



KENYA METEOROLOGICAL DEPARTMENT

DEKADAL AGROMETEOROLOGICAL BULLETIN WEATHER AND CROP REVIEW FOR DEKAD 14, 2012 11– 20 MAY 2012

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

During the current dekad, most stations countrywide reported an increase in the amount of rainfall both in intensity and spatial distribution compared to the previous dekad. The Coastal region received the highest rainfall during the dekad with Malindi station recording 257.7mm. Kericho station in Rift Valley region received the highest rainfall of 120.1mm while Embu station in Eastern region reported the highest rainfall of 108.9mm. In the Western region, the highest amount of rainfall recorded was 103.4mm in Kakamega station while the highest rainfall recorded in Nyanza region was 91.1mm at Kisii station. In Nairobi region, Dagoretti station recorded the highest rainfall of 86.0mm. Nyeri station received the highest amount of rainfall in the Central region of 83.6mm, while in North-Eastern region the highest rainfall of 67.5mm was received at Lodwar station. The lowest amount of rainfall recorded in the country was 0.01mm in Garissa station in North Eastern region.

Most stations recorded an increase in the maximum temperature except for stations at the coast region which continued to report a decrease. A decrease in the minimum temperature was observed over most stations. The highest maximum temperature recorded countrywide, was 36.5^oc at Mandera station in North Eastern. This was a decrease from the previous highest maximum temperature of 36.7^oc recorded at Garissa station in the last dekad. Nyahururu station in Central Kenya reported the lowest maximum temperature of 21.5 ^oC which was an increase from 21.2 ^oC recorded in the previous dekad.

For more comprehensive summary of rainfall and other meteorological parameters, see Figures 3.1 to 3.4 as shown below.

2.0 CROP AND WEATHER REVIEW FOR DEKAD 14; 11 – 20 MAY 2012

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

This station received 103.4 mm of rainfall just as in the previous dekad. The mean air temperature and total pan evaporation recorded were 20.8^oc and 39.8 mm respectively. *There was no report on sunshine hours.*

Maize and beans were at emergence and flowering stages respectively. Beans have however been adversely affected by excessive rainfall though normal yield is still expected.

2.1.2 Kisii

This station received 91.9mm of rainfall compared to 106.3mm in the previous dekad. The mean air temperature and total pan evaporation recorded were 20.3⁰C and 30.7 mm respectively. The average sunshine hours for the period were 6.1 hours.

Maize and beans were at emergence and flowering stages. Both crops were in fair state though beans have been damaged by pests such as black aphids. Normal yield is expected for beans.

2.2 RIFT VALLEY REGION

2.2.1 Kitale

The station received rainfall of 64.4 mm compared to 72.5 mm reported in the previous dekad. The average air temperature and pan evaporation recorded were 20.3⁰C and 24.9mm respectively. The average sunshine hours for the period were 7.4 hours.

Both maize and beans were at emergence stage and in fair state and weeding is in progress.

2.2.2 Eldoret-Kapsoya

The station recorded rainfall of 59.3 mm compared to 101.8mm in the previous dekad. The average air temperature and total pan evaporation recorded were 17.6⁰c and 48.8 mm respectively. There was no sunshine report.

Maize and beans were at emergence stage and in fair state and farmers are weeding the crops.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nyeri

The station reported 83.6 mm of rainfall a drastic reduction compared to 232.5 mm in the previous dekad. The average air temperature and total pan evaporation recorded were 18.9⁰c and 46.0 mm respectively. There was no report on sunshine hours.

Maize and Beans were both at emergence stage. Maize has been adversely affected by stalk borer though still in fair state, while Beans were adversely affected by excessive rainfall and leaf hoppers and in poor state.

2.3.2 Kabete

The station recorded rainfall of 69.6 mm compared to 151.9mm in the previous dekad. The average air temperature and pan evaporation recorded were 19.3⁰c and 36.5 mm respectively. There was no report on Sunshine hours.

Maize and Beans were at emergence stage in fair and poor states respectively. Beans have been adversely affected by excessive rainfall. Coffee was at 100% pinhead stage and in moderate state but damaged by leaf rust and leaf minor at less than 10% each. Bananas were at 100% appearance of suckers stage and in moderate state though damaged by thrips and cigar end rot at less than 10% each.

2.3.3 Thika

The station recorded 12.4 mm of rainfall compared to 164.1 mm in the previous dekad. The total mean air temperature and pan evaporation recorded at the station were 20.8⁰c and 32.9 mm respectively. There was no report on sunshine hours.

Maize, beans and potatoes were all at emergence stage and in fair state except beans which were in poor state due to excessive rainfall.

2.3.4. Nyahururu

The station received rainfall of 45.2mm compared to 108.5mm reported in the previous dekad. The mean air temperature and pan evaporation recorded were 15.1⁰c and 43.7mm respectively. There was 7.6 hours of sunshine recorded.

Maize, beans and potatoes were at emergence stage and in fair state.

2.3.5. Dagoretti

The station recorded 86.0 mm of rainfall compared to 153.2 mm recorded in the previous dekad. The average air temperature and pan evaporation recorded were 19.0⁰c and 42.5mm respectively. Sunshine hours reported were 7.4 hrs per day.

There were no phonological observations carried out.

2.4 EASTERN KENYA REGION

2.4.1 Meru

The station received 7.32 mm of rainfall which was a drastic reduction compared to 111.9 mm in the previous dekad. The average air temperature and pan evaporation recorded were 19.0⁰c and 39.3 mm respectively. There was 9.2 hours per day of sunshine.

Maize and beans were at emergence stage and in fair state though beans have been adversely affected by excessive rainfall.

2.4.2 Embu

The station reported rainfall of 108.9 mm compared to 123.8 mm in the previous dekad. The average air temperature was 20.1⁰c. Sunshine hours reported were 7.9 hrs per day. There was no pan evaporation report.

Maize and beans were at emergence and flowering stages respectively. Both crops are in fair state and normal yield is expected.

2.4.3 Katumani (Machakos)

The station recorded 2.81 mm of rainfall compared to 104.5 mm in the previous dekad. The average air temperature recorded was 19.8⁰c. There was no report on evaporation pan and sunshine parameters.

Maize and beans were at emergence and flowering stages respectively. Both crops are in good state with normal yield expected.

2.5 COAST REGION

2.5.1. Msabaha

The station received an increase of rainfall of 183.4 mm compared to 3.8 mm in the previous dekad. The average air temperature recorded was 26.0^oc. There was no report on evaporation pan and sunshine parameters.

Maize was at emergence stage and in fair state. Weeding is in progress in most farms. Mangoes were at 100% fruit setting stage and in good state.

2.5.2 Mtwapa

This station recorded increased rainfall of 123.5 mm compared to 15.3 mm in the previous dekad. The average air temperature recorded was 26.7^oc. There was no report on evaporation pan and sunshine parameters.

Maize was at flowering stage and in good state though adversely affected by stalk borers. Farmers are busy weeding in most farms. Water melon was at 80% flowering stage and in unsatisfactory state due to damage by aphids, leaf miners and leaf rust. Mangoes were at 100% fruit setting stage and in moderate state.

3.0 ANALYSIS OF RAINFALL, TEMPERATURE AND VEGETATION CONDITIONS

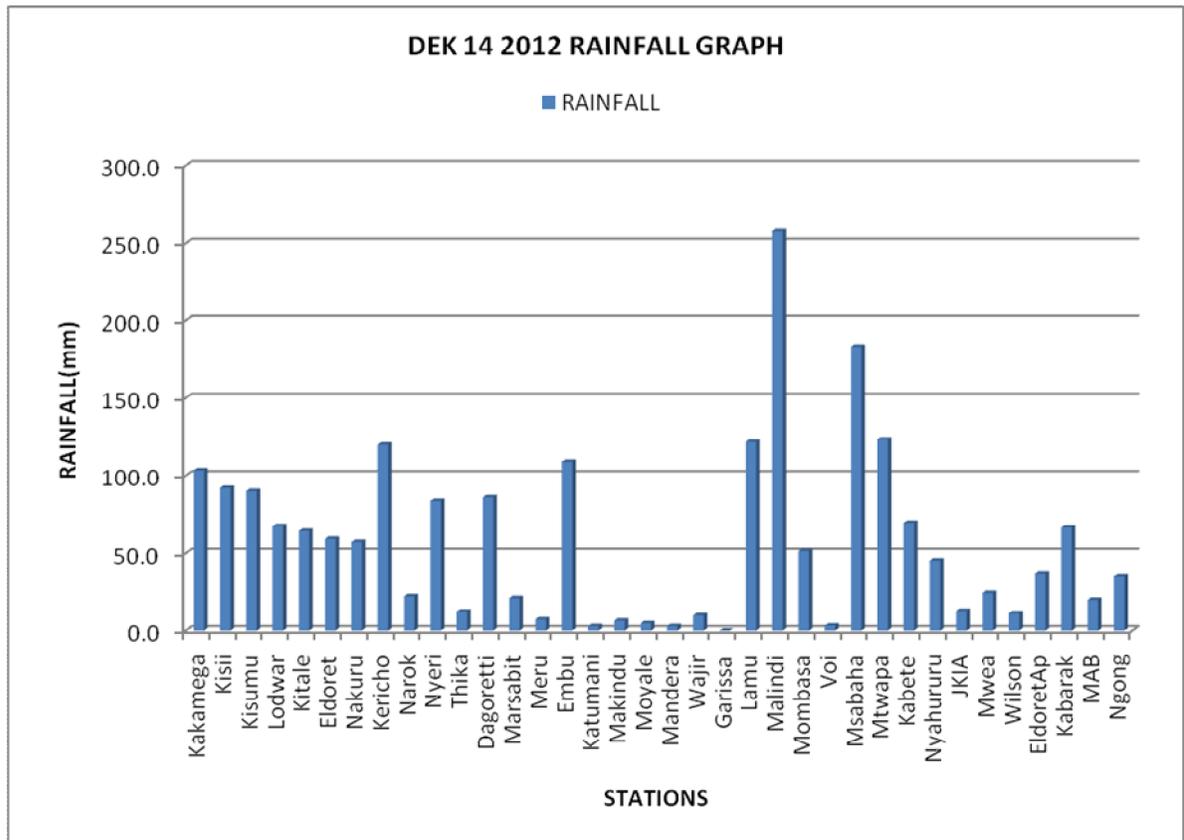


Figure 3.1: Dekadal rainfall totals for 11-20 May 2012

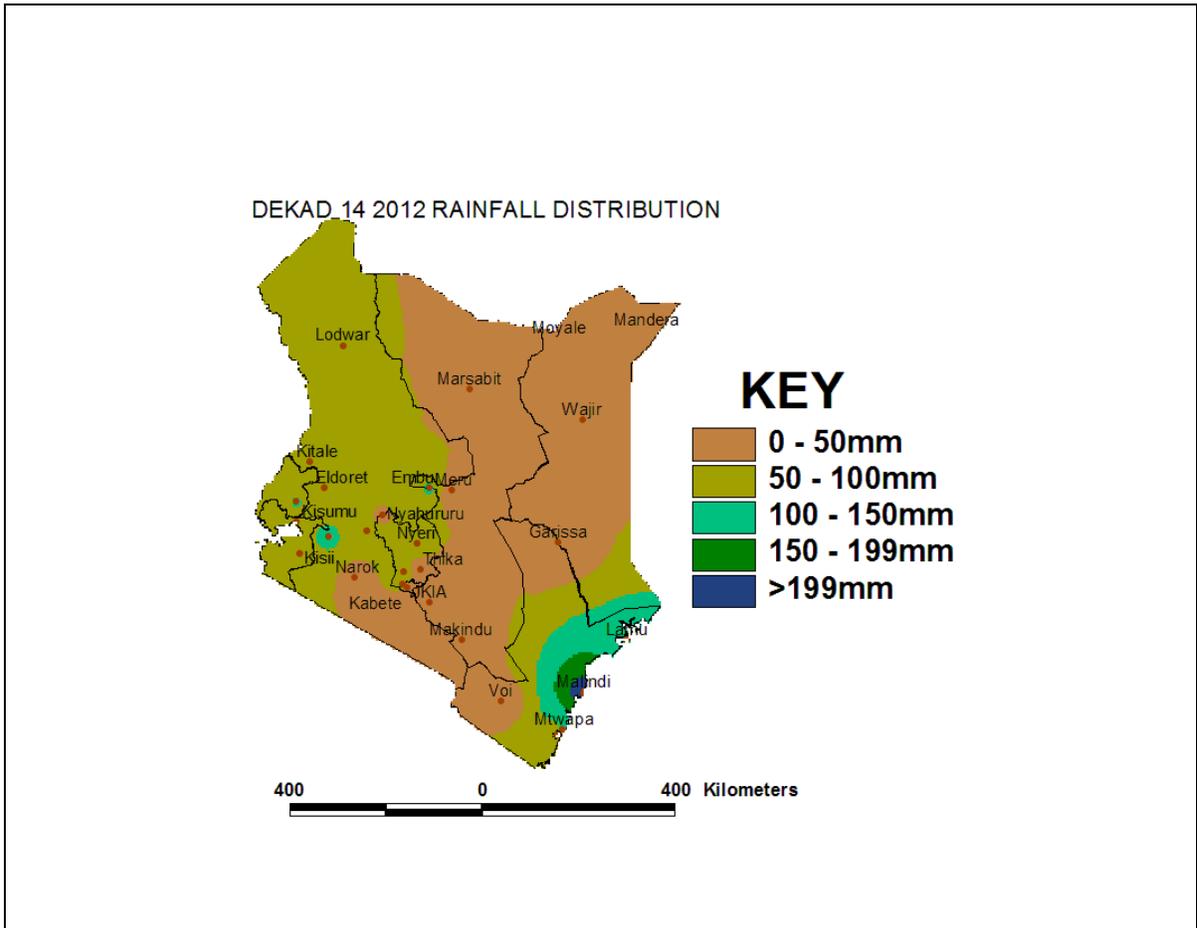


Figure 3.2: Dekadal rainfall distribution

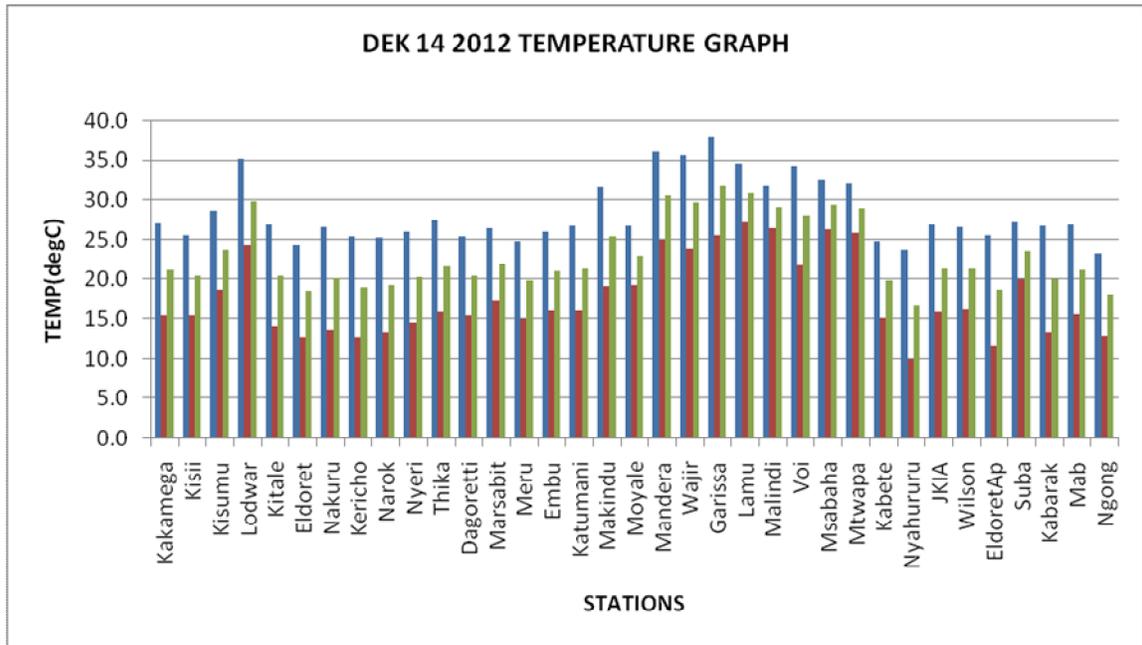


Figure 3.3: Maximum, Minimum and Average temperature in ⁰c

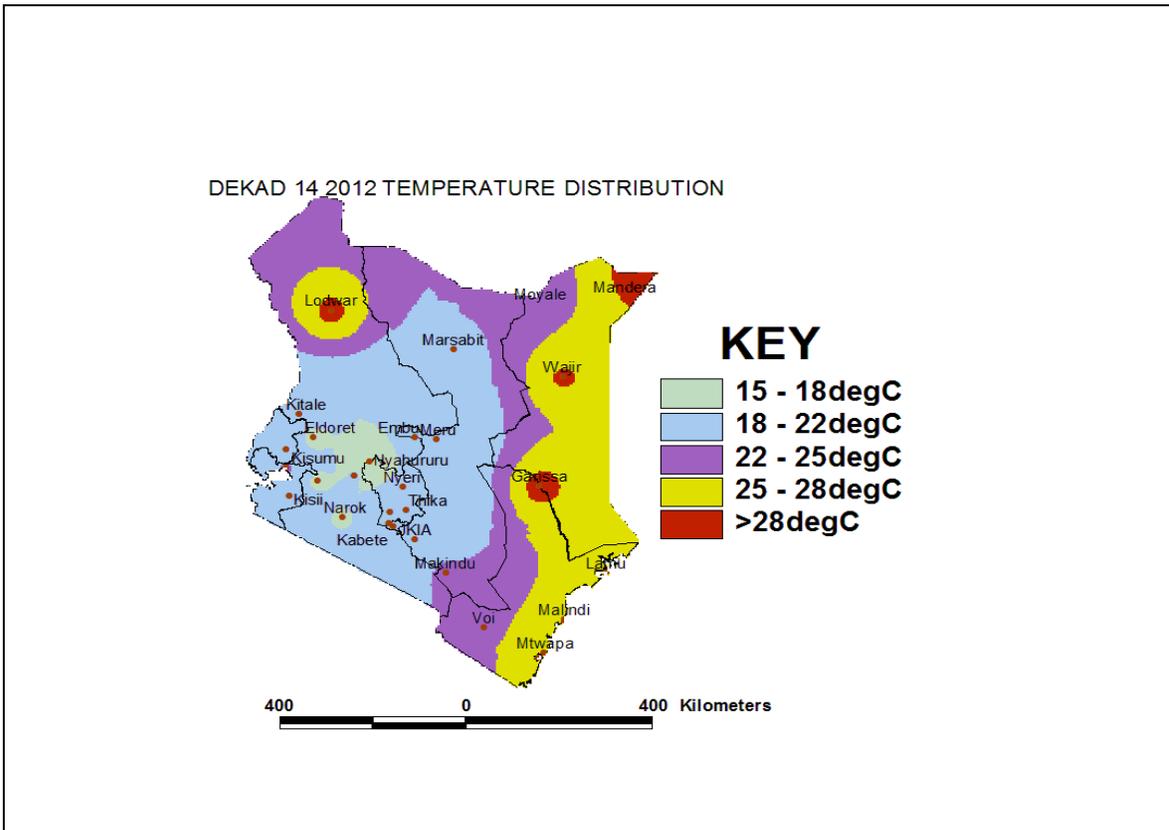


Figure 3.4: Mean temperature distribution

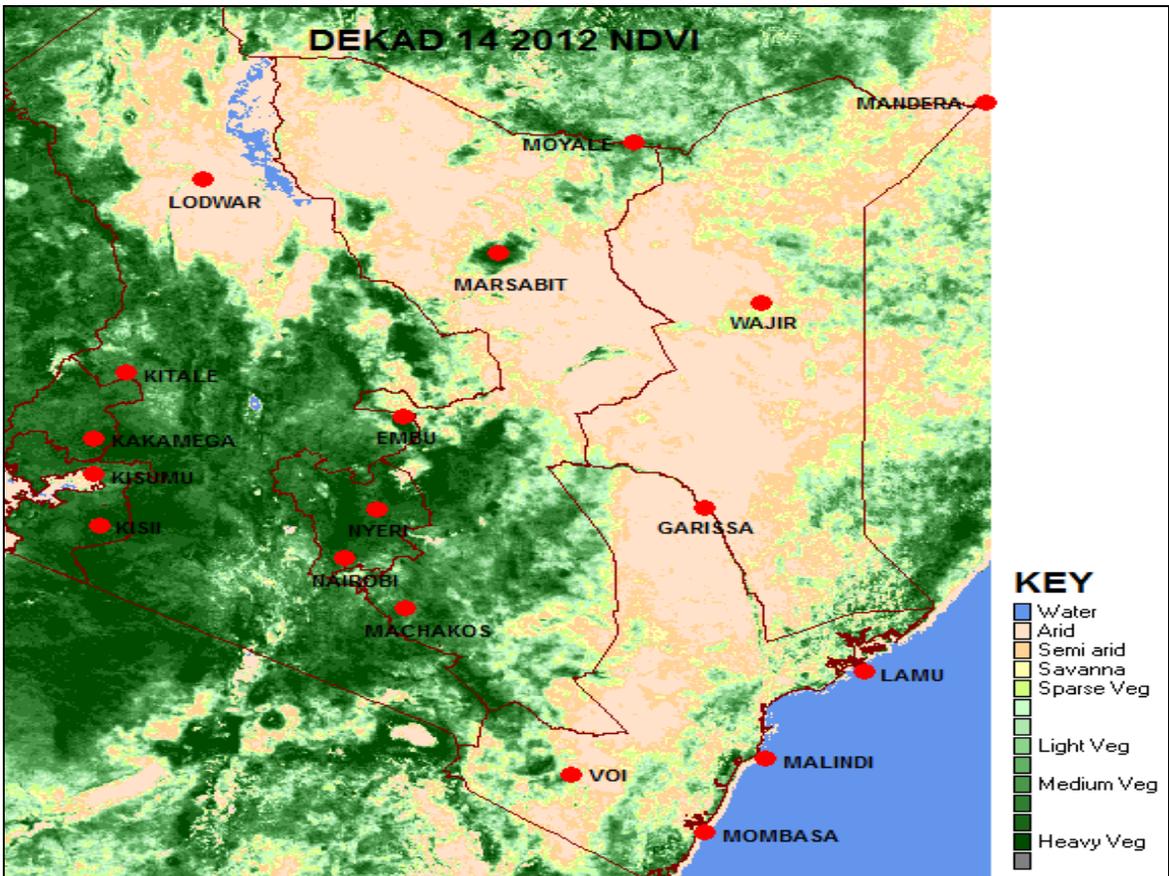


Figure 3.5: Normalized Difference Vegetation Index (NDVI)

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 MAY 2012

- ✚ **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 morning rains over few places breaking to sunny intervals and afternoon/night showers accompanied by thunderstorms over several places for most of the forecast period. The rainfall intensities and coverage are however expected to reduce during the last three days of the forecast period. The rainfall will be heavy (> 20 mm) around Mt Elgon and counties in Western and Nyanza regions as well as in Nandi Hills during the first three days of the forecast period.

The forecast weather conditions will continue to improve the vegetative growth of maize and beans grown in these regions.

- ✚ **Over the Northwestern counties (Turkana, West Pokot etc),** Sunny intervals will be experienced in the morning. Few places are expected to experience light to moderate afternoon/night showers in the first two days of the forecast period.
The expected showers will continue to replenish the pasture and general vegetation of the region.

- ✚ **The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, etc).** Cloudy morning with rains over a few places and afternoon/ night showers and thunderstorms over several places will be experienced during the first half of the forecast period. Sunny intervals are expected to dominate the second half of the forecast period with occasional afternoon/night showers over a few places.

These rainy and sunny conditions will be of much benefit to growing planted in the region.

- ✚ **Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa, Moyale etc),** Sunny intervals are expected for much of the forecast period. Light to moderate rainfall is expected to occur in the north of Marsabit county and western parts of Mandera county in the first two days of the forecast period

The showers will continue to replenish the pasture for the animals kept in these regions.

- ✚ **Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos, Kitui, Mwingi, etc)** Sunny intervals are expected for much of the forecast period with some morning rains and afternoon/night showers with thunderstorm over a few places. The above conditions are expected in Machakos and Makueni counties during the first half while Taita Taveta expect the same during the second half of the forecast period.

The expected showers will continue replenishing the pasture for livestock and wildlife in the region and also continue spurring the growth of maize and beans which are in their vegetative process.

- 🇰🇪 **In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc)** Morning showers are expected in the morning over several places throughout the forecast period.

The expected showers are beneficial to the growth of mango trees and other crops grown for the long rains season in this region.

For feedback or further guidance, Contact:

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