



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN WEATHER AND CROP REVIEW FOR DEKAD 04, 2011 01 – 10 FEBRUARY, 2011

1. WEATHER HIGHLIGHTS

Generally, most parts of the country remained dry except Western, Nyanza and Rift Valley provinces which reported significant amounts of rainfall in most of the stations. Kakamega station in Western Province reported 8.9 mm of rainfall as compared to 0.4 mm of rainfall reported in the previous dekad. In Nyanza province, Kisii received 3.9 mm of rainfall up from 0.4 mm in the previous dekad. Eldoret and Kitale in Rift valley province reported 16.5 mm and 5.7 mm respectively as compared to the nil rainfall reported in the previous dekad.

Coastal province remained dry with Msabaha reporting only 0.2 mm of rainfall. Central, Nairobi, Eastern and North Eastern provinces remained dry unlike in the previous dekad where most stations in these provinces reported significant amounts of rainfall.

Temperatures continued to increase in most parts of the country except in western and Nyanza provinces which had some slight reduction. Consequently, there was an increase in evaporation in all stations and the number of sunshine hours reported were more that in the previous dekad.

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 04; 01– 10 FEBRUARY 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

This station reported significant amount of rainfall of 8.9 mm as compared to 0.4 mm in the previous dekad. There was some slight reduction in the average air temperature from 22.4⁰c in the previous dekad to 21.9⁰c. No reports were received on the total pan evaporation, sunshine and crop phenology.

2.1.2 Kisii

The station received 3.9mm of rainfall compared to 0.4mm during the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 22.2⁰c, 50.4mm and 9.69 hours per day respectively.

Harvesting of maize is going on with normal yield expected. Most farmers are also preparing the land for planting.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

This station reported a significant amount of rainfall of 5.7 mm compared to nil rainfall in the previous dekad. The average air temperature was 20.1 °c down from 20.6 °c reported in the previous dekad. Total pan evaporation recorded at this station was 56.2 mm which was very high compared to 35.6mm reported during the previous dekad. There was no report on sunshine hours.

No phenological observations were made.

2.2.2 Eldoret-Kapsoya

This station received the highest rainfall amount in the country of 16.5 mm compared to the previous dekad where nil rainfall was reported. The average air temperature at the station increased to 18.2 °c from 17.5 °c recorded in the previous dekad. Total pan evaporation and sunshine hours recorded were 81.8mm and 10.35 hrs respectively. No phenological observations were made.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station remained dry reporting rainfall of only 0.1 mm as compared to 7.2 mm in the previous dekad. The average air temperature and total pan evaporation were 18.6 °c and 61.5 mm respectively. There was no sunshine report.

No phenological observations were made.

2.3.2 Kabete

The station reported nil rainfall compared to 4.2 mm reported in the previous dekad. The average air temperature increased to 20.3 °c from 18.9 °c in the previous dekad. Total pan evaporation and sunshine hours recorded were 71.5mm and 10.6 hours per day respectively.

Maize which was at flowering stage was also in poor state due to insufficient rain. Below normal yield is expected for maize. Coffee (SL34) was at candle stage and in moderate state. It suffered less than 10% damage by leaf rust and DIC diseases. Bananas (Dwarf) were at 100% suckers' stage. There was 75% damage by thrips and less than 10% by cigar end rot.

Thika

The station reported 2.1mm of rainfall compared to 6.5mm received in the previous dekad. There was a slight increase in the average air temperature from 19.7 °c in the previous dekad to 20.5 °c. Total pan evaporation rose to 61.1 mm from 52.0 mm recorded in the previous dekad.

Though maize has reached maturity stage, it is in poor state due to insufficient rain. Hence below normal yield is expected. Harvesting of the crop is underway in some farms.

2.3.4. Nyahururu

This station just as in the previous dekad remained dry, only reporting very insignificant amount of rainfall of trace. The average air temperature rose slightly to 14.9^oc, up from 14.3^oc recorded in the previous dekad.

Total pan evaporation recorded was 73.0 mm up from 61.0 mm reported in the previous dekad. There was no sunshine report.

A Land preparation is going on in preparation for the coming long season.

2.3.5. Dagoretti

The station remained dry reporting nil rainfall as compared to the previous dekad where it received the highest rainfall in the country 14.2 mm. The average air temperature increased 20.3^oc.

Total pan evaporation and sunshine hours recorded were 70.0 mm up from 61.7 mm in the previous dekad 10.85 hours per day respectively.

Maize has stagnated at 90% flowering and that less than 10% wax ripeness stage has been destroyed by animals and in poor state due to insufficient rain. Expected yield is below normal.

2.4 EASTERN PROVINCE

2.4.1 Meru

This station remained dry unlike in the previous dekad where it reported the second highest rainfall in the country of 13.6mm. The average air temperature recorded was 18.9^oc up from 18.1^oc in the previous dekad.

Total pan evaporation recorded was 44.0mm and there was no sunshine report. No phenological report.

2.4.2 Embu

The station also remained dry, unlike in the previous dekad where it recorded 12.4 mm of rainfall, which was among the highest rainfall received in the country. There was a slight increase in air temperature of 21.2^oc Up from 20.2^oc in the previous dekad. There was no report on evaporation pan and sunshine.

Maize was at full ripeness stage but still drying in the field in readiness for harvesting. The crop is in poor state due to insufficient rain hence, expected yield is below normal.

2.4.3 Katumani (Machakos)

This station remained quiet, reporting no rainfall activities, unlike in the previous dekad where it received a significant amount of rainfall of 9.1 mm. The average air temperature recorded was 20.6^oc. There was no observation on both evaporation and sunshine parameters.

Maize and bean crops failed due to insufficient rain. Farmers are about to start land preparation for the next season.

2.5 COAST PROVINCE

2.5.1. Msabaha

This station remained dry reporting only 0.2mm of rainfall as compared to 5.0 mm received in the previous dekad. The mean air temperature recorded of 28.0^oc remained the same as in the previous dekad. Total evaporation reported was 57.7 mm and there was no report on sunshine.

Mango (Ngoe) is at ripeness stage and in good state.

2.5.2 Mtwapa

The station recorded nil rainfall just like in the previous dekad. There was no report on pan evaporation and average sunshine hours per day were 9.59 hours.

Mango (Apple) was at 80% flowering stage and in moderate state. Flowers were dropping due to drought though normal yield is expected.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

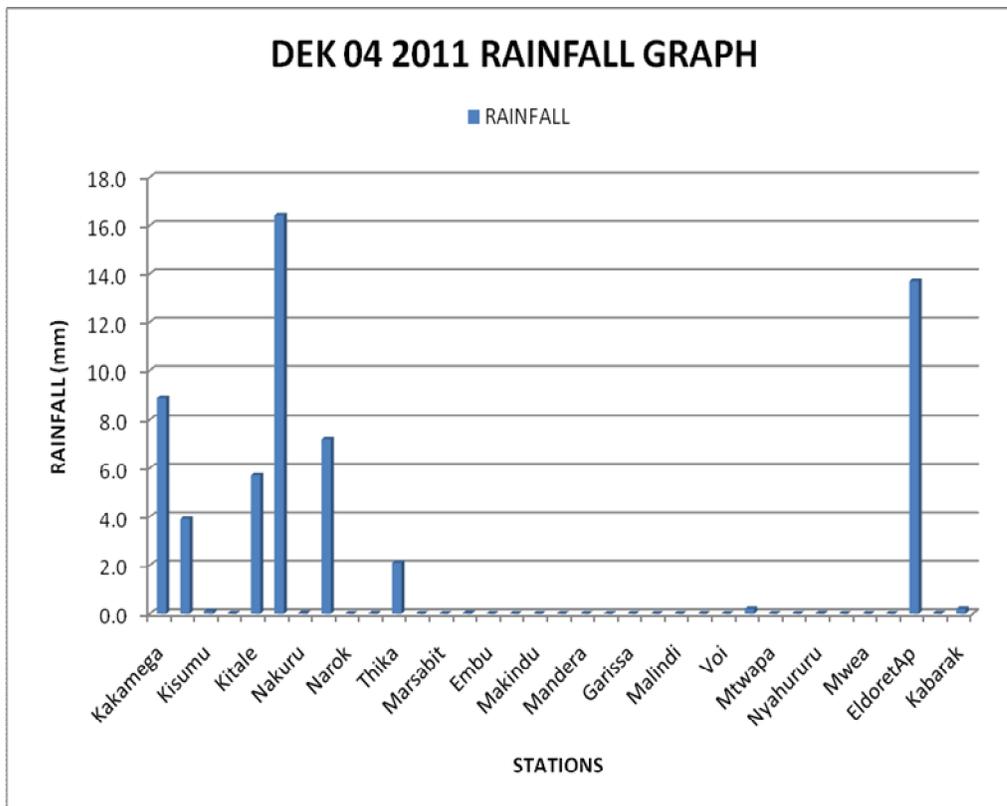


Figure 3.1: Actual Rainfall

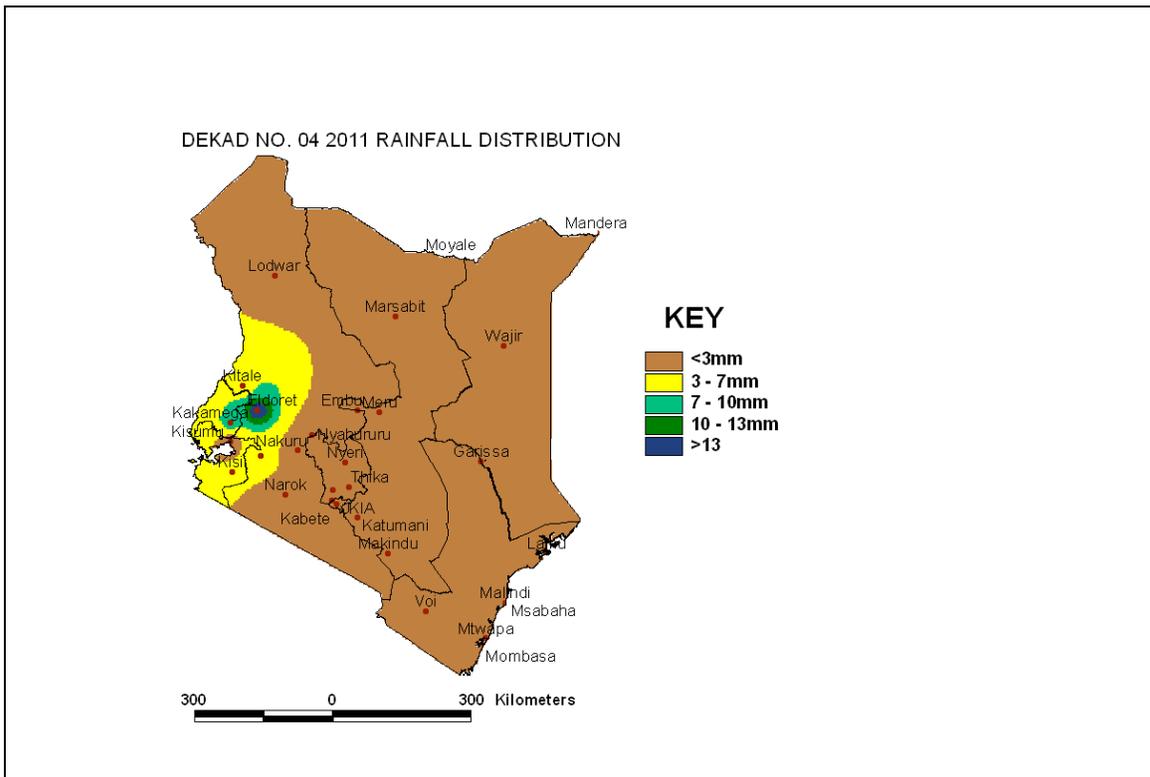


Figure 3.2: Rainfall distribution

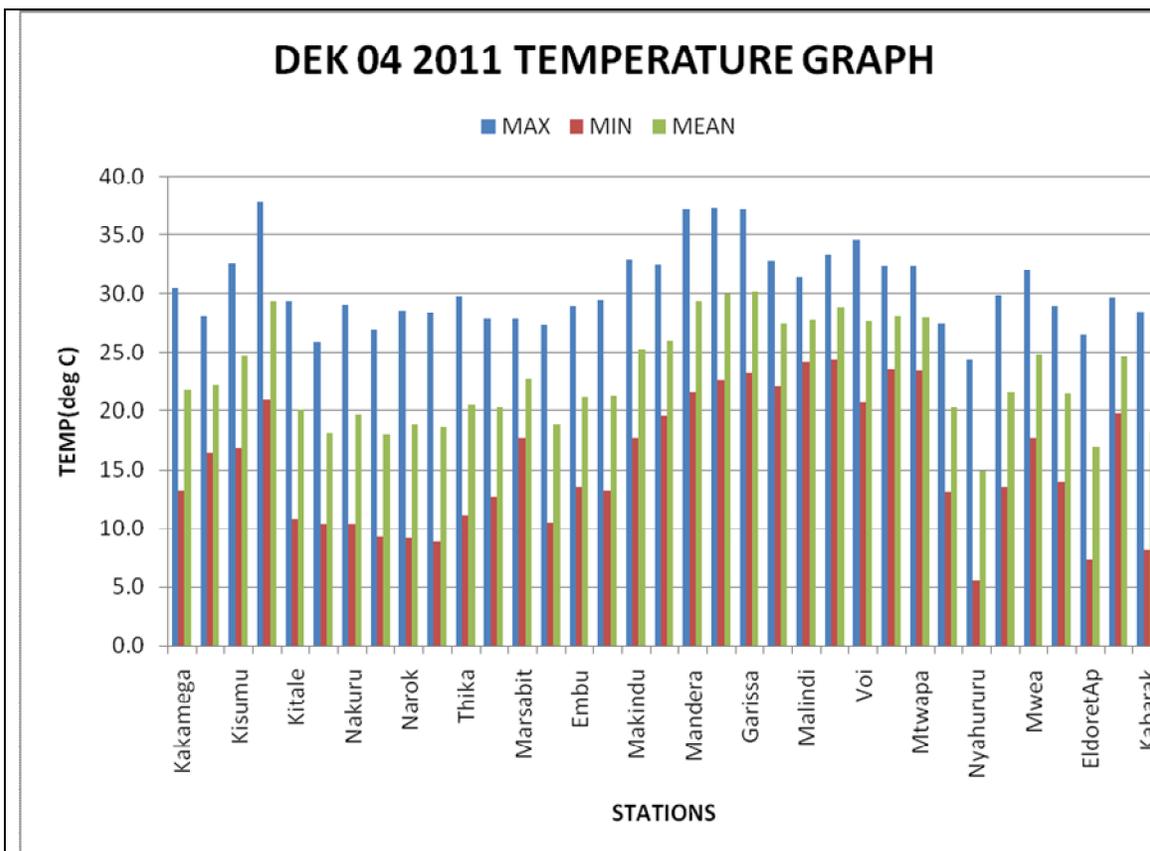


Figure 3.3: Mean Temperature

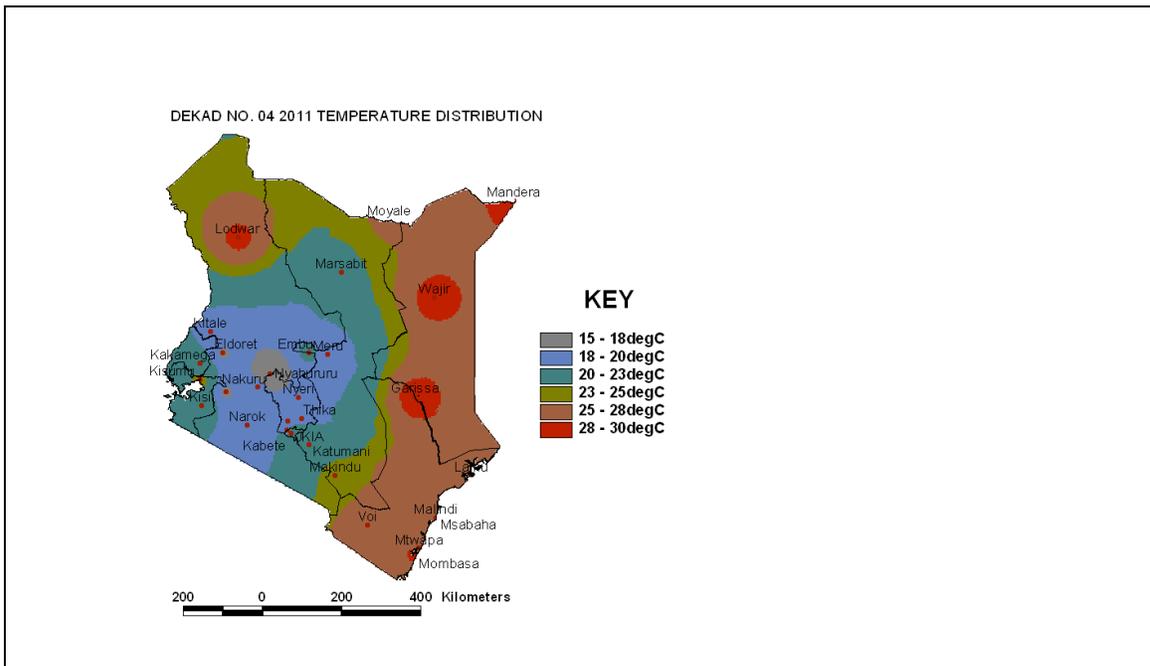


Figure 3.4: Mean Temperature Distribution

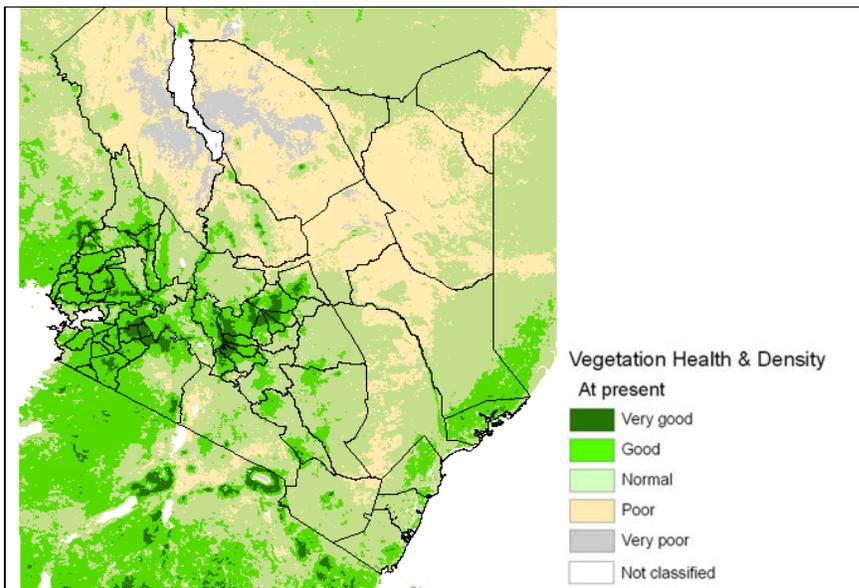


Figure 3.5: NORMALISED DIFFERENCE VEGETATION INDEX (NDVI)

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

- Western and North Rift Valley regions are expected to experience light rains in few places especially during the first days of the next dekad and sunny intervals with light showers during the last period of the dekad. The light rains are expected to benefit the Cassava crop

in places like Kakamega while the sunny intervals will favour the harvesting and land preparation activities going on in readiness for the coming long rain season.

- ✚ Nyanza, Central Rift and South Rift areas are expected to experience light rains in the first few days and sunny interval accompanied with light showers during the last period under review.

The light rains will improve the pasture and general vegetation in these areas while the sunny intervals are suitable for the ongoing harvesting and land preparation.

- ✚ Nairobi area, Central Highlands and the environs are expected to experience sunny intervals throughout the forecast period. However, light to moderate rains may be observed in some days. No significant impacts on agriculture are expected from the light rains since the region has been under a prolonged dry spell.
- ✚ In Eastern province, dry conditions are expected with light rains occurring in the middle of the period. The prolonged drought is expected to exacerbate the already stressed soil moisture conditions.
- ✚ Coastal region is expected to experience sunny intervals with light rains occurring during the last half of the forecasted period. This will act as a boost to cashew nut trees in Lamu.
- ✚ Areas in North Western districts of Lodwar, Lokitaung and Lokichoggio will experience sunny conditions throughout the dekad. As a result, pasture and the general vegetation in the region will remain stressed posing severe food insecurity for both human and animals.

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