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KENYA METEOROLOGICAL DEPARTMENT

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WEATHER REVIEW FOR JUNE AND THE FORECAST FOR JULY 2017

1. HIGHLIGHTS

WEATHER REVIEW FOR JUNE 2017

Most parts of the country remained generally dry in June 2017. Several meteorological stations in western Kenya and the Coastal strip, however, recorded substantial amounts of rainfall that was slightly enhanced at Kakamega and Lamu.

Occasional cool and cloudy conditions were recorded over the central parts of the country during the month. The daytime temperatures were however warmer than average with maximum temperatures rarely dropping below 20°C.

THE FORECAST FOR JULY 2017

The outlook for July 2017 indicates that most parts of the country will continue to experience generally dry conditions. However, the western parts of Kenya (Kericho, Kisumu, Kakamega, Kisii, Kitale, Eldoret and parts of Central Rift Valley (Nakuru, Nyahururu) are likely to receive near-average rainfall with a tendency to above average. It is worth to note that places like Eldoret in the western highlands observe their highest rainfall peak during this month of July.

The Coastal strip (Mombasa, Mtwapa, Kilifi, Malindi, Msabaha, and Lamu) is expected to experience near-average rainfall. Some areas are, however, likely to remain generally dry for most of the month.

Cool/cold and cloudy/foggy conditions with occasional light rains/drizzles are expected to dominate over the central highlands of the country (Meru, Nyeri, Embu, Murang'a, Kiambu) and Nairobi area. Daytime temperatures are expected to be warmer than average during the month.

2. REVIEW OF THE WEATHER DURING JUNE 2017

2.a Rainfall Analysis

The analysis of rainfall performance for June 2017 indicates that several parts of the country remained generally sunny and dry during the month. Various stations in the central highlands, northwestern, northeastern and southeastern Kenya recorded monthly rainfall totals that were less than 5mm. Indeed, stations like Marsabit, Lodwar, Thika and Machakos recorded no rainfall at all throughout the month.

Several meteorological stations in western and the Coastal region recorded near-average rainfall.

Lamu station, for example, recorded 115 percent of its monthly LTM. The station also recorded the highest monthly rainfall total of 176.5mm as compared to its June LTM of 153.4mm. Kakamega, Kisii, Malindi, Kitale, Kericho, Msabaha, Mombasa, Kisumu, Mtwapa and Eldoret Airport stations recorded 171.7mm (101%), 121.8mm (69%), 95.1mm (68%), 88.2mm (81%), 82.8mm (49%), 74.4mm (49%),

55.0mm (61%), 53.9mm (66%), 53.9mm (40%) and 51.0mm (38%) respectively. Eldoret (Kapsoya), Nakuru, Dagoretti Corner, Nyahururu, Wilson Airport and Laikipia Airbase stations recorded between 10 and 50mm while the rest of the stations recorded less than 10mm as seen in **Figure 1**.

2b. Temperature Analysis

The central parts of the country experienced occasional cool and cloudy conditions during the month. Daytime temperatures were, however, warmer than average. On 12th and 25th June, for example, Kangema station recorded the lowest maximum temperature of 16.8°C and 16.0°C respectively. Nyahururu station recorded a maximum temperature of 20.0°C on 1st June. 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 (night time) temperature of 3.6°C on 24th of June.

3. PREVAILING SYNOPTIC CONDITIONS

During the month of June, warmer than average Sea Surface Temperatures (SSTs) prevailed over much of the Indian Ocean and more so the Western side. Warm SSTs were also observed over the eastern parts of the equatorial Atlantic Ocean. Positive SST anomalies prevailed over the eastern and central equatorial Pacific Ocean (the Niño areas).

The Mascarene region was characterized by moderate pressures which led to significant 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 to the North over Ethiopia for most of the period. The Meridional (North-South) arm of the ITCZ was mainly over the Congo region.

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

4. OUTLOOK FOR JULY 2017

During the month of July, rainfall is mainly concentrated over the Western and the Coastal regions of the country as depicted in **figure 2**. This rainfall forecast for July 2017 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 (slightly enhanced rainfall) is expected over the western parts of the country while near-normal rainfall is likely over the entire Coastal strip (**see figure 3**). The specific outlook for individual areas is as follows:

The Highlands West of the Rift Valley (Kitale, Kericho, Nandi, Eldoret, Kakamega), Lake Basin (Kisumu, Kisii, Busia) and parts of Central Rift Valley (Nakuru, Nyahururu, Aberdares region) are likely to receive near-normal rainfall with a tendency to above normal (slightly enhanced rainfall).

The Coastal strip (Mombasa, Mtwapa, Kilifi, Lamu, Malindi, and Msabaha) is expected to receive near-normal (average) rainfall. Some areas are, however, likely to remain generally dry during the month.

The Highlands East of the Rift Valley (Nyeri, Muranga, Kiambu, Embu, Meru) and Nairobi area (Dagoretti, Wilson, Eastleigh) will experience cool/cold and cloudy/foggy conditions with occasional

light rains / drizzles. A few days may turn out to be cold and chilly with maximum (daytime) temperatures falling below 20°C and minimum (night time) temperatures falling below 10°C. However, the July temperatures are expected to be slightly warmer than average during the month.

Northwestern regions (Lodwar, Lokichoggio, Lokitaung), Northeastern Kenya (Marsabit, Garbatulla, Wajir, Mandera, Moyale), Southeastern Kenya (Machakos, Makindu, Voi) and parts of central and south Rift Valley (Narok, Magadi, Kajiado) are expected to remain generally sunny and dry throughout the month. Occasional afternoon showers and thunderstorms may occur along the Kenya/Uganda and Kenya/Sudan border areas of northwestern Kenya. 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 will be beneficial in terms of crop performance, particularly in the North Rift area. The light rains expected over the central regions will also be beneficial to farmers whose crops still require rainfall as a result of the early cessation of the March-May 2017 “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.

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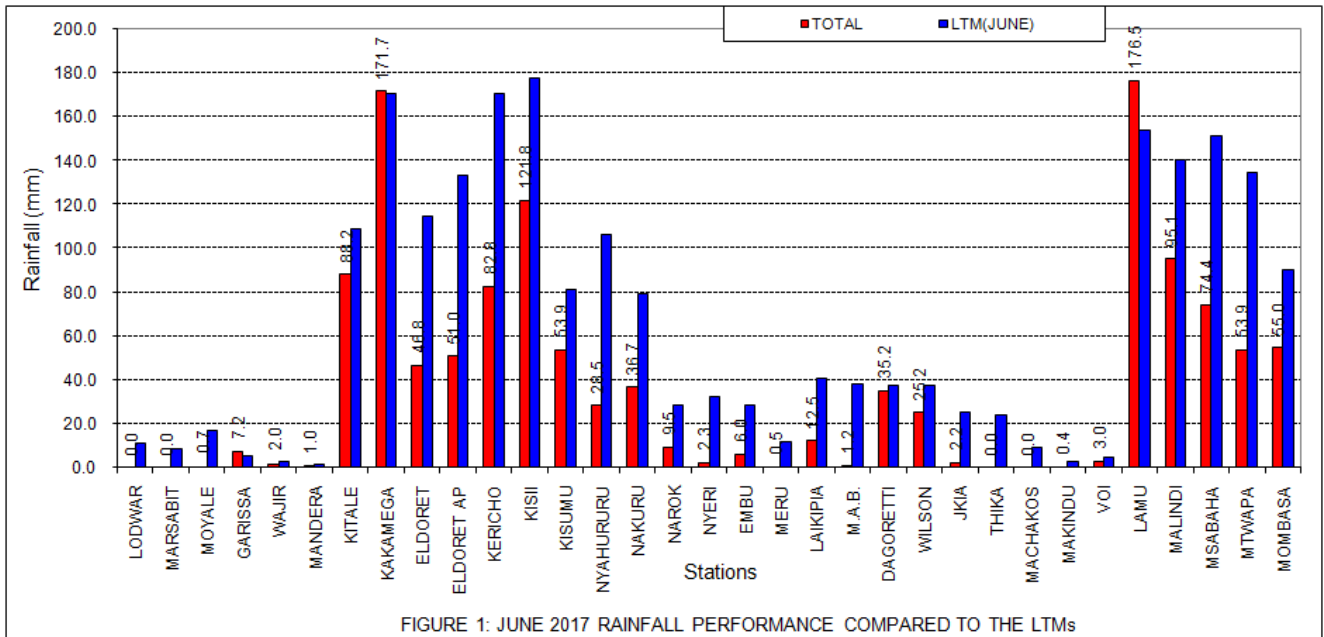


FIGURE 1: JUNE 2017 RAINFALL PERFORMANCE COMPARED TO THE LTM's

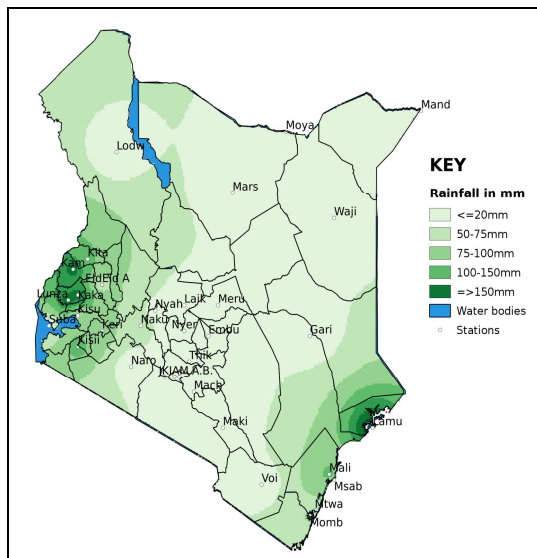


FIGURE 2: RAINFALL PERFORMANCE IN JUNE 2017

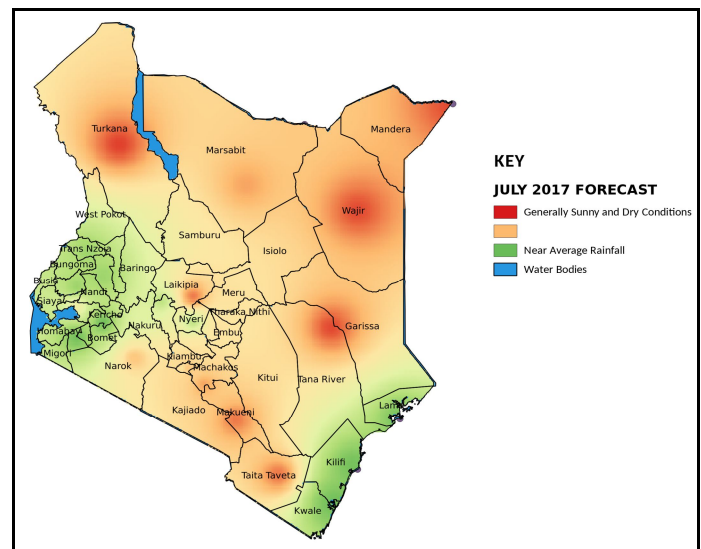


FIGURE 3: WEATHER OUTLOOK FOR JULY 2017