



**KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN
WEATHER AND CROP REVIEW FOR DEKAD 21, 2012
21– 31 JULY 2012**

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

The current dekad showed a marked decrease in rainfall activities both in space and intensity in most stations, with only a few stations reporting an increase. Kitale station in Rift Valley region recorded the highest rainfall of 121.6mm countrywide. This was a major improvement from 82.6mm reported in Eldoret airport station in the previous dekad. The second highest amount of rainfall of 68.7mm was reported in Nyahururu station in Central region. The highest rainfall of 20.1mm was reported at Kisii station in Nyanza region. Kakamega station recorded 14.9mm being the highest rainfall in the Western region. Msabaha and Kabete stations reported 10.7mm and 7.6 mm respectively, being the highest amounts in the Coastal and Nairobi regions respectively.

Most stations reported an increase in maximum temperatures. However, stations in Western and Nyanza regions recorded a decrease. Mandera station in North Eastern region reported the highest maximum temperature of 34.1°C. This was an increase compared to 33.6°C reported in Lodwar station in the previous dekad. Nyahururu station in Central region recorded the lowest maximum temperature of 18.8°C compared to 19.2°C recorded in Nyeri station in the previous dekad.

For a 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 21; 21 – 31 JULY 2012

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

This station received 14.9 mm of rainfall which was a decrease from 81.2 mm reported in the previous dekad. The mean air temperature and total pan evaporation recorded were 20.3°C and 33.4mm respectively. There was no report on sunshine hours.

Maize was at maturity stage and in good state with normal yield expected. Beans harvesting is over.

2.1.2 Kisii

This station recorded 20.1mm of rainfall compared to 31.4 mm in the previous dekad. The mean air temperature and total pan evaporation recorded were 20.0°C and 28.6 mm respectively. There was no report on sunshine.

Maize was at flowering stage and in fair state and normal yield is expected.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received rainfall of 121.6 mm compared to 41.8 mm reported in the previous dekad. The average air temperature was 18.5°C. There was no report on sunshine and total pan evaporation.

Maize and Beans were at flowering and harvesting stages respectively. Both crops are in fair state and normal yield is expected.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall amount of 29.0 mm which was a decrease from 34.6 mm reported in the previous dekad. The average air temperature and total pan evaporation recorded were 16.8°C and 38.5mm respectively. There was no sunshine report.

Maize and beans were at flowering and maturity stages respectively. Both crops were in fair state and normal yield is expected..

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received 11.6mm compared to 34.6 mm of rainfall in the previous dekad. The average air temperature recorded was 15.7°C. There were no reports on total pan evaporation and sunshine hours.

Maize was at flowering stage and in fair state though they had been adversely affected by stalk borer. However, normal yield is still expected. Beans were at harvesting stage, in poor state and below normal yield are expected.

2.3.2 Kabete

The station recorded rainfall amount of 7.6mm compared to 15.7mm in the previous dekad. The average air temperature and pan evaporation recorded were 16.5°C and 24mm respectively. Sunshine hours reported was 3.4 hours per day.

Maize was at flowering stage, in fair state and normal yield is expected. Beans were at harvest stage, in poor state and below normal yields expected. Coffee was at 100% berry soft stage and in moderate state but had been damaged by leaf rust, CBD and leaf minor at less than 10% each. 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 3.7mm of rainfall compared to 2.0mm in the previous dekad. The total mean air temperature and pan evaporation recorded at the station were 18.1°C and 24.7 mm respectively. There was no report on sunshine hours.

Maize was at flowering stage and in fair state with normal yield expected. Beans and potatoes had been harvested.

2.3.4. Nyahururu

The station received rainfall of 68.7mm, an increase from 60.9mm reported in the previous dekad. The mean air temperature and pan evaporation recorded were 14.2⁰C and 22.6mm respectively. There was 3.3 hours of sunshine recorded per day.

Maize and beans were at emergence and flowering stages respectively. Both crops are in good state, hence normal yield is expected. Potatoes were at flowering stage and in poor state as they had been adversely affected by blight due to cold conditions, hence below normal yield is expected.

2.3.5. Dagoretti

The station reported rainfall amount of 0.4mm compared to 8.2mm recorded in the previous dekad. The average air temperature and total pan evaporation recorded were 17.3⁰C and 27.9mm respectively. There was no sunshine report.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station reported 3.9mm of rainfall compared to 2.1mm in the previous dekad. The average air temperature recorded was 16.7⁰C. There was no report on sunshine and total pan evaporation.

Maize was at flowering stage and in fair state hence normal yield is expected.

2.4.2 Embu

The station recorded rainfall of 2.5mm compared to 11.7mm in the previous dekad. The average air temperature was 17.1⁰C. There was no total pan evaporation and sunshine report.

Maize was at flowering stage and in fair state with normal yield expected.

2.4.3 Katumani (Machakos)

The station reported dry conditions just as in the previous dekad. The average air temperature recorded was 17.5⁰C. There was no report on pan evaporation and sunshine parameters.

Maize was at maturity stage, in good state and normal yield is expected. Harvesting of beans is complete.

2.5 COASTAL REGION

2.5.1. Msabaha

The station received rainfall of 10.7mm compared to 18.7mm in the previous dekad. The average air temperature and pan evaporation recorded were 25.5⁰C and 40.1mm respectively. There was no sunshine report.

Maize was at harvesting stage, in fair state and normal yield is expected. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

This station recorded rainfall of 4.3mm compared to 8.8mm in the previous dekad. The average air temperature and pan evaporation were 25.2°C and 44.3mm respectively. There was no report on sunshine parameter.

Maize was at flowering stage and in fair state, though the crop had been adversely affected by stalk borer, excessive weed growth and animals. Normal yield still is expected.

3. ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

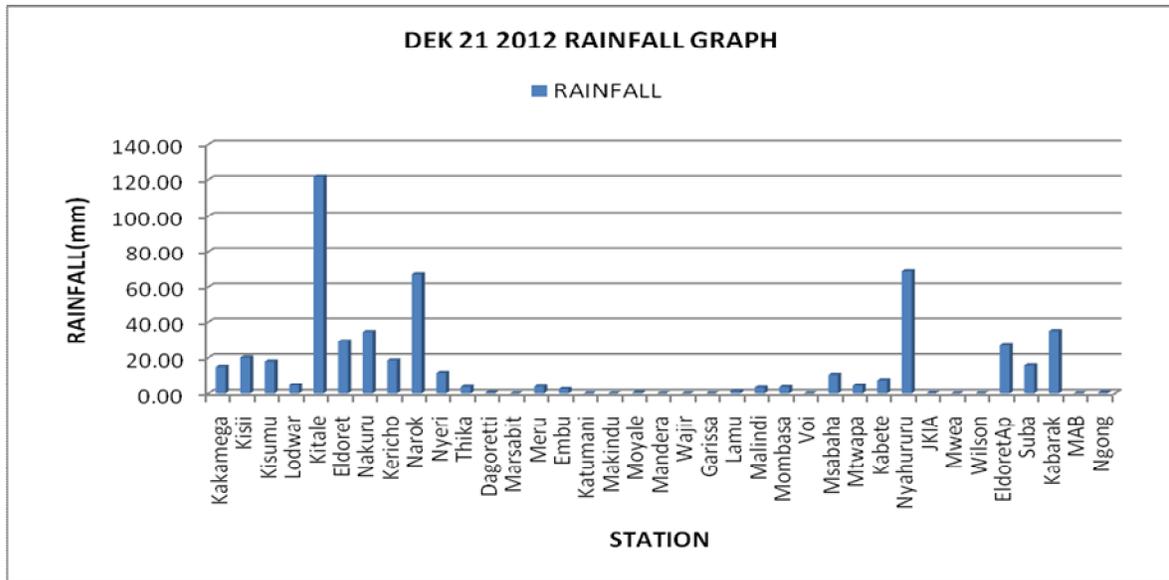


Figure 3.1: Dekadal rainfall totals for 21-31 July 2012

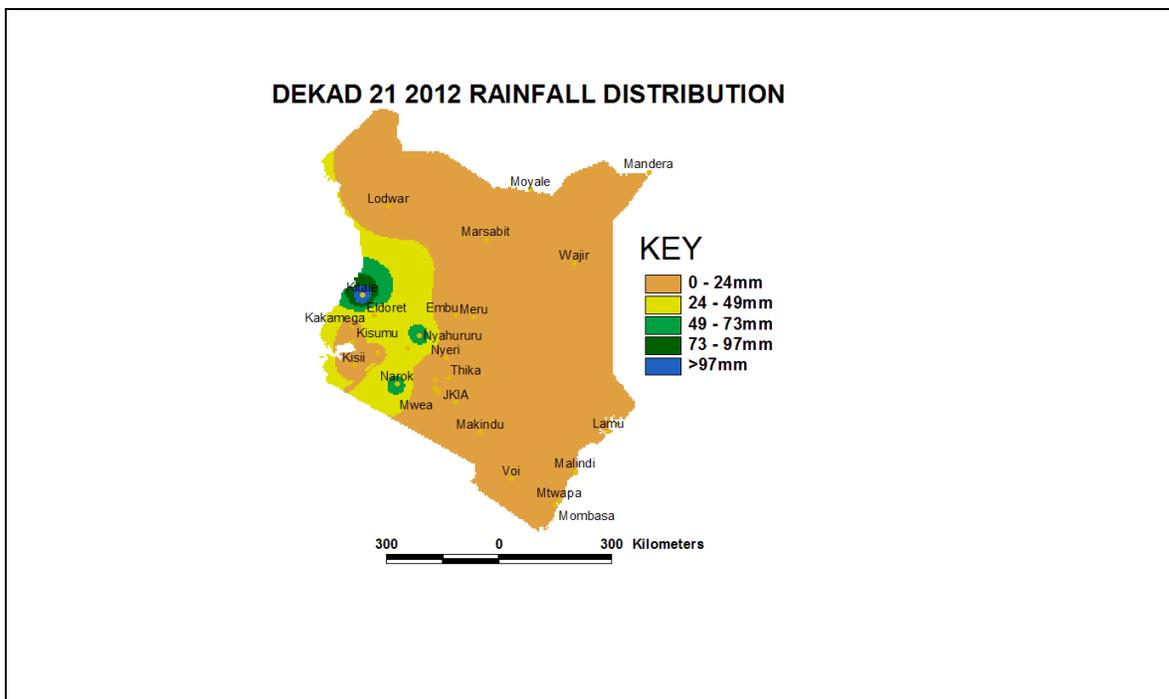


Figure 3.2: Dekadal rainfall distribution

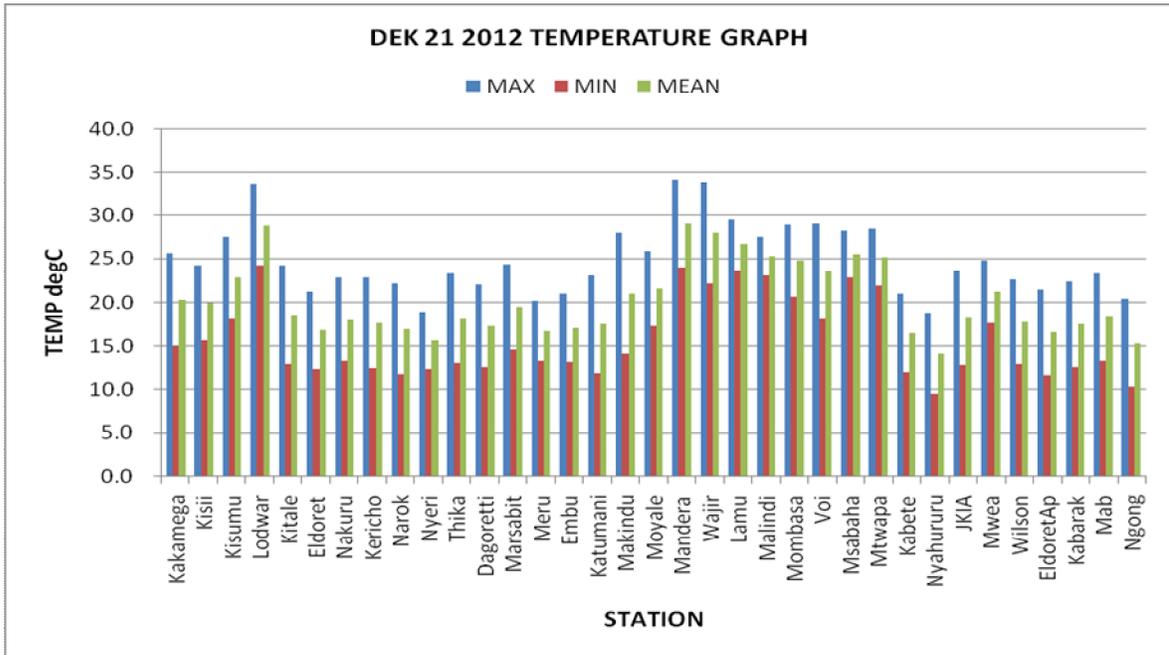


Figure 3.3: Maximum, Minimum and Average temperature in °C

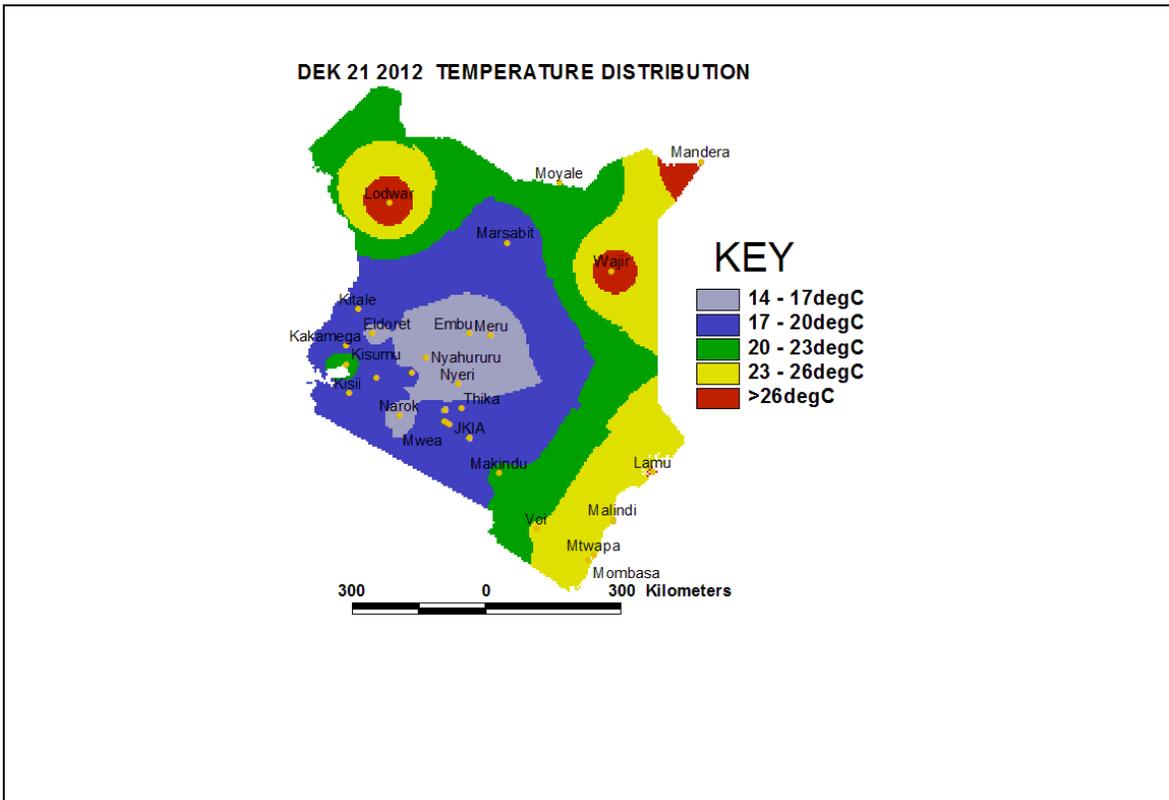


Figure 3.4: Mean temperature distribution

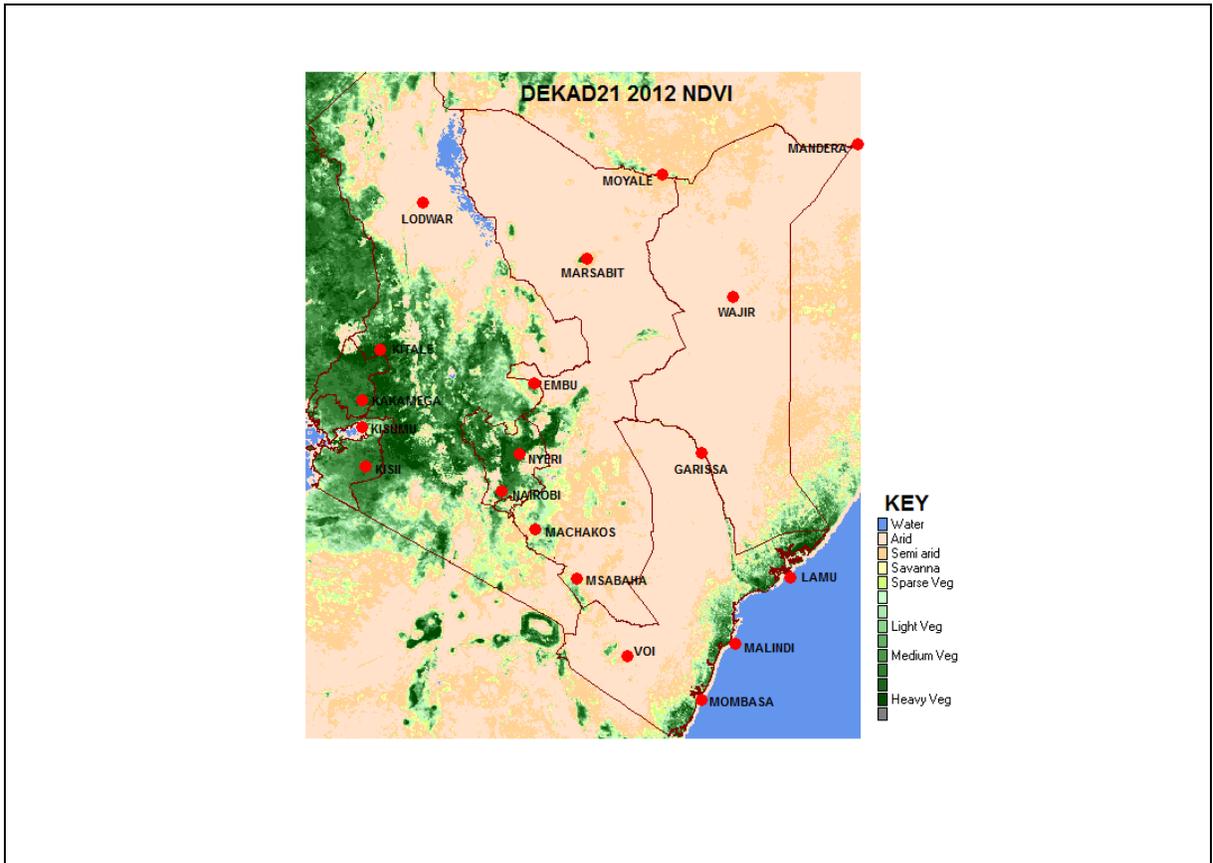


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 01-10 AUGUST 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),** are expected to experience sunny intervals in the morning and afternoon/night showers accompanied by thunderstorms over several places for much of the period. The rainfall is expected to be heavy around Mt. Elgon for much of the period and around the Nandi Hills in the last two days of the forecast period.

The showers will continue flourishing the crops which are flowering especially maize in Kisii and Kitale.

- ✚ **Over the Northwestern counties (Turkana, West Pokot etc),** are expected to experience sunny intervals in the morning and afternoon showers over few places mainly bordering Uganda in the afternoon in the first two days of the forecast period. Sunny intervals are expected during the remaining period.

The afternoon showers will continue to 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) ,** are expected to experience cool, cloudy and foggy conditions in the morning with light rains/drizzle over few places giving way to short sunny intervals

for much of the forecast period. Moderate afternoon / night showers are expected over few places especially the high ground areas in the last two days of the forecast period.

The rains will continue benefiting the growing crops in the region especially maize which is approaching the maturity stage.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc),** Sunny intervals expected throughout the forecast period.

The sunny conditions will continue having a negative impact on the pasture and crops grown in this region.

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

The sunny intervals will have a negative impact on the pasture for livestock and crops grown in this region.

- ✚ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc) ,** are expected to experience light morning showers in the morning over few places and sunny intervals in the afternoon in the first half of the forecast period. Sunny intervals in the morning and afternoon are expected to prevail in the second half of the forecast period.

The rains will continue benefiting the growing crops in the region especially maize which is in flowering stage.

For feedback or further guidance, Contact:

Director,

Kenya Meteorological Department,

Agro meteorological Advisory Services Division,

Dagoretti Corner, Ngong Road, P.O. Box 30259, 00100 GPO, Nairobi

Tel: +254 (0)20 3867880-7/3876957/3873682; Fax: +254 (0)20 3876955

E-mail: agromet@meteo.go.ke;

Website: www.meteo.go.ke

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