

# KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL BULLETIN

# WEATHER AND CROP REVIEW FOR DEKAD 19, 2015

# 1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

Rainfall activities continued to decrease in intensity but increased in spatial distribution during the dekad in the country. Lamu, Malindi, Mtwapa, Mombasa and Msabaha stations in Coastal region received the highest rainfall amount countrywide of 93.9mm, 52.0mm, 51.3mm, 49.4mm and 34.5mm respectively compared to 72.2mm at Kitale station in the Rift Valley region in the previous dekad. The second highest rainfall amount of 27.5mm was recorded at Kisii station in Nyanza region. Rift Valley region reported the highest rainfall of 15.2mm at Kitale station. Eastern region reported the highest rainfall of 14.7mm at Embu station. Dagoretti station in Nairobi region recorded the highest rainfall amount of 9.7mm. Central region received the highest rainfall amount of 7.3mm at Nyeri station. Wajir station in North Eastern region recorded the highest amount of 6.0mm, while Western region received the least amount of rainfall of 1.9 mm at Kakamega station.

Maximum and minimum temperatures were both on the decreasing trend during the dekad. North-eastern region continued reporting the highest maximum temperature of 35.0°C at Mandera station compared to 36.1°C reported at same station in the previous dekad. Nyahururu station in Central region continued to report the lowest Minimum temperature of 4.7°C compared to 8.9°C reported at 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 19: 01- 10 JULY, 2015

# 2.1 NYANZA AND WESTERN REGIONS

# 2.1.1 Kakamega

The station received rainfall amount of 1.9mm during the dekad. The mean air temperature and Pan Evaporation were 21.5°C and 3.5mm respectively. The sunshine hrs reported was 8.5hrs/day.

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

# 2.1.2 <u>Kisii</u>

The station reported rainfall amount of 27.5mm. The mean air temperature and Pan Evaporation recorded were 20.3°C and 3.8mm respectively. There was no report on sunshine parameter.

Maize and beans were at flowering and harvest 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 15.2mm. The mean air temperature and Pan Evaporation recorded were 19.2°C and 3.7mm respectively. There was no report on sunshine duration.

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

#### 2.2.2 Eldoret-Kapsoya

The station reported dry condition during the dekad. The mean air temperature and Pan Evaporation recorded were 15.9°C and 4.9mm respectively. There was no record on sunshine duration.

Maize and beans were at flowering and maturity stages respectively and both in fair state; *hence normal yield is expected for both crops.* 

# 2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

### 2.3.1 <u>Nyeri</u>

The station received rainfall amount of 7.3mm. The average air temperature was 17.1°C. There was no report on Pan Evaporation and sunshine parameters.

Maize was at flowering stage and in fair state. Below normal yield is expected due to adverse affection by stalk borer and insufficient rainfall.

### 2.3.2 Kabete

The station reported rainfall amount of 7.0mm. The Pan Evaporation recorded was 2.5mm. There was no report on Mean air temperature and sunshine duration.

Both maize and beans were at flowering stage and in fair 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 18.6<sup>°</sup>C and 3.2mm respectively. There was no report on sunshine duration.

Maize was at maturity stage and in excellent state with above normal yield expected.

#### 2.3.4 Nyahururu

The station reported dry condition during the dekad. The mean air temperature and Pan Evaporation recorded were  $13.2^{\circ}$ C and 3.7mm respectively. There was no report on sunshine hours.

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

### 2.3.5. Dagoretti

The station reported rainfall amount of 9.7mm. The Mean air Temperature and Pan Evaporation recorded were  $17.3^{\circ}$ C and 2.8mm respectively. There was no report on sunshine hours.

Maize was at 95% tasseling stage and 83% flowering stages and in good state.

#### 2.4 EASTERN KENYA REGION

### 2.4.1 Embu

The station received rainfall amount of 14.7mm. The Pan Evaporation was 2.9mm. There was no report on Mean air Temperature and sunshine hours.

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

#### 2.4.2 Meru

The station received rainfall amount of 3.7mm. The mean air temperature and Pan Evaporation recorded were 18.1°C and 4.2mm respectively. There was no report on sunshine duration.

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

#### 2.4.3 Katumani (Machakos)

The station received rainfall amount of 5.4mm. The Mean air Temperature and Pan Evaporation recorded were 17.6°C and 3.4mm 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 34.51mm. The average air temperature and Pan Evaporation recorded were 25.5°C and 3.3mm respectively. There was no report on sunshine duration.

Maize was at flowering stage and in fair state while mangoes were at 100% ripeness stage and in good state. Normal yield is expected for both crops.

#### 2.5.2 <u>Mtwapa.</u>

The station received rainfall amount of 51.3mm. The average air temperature and Pan Evaporation recorded were 24.7°C and 2.7mm respectively. There was no report on Sunshine duration.

Maize was at maturity stage while Mangoes were at harvest stage and both crops are in good state. Normal yield is expected for both crops though maize had been adversely affected by birds, animals and stalk borer.

# 3.0 ANALYSIS OF RAINFALL AND TEMPERATURE CONDITIONS.

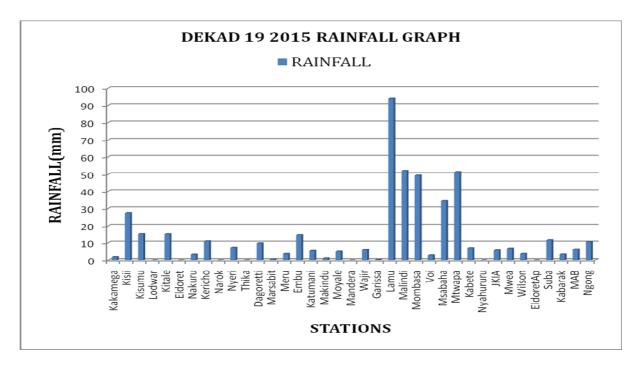


Figure 3.1: Dekadal rainfall totals for 01 –10 JULY 2015

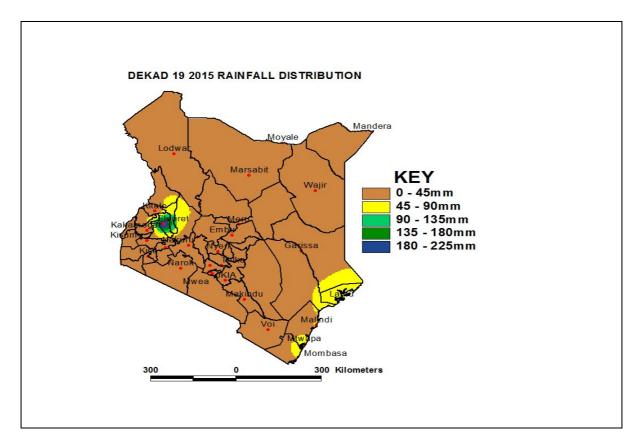


Figure 3.2: Dekadal rainfall distribution for dekad 19, 2015

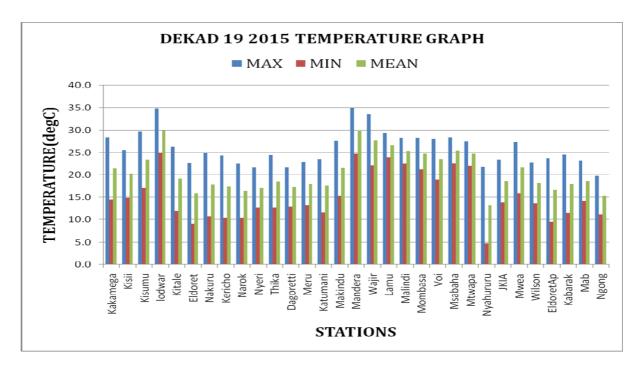


Figure 3.3: Maximum, Minimum and Average temperature for dekad 19, 2015

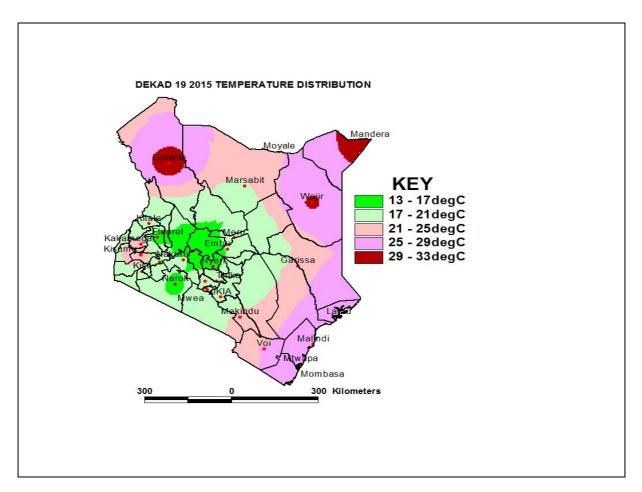


Figure 3.4: Mean temperature distribution for dekad 19, 2015

### 4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 10-20 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 with the exception of the first day which will experience light morning rains over few places. Afternoon/evening showers and thunderstorms will occur over few places confined to our border with Uganda at the beginning of the forecast period and increase to several places on the last three days.

The morning rains and afternoon/evening showers will be of great benefit to the crops that are in flowering stages in places like Kitale, Kisii and Kakamega. 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.

The Northwestern counties (Turkana, West Pokot and Samburu), are expected to experience sunny intervals the entire day for much of the forecast period, the last two afternoons are expected to experience showers and thunderstorms over few places on our border with Uganda.

The afternoon showers will be of great advantage to the growth of pasture and vegetation that supports the livestock kept in these regions.

The 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's showers expected over few places.

The afternoon showers will be of great benefit to the development of crops that are in the emergence and flowering stages in places like Nyahururu, Nyeri, Embu etc.

Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo), are expected to experience mainly 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.

Southeastern 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 and sunny intervals in the afternoon in the first half of the forecast period, the second half is expected to experience sunny intervals the entire day.

The morning showers will continue benefiting the development of Maize that is at flowering stage in places like Msabaha.

*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: <u>agromet@meteo.go.ke</u>; Website: <u>www.meteo.go.ke</u>

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