



**KENYA METEOROLOGICAL SERVICE  
DEKADAL AGROMETEOROLOGICAL  
BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 14, 2014  
11-20 MAY, 2014**

**1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE**

There was a reduction in rainfall activities both in space and in intensity during this dekad, with the least rainfall being received in Eastern and North-eastern regions. Coastal region just like in the previous dekad received the highest amount of rainfall countrywide with Lamu, Mtwapa, Mombasa, Msabaha and Malindi recording 192.9, 148.9, 110.7, 97.2 and 79.2 mm of rainfall respectively. Kisii station in Nyanza region received the second highest rainfall of 76.2mm. In Rift Valley region, Eldoret station recorded the highest rainfall amount of 63.7mm. Moyale station in North Eastern region recorded the highest amount of rainfall of 53.2mm. In Central region, Nyeri station reported the highest rainfall amount of 39.1mm. In western region, Kakamega station recorded the highest amount of rainfall of 27.3mm. Marsabit station in Eastern region, received the highest rainfall amount of 12.8mm. Ngong station in Nairobi region reported the highest rainfall amount of 11.2mm.

Maximum temperature was on an increasing trend unlike in the previous dekad where most stations recorded a decrease. Manderu station in Eastern region recorded the highest maximum temperature of 36.5°C compared to 36.4°C recorded at Lodwar station in the same region in the previous dekad. The minimum temperature continued to decrease in most stations with Nyahururu station in Central region recording the lowest temperature of 7.4°C compared to 8.9°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 14; 11-20May 2014**

**2.1 NYANZA AND WESTERN REGIONS**

**2.1.1 Kakamega**

The station recorded rainfall amount of 27.3mm during the dekad. The mean air temperature and pan evaporation reported were 21.4°C and 4.3mm respectively. There was no report on Sunshine parameter.

*Maize and beans were at emergence and flowering stages respectively and in good state. Normal yield is expected due to sufficient rainfall.*

**2.1.2 Kisii**

The station recorded rainfall amount of 76.23mm. The mean air temperature and Pan Evaporation were 20.4°C and 34.7mm respectively. No record on Sunshine parameter.

*Maize and beans were both at flowering stage and in fair state. Expected yield is normal.*

## **2.2 RIFT VALLEY REGION**

### **2.2.1 Kitale**

The station recorded rainfall amount of 16.8mm. Mean temperature and Evaporation pan recorded were 19.9°C and 35.7mm respectively. There was no report on sunshine duration.

*Maize and beans were at emergence and flowering stages respectively. Both crops were in good state and normal yield is expected.*

### **2.2.2 Eldoret-Kapsoya**

The station received rainfall amount of 63.7mm. The average air temperature and Evaporation pan reported was 18.2°C. and 55.2mm respectively. There was no report on sunshine Pan Parameter.

*Maize and beans were at emergence and flowering stages respectively. Both crops were in fair state.*

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

### **2.3.1 Nyeri**

The station received rainfall amount of 39.1mm. The average air temperature was 18.8°C. There was no report on pan evaporation and sunshine parameters.

*Maize and beans were at above 9<sup>th</sup> leaf and flowering stages respectively. Both crops were in fair state though beans have been affected by other insects.*

### **2.3.2 Kabete**

The station recorded rainfall amount of 148.9mm. Mean temperature was 21.0°C. There was no report on Pan Evaporation and Sunshine duration.

*Both maize and beans crops were at emergence stage and in fair state.*

### **2.3.3 Thika**

The station recorded rainfall amount of 0.2mm. The mean air temperature and pan evaporation recorded were 21.6°C and 32.9mm respectively. There was no report on sunshine duration.

*Maize and Beans were at emergency and flowering stages and potatoes too were in flowering stage. All crops are in fair state.*

### **2.3.4. Nyahururu**

The station received rainfall amount of 3.4mm. The mean air temperature and pan evaporation recorded were 15.5°C and 34.9mm respectively. There was no report on sunshine duration.

*Maize was at emergence stage and potatoes were at flowering state. Both crops were in poor state due to insufficient rain during the dekad.*

### **2.3.5. Dagoretti**

The station reported rainfall amount of 3.4mm. The average air temperature was 19.9°C. Sunshine duration was 6.1hrs.

## **2.4 EASTERN KENYA REGION**

### **2.4.1 Meru**

The station recorded rainfall amount of 5.9mm. The average air temperature and Pan Evaporation recorded were 19.6°C and 42.8mm respectively. Sunshine record was 8.7hrs.

*Maize and beans were at emergence and flowering stages respectively and in fair state. Both crops have been affected by insufficient rainfall during the dekad.*

### **2.4.2 Embu**

The station reported rainfall amount of 5.6mm. Pan Evaporation was 33.3mm. There was no report on the mean Air Temperature and Sunshine duration.

*Maize and beans were at emergence stage and in a fair state.*

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

The station reported dry conditions. The average air temperature reported was 20.4°C. There was no report on pan evaporation and Sunshine duration.

*Maize and beans were at emergence and flowering stages respectively and in poor state due to insufficient rainfall. Below normal yield is expected.*

## **2.5. COASTAL REGION**

### **2.5.1 Msabaha**

The station received rainfall amount of 5.3mm. The average air temperature and Pan Evaporation recorded were 27.4°C and 35.8mm respectively. Sunshine duration was 6hrs.

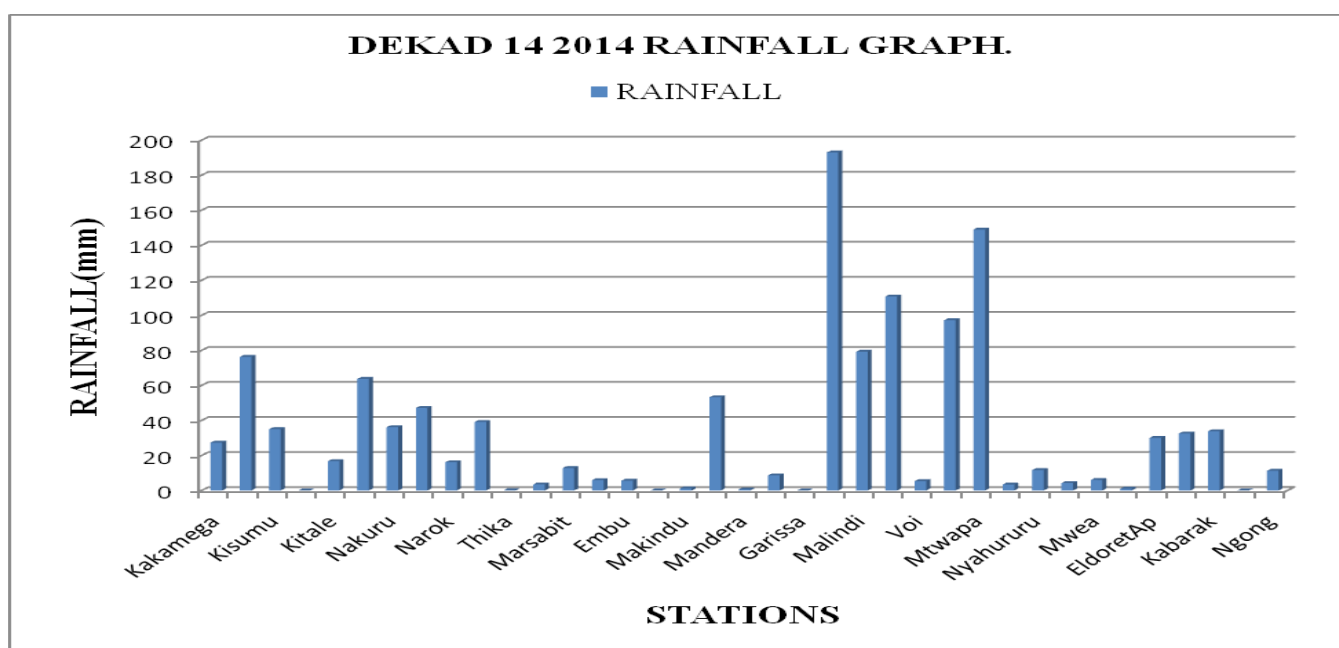
*Maize was in emergence stage and in fair state due to sufficient rain during the dekad.*

### **2.5.2 Mtwapa**

The station received rainfall amount of 97.2mm. The average air temperature and pan evaporation recorded were 26.9°C and 33.2mm respectively. There was no report on sunshine duration.

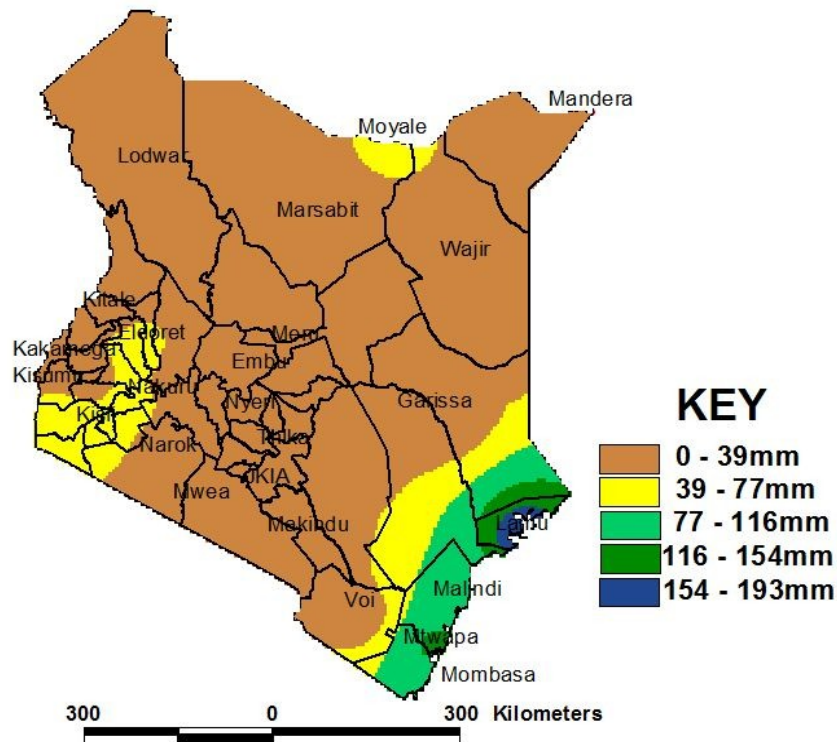
*Maize was at emergence stage and in good state, while Mangoes were at fruit setting stage. Both crops were in good state.*

### 3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS



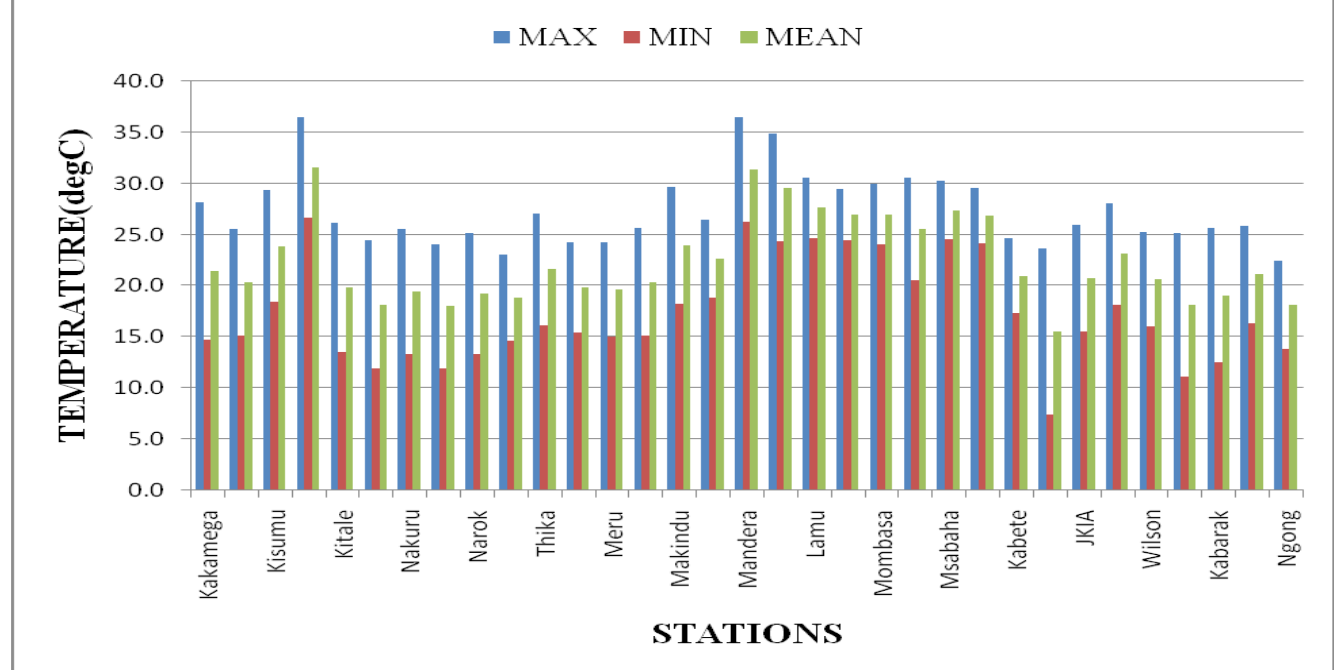
**Figure 3.1: Dekadal rainfall totals for 11- 20 May 2014**

### DEKAD14 2014 RAINFALL DISTRIBUTION



**Figure 3.2: Dekadal rainfall distribution for dekad 14, 2014**

### DEKAD 14 2014 TEMPERATURE GRAPH.



**Figure 3.3: Maximum, Minimum and Average temperature in °C for dekad 14, 2014**

### DEKAD 14 2014 TEMPERATURE DISTRIBUTION

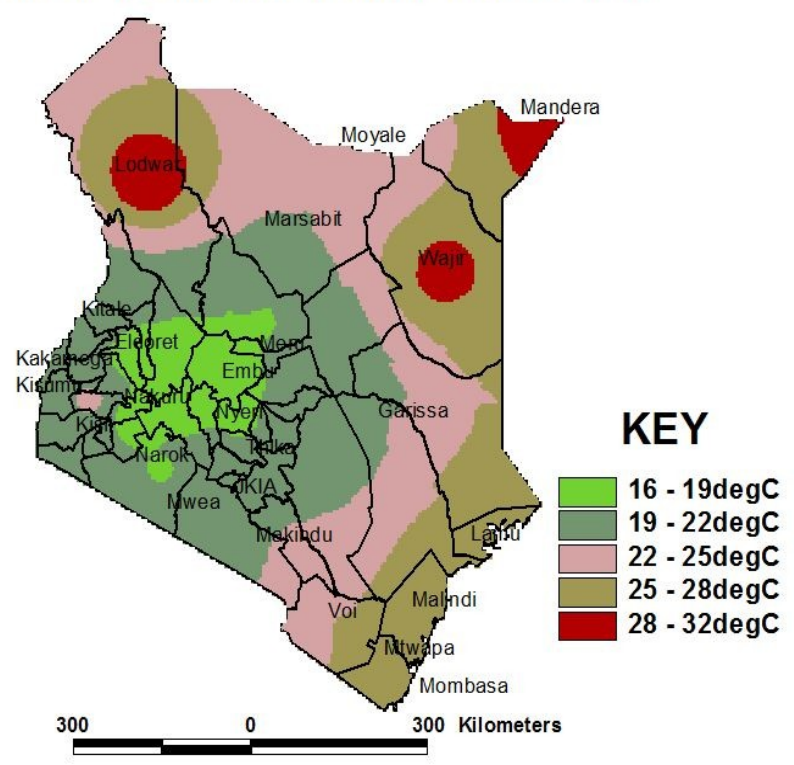
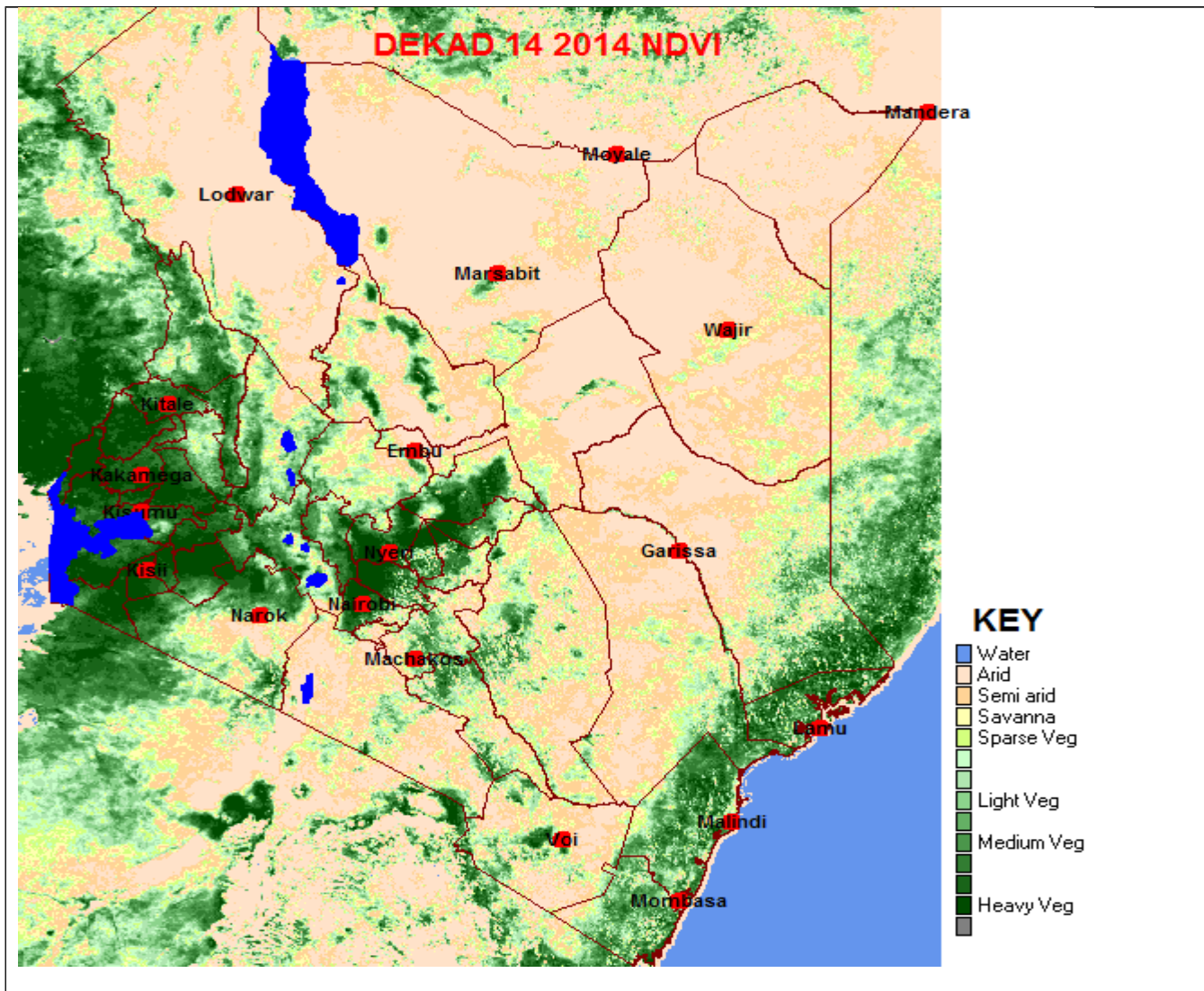


Figure 3.4: Mean temperature distribution for dekad 14, 2014



**Figure 3.5: Normalized Difference Vegetation Index (NDVI)**

#### **4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 May 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),** are expected to experience sunny intervals in the morning for most of the forecast period. Afternoon showers and thunderstorms are expected over several places reducing to few places towards the end of the forecast period. Some heavy showers may be realized over the lake Basin.

*The morning sunny periods and Afternoon showers are of great importance for the growth of the maize and Beans crops, which are still in their early development stages.*

- ❖ **The Northwestern counties (Turkana, West Pokot and Samburu),** Are expected to experience sunny conditions over most parts of the country throughout the forecast period. Occasional afternoon showers and thunderstorms are likely to occur over areas along the Kenya-Uganda and Sudan border.

*The afternoon showers will continue to benefit 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 occasional early morning cloudiness with light rains over few places, breaking into sunny intervals. Afternoon showers are likely to occur over several places reducing to few places as the period progresses.

*The expected showers will continue to benefit the crops and vegetation in this region.*

- ❖ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo),** are expected to experience morning rains over few places and sunny intervals in the afternoon throughout the forecast period.

*The expected morning rains will continue to benefit pasture and vegetation in this region.*

- ❖ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui),** are expected to experience sunny intervals in the morning and afternoon showers over few places especially at the beginning of the forecast period.

*The showers are expected to continue replenishing the crops, pasture and vegetation in the region.*

- ❖ **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc),** are expected to experience moderate to heavy morning showers for most of the forecast period especially at the north coast.

*The showers will continue to benefit the development of the crops in this region.*

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

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