



REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES

KENYA METEOROLOGICAL DEPARTMENT

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REVIEW OF THE WEATHER IN JANUARY AND THE OUTLOOK FOR FEBRUARY 2012

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1. SUMMARY

1.1 Weather Review in January 2012

- Most parts of the country including the western and central highlands remained generally sunny and dry for most of January 2012. The rainfall recorded over a few stations in the country barely exceeded 10mm.
- The month was characterized by high day-time (maximum) temperatures and low night-time (minimum) temperatures as a result of clear skies. This resulted into formation of frost that destroyed vegetation and more so the tea plantations in places like Nyeri and Kericho.

1.2 The forecast for February 2012

February is normally a dry month over most parts of the country (*see figure 2*). The outlook for February 2012 indicates that:

- The entire country will continue to be generally sunny and dry throughout the month. A few areas around the Lake Victoria Basin and the western highlands are however likely to experience occasional light rainfall amounts.
- High maximum and low minimum temperatures will be maintained over various parts of the country. The possibility of frost formation is therefore still very high.

1. JANUARY 2012 WEATHER CONDITIONS

1.1 JANUARY 2012 RAINFALL PERFORMANCE

Sunny and dry weather conditions prevailed over most parts of the country in January 2012. The monthly rainfall totals recorded over a few areas in the western and central highlands as well as northeastern and southeastern Kenya barely exceeded 10mm. Nyeri Meteorological Station in central Kenya recorded the highest daily rainfall amount of 27.4mm recorded on 11th January. The same station recorded 22.6mm on 9th January.

Up to 25th January, Nyeri Meteorological Station recorded the highest monthly rainfall total of 56.6mm as compared to its January long-term mean (LTM) rainfall of 57.5mm. Meru, Kakamega, Voi and Kisii stations recorded 12.1, 7.7, 7.0 and 6.5mm as compared to their LTMs of 59.5, 76.7, 39.2 and 110.6mm respectively. The rest of the stations recorded less than 4mm with majority of the stations recording no rainfall at all as depicted in **Figure 1** below.

1.2 TEMPERATURE PATTERNS IN JANUARY 2012

Higher than average daytime temperatures and lower than average nighttime temperatures were recorded over most parts of the country during the month. The highest daytime

temperatures were recorded over Northwestern Kenya where Lodwar Meteorological station recorded 38.1°C on 22nd January. The lowest nighttime temperature of 1.5°C was recorded at Nyahururu station on 2nd January. In terms of monthly averages, Lodwar and Garissa stations both recorded the highest average maximum temperature of 36.8°C as compared to the long-term means (LTMs) of 35.6°C and 35.2°C respectively. Nyahururu station recorded the lowest average minimum temperature of 5.3°C compared to its LTM of 7.1°C.

Large diurnal temperature ranges (the difference between the daily maximum and minimum) were recorded over most stations in the country. Temperature ranges of over 18°C were recorded at Nyeri, Narok, Nakuru and Kitale stations while Kakamega, Kericho, Nyahururu and Thika recorded temperature ranges of between 17 and 18°C. These temperature patterns were as a result of clear skies, both during the day and at night. This in turn resulted into formation of frost especially in the above-mentioned areas.

2. PREVAILING SYNOPTIC CONDITIONS

The rain bearing Inter-Tropical Convergence Zone (ITCZ) remained further south in Tanzania. Cooler than average sea surface temperatures (SSTs) were maintained over the Eastern and Central Equatorial Pacific Ocean, an indication that La-Niña conditions were present in the Tropical Pacific Ocean. Near-neutral conditions were observed in the western Equatorial Indian Ocean while warm conditions prevailed to the northwest of Australia and also over the Mascarene region. This situation led to generally sunny and dry weather conditions over the entire country.

3. EXPERIENCED IMPACTS

The sunny and dry weather conditions were associated with the following impacts:

- Deterioration of foliage and pasture for the pastoralists in the pastoral areas especially in Northwestern and Northeastern Kenya where very high temperatures.
- Reduction in water levels in the Seven-Folks hydroelectric power generation dams.
- Formation of frost that led to destruction of vegetation, especially the tea plantations in places like Kericho and Bomet in the Rift Valley and also Nyeri in Central Kenya

4. FORECAST FOR FEBRUARY 2012

This forecast is based on the expected evolution of global SSTs patterns and average performance of rainfall during previous years when the December-January SSTs behavior was similar to the current trend. The current La-Niña conditions in the Pacific Ocean were also considered. The outlook for February 2012 (**Figure 3**) indicates that most parts of the country will remain generally sunny and dry for much of the month. A few areas within the Lake Basin and Western highlands are however likely to experience occasional light rainfall amounts. The specific outlooks for individual areas are as follows:

The Lake Basin (Kisii, Kisumu, Busia) and parts of Highlands west of the Rift Valley (Kericho, Kakamega) and Central Rift Valley (Narok, Nakuru) are expected to remain generally sunny and dry. A few areas may however experience occasional light rainfall amounts especially during the second half of the month.

The Central Highlands including Nairobi (Nyeri, Embu, Meru, Nyahururu, Murang'a, Dagoretti, Wilson, JKIA) are expected to remain sunny and dry for most of the month. A few areas may however experience one or two days of light afternoon showers emanating from western Kenya.

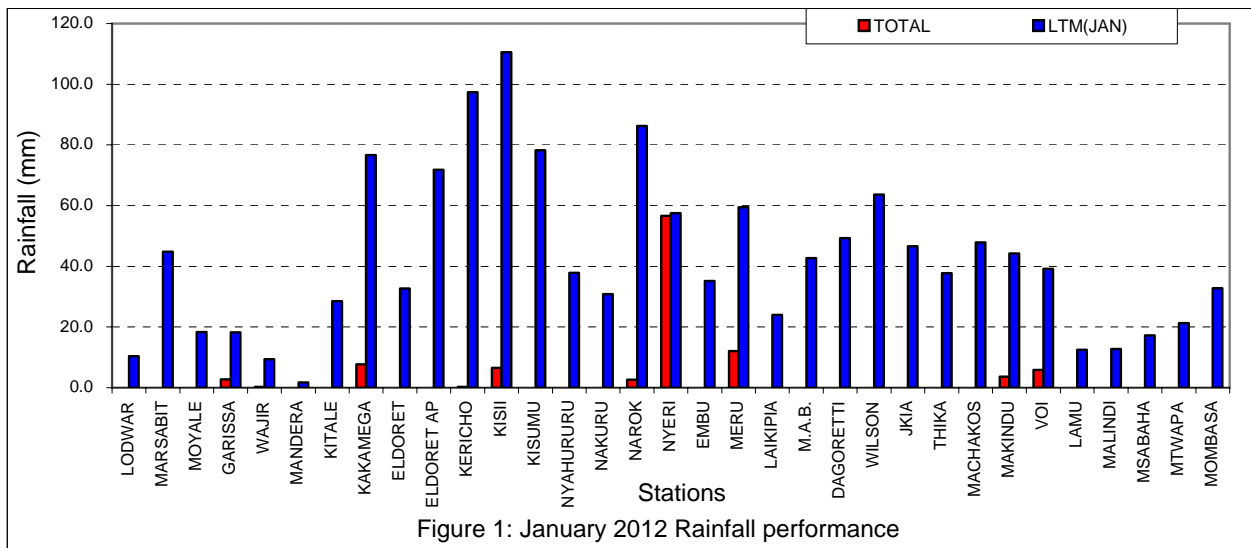
The North-western (Lodwar, Lokitaung, Lokichoggio), North-eastern (Moyale, Marsabit, Wajir, Mandera, Garissa), South-eastern (Machakos, Makindu, Voi, Taveta) and the Coastal Strip (Mombasa, Malindi, Lamu, Tana River) are expected to be mainly sunny and dry throughout the month.

5. EXPECTED IMPACTS

- 5.1 More cases of frost formation are likely to occur especially in the western and central highlands as well as the central Rift Valley
- 5.2 Further reduction of foliage and pasture in the pastoral areas of Northwestern and Northeastern Kenya
 - Likelihood of water scarcity especially in Northwestern, Northeastern and Southeastern Kenya
 - Likelihood of occurrence of heat waves due to high daytime temperatures (30 -40 °C) in the Northern parts of the country.
 - Problems associated with dust or dust storms in some areas as result of dry conditions, particularly in Northern and Northeastern parts of the country.
 - High chances of wild fires as a result of sunny and dry conditions.

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

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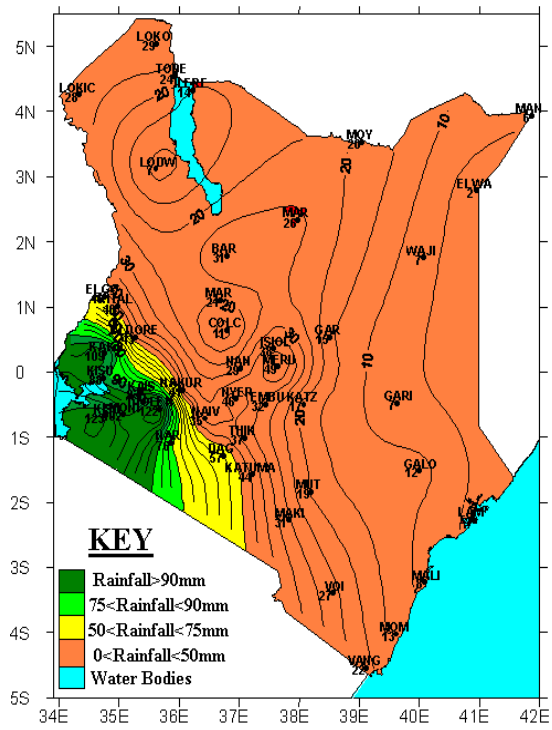


Fig. 2: Normal Rainfall Performance in February

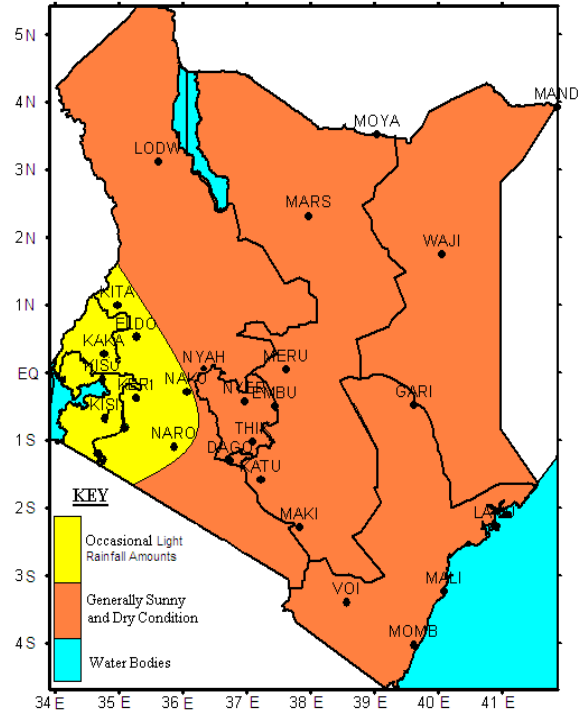


Fig. 3: Expected Rainfall Performance in February 2012