



**REPUBLIC OF KENYA
MINISTRY OF ENVIRONMENT & FORESTRY
KENYA METEOROLOGICAL DEPARTMENT**

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WEATHER REVIEW FOR JULY 2019 AND THE OUTLOOK FOR AUGUST 2019

1. SUMMARY

During the month of July 2019, several stations in Western Kenya and the Coastal strip and a few stations over North-western Kenya received significant amounts of rainfall that was above average as compared to the July Long Term Mean. Generally dry weather condition prevailed elsewhere in the country.

Occasional cool and cloudy conditions occurred over the Central highlands including Nairobi but sunny intervals were dominant for much of the month of July.

The outlook for August 2019 indicates that most parts of the country will continue to be generally sunny and dry. The Western Highlands (Kericho, Kitale, Eldoret, Kakamega, Bungoma), Lake Victoria Basin (Kisumu, Kisii, Busia) and parts of Central Rift Valley (Nakuru, Nyahururu) are, however, likely to experience above average (enhanced) rainfall. Significant amounts of rainfall are also likely to occur over the North-Western parts of the country especially along the regions bordering South Sudan and Northern Uganda. Occasional light morning showers are expected along the Coastal strip while cool and cloudy conditions are likely to dominate over the central highlands and Nairobi area especially during the first half of the month.

2. REVIEW OF THE WEATHER DURING JULY 2019

2.1 Rainfall Review

Rainfall analysis for July 2019 up to 29th indicates that rainfall was mainly concentrated over the Highlands West of the Rift Valley, some counties in Central Rift valley (Laikipia, Nakuru) as well as the Coast region. Some counties in North-western Kenya also recorded significant amounts of rainfall during the fourth week of the month. Counties in the Northeastern, Central region including Nairobi, Southeast and parts of Coastal region were generally dry for most of the month.

Kakamega Meteorological station recorded the highest monthly rainfall total of 156.1mm. Other stations that received more than 100mm include Nyahururu (136.8mm), Kericho (132.6mm), Mtwapa (113.0mm) and Eldoret Airport (103.6mm). Kabarak, Eldoret (Kapsoya), Lodwar, Nakuru, Kisumu, Kisii, Lamu, Kitale, Laikipia, Suba, Malindi, Msabaha, Mombasa and Moyale stations recorded 89.7mm, 88.8mm, 86.7mm, 86.0mm, 83.9mm, 81.8mm, 80.3mm, 77.9mm, 63.9mm, 59.1mm, 58.0mm, 45.6mm, 34.7mm and 14.9mm respectively. The rest of the stations recorded monthly rainfall totals of less than 10mm with Machakos, Makindu, Moi Air base, Kabete, Wilson Airport and Jomo Kenyatta International Airport recording no rainfall at all throughout the month as seen in **figure 1**.

2.2 Temperature Review

Most parts of the country recorded higher than average maximum (daytime) and minimum (nighttime) temperatures during the month. Occasional cool and cloudy conditions, however, occurred over the Highlands East of the Rift Valley and the Southeast lowlands especially during the morning hours. This was more so during the last week of the month when overcast skies persisted almost throughout the day.

The daytime temperatures occasionally fell below 20°C. For instance, Nyahururu meteorological station recorded 18.0°C (lowest daytime temperature) on 22nd July 2019, while Meru recorded 18.5°C on the same day. On 23rd and 24th July, Nyahururu station recorded 19.3°C and 19.2°C, respectively. The lowest minimum temperature of 4.8°C was recorded in Nyahururu on 15th July.

2.3 Prevailing Synoptic Conditions during July 2019

During the month of July 2019, neutral to warmer than average Sea Surface Temperatures (SSTs) prevailed over central and western equatorial Indian Ocean (adjacent to the East African coast). This resulted into reduced moisture influx from the Indian Ocean into the country. Warmer than average SSTs prevailed over Central and Western equatorial Pacific regions while the Eastern Equatorial Pacific had neutral to cooler than average SST conditions.

The St. Helena and Mascarene high-pressure systems remained moderately strong for most of the month. The East African ridge was also moderately strong and partly maritime for most of the month hence pumping relatively warm air from the Indian Ocean and resulting in the warm temperatures observed over the central highlands including Nairobi. The Meridional (North-south) arm of the Inter-Tropical Convergence Zone (ITCZ) was mainly over the central parts of Africa, Uganda and parts of western Kenya while the zonal arm was mainly situated in Ethiopia.

3. WEATHER OUTLOOK FOR AUGUST 2019

On average, most parts of the country will experience generally sunny and dry weather conditions during the month of August. The western highlands, however, will continue to experience significant rainfall amounts for most of the month while the central regions will experience cool and cloudy conditions.

3.1 Rainfall Outlook

The rainfall forecast for August 2019 is based on regression of Sea Surface Temperature Anomalies (SSTAs) on the Western Kenya rainfall. Climatology was applied elsewhere in the country including the Coastal region where dry weather conditions dominate in August.

The forecast indicates that most parts of the country including the Coastal strip will remain generally dry for most of the month. However, Above-average (enhanced) rainfall is expected over most parts of the Western highlands, Lake Victoria Basin and parts of Central Rift Valley (see **Figure 2**).

3.2 Expected Temperatures

Generally warm weather with occasional cool and cloudy conditions are expected to occur in the Central highlands including Nairobi. Warmer than average temperatures, (both daytime and nighttime), are still expected during the month over the entire country.

3.3 The specific outlook for individual areas is as follows:

- a) **Most parts of the Highlands West of the Rift Valley (Trans Nzoia, Kericho, Nandi, Uasin Gishu, Kakamega, Bungoma, vihiga, Nandi, Elgeyo Marakwet, Baringo, Kericho, Bomet, western Parts of Narok), Lake Victoria Basin (Kisumu, Migori, Siaya, Nyamira, Homa Bay, Kisii, Busia) and parts of Central Rift Valley (Nakuru, Nyahururu, Aberdares region) are likely to receive above normal (enhanced) rainfall;**
- b) **Counties in the Highlands East of the Rift Valley (Nyeri, Muranga, Kiambu, Embu, Meru) and Nairobi area (Dagoretti, Kabete, Wilson, Eastleigh, Ngong) will experience occasional cool and**

cloudy conditions especially during the first half of the month. More of sunny weather is however, likely to prevail during the second half of the month. The daytime and nighttime temperatures are expected to be warmer than average;

- c) **Counties in the Coastal strip (Lamu, Tana River, Kilifi, Lamu, Mombasa, Kwale)** are expected to experience generally dry weather conditions with occasional light morning showers;
- d) **Counties in North - Eastern Kenya (Marsabit, Wajir, Mandera, Garissa, Isiolo), Southeastern Kenya (Machakos, Makueni, Taita Taveta) and parts of Central and South Rift Valley (Eastern Narok, Kajiado)** are expected to remain generally sunny and dry throughout the month. **The Northwestern Regions (Turkana, West Pokot, Samburu)** will experience occasional afternoon showers and thunderstorms especially along the areas bordering Uganda and South Sudan.

4. EXPECTED IMPACTS

- The continuation of sunny and dry weather conditions in Northwestern, Northeastern and Southern lowlands will lead to diminishing pastures for livestock in these regions. Close monitoring of the situation is therefore necessary to avert loss of animals.
- The expected good rainfall performance over the western highlands will impact positively on the crop performance over these areas especially in the North Rift.
- Visibility may occasionally become poor in some parts of Central highlands, Nairobi and parts of Rift Valley especially during the first half of the month. Motorists are cautioned to exercise extra care when driving along roads such as Limuru-Nakuru-Eldoret to avoid accidents.
- Strong southerly winds of up to about 50km/hr are expected over the eastern half of the country for much of the month. The areas that will be affected include areas in Garissa all the way to Mandera and Moyale through to Wajir. These winds will likely raise dust, therefore residents in the affected areas are advised to stay indoors wherever possible or take necessary precautions to safeguard themselves
- Foggy conditions may occasionally impact on air transport at Jomo Kenyatta International Airport especially during landing and takeoff.

NB: This forecast should be used in conjunction with regular 24-hour (daily) forecasts and updates issued by this Department.

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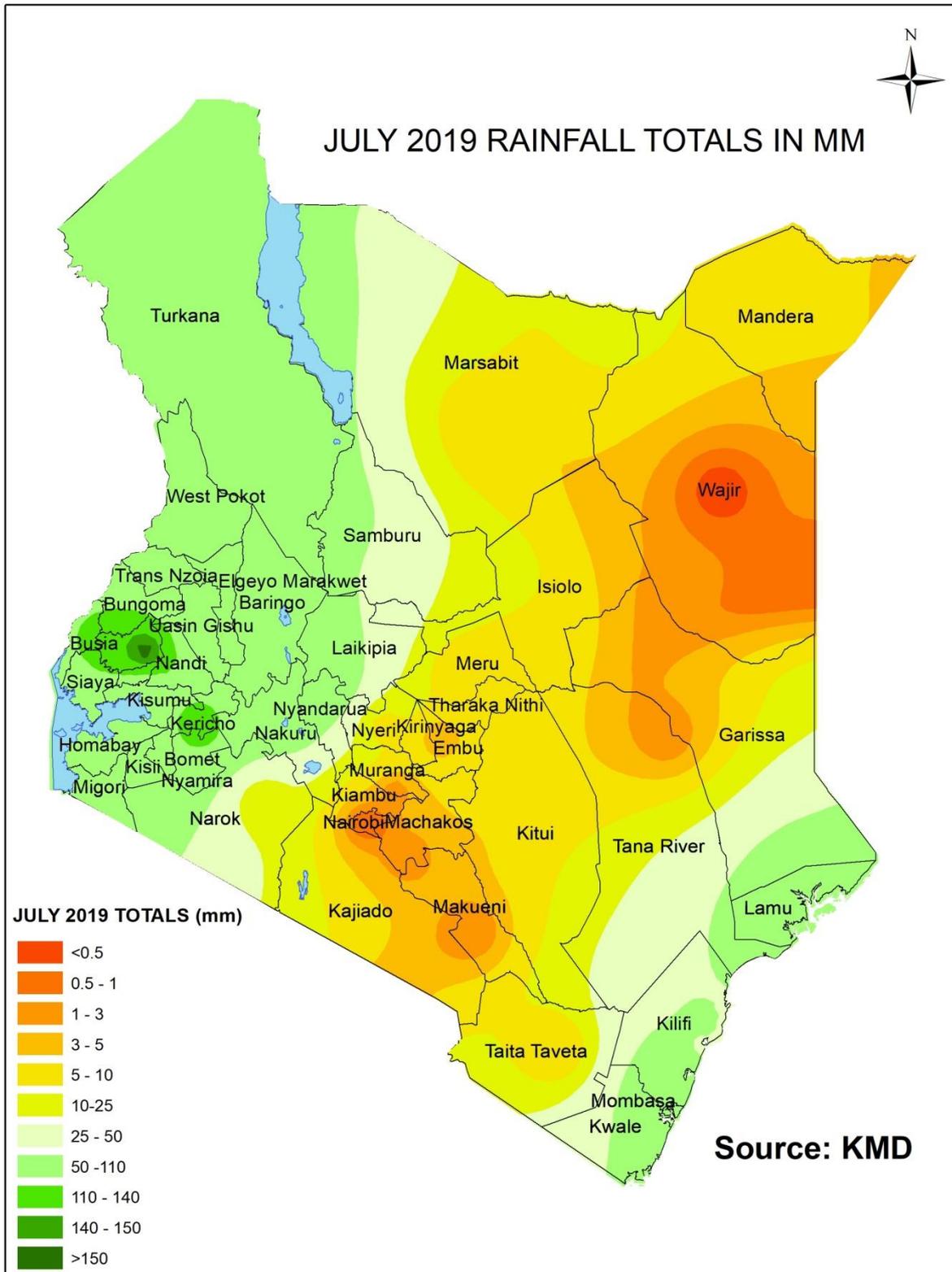


FIGURE 1: JULY 2019 RAINFALL PERFORMANCE IN MILLIMETERS

FIGURE 2: RAINFALL OUTLOOK FOR AUGUST 2019

