KENYA METEOROLOGICAL DEPARTMENT
DEKADAL AGROMETEOROLOGICAL BULLETIN
WEATHER AND CROP REVIEW FOR DEKAD 02, 2013
11-20 JANUARY 2013

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

There was a general decrease in rainfall activities during the dekad which was a clear indication of cessation of seasonal rainfall. The highest during the dekad was 67.8mm in Meru as compared to the previous dekad where Kericho recorded 59.5mm.

Kabarak in Rift Valley recorded the highest amount of rainfall of 21.9mm with Kericho, Nakuru, Eldoret, Narok, and Kitale stations reporting 11.0mm, 3.7mm, 2.3mm, 2.0mm and 0.2mm of rainfall respectively.

Western region had Kakamega reporting 8.5mm of rainfall while Kisii, Kisumu and Suba stations in Nyanza recorded 23.2mm, 3.5mm and 0.7mm of rainfall respectively.

In Nairobi and its environs, Kabete recorded the highest amount of rainfall with 18.1mm while MAB, JKIA, Wilson Airport, Ngong and Dagoretti recorded 5.1mm, 5.1mm, 5.0mm, 4.0mm and 2.9mm respectively.

Central region had Thika, Nyeri and Nyahururu stations reporting 25.6mm, 19.8mm and 8.0mm of rainfall respectively.

In Eastern region, we had Meru recording 67.8mm of rainfall while Katumani, Makindu, Marsabit, Embu and Moyale recorded 17.3mm, 17.3mm, 8.9mm, 8.4mm and 0.1mm respectively.

In North Eastern region, we had Mandera recording 10.0mm of rainfall while Wajir and Garissa recorded 0.4mm and nil respectively.

Lodwar in North Western region recorded no rainfall as compared to previous dekad of 5.2mm.

In the Coast region, we had Voi station recording 16.1mm of rainfall and Mtwapa, Mombasa, Msabaha and Lamu recording 8.9mm, 8.5mm, 0.5mm and 0.01mm respectively while Malindi reported nil.

Day time (maximum) temperature increased slightly in the country as compared to the previous dekad with Wajir recording the highest maximum of 36.6^0C while night time (minimum) temperatures decreased slightly with Nyahururu recording 8.0^0C.
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 02; 11-20 JANUARY 2013

2.1 NYANZA AND WESTERN REGIONS

2.1.1 <u>Kakamega</u>

The station received rainfall amount of 8.2mm compared to 50.6mm reported in the previous dekad. The mean air temperature was 21.5^0C and the total pan evaporation was 47.56mm. There was no report on sunshine.
Maize was still at maturity stage, and in good state and normal yield is expected.

2.1.2 Kisii

The station recorded rainfall amount of 23.2mm compared to 12.0mm reported in the previous dekad. The mean air temperature and pan evaporation recorded were 22.9^{0}C and 34.0mm respectively. There was no report on sunshine.

Maize was at flowering stage and in good state and normal yield is expected.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received rainfall amount of 3.5mm compared to 11.1mm reported in the previous dekad. The average air temperature and total pan evaporation were 19.6□C and 53.7mm respectively. There was no report on sunshine.

There was no phenological report.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall amount of 2.3mm compared to 12.7mm reported in the previous dekad. The average air temperature was 17.2^{0}C and total pan evaporation was 61.8mm. There was no report on sunshine.

There was no phenological report.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station received rainfall amount of 19.8mm compared to 0.2mm received in the previous dekad. The average air temperature recorded was 18.4^{0}C. There was no report on pan evaporation and sunshine.

Maize and beans were at flowering and harvest stages respectively and both in poor state with below normal yield expected. Both crops had been adversely affected by insufficient rain and pests: maize; stalk borer and beans; insects.

2.3.2 Kabete

The station recorded rainfall amount of 18.1mm compared to 19.0mm received in the previous dekad. The average air temperature was 18.6^{0}C and total pan evaporation was 46.6mm. There was no report on sunshine.

Both maize and beans were at flowering stage and in fair state with normal yield expected. Coffee was at 100% ripeness stage and in moderate state though had been damaged by leaf minor and leaf rust at less than 10% each. Bananas were at 100% sucker appearance stage but in unsatisfactory state as they had also been damaged by thrips and cigar end rot at 25% and 10% respectively.

2.3.3 Thika

The station received 25.6mm of rainfall as compared to the previous dekad which recorded no rainfall. The mean air temperature and total pan evaporation recorded were 20.2^{0}C and 45.1mm respectively. There was no report on sunshine.

Maize was at flowering stage and in good state while beans and potatoes were both at maturity but in poor and good state respectively. Above normal yield is expected for maize

and potatoes but below normal for beans as they have been adversely affected by excess rainfall.

2.3.4. Nyahururu

The station received rainfall amount of 8.0mm compared to 0.5mm reported in the previous dekad. The mean air temperature and total pan evaporation recorded were 14.5^{0}C and 46.0mm respectively while sunshine duration was 8.4 hours.

Maize was at harvest stage and in fair state with normal yield being reported as harvesting is going on.

2.3.5. Dagoretti

The station reported rainfall amount of 2.9mm as compared to 7.8mm recorded in the previous dekad. The average air temperature recorded was 19.3^{0}C and total pan evaporation recorded was 50.4mm. There was no report on sunshine.

Maize was at 100% flowering stage and in good state while beans were at 100% ripeness stage and in moderate state.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station reported rainfall amount of 67.8mm compared to 2.7mm reported in the previous dekad. The average air temperature and total pan evaporation recorded were 18.6^{0}C and 47.7mm respectively. There was no report on sunshine.

Maize was at maturity stage and in fair state while beans were at harvest stage and in poor state. Normal yield is expected for maize but below normal for beans as they were adversely affected by too much rainfall.

2.4.2 Embu

The station recorded rainfall amount of 8.4mm compared to 0.3mm in the previous dekad. The average air temperature was 19.6^{0}C and there was no report on sunshine and evaporation.

Maize was at flowering stage and beans at maturity and both in fair state. Normal yield is expected in both crops.

2.4.3 Katumani (Machakos)

The station received rainfall amount of 17.3mm compared to 1.5mm reported in the previous dekad. The average air temperature recorded was 20.5 ^{0}C. There was no report on evaporation pan and sunshine parameters.

Maize and beans were at flowering and maturity stages respectively and in poor state. Normal yield is expected for both crops though they had been adversely affected by insufficient rain. Harvesting of beans has started.

2.5 COAST REGION

2.5.1. Msabaha

The station received rainfall amount of 0.5mm compared to 0.1mm in the previous dekad. The average air temperature and total pan evaporation recorded were 28.7^{0}C and 55.5 mm respectively. There was no report on sunshine parameter.

Maize was at flowering stage and in fair state with normal yield being expected. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

The station recorded rainfall amount of 8.9mm as compared with the previous dekad of no rainfall. The average air temperature and total pan evaporation recorded were 28.6^{0}C and 54.4mm respectively. There was no report on sunshine.

Mangoes were at dormant stage.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

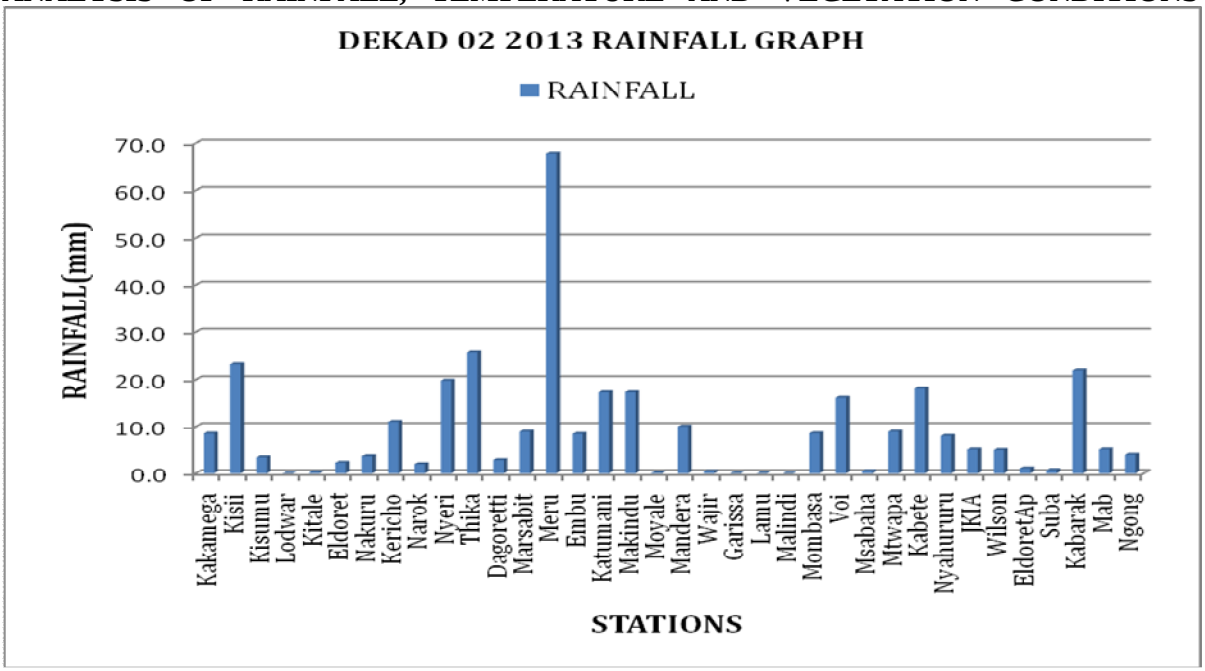

Figure 3.1: Dekadal Rainfall totals for 11-20 January 2013

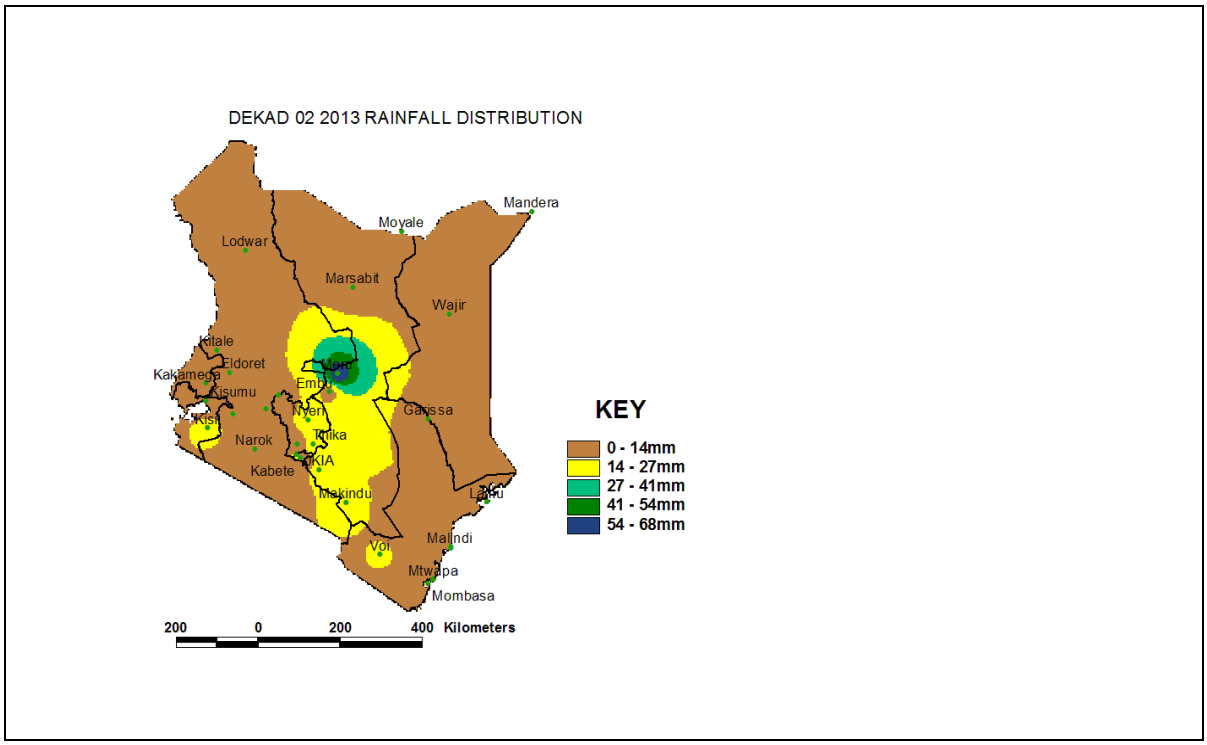

Figure 3.2: Dekadal Rainfall distribution for 11-20 January 2013

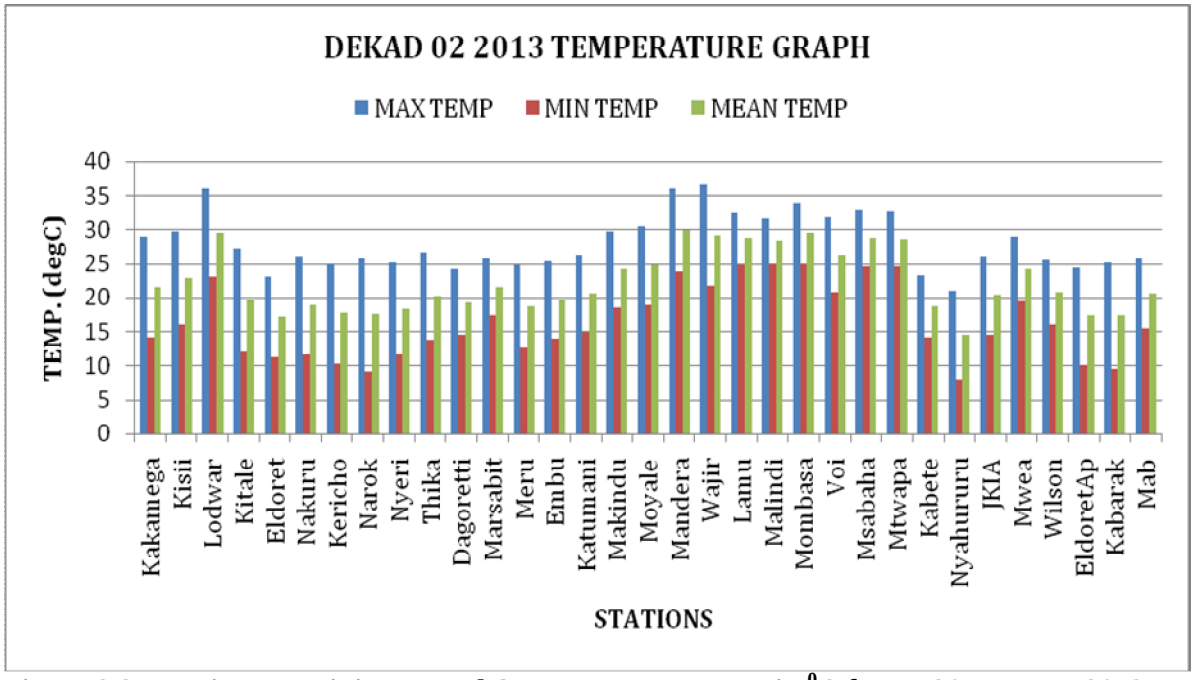

Figure 3.3: Maximum, Minimum and Average temperature in ^{0}C for 11-20 January 2013

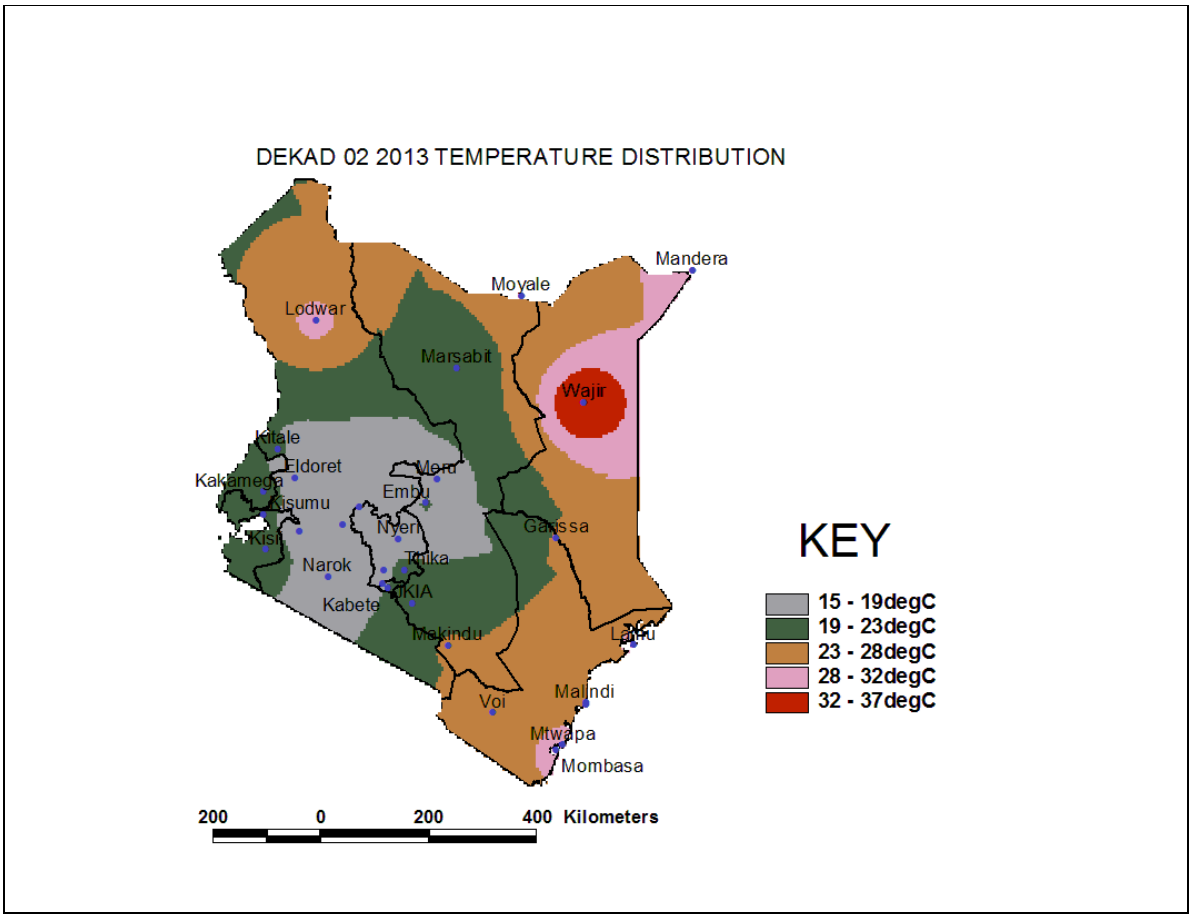

Figure 3.4: Mean temperature distribution for 11-20 January 2013

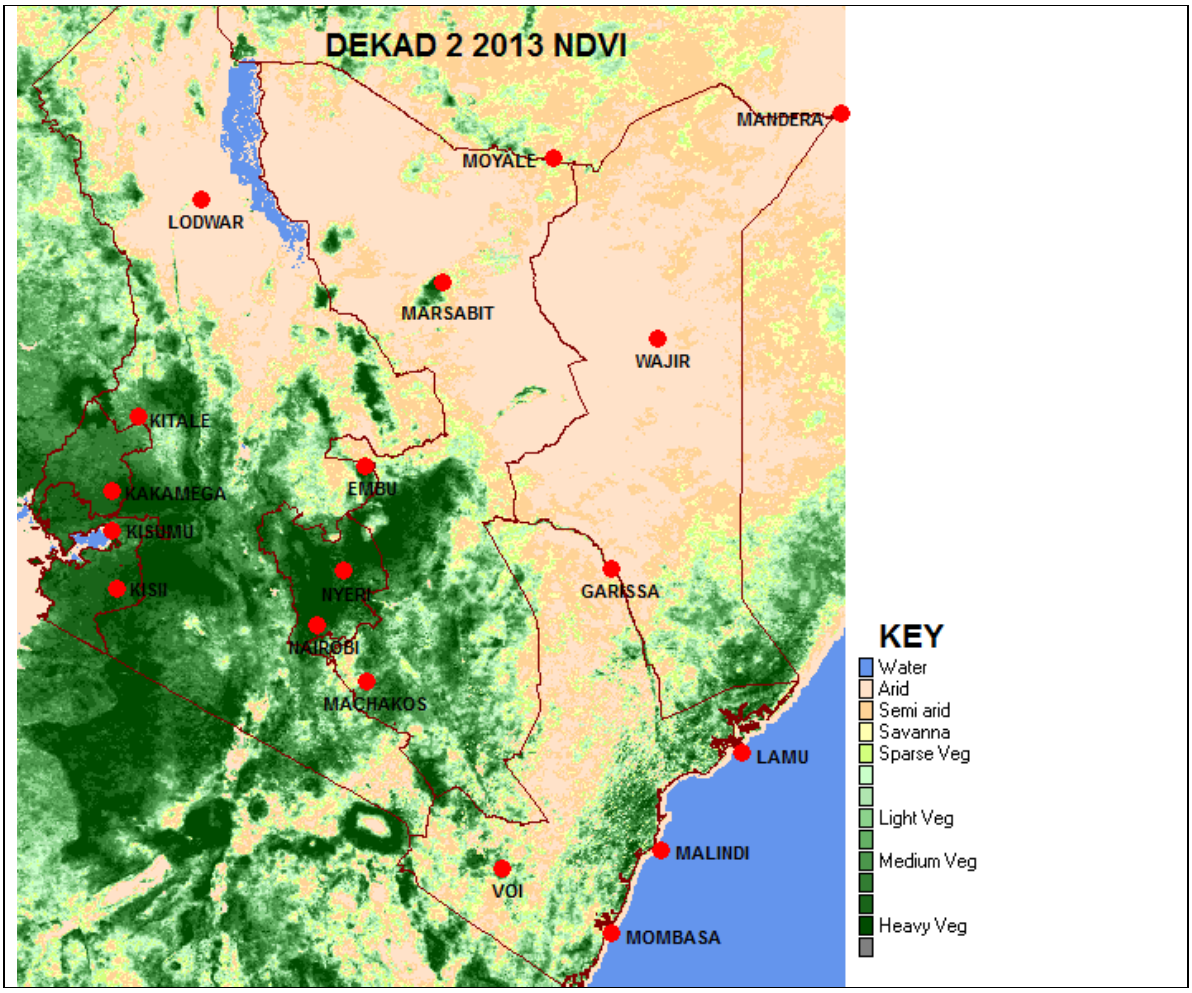

Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 JANUARY 2013

- **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)**, Mornings are likely to be dominated by sunny intervals in most places during the entire period followed by showers and thunderstorms in the afternoons over few places.
  The wet weather will continue to benefit crops grown in this region.

- **Counties over the Northwestern (Turkana, West Pokot etc),** are expected to experience mainly sunny intervals the whole day during forecast period.

  The sunny weather might lead to significant drop in the amount of pasture and vegetation in the region.

- **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu**, **Nyeri, Nairobi, Embu, etc),** are expected to experience sunny intervals during the entire forecast period.

  The dry weather is expected to benefit the maturing crops in this region.

- **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc),** Sunny intervals are likely to dominate throughout the day for the entire forecast period.

  The sunny weather may affect the growth rate of the pasture and the few crops grown in this region.

- **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc),** Sunny intervals are likely to dominate the whole forecast period.

  This is expected to benefit the maturing crops especially maize.

- **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** Sunny intervals are expected to dominate the entire forecast period.

  The sunny weather may affect the growth rate of the pasture and the few crops grown in this region.

For feedback or further guidance, Contact:

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