KENYA METEOROLOGICAL SERVICE

DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 18, 2015

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

Rainfall activities continued to decrease both in intensity and spatial distribution during the dekad in the country. Kitale station in Rift valley region received the highest rainfall amount countrywide of 72.2mm compared to 92.4 mm in the same region in the previous dekad. The second highest rainfall amount of 67.9mm was recorded at Kisii station in Nyanza region. Coastal region reported the highest rainfall of 40.3mm, 36.5 and 28.1 mm at Lamu, Msabaha and Mombasa stations respectively. Western region reported the highest amount of rainfall of 26.8mm at Kakamega station. Nyahururu station in Central region recorded the highest rainfall amount of 25.9mm. Eastern region received the highest rainfall amount of 2.8mm at Katumani station. Nairobi region recorded the highest amount of 2.6mm at Dagoretti station, while North Eastern region received the least amount of rainfall of 1.4 mm at Lodwar station.

Maximum temperatures were on the increasing trend, while minimum temperatures continued to decrease during the dekad. North-eastern region continued reporting the highest maximum temperature of 36.1^{0}C at Mandera station compared to 35.4^{0}C reported at Lodwar station in the previous dekad. Nyahururu station in Central region continued to report the lowest Minimum temperature of 8.9^{0}C compared to 9.8^{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 18: 21- 30 JUNE, 2015

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station received rainfall amount of 26.8mm during the dekad. The mean air temperature was 21.1^{0}C. The sunshine hrs reported was 3.7hrs/day. There was no report on Pan Evaporation.

Maize and beans were at flowering and harvest stages respectively and both are in good state. Normal yield is expected for both crops.

2.1.2 Kisii

The station reported rainfall amount of 67.9mm. The mean air temperature and Pan Evaporation recorded were 20.1^{o}C and 3.3mm respectively. There was no report on sunshine parameter.

Maize and beans were at flowering and maturity stages respectively and in fair state. Normal yield are expected for both crops.

2 .2 RIFT VALLEY REGION

2.2.1 Kitale.

The station reported rainfall amount of 72.2mm. The mean air temperature and Pan Evaporation recorded were 19.6^{o}C and 3.5mm respectively. There was no report on sunshine duration.

Maize and beans were at flowering and maturity stages respectively and both are in good state. Normal yield is expected for both crops.

2.2.2 Eldoret-Kapsoya

The station received rainfall amount of 51.9mm. The mean air temperature and Pan Evaporation recorded were 17.5^{o}C and 3.6mm respectively. There was no record on sunshine duration.

Maize and beans were at flowering and maturity stages respectively and both in good state*, hence normal yield is expected.*

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 4.5mm. The average air temperature was 17.9^{0}C. There was no report on Pan Evaporation and sunshine parameters.

Maize was in flowering state and in good state, while beans were in maturity stage and poor state due to blight. Normal and below normal yield is expected for maize and beans respectively.

2.3.2 Kabete

The station reported dry conditions during the dekad. The Mean air temperature and Pan Evaporation recorded were 12.2^{0}C and 2.7mm respectively. There was no report on sunshine duration.

Both maize and beans were at flowering stage and in good state with normal yield expected.

2.3.3 Thika

The station experienced dry condition during the dekad. The mean air temperature and Pan Evaporation recorded were 19.2C and 3.3mm respectively. There was no report on sunshine duration.

Maize was at flowering stage and in excellent state while beans were at harvest stage and in fair state. Above normal yield is expected for maize while normal yield is expected for beans.

2.3.4 Nyahururu

The station reported rainfall amount of 25.9mm. The mean air temperature and Pan Evaporation recorded were 14.9^{0}C and 3.3mm respectively. There was no report on sunshine hours.

Maize and Potatoes were at emergence and maturity stages respectively and both in fair state. Normal yield is expected for potatoes though adversely affected by frost.

2.3.5. Dagoretti

The station reported rainfall amount of 2.6mm.The Mean air Temperature recorded was 17.4^0C. There was no report on Pan Evaporation and sunshine hours.

Maize was at 55% tasseling stage and 30% flowering stage and in good state.

2.4 EASTERN KENYA REGION

2.4.1 Embu

The station received rainfall amount of 2.21mm. The Mean air Temperature and the Pan Evaporation were 13.8^0C and 2.9mm respectively. There was no report on sunshine hours.

Maize and Beans were at flowering and harvest stages respectively but both are in fair state with normal yield expected.

2.4.2 Meru

The station received rainfall amount of 0.03mm. The mean air temperature and total Pan Evaporation recorded were 28.6^0C and 4.3mm respectively. There was no report on sunshine duration.

Maize and Beans were at flowering and harvest stages respectively and both are in fair state. Normal yield is expected for both crops.

2.4.3 Katumani (Machakos)

The station received rainfall amount of 2.8mm. The Mean air Temperature and the total Pan Evaporation recorded were 25.2^0C and 4.0mm respectively. There was no report on Sunshine duration.

Maize and beans were both at maturity stage and in fair and good state respectively. Normal yield is expected for beans but for maize below normal yield is expected due to insufficient rainfall.

2.5. COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 36.51mm. The average air temperature recorded was 26.4^0C. There was no report on Pan Evaporation and sunshine duration.

Maize was at flowering stage and in fair state while mangoes were at 100% fruit setting stage and in good state. Normal yield is expected for maize.

2.5.2 Mtwapa.

The station received rainfall amount of 23.8mm. The average air temperature and Pan Evaporation recorded were 25.9^0C and 4.2mm respectively. There was no report on Sunshine duration.

Maize was at maturity stage and in fair state while Mangoes were at harvest stage and in good state. Normal yield is expected for both crops though maize had been adversely affected by animals and stalk borer. Mangoes harvesting is still going on.

3.0 ANALYSIS OF RAINFALL AND TEMPERATURE CONDITIONS.

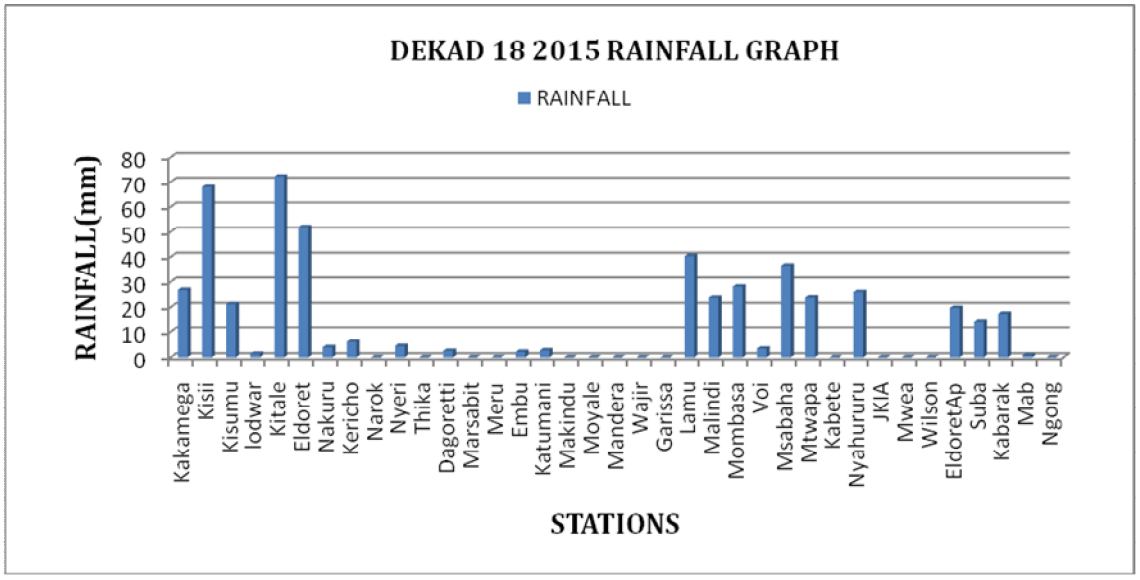

Figure 3.1: Dekadal rainfall totals for 21 –30 JUNE 2015

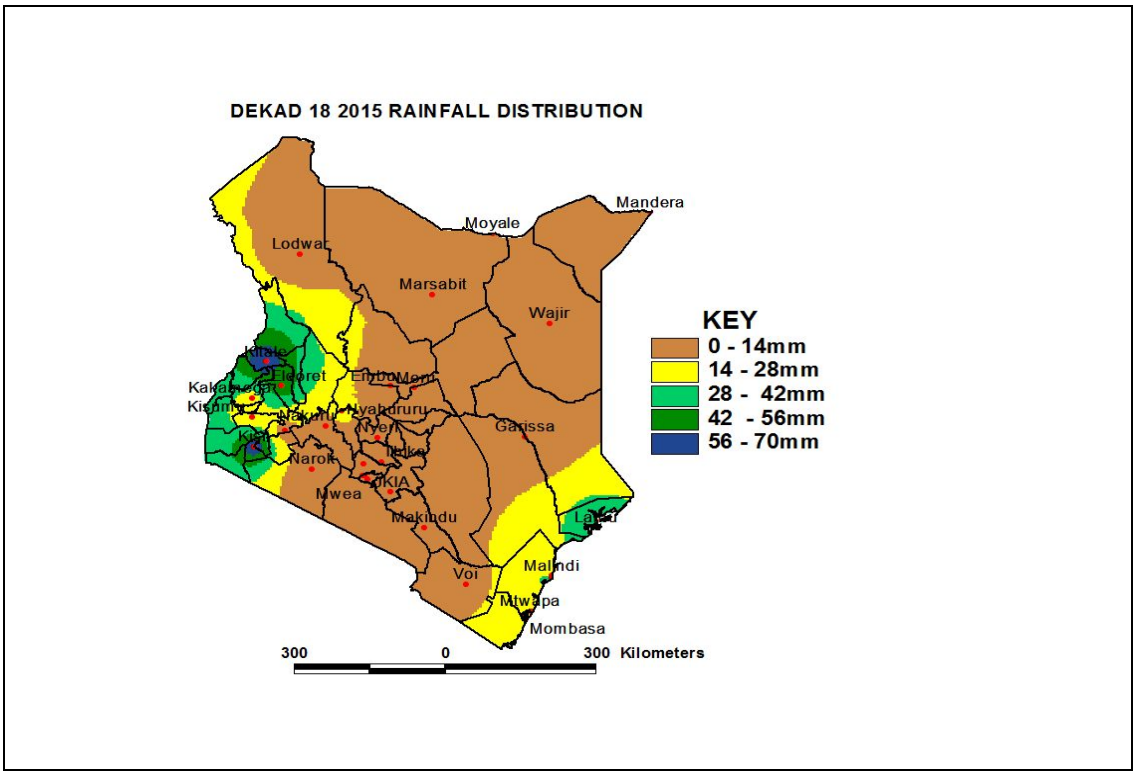

Figure 3.2: Dekadal rainfall distribution for dekad 18, 2015

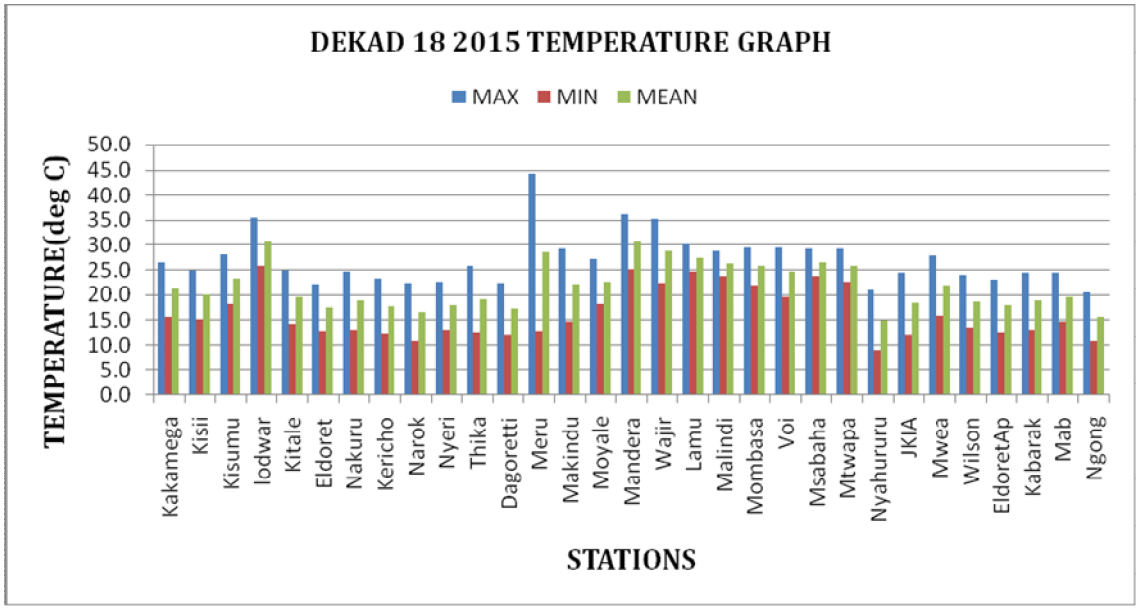

Figure 3.3: Maximum, Minimum and Average temperature for dekad 18, 2015

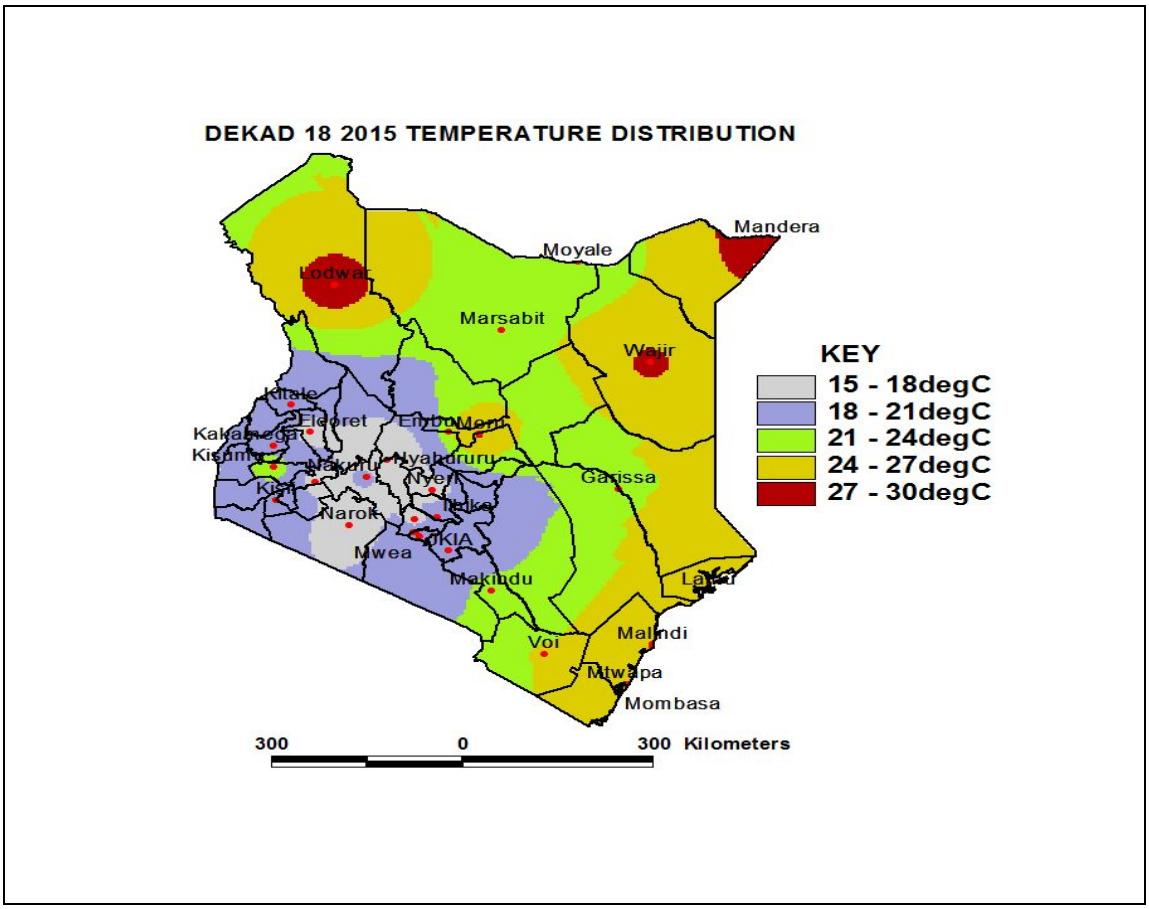

Figure 3.4: Mean temperature distribution for dekad 18, 2015

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 01-10 JULY, 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 in the morning throughout the forecast period. Afternoon/evening showers and thunderstorms expected over few places throughout the forecast period.

  The afternoon/evening showers will be of great benefit to the crops that are in flowering stages in places like Kitale, Kisii etc. They will also replenish the soil with moisture that will affect positively on the growth of pasture and vegetation that supports livestock keeping in this region.

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

  The sunny condition will be of disadvantage to the growth of pasture and vegetation that supports 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 mainly cool and cloudy mornings giving way to sunny intervals. Afternoon/evening is expected to experience showers over few places for much of the forecast period.

  The afternoon/evening showers will be of great benefit to the development of crops that are in the emergence and flowering stages in places like Nyahururu, Nyeri, Meru, 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 conditions will be of disadvantage to the growth of pasture and vegetation that supports the livestock kept in these regions.

- ***S*outheastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** are expected to experience sunny intervals the entire day throughout the forecast period.

  The sunny condition will be of disadvantage to the pasture and vegetation growth for livestock rearing in this region though it will enhance the drying of maize that is at maturity stage in places like Katumani.

- **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)**, are expected to experience morning showers over few places improving to several places towards the end of the forecast period. Afternoons will experience mainly sunny intervals with the exception of the last two days when there is a possibility of the occurrence of showers over few places.

  The showers will continue benefiting the growth and development of Maize that is at flowering stage in places like Msabaha. In addition, it will benefit the growth of mangoes that are in fruit setting stage in places like Msabaha.

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