



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 01, 2012 01 - 10 JANUARY 2012

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

There was a drastic reduction in rainfall amount in both space and intensity countrywide. The highest amount of rainfall was received in Central Province with Nyeri station recording 26.5 mm of rainfall. Meru station in Eastern Province received 12.1 mm of rainfall. In Coast Province, Voi station recorded 3.8 mm of rainfall while Garissa station in North Eastern Province received 2.8 mm of rainfall. All the stations in Western, Rift Valley and Nairobi Provinces reported dry conditions.

Daytime (maximum) temperature generally increased in most stations with a slight decrease in temperature being reported in most coastal stations. The highest daytime temperature of 36.1⁰C was reported in Garissa station in North Eastern Province, while the lowest temperature of 22.5⁰C was recorded in Nyahururu station in Central province. There was a general decrease in night-time (minimum) temperatures in most stations countrywide with only Moyale station in North Eastern province reporting a slight increase in temperatures.

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 01; 01 – 10 JANUARY 2012

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

The station reported dry conditions, which was a drastic reduction compared to 40.4 mm of rainfall received in the previous dekad. The mean air temperature and total pan evaporation recorded were 20.8⁰c and 51.5mm respectively, while sunshine was at 10.7 hours per day.

Land preparation in readiness for the next long rains growing season has started at Kakamega and the surrounding areas.

2.1.2 Kisii

Nil rainfall occurred at Kisii Met Station. The mean air temperature and total pan evaporation were 21.6⁰C and 48.0mm respectively while sunshine duration was at 10.3 hours per day.

Maize planted for the short rains season was at 100% full ripeness stage and in moderate state with normal yield expected.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The total rainfall, average air temperature and total pan evaporation observed at the station was 0.0mm, 18.5⁰C and 49.0mm respectively while the average sunshine duration was 10.7 hours per day.

As in the neighbouring areas, land preparation in readiness for the long rains growing was underway.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall, average air temperature and total pan evaporation of 0.0 mm, 16.5⁰c and 65.5mm respectively. Sunshine duration was 10.6 hours per day.

There were no phenological observations carried out, as there were no crops in the fields. However, farmers were busy preparing their farms in readiness for the upcoming long rains growing season.

2.3 CENTRAL AND NAIROBI PROVINCES

2.3.1 Nyeri

The station recorded rainfall, average air temperature and total pan evaporation of 26.5mm, 17.3⁰c and 53.5mm respectively. There was no report on sunshine.

Maize was at past ninth leaf stage while beans were at 59% ripeness. Both crops were in moderate state although maize was adversely affected by stalk borer at 20%. Aphids at 10% too damaged beans. Though dry conditions have caused stunted growth on both crops by 20% each, normal yields are still expected.

2.3.2 Kabete

The station reported dry conditions, which was a reduction from 78.3 mm reported in the previous dekad. The total pan evaporation was 48.7mm. There was no temperature and sunshine report.

Maize was at flowering stage and in fair state with normal yield expected, while beans were in poor state with below normal yield expected. Coffee was at 100% ripeness stage and in moderate state but damaged by leaf rust and leaf minor at less 10% each, while bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips and cigar end rot at 25% and less than 10% respectively.

2.3.3 Thika

Nil rainfall was observed at the station during the dekad compared to 7.6 mm recorded in the previous dekad. The mean air temperature and pan evaporation were 19.7⁰c and 52.0 mm respectively. Sunshine duration was 9.5 hours per day.

Maize and beans were at flowering and harvesting stages respectively and both in fair state. While normal yield is expected for maize, below normal yield was expected for the bean crop, which had been adversely affected by excessive rainfall in the early growing stages.

2.3.4. Nyahururu

No significant deviation occurred on rainfall as 0.01mm was recorded during the dekad compared to 0.05mm recorded previously. The mean air temperature and total pan evaporation were 14.0°C and 60.00mm respectively while average sunshine duration was 10.2 hours per day.

Maize and potatoes were at harvesting and flowering stages respectively. In addition, both crops were in fair state with normal yield expected.

2.3.5. Dagoretti

The station received nil rainfall as compared to 60.1 mm received in the previous dekad. The average air temperature and pan evaporation recorded were 18.8°C and 52.5mm respectively while the average sunshine duration was 10.1 hours per day.

There was no phenological report.

2.4 EASTERN PROVINCE

2.4.1 Meru

The station reported rainfall of 12.1 mm up from 1.8 mm. The average air temperature and total pan evaporation recorded were 18.5°C and 49.1 mm respectively, and the sunshine hours reported were 9.9 hours per day.

Maize and beans were at flowering and maturity stages respectively. Beans were in poor state due to adverse affect by excessive rainfall hence below normal yield is expected.

2.4.2 Embu

The station recorded rainfall and average air temperature of 0.0 mm and 19.5°C respectively. Sunshine hours reported were 10.2 hours per day. There was no report on evaporation.

Maize was at flowering stage and in fair state, with normal yield expected though it has been adversely affected by insufficient rainfall.

2.4.3 Katumani (Machakos)

The station received nil rainfall down from 14.1 mm in the previous dekad. The average air temperature recorded was 20.3°C. There was no report on evaporation and sunshine parameters.

Maize was at flowering stage of growth and in fair state. The crop is expected to give normal yield even though it has been adversely affected by moisture stress. Harvesting of beans is nearly complete

2.5.0 COAST PROVINCE

2.5.1. Msabaha

The station received 0.03 mm compared to 0.06 mm of rainfall in the previous dekad. The average air temperature and pan evaporation recorded were 27.5°C and 51.5mm respectively. There was no sunshine report.

Maize was at flowering stage and in fair state. Even though the crop is adversely affected by insufficient rainfall, normal yield is expected. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

The station recorded rainfall and average air temperature of 0.0mm, 27.4⁰c respectively. There was no evaporation and sunshine report.

Maize was at flowering stage and in fair state. Below normal yield is expected as stalk borer, excessive weeds and insufficient rain have adversely affected the crop. Water melon was at 100% consumers ripeness stage and in bad state because it has been adversely affected by drought causing some plants to die.

3. ANALYSIS OF RAINFALL AND TEMPERATURE

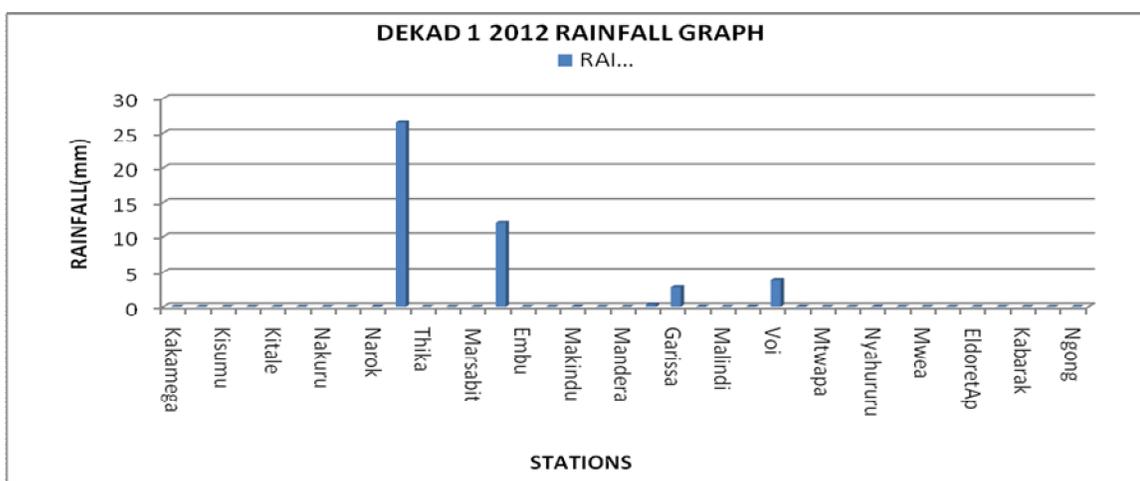


Figure 3.1: Dekadal Rainfall totals for 01 -10 January 2012

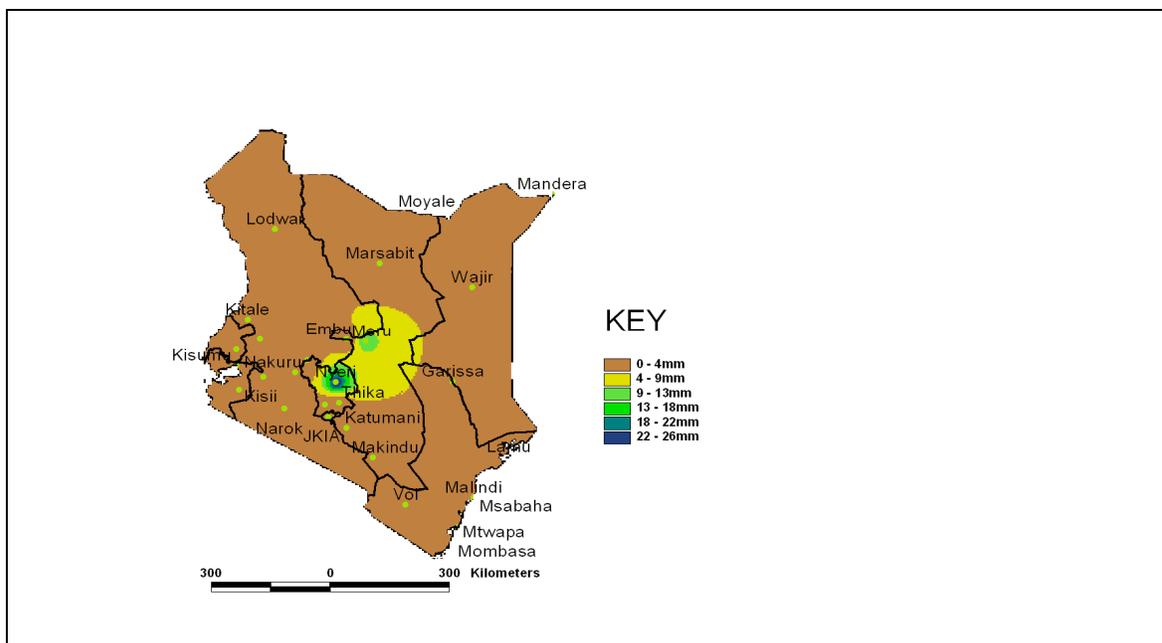


Figure 3.2: Dekadal Rainfall distribution

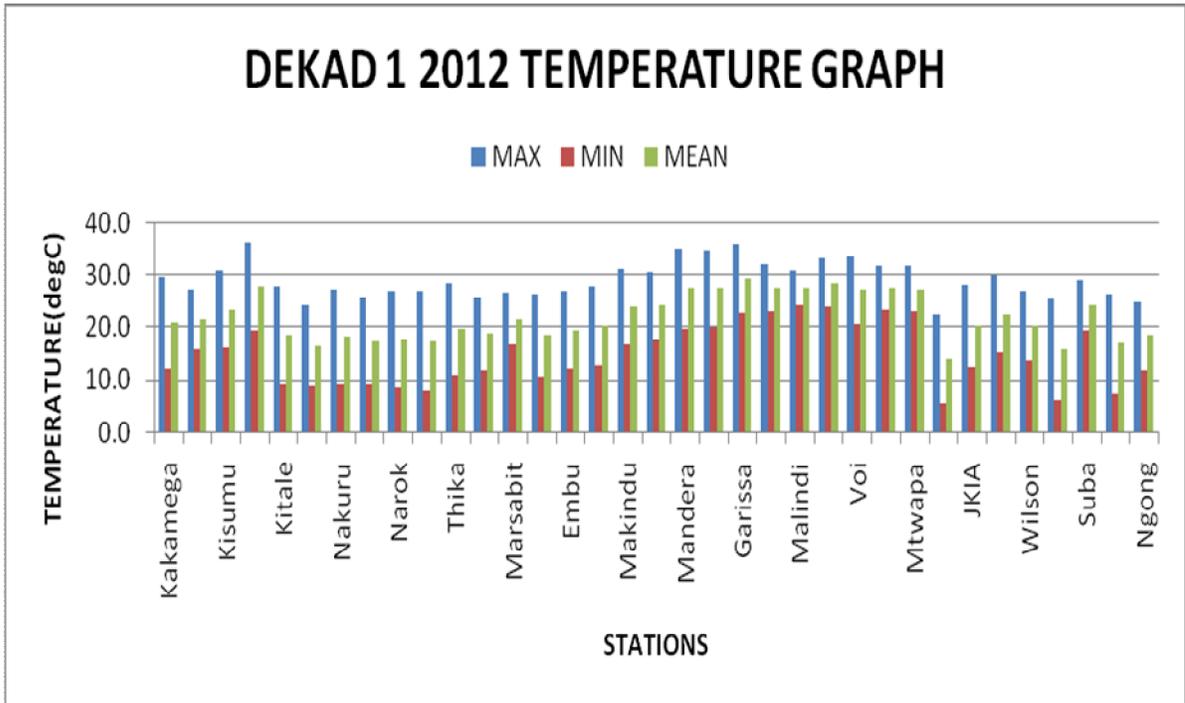


Figure 3.3: Maximum, Minimum and Average temperature in ⁰C

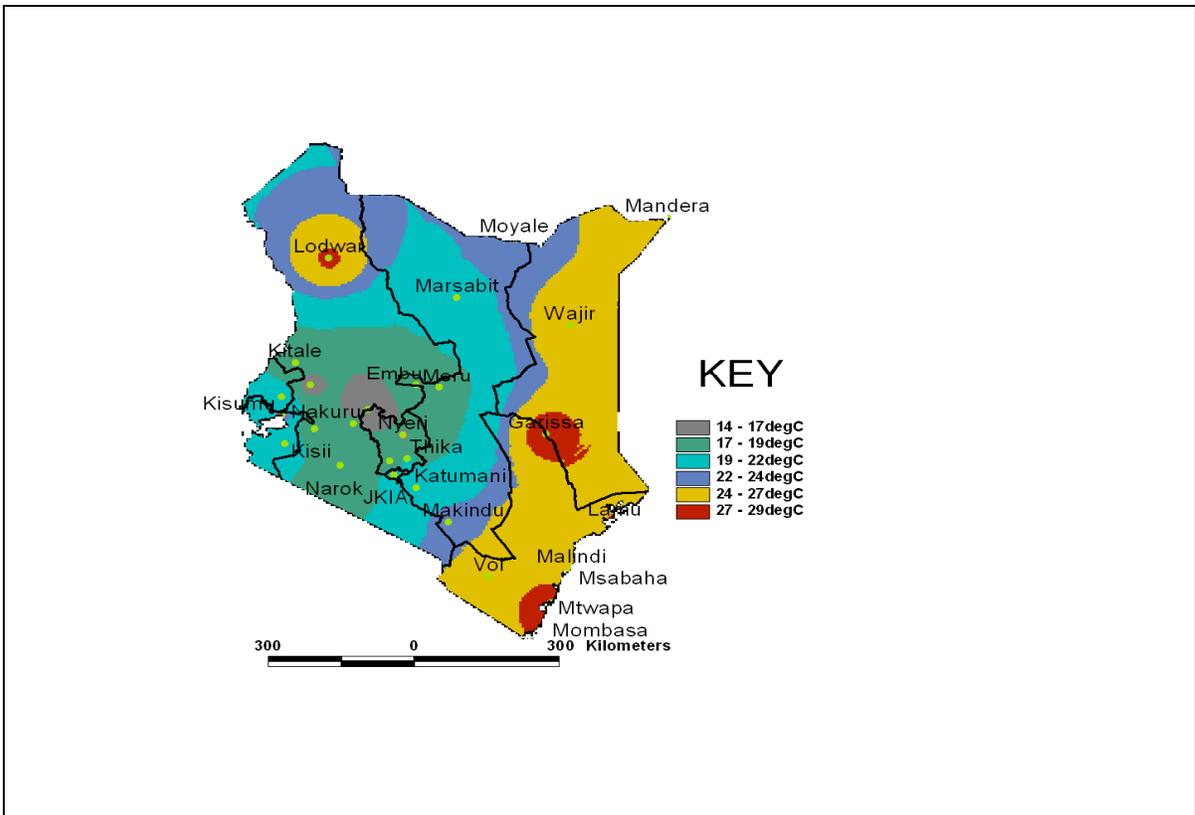


Figure 3.4: Mean Temperature distribution

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS: 11TH TO 21ST JANUARY 2012

- ✚ **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 over most places throughout the day for much of the forecast period. However localized areas within some counties in the south-Rift, south Nyanza are likely to experience very light afternoon showers and thunderstorms on the first day of the forecast period.

These conditions are suitable for the land preparation which is going on in most of these regions.

- ✚ **The Northwestern counties (Turkana, West Pokot etc),** will experience mainly sunny periods throughout the forecast period.

The livestock kept in these areas will start experiencing hardships due to water shortage.

- ✚ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** Sunny periods are likely to prevail for much of the forecast period in these places.

This will have a negative effect with Maize and Beans crops grown in this short rain season becoming stressed because of lack of sufficient water.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc),** Sunny periods will prevail throughout the forecast period in these places.

These weather conditions will negatively affect the livestock kept in the region due to lack of sufficient water.

- ✚ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)** Sunny intervals are expected to dominate for much of the forecast period.

This will have a negative impact on the crops which were planted in the short rain season.

- ✚ **The Coastal strip (counties Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** Sunny intervals will be dominant during the period, but there is likelihood of very light morning showers during the first two days.

The sunny periods will have some effect on the crops grown in these areas especially mangoes.

For feedback or further guidance, Contact:

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