

### KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL BULLETIN WEATHER AND CROP REVIEW FOR DEKAD 18, 2014 21-30 JUNE, 2014

#### **1. HIGHLIHTS ON RAINFALL AND TEMPERATURE**

There was a decrease in intensity and increase in spatial distribution of rainfall during the dekad. Coastal region received the highest amount of rainfall countrywide with Lamu station recording 95.1mm, compared to the previous dekad where Kakamega station in Western region received the highest rainfall of 141.6mm. Kisii station in Nyanza region received the second highest rainfall of 76.3mm. In Rift Valley region, Kericho station recorded the highest rainfall of 44.5mm. Kakamega station received the highest rainfall of 35.7mm in Western region. Nyeri station received the highest rainfall of 5.6mm was recorded at Dagoretti station. In Eastern region the highest rainfall amount of 5.4mm was recorded at Embu Mwea station, while Moyale station in North Eastern region reported the highest amount of rainfall of 3.1mm.

Both Maximum and minimum temperatures continued with the decreasing trend during the dekad. Lodwar station in North Eastern region recorded the highest maximum temperature of 34.7°C compared to 35.6°C recorded at same station in the previous dekad. The minimum temperatures decreased in most stations with Nyahururu station in Central region recording the lowest temperature of 6.4°C compared to 9.1°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 18; 21-30 JUNE 2014

#### 2.1 NYANZA AND WESTERN REGIONS

#### 2.1.1 <u>Kakamega</u>

The station recorded rainfall amount of 35.7mm during the dekad. The mean air temperature and evaporation reported were 21.0°C and 3.5mm respectively. Sunshine duration reported was 6.6 hours.

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

#### 2.1.2 <u>Kisii</u>

The station recorded rainfall amount of 76.3mm. The mean air temperature and Pan Evaporation were 20.3°C and 3.0mm respectively. There was no record on Sunshine parameter.

Maize were at flowering stage and in good state while beans were at harvesting stage and in a good state, hence normal yield is expected.

#### 2.2 **RIFT VALLEY REGION**

#### 2.2.1 <u>Kitale</u>

The station recorded rainfall amount of 11.4mm. Mean air temperature and Pan Evaporation recorded were 19.0°C and 2.9mm 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 9.8mm. The average air temperature and evaporation reported were 17.1°C and 4.0mm respectively. There was no report on sunshine Parameter.

Both Maize and beans were at flowering stages and 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 14.6mm. The average air temperature was 16.4°C. There was no report on pan evaporation and sunshine parameters.

Maize and beans were in flowering and maturity 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 <u>Kabete</u>

The station recorded rainfall amount of 4.0mm. Mean air temperature and evaporation were 16.7°C and 2.1mm respectively. No report on sunshine parameter.

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

#### 2.3.3<u>Thika</u>

The station recorded rainfall amount of 0.0mm. The mean air temperature was 18.5°C while evaporation was 2.6mm. There was no report on sunshine duration.

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

#### 2.3.4. <u>Nyahururu</u>

The station received rainfall amount of 0.1mm. The mean air temperature and pan evaporation recorded were 14.1°C and 3.2mm respectively. There was no report on sunshine duration.

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

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

The station reported rainfall amount of 5.6mm. The average air temperature and pan evaporation were 16.8°C and 2.8mm respectively. No Sunshine duration reported.

No report on phenological observations.

#### 2.4 EASTERN KENYA REGION

#### 2.4.1<u>Meru</u>

The station recorded rainfall amount of 0.7mm. The average air temperature and Pan Evaporation recorded were 17.4°C and 4.1mm respectively. Sunshine record was 5.7hrs.

Maize was in maturity stage and fair state though affected by insufficient rainfall during the dekad, therefore normal yield is expected.

#### 2.4.2 <u>Embu</u>

There were no reports on rainfall amount, sunshine duration and average air temperature. Pan Evaporation was 2.1mm.

Maize and beans were at flowering 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 3.4mm. The average air temperature reported was 18.0°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 <u>Msabaha</u>

The station received rainfall amount of 64.8mm. The average air temperature and Pan Evaporation recorded were 25.4°C and 2.4mm 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 <u>Mtwapa</u>

The station received rainfall amount of 61.3mm. The average air temperature and pan evaporation recorded were  $25.0^{\circ}$ C and 4.7mm respectively. Sunshine duration reported was 7.7 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

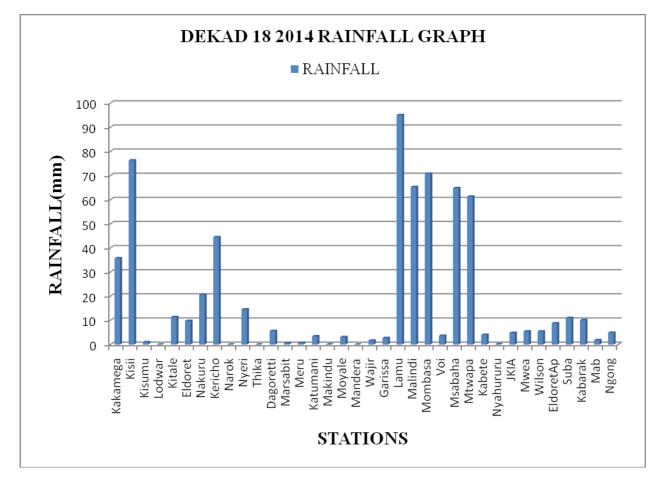


Figure 3.1: Dekadal rainfall totals for 21- 30 JUNE 2014

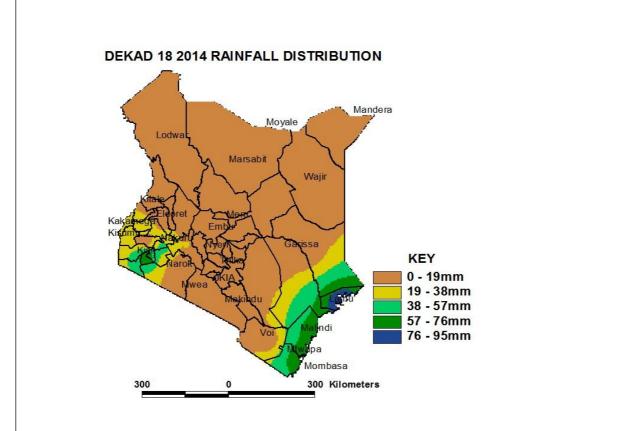
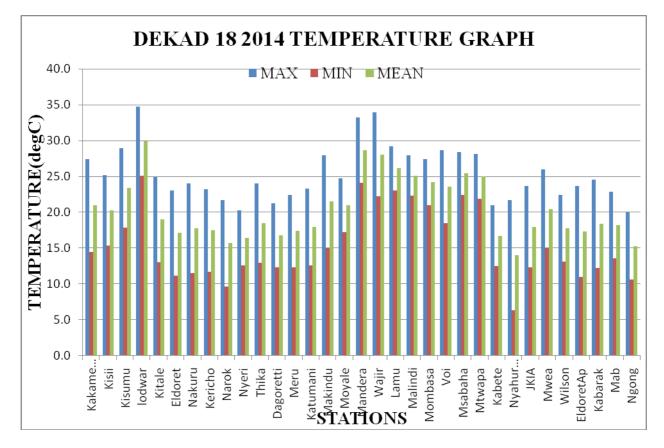


Figure 3.2: Dekadal rainfall distribution for dekad 18, 2014



# Figure 3.3: Maximum, Minimum and Average temperature in °C for dekad 18, 2014

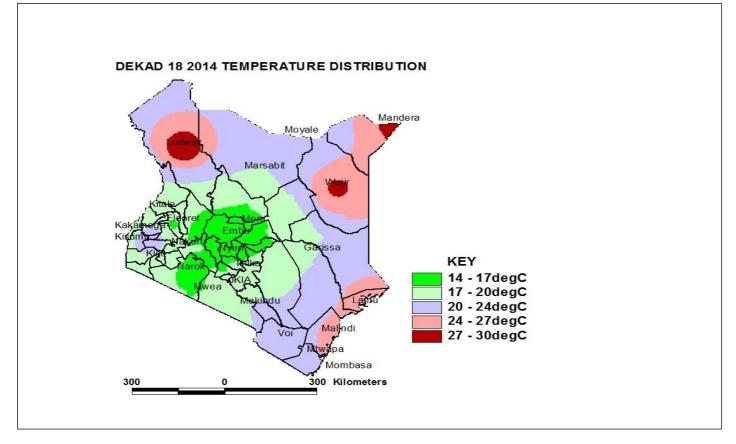


Figure 3.4: Mean temperature distribution for dekad 18, 2014

## 4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1-10 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 predominantly sunny intervals. Afternoon showers and thunderstorms are expected over few places throughout the forecast period.

The Afternoon 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 first day when few areas will receive afternoon showers. Warmer temperatures are expected throughout the forecast period. The expected sunny and warmer conditions will continue to benefit the Maize and Beans crops, which are in the harvesting stages in this region.

Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo), are expected to experience sunny intervals in the morning and afternoon 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 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 with the exception of the first day that will experience mainly sunny intervals.

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

#### For feedback or further guidance, Contact:

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