



REPUBLIC OF KENYA
MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND FORESTRY
KENYA METEOROLOGICAL SERVICE AUTHORITY

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**THARAKA NITHI COUNTY OCTOBER–NOVEMBER–DECEMBER (OND) 2026
RAINFALL OUTLOOK**

1. Review of the June-July-August Season

An analysis of the June-July-August 2026 season reveals that cool and cloudy conditions were experienced over most parts of the county. Light rains were experienced especially over Maara and Chuka /Igambang'ombe sub-counties.

2. Rainfall Forecast for October-November-December 2026

2.1 October-November-December Rainfall Climatology

The October-November-December rainfall season is a major rainfall season in Tharaka Nithi County. The season contributes more than 41% of annual rainfall in the county.

The season occurs because of the southward migration of the Intertropical Convergence Zone (ITCZ). The duration and performance of the season is influenced by the Indian Ocean Dipole (IOD) which enhances rainfall when in the positive phase. The El Nino phenomenon, that is currently strong, also enhances rainfall when it occurs concurrently with a positive IOD.

On shorter time scales, rainfall intensity is influenced by the Madden-Julian Oscillation (MJO) and the development of tropical cyclones over the Indian Ocean.

The map in **Figure 1** Shows normal rainfall over Tharaka Nithi County during the “Short Rains” Season.

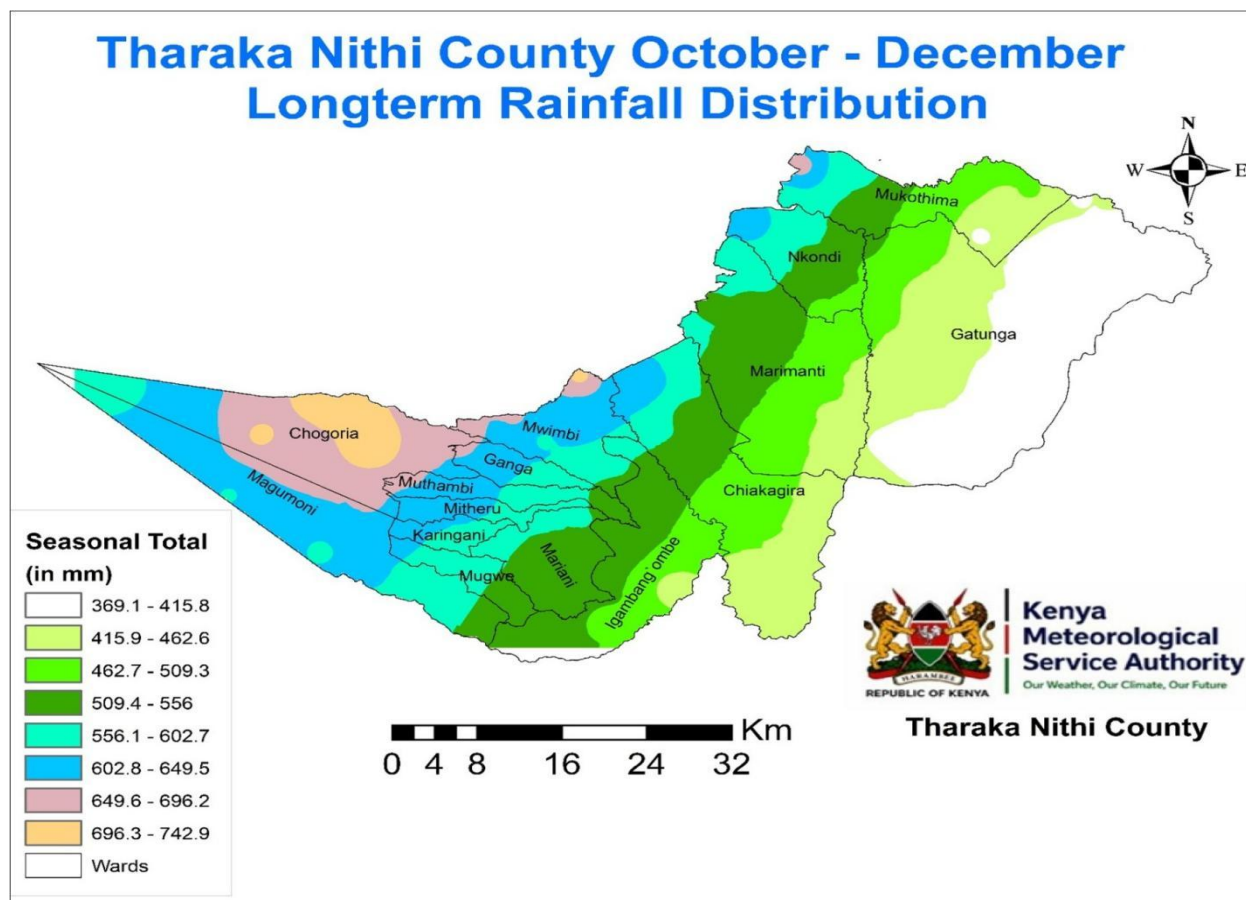


Fig 1: October-November-December Rainfall Climatology (1991-2020)

2.2 Rainfall Forecast for October-November-December 2026

During the October–November–December (OND) 2026 “Short Rains” Season, rainfall is expected to be above normal (enhanced) in Tharaka Nithi County.

The map in **Figure 2** Shows the amount of rainfall in millimetres (mm) that is expected to fall over Tharaka Nithi County during the OND “Short Rains” Season.

Tharaka Nithi County Seasonal Rainfall forecast valid October - December 2026

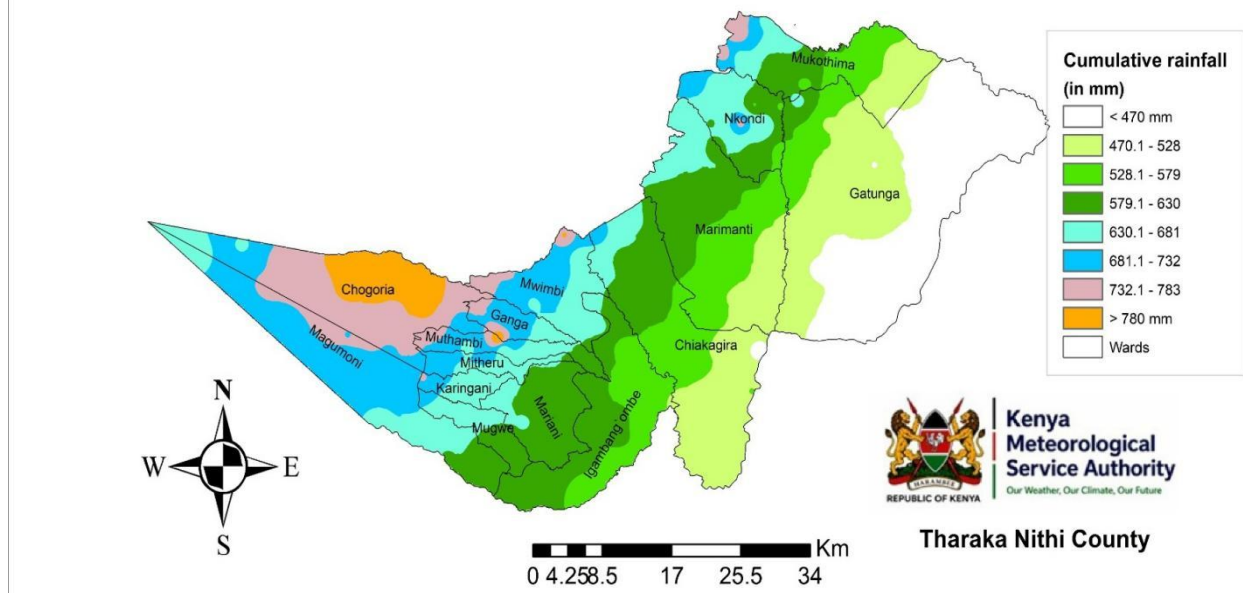


Fig 2. October-November-December 2026 Rainfall Forecast

3. Rainfall Onset, Cessation and Distribution

ONSET	CESSATION	DISTRIBUTION
2 nd and 3 rd week of October 2026	Continues into January 2027	Fair to good

4. Temperature Outlook

Temperatures during the OND 2026 season are anticipated to be warmer than average.

5. Potential Sectoral impacts of October-November-December 2026 Rains.

Below are some potential impacts on agriculture and food security, Livestock development and health. Sectoral leads will provide more detailed impacts and response measures.

5.1 Agriculture and food security

Positive impacts

- **Extended growing season:** hence relay cropping and multiple harvests.
- **Enhanced water availability:** through groundwater recharge and adequate soil moisture for crop growth.
- **Enhanced food and nutrition security:** due to increased crop diversification
- **Increased food production:** hence enough food for storage.

Negative impacts

- **Water logging, soil erosion and leaching:** Due to flooding. Soil health will deteriorate.
- **Loss or contamination of farm produce:** due to high moisture.
- **Increased crop pests and diseases:** Expected high humidity levels may lead to higher outbreak of pests and diseases.
- **High weed growth rate:** High rainfall triggers germination of dormant weed seeds. Hence need for weed management strategies, ultimately resulting to increased cost of production.

5.2 Livestock Development

Positive impacts

- **Abundant forage:** heavy rainfall triggers rapid growth of grass and browse.
- **Water resource replenishment:** water pans, wells and seasonal rivers will fill up.
- **Reduced trekking distances:** herders will no longer need to walk animals long distances searching for water, reducing physical stress and weight loss in livestock.
- **Increased animal products:** e.g milk
- **Rebuilding stocks:** families affected by prior drought can restock and allow surviving herds to multiply faster.

Negative impacts

- **Increased disease outbreaks:** Stagnant floodwaters and high humidity creates ideal breeding sites for mosquitoes and ticks hence increased rates of Rift Valley Fever, Foot-and-mouth disease, etc.
- **Direct mortalities:** Flash floods and mudslides sweep away animals or cause fatalities through drowning and hypothermia.
- **Increased costs of disease control:** Due to emerging diseases.
- **Increase in invasive plants e.g “Mathenge” (Prosopis Juliflora):** The plant’s sharp thorns inflict deep wounds and eye injuries on humans and animals, while its sweet pods cause livestock to lose teeth and suffer jaw damage, hence starvation.
- **Lush grass:** May lead to reduced palatability, bloating and diarrhea.

5.3 Health

Positive impacts

- **Improved access to healthcare and nutrition:** due to improved food production and incomes as a result of enhanced rainfall.
- **Enhanced rainfall will likely support water recharge:** hence supporting hygiene, sanitation and reducing health risks associated with water scarcity.

Negative impacts

- **Increased risk of disease outbreaks:** for example, vector-borne and water-borne diseases such as Rift Valley Fever, yellow fever, chikungunya and cholera.
- **Direct mortalities:** Floods and mudslides may result in injuries, trauma or even deaths.
- **Disruption of healthcare services:** due to flooding and damaged infrastructure.

6. Key of scientific terms used

Term	Rainfall Amount (24 hrs)	Description
Light	< 5 mm	Gentle rain, drizzle
Moderate	5-20 mm	Steady, noticeable rain
Heavy	21-50 mm	Intense rain, possible thunder
Very heavy	> 50 mm	Prolonged rain.

Term	Area Affected (%)	Description
Few places	< 33%	Rain in a small portion of the region
Several places	33% to 66%	Rain in multiple but not most parts of the region
Most places	> 66%	Rain in nearly all parts of the region

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For more information about the climate and weather in Kenya visit

KMSA website: <http://www.meteo.go.ke/>

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