



**KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 12, 2012
21 – 30 APRIL 2012**

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

During the dekad, most stations countrywide, reported enhanced amount of rainfall compared to the previous dekad. The highest rainfall received during the dekad was within Nairobi county where all the stations received above 145mm with Wilson airport, Dagoretti, Moi Air Base (MAB), Kabete and Jomo Kenyatta International Airport (JKIA) reporting 276.6, 265.0, 246.8, 208.5 and 145.9 mm respectively. Embu station in Embu county recorded 249.2 mm while Kakamega in Western Kenya region received 132.4 mm. The highest rainfall observed at the coastal region was 102.1 mm at Voi station. In North Eastern region, all stations reported low rainfall except Moyale, which reported 23.9 mm down from 73.1 mm received during the previous dekad. Finally, Eldoret station in the Rift Valley region reported 200.4mm up from 61.5mm previously.

The maximum temperature generally decreased in all parts of the country. The highest maximum temperature recorded was 37.1^oc at Garissa station while the lowest minimum temperature reported was 11.0^oc at Nyahururu station.

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 2012

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station received 132.4 mm of rainfall compared to 173.4 mm received in the previous dekad. The mean air temperature was 20.8^oc. There was no report on sunshine hours and pan evaporation.

Maize and beans were at emergence stage as farmers are still planting.

2.1.2 Kisii

The station received 152.7 mm compared to 207.1 mm reported in the previous dekad. The mean air temperature and total pan evaporation recorded were 19.4^oC and 32.2 mm respectively while average sunshine was 3.3 hours per day.

Maize was at the emergence stage while beans were at the flowering stage. Both crops were in fair state. However, beans suffered damage from black aphids. Normal yield is expected on both crops.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received 90.2 mm of rainfall compared to 119.9 mm reported in the previous dekad. The average air temperature and total pan evaporation recorded were 19.7⁰C and 28.2 mm respectively. The sunshine hours reported were 4.9 hours per day.

Both maize and beans were at emergence stage and in fair state. First weeding has started.

2.2.2 Eldoret-Kapsoya

The station reported 200.4 mm of rainfall as compared to 61.5 mm of rainfall the previous dekad. The average air temperature was 17.9⁰c.

Maize and beans were at emergence stage. Both crops have also been adversely affected by excessive rainfall.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station reported 127.9 mm of rainfall as compared 60.5 mm reported in the previous dekad. The average air temperature and total pan evaporation recorded were 19.2⁰c and 44.2 mm respectively. There was no report on sunshine hours.

Maize and beans were both at emergence stage and in fair state. Beans have been adversely affected by insects.

2.3.2 Kabete

The station reported 208.5 mm of rainfall. The average air temperature and sunshine hours recorded were 19.1⁰c and 6.4 hours per day respectively. There was no report on evaporation.

Maize and beans were at emergence stage and in fair state as weeding is in progress. Coffee was at 100% pinhead stage and in moderate state but damaged by leaf rust at less than 10%. 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

The station reported rainfall amount of 117.5 mm as compared to 93.4 mm the previous dekad and mean air temperature of 20.9⁰c. The pan evaporation recorded at the station was 38.5 mm. There was no report on sunshine hours.

Maize, beans and potatoes were all at emergence stage and in fair state though excessive rainfall has adversely affected beans.

2.3.4 Nyahururu

The station received rainfall amount of 134.9 mm compared to 117.3 mm reported in the previous dekad. The mean air temperature and total pan evaporation recorded were 16.1⁰c and 32.5 mm respectively.

Maize, beans and potatoes were at emergence stage and in fair state though adversely affected by animals.

2.3.5 Dagoretti

The station reported 265.0 mm of rainfall compared to 116.5 mm the previous dekad. The average air temperature and sunshine recorded were 19.5⁰c and 5.5 hours per day.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station reported 52.0 mm of rainfall as compared to 50.8 mm the previous dekad. The average air temperature, evaporation pan and sunshine recorded were 19.6⁰c, 42.9 mm 7.8 hours per day respectively. There was no report on Sunshine hours.

2.4.2 Embu

The station reported 249.2 mm of rainfall as compared to 110.3 mm the previous dekad. The average air temperature, and sunshine recorded were 20.4⁰c and 7.8 hours per day respectively.

Both maize and beans were at emergence stage and in fair state. Most of the farmers have completed planting.

2.4.3 Katumani (Machakos)

The station reported 183.4 mm of rainfall as compared to 39.5 mm the previous dekad. The average air temperature recorded was 20.3⁰c. There was no report on evaporation pan and sunshine parameters.

Maize and beans were in good state.

2.5 COASTAL REGION

2.5.1. Msabaha

The station reported 11.5 mm of rainfall as compared to 16.4 mm the previous dekad. The average air temperature and pan evaporation recorded were 28.3⁰c and 54.0 mm respectively. There was no sunshine report.

Maize was at emergence stage and in fair state while mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

This station reported 29.5 mm of rainfall as compared to 3.9 mm the previous dekad. The average air temperature was 27.8^oc. There was no report on crops and sunshine hours.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

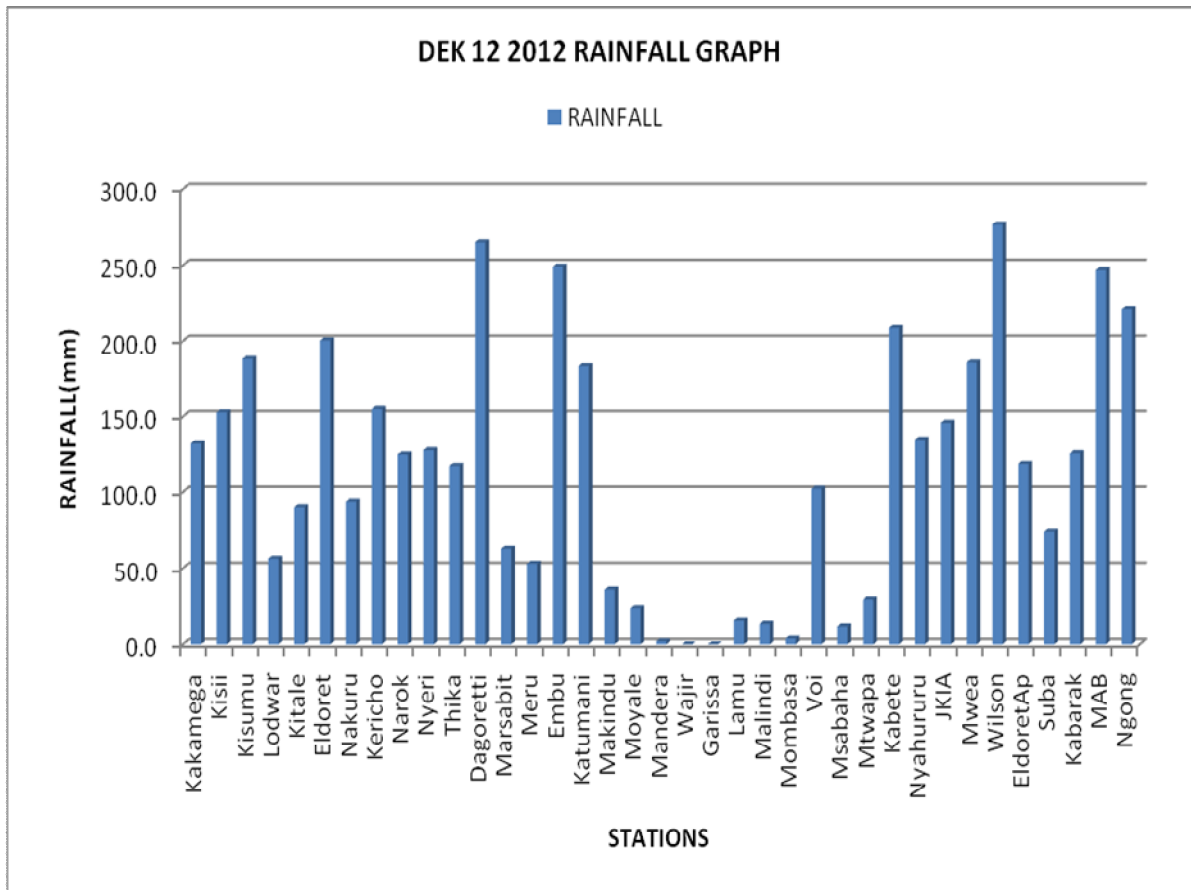


Figure 3.1: Dekadal rainfall totals for 21-30 April 2012

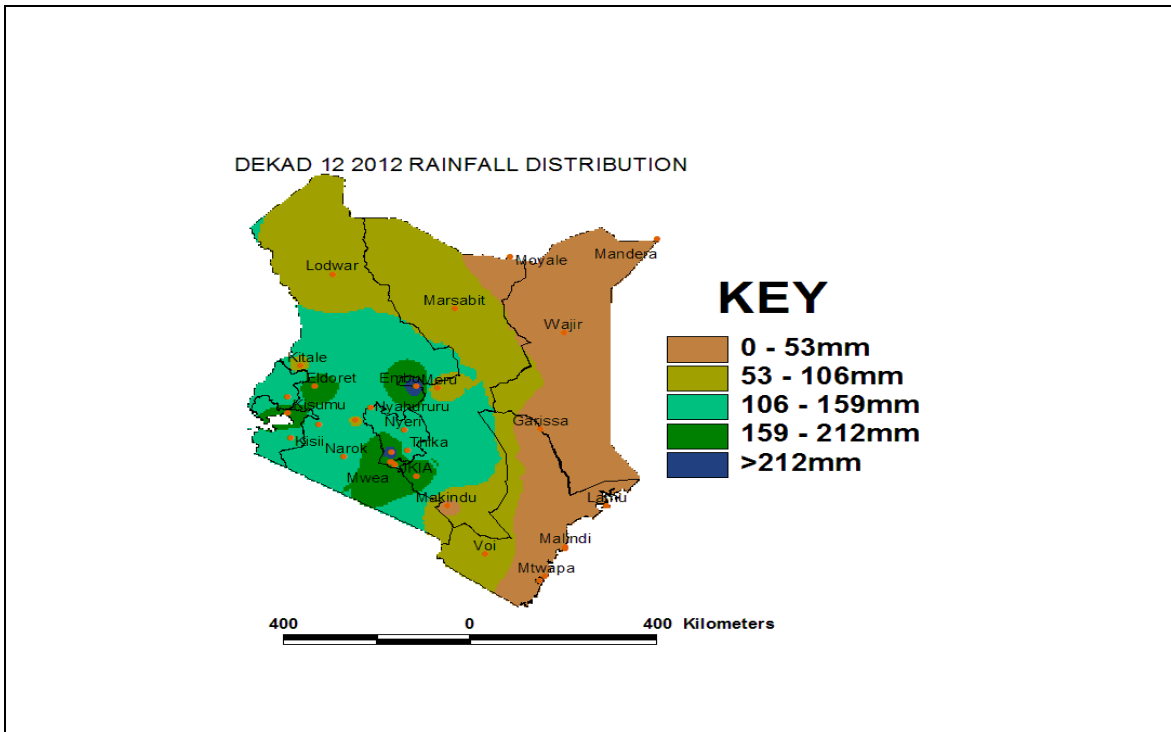


Figure 3.2: Dekadal rainfall distribution

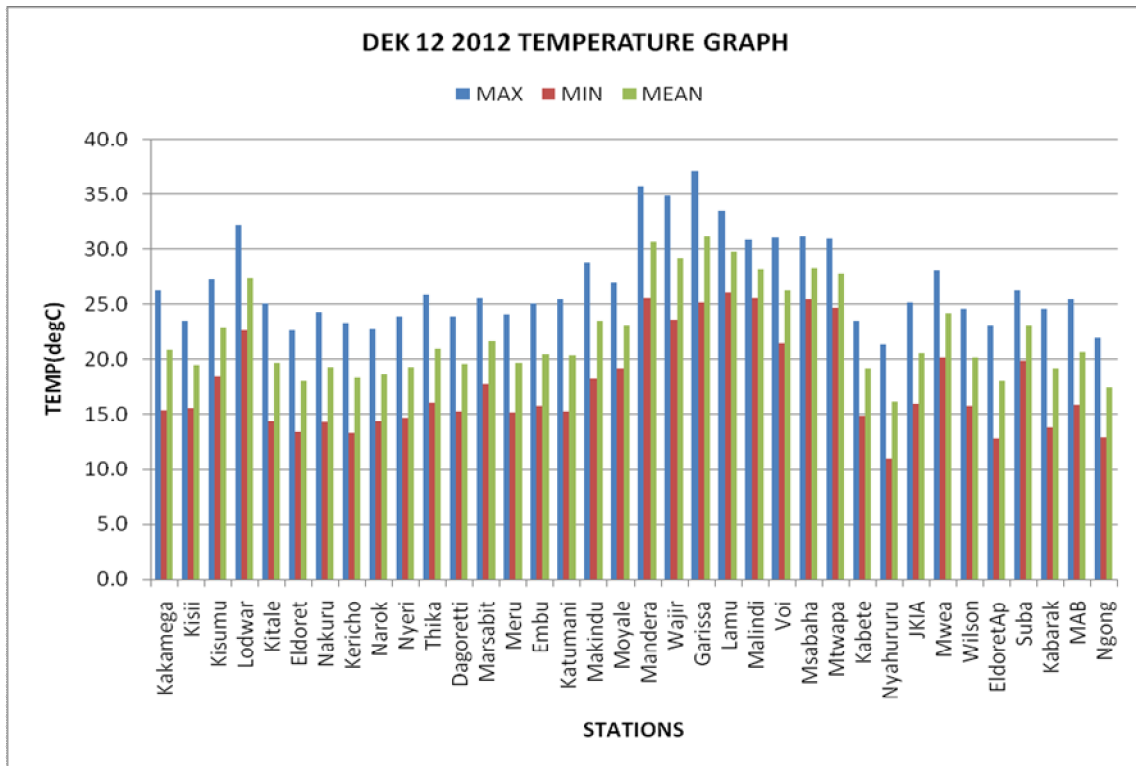


Figure 3.3: Maximum, Minimum and Average temperature in ⁰c

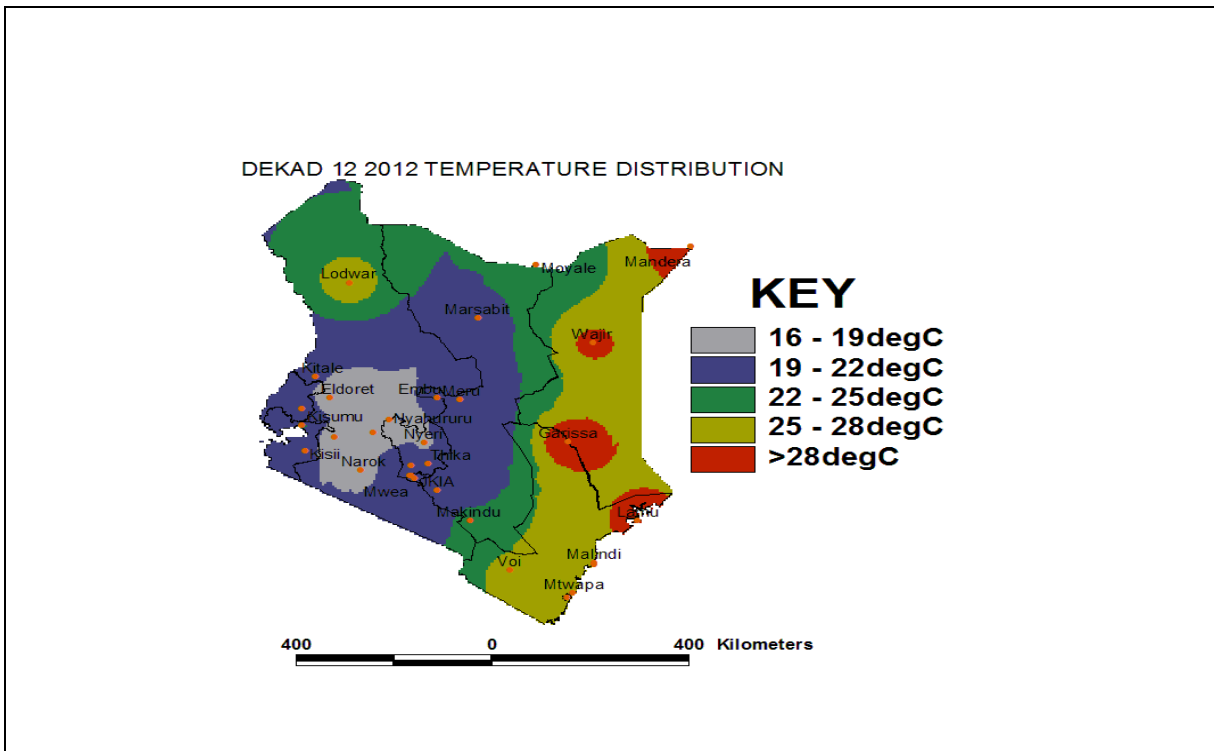


Figure 3.4: Mean temperature distribution

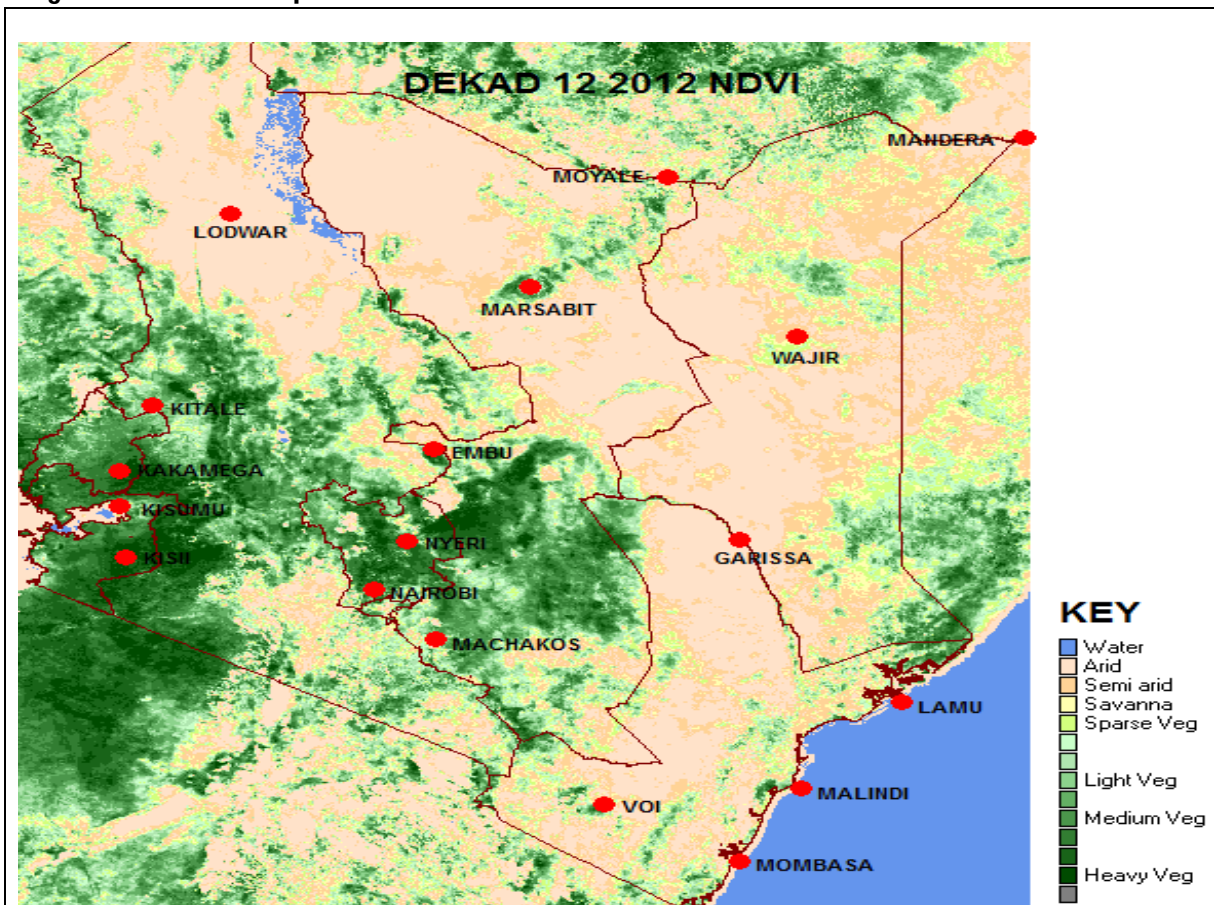


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 01-10 MAY 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 morning rains over few places breaking to sunny intervals and afternoon/night showers accompanied thunderstorms over several places.

This is expected to continue improving the germination of maize and bean in the above-mentioned counties.

- ✚ **Over the Northwestern counties (Turkana, West Pokot etc),** will experience morning rains over few places breaking into sunny intervals, then afternoon showers and thunderstorms over several. *The expected light rains will help replenish the pasture and general vegetation of the region.*

- ✚ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** Cloudy morning with rains especially in high ground areas and afternoon/night showers over several places will be experienced for much of the forecast period. Localized heavy rainfall events are likely to occur occasionally.

The expected Improvement in rainfall activities will spur the germination of maize and beans being planted in the region.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc),** The first two days is expected cloud conditions with rain and afternoon/night showers. During the other remaining days will be characterized by afternoon/night showers.

The showers will be expected to keep improving the pasture for the animals kept in these regions.

- ✚ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)** Cloudy morning with moderate rains and afternoon showers are likely over several places during the first half of the forecast period. This will be particularly so in areas bordering the western parts of the lowlands. Sunny intervals are expected in the second half of the forecast period.

The expected showers will improve the pasture for livestock and wildlife in the region and also spur the growth of maize and beans which have already germinated.

- ✚ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** showers are expected over several places and are expected to be heavy on the first two days especially on the south Coast. The rainfall intensities are expected reduce in the second half of the forecast period.

The expected showers and light rains will continue spurring the growth of mango trees and also help the germination of other crops being planted for the long rains season. Sunny and hot weather conditions will favour the ongoing harvesting of watermelon.

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