WEATHER AND CROP REVIEW FOR DEKAD 36, 2014
21-31DECEMBER, 2014

HIGHLIGHTS ON RAINFALL AND TEMPERATURE

There was an increase in rainfall intensity and a decrease in spatial distribution over the country during the dekad. The highest rainfall was experienced over Rift Valley region with Kericho station recording 82.3mm compared to 71.9mm reported at Kisumu station in Nyanza region in the previous Dekad. The second highest rainfall was received in Nairobi region with Kabete station recoding 74.1mm. In Nyanza region, Kisumu station received the highest rainfall of 60.4mm. In central region, Thika station reported the highest amount of rainfall of 52.3mm. Meru station in Eastern region received the highest rainfall amount of 38.1mm. In Western region, Kakamega recorded the highest rainfall amount of 24.8mm. Msabaha station in coastal region reported the highest rainfall of 0.06mm. North Eastern region did not receive rainfall.

During the review period, Maximum temperatures decreased while Minimum temperatures increased in most stations unlike in the previous dekad where both were on an increasing trend. Wajir station in North-Eastern region reported the highest temperature of 36.8^{0}C compared to 36.3^{0}C at the Lodwar station in the same region in the previous dekad. The lowest Minimum temperature of 8.4^{0}C was recorded at Nyahururu station in central region compared to 8.7^{0}C reported in the same 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 36:21 -31 DECEMBER, 2014

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station recorded an increase in rainfall amount of 24.8mm compared to 3.9mm in the previous dekad. The mean air temperature and pan evaporation reported were 21.7^{0}C and 4.1mm respectively. There was no report on Sunshine duration.

No phenological report.

2.1.2 Kisii

The station reported rainfall amount of 17.2mm compared to 16.7mm recorded in the previous dekad. The mean air temperature and Pan Evaporation recorded were 20.4^{o}C and 3.2mm respectively. There was no record on Sunshine parameter.

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

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station recorded rainfall amount of 0.03mm as compared to 0.01mm recorded in previous dekad. The mean air temperature and Pan Evaporation were 19.7°C and 2.2mm respectively. There was no report on sunshine duration.

2.2.2 Eldoret-Kapsoya

The station received rainfall amount of 21.2mm. The mean air temperature and Pan Evaporation recorded were 17.5°C and 5.2mm respectively. There was no record on sunshine duration.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 31.7mm. The average air temperature was 19.0°C. There was no report on pan evaporation and sunshine parameters

Maize was at tasseling stage and in fair state while Beans were at flowering stage and in poor state due to insufficient rainfall. Below normal yield is expected for Beans.

2.3.2 Kabete

The station recorded rainfall amount of 74.1mm. The sunshine duration reported was 7.7hrs/day. There was no record on average air temperature and report on Pan Evaporation.

Both Maize and Beans were at emergence stage and in fair state.

2.3.3 Thika

The station recorded rainfall amount of 52.3mm. The mean air temperature and Pan Evaporation recorded were 20.7□C and 5.2mm respectively. There was no report on sunshine duration.

Maize, beans and Potatoes were at emergence, flowering and maturity stages respectively and all are in poor state due to insufficient rain. Below normal yield is expected for Beans and Potatoes.

2.3.4 Nyahururu

The station reported rainfall amount of 18.5mm. The mean air temperature and Pan Evaporation recorded were 15.1^{0}C and 4.4mm respectively. There was no report on sunshine duration.

Maize and Potatoes were both at harvest stage and in fair state. Normal yield for both crops is expected.

2.3.5. Dagoretti

The station reported rainfall amount of 44.1mm. Sunshine recorded was 7.7hrs/day while Pan Evaporation was 4.6mm. There was no report on average air temperature.

2.4 EASTERN KENYA REGION

2.4.1 Embu

The station recorded rainfall amount of 23.0mm. The Pan Evaporation recorded was 5.0mm. There was no report on mean air temperature and sunshine parameters.

Both M*aize and Beans were at flowering stage and in fair and poor state respectively having been adversely affected by insufficient rainfall. Below normal yield is expected for both crops.*

2.4.2 Meru

The station received rainfall amount of38.1mm. The Pan Evaporation recorded was4.5mm. There was no report on mean air temperature and sunshine duration.

Maize was at flowering stage and in good state while beans were at maturity stage and in fair state. Normal yield for both crops expected.

2.4.3 Katumani (Machakos)

The station reported rainfall amount of 11.5mm. The average air temperature reported was 20.1^{0}C. Sunshine duration was 7.9hrs/day. There was no report on pan evaporation.

Maize and beans were at flowering and maturity stages respectively and both in poor state due to insufficient rainfall. Below normal yield is expected for both crops.

2.5. COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 0.06mm. The average air temperature and pan Evaporation recorded were 28.2^{0}C and 5.3mm respectively. There was no report on sunshine duration.

Maize was still at flowering stage and in fair state with normal yield expected. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa.

The station did not receive any rainfall. The average air temperature and pan Evaporation recorded were 27.5^{0}C and 6.0mm respectively. There was no report on Sunshine duration and Pan Evaporation.

Maize was still at flowering stage and in poor state while mangoes were at harvesting stage and in poor state. Below normal yield is expected for both crops.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

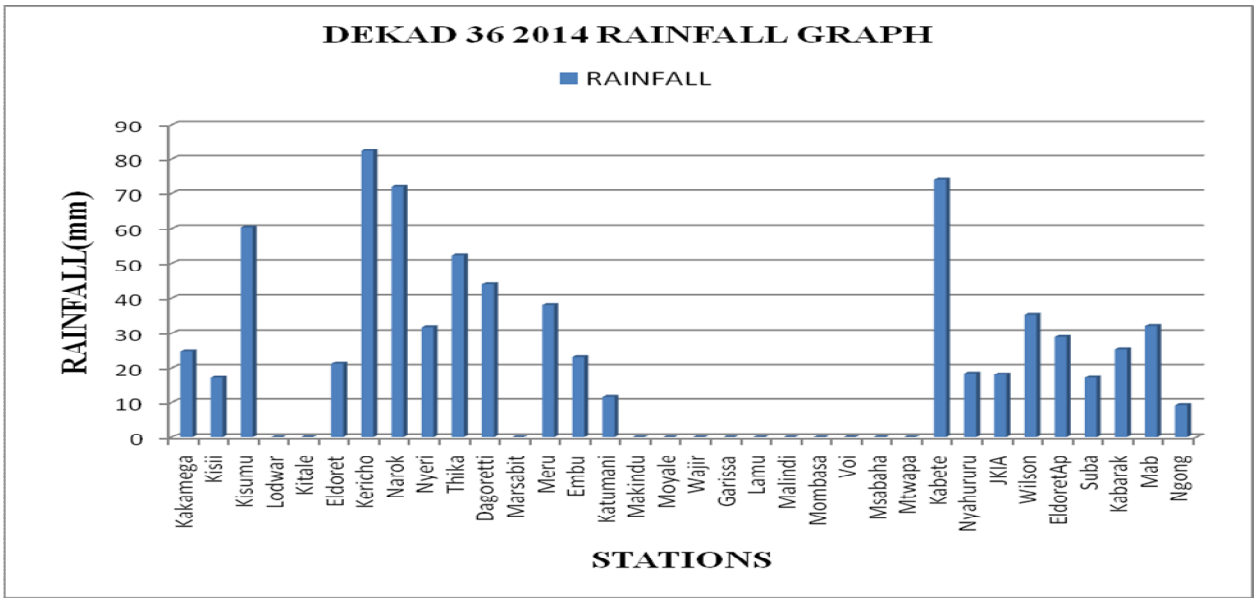

Figure 3.1: Dekadal rainfall totals for 21 - 31 DECEMBER 2014

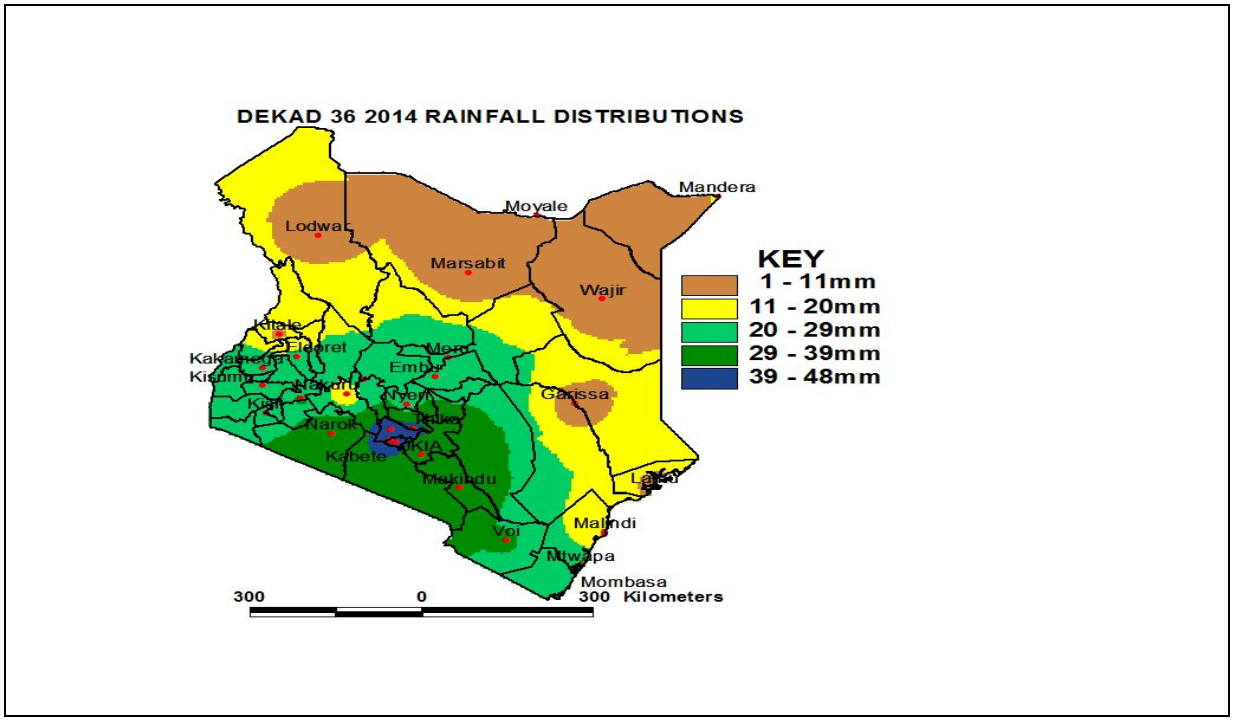

Figure 3.2: Dekadal rainfall distribution for dekad 36, 2014

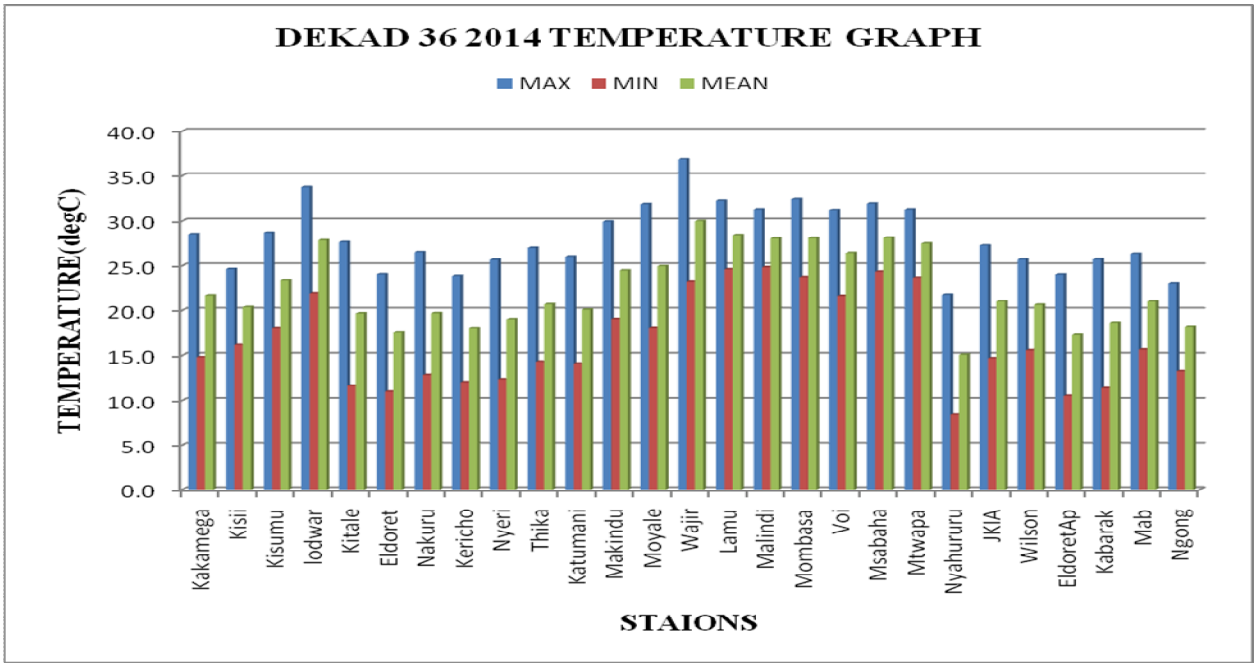

Figure 3.3: Maximum, Minimum and Average temperature for dekad 36, 2014.

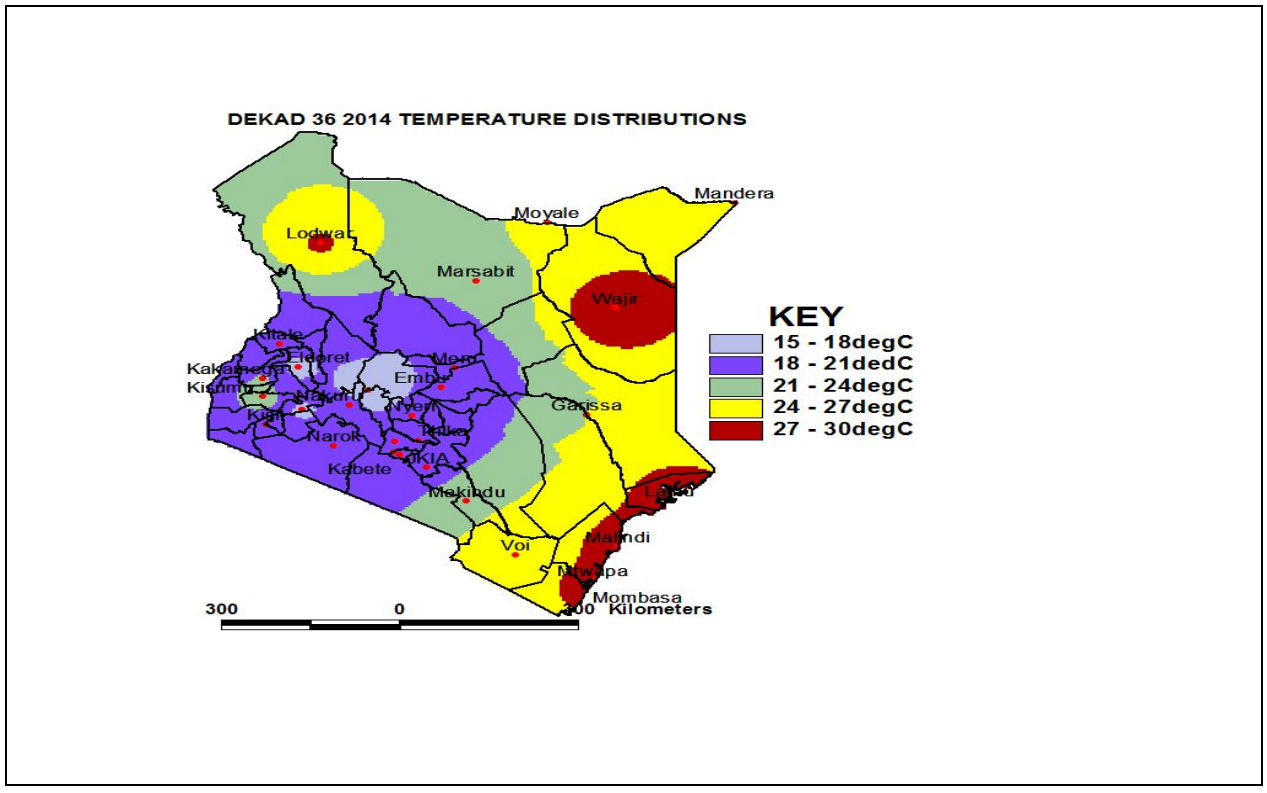

Figure 3.4: Mean temperature distribution for dekad 36, 2014

EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 01-10 JANUARY 2015

- **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 the entire day throughout the forecast period. The extreme south Rift Valley is however likely to receive afternoon showers and thunderstorms scattered over few places throughout the period.

  The afternoon showers will boost soil moisture that will be beneficial to the growth and development of Maize crop that are still in flowering stage in places like Kisii, it will also favor the growth of pasture and vegetation that will support livestock keeping.

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

  The sunny conditions will deprive the soil of moisture thereby reducing the growth of pasture and vegetation hence affecting the livestock kept in these regions.

- ***T*he Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu**, **Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga),** are expected to experience sunny intervals the entire day throughout the forecast period, scattered showers over few places from 9th day onwards.

  The afternoon/evening showers will replenish soil moisture that will benefit the crops like maize that is in emergence and flowering stages in places like Thika, Embu etc.

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

  The sunny condition will impact negatively to the pasture and vegetation growth that mainly sustain livestock keeping in this region.

- **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** are expected to experience sunny intervals with scattered showers over few areas at the extreme border with Tanzania throughout the forecast period.

  The showers are of great benefit to maize crop that is in flowering stage and to the pasture and vegetation growth for livestock rearing in this region.

- **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)**, are expected to experience sunny intervals with chance of morning showers on 7th and 8th days.

  The morning showers will be beneficial to the growth and development of maize crop that is in the flowering stage in places like Msabaha and Mtwapa and to the development of mangoes that are in 100% fruit setting stages in the region

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