

# KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL

## WEATHER AND CROP REVIEW FOR DEKAD 19, 2014 01-10 JULY, 2014

#### 1. HIGHLIHTS ON RAINFALL AND TEMPERATURE

There was a decrease in both intensity and spatial distribution of rainfall compared to the previous dekad. Rift Valley region received the highest amount of rainfall countrywide with Kitale station recording 47.8mm, compared to the previous dekad where Lamu station in Coastal region received the highest rainfall of 95.1mm. Kisii station in Nyanza region received the second highest rainfall of 47.6mm. In North Eastern region, Lodwar station recorded the highest rainfall of 25.0mm. Malindi station received the highest amount of rainfall of 8.2mm in Coastal region. Kakamega station received the highest rainfall amount of 6.6mm in Western region. In Eastern region the highest rainfall of 6.1mm was recorded at Embu station. In Nairobi region the highest rainfall amount of 5.0mm was recorded at Kabete station. while Nyahururu station in Central region reported the highest amount of rainfall of 3.3mm.

Both Maximum and minimum temperatures in most stations had an increasing trend during the dekad. Lodwar station in North Eastern region recorded the highest maximum temperature of 34.3°C which was the same as the one recorded at the same station in the previous dekad. The minimum temperatures increased in most stations with Nyahururu station in Central region recording the lowest temperature of 7.0°C compared to 6.4°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 19; 01-10 JULY 2014

#### 2.1 NYANZA AND WESTERN REGIONS

## 2.1.1 <u>Kakamega</u>

The station recorded rainfall amount of 6.6mm during the dekad. The mean air temperature and evaporation reported were 21.3°C and 3.5mm respectively. Sunshine duration reported was 7.7 hours.

Maize was at flowering and in a good state. Normal yield is expected.

#### 2.1.2 Kisii

The station recorded rainfall amount of 47.6mm. The mean air temperature and Pan Evaporation were 21.6°C and 3.1mm respectively. There was no record on Sunshine parameter.

Maize was at flowering stage and in a fair state.

#### 2.2 RIFT VALLEY REGION

#### **2.2.1 Kitale**

The station recorded rainfall amount of 47.8mm. Mean air temperature and Pan Evaporation recorded were 17.9°C and 3.3mm respectively. There was no report on sunshine duration.

Maize was at flowering stage while beans were at maturity stage and both are in good state hence normal yield is expected for both crops.

## 2.2.2 Eldoret-Kapsoya

The station received rainfall amount of 12.1mm. The average air temperature and evaporation reported were 17.5°C and 3.5mm respectively. There was no report on sunshine Parameter.

Maize and beans were at flowering and maturity stages respectively and both crops are in poor state due to insufficient rain, hence below 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 1.6mm. The average air temperature was 16.6°C. There was no report on pan evaporation and sunshine parameters.

Maize and beans were in flowering and harvest stages respectively and in a fair state though maize is adversely affected by stalk borer. Normal yield is expected for both crops.

#### **2.3.2** Kabete

The station recorded rainfall amount of  $5.0 \, \text{mm}$ . Mean air temperature and evaporation were  $14.4 \, ^{\circ}\text{C}$  and  $2.4 \, \text{mm}$  respectively. No report on sunshine parameter.

Both Maize and beans were at flowering stages and in fair state.

## 2.3.3 Thika

The station recorded rainfall amount of 0.1mm. The mean air temperature was 18.5°C while evaporation was 2.5mm. There was no report on sunshine duration.

Maize was at maturity stage. Potatoes were at harvesting stage. All crops were in fair state. Normal yield is expected.

## 2.3.4. Nyahururu

The station received rainfall amount of 3.3mm. The mean air temperature and pan evaporation recorded were  $14.3^{\circ}$ C and 3.7mm respectively. There was no report on sunshine duration.

Maize was at emergence stage and in fair state while potatoes were at maturity stage and also in fair state though below normal yield is expected.

## 2.3.5. <u>Dagoretti</u>

The station reported rainfall amount of 4.3mm. The average air temperature was 19.1°C. No Sunshine duration and evaporation pan reported.

No report on phenological observations.

#### 2.4 EASTERN KENYA REGION

## 2.4.1 Meru

The station recorded rainfall amount of  $3.2 \, \text{mm}$ . The average air temperature and Pan Evaporation recorded were  $17.7^{\circ}\text{C}$  and  $3.3 \, \text{mm}$  respectively. Sunshine record was  $6.7 \, \text{hrs}$ .

Maize was in maturity stage and in poor state having been affected by insufficient rainfall during the dekad, therefore below normal yield is expected.

#### 2.4.2 Embu

The station recorded rainfall amount of 6.1mm. There was no record on the average air temperature. The sunshine duration and Pan Evaporation were 1.7hrs and 2.1mm respectively.

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

#### 2.4.3 Katumani (Machakos)

The station reported rainfall amount of 0.2 mm. The average air temperature reported was  $19.0^{\circ}\text{C}$ . There was no report on pan evaporation and Sunshine duration.

Maize is at maturity stage and in poor state due to insufficient rain hence below normal yield expected.

### 2.5. COASTAL REGION

## 2.5.1 Msabaha

The station received rainfall amount of 7.6mm. The average air temperature and Pan Evaporation recorded were 25.2°C and 3.6mm respectively. There was no report on sunshine duration.

Maize was at flowering stage and in fair state therefore normal yield is expected. Mangoes are at 100% fruit setting stage and in good state.

## 2.5.2 Mtwapa

The station received rainfall amount of 7.4mm. The average air temperature and pan evaporation recorded were  $19.6^{\circ}$ C and 4.0mm respectively. Sunshine duration reported was 8.0 hours.

Maize was at flowering stage and in a fair state though adversely affected by excessive rainfall, birds, diseases mainly maize stalk borer and excessive weed growth. Mangoes were in harvesting stage and in a fair state hence normal yield is expected for both crops.

## 3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

Figure 3.1: Dekadal rainfall totals for 01- 10 JULY 2014

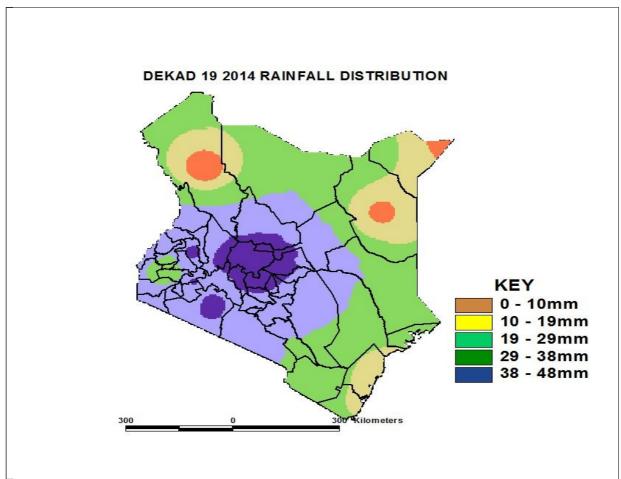


Figure 3.2: Dekadal rainfall distribution for dekad 19, 2014

Figure 3.3: Maximum, Minimum and Average temperature in °C for dekad 19, 2014

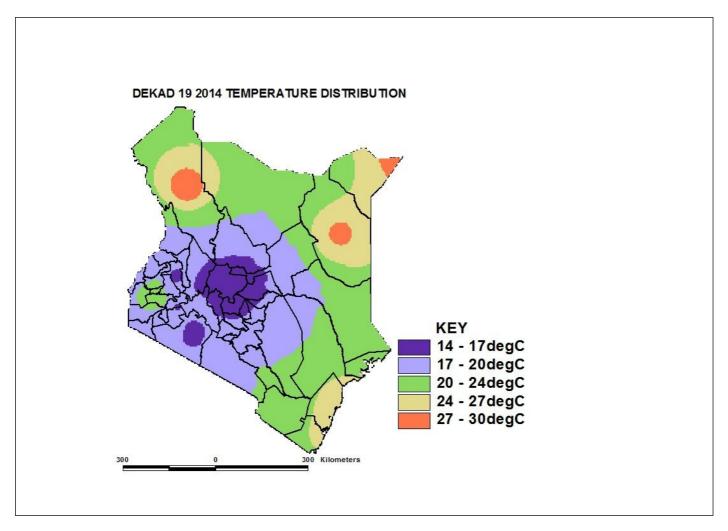


Figure 3.4: Mean temperature distribution for dekad 19, 2014

- 4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 11-20 JULY 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), mornings are expected to experience rains over few places giving way to sunny intervals towards the end of the forecast. Afternoon showers and thunderstorms are expected over few places increasing to several places towards the end of the forecast period.

The rains and showers are of great importance for the growth of the maize crop which is in its flowering stage in the regions.

**The Northwestern counties (Turkana, West Pokot and Samburu),** Are expected to have mainly sunny intervals throughout the day for the entire forecast period.

The sunny conditions will have a negative impact on pasture and vegetation in this region.

\* The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga), are expected to experience early morning cloudiness giving way to

sunny intervals in the afternoon throughout the forecast period with the exception of the sixth day when few areas will receive afternoon showers.

The expected sunny conditions will have a negative impact on the Maize crop which is in the emergence and flowering stages in this region.

❖ Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo), are expected to experience sunny intervals throughout the forecast period.

The expected sunny conditions will have a negative impact on the state of pasture and vegetation in this region.

❖ Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui), are expected to experience mainly sunny intervals throughout the forecast period.

The sunny conditions will have a negative impact on the crops, pasture and vegetation in the region

❖ In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc), are expected to experience morning showers over few places giving way to sunny intervals throughout the forecast period.

The showers will continue to benefit the development of the Maize crop, which is in the flowering stage in this region.

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