



## KENYA METEOROLOGICAL DEPARTMENT

# DEKADAL AGROMETEOROLOGICAL BULLETIN

## WEATHER AND CROP REVIEW FOR DEKAD 8 2011 11– 20 MARCH, 2011

### 1. WEATHER HIGHLIGHTS

Most parts of the country reported active weather activities apart from North Eastern and Coastal provinces. The highest rainfall was reported in Eastern province where Katumani station received 163.4 mm of rainfall. This was followed by Western province with Kakamega station reporting 141.9 mm of rainfall. Nairobi and central provinces had several stations reporting significant amount of rainfall. In Nairobi province, Wilson, Kabete and Dagoretti stations received 137.1 mm, 123.4 mm and 118.4 mm of rainfall respectively. Central province had Thika and Nyahururu stations reporting 125.2 mm and 79.7 mm of rainfall respectively. Rift valley province also received significant amount of rainfall with Kericho, Kitale and Nakuru reporting 101.2 mm, 100.5 mm and 90 mm of rainfall respectively. In Nyanza province, Kisii, Suba and Kisumu stations reported 76 mm, 30.6 mm and 22.6 mm of rainfall respectively.

There was a general decrease in temperature in most stations due to the active rainfall activities. 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 08; 11– 20 MARCH 2011

#### 2.1 NYANZA AND WESTERN PROVINCES

##### 2.1.1 Kakamega

This was the second highest rainfall reporting station in the country receiving 141.9 mm of rainfall. The average air temperature, total pan evaporation and sunshine hours recorded were 21.6<sup>o</sup>c, 54.9 mm and 4.9 hours respectively.

Cassava (MM97/2480) was at 98% maturity stage and in moderate state. Farmers are planting for long rains season.

##### 2.1.2 Kisii

The station received 76.0 mm, which was the highest rainfall received in Nyanza province. The average air temperature and total pan evaporation recorded were 21.1<sup>o</sup>c and 31.2 mm respectively. There was no sunshine report.

Farmers have started planting following the onset of long rains

#### 2.2 RIFT VALLEY PROVINCE

##### 2.2.1 Kitale

This station reported rainfall amount of 100.5 mm. This was the highest rainfall amount received in Rift valley province.

The average air temperature and pan evaporation recorded were 20.0<sup>0</sup>c, and 39.0 mm respectively while no report was received on sunshine hours.

Farmers are still preparing land in readiness for planting.

### **2.2.2 Eldoret-Kapsoya**

The station reported 41.7 mm of rainfall. The average air temperature recorded was 18.4<sup>0</sup>c. There was no report on pan evaporation and sunshine hours.

Land preparation for the coming season is still in progress.

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The station received 33.6 mm of rainfall.

The average air temperature total evaporation reported were 20.0<sup>0</sup>c and 52.5 mm respectively.

There was no report on sunshine hours.

Land preparation is still going on.

### **2.3.2 Kabete**

This station received 123.4 mm of rainfall. This was the highest rainfall reported in Nairobi province.

The average air temperature recorded was 20.3<sup>0</sup>c. There was no report on total pan evaporation and sunshine hours.

Some farmers are still preparing land while others have started planting.

### **2.3.3 Thika**

This station received rainfall amount of 125.2 mm, which was the highest amount of rainfall reported in Central province. The average air temperature recorded was 22.0<sup>0</sup>c. There was no report on total pan evaporation and sunshine hours.

Farmers are still preparing their farms in preparation for the next rainfall season.

### **2.3.4. Nyahururu**

The station received 79.7 mm of rainfall, which was the second highest amount of rainfall reported in Central province. The average air temperature, pan evaporation and sunshine hours reported 22.0<sup>0</sup>c. There was no report on pan evaporation and sunshine hours. Farmers started planting on 15<sup>th</sup> March 2011.

### **2.3.5. Daqoretti**

This station received 118.4 mm of rainfall. The average air temperature, pan evaporation and sun shine hours recorded were 20.6<sup>0</sup>c, 60.4 mm and 7.3 hours respectively. Land preparation is still going on.

## **2.4 EASTERN PROVINCE**

### **2.4.1 Meru**

The average air temperature, total pan evaporation and rainfall recorded at Meru were 20.8<sup>0</sup>c, 46.3mm and 34.8mm respectively. No sunshine report was posted.

Farmers are still preparing farms in preparation for the rainfall season.

**2.4.2 Embu**

The average air temperature and rainfall recorded at Embu were 21.6<sup>0</sup>c and 39.0mm respectively. No reports were received on sunshine hours and on total pan evaporation. Farmers were still preparing their farms for this rainfall season.

**2.4.3 Katumani (Machakos)**

This station received 163.4 mm of rainfall which was the highest rainfall reported in the country. The average air temperature recorded was 21.9<sup>0</sup>c while no report was made on evaporation and sunshine parameters. Farmers were still preparing farms in readiness for this rainfall season.

**2.5 COAST PROVINCE**

**2.5.1. Msabaha**

The station reported dry conditions. The mean air temperature and total pan evaporation recorded were 28.3<sup>0</sup>c and 66.5 mm respectively. There was no report on sunshine.

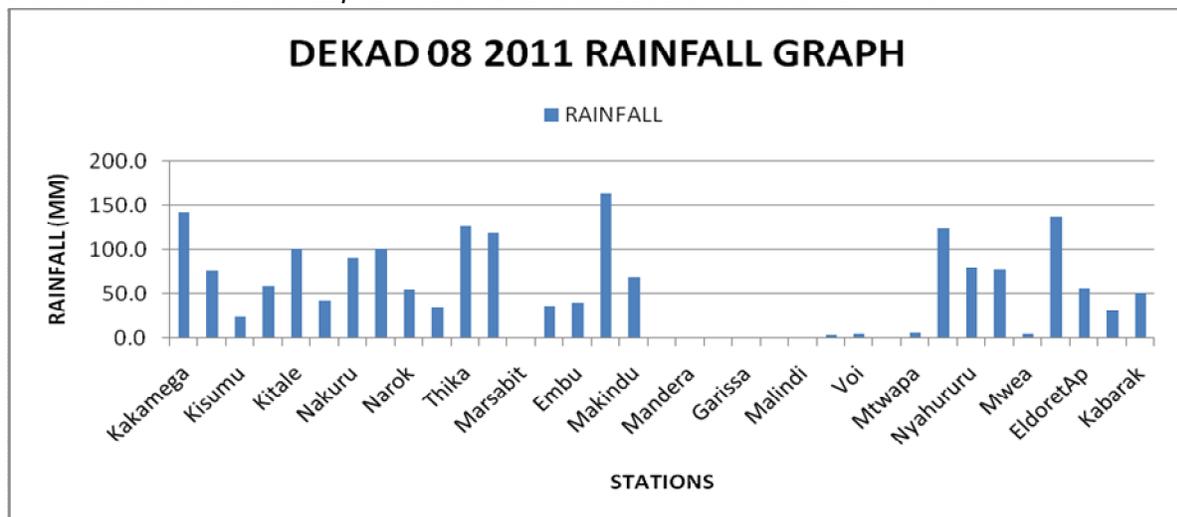
Mangoes (Ngowe type) were at 100% fruit setting stage and in good state. Most farmers were preparing their land for planting.

**2.5.2 Mtwapa**

The station received 4.8 mm of rainfall. This was highest rainfall reported in the Coast Province where most stations reported dry conditions. The mean air temperature and total pan evaporation reported were 28.3<sup>0</sup>c and 61.8 mm respectively. There was no report on sunshine hours.

Mangoes (Apple) were at 100% fruit setting stage and in moderate state. However, fruits were falling due to drought. Most farmers have started preparations for the long rains planting season.

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



**Figure 3.1: Actual Rainfall**

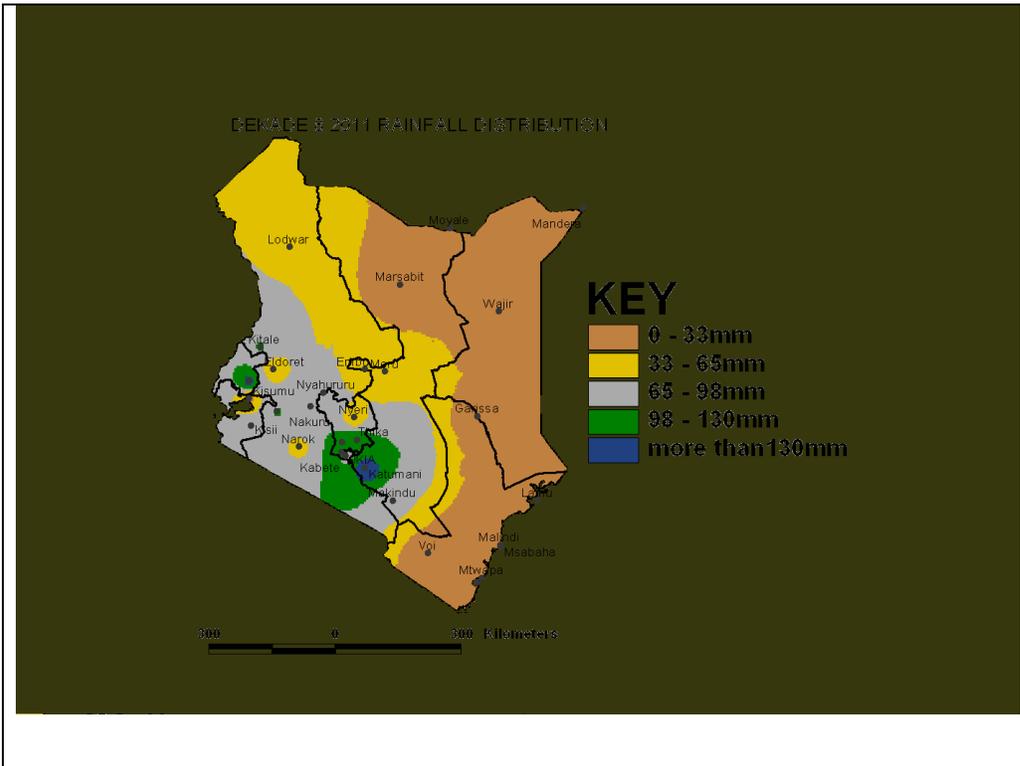


Figure 3.2: Rainfall distribution

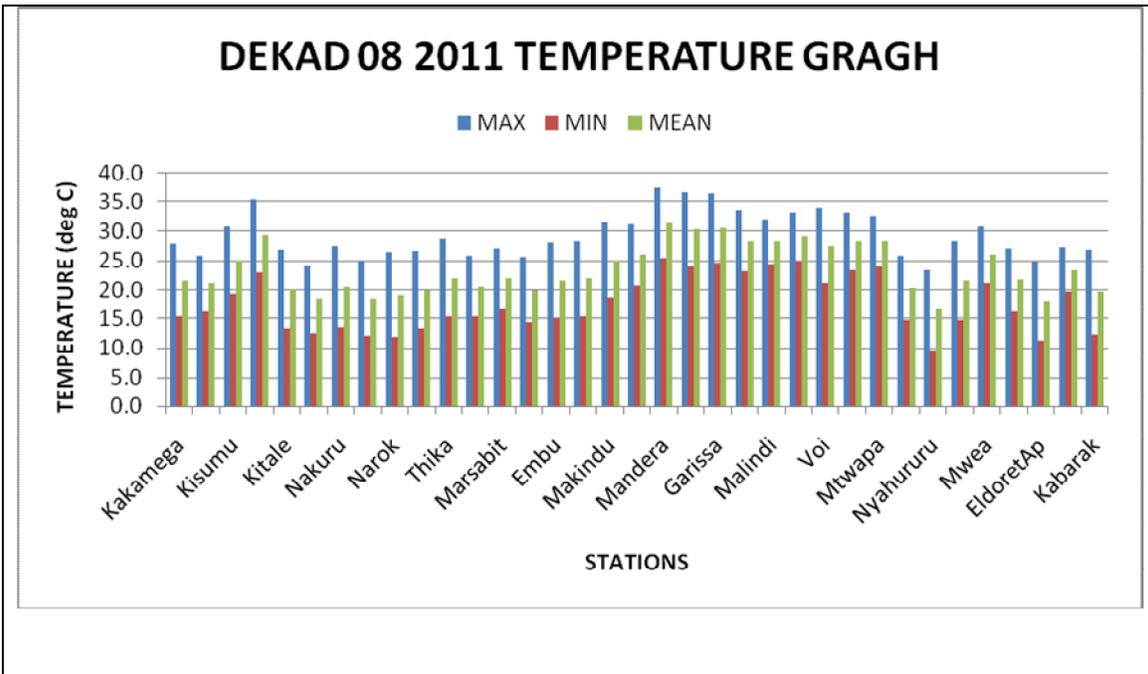


Figure 3.3: Mean Temperature

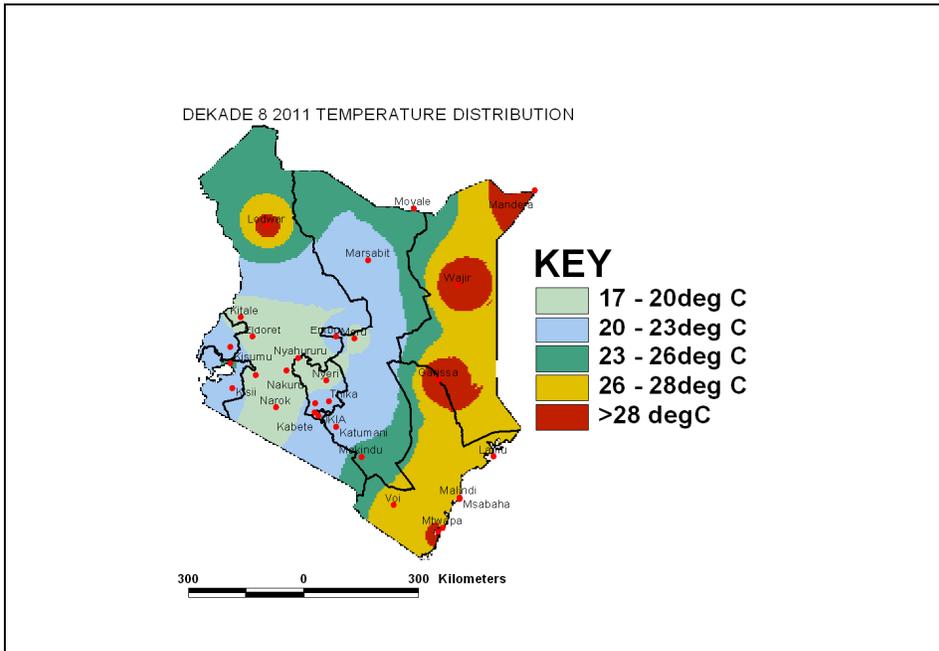


Figure 3.4: Mean Temperature Distribution

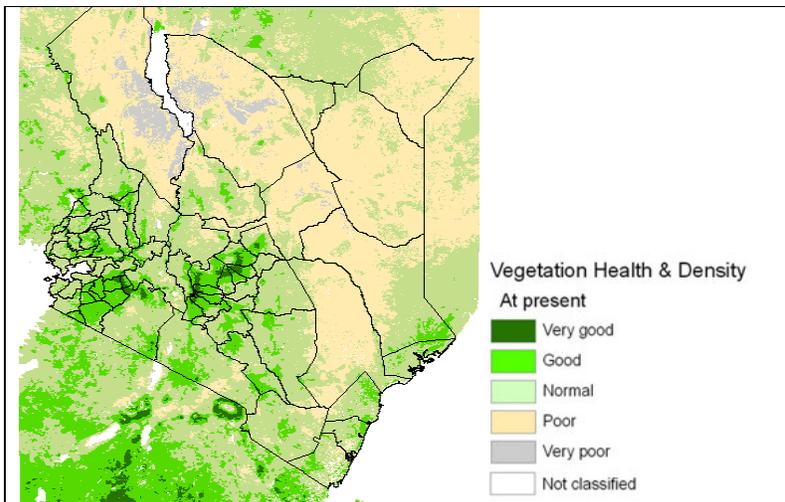


Figure 3.5: NORMALISED DIFFERENCE VEGETATION INDEX (NDVI)

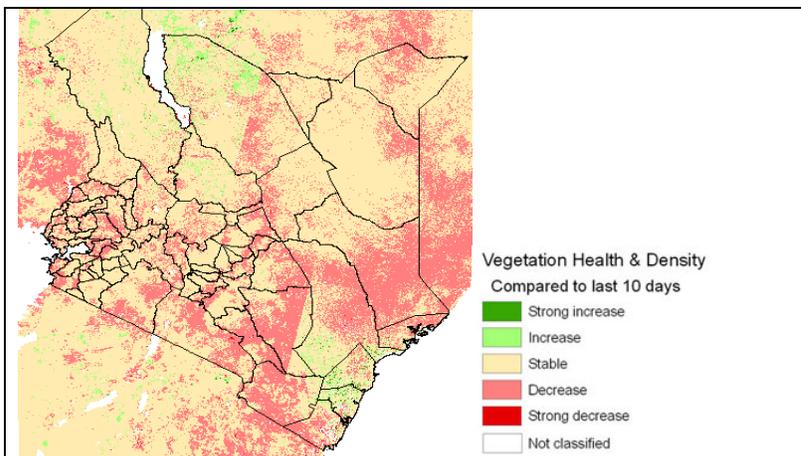


Figure 3.6: VEGETATION HEALTH AND DENSITY COMPARISON TO THE LAST 10 DAYS

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

- ✚ North Rift Valley regions are expected to experience mainly sunny condition with light rains in few places. The light rains are expected to benefit the Cassava crop in places like Kakamega while the sunny intervals will favour the harvesting and land preparation activities going on in readiness for the coming growing season.
- ✚ Nyanza, Central Rift and South Rift areas are expected to experience sunny conditions with light rains in the first few days and sunny interval accompanied with light showers during the last period under review. 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, light rains may be observed in some days. No significant impacts on agriculture are expected from the light rains since the region has been under a prolonged dry spell.
- ✚ In Eastern province, dry conditions are expected to experience sunny conditions over the entire period. The prolonged drought is expected to exacerbate the already stressed soil moisture conditions.
- ✚ Coastal region is expected to experience sunny intervals throughout the forecast period. This will act as a boost to cashew nut trees in Lamu.
- ✚ Areas in North Western districts of Lodwar, Lokitaung and Lokichoggio will experience sunny conditions throughout the dekad. As a result, pasture and the general vegetation in the region will remain stressed posing severe food insecurity for both human and animals, a phenomenon which might cause human animal conflict.

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

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