



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 33, 2011 21 – 30 NOVEMBER 2011

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE:

There was a general increment in rainfall amount countrywide with all stations in all provinces reporting significant amounts of rainfall as compared to the previous dekad. The highest dekad rainfall amount reported was 212.0mm in Kitale station from North Rift Valley, followed by Kericho station with 161.5mm from South Rift Valley. Also on the record according to the provincial setup are Wilson Airport in Nairobi province recording 76.0mm, Nyeri in Central with 161.5mm, Kakamega in Western with 72.7mm, Kisii in Nyanza with 122.6mm, Meru in Eastern province with 151.5mm, Wajir in North Eastern with 85.8mm and Voi at the Coast with 156.4mm of rainfall.

Daytime (maximum) temperature decreased significantly over several parts of the country with Garissa Met. station recording the highest temperature of 33.2°C and Nyahururu the lowest amount of 19.5°C. The night-time (minimum) temperature increased over most parts of the country with Nyahururu recording the lowest of 10.6°C up from 10.2°C. 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 33; 21 - 30 NOVEMBER 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

The station recorded rainfall amount, mean air temperature and average sunshine hours of 72.7mm, 19.6°C and 1.9 hours per day respectively and total pan evaporation of 32.7mm.

Maize and beans were at maturity and harvesting stages respectively and in fair state with normal yields expected for both crops.

2.1.2 Kisii

The station recorded rainfall amount, mean air temperature and total pan evaporation of 122.6mm, 19.3°C and 25.6mm respectively. Sunshine hours reported was 5.0 hours per day.

Maize was at 100% flowering stage and in good state whilst beans were at maturity stage and in poor state. Excessive rainfall is causing the beans to rot thus lowering the expected yield.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The station recorded total rainfall, average air temperature and sunshine hours of 212.0mm, 19.1⁰C and 4.7 hours respectively.

Harvesting of maize crop is now over.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall, average air temperature and total pan evaporation of 75.5 mm, 16.8⁰c and 30mm respectively. The sunshine hours recorded was 4.5 hours per day.

Harvesting of maize crop is now over.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded rainfall, average air temperature and total pan evaporation of 80mm, 18.6⁰c and 29.8mm respectively. There was no report on Sunshine hours.

Maize crop is already past ninth leaf stage while beans were at flowering stage and in fair state. Adverse effects on maize by stalk borer were reported while aphids attacked beans.

2.3.2 Kabete

The station recorded rainfall, average air temperature total pan evaporation and average sunshine hours of 29.0mm, 19.5⁰c, 35.5mm and 3.0 hours respectively.

Maize and beans crop are all at emergence stage and in fair state. Coffee was at 30% ripeness and 70% berry hard stages and in good state though being affected by leaf rust and coffee berry diseases. Bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips and cigar end rot at less than 10%.

2.3.3 Thika

The dekadal rainfall, mean air temperature and sunshine hours recorded at the station was 57.5 mm and 20.6⁰c and 2.8 hours per day respectively and pan evaporation of 30.7mm.

Maize and beans were at emergence and flowering stages respectively and in fair state. The expected yield is normal for beans.

2.3.4 Nyahururu

The rainfall amount, mean air temperature and total pan evaporation recorded at the station were 59.1mm, 15.1⁰c and 27.1mm respectively. Sunshine hours recorded were 3.9 hours per day.

Maize was at 100% full ripeness stage and in good state and normal yield is expected.

2.3.5 Dagoretti

The station recorded rainfall and average air temperature of 39.3mm and 18.7⁰c respectively. There was no report on evaporation and sunshine parameters.

No phenological report.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 151.5mm, 18.7⁰c and 44.6mm respectively. The average sunshine hours were 4.7 hours per day.

Maize was at emergence stage and in fair state. Beans were being adversely affected by excessive rainfall. Below normal yield is expected on beans as a result of too much rains.

2.4.2 Embu

The station recorded rainfall and average air temperature of 74.3mm and 19.8⁰c respectively. There was no report on evaporation and sunshine parameters.

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

2.4.3 Katumani (Machakos)

The station reported rainfall and average air temperature of 32.7mm and 19.7⁰c respectively. There was no report on evaporation and sunshine parameters.

Maize crop is past ninth leaf stage while beans were at flowering stage and in excellent state.

2.5.0 COAST PROVINCE

2.5.1. Msabaha

The station recorded rainfall and average air temperature of 82.5mm and 27.7⁰c respectively. There was no evaporation and sunshine report.

Maize was still at emergence state and in fair state. Mangoes (Ngowe type) were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

The station recorded rainfall, average air temperature and pan evaporation of 11.6mm, 27.8⁰c and 54.4mm respectively. The sunshine report was 5.6 hrs per day.

Maize was past ninth leaf stage and in fair state though adversely affected by stalk borer and excessive weeds. Mangoes (Apple) were at 100% ripeness though damaged by fruit worms. Watermelon was at 50% flowering stage and in bad state due to damage by leaf minor, leaf lust and aphids.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

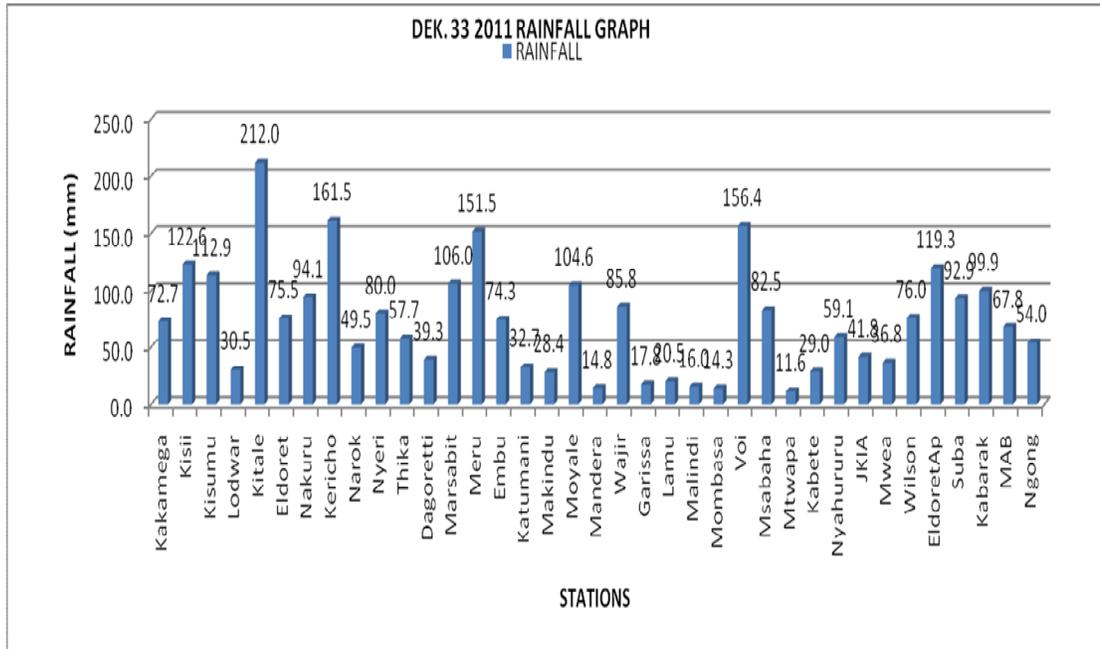


Figure 3.1: Total Rainfall amounts for 21-30 November 2011

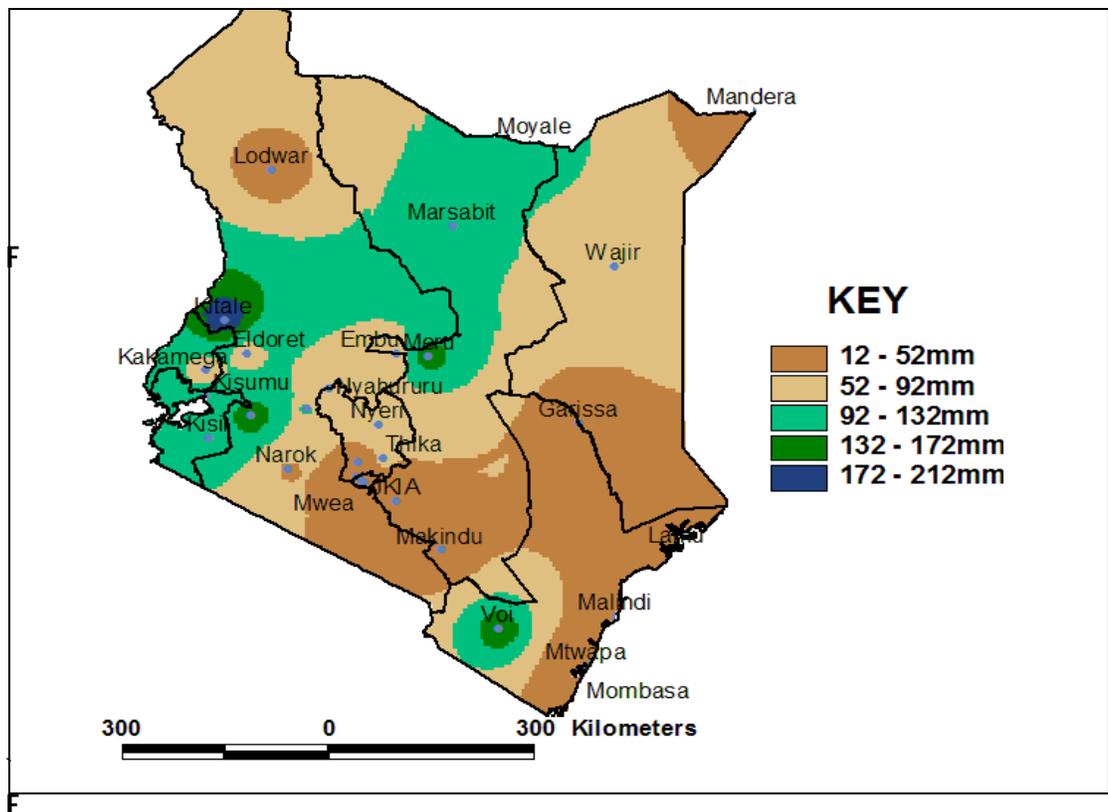


Figure 3.2: Rainfall distribution

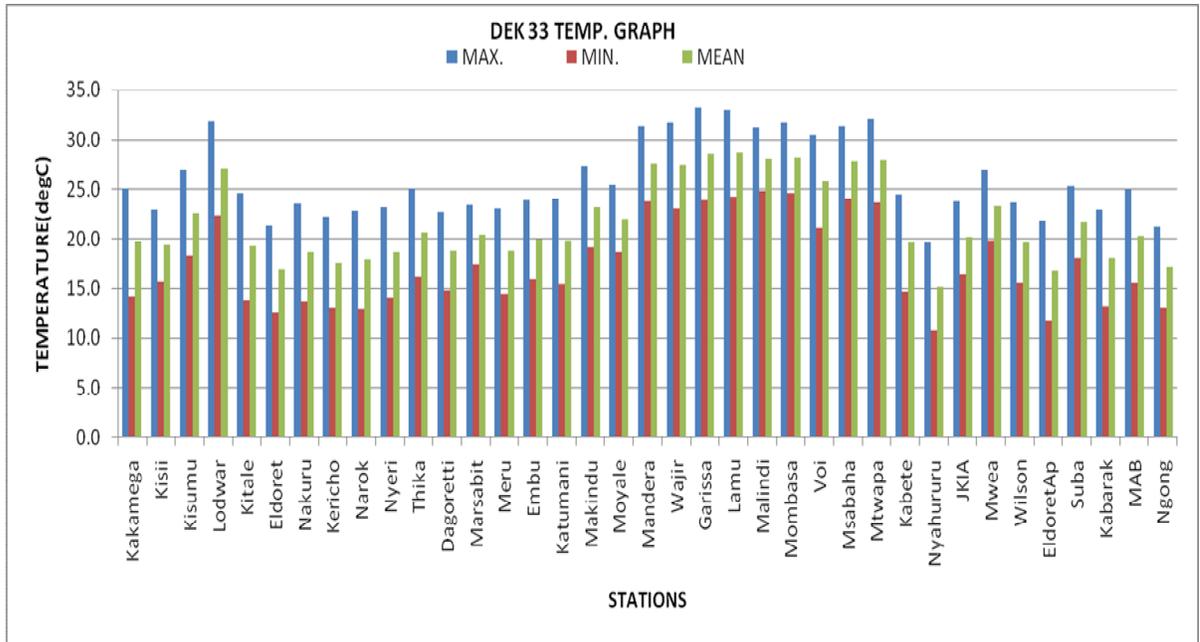


Figure 3.3: Maximum, Minimum and Average Temperature variation

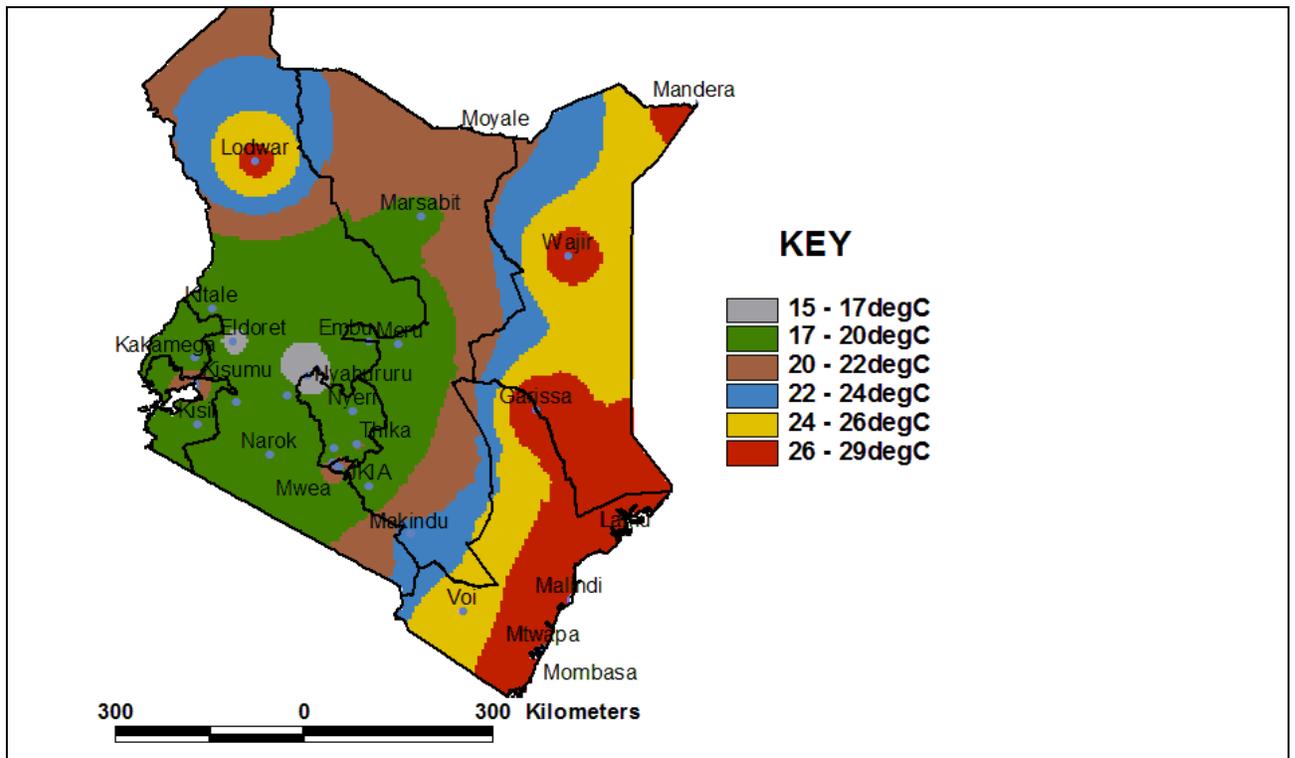


Figure 3.4: Mean Temperature distribution

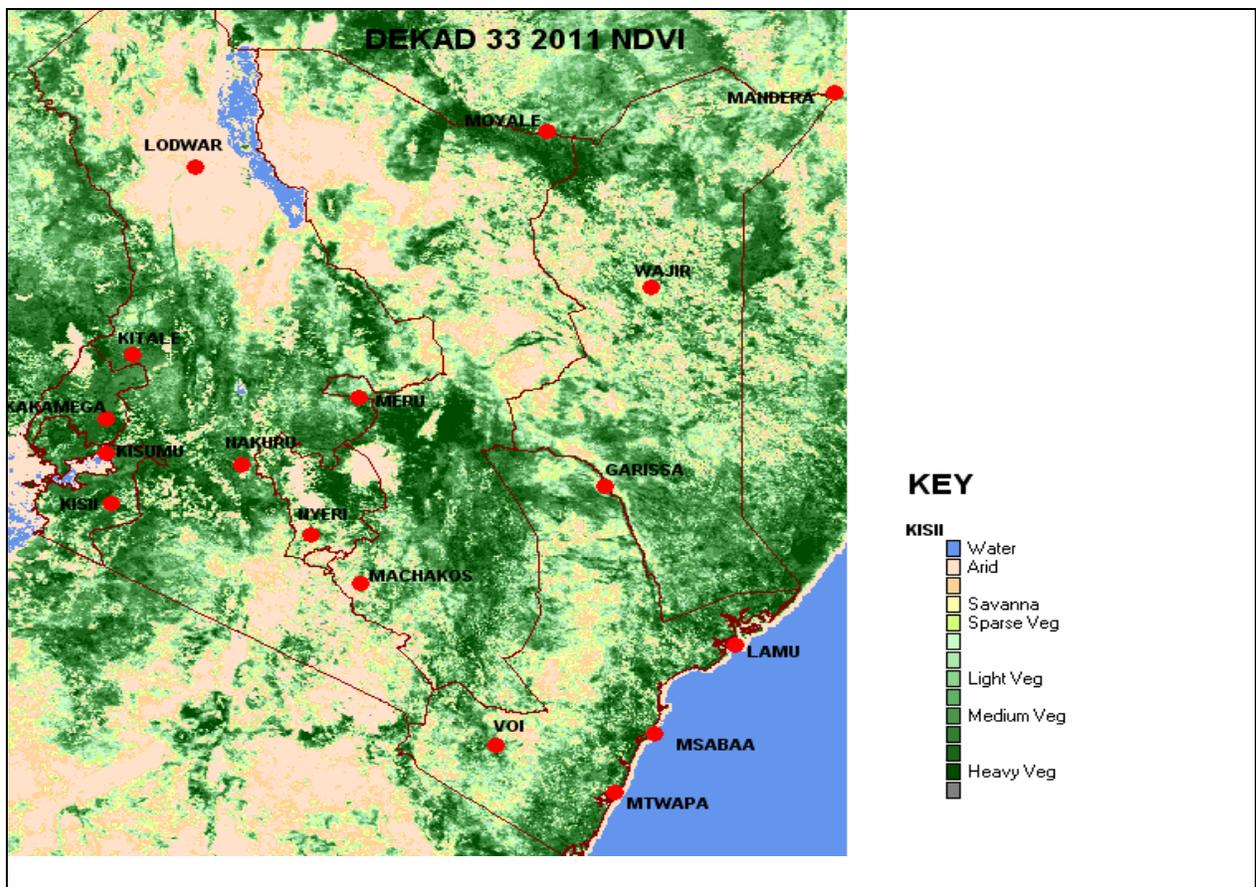


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 01- 10 DECEMBER 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 with occasional rains over few places, afternoon showers and thunderstorms over most places especially in the first three days of the forecast period reducing to sunny intervals in the morning and showers over few places in the afternoon for the rest of the forecast period.

This will continue boosting the maize crop but adversely affect the beans, which have been planted for the second season in Kakamega and Kisii.

- **The Northwestern counties (Turkana, West Pokot etc)** will experience sunny intervals in the morning and afternoon showers over several places in the first half of the forecasted period and mainly sunny intervals for much of the day with occasional afternoon showers and thunderstorms over few places in the second half 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 occasional cloudy early morning with rains over few places. Afternoons/night showers and thunderstorms are expected over several places for much of the first half of the forecast period changing to mainly sunny intervals in the morning and afternoon/night showers over few places in the second half of the forecast period.

This will boost the growth of maize crop and damage to the beans which are maturing.

- **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, etc),** will experience light morning rains over few places, sunny intervals and afternoon showers and thunderstorms over several places in the first two days of the forecast period. The rainfall is expected to be heavier in the northern parts of the region especially Marsabit and Isiolo counties.

These weather conditions are likely to replenish the pastures and water to the livestock in the region thus increasing meat and milk in the region.

- **Southeastern lowlands (counties of Taita Taveta, Makeni, Machakos, Kitui, Mwingi, etc)** will experience mainly sunny intervals in the morning with occasional light rains and afternoon showers over several places in the first three days of the forecast period reducing to few places for the remainder of the forecast period.

This will boost the growth of the crops which are in their middle vegetative stage.

- **The Coastal strip (counties Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** will experience morning showers over several places for much of the forecast period. This will be expected to increase in intensity in the last two days of the forecast period.

The crops grown in these areas especially mangoes are therefore expected to continue doing very well.

For feedback or further guidance, Contact:

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