



REPUBLIC OF KENYA
MINISTRY OF ENVIRONMENT & FORESTRY
KENYA METEOROLOGICAL DEPARTMENT

Dagoretti Corner, Ngong Road, P. O. Box 30259, 00100 GPO, Nairobi, Kenya
Telephone: 254 (0) 20 3867880-7, **Fax:** 254 (0) 20 3876955/3877373/3867888,
E-mail: director@meteo.go.ke, info@meteo.go.ke **Website:** <http://www.meteo.go.ke>

Ref. No. KMD/FCST/7-2019/MO/07 Date: 28th June, 2019

THE FORECAST FOR JULY 2019 AND REVIEW OF THE WEATHER DURING JUNE 2019

1. HIGHLIGHTS

WEATHER REVIEW FOR JUNE 2019

Several parts of the country remained generally wet in June 2019 except the north eastern and south-eastern regions. Several meteorological stations in Western and parts of Central Kenya including Nairobi and the Coastal strip recorded substantial amounts of rainfall that was well enhanced at Kakamega, Eldoret and Nyahururu meteorological stations. Occasional cool and cloudy conditions were recorded over the central parts of the country including Nairobi during the month. The daytime temperatures were cooler than average with maximum temperatures occasionally dropping to below 20°C.

THE FORECAST FOR JULY 2019

The outlook for July 2019 indicates that several parts of the country will continue to experience generally dry conditions. However, the counties in the Lake Basin Region, Western Kenya and parts of Central Rift Valley are likely to receive near-average rainfall with a tendency to above average rainfall (enhanced rainfall). The Coastal Strip (Mombasa, Mtwapa, Kilifi, Malindi, Msabaha, and Lamu) is likely to receive near-normal rainfall with a tendency to below normal (depressed rainfall). The North-Eastern, Eastern, Southern-Eastern regions are expected to experience generally sunny and dry conditions for most of the month. Cool/cold and cloudy/foggy conditions with occasional light rains/drizzles are expected to dominate over counties in the Central highlands of the country and Nairobi area.

2. REVIEW OF THE WEATHER DURING JUNE 2019

2a Rainfall Analysis

The analysis of rainfall performance for June 2019 (up to 27th June) indicates that several parts of the country remained generally wet during the month. Several meteorological stations in western and central Kenya including Nairobi recorded above average rainfall. Kakamega station in western Kenya recorded the highest monthly rainfall total of 248.2mm (148%) as compared to its June LTM. Other stations that recorded above average rainfall are Eldoret 244.5mm (215%), Nyahururu 222mm (211%), Kisumu 156.9mm (191%) and Nakuru 136.1mm (173%). Jomo Kenyatta Airport, Kericho, Kitale, Dagoretti, Moi Air Base, Narok, Meru, Lodwar, Machakos and Nyeri stations also recorded between 100 to 293% of their June LTM. Embu, Kisii, Makindu, Msabaha and Malindi received near average rainfall while Mtwapa, Lamu, Mombasa and stations over the northeast received below normal rainfall. Most stations in northeastern and southeastern Kenya recorded monthly rainfall totals that were less than 5mm except Machakos meteorological station that recorded monthly rainfall totals of 12.5mm. Stations like Marsabit, Mandera, Wajir, Garissa and Voi recorded no rainfall at all throughout the month. **Figure 1** shows the June 2019 rainfall recorded from 1st to 27th

June (Green bars) compared to the June LTMs (Red bars). Figure 1b depicts the June 2019 rainfall performance as a percentage of the June LTMs.

2b. Temperature Analysis

The central parts of the country including Nairobi experienced occasional cool and cloudy conditions during the month. Daytime temperatures were however cooler than average. Ngong station recorded the lowest maximum temperature of 15.4°C on 9th June. On 10th June, Ngong station recorded 16.0°C, while Kangema and Meru recorded 16.5°C and 17.4°C respectively. The highest maximum temperature on 10th June over central and Nairobi was recorded in Moi Air Base at 19.6°C. Further analysis of the June temperatures indicates that the minimum (nighttime) temperatures were also warmer than average over most parts of the country. Nyahururu had the lowest minimum (nighttime) temperature of 7.0°C on 18th of June.

3. PREVAILING SYNOPTIC CONDITIONS

During the month of June, neutral Sea Surface Temperatures (SSTs) prevailed over the western Indian Ocean, while warmer than average SSTs prevailed over the rest of the Indian Ocean. Neutral SSTs were observed over the equatorial Atlantic Ocean. Positive SST anomalies were observed over the western and central equatorial Pacific Ocean (the Niño areas) while cool SSTs were observed to the East of the Equatorial Pacific Ocean. The SST patterns in the Indian Ocean was conducive for rainfall in Kenya.

The Mascarene region was characterized by moderate to weak pressures which led to insignificant rainfall amounts over the Coast. Pressures over the Arabian region were also generally weak for most of the month. The Zonal (east-west) arm of the Inter-Tropical Convergence Zone (ITCZ) therefore remained over the Northin Ethiopia for most of the period. The Meridional (North-South) arm of the ITCZ was mainly over the Congo and Uganda.

The Mascarene high-pressure system and the Eastern Africa high-pressure ridge were moderate for most of the month. This led to the cooler than average temperatures over some parts of the country.

4. OUTLOOK FOR JULY 2019

During the month of July, rainfall is mainly concentrated over the Western and the Coastal regions of the country. The rainfall forecast for July 2019 is based on regression of Sea Surface Temperatures (SSTs) and SST gradients on rainfall over selected stations in Western Kenya and the Coastal strip while climatology was applied elsewhere. The forecast indicates that most parts of the country will still remain generally dry during the month. However, near normal rainfall with a tendency to above normal (enhanced rainfall) is expected over the western parts of the country; and the entire Coastal strip is expected to have near-normal with a tendency to below-normal rainfall (see figure 2). The specific outlook for individual areas is as follows:

Counties in the Highlands West of the Rift Valley (Trans-Nzoia, Kericho, Nandi, Uasin-Gishu, Kakamega, Bungoma, Vihiga); **Counties in the Lake Basin** (Kisumu, Migori, Kisii, Busia, Homa Bay, Siaya, Nyamira); **Counties in Central Rift Valley** (Nakuru, parts of Laikipia and Nyandarua); **Northwestern regions (Turkana, West Pokot, Western portion of Samburu)** are likely to receive near normal rainfall with a tendency to above normal (enhanced rainfall). Occasional afternoon showers and thunderstorms may occur along the Kenya/Uganda and Kenya/Sudan border areas of northwestern Kenya.

Counties in the Coastal strip (Mombasa, Kilifi, Lamu, Malindi, parts of Kwale) are expected to receive normal to near-normal (near-average) rainfall with a tendency to below normal rainfall (depressed rainfall). Some areas are likely to remain generally dry for most of the month.

Counties in the Highlands East of the Rift Valley (Nyeri, Muranga, Kiambu, Embu, Meru) and Nairobi will experience cool/cold and cloudy/foggy conditions with occasional light rains / drizzles. A few days may turn out to be extremely cold and chilly with maximum (daytime) temperatures falling below 20°C and minimum (nighttime) temperatures falling below 10°C. However, the temperatures are likely to be slightly warmer than average during the month.

Northeastern Kenya (Marsabit, Garissa, Wajir, Mandera, Isiolo), Southeastern Kenya (Machakos, Makueni, Taita Taveta) and parts of central and south Rift Valley (Narok, Magadi, Kajiado) are likely to remain generally sunny and dry throughout the month. The southeastern areas as well as the central and southern Rift Valley regions that border the central highlands may occasionally experience cool and cloudy conditions.

4. POTENTIAL IMPACTS

- The rainfall expected in western Kenya, though slightly enhanced, will be beneficial in terms of crop performance, particularly in the north Rift Valley. The light rains expected over the central regions will also be beneficial to farmers whose crops still require rainfall as a result of the cessation/reduction of the March-May 2019 “long-rains” season.
- Poor visibility may result from the expected foggy conditions in the central highlands, especially along Limuru-Naivasha Road. Drivers in such regions are advised to exercise extra care to avoid accidents.
- The foggy conditions may also impact on air transport at Jomo Kenyatta Airport, especially during landing and taking off.
- Cases of respiratory diseases like asthma, pneumonia and common colds may be on the increase due to the expected chilly weather conditions. People are therefore advised to wear the appropriate clothing to combat such diseases. People are also advised not to use charcoal “Jikos” in houses without good ventilation in order to avoid inhaling dangerous Carbon monoxide.

NB: This forecast should be used in conjunction with regular updates issued by this Department.

**STELLA AURA, MBS
DIRECTOR OF METEOROLOGICAL SERVICES**

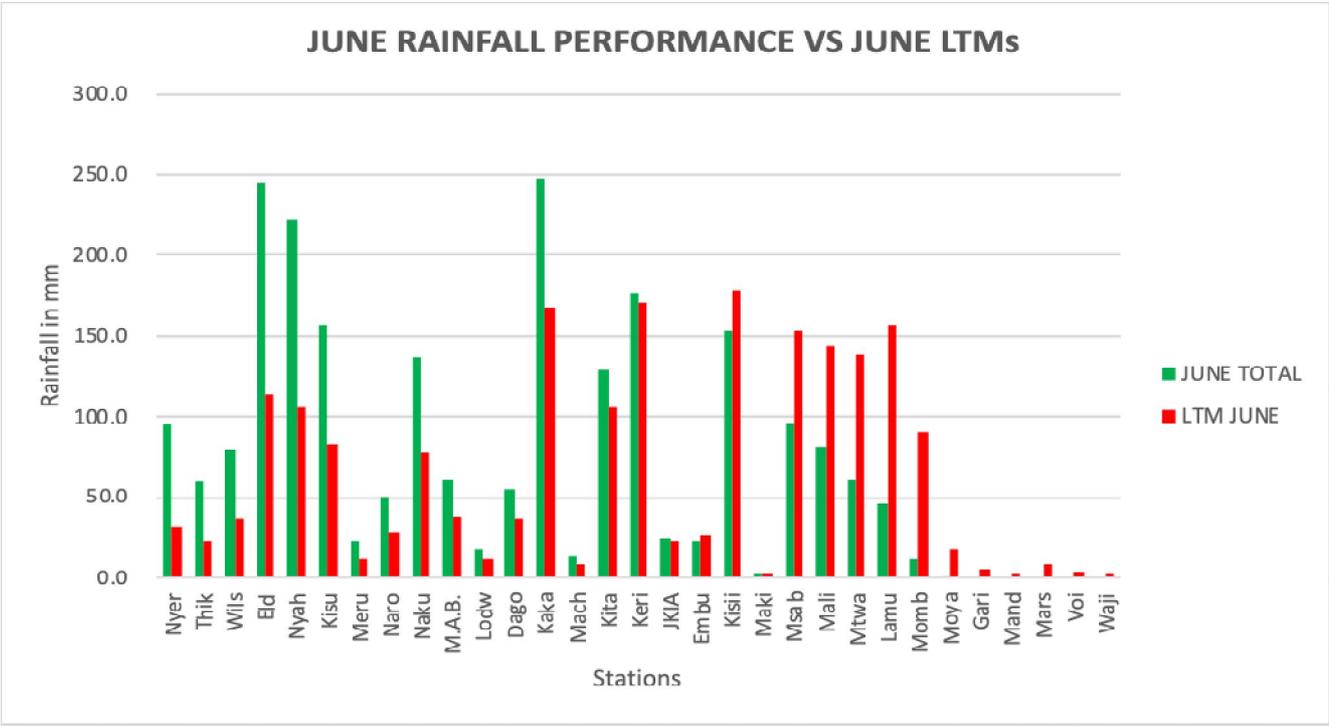


FIGURE 1A: JUNE RAINFALL PERFORMANCE VS JUNE LTMs

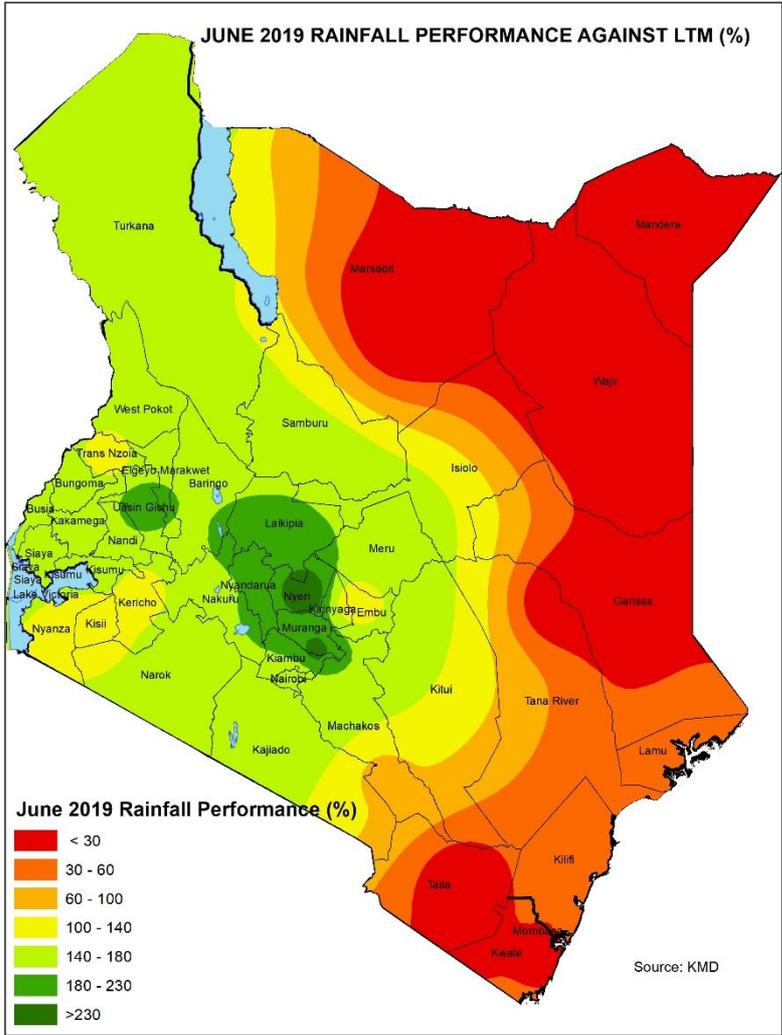


FIGURE 1B: JUNE RAINFALL PERFORMANCE (%) AGAINST JUNE LTMs

FIGURE 2: WEATHER OUTLOOK FOR JULY 2019

