



## KENYA METEOROLOGICAL DEPARTMENT

# DEKADAL AGROMETEOROLOGICAL BULLETIN

## WEATHER AND CROP REVIEW FOR DEKAD 01, 2011

### 01 – 10 JANUARY, 2011

#### 1. WEATHER HIGHLIGHTS:

The stations which reported from Western, Nyanza, Rift Valley, Central, Nairobi and Coast provinces indicated a great reduction in precipitation from the previous dekad, with the greatest decrease having been recorded at Kakamega Meteorological station where 9.2mm were received as compared to 84.6mm Kisumu 18.9mm down from 53.7mm and Dagoretti corner nil from 21.5mm previously. However, from a general point of view, some rather significant increases of precipitation were also observed at some few stations in the aforementioned provinces like Narok which recorded 18.6mm up from 5.2mm and Nyeri 2.9mm up from 2.5mm.

In the Eastern and North Eastern provinces, rainfall amount did not deviate appreciably except Garissa and Mwea which deviated from 53.7mm and 25.9 mm to nil respectively from the previous dekad. Thus generally, all stations in the region continued observing nil rainfall except Marsabit which recorded an increase of 3.4mm from the previous. For more comprehensive summary of rainfall and other meteorological parameters, please see Figures and maps 3.1 to 3.4 here below.

#### 2. CROP AND WEATHER REVIEW FOR DEKAD 1; 1 – 10 JANURAY 2011

##### 2.1 NYANZA AND WESTERN PROVINCES

###### 2.1.1 Kakamega

9.2 mm of rainfall was recorded during the dekad compared to the previous 84.6mm with a range of 75.4mm. The average air temperature, total pan evaporation and sunshine hours recorded were 21.1<sup>o</sup>c, 42.7mm and 9.3 hours per day respectively.

Farmers have started preparing the land in readiness for the upcoming growing season.

###### 2.1.2 Kisii

7.7 mm of rainfall was recorded during the dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 21.2<sup>o</sup>c, 37.2mm and 9.2 hours per day respectively.

No phonological observations were made.

## **2.2 RIFT VALLEY PROVINCE**

### **2.2.1 Kitale**

The average air temperature, total pan evaporation and rainfall recorded at Kitale were 18.8<sup>0</sup>c, 41.2mm and 1.2mm respectively.

No phenological observations were made

### **2.2.2 Eldoret-Kapsoya**

The average air temperature, total van evaporation, rainfall and sunshine hours recorded at the station were 17.5<sup>0</sup>c, 4.2mm, 0.3mm and 9.1hours respectively.

No phenological observations made because the farms have nothing to follow.

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The average air temperature, total pan evaporation and rainfall recorded in Nyeri were 17.7<sup>0</sup>c, 64.1 mm and 1.2mm respectively.

Maize was at flowering stage and in poor state due to inadequate rain. As a result, below normal yield is expected. Bean crop which was at 98% flowering stage were also in poor state due to prolonged drought and 15% damage by aphids.

### **2.3.2 Kabete**

The average air temperature, total pan evaporation and sunshine hours recorded at Kabete were 19.9<sup>0</sup>c, 55.5mm and 10.1 hours per day respectively. No rainfall was observed.

Both Maize and beans were at flowering stage and in poor state, due to insufficient rain. Below normal yield is expected on both crops. Coffee (SL34) was at 100% ripeness stage and in moderate state. There was 10% damage by leaf rust and DIC block diseases.

### **2.3.3 Thika**

The station recorded nil rainfall compared to 2.5mm the previous dekad. An average air temperature of 19.7<sup>0</sup>c was recorded and total pan evaporation of 49.4 mm.

No phenological observations were made.

### **2.3.4. Nyahururu**

1.8 mm of rainfall was recorded during the dekad compared to 0.01mm of the previous dekad. The average air temperature and total pan evaporation recorded were 14.7<sup>0</sup>c and 63.8mm respectively.

The Maize crop which was at full ripeness stage and in fair state was ready for harvesting with the expected yield being normal. The dekad marked the harvesting of both potatoes and beans.

### **2.3.5. Dagoretti**

The station received no rainfall compared to 21.5mm observed during the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded at Dagoretti were 19.4<sup>0</sup>c, 47.0mm and 10.2 hours per day respectively.

Maize was at flowering stage and in poor state due to insufficient rain. As a result, below normal yield is expected. Bean crop which was at 80% ripeness stage and in good state was not affected by drought. Hence normal yield is expected.

## **2.4 EASTERN PROVINCE**

### **2.4.1 Meru**

Nil rainfall was observed at the station. The total pan evaporation and average air temperature recorded were 46.5mm and 17.7<sup>0</sup>c respectively.  
No phenological observations were made.

### **2.4.2 Embu**

The station recorded nil rainfall and an average air temperature of 19.5<sup>0</sup>c.

Both Maize and beans were at flowering stage and in poor state, due to insufficient rain. Below normal yield is expected on both crops.

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

The station recorded nil rainfall and average air temperature of 20.6<sup>0</sup> c.

As a result of insufficient rainfall, maize crop which was at flowering stage is reported to have failed while beans which were at maturity stage of ripeness were also in poor state. Below normal yields are expected for both crops.

## **2.5 COAST PROVINCE**

### **2.5.1. Msabaha**

Nil rainfall was recorded at station with a total pan evaporation of 54.5 mm and average air temperature of 27.9<sup>0</sup> c.

No phenological observations were made.

### **2.5.2 Mtwapa**

There was no rainfall recorded at the station. A total pan evaporation of 52mm was observed while the average air temperature was 28.0<sup>0</sup> c.

Watermelon (sugar baby) was at 100% ripeness stage and in good state though suffered some damage from leaf rust disease. The maize crop was destroyed at germinating stage by severe drought.

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

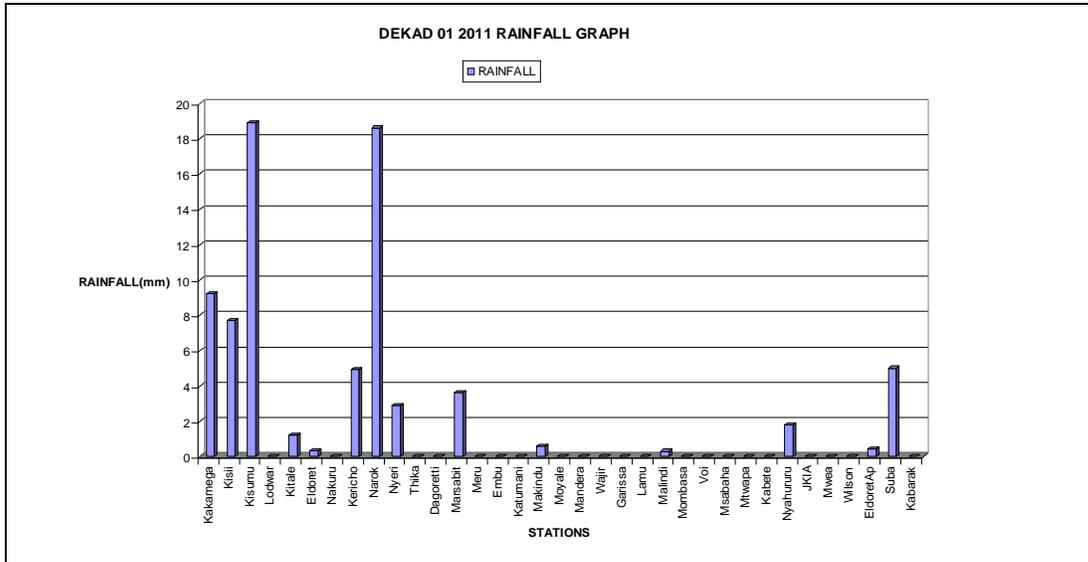


Figure 3.1: Actual Rainfall

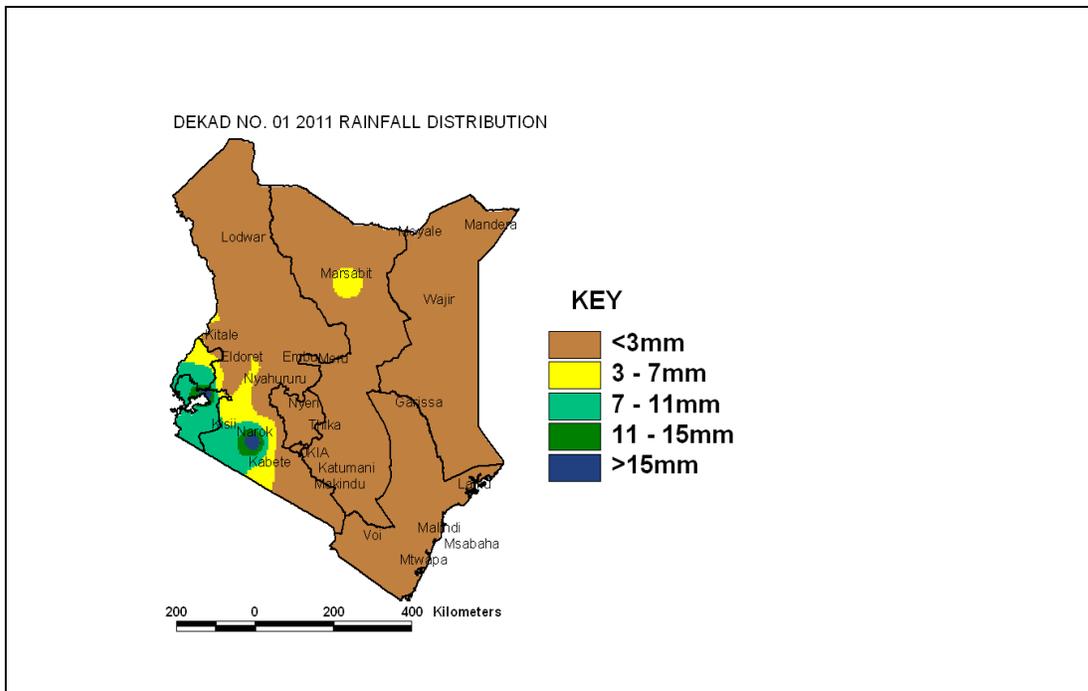


Figure 3.2: Rainfall distribution

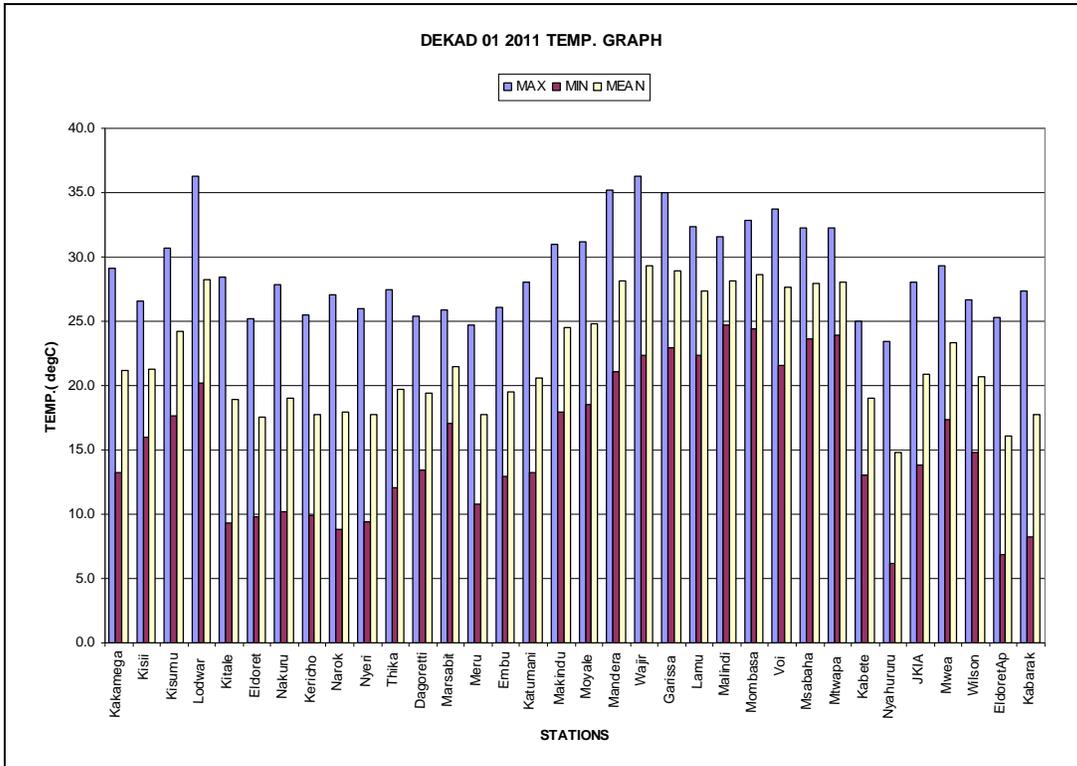


Figure 3.3: Mean Temperature (deg. Celsius)

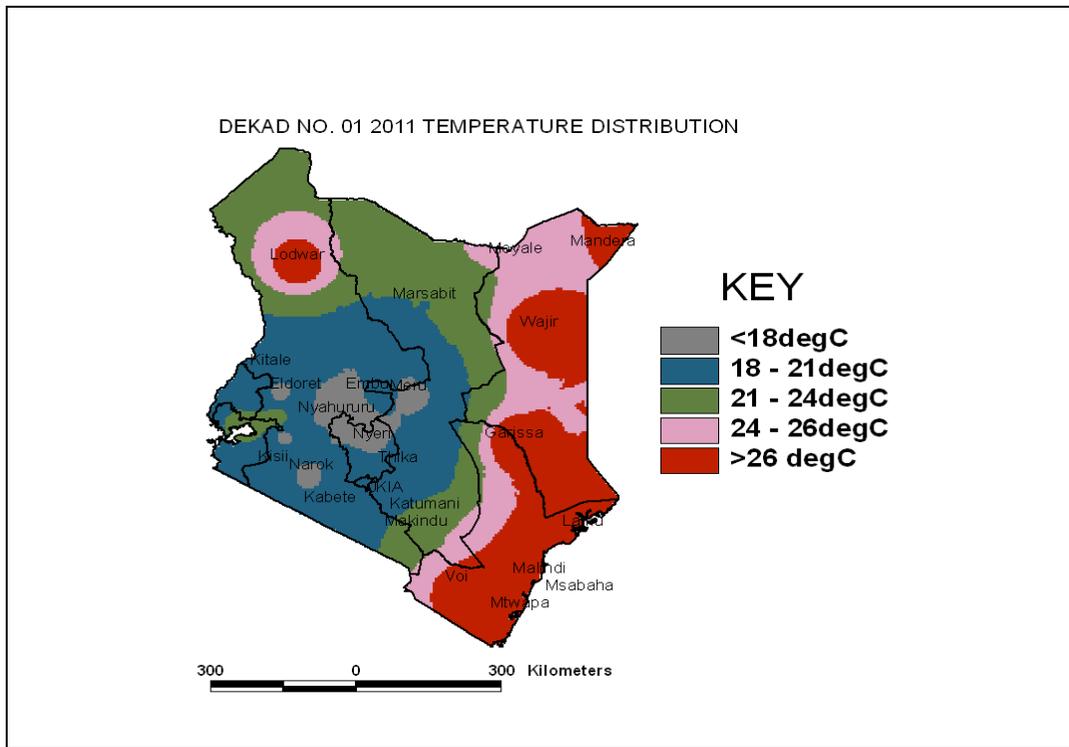


Figure 3.4: Mean Temperature Distribution

#### 4.0 EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS (11-20 JANUARY 2011)

- ✚ Most areas in the Western and North Rift Valley regions are expected to experience sunny intervals during the first half of the dekad and light to moderate rains in the last half. However, no major impacts on crops are expected from these rains.
- ✚ Nyanza and Central Rift Valley areas are expected to experience sunny conditions in the first half of the dekad and light to moderate rains during the last half. This is expected to boost the growth of the maize which is at flowering stage.
- ✚ Nairobi area, Central Highlands and its environs are expected to experience dry conditions over most of the dekad though light rains are expected in few places. The light rains will continue to favour the growth and development of maize and bean crops.
- ✚ In Eastern province, dry conditions are expected throughout the forecast period with light rains over few places. Due to that, both maize and beans will be adversely affected by the continued lack of rainfall hence soil moisture stress.
- ✚ Coastal region is expected to experience light morning rains during the first half of the next dekad and mainly sunny intervals in the second half. This will act as a boost for cashew nut trees in Lamu which are at maturity stage.
- ✚ It is projected that the North Western districts of Lodwar, Lokitaung and Lokichoggio will experience sunny conditions throughout the dekad with a slight probability of cloudiness towards the end of the dekad. As a result, pasture and the general vegetation in the region will remain stressed.

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