KENYA METEOROLOGICAL SERVICE

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 36, 2013
21-31 DECEMBER, 2013

1. HIGHLIHTS ON RAINFALL AND TEMPERATURE

Rainfall activities in the country went down significantly both in space and amount compared to the previous dekad. Western region received the highest amount of rainfall countrywide with Kakamega recording 57.8mm. North Eastern region continued being silent over the entire dekad as noted in the previous one. In Central region, Nyeri station recorded the highest amount of rainfall of 18.0mm. Narok station in Rift Valley region received the highest amount of rainfall of 33.3mm which was a decrease according to the previous dekad. In Eastern region, Meru station received the highest amount of rainfall of 7.2mm which was a decrease compared to the previous dekad. Coastal region had Lamu station reporting the highest amount of rainfall of 17.6mm. In Nairobi, Jomo Kenyatta International Airport received only a trace in the whole region which is insignificant agriculturally. Kisii station in Nyanza region reported the highest amount of rainfall of 47.2mm which was a decrease from the previous dekad.

Generally, there was a significant increase in the maximum temperature over the whole country. The highest observed maximum temperature was 37.0^{0}C at Wajir station. The minimum temperature decreased significantly in the whole country with Nyahururu station in Central region reporting the lowest of 9.6^{0}C .

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 36; 21-31 DECEMBER 2013

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station received rainfall amount of 57.8mm. The mean air temperature and pan evaporation were 21.8^{0}C and 51.3mm respectively. The sunshine duration was 8.4hrs

No phenological report

2.1.2 Kisii

The station recorded rainfall of 47.2mm. The mean air temperature and sunshine duration were 21.2^{0}C and 7.9 hours respectively. Pan evaporation was 44.2mm.

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

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received only a trace which has no value agriculturally. The average air temperature and pan Evaporation were 19.5^{0}C and 50mm respectively. There was no report on sunshine duration.

No phenological report.

2.2.2 Eldoret-Kapsoya

The station received only a trace which has no value agriculturally. The average air temperature and pan evaporation reported were 17.1^{0}C and 65mm respectively. There was no report on sunshine duration.

No phenological report.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 18.0mm. The average air temperature was 17.8^{0}C. There was no report on pan evaporation and sunshine parameters.

Maize crop is in the ninth leaf stage while beans were at flowering stage and both crops are in fair state.

2.3.2 Kabete

The station did not record any rainfall in the dekad. The average air temperature and evaporation pan recorded were 18.6^{0}C and 55mm respectively. There was no report on sunshine duration.

Maize was in emergence stage and beans was in flowering stage and both crops were in a fair state.

2.3.3 Thika

The station did not record any rainfall in the dekad. The mean air temperature and pan evaporation recorded were 19.2^{0}C and 44.5mm respectively. No report on sunshine duration.

Maize was at emergence stage and in fair state while beans and potatoes were both at flowering stage and in fair state. Normal yield in all crops is expected.

2.3.4. Nyahururu

The station did not record any rainfall in the dekad. The mean air temperature and pan evaporation recorded were 14.9^{0}C and 48mm respectively. There was no report on sunshine duration.

Maize was at harvest stage and in a good state while potatoes were at maturity stage and in fair state. Normal yield in both crops is being expected.

2.3.5. Dagoretti

The station did not report any rainfall in the dekad. The average air temperature and Pan Evaporation were 19.0^{0}C and 59mm respectively. The sunshine duration was 9.7hrs.

Maize was at ninth leave stage while beans are at flowering stage. Both crops were at a fair state.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station recorded rainfall amounts of 7.2mm. The average air temperature and Pan Evaporation were 17.5^{0}C and 41.2mm respectively. The sunshine duration was 8.1hrs.

Maize and beans are at emergence and flowering stage and both crops are doing fairly well.

2.4.2 Embu

The station did not report any rainfall in the dekad there was no report on Temperature, Pan Evaporation and Sunshine duration.

Maize was emergence stage while beans were at flowering stage and both in fair state. Normal yield is expected for beans.

2.4.3 Katumani (Machakos)

The station recorded rainfall amount of 0.4mm. The average air temperature was 18.9^{0}C. There was no report on sunshine duration and pan evaporation.

Maize and beans were at ninth leave and flowering stages respectively but both in good state. Normal yield is expected for beans.

2.5. COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 0.05mm. The average air temperature and pan evaporation recorded was 27.9^{0}C and 56.5mm respectively. There was no report on sunshine duration.

Maize is at emergence stage and in poor state due to insufficient rain. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

The station received only a trace of rainfall. The average air temperature was 27.1^{0}C. There was no report on sunshine duration and Pan Evaporation.

Maize was at flowering stage and in a poor state as it had been adversely affected by insufficient rainfall.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

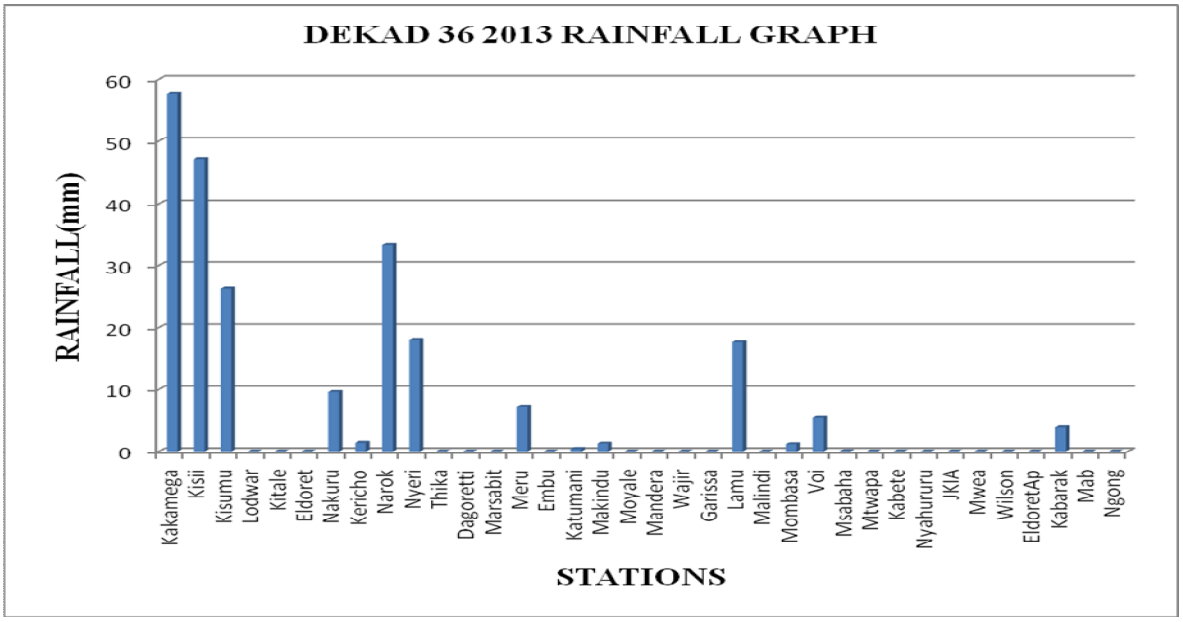

Figure 3.1: Dekadal rainfall totals for 21st to 31st December 2013

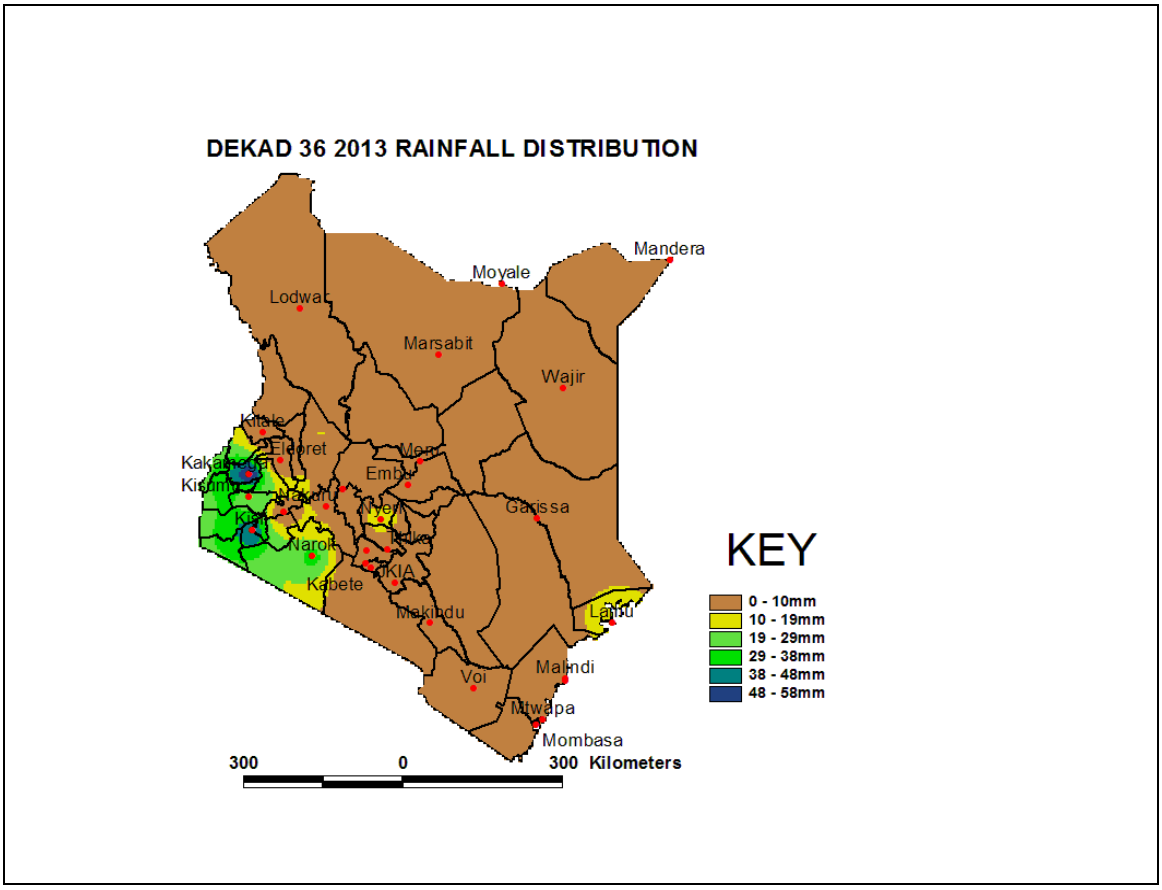

Figure 3.2: Dekadal rainfall distribution for dekad 36, 2013

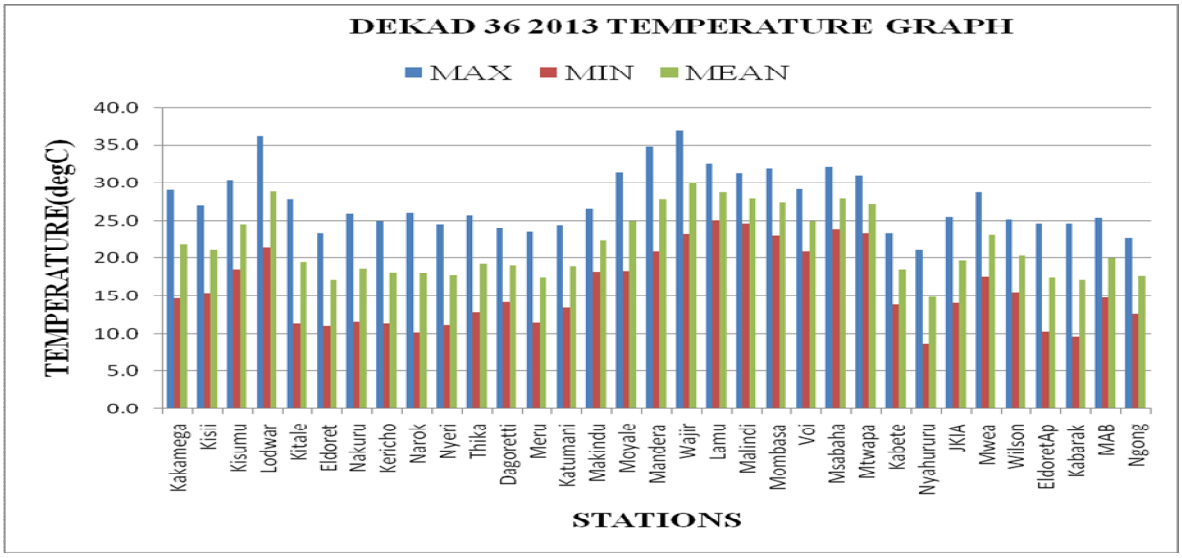

Figure 3.3: Maximum, Minimum and Average temperature in ^{0}C for dekad 36, 2013

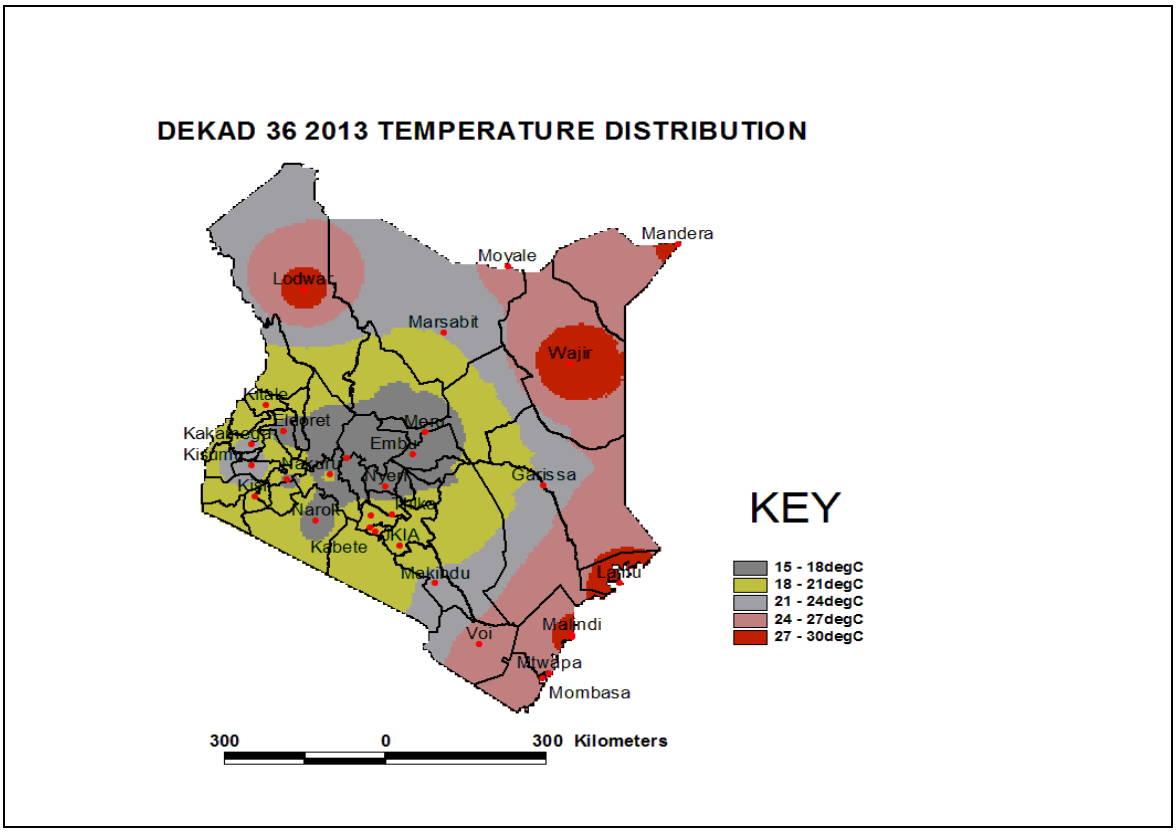

Figure 3.4: Mean temperature distribution for dekad 36, 2013

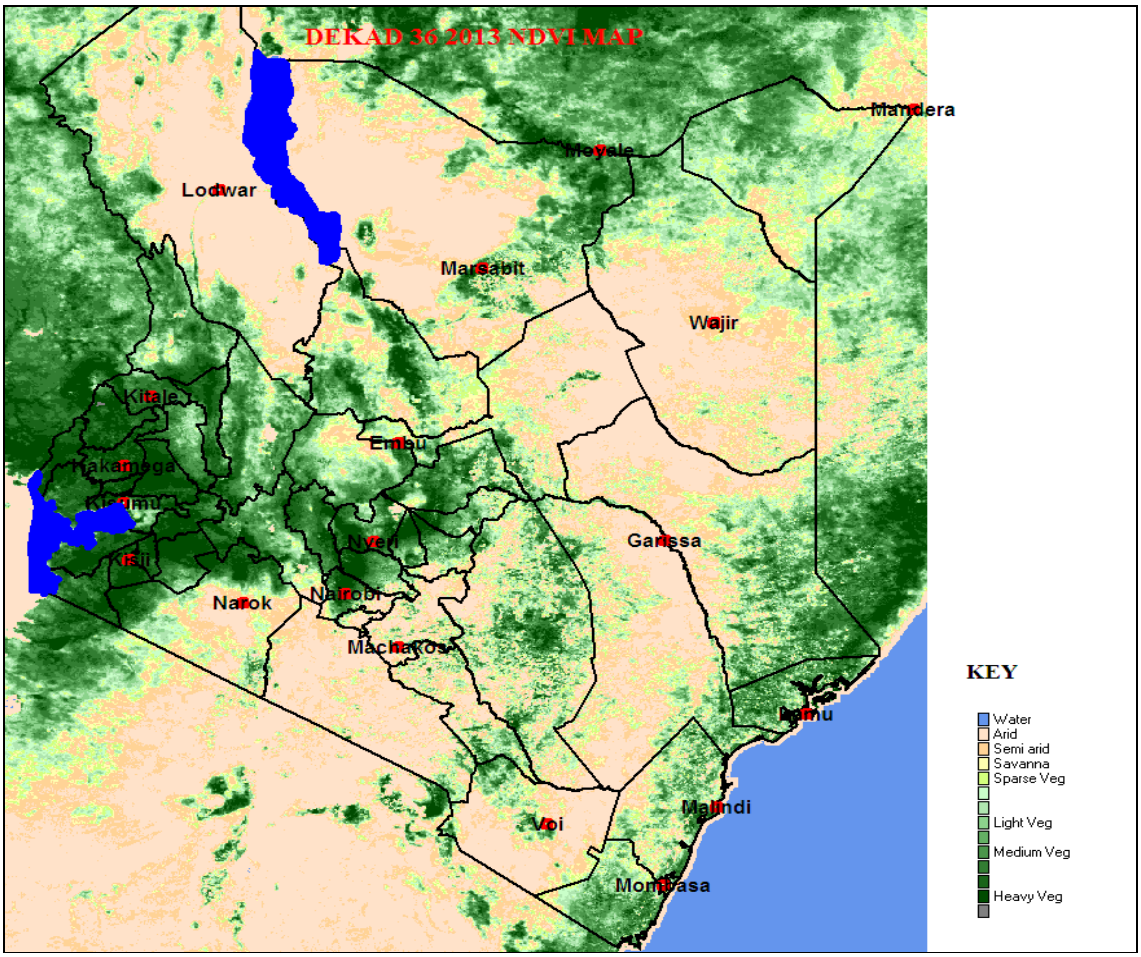

Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1-10 JANUARY 2014

- **Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Trans Nzoia, Elgeyo Marakwet, Nandi, Laikipia, Kajiado, Vihiga and Busia)**, are expected to experience sunny intervals in the morning through the forecast period. Showers and thunderstorms are likely in afternoons over few places in the entire forecast period.

  The afternoon showers are expected to benefit the state of crops in the region

- ***Over* the Northwestern counties (Turkana, West Pokot and Samburu),** are expected to experience sunny intervals throughout the forecast period.

  The dry period is expected to exaggerate the state of pasture and vegetation conditions in these counties.

- **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu**, **Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga),** are expected to experience mainly sunny intervals throughout the forecast period.

Occasional afternoon/evening showers over few places are expected on the second and third days.

The expected showers will enhance the state of the crops in the region.

- ***N*ortheastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo),** are expected to experience sunny intervals throughout the forecast period.

  The dry conditions extended over three dekads are expected to worsen the state of pasture and vegetation in these counties.

- **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** are expected to experience sunny intervals for most of the forecast period, the second and third day are expected to experience afternoon/evening showers.

The dry condition forecasted will deteriorate the state of crops, pasture and vegetation in the region.

In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc), are expected to experience sunny intervals for most of the forecast period, the second and third day are expected to experience morning showers over few places.

The afternoon showers forecasted is expected to improve the state of the crops in the region.

For feedback or further guidance, Contact:
Director,
Kenya Meteorological Services,
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