



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN WEATHER AND CROP REVIEW FOR DEKAD 12, 2011 21– 30 APRIL, 2011

1. WEATHER HIGHLIGHTS

There was a general peak in rainfall activities in most parts of the country during this dekad as compared to the last dekad. All provinces reported significant amounts of rainfall in most of the stations. However, dry conditions were observed in the southern parts of Eastern province where both Makindu and Katumani stations reported nil rainfall. The highest amount of rainfall in the country was also reported in the northern part of the Eastern province where Embu reported 184.1mm of rainfall. This was a great improvement as compared to the last dekad where only 29.9mm of rainfall had been recorded. Kakamega station in the Western province received the second highest rainfall in the country of 140.9mm. Rift valley province received significant rainfall with Kitale, Kericho and Eldoret airport stations reporting 140.3mm, 120.1mm and 112.5mm respectively. Kisii station in Nyanza province reported 132.6mm of rainfall.

Coast province had Mtwapa, Msabaha and Malindi stations reporting 93.7mm, 82.3mm and 50.3mm of rainfall respectively. Central province also received significant amount of rainfall with Thika and Nyeri stations reporting 74.8mm and 45.1mm respectively. Mandera and Wajir in North Eastern province reported 46.1mm and 29.5mm respectively while in Nairobi province, Kabete and Dagoretti stations reported 36.3mm and 27.8mm respectively.

There was a reduction in the mean air temperature as a result of increased rainfall activities across 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 12; 21– 30 APRIL 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

This station recorded rainfall, average air temperature and total pan evaporation of 140.9mm, 21.7⁰c and 40.0mm respectively. Sunshine hours recorded were 6.7 hours per day. Maize was observed at emergence stage and in good state. Beans were at flowering stage and in good state.

2.1.2 Kisii

The station received 132.6mm of rainfall. The average air temperature and total pan evaporation recorded were 21⁰c and 37.6 mm respectively. There was no report on sunshine hours. Maize was observed at emergence state and in fair state. Beans were at flowering stage and in poor state due excessive rainfall hence the expected yield is below normal.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

This station recorded rainfall, average air temperature and total pan evaporation of 140.3 mm, 20.2⁰c and 36.8 mm respectively. Sunshine hours recorded were 7.7 hours per day. Maize at emergence stage and in good state.

2.2.2 Eldoret-Kapsoya

The station reported rainfall, average air temperature and total pan evaporation of 65.8 mm, 19.0⁰c and 53.5 mm respectively. Sunshine hours reported were 8.43 hours per day. Maize and beans has been planted but have not yet germinated.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded rainfall, average air temperature, and total pan evaporation of 45.1 mm, 19.5⁰c and 36.8 mm respectively. There was no sunshine report. Maize (4513) was observed at 100% emergence stage and in moderate state. However, 5% was destroyed by rodents. Beans were at 100% emergence stage and in moderate state. Both maize and beans have a density of 42,000, 85750 plants per hectare respectively.

2.3.2 Kabete

This station recorded rainfall, average air temperature and total pan evaporation of 36.3 mm, 19.8⁰c and 44.3 mm respectively. There was no report on sunshine hours.

Coffee was observed at 100% pin head stage and in moderate state, but it suffered less than 10% leaf rust and leaf minor. Bananas were observed at 100% appearance stage of suckers and in moderate state; however, they had suffered less than 10 percent thrips, cigar and rot.

2.3.3 Thika

This station reported rainfall, average air temperature, and total pan evaporation of 74.8mm, 21.8⁰c and 31.8 mm respectively. Sunshine hours reported were 8.22 hours per day. Maize, beans and potatoes were observed at emergence stage and in fair state.

2.3.4. Nyahururu

The station reported rainfall, average air temperature and total pan evaporation of 10.7 mm, 15.7⁰c and 52.7 mm respectively. Sunshine hours recorded were 6.61 hours per day. Maize is at emergence stage and in fair state. Potatoes and beans are at emergence stage and in poor state due to prolonged drought which was experienced after planting period.

2.3.5. Dagoretti

This station reported rainfall, average air temperature and pan evaporation of 27.8 mm, 20.4c and 47.8 mm respectively. Sunshine hours recorded were 7.8 hours per day. Both maize and beans crops are at emergence stage and in good and excellent states respectively.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 122 mm, 20⁰c and 53mm respectively. Sunshine hours reported were 9 hours per day. Most farmers have started planting following the onset of the long rains.

2.4.2 Embu

This station reported rainfall and average air temperature of 184.1 mm and 21⁰c respectively. Sunshine hours recorded were 7.3 hours per day. There was no report on total evaporation pan. Maize and Beans crops were at emergence stage and in fair and poor states respectively.

2.4.3 Katumani (Machakos)

The station recorded dry conditions and average air temperature of 21.5⁰c. There was no report on evaporation and sunshine parameters. Both maize and beans are at emergence stage and in poor state due to insufficient rain.

2.5 COAST PROVINCE

2.5.1. Msabaha

The station reported rainfall, average temperature and total pan evaporation of 82.3 mm, 28.5⁰c, and 53.3 mm. There was no report on sunshine hours. Maize was observed at emergence stage and in fair state. Mangoe (Ngowe) were at appearance of new leaf stage and in excellent state.

2.5.2 Mtwapa

The station recorded rainfall and average air temperature of 93.7 mm and 27.7⁰c respectively. There was no report on total pan evaporation and sunshine hours. Maize (DH4) and Water melon (sugar baby) were observed at 100% and 70% emergence stages respectively, while Mango was at 100% fruit setting. They were all in moderate states.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

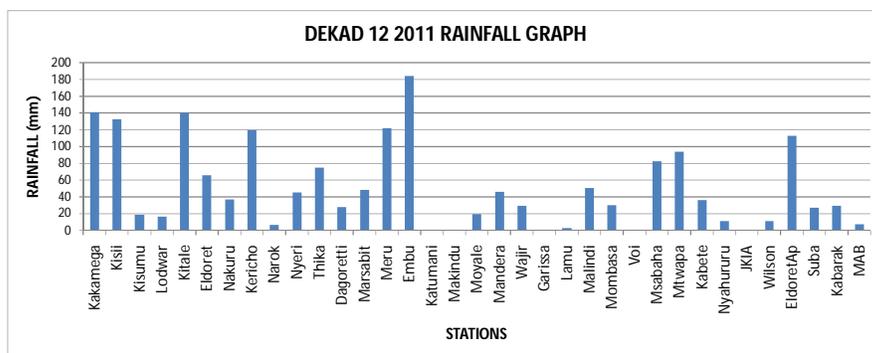


Figure 3.1: Actual Rainfall

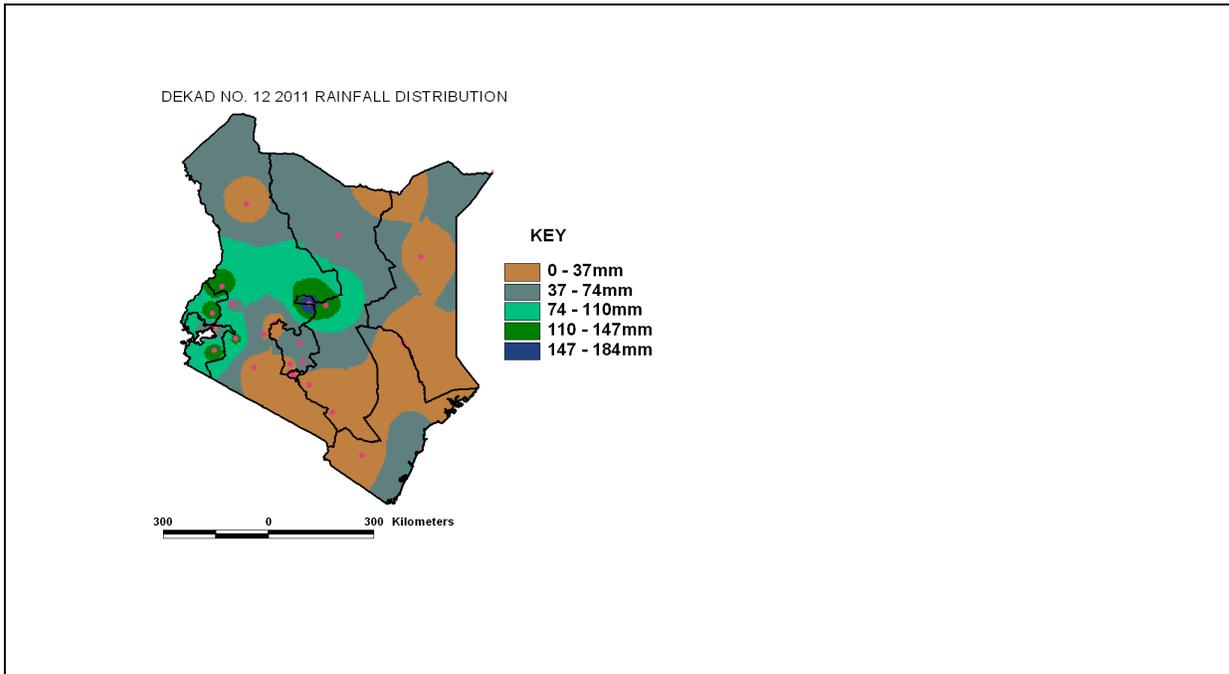


Figure 3.2: Rainfall distribution

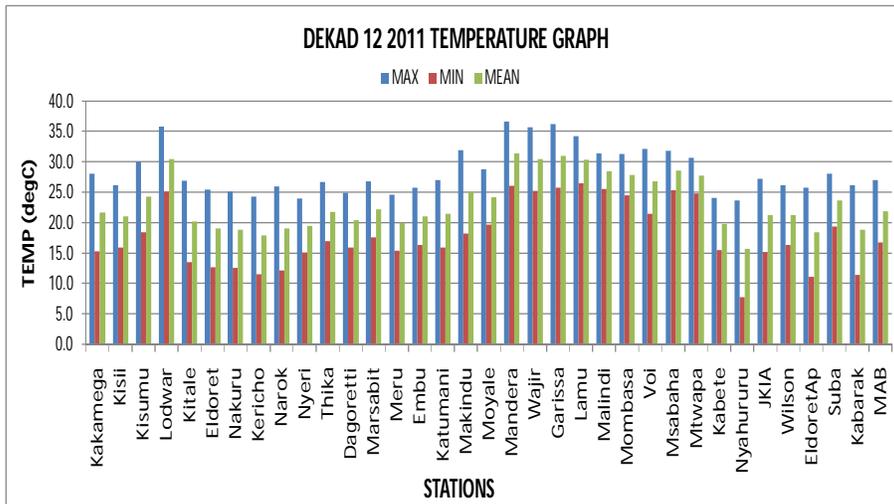


Figure 3.3: Mean Temperature

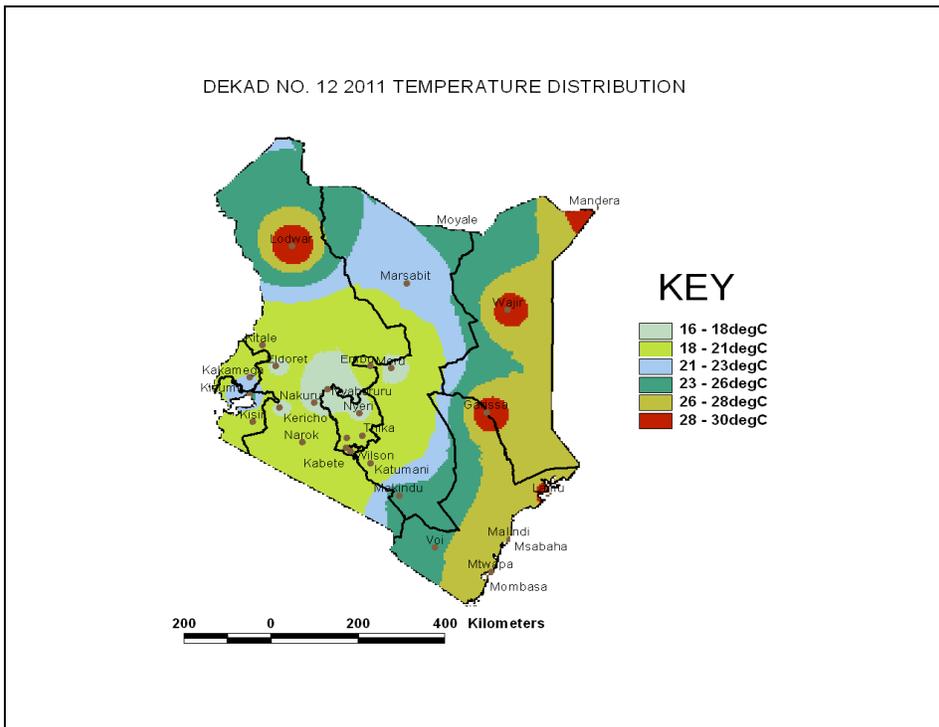


Figure 3.4: Mean Temperature Distribution

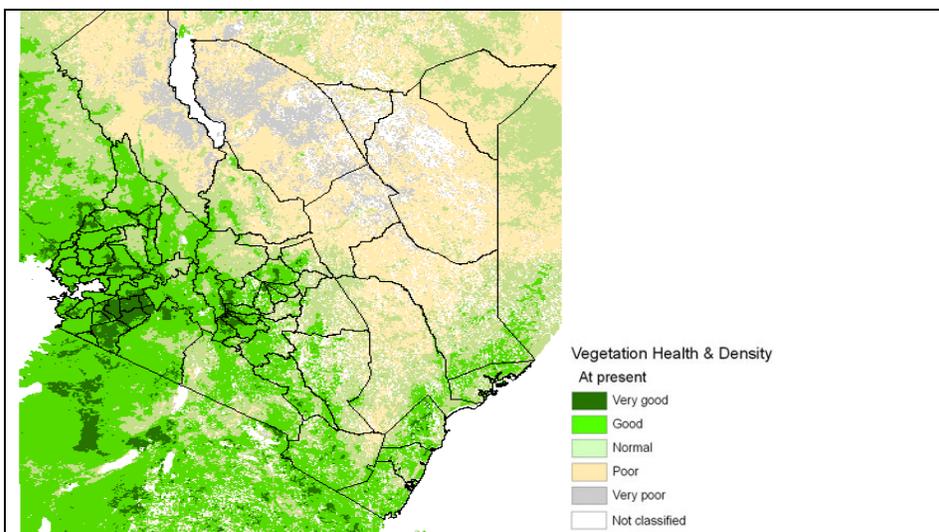


Figure 3.5: NORMALISED DIFFERENCE VEGETATION INDEX (NDVI)

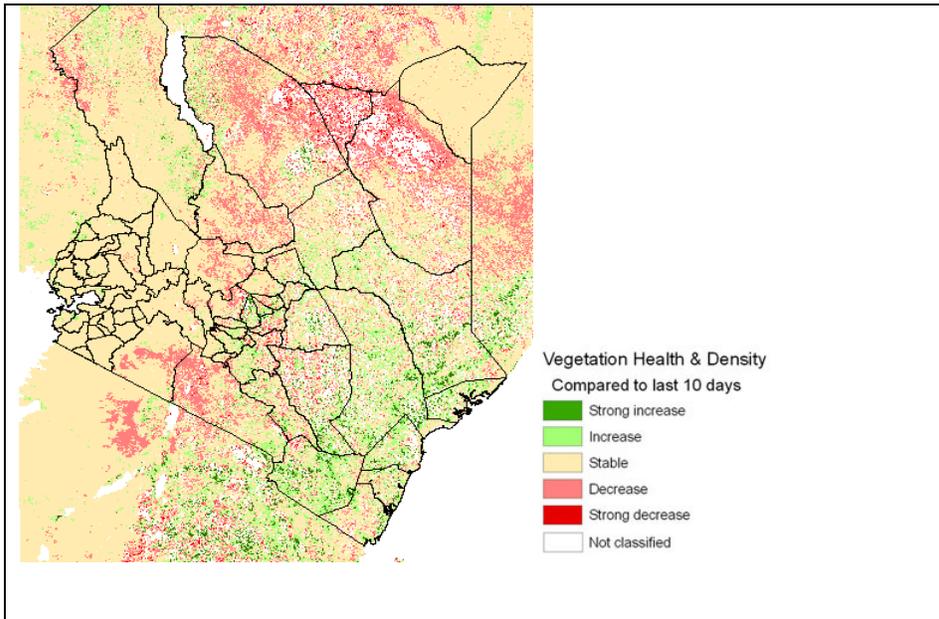


Figure 3.6: VEGETATION HEALTH AND DENSITY COMPARISON TO THE LAST 10 DAYS

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS

- ✚ **Western, Lake Victoria basin and North Rift Valley regions** will experience occasional morning rains over few places and afternoon /night showers and thunderstorms over several places throughout the forecast period. The rains will benefit the germinating crops.
- ✚ **Nyanza, Central Rift and South Rift areas** will experience afternoon/night showers and thunderstorms over several places throughout the forecast period along with occasional morning rains over a few places. The occasional rains and showers will boost the pasture growth and the general vegetation growth. It will also benefit germination of the crops in the area.
- ✚ **The Central Highlands including Nairobi area (countries of Meru, Murang'a, Kiambu, Nyeri, Nairobi Embu etc)** will experience morning rains and afternoon/night showers over few places occasionally spreading to several places in the first half of the forecast period. The rains and showers will enhance agricultural activities and Livestock farming in the area.
- ✚ **Northeastern counties (Marsabit, Mandera, Wajir, Garissa Tana River etc)** will experience mainly sunny intervals for much of the forecast period. Light morning rains/afternoon showers will occur over few places especially bordering Ethiopia at the beginning of the forecast period. The rains and showers will promote the germinating crops which had started experiencing dry conditions after germination
- ✚ **Coastal region** will experience morning showers over several places at the beginning reducing to few places in the second half of the forecast period. This will benefit the growth of the cashew nut trees in Lamu.

- ✚ Areas in **North Western districts of Lodwar, Lokitaung and Lokichoggio** will experience afternoon/night showers over few places especially bordering Uganda, Ethiopia and Sudan during the forecast. Mainly sunny intervals will prevail over the rest of region for much of the forecast period. The afternoon/night showers will boost the agricultural activities in the few places bordering Uganda, Ethiopia and Sudan.

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