.3 Temperature distribution

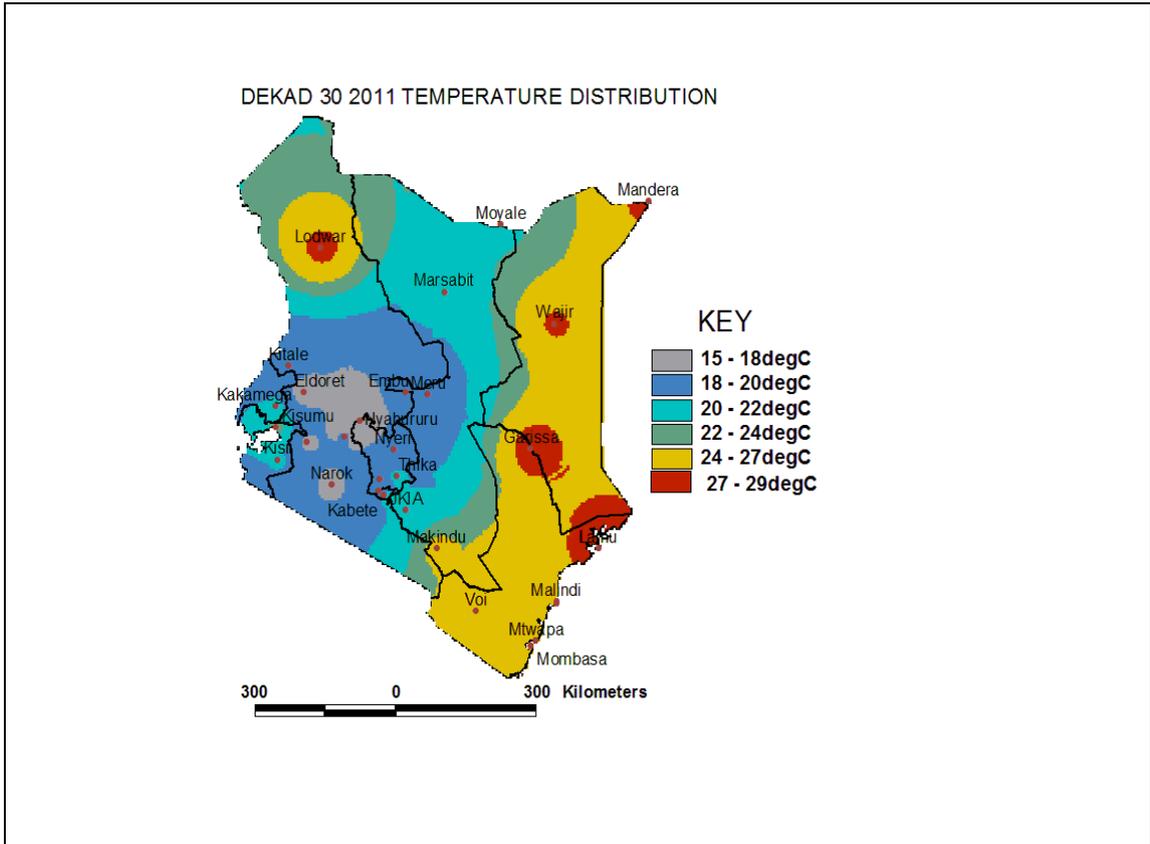


Figure 3.4: Mean Temperature distribution

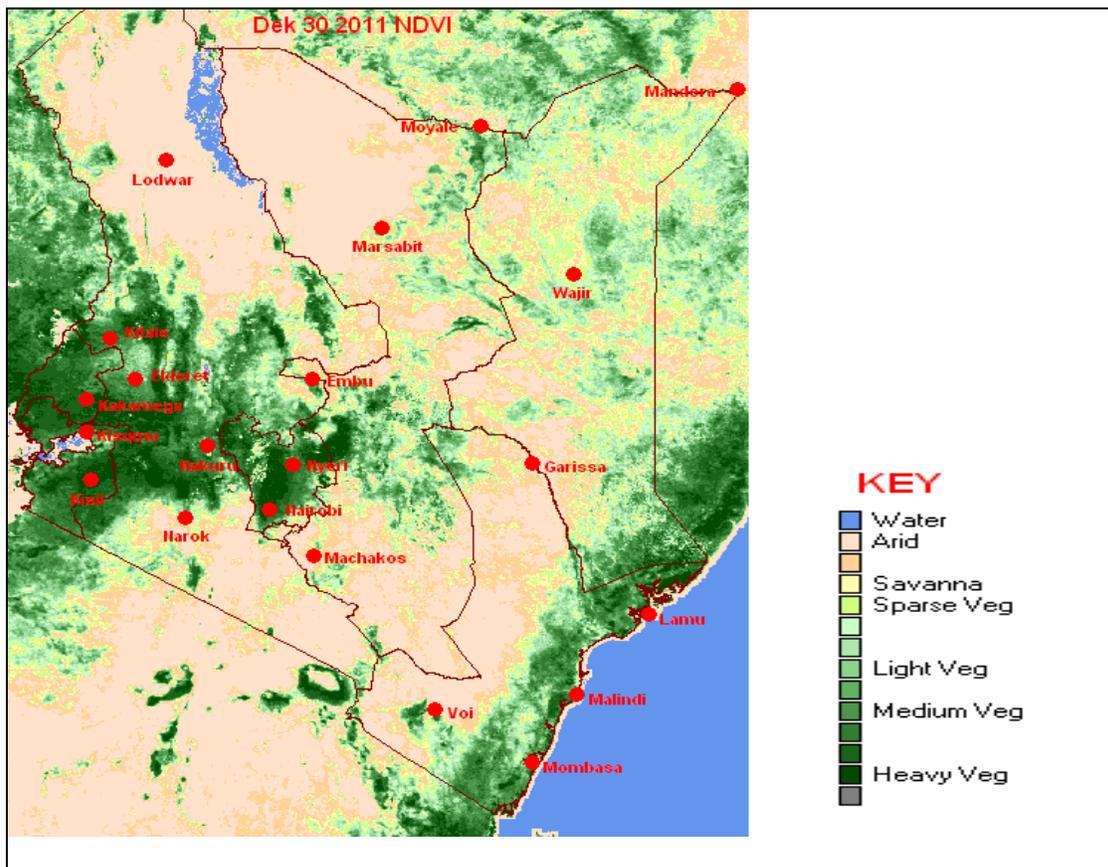


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1ST- 10TH NOVEMBER 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 sunny intervals in the morning and afternoon showers and thunderstorms over most places throughout the forecast period. *This will continue to boost maize and beans, which have been planted for this season especially in Kakamega and Kisii regions.*
-  **The Northwestern counties (Turkana, West Pokot etc),** will experience sunny intervals in the morning and afternoon showers and thunderstorms over several places for most of the forecast period. *Livestock in these areas will continue to benefit from the replenished pasture and water in pans wells and rivers.*
-  **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** will experience occasional cloudy early morning with rains over a few places. Afternoons/night showers and thunderstorms are expected over several places for most of the forecast period. *This will boost the growth of crops especially maize and beans which have been planted in this season.*
-  **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, etc),** will mainly experience sunny intervals in the morning and afternoon showers and thunderstorms over several places. The rainfall is expected to be heavier in the northern parts of the region.

These weather conditions are likely to replenish the pastures and therefore benefit the livestock in the region.

-  **Southeastern lowlands (counties of Taita Taveta, Makeni, Machakos, Kitui, Mwingi, etc)** will experience mainly sunny intervals during the first half of the period. Afternoon showers will occur over few places during the second half of the forecast period. *This will at least boost the growth of the crops which are being planted in these regions for the second season.*
-  **The Coastal strip (counties Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** will experience occasional morning showers over few places for much of the forecast period. *The crops grown in these areas especially mangoes are therefore expected to continue doing very well.*

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