



## KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL BULLETIN

### WEATHER AND CROP REVIEW FOR DEKAD 18, 21<sup>ST</sup> – 30<sup>TH</sup> JUNE 2016

#### 1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

Rainfall activities increased in intensity and reduced in spatial distribution compared to the previous dekad. The highest rainfall amount of 160.2 mm was reported at Eldoret Airport station in Rift Valley region compared to 88.5mm reported at Kisii station in Nyanza region in the previous dekad. The second highest rainfall of 129.8 mm was received at Nyahururu station in Central region. Kakamega station in western region recorded the highest rainfall amount of 65.4mm. Coastal region reported the highest rainfall amount of 60.0 mm at Msabaha station. Nyanza region reported the highest rainfall of 38.6 mm at Kisumu station. Embu station in Eastern region recorded the highest rainfall amount of 17.8mm of rainfall. Nairobi region received the highest rainfall amount of 13.9mm at Ngong station; while Moyale station in North Eastern region received rainfall amount of 8.0mm.

Maximum temperatures were still on a decreasing trend, while Minimum temperatures drastically increased. The highest Maximum temperature of 32.9<sup>0</sup>C was recorded at Mandera Station in North Eastern region compared to 34.4<sup>0</sup>C reported at the same station in the previous dekad. Nyahururu station continued to record the lowest Minimum temperature of 9.0<sup>0</sup>C compared to 7.3<sup>0</sup>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 18, 21<sup>ST</sup> – 30<sup>TH</sup> JUNE 2016

##### 2.1 NYANZA AND WESTERN REGIONS

###### 2.1.1 Kakamega

The station received rainfall amount of 65.4 mm. There was no report on mean air temperature, total pan evaporation and sunshine hours.

*Maize is still in flowering state and in good conditions.*

###### 2.1.2 Kisii

The station reported total rainfall amount of 10.0 mm. The mean air temperature and total Pan Evaporation recorded were 19.7<sup>0</sup>C and 26.5 mm respectively. There was no report on Sunshine hours.

*Maize was in flowering stage and in fair condition because it has been affected by maize lethal necrosis diseases. Beans were in maturity stage and in fair condition.*

## **2.2 RIFT VALLEY REGION**

### **2.2.1 Kitale**

The station recorded total rainfall amount of 79.5mm. Total Pan Evaporation reported was 32.2 mm. There was no report on the mean air temperature, and Sunshine duration.

*Maize was at flowering stage and in good condition, while Beans were at maturity and in fair state. Hence normal yield is expected.*

### **2.2.2 Eldoret - Kapsoya**

The station received 101.0mm of rainfall. The mean air temperature and total Pan Evaporation reported were 16.8°C and 37.3mm respectively. There was no report on sunshine hours.

*Maize and Beans were at flowering and maturity stages respectively. Both crops were in fair state due to the increase of rainfall in this dekad.*

## **2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION**

### **2.3.1 Nyeri**

Total amount of rainfall recorded was 5.5mm. The average air temperature reported was 15.9°C. There was no report on total Pan Evaporation and sunshine parameters.

*Maize is in the flowering stage and in poor condition because it has been affected by stalk borer. Beans are at maturity stage and in poor state because it has been affected by some insects. Hence expected yield for Beans is expected to be below normal.*

### **2.3.2 Kabete**

The station reported rainfall amount of 9.7mm while total pan evaporation was 13.2mm. There was no report on Mean air Temperature and Sunshine parameters.

*Both Maize and Beans were in flowering stage and in good state, hence expected yield is normal.*

### **2.3.3 Thika**

The station recorded rainfall of 6.7mm. The average air temperature and total Pan Evaporation recorded were 17.0°C and 16.7 mm respectively. There was no report on Sunshine duration.

*Maize was at flowering and in fair state. Beans and Potatoes were at maturity stage. Both crops are in poor state due to excessive rainfall in the previous dekads.*

### **2.3.4 Nyahururu**

The station recorded rainfall amount of 129.8mm, the mean air temperature and total Pan Evaporation reported were 14.8°C and 35.3mm respectively. There was no report on Sunshine hours.

*Maize and Beans were at flowering and maturity stages respectively. Both crops are in fair state, though beans have been affected by excessive rainfall. Potatoes were in flowering stage and in fair state hence normal yield is expected.*

### **2.3.5 Dagoretti**

The station received 7.4mm of rainfall. Total Pan Evaporation recorded was 17.5mm. No report on Sunshine parameter and mean air temperature.

*No Phenological report.*

## **2.4 EASTERN KENYA REGION**

### **2.4.1 Embu**

The station reported 17.8mm rainfall. There was no report on the Mean air temperature and total pan evaporation.

*Maize and Beans were at flowering and maturity stages respectively and in fair state. Normal yield is expected for beans.*

### **2.4.2 Meru**

The station recorded total rainfall amount of 0.04mm. The Average air Temperature and total pan evaporation reported were 16.8°C and 22.0mm. There was no sunshine parameter recording.

*Maize was at flowering stage and in failure state, while beans were in maturity state and in poor condition due to insufficient rainfall during the dekad. Hence below normal yield is expected for both crops.*

### **2.4.3 Katumani (Machakos)**

The station reported dry conditions. The mean air temperature and total Pan Evaporation reported were 16.5°C and 22.5mm respectively. No report on sunshine parameter.

*Maize and beans were in flowering and maturity stages respectively. Both crops are in poor state due to excessive sunshine. Below normal yield is expected for both crops.*

## **2.5 COASTAL REGION**

### **2.5.1 Msabaha**

The station recorded 60.0mm of rainfall. The average air temperature was 25.9°C. There was no report on total evaporation and sunshine duration.

*Maize was at flowering stage and in poor state due to some unidentified diseases; hence below normal yield is expected. Mangoes were at 100% fruit setting stage and in good state.*

### **2.5.2 Mtwapa**

The station received total rainfall amount of 15.9mm. The Mean air temperature reported was 25.5°C. There was no report on total pan evaporation and sunshine parameter.

*Maize was at flowering stage and in fair state, though it has been affected by stalk borer and insufficient rain hence normal yield is expected. Mangoes were at harvesting stage and in fair state.*

### 3. ANALYSIS OF RAINFALL AND TEMPERATURE CONDITIONS

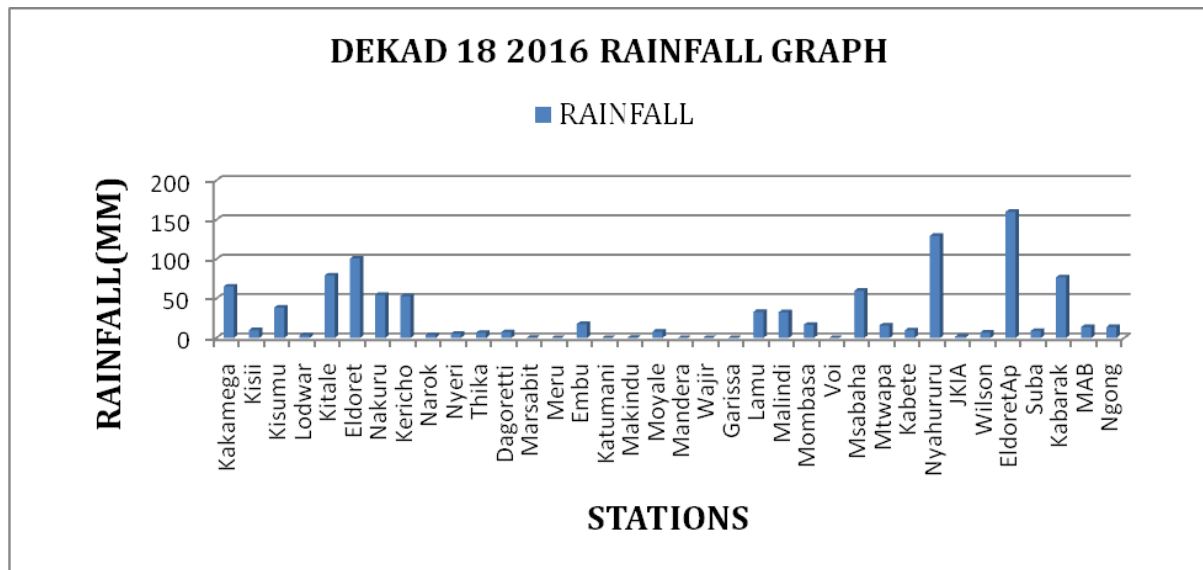


Figure 3.1: Dekadal rainfall totals for dekad 18, 2016

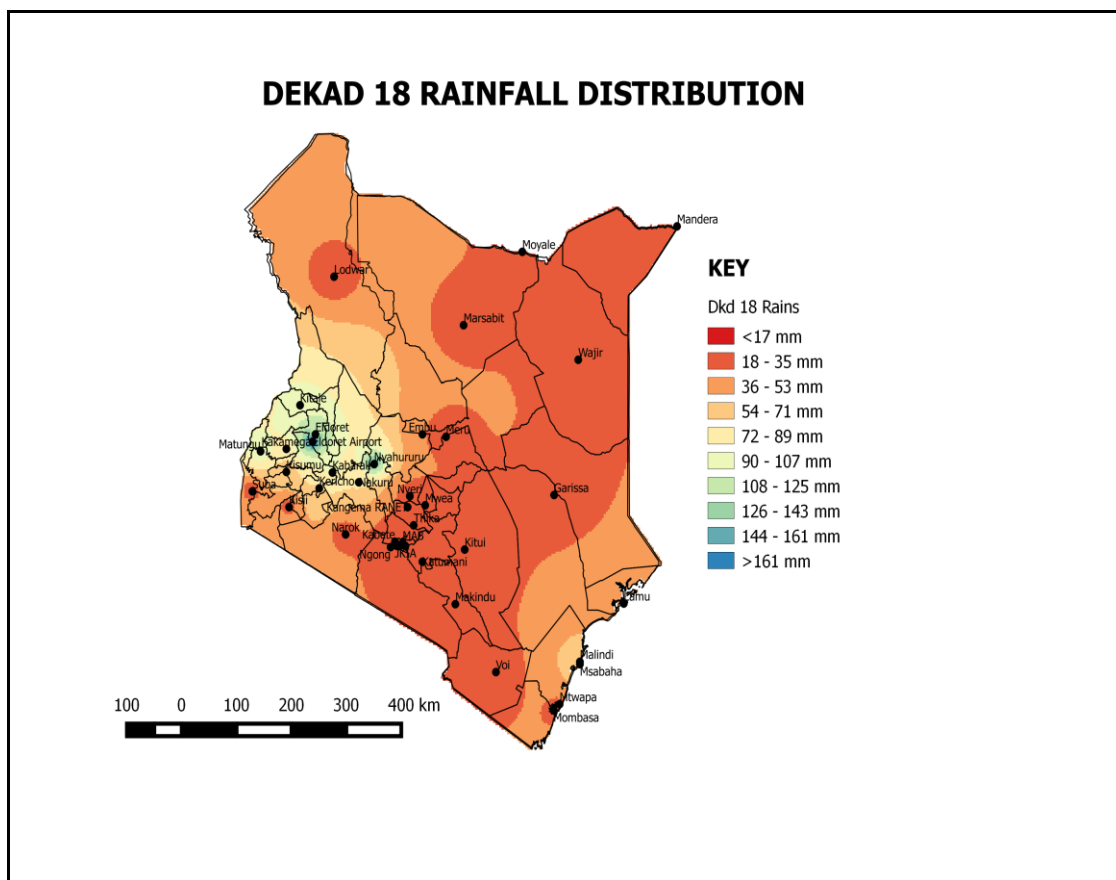
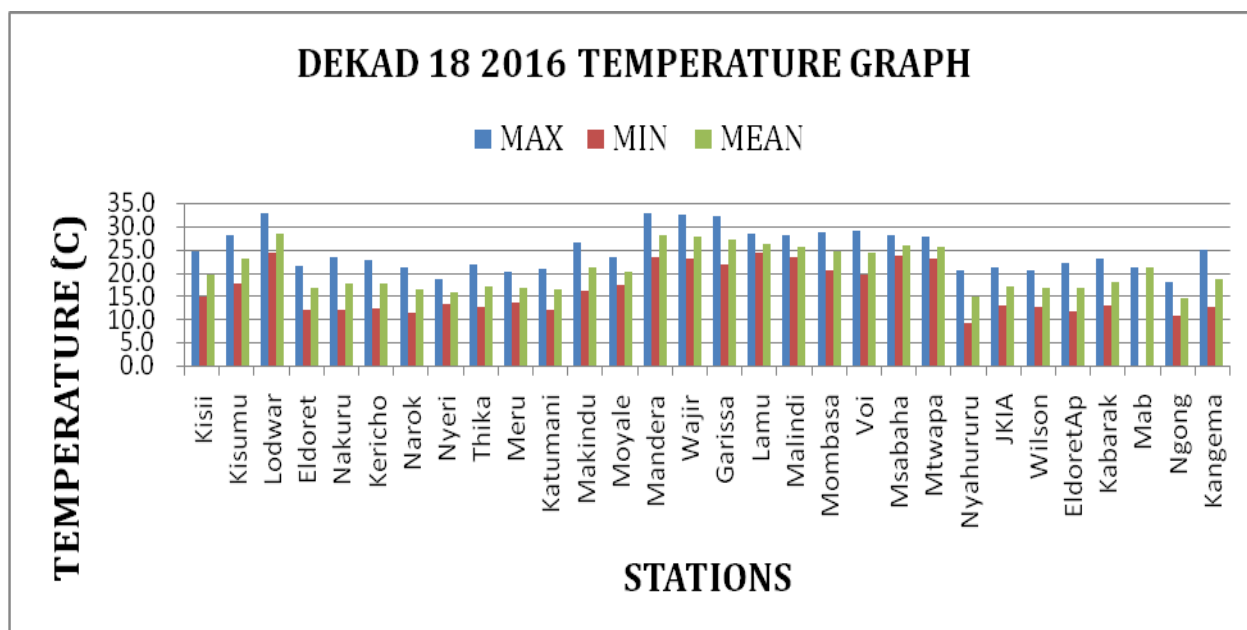
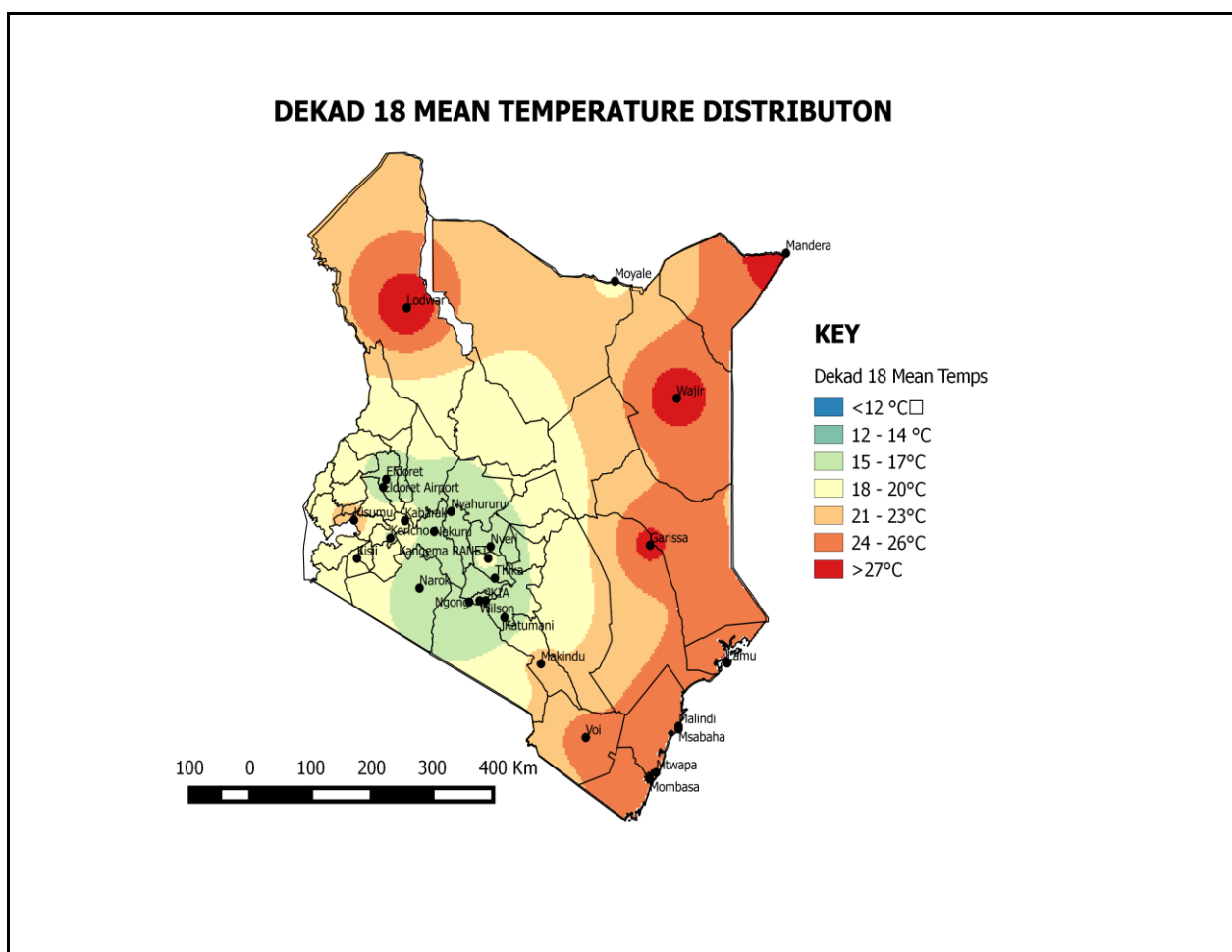


Figure 3.2: Dekadal rainfall distribution for dekad 18, 2016



**Figure3.3: Maximum, Minimum and Average temperature for dekad 18, 2016**



**Figure 3.4: Mean temperature distribution for dekad 18, 2016**

#### **4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 1<sup>ST</sup> – 10<sup>th</sup> JULY, 2016.**

- ❖ **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 occasional morning rains giving way to sunny intervals during the first three days of the forecast period. Afternoons are expected to experience mainly showers and thunderstorms over several places at the beginning of the forecast period, reducing to few places then later increasing to several places towards the end of the forecast period.

*The Showers and sunny intervals will be of advantage to the growth of the crops that are at flowering and maturity stages in places like Kisii, Kakamega and Kitale.*

- ❖ **The Northwestern counties (Turkana, West Pokot and Samburu),** are expected to experience sunny intervals in the morning during the entire forecast period. The afternoons are expected to experience showers and thunderstorms over few places for the beginning of the forecast period giving way to sunny intervals thereafter.

*The rains and showers will have a positive impact on the pasture and vegetation for livestock kept in this region.*

- ❖ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga),** Mornings are expected to be cool cloudy with rains over few places during the early part of the forecast period giving way to cool cloudy mornings thereafter. Afternoon showers are expected over few places through the entire forecast period.

*The rains and showers are of great benefit to the crops, which are in their emergence and flowering stages in places like Kabete, Meru, Embu and Nyahururu.*

- ❖ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo),** are expected to experience sunny intervals the whole day for the rest of the forecast period.

*Sunny intervals continue to have a negative impact to the pasture and vegetation for the animals kept in these areas.*

- ❖ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** Mornings are expected to experience cool cloudy giving way to sunny intervals in the afternoons for the rest of the forecast period.

*The sunny intervals will have a negative impact on the vegetation and pasture for the animals kept in these areas.*

- ❖ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc),** Mornings are expected to experience showers over few places followed by sunny intervals in the afternoons at the beginning of the forecast period. Towards the end of the forecast period, sunny intervals will prevail throughout the day.

*The showers will benefit the maize crop, which is in flowering stage in places like Msabaha and Mtwapa. They will also benefit mangoes, which are at 100% fruit setting and flowering stages in Msabaha and Mtwapa respectively.*

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

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