



## KENYA METEOROLOGICAL DEPARTMENT

### DEKADAL AGROMETEOROLOGICAL BULLETIN

#### WEATHER AND CROP REVIEW FOR DEKAD 11, 2011 11– 20 APRIL, 2011

##### 1. WEATHER HIGHLIGHTS

Most parts of the country continued to report active weather activities but with a notable reduction in rainfall amount as compared to the last dekad. Apart from Lodwar station in North Eastern Province which reported dry conditions, most stations reported significant amount of rainfall. Kisii station in Nyanza province recorded the highest rainfall in the country of 53.5 mm. The second highest rainfall was reported in Eastern province where Embu, Meru and Marsabit recorded 52.0 mm, 44.1 mm and 33.8 mm of rainfall respectively. Garissa station in North Eastern and Kabarak station in Rift Valley reported 26.9 mm and 26.0 mm of rainfall respectively. Lamu station at the coast and Kabete station in Nairobi reported 24.9 mm and 21.7 mm of rainfall respectively.

There was no much change in temperatures reported in most stations. For 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 11; 11– 20 APRIL 2011

###### 2.1 NYANZA AND WESTERN PROVINCES

###### 2.1.1 Kakamega

This station recorded rainfall, average air temperature and total pan evaporation of 3.3 mm, 22.2<sup>0</sup>c and 51.3 mm. Sunshine hours recorded were 9.2 hours per day. Maize and beans crops are not in very good state because of insufficient rainfall, and Cassava plant which is in moderate state is at 98 % maturity stage.

###### 2.1.2 Kisii

The station received 53.5 mm of rainfall, which was the highest rainfall reported in the country. The average air temperature and total pan evaporation recorded were 21.8<sup>0</sup>c and 46.0 mm. There was no report on sunshine hours. Maize and beans crops were at emergence stage and in fair state.

## **2.2 RIFT VALLEY PROVINCE**

### **2.2.1 Kitale**

This station recorded rainfall and average air temperature of 7.0 mm and 21.0c respectively. Sunshine hours recorded were 9.5 hours per day. There was no report on total pan evaporation. Farmers are still preparing land in readiness for long rain season.

### **2.2.2 Eldoret-Kapsoya**

The station reported rainfall, average air temperature and total pan evaporation of 3.0 mm, 19.1<sup>0</sup>c and 83.5 mm respectively. Sunshine hours reported were 10.6 hours per day. Land preparation is over and farmers are waiting for rain and seeds to start planting.

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The station recorded rainfall, average air temperature, and total pan evaporation of 17.3 mm, 20.0<sup>0</sup>c and 42.1 mm respectively. There was no report on sunshine hours and Land preparation is still going on.

### **2.3.2 Kabete**

This station recorded rainfall, average air temperature and total pan evaporation of 21.7 mm, 19.7<sup>0</sup>c and 47.2 mm respectively. There was no report on sunshine hours. Some farmers are still preparing land while others have started planting.

### **2.3.3 Thika**

This station reported rainfall, average air temperature, and total pan evaporation of 17.1 mm, 22.0<sup>0</sup>c and 44.1 mm. There was no report on sunshine hours. Farmers are still preparing their farms in preparation for the long rainfall season.

### **2.3.4. Nyahururu**

The station reported rainfall, average air temperature and total pan evaporation of 5.0 mm, 15.4<sup>0</sup>c and 72.5 mm respectively. Sunshine hours recorded were 9.2 hours per day. Most farmers started planting on 15.03.2011 with the onset of long rain season.

### **2.3.5. Dagoretti**

This station reported rainfall, average air temperature and pan evaporation of 10.7 mm, 20.4<sup>0</sup>c and 48.7 mm respectively. Sunshine hours recorded were 9.5 hours per day and land preparation is still going on in most farms. A few farmers have planted and the seeds have germinated.

## **2.4 EASTERN PROVINCE**

### **2.4.1 Meru**

The station reported rainfall, average air temperature and total pan evaporation of 44.1 mm, 22.1<sup>0</sup>c and 50.4mm respectively. Sunshine hours reported were 9.3 hours per day. Some farmers have started planting following the onset of the long rains.

### **2.4.2 Embu**

This station reported rainfall and average air temperature of 52.0 mm and 21.8<sup>0</sup>c respectively. Sunshine hours recorded were 9.5 hours per day. There was no report on total evaporation pan. Maize and beans crops failed to germinate in most farms due to prolonged drought after planting had been done.

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

The station recorded rainfall and average air temperature of 1.0 mm and 21.4<sup>0</sup>c. There was no report on evaporation and sunshine parameters. Some farmers have started planting following the onset of long rains.

## **2.5 COAST PROVINCE**

### **2.5.1. Msabaha**

The station reported rainfall, average temperature and total pan evaporation of 8.4 mm, 29.4<sup>0</sup>c, and 65.4 mm. There was no report on sunshine hours. Land preparation and planting continues in most farms.

### **2.5.2 Mtwapa**

The station recorded rainfall and average air temperature of 2.5 mm and 29.2<sup>0</sup>c respectively. There was no report on total pan evaporation and sunshine hours. Farmers are still preparing their farms in readiness for the long rain season.

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

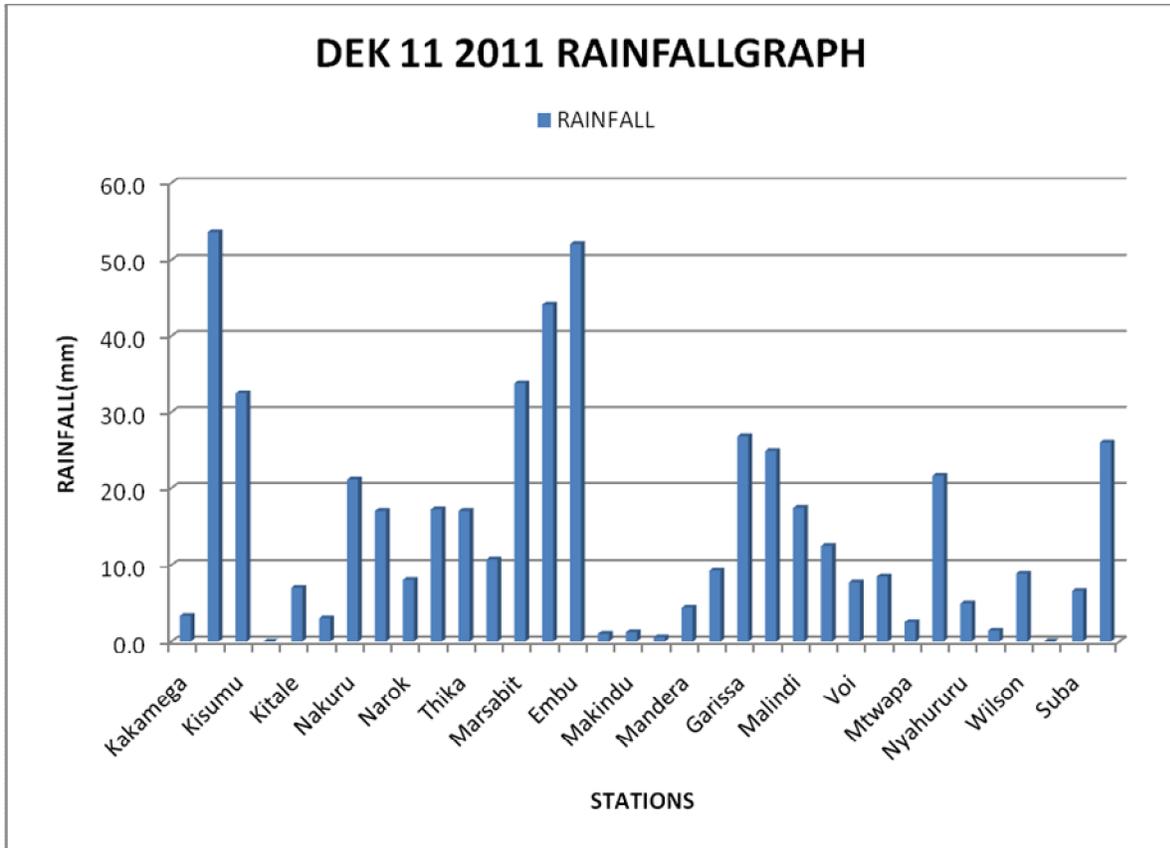


Figure 3.1: Actual Rainfall

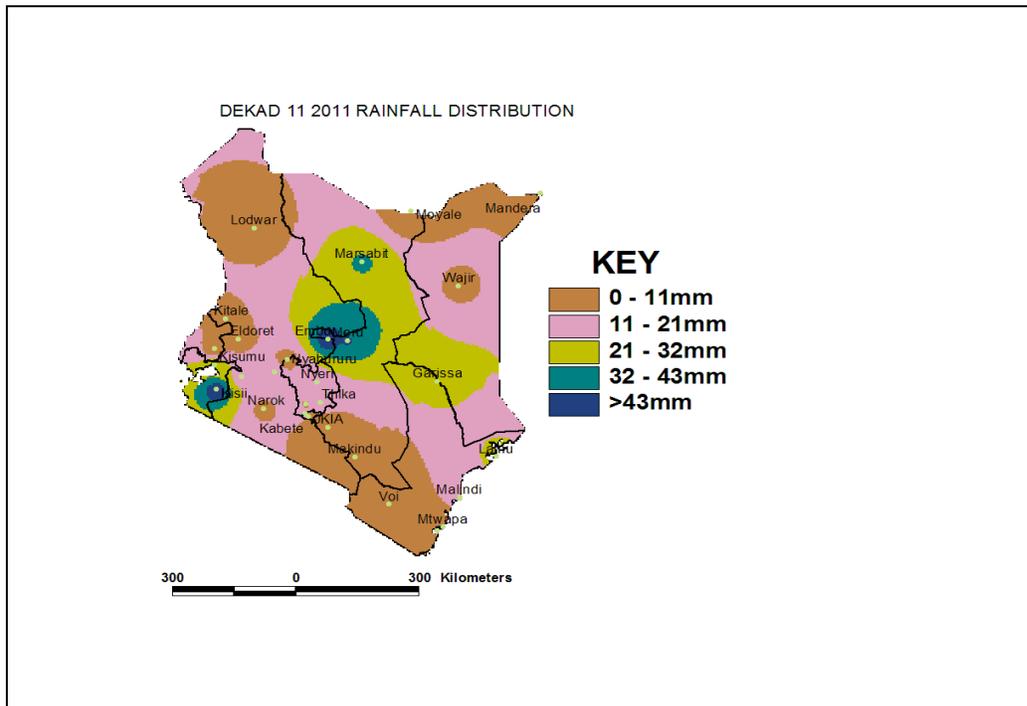


Figure 3.2: Rainfall distribution

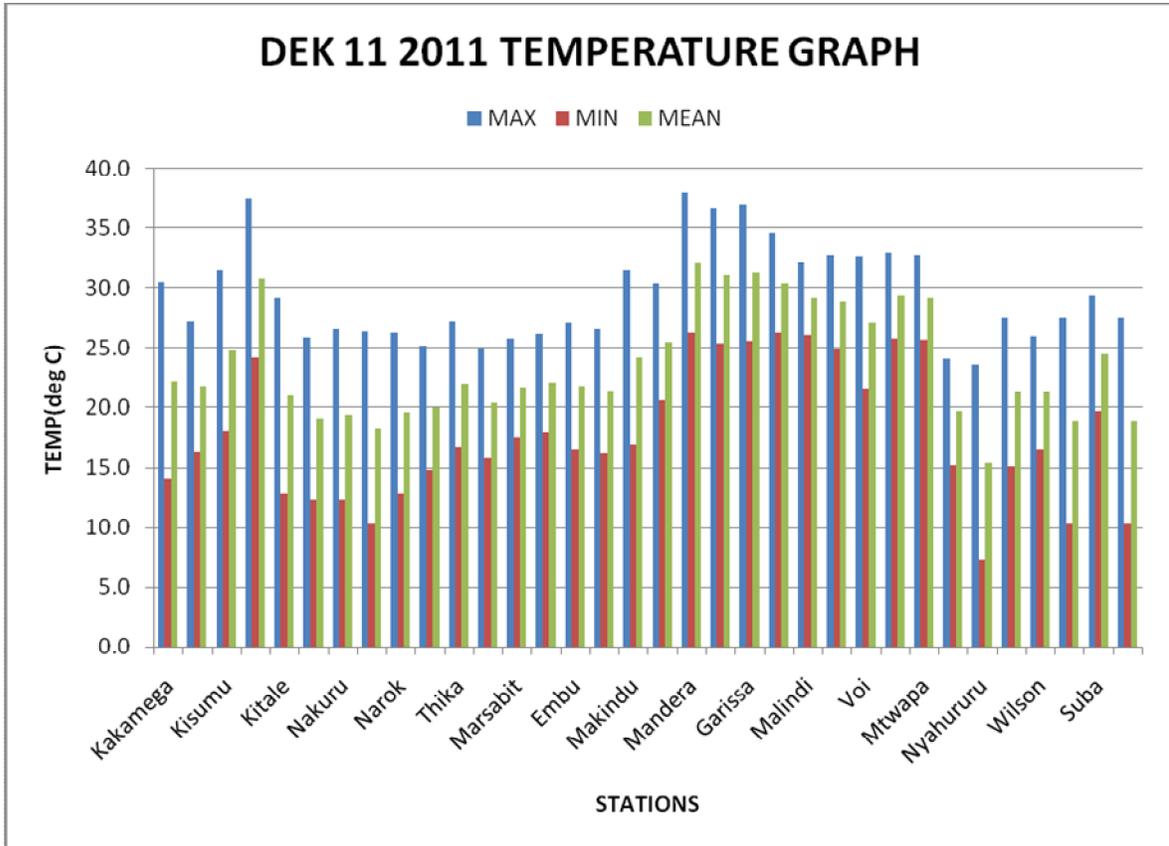


Figure 3.3: Mean Temperature

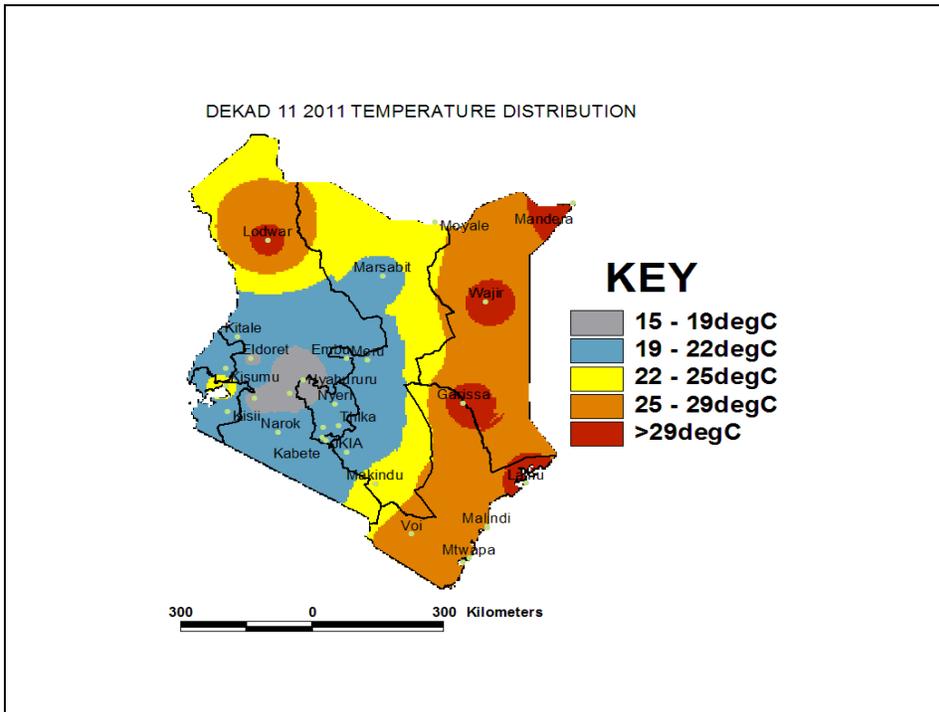


Figure 3.4 Mean Temperature Distribution

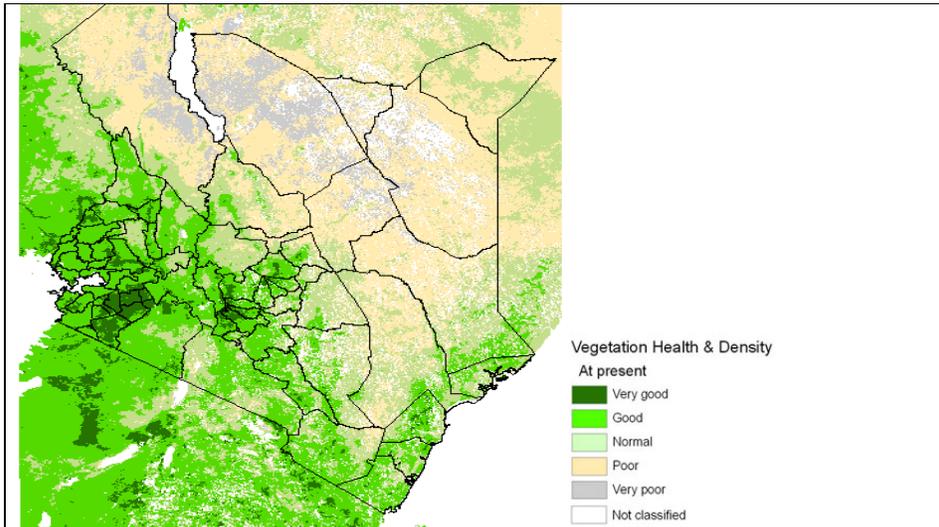


Figure 3.5: NORMALISED DIFFERENCE VEGETATION INDEX (NDVI)

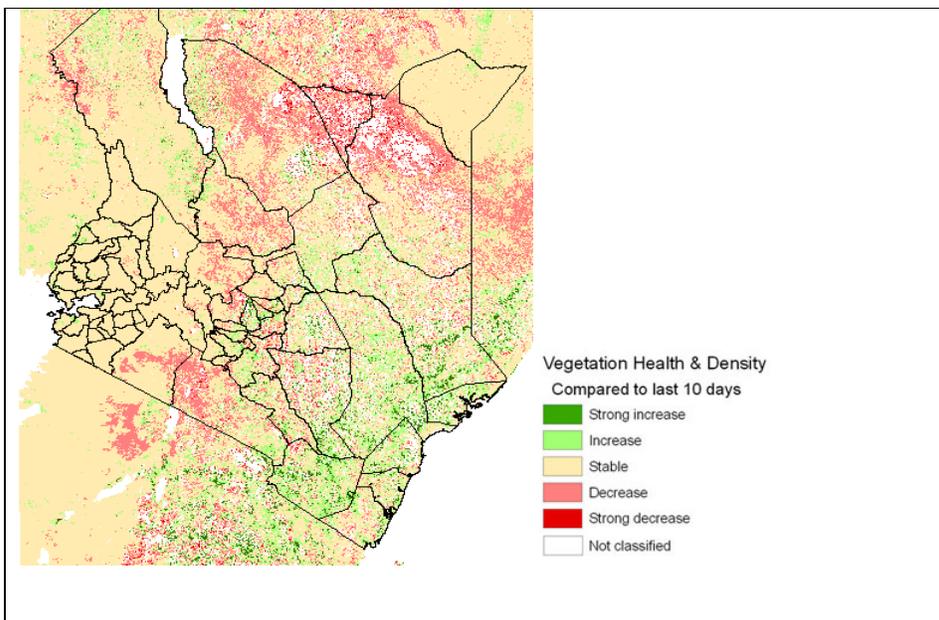


Figure 3.6: VEGETATION HEALTH AND DENSITY COMPARISON TO THE LAST 10 DAYS

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

- ✚ **Western, Lake Victoria basin and North Rift Valley regions** will experience occasional morning rains over few places and afternoon /night showers and thunderstorms over several places throughout the forecast period. The rains will benefit the germinating crops.
- ✚ **Nyanza, Central Rift and South Rift areas** will experience afternoon/night showers and thunderstorms over several places throughout the forecast period along with occasional morning rains over a few places. The occasional rains and showers will boost the pasture

growth and the general vegetation growth. It will also benefit germination of the crops in the area.

**The Central Highlands including Nairobi area ( countries of Meru, Murang'a, Kiambu, Nyeri, Nairobi Embu etc )** will experience morning rains and afternoon/night showers over few places occasionally spreading to several places in the first half of the forecast period. The rains and showers will enhance agricultural activities and Livestock farming in the area.

**Northeastern counties (Marsabit, Mandera, Wajir, Garissa Tana River etc )** will experience mainly sunny intervals for much of the forecast period. Light morning rains/afternoon showers will occur over few places especially bordering Ethiopia at the beginning of the forecast period. The rains and showers will promote the germinating crops which had started experiencing dry conditions after germination

✚ **Coastal region** will experience morning showers over several places at the beginning reducing to few places in the second half of the forecast period. This will benefit the growth of the cashew nut trees in Lamu.

✚ Areas in **North Western districts of Lodwar, Lokitaung and Lokichoggio** will experience afternoon/night showers over few places especially bordering Uganda, Ethiopia and Sudan during the forecast. Mainly sunny intervals will prevail over the rest of region for much of the forecast period. The afternoon/night showers will boost the agricultural activities in the few places bordering Uganda, Ethiopia and Sudan.

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