

KENYA METEOROLOGICAL SERVICE DEKADAL AGROMETEOROLOGICAL BULLETIN

WEATHER AND CROP REVIEW FOR DEKAD 20, 2015

1. HIGHLIGHTS ON RAINFALL AND TEMPERATURE

Rainfall activities decreased in intensity and increased in spatial distribution, with most of North Eastern stations reporting dry conditions during the dekad. The highest rainfall amount countrywide of 65.4mm was recorded at Eldoret Airport in Rift Valley region compared to Lamu station in Coastal province which reported 93.9mm in the previous dekad. Mombasa station in the Coastal region received the second highest rainfall amount of 33.3mm. In Central region Nyahururu station reported the highest rainfall amount of 25.8mm. Kisumu station in Nyanza region received the highest rainfall amount of 18.6mm. Eastern region recorded the highest amount of rainfall of 15.6mm at Embu station. In North Eastern region the highest rainfall amount of 7.1mm was reported at Moyale station. Kabete station in Nairobi region recorded the highest rainfall amount of 7.0mm, while Kakamega station in Western region reported the highest amount of rainfall of 6.9mm.

Maximum temperatures increased while the minimum temperatures continued to decrease in most stations during the dekad. Lodwar station in North-eastern region reported the highest maximum temperature of $34.7.0^{\circ}$ C compared to 34.9° C recorded at Mandera station in the previous dekad. The lowest minimum temperature of 5.6° C was reported at Nyahururu station in Central region compared to 4.7° C.

For a 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 20: 11-20 JULY, 2015

2.1 NYANZA AND WESTERN REGIONS

2.1.1 Kakamega

The station reported rainfall amount of 6.9mm during the dekad. The mean air temperature and Pan Evaporation were 21.4°C and 3.8mm respectively. The sunshine hrs reported was 8.8hrs/day.

Maize was at flowering stage and in poor state with normal yield expected.

2.1.2 Kisii

The station received rainfall amount of $1.5\,\mathrm{mm}$. The mean air temperature and Pan Evaporation recorded were $21.0\,^{\circ}\mathrm{C}$ and $3.7\,\mathrm{mm}$ respectively. There was no report on sunshine parameter.

Maize was at flowering stage and in fair state. Most farmers had harvested their beans

2.2 RIFT VALLEY REGION

2.2.1 **Kitale**.

The station reported rainfall amount of 3.0mm. The mean air temperature and Pan Evaporation recorded were 19.1°C and 3.9mm respectively. There was no report on sunshine duration.

Maize was at flowering stage and in good state while beans were at maturity stage and in fair state. Normal yield is expected for maize but for beans below normal yield is expected due to insufficient rainfall.

2.2.2 Eldoret-Kapsoya

The station reported rainfall amount of 22.5mm. The mean air temperature and Pan Evaporation recorded were 16.6°C and 4.6mm respectively. There was no record on sunshine duration.

Maize was at flowering stage and in fair state with normal yield expected. Beans had been harvested.

2.3 CENTRAL KENYA HIGHLANDS AND NAIROBI AREA REGION

2.3.1 Nveri

The station received rainfall amount of 2.5mm. The average air temperature was 16.8°C. There was no report on Pan Evaporation and sunshine parameters.

Maize was at flowering stage and in fair state below normal yield is expected due to adverse affect by stalk borer and insufficient rainfall.

2.3.2 Kabete

The station reported rainfall amount of 7.0mm. The Pan Evaporation recorded was 2.5mm. There was no report on Mean air temperature and sunshine duration.

Both maize and beans were in flowering stage and in fair state with normal yield expected.

2.3.3 Thika

The station reported rainfall amount of 2.0mm. The mean air temperature and Pan Evaporation recorded were $17.8\Box C$ and 3.1mm respectively. There was no report on sunshine duration.

Maize was at maturity stage and in good state, above normal yield expected.

2.3.4 Nyahururu

The station reported rainfall amount of 25.8mm. The mean air temperature and Pan Evaporation recorded were 13.7°C and 4.3mm respectively. There was no report on sunshine hours.

Maize was at emergence and in fair state, while Potatoes were at harvest stages in fair state hence normal yield is expected.

2.3.5. <u>Dagoretti</u>

The station reported rainfall amount of 2.0mm. The Mean air Temperature and Pan Evaporation recorded were 16.9°C and 3.1mm respectively. There was no report on sunshine hours.

Maize was at 100% flowering stage and in good state.

2.4 EASTERN KENYA REGION

2.4.1 Embu

The station received rainfall amount of 15.6mm. The Pan Evaporation was 2.7mm. There was no report on Mean air Temperature and sunshine hours.

Maize and Beans were at flowering and harvest stages respectively and both crops are in fair state hence normal yield expected. Harvesting of beans is still ongoing.

2.4.2 Meru

The station received rainfall amount of 7.4mm. The mean air temperature recorded were 16.8°C and. There was no report on Pan Evaporation and sunshine duration.

Maize was at maturity stage and in fair state, hence normal yield is expected.

2.4.3 Katumani (Machakos)

The station received rainfall amount of 0.01mm. The Mean air Temperature and Pan Evaporation recorded were 18.0^oC and 3.9mm respectively. There was no report on Sunshine duration.

Maize was at maturity stage and in fair state, below normal yield expected due to insufficient rainfall. Beans had been harvested.

2.5. COASTAL REGION

2.5.1 Msabaha

The station received rainfall amount of 12.6mm. The average air temperature and Pan Evaporation recorded were 26.0°C and 4.2mm respectively. There was no report on sunshine duration.

Maize was at flowering stage and in fair state, hence normal yield is expected. Mangoes were at 100% ripeness stage and in good state.

2.5.2 *Mtwapa*.

The station received rainfall amount of 18.2mm. The average air temperature and Pan Evaporation recorded were 25.1°C and 3.9mm respectively. There was no report on Sunshine duration.

Maize was at maturity stage and in good state; hence normal yield is expected though maize had been adversely affected by birds, animals and stalk borer. Mangoes were at harvest stage and also in good state.

3.0 ANALYSIS OF RAINFALL AND TEMPERATURE CONDITIONS.

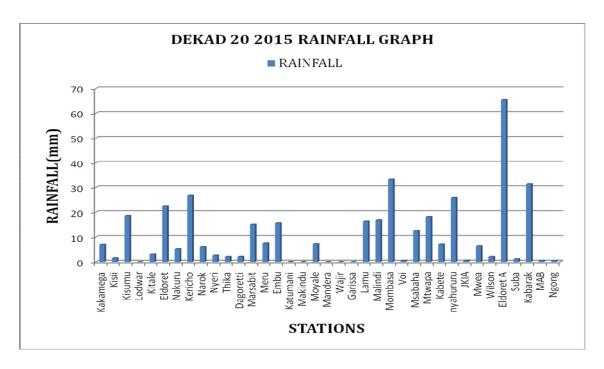


Figure 3.1: Dekadal rainfall totals for 11 -20 JULY 2015

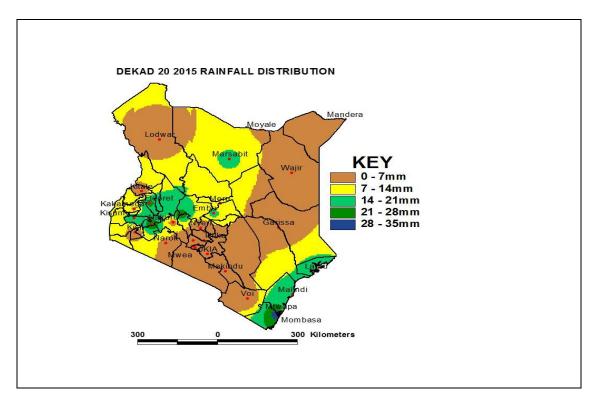


Figure 3.2: Dekadal rainfall distribution for dekad 20, 2015

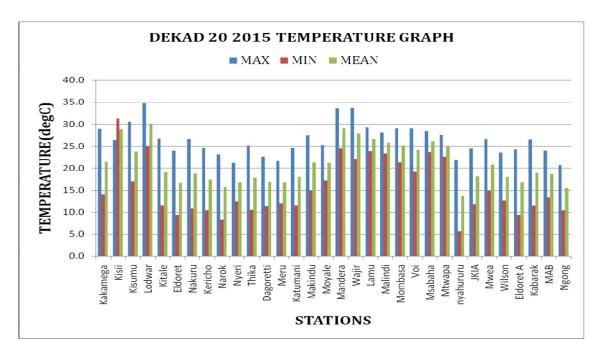


Figure 3.3: Maximum, Minimum and Average temperature for dekad 20, 2015

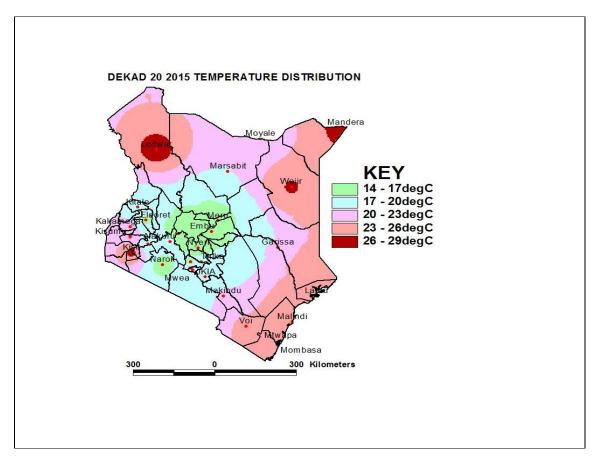


Figure 3.4: Mean temperature distribution for dekad 20, 2015

4. EXPECTED WEATHER AND CROP CONDITIONS DURING THE NEXT 10 DAYS; 21-31 JULY, 2015.

❖ Counties within the Lake Victoria Basin, Highlands west of the Rift Valley, Nyamira, Kericho, Bomet, Uasin-Gishu, Nakuru, Narok, Trans Nzoia, Elgeyo Marakwet, Nandi, Laikipia, Kajiado, Vihiga and Busia), are expected to experience morning rains over a few places on the first 3 days, breaking into sunny intervals throughout the remaining period. Afternoon/evening showers and thunderstorms will occur over several places on the first three days of the forecast period, reducing to few places for the next four days, then increasing to heavy showers and thunderstorms over few places on the eighth day of the forecast period and reducing in intensity thereafter.

The morning rains and afternoon/evening showers will be of great benefit to the crops that are in flowering stages in places like Kitale, Kisii and Kakamega. They will also replenish the soil with moisture that will affect positively on the growth of pasture and vegetation that supports livestock keeping in this region.

❖ The Northwestern counties (Turkana, West Pokot and Samburu), are expected to experience sunny intervals throughout the forecast period, with occasional afternoon showers and thunderstorms expected on our border with Uganda and S. Sudan.

The afternoon showers will be of great advantage to the growth of pasture and vegetation for livestock kept in these regions.

❖ The Central highlands including Nairobi area (counties of Meru, Murang'a, Kiambu, Nyeri, Nairobi, Embu, Nyandarua, Tharaka and Kirinyaga), are expected to experience cool, cloudy mornings breaking into sunny intervals on the first four days of the forecast period, followed by cloudiness with occasional rains over few places. Afternoons will experience showers over few places throughout the forecast period.

The morning rains and afternoon showers will be of great benefit to the development of crops that are in the emergence and flowering stages in places like Nyahururu, Nyeri and Embu.

❖ Northeastern counties (counties of Marsabit, Mandera, Wajir, Garissa and Isiolo), are expected to experience mainly sunny intervals the entire day throughout the forecast period.

The sunny conditions will be of disadvantage to the growth of pasture and vegetation that supports the livestock kept in these regions.

❖ Southeastern lowlands (counties of Taita Taveta, Makueni, Machakos and Kitui), are expected to experience mainly cool and cloudy mornings giving way to sunny intervals. Afternoons are expected to have mainly sunny throughout the forecast period.

The sunny condition will have adverse effect to the pasture and vegetation growth for livestock kept in this region, but it will enhance the drying of maize that is at maturity stage in places like Katumani.

❖ In the Coastal strip (counties of Mombasa, Malindi, Kilifi, Lamu, Kwale, etc), are expected to experience morning sunny intervals for the half of the forecast period, followed by showers over few places thereafter. Afternoons are expected to experience sunny intervals throughout the forecast period.

The morning showers will continue benefiting the development of Maize that is at flowering stage in places like Msabaha.

For feedback or further guidance, Contact:

Director,

Kenya Meteorological Services,

Agro meteorological 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;

©2015 Kenya Meteorological Services.