



**KENYA METEOROLOGICAL DEPARTMENT**

**DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 7, 2011  
01– 10 MARCH, 2011**

**1. WEATHER HIGHLIGHTS:**

Most parts of the country continued to report dry conditions just like in the previous dekad. Only the following four provinces reported weather activities during the dekad in the whole country: Rift Valley, Nyanza, Western and Central. Kericho station in Rift Valley province recorded the highest amount of rainfall of 32.0 mm. Nyanza province received the second highest rainfall, whereas Kisumu, Kisii and Suba stations reported 18.5 mm, 16.5 mm and 10.5 mm respectively. Western province had Kakamega station reporting 8.4 mm of rainfall, while Nyeri station in Central province received 1.9 mm of rainfall.

Air temperature increment was recorded in most stations during the dekad as reflected in the increased pan evaporation. 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 07; 01– 10 MARCH 2011**

**2.1 NYANZA AND WESTERN PROVINCES**

**2.1.1 Kakamega**

This was the only station in Western province which reported weather activities. It received 8.4 mm of rainfall which was a significant amount of rainfall as compared to 0.01 mm received in the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 23.2<sup>0</sup>c, 66.9mm and 9.8 hours per day respectively.

Most farmers have already finished preparing their land in readiness for the coming rainfall season. Cassava crop was in maturity stage.

**2.1.2 Kisii**

The station received 16.5 mm, which was the third highest rainfall received in the country. The average air temperature, total pan evaporation and sunshine hours recorded were 22.8<sup>0</sup>c, 51.5 mm and 9.1 hours per day respectively.

Harvesting of maize is completed and land preparation is still going on, in preparation for the coming rain season.

## **2.2 RIFT VALLEY PROVINCE**

### **2.2.1 Kitale**

This station reported rainfall amount of 6.5 mm. It was the second highest amount reported Rift valley province. This was an improvement as compared to 0.3 mm received in the previous dekad. The average air temperature and pan evaporation recorded were 21.3<sup>0</sup>c and 65.5 mm respectively. There was no report on sunshine hours.

Farmers are preparing their farms in readiness for the coming season.

### **2.2.2 Eldoret-Kapsoya**

The station reported 1.7 mm of rainfall. This was a great improvement as compared to dry conditions reported in the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 18.9<sup>0</sup>c, 87.2mm and 10.9 hours per day respectively. Land preparation for the coming season is on.

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The station received 1.9 mm of rainfall, which was a reduction 3.9 mm reported in the previous dekad. The average air temperature total evaporation reported were 18.3<sup>0</sup>c and 64.9 mm respectively. There was no report on sunshine hours.

Farmers are preparing land in preparation for the next season.

### **2.3.2 Kabete**

This station reported dry conditions unlike in the previous dekad where 4.1 mm of rainfall was received. The average air temperature and total pan evaporation recorded were 20.2<sup>0</sup>c, 70.5 mm. There was no report on sunshine hours.

Coffee was at 100% pin head stage and in moderate state, though it was affected by less than 10% leaf minor , less than 10% leaf rust, less than 10% die back. Bananas were at 100% appearance of suckers stage and in good state. However, it suffered 75% thrips, less than 10% cigar end rot and lack of rain. Thinning and cutting of Banana plants affected by thrips was in progress.

### **2.3.3. Thika**

This station reported dry conditions. The average air temperature and pan evaporation recorded were 20.7<sup>0</sup>c and 65.5 mm. There was no report on sunshine hours. Farmers were still preparing their farms in preparation for the next rainfall season.

### **2.3.4. Nyahururu**

The station reported dry Weather conditions. The average air temperature, pan evaporation and sunshine hours reported were 15.7<sup>0</sup>c, 88.5 mm and 10.4 hours per day respectively. Land preparation is going on.

### **2.3.5. Dagoretti**

Dry conditions prevailed at this station. The average air temperature, total pan evaporation and sunshine hours reported were 20.2<sup>0</sup>c, 53.8mm and 10.3 hours per day respectively.

Maize stunted at flowering stage. Thus no yield is expected from the crop since it wilted due to the prolonged drought. Land preparation for the next season has started.

## **2.4 EASTERN PROVINCE**

### **2.4.1 Meru**

The station continued to report dry conditions. The average air temperature and total pan evaporation recorded were 19.4<sup>0</sup>c and 54.0 mm respectively. There was no report on sunshine hours.

Farmers are preparing farms in preparation for the coming rain season.

### **2.4.2 Embu**

This station reported dry conditions. The average air temperature and evaporation reported were 21.5<sup>0</sup>c and 75.0 mm respectively. There was no report on sunshine.

Maize crop has been harvested and below normal yield observed. Farmers have started preparing their farms in readiness for the coming rainfall season.

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

This station reported dry conditions. The average air temperature recorded was 21.1<sup>0</sup>c.

There was no report on evaporation and sunshine parameters. Farmers are preparing farms in readiness for the coming rainfall season.

## **2.5 COAST PROVINCE**

### **2.5.1. Msabaha**

The station received nil rainfall. The mean air temperature and total pan evaporation recorded were 28.1<sup>0</sup>c and 60.5 mm respectively. There was no report on sunshine hours.

Mangoes (Ngowe type) were at 40% fruit setting stage and in good state.

### **2.5.2 Mtwapa**

The station reported dry conditions. The mean air temperature and total pan evaporation reported were 28.1<sup>0</sup>c and 72.0 mm respectively. There was no report on sunshine hours.

Mangoes (Apple variety) were still at fruit setting stage and in good state however, flowers are dropping due to prolonged drought.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

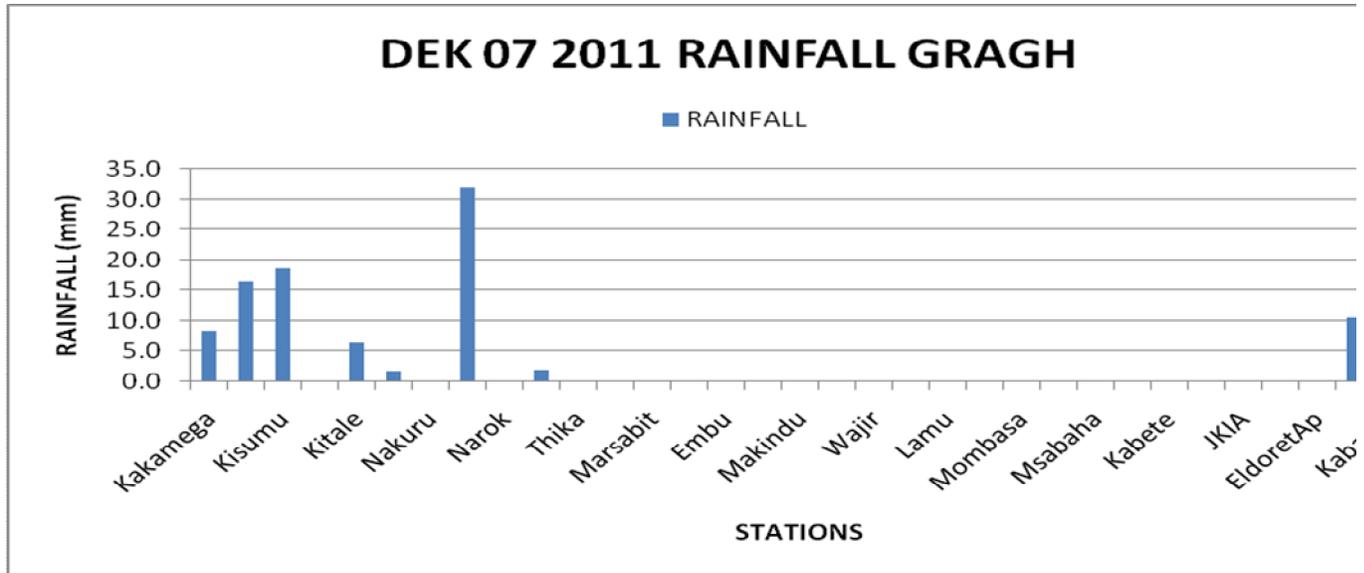


FIGURE 3.1: ACTUAL RAINFALL

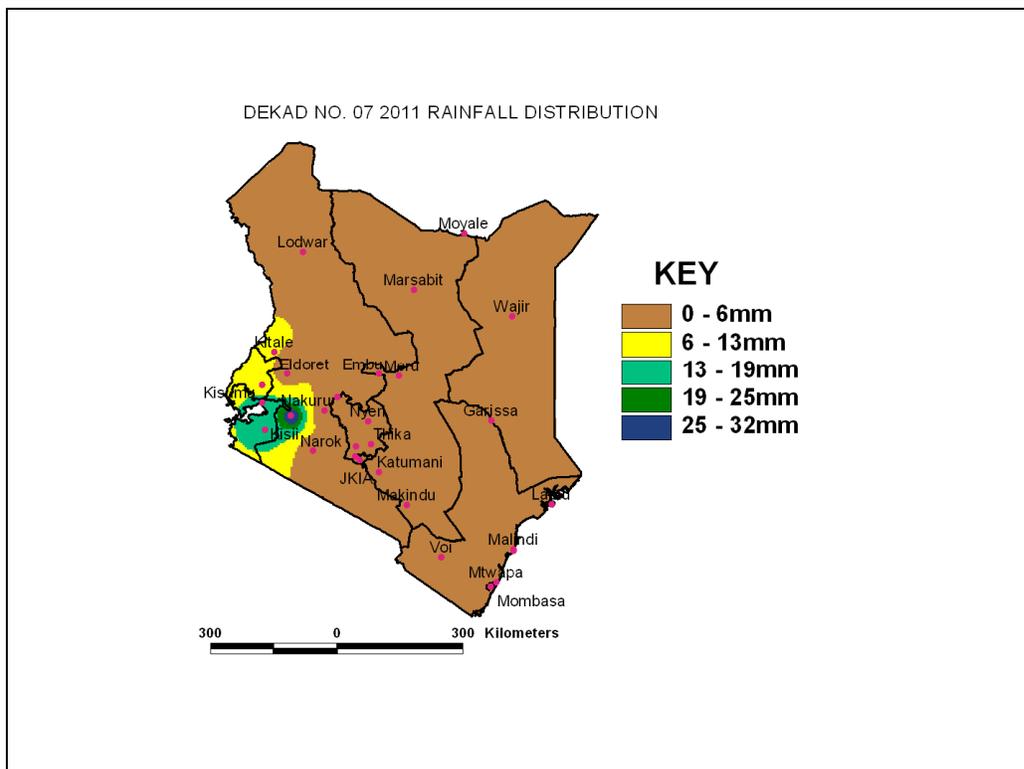
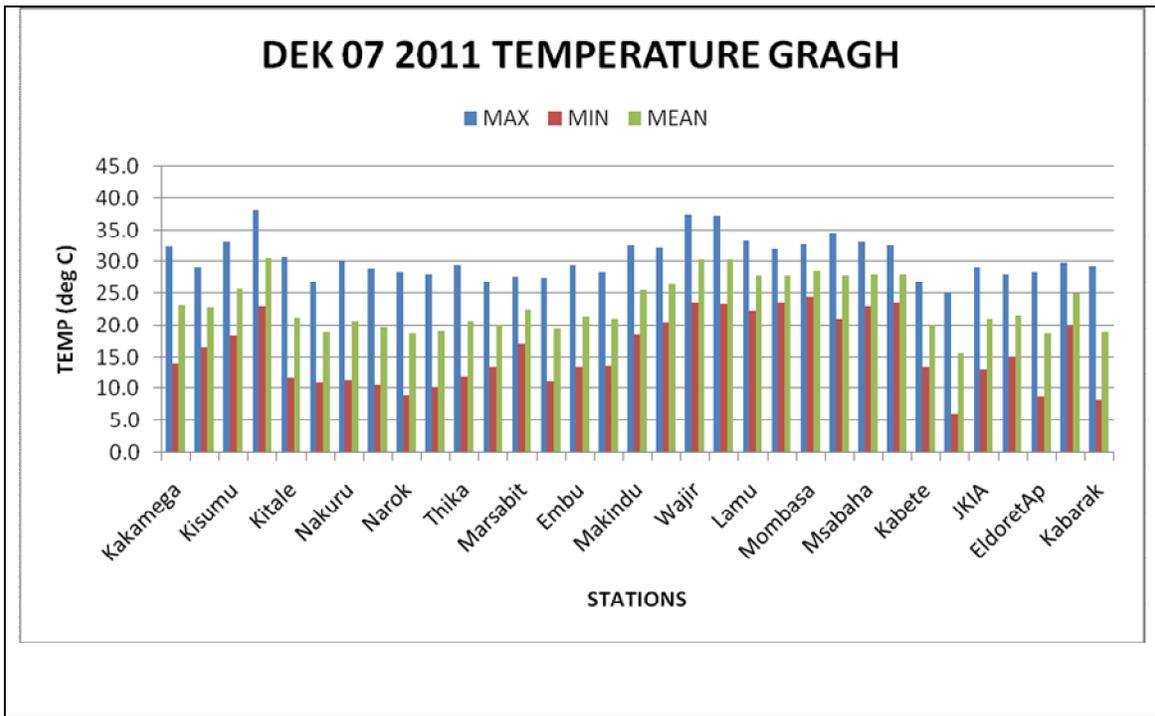
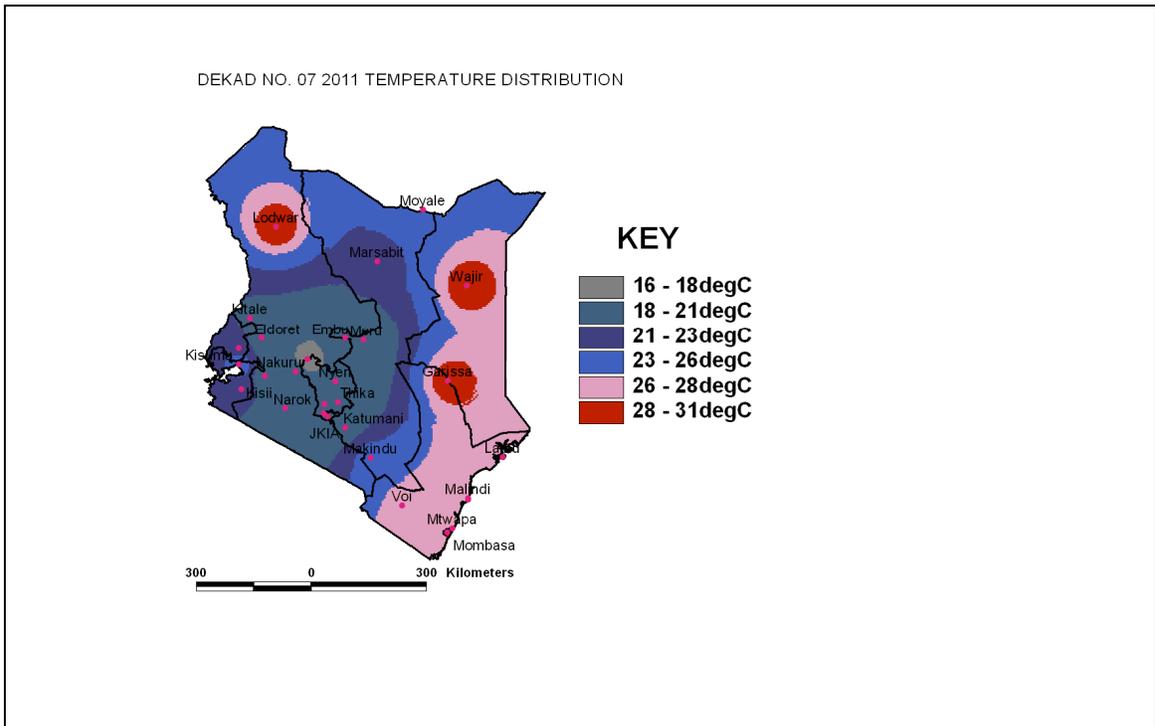


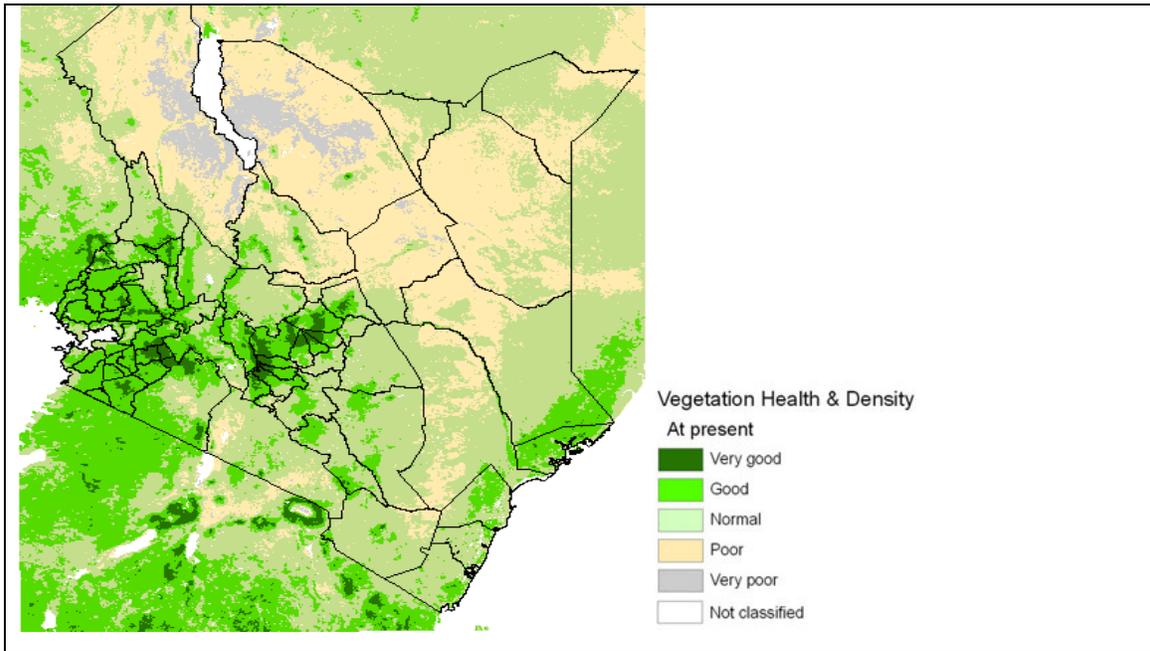
FIGURE 3.2: RAINFALL DISTRIBUTION



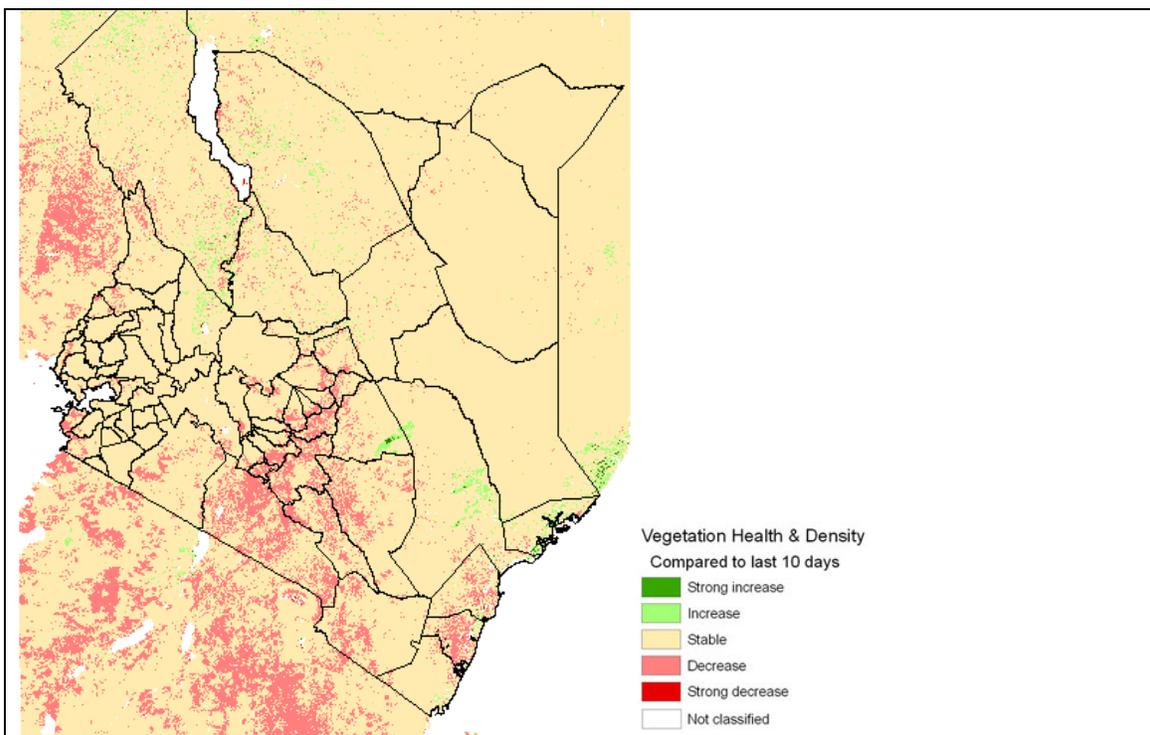
**FIGURE 3.3: MEAN TEMPERATURE**



**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 (11<sup>TH</sup> TO 20<sup>TH</sup> MARCH 2011)**

✚ Western and North Rift Valley regions are expected to experience mainly sunny condition in the beginning and light rain which will increase to several places. The rains are expected to benefit the Cassava crop in places like Kakamega while the sunny

intervals will favour the land preparation activities going on in readiness for the current growing season.

- ✚ Nyanza, Central Rift and South Rift areas are expected to experience sunny conditions with light rains in the first few days that will increase to several places during the course of the dekad.  
The light rains will improve the pasture and general vegetation in these areas while the sunny intervals are suitable for the ongoing harvesting and land preparation.
- ✚ Nairobi area, Central Highlands and the environs are expected to experience sunny intervals throughout the forecast period. However, there will be cloud built up which will lead to afternoon/night showers.
- ✚ In Eastern province, dry conditions are expected to experience sunny conditions in the beginning of the forecast period. Morning rains and afternoon showers are expected to occur marking the onset of long rain season.
- ✚ Coastal region is expected to experience sunny intervals throughout the forecast period. However light morning rains are expected in the south coast.
- ✚ Areas in North Western districts of Lodwar, Lokitaung and Lokichoggio will experience sunny conditions throughout the dekad but there will be some showers between the week which might not be of any substance. As a result, pasture and the general vegetation in the region will remain stressed posing severe food insecurity for both human and animals' phenomena which might cause human animal conflict.

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