



**KENYA METEOROLOGICAL DEPARTMENT  
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 13, 2011  
1– 10 MAY, 2011**

**1. WEATHER HIGHLIGHTS**

The rainfall activities continued throughout the country with all stations reporting significant rainfall apart from Lodwar station in Rift Valley province which reported nil. The rainfall activities increased in both space and in intensity. Eastern province reported the highest amount of rainfall with Mwea and Embu reporting 236.4mm and 162.1mm respectively. This was enhanced rainfall compared to the last dekad where Embu station reported the highest amount of rainfall of 184.1mm. Coast province received the second highest amount of rainfall where Msabaha and Malindi stations reported 135.8mm and 93.8mm respectively. Kitale station in Rift Valley province reported 107.6mm of rainfall, while Kisii station in Nyanza Province reported 94.4mm of rainfall. In Nairobi Province, Moi Airbase and Kabete stations reported 83.6mm and 82.0mm of rainfall respectively. Nyeri and Thika stations in Central province received 73.5mm and 70.2mm respectively. North Eastern province also received significant amount of rainfall with Mandera and Garissa stations reporting 41.2mm and 22.1mm of rainfall respectively.

There was a reduction in the air temperature across the country. This is attributed to increased rainfall amounts. For more comprehensive summary of rainfall and other meteorological parameters, see Figures 3.1 to 3.4 below.

**2. CROP AND WEATHER REVIEW FOR DEKAD 13; 1– 10 MAY 2011**

**2.1 NYANZA AND WESTERN PROVINCES**

**2.1.1 Kakamega**

This station recorded rainfall, average air temperature and total pan evaporation of 6.1mm, 21.3<sup>0</sup>c and 45.3mm respectively. Sunshine hours duration were 6.3 hours per day.

Maize and beans were at the emergence and flowering stages respectively and in good condition.

**2.1.2 Kisii**

The station recorded rainfall amount, mean average air temperature and total pan evaporation of 94.4mm, 20.9<sup>0</sup>c and 34.4mm respectively. There was no report on sunshine hours.

Both Maize and beans were at emergence stage but in poor condition due to lack of sufficient rainfall upon planting. However, appreciable rainfall amount was realised during the current dekad. Weeding of maize and beans was still in progress.

## **2.2 RIFT VALLEY PROVINCE**

### **2.2.1 Kitale**

The rainfall, average air temperature and total pan evaporation recorded at the station was 107.6mm, 20.5<sup>0</sup>c and 33.1mm respectively while the sunshine hours duration was 5.8 hours per day.

Both maize and beans were at the emergence stage and in good condition. Some farmers are finishing planting while others have started weeding.

### **2.2.2 Eldoret-Kapsoya**

The station reported rainfall, average air temperature and total pan evaporation of 28.3 mm, 18.5<sup>0</sup>c and 43.2mm respectively. Sunshine hours reported were 6.4 hours per day. Maize and beans have been planted but have not yet germinated in most farms.

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The station recorded rainfall, average air temperature and total pan evaporation of 73.5 mm, 19.9<sup>0</sup>c and 38mm respectively. There was no sunshine report.

Maize was at 12% 9<sup>th</sup> leaf with 5% of the crop destroyed by pest while the beans were at 45% budding with 60% of the crop destroyed by rodents. Both crops are generally doing well due to sufficient rainfall.

### **2.3.2 Kabete**

This station recorded rainfall, average air temperature and total pan evaporation of 82.0 mm, 19.3<sup>0</sup>c and 34.5mm respectively. There was no report on sunshine hours.

Maize and beans were at emergence and flowering stages respectively and in good condition. Coffee which was at 100% pin head suffered damages by leaf rust and leaf minors.

### **2.3.3 Thika**

This station reported rainfall, average air temperature, and total pan evaporation of 70.2mm, 20.8<sup>0</sup>c and 37.7 mm respectively. Sunshine hours reported were 5.6 hours per day.

Maize, beans and potatoes were all at emergence stage and in fair state.

### **2.3.4. Nyahururu**

The station reported rainfall, average air temperature and total pan evaporation of 55.2 mm, 16.0<sup>0</sup>c and 39.7mm respectively. Sunshine hours recorded were 6.3 hours per day. Maize, beans and potatoes were at an emergence stage with potatoes at fair state while maize and beans at a poor state due to insufficient and poorly distributed rainfall. Farmers have begun weeding their crops.

### **2.3.5. Dagoretti**

This station reported rainfall, average air temperature and pan evaporation of 63.9mm, 19.6<sup>0</sup>c and 28.4mm respectively. Sunshine hours recorded were 6 hours per day. Maize and beans were in good and excellent states respectively.

## 2.4 EASTERN PROVINCE

### 2.4.1 Meru

The station reported rainfall, average air temperature and total pan evaporation of 63.3 mm, 20.0<sup>0</sup>c and 44.8mm respectively. There was no report on sunshine hours. Most farmers have started planting following the onset of the long rains.

### 2.4.2 Embu

This station reported rainfall, average air temperature and total pan evaporation of 162.1 mm, 21.0<sup>0</sup>c and 31.2mm respectively. Sunshine hours recorded were 7.3 hours per day. Maize and beans are at emergence and flowering stage. Maize were in good condition while beans were turning yellow due to excessive rainfall.

### 2.4.3 Katamani (Machakos)

The station reported rainfall and average air temperature of 37.4mm and 21.2<sup>0</sup>c. There was no report on evaporation and sunshine parameters. Both maize and beans are at emergence stage and in poor state due to insufficient rain experienced in the dekad.

## 2.5 COAST PROVINCE

### 2.5.1. Msabaha

The station reported rainfall, average temperature and total pan evaporation of 135.8 mm, 27.8<sup>0</sup>c, and 37.9 mm. There was no report on sunshine hours. Maize was observed at emergence stage and in fair state. Mango is at 100% fruit setting.

### 2.5.2 Mtwapa

The station recorded rainfall, average air temperature and pan evaporation of 71.8 mm, 27.6<sup>0</sup>c and 34.0mm respectively. There was no report on sunshine hours. Mango is at 100% of its phonological phase. The maize is at 100% emergency phase with the watermelon at 90% in the same phase

## 3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

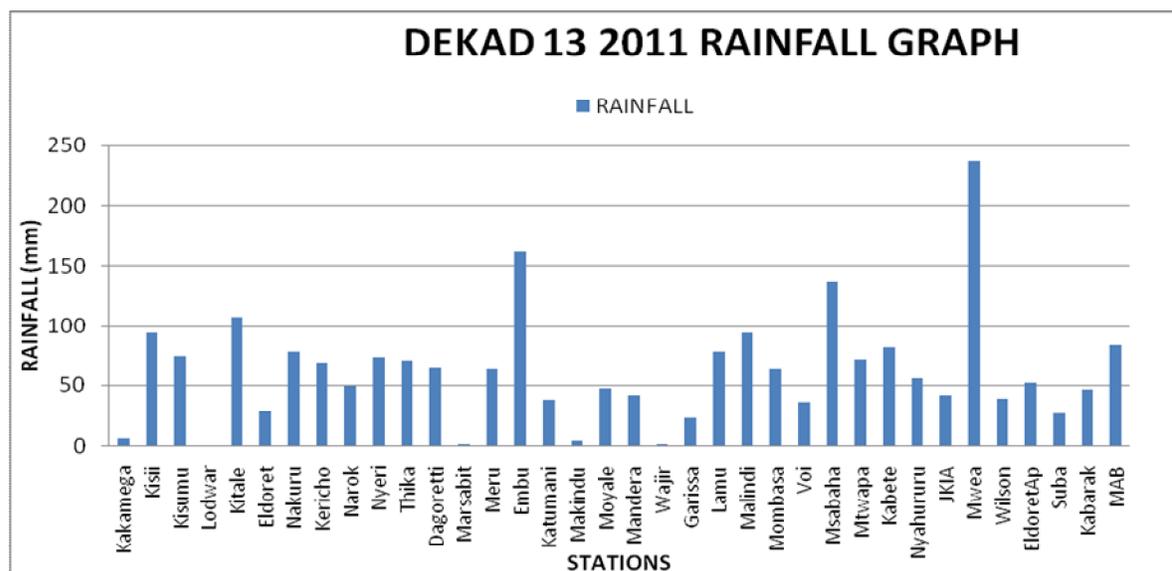


Figure 3.1: Actual Rainfall

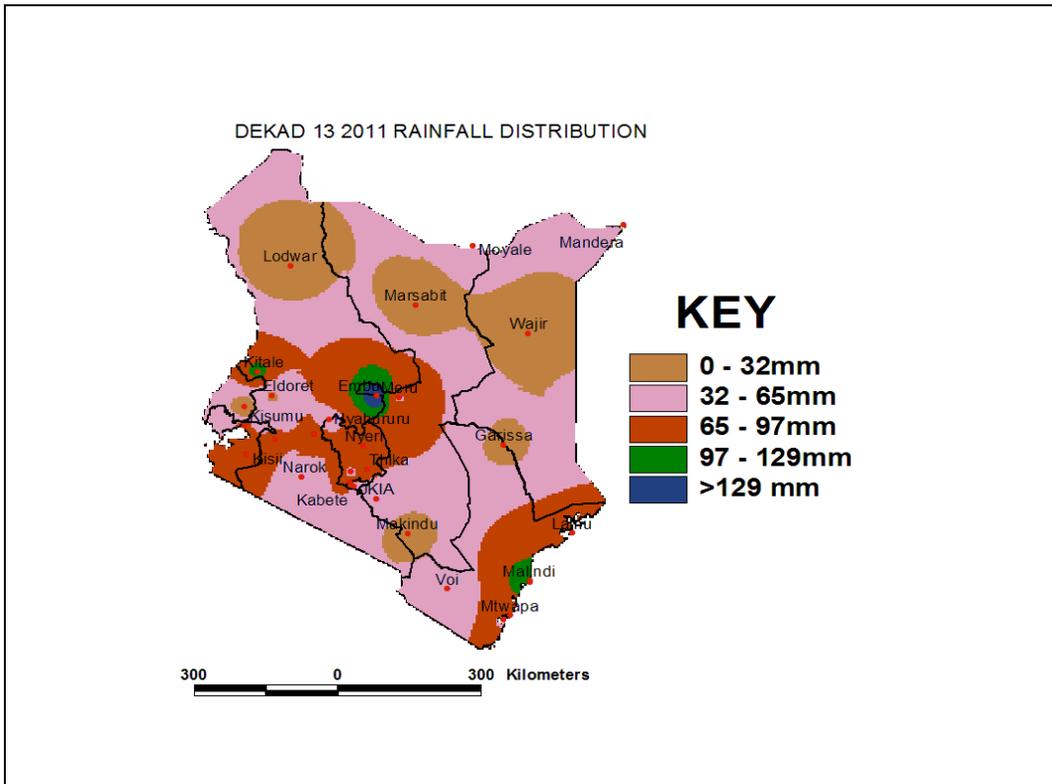


Figure 3.2: Rainfall distribution

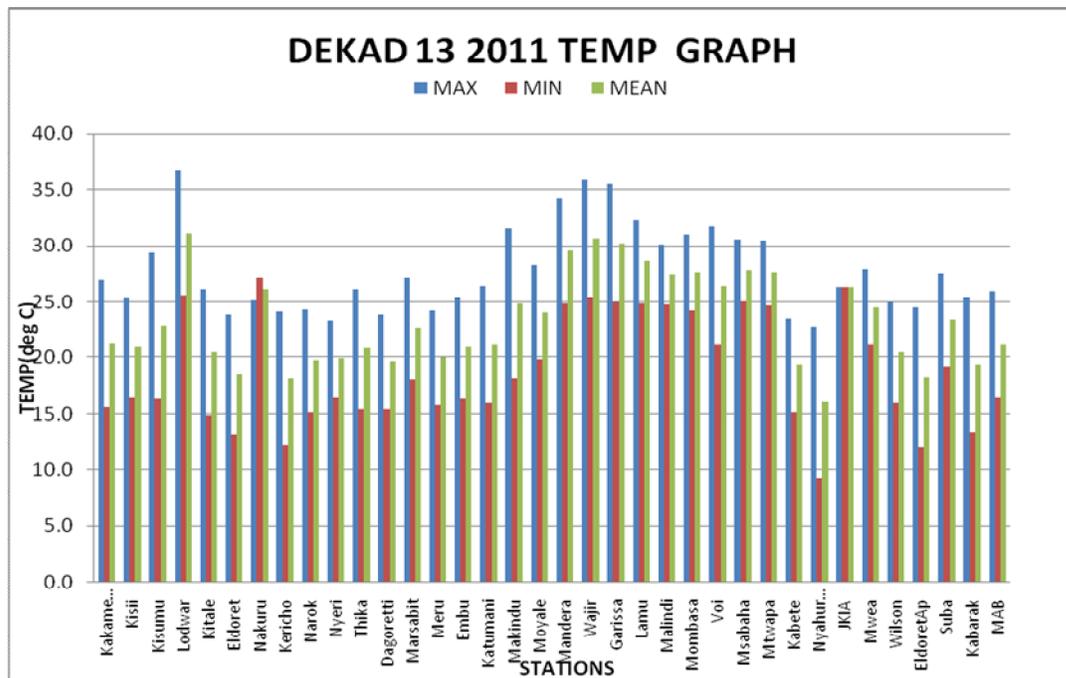
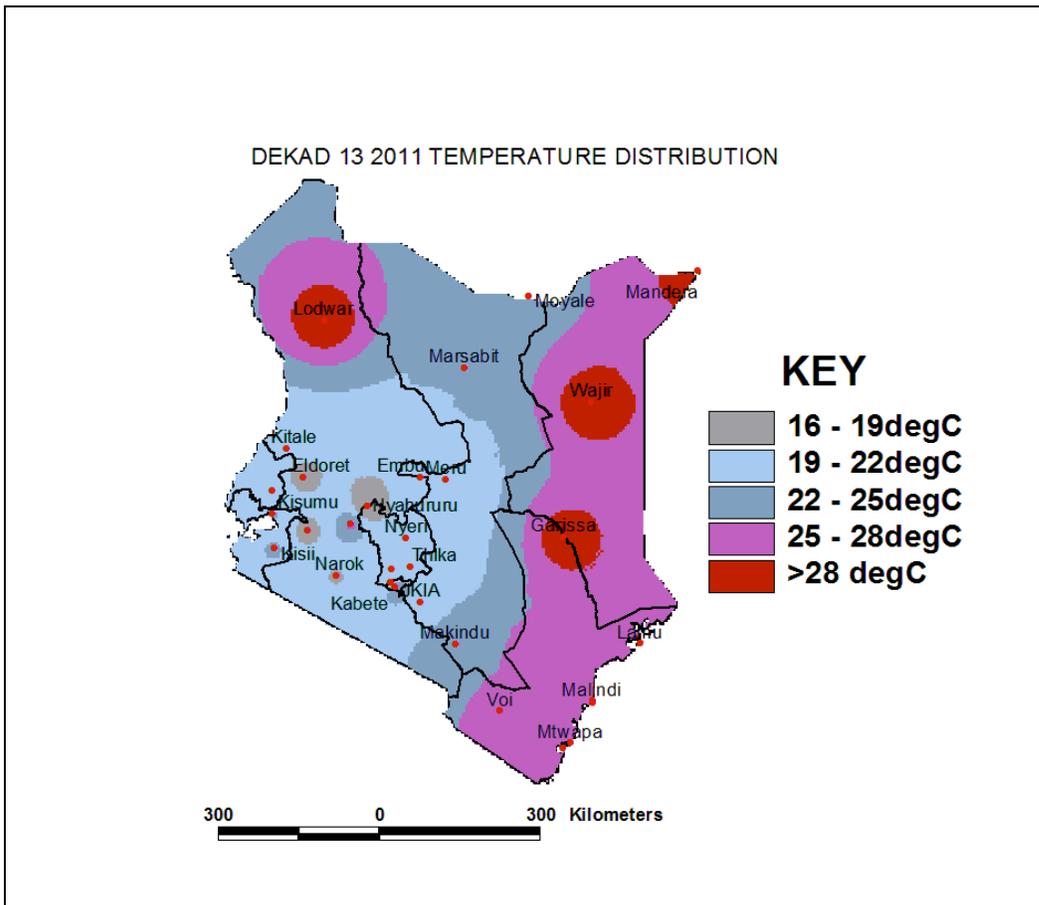
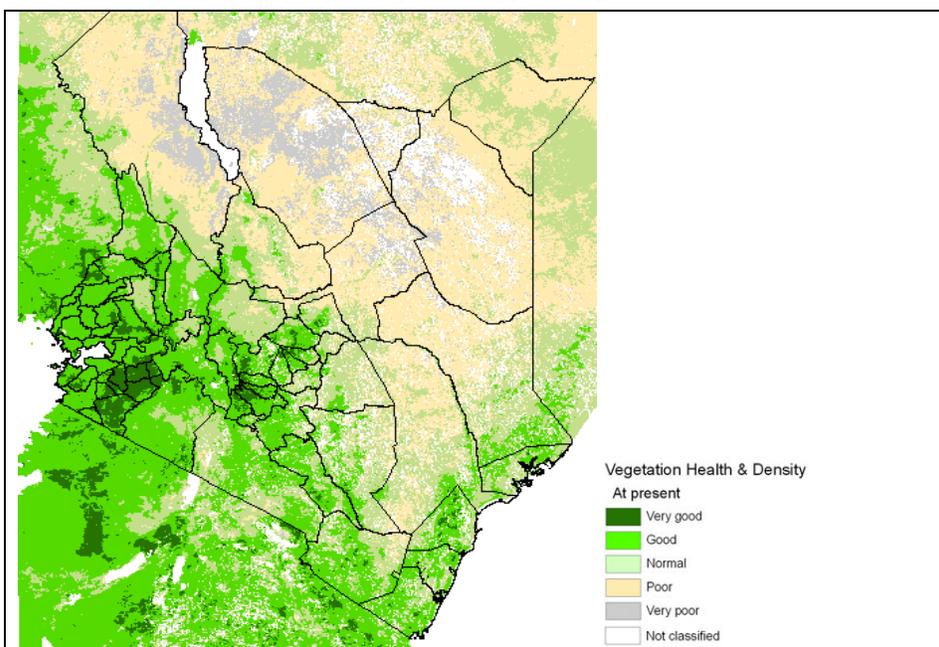


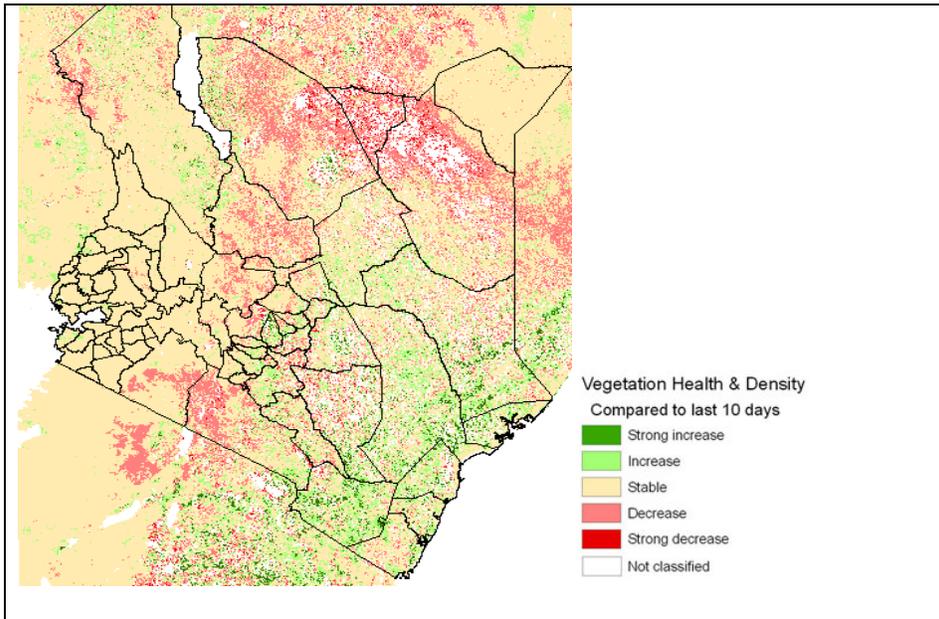
Figure 3.3: Mean Temperature



**Figure 3.4 Mean Temperature Distribution**



**Figure 3.5: Normalized difference vegetation index (NDVI)**



**Figure 3.6: Vegetation Health and density comparison to the last 10 days**

#### **4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS**

- ✚ The Lake Victoria Basin, Highlands West of the Rift Valley Central and South Rift Valley (Kitale, Kakamega, Kisumu, Kisii, Migori, Nyamira, Kericho, Uasin Gishu, Nakuru, Narok, Nyandarua counties etc)** will experience occasional morning rains over few places in the first half, afternoon/ night showers and thunderstorms over several places throughout the forecast period. The rainfall intensities are, however, expected to decrease with time. This enhanced rainfall will be beneficial to the germinating crops in the area.
- ✚ The North Western counties ( Turkana, West Pokot etc),** will experience afternoon/night showers over few places especially bordering Uganda, Ethiopia and Sudan in the first half of the forecast period. Mainly sunny intervals will prevail over the rest of the region for much of the forecast period. The germinating crops will flourish due to the continuing rains and the livestock will benefit from the greener pastures.
- ✚ The Central highlands including Nairobi area (counties of Meru, Murang'a , Kiambu, Nyeri, Nairobi, Embu, etc)** will experience morning rains and afternoon/night showers over several places in the first half of the forecast. This will reduce to few places in the second half of the forecast period. This enhanced rainfall will continue benefiting agricultural activities in the area.
- ✚ North Eastern counties (counties of Marsabit, Mandera, Wajir, Garissa Tana River etc),** will experience morning rains/ afternoon showers over few places at the beginning of the forecast period. This will give way to mainly sunny intervals for the rest of the forecast period. The rains will be beneficial to agricultural activities and livestock in the area.
- ✚ South Eastern lowlands (Taita Taveta, Makueni, Machakos, Kitui, Mwingi counties etc),** will experience morning rains and afternoon showers over several places in the first half of the forecast period. This will reduce to mainly sunny intervals with occasional morning

rains over few places in the second half of the forecast period. The enhanced rainfall will benefit the crops which are still in the emergence stage.

 **The Coastal strip (Mombasa, Malindi, Kilifi, Lamu, Kwale etc)** will experience morning showers over several places during the forecast period. The rainfall is expected to be relatively heavier in the south coast during the second half of the forecast period. This rainfall will be beneficial to the crops which are still mainly in the emergence stage.

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

Director,  
Kenya Meteorological Department,  
Agrometeorological Advisory Services Division,  
Dagoretti Corner, Ngong Road, P.O. Box 30259, 00100 GPO, Nairobi  
Tel: +254 (0)20 3867880-7/3876957/3873682 ; Fax: +254 (0)20 3876955  
E-mail: [agromet@meteo.go.ke](mailto:agromet@meteo.go.ke);  
Website: [www.meteo.go.ke](http://www.meteo.go.ke)

©2011 The Kenya Meteorological Department