KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN
WEATHER AND CROP REVIEW FOR DEKAD 02, 2011
11 – 20 JANUARY, 2011

1. WEATHER HIGHLIGHTS:

The stations which reported from Western, Nyanza and Rift Valley indicated a pick in precipitation from the previous dekad, with the greatest increase having been recorded at Kisii met station which recorded a total of 92.9mm.

In the Eastern, Central, Nairobi and North Eastern provinces, rainfall amounts did not deviate appreciably from the previous dekad. Thus generally, all stations in the region continued observing nil rainfall except Meru and Nyeri which recorded 3.5 and 5.9mm respectively. For more comprehensive summary of rainfall and other meteorological parameters, please see Figures 3.1 to 3.5 here below. However, from a general point of view, most of the stations recorded nil rainfall thus worsening the food security and increasing the risk of malnutrition especially among young children.

2. CROP AND WEATHER REVIEW FOR DEKAD 02; 11– 20 JANUARY 2011

2.1 NYANZA AND WESTERN PROVINCES

2.1.1 Kakamega

4.9 mm of rainfall was recorded during the dekad which was a reduction from 9.2mm observed in the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 21.8^{0}c, 42.9mm and 7.8 hours per day respectively.

Cassava is at 90% maturity stage and in good state. Farmers are preparing their farms in readiness for the upcoming March-April-May rainfall season.

2.1.2 Kisii

92.9 mm of rainfall was recorded during the dekad as compared with 7.7 mm the previous dekad. The average air temperature, total pan evaporation and sunshine hours recorded were 22.7^{0}c, 36.9mm and 8.2 hours per day respectively.

Maize which is at full ripeness stage and in good state is being harvested. Normal yield is expected as the crop was not adversely affected by weather, pests or pests.

2.2 RIFT VALLEY PROVINCE

2.2.1 Kitale

The average air temperature, total pan evaporation and rainfall recorded at Kitale were 20.0^{0}c, 35.6mm and 1.6 mm respectively. No phenological observations were made.

2.2.2 Eldoret-Kapsoya

The average air temperature, rainfall and sunshine hours recorded at the station were 17.5^{0}c, 1.0mm and 9.1hours respectively. No phenological observations were made since crops have been harvested.

2.3 CENTRAL AND NAIROBI PROVINCES

1.3.1 Nyeri

The average air temperature, total pan evaporation and rainfall recorded in Nyeri were 19.3^{0}c, 52.8 mm and 5.9mm respectively.

Maize was at 100% ninth leave stage and in poor state due inadequate rain; it was affected by 10% stalk borer and suffered 75% soil moisture stress. Bean crop was at 20% ripeness stage and in poor state ready for harvesting, with expected yield being below normal.

2.3.2 Kabete

The total rainfall, average air temperature, total pan evaporation and sunshine hours recorded at Kabete were 0.0mm, 19.8^{0}c, 63.5mm and 10.5 hours per day respectively.

Maize and Beans were at flowering and ripeness stages respectively and in poor states due to insufficient rain, hence expected yield is below normal. Coffee (SL 34) was at 100% ripeness stage and in moderate state. It suffered less than 10% damage by leaf rust and DIC diseases.

2.3.3 Thika

The station recorded nil rainfall just like the previous dekad. An average air temperature of 21.1^{0}c was recorded and total pan evaporation of 52.0 mm.
Maize was at flowering stage and in poor state due to insufficient rain. Below normal yield is expected. Normal yield is expected from beans which are in ripeness stage and already being harvested.

2.3.4. Nyahururu

The station recorded nil rainfall unlike the previous dekad where it recorded 1.8mm of rainfall. The average air temperature and total pan evaporation recorded were 15.7^{0}c and 61mm respectively.

Maize, potatoes and beans were harvested in the last dekad. Land preparation for the next season is underway.

2.3.5. Dagoretti

The station received no rainfall. The average air temperature, total pan evaporation and sunshine hours recorded were 20.1^{0}c, 58.8 mm and 10.2 hours per day respectively.

Maize was at 90% flowering and less than 10% wax ripeness stage. It is in poor state due to rain deficiency. Beans were at 100% ripeness stage and in good state ready for harvesting with a normal yield being expected.

2.4 EASTERN PROVINCE

2.4.1 Meru

3.5mm of rainfall was observed at the station. The total pan evaporation and average air temperature recorded were 44.0mm and 17.9^{0}c respectively. No phenological observations were made.

2.4.2 Embu

The station recorded nil rainfall just as the previous dekad and an average air temperature of 20.0^0c. No observations were made on both sunshine and pan evaporation.

Maize crop was at flowering stage and in a poor state while beans which too were in poor state were being harvested. Below normal yield is projected for both crops as they were adversely affected by insufficient rainfall.

2.4.3 Katumani (Machakos)

As in the previous dekad the station recorded nil rainfall and an air temperature of 20.8^0 c. No observations were made on both sunshine and pan evaporation.

Maize was at flowering stage and in failed state. Hence no harvest is expected since the crop started wilted before reaching grain filling. Beans were at maturity stage and in poor state hence below normal yield is expected as a result of insufficient rain.

2.5 COAST PROVINCE

2.5.1. Msabaha

0.1mm of rainfall was recorded at the station with a total pan evaporation of 58.6 mm. The mean air temperature recorded was 28.0^0c

Mango (Ngowe type) is at 100% ripeness stage and in good state.

2.5.2 Mtwapa

There was no rainfall recorded at the station. A total pan evaporation of 64mm was observed while the average air temperature was 28.0^0c.

As reported in the last dekad, the maize crop failed due to severe drought. In addition, water melon which were at 100% previously have now been harvested

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

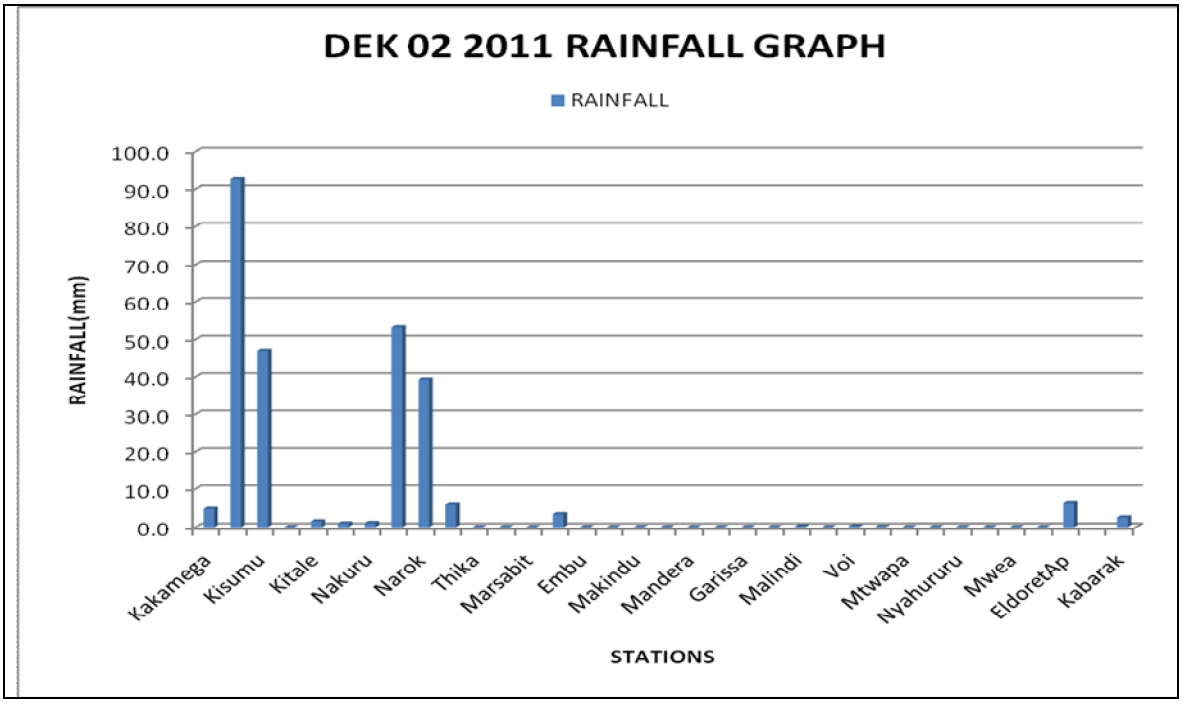

Figure 3.1: Actual Rainfall

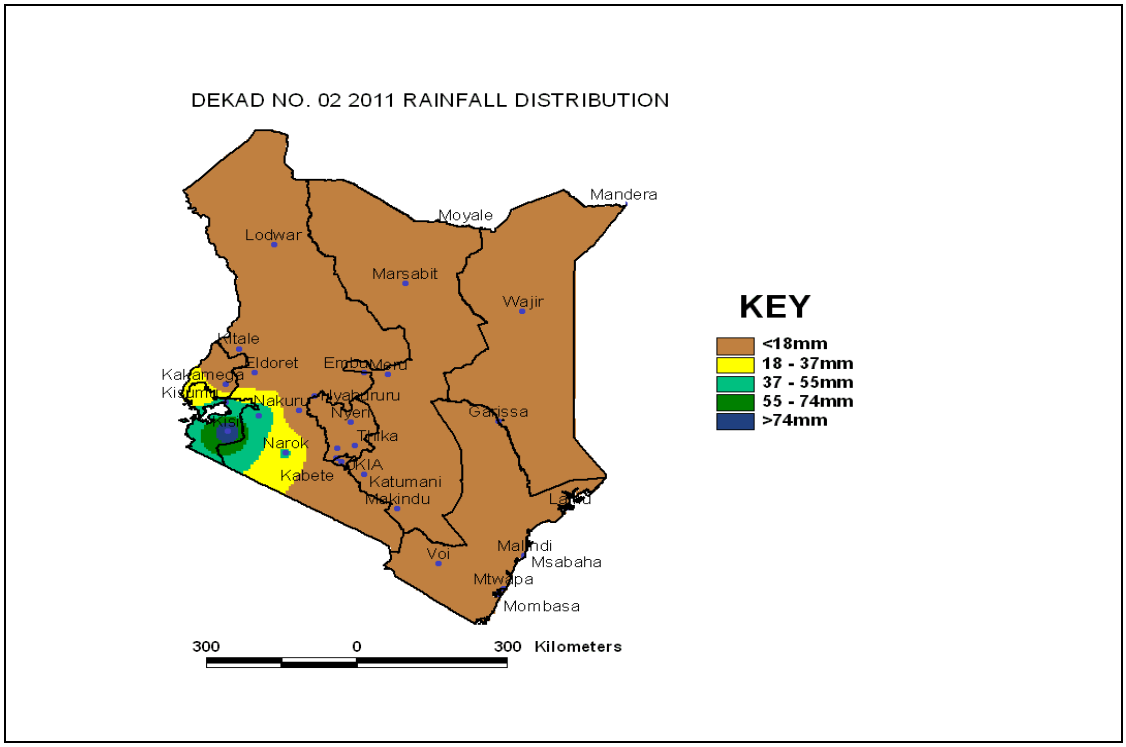

Figure 3.2: Rainfall distribution

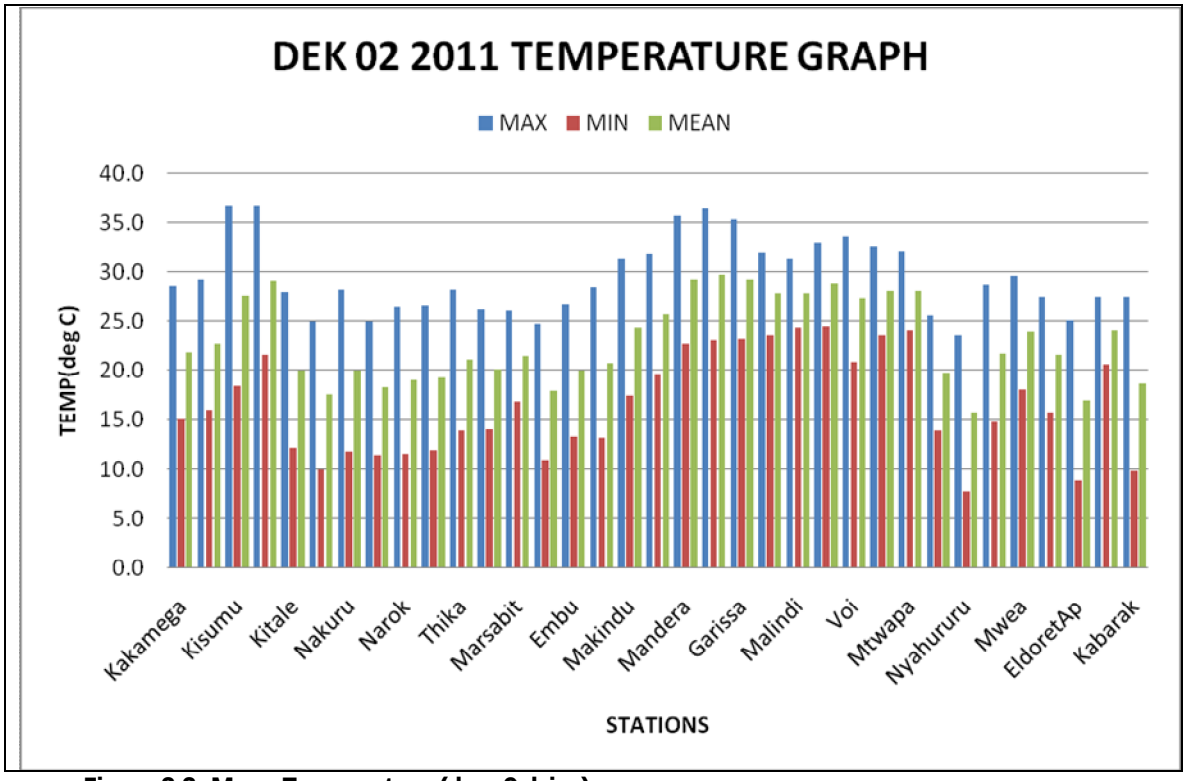

Figure 3.3: Mean Temperature (deg. Celsius)

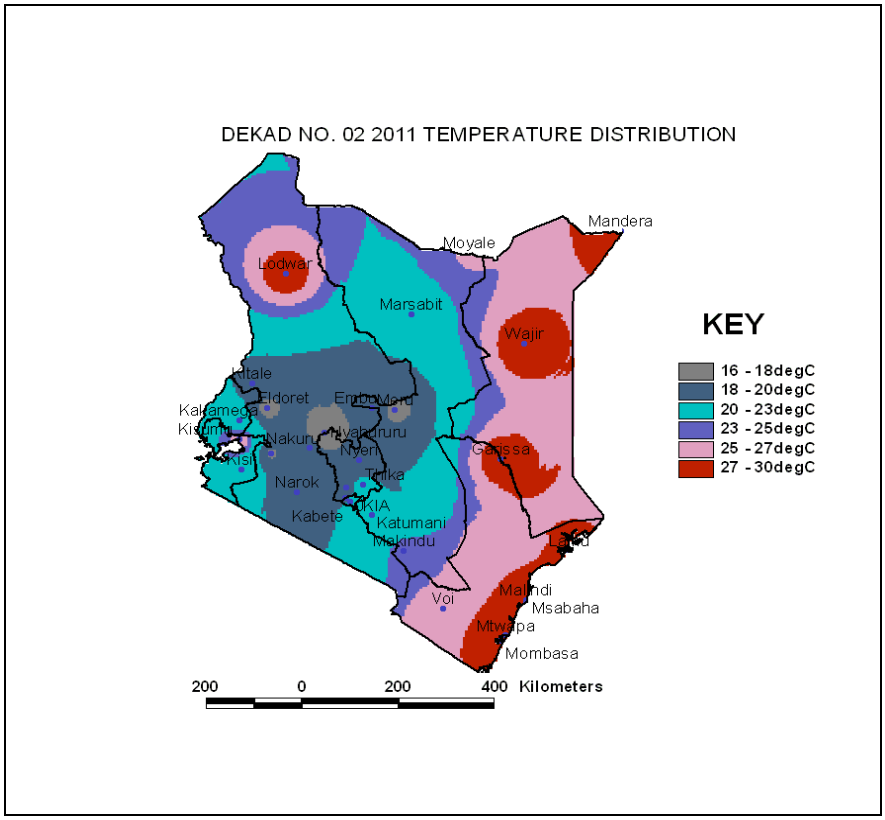

Figure 3.4: Mean Temperature Distribution

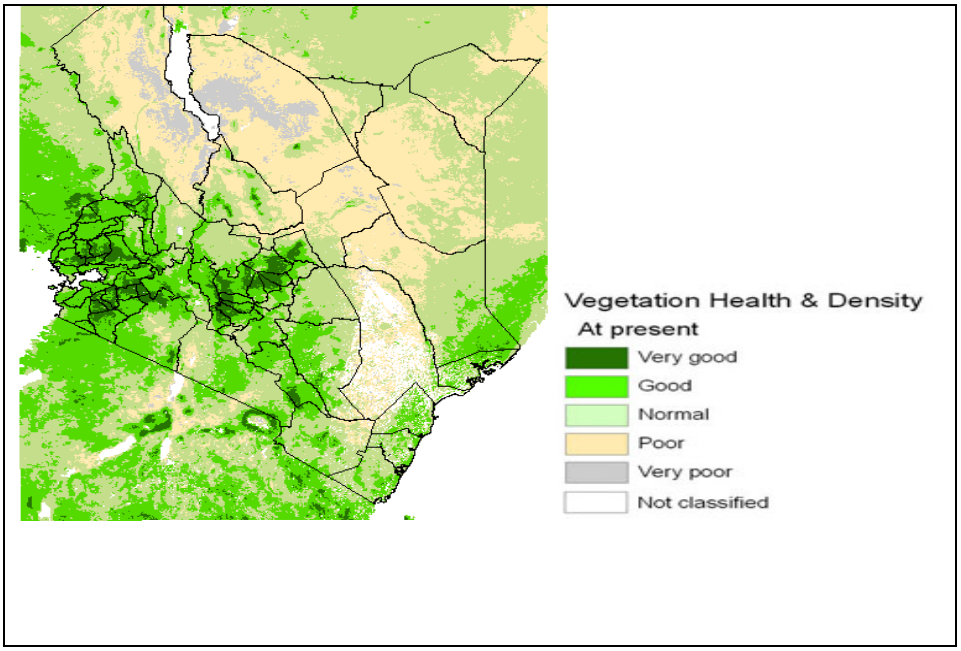

Fig 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS (21-31 JANUARY 2011)

- The western and North Rift Valley regions are expected to experience light rains in some few places especially during the first day of the dekad and sunny intervals in the last period of the dekad.
  The light rains are expected to keep benefiting the Cassava crop at Kakamega while the sunny intervals will continue suit the ongoing harvesting and land preparation in readiness for the next growing season.

- Nyanza and Central and south Rift Valley areas are expected to experience light rains in the first few days and sunny interval during the last period under review.

  The light rains will improve the pasture and general vegetation in these areas while sunny intervals are suitable for the ongoing harvesting and land preparation in readiness for the next growing season.

- Nairobi area, Central Highlands and the environs are expected to experience dry conditions over most of the dekad though light rains may be observed at the middle of the forecast period. However, the light rains will are not expected to have much impacts considering the region has been under a long spell of drought and high temperatures.

- In Eastern province, dry conditions are expected throughout the forecast period with light rains occurring in the middle of the forecast period. The prolonged drought is expected to exacerbate the already stressed soil moisture conditions.

- Coastal region is expected to experience sunny interval almost through the period with light rain at the last half of the forested period. This will act as a boost to cashew nut trees in Lamu that are at maturity stage.

- 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.

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; Website: www.meteo.go.ke