



**KENYA METEOROLOGICAL DEPARTMENT  
DEKADAL AGROMETEOROLOGICAL BULLETIN**

**WEATHER AND CROP REVIEW FOR DEKAD 32, 2011  
11 - 20 NOVEMBER 2011**

**1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE**

Compared to the previous dekad, there was a general decrease in total dekad rainfall amounts countrywide. The highest amount received in the country during the last dekad was 329.8mm at Marsabit Met. Station compared to the current highest amount of 163.8mm at Meru station. Both stations are from Eastern Province. However, all the meteorological stations continued to report significant amounts of rainfall. The second highest amount observed was 142.2mm, at Jomo Kenyatta International Airport (JKIA) followed by 131.4mm at Moi Air Base (MAB) both stations located in the Nairobi province. Thika Agrometeorological station recorded 66.1mm, which was the highest recorded rainfall in Central province while 99.1mm observed at Kakamega Agromet station was the highest in the Western region. Elsewhere in Nyanza, Rift Valley, North Eastern and the coastal provinces, the highest rainfall amounts recorded during the dekad were 33.2mm, 48.1mm, 41.2mm and 118.9mm at Kisii, Kericho, Garissa and Voi stations respectively.

Day-time (maximum) temperatures generally increased over several parts of the country with Lodwar recording the highest daytime temperature of 33.9°C while the lowest was 20.1°C at Nyahururu. The night-time (minimum) temperature increased over most parts of the country with Nyahururu recording the highest increase of 10.2°C up from 9.6°C previously. For more comprehensive summary of rainfall, temperature and other meteorological parameters, see Figures 3.1 to 3.4 below.

**2. CROP AND WEATHER REVIEW FOR DEKAD 32; 11 – 20 NOVEMBER 2011**

**2.1 NYANZA AND WESTERN PROVINCES**

**2.1.1 Kakamega**

The station recorded rainfall amount, mean air temperature and average sunshine hours of 99.1mm, 20.9°C and 7.1 hours per day respectively and total evaporation of 36.5mm.

*Maize and beans were at 100% flowering and maturity stages respectively and in fair state. Normal yield is expected for both crops.*

**2.1.2 Kisii**

The station recorded rainfall amount, mean air temperature and total pan evaporation of 33.2mm, 20.1°C and 27.2mm respectively. Sunshine hours reported were 6.0 hours per day.

*Maize was at 70% tasseling stage and in good state. Beans were at 100% flowering stage and in moderate state, though black aphids have damaged it. Normal yield is expected*

## **2.2 RIFT VALLEY PROVINCE**

### **2.2.1 Kitale**

The station recorded total rainfall, average air temperature and total pan evaporation of 11.4mm, 18.6<sup>0</sup>C and 30.3mm respectively. Sunshine hours reported was 7.0 hours per day.

*Maize (HB628) was at harvesting stage and in fair state and normal yield expected. Harvesting of the maize crop is still in progress.*

### **2.2.2 Eldoret-Kapsoya**

The station recorded rainfall, average air temperature and total pan evaporation of 8.8 mm, 17.2<sup>0</sup>c and 48.3mm respectively. The sunshine hours recorded was 8.1 hours per day.

*Maize (HB628) is at harvesting stage and in good. Normal yield is still expected.*

## **2.3 CENTRAL AND NAIROBI PROVINCES**

### **2.3.1 Nyeri**

The station recorded rainfall, average air temperature and total pan evaporation of 23.5mm, 18.8<sup>0</sup>c and 34.5mm respectively. There was no report on Sunshine hours.

*Maize and beans are at 100% emergence stage and in good state. Beans were damaged by spotted leafhoppers at 10%.*

### **2.3.2 Kabete**

The station recorded rainfall, average air temperature and average sunshine hours of 78.1mm, 18.7<sup>0</sup>c and 6.3hours respectively. There was no report on pan evaporation.

*Both maize and beans were at emergence stage and in fair state. Coffee was at 30% ripeness stage and in moderate state but damaged by leaf rust, CBD and die back at 10% each. Bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips at 25% while cigar end rot at 10%.*

### **2.3.3 Thika**

The dekadal rainfall and mean air temperature recorded at the station was 66.1 mm and 20.8<sup>0</sup>c respectively and pan evaporation of 39.6mm.

*Maize were at emergence stage and beans were at flowering stage and in fair state.*

### **2.3.4 Nyahururu**

The rainfall amount, mean air temperature and total pan evaporation recorded at the station were 20.4mm, 15.2<sup>0</sup>c and 37.8mm respectively. Sunshine hours recorded were 6.0 hours per day.

*Maize was at 100% full ripeness stage while potatoes at harvest. Both crops were in fair state with normal yield expected.*

### **2.3.5 Dagoretti**

The station recorded rainfall and average air temperature of 67.1 mm and 19.2<sup>0</sup>c respectively. The evaporation and sunshine parameters were 38.6mm and 6.4 hours per day. *No phenological report.*

## **2.4 EASTERN PROVINCE**

### **2.4.1 Meru**

The station reported rainfall, average air temperature of 163.8mm and 19.0<sup>0</sup>c respectively. The sunshine hours reported were 5.7 hours per day.

*Maize was at emergence stage and in fair state while beans were being destroyed by excessive rainfall.*

### **2.4.2 Embu**

The station recorded rainfall and average air temperature of 64.5mm and 19.8<sup>0</sup>c respectively. The evaporation and sunshine parameters are 42.0mm and 7.6hours per day respectively.

*Maize were at emergence stage and beans were at flowering stage and in fair state and normal yield is being expected.*

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

The station reported rainfall and average air temperature of 96.6mm and 19.6<sup>0</sup>c respectively. There was no report on evaporation and sunshine parameters.

*Maize and beans were at emergence and in excellent state.*

## **2.5 COAST PROVINCE**

### **2.5.1. Msabaha**

The station recorded rainfall, average air temperature and pan evaporation of 38.6mm, 27.3<sup>0</sup>c and 36.6mm respectively. There was no sunshine report.

There was no sunshine report *Mangoes (Ngowe type) were at 90% fruit setting stage and are in good state. Maize was still at emergence state and in fair state.*

### **2.5.2 Mtwapa**

The station recorded rainfall, average air temperature and pan evaporation of 30.9mm, 27.3<sup>0</sup>c and 56.9mm respectively. There was no sunshine report.

*Mangoes (Apple) were at 100% fruit setting stage and in moderate state. Maize was at 100% ninth leaf stage and in poor state. Watermelon was at 100% 3<sup>rd</sup> true leaf and in poor state.*

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

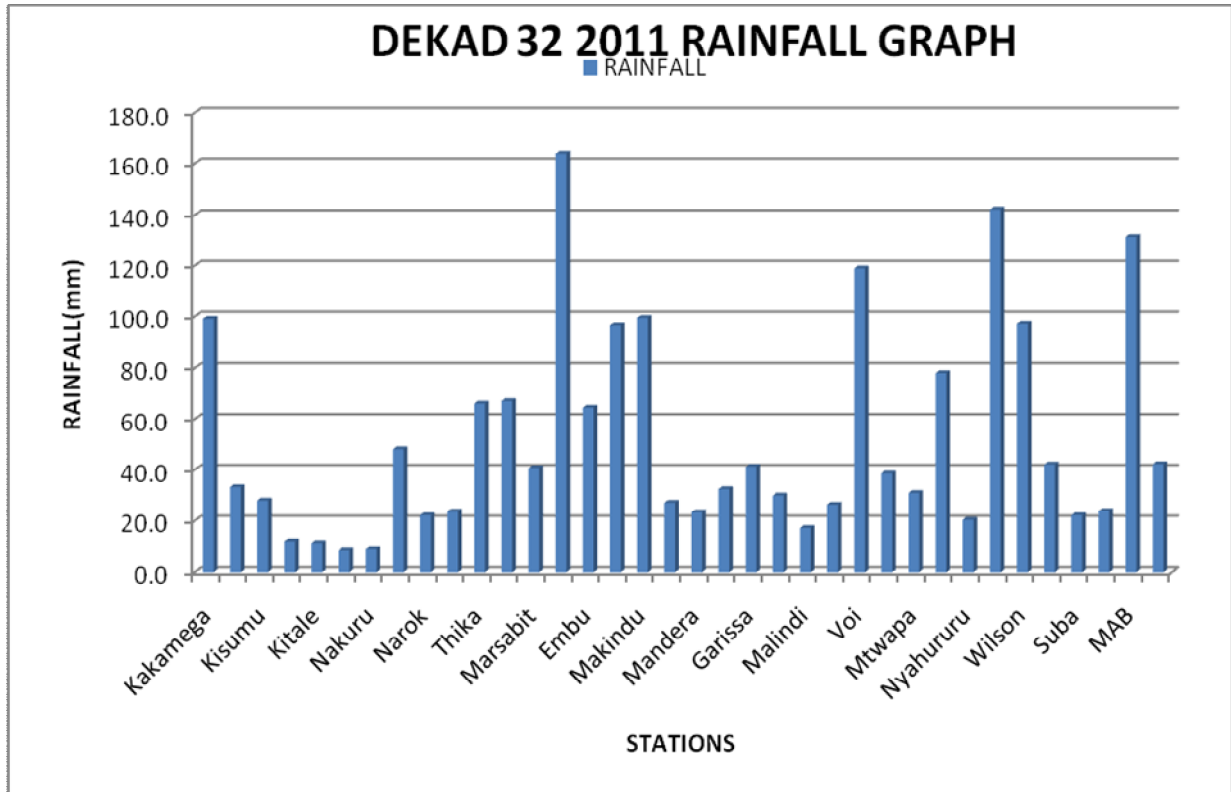


Figure 3.1: Total Rainfall amounts for dekad32; 11-20 November 2011

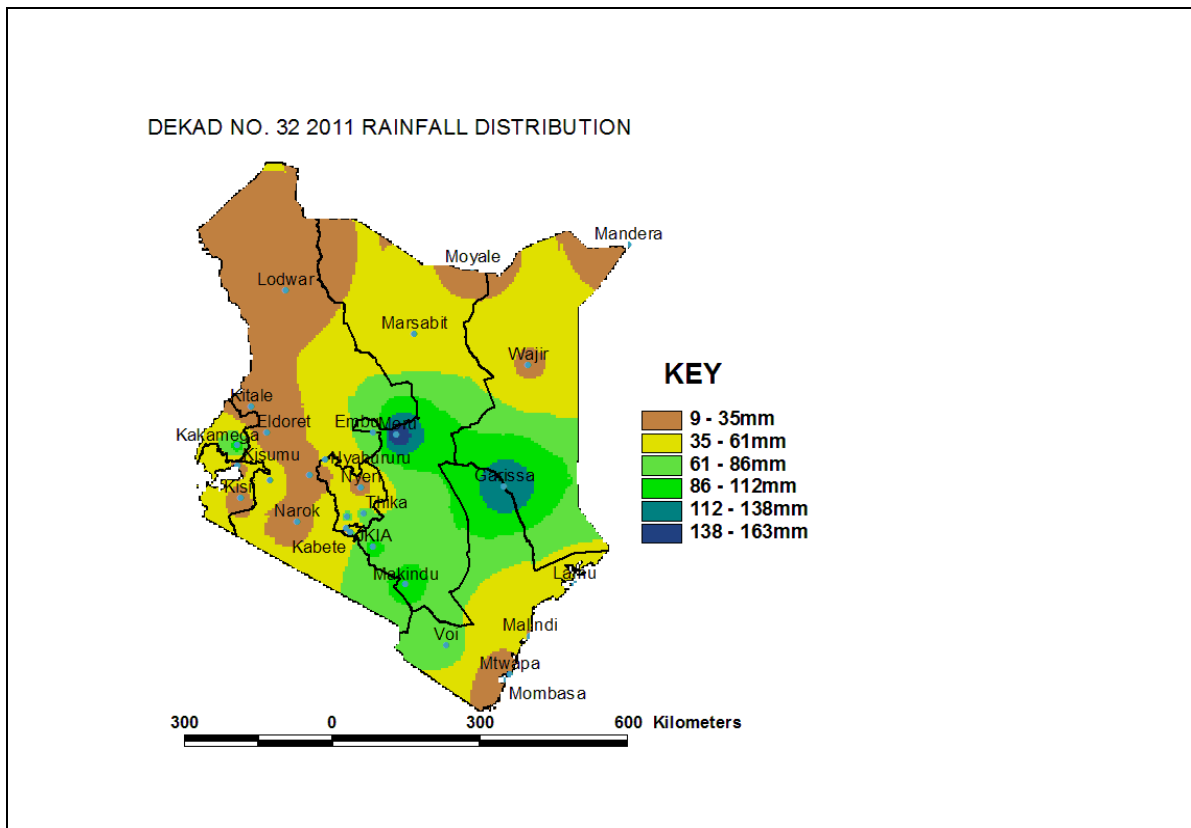


Figure 3.2: Rainfall distribution for dekad32; 11-20 November 2011

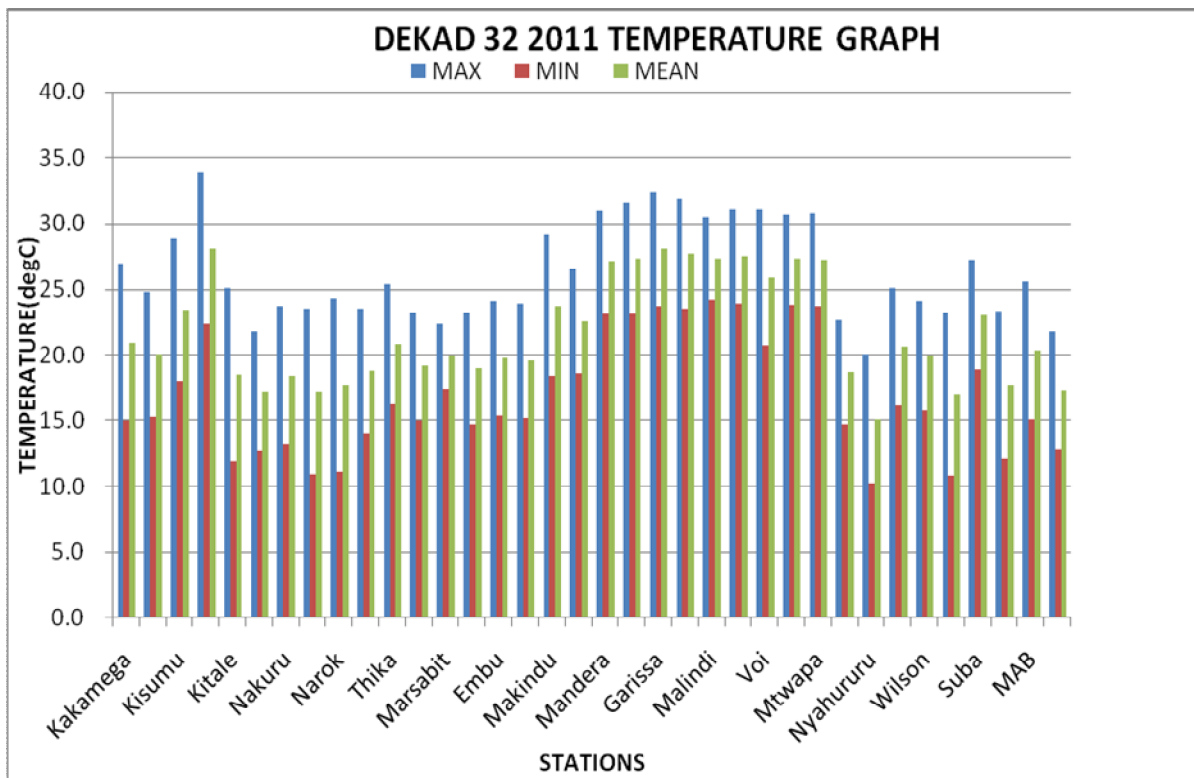


Figure 3.3: Maximum, Minimum and Average Temperature variation

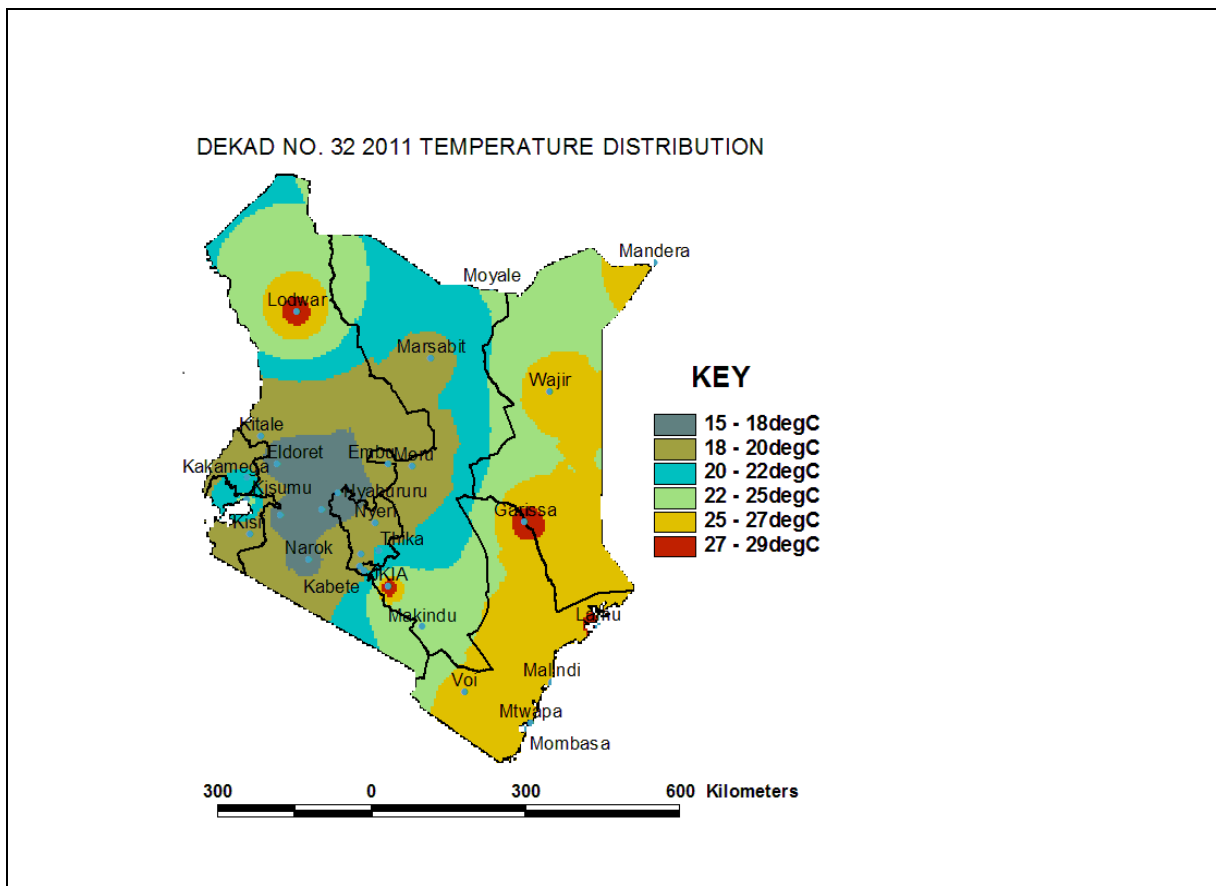


Figure 3.4: Average Temperature distribution

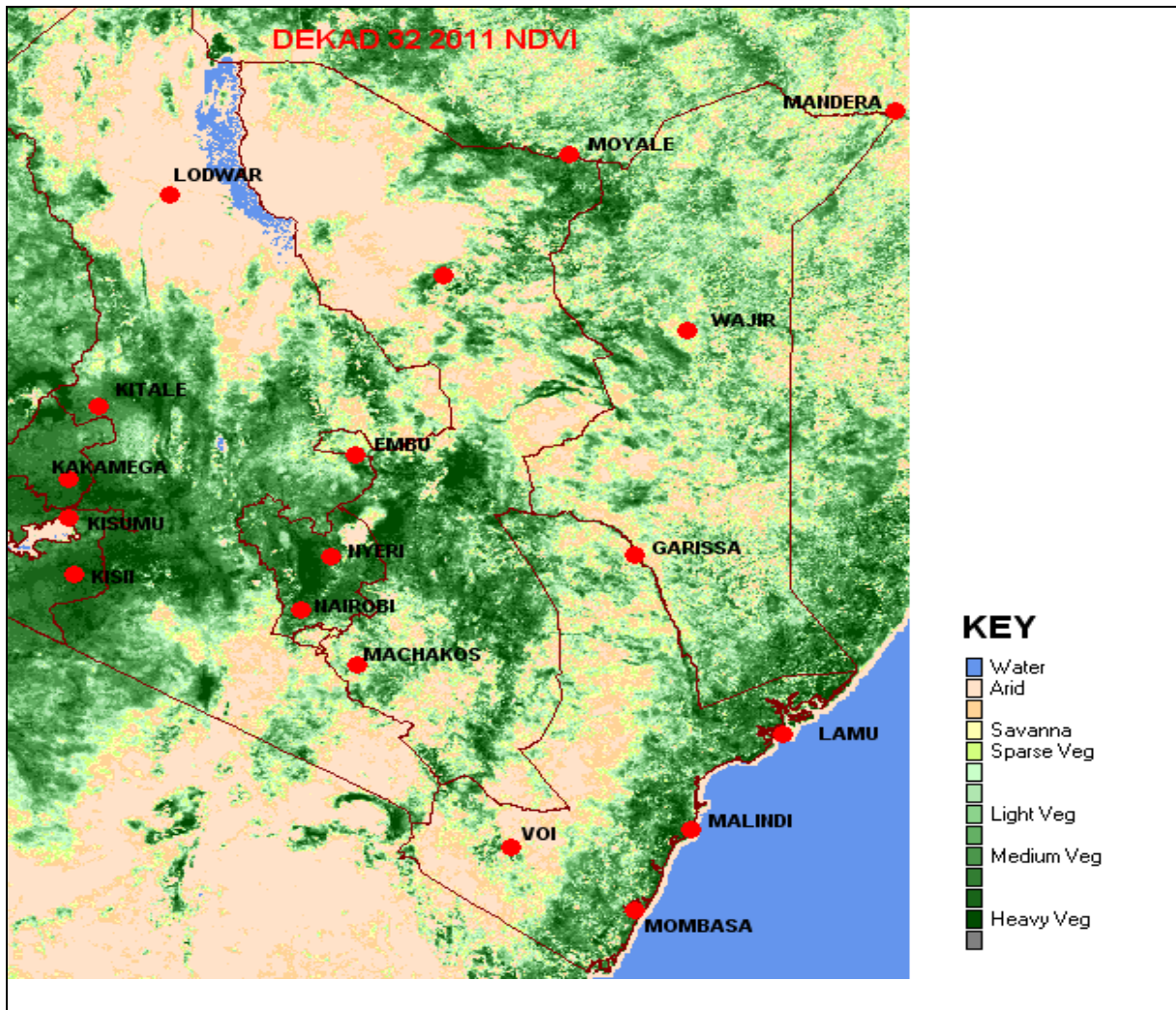


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

#### 4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21<sup>ST</sup> TO 30<sup>TH</sup> NOVEMBER 2011

- **Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Central and south Rift Valley (Kitale, Kakamega, Kisumu, Kisii, Migori, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Nyandarua, etc)** will experience sunny intervals in the morning and afternoon showers and thunderstorms over most places throughout the forecast period.

*This will continue boosting the maize and beans, which has been planted for the second season in Kakamega and Kisii.*

- **The Northwestern counties (Turkana, West Pokot etc)** will experience sunny intervals in the morning and afternoon showers and thunderstorms over several places in the first half of the forecasted period and mainly sunny intervals for much of the day with occasional afternoon showers and thunderstorms over few places in the second half forecast period.

*The livestock kept in these areas are likely to benefit from the replenished pastures and water.*

- 🇰🇪 **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc)** will experience occasional cloudy early morning with rains over a several places. Afternoons/night showers and thunderstorms are expected over several places for most of the forecast period.

*This will boost the growth of maize and beans which are in their early vegetative stage.*

- 🇰🇪 **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, etc)**, will experience light morning rains over few places, sunny intervals and afternoon showers and thunderstorms over several places for most of the forecast period. The rainfall is expected to be heavier in the northern parts of the region.

*These weather conditions are likely to replenish the pastures and water to the livestock in the region thus increasing meat and milk in the region*

- 🇰🇪 **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)** will experience mainly sunny intervals in the morning with occasional light rains and afternoon showers over several places.

*This will boost the growth of the crops which are in their early vegetative stage.*

- 🇰🇪 **The Coastal strip (counties Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** will experience morning showers over several places for much of the forecast period.

*The crops grown in these areas especially mangoes are therefore expected to continue doing very well.*

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

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