County Director of Meteorological Services (CDMS)—Makueni County

For further info:

Contact: Simon M. Wambua

Email: *kmdmakueni@gmail.com*

swambua@meteo.go.ke

Weekly Weather Forecast for Makueni County

Validity: 23rd December 2025 – 29th December 2025

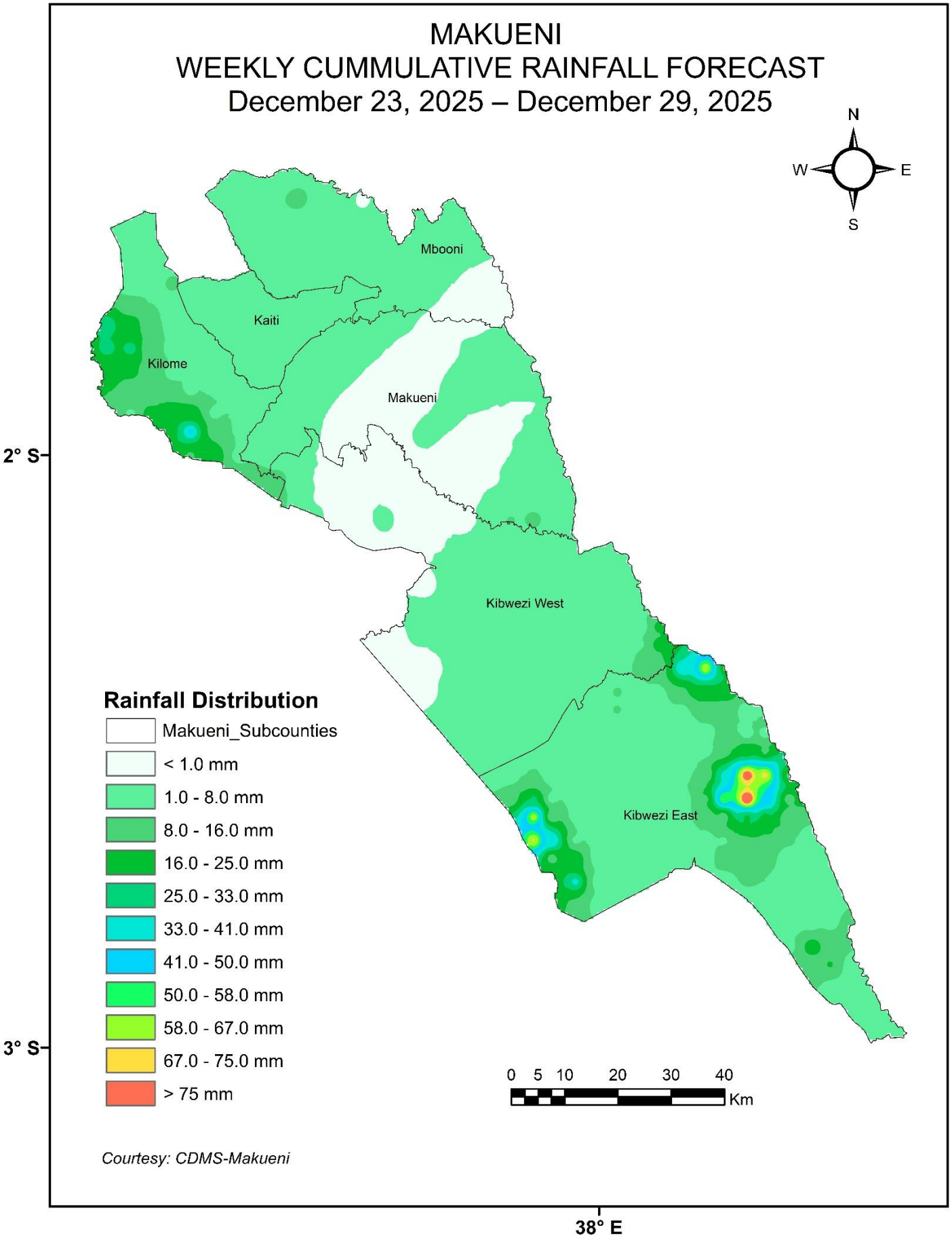
Note:

Dry day <1mm.	**Light rains (1-5 mm).**	**Moderate rains (5-20 mm).**	**Heavy rains > 20 mm.**

Weather Highlights: Rainfall

Rainfall Map

Makueni


MAKUENI
WEEKLY CUMMULATIVE RAINFALL FORECAST
December 23, 2025 – December 29, 2025
N
W
E
S
Mbooni
Kaiti
Kilome
Makueni
Kibwezi West
Kibwezi East
2° S
3° S
38° E
Rainfall Distribution
Makueni_Subcounties
< 1.0 mm
1.0 - 8.0 mm
8.0 - 16.0 mm
16.0 - 25.0 mm
25.0 - 33.0 mm
33.0 - 41.0 mm
41.0 - 50.0 mm
50.0 - 58.0 mm
58.0 - 67.0 mm
67.0 - 75.0 mm
> 75 mm
0 5 10 20 30 40
Km
Courtesy: CDMS-Makueni

Makueni Weekly Cumulative Rainfall Forecast Map
Content: Spatial distribution of cumulative rainfall amounts across subcounties, using a multi-category rainfall intensity legend.

Makueni County Weekly Cumulative Rainfall Forecast Summary (December 23–29, 2025)

---

1. General Overview

During the period **23–29 December 2025**, Makueni County is expected to experience **predominantly light to moderate rainfall**, with **isolated heavy rainfall events** concentrated in the **southern and south-eastern lowland zones**. The spatial distribution exhibits a **clear north–south gradient**, influenced by **altitude and proximity to lowland convergence zones**:

- **Southern and south-eastern lowlands** (Kibwezi East, parts of Kibwezi West, lower Makueni) show **enhanced rainfall**, with localized pockets of **moderate to heavy rainfall (>20 mm)**.
- **Central zones** receive **light to moderate rainfall (5–16 mm)**, sufficient for soil moisture recharge.
- **Northern and north-western highlands** (Mbooni, Kaiti, Kilome) are expected to receive **very light rainfall to near-dry conditions (<1–5 mm)**.

Overall rainfall categories range from **dry to moderate**, with **isolated heavy showers** confined to specific southern wards.

---

2. Subcounty and Ward-Level Rainfall Forecast Summary

Subcounty	Ward	Forecast Rainfall (mm)	Rainfall Category	Remarks
Kibwezi East	Masongaleni	25–50 mm (localized)	Heavy	Possible short-term waterlogging; good water recharge
Kibwezi East	Mtito Andei	10–20 mm	Moderate	Supports pasture and crop growth
Kibwezi East	Ivongoni/Nzambani	8–16 mm	Moderate	Scattered showers; favorable for planting
Kibwezi West	Nguumo	10–25 mm	Moderate–Heavy	Enhanced runoff in low-lying areas
Kibwezi West	Thange	8–16 mm	Moderate	Soil moisture improvement
Kibwezi West	Kikumbulyu South	16–25 mm	Moderate–Heavy	Supports vegetation regeneration
Kibwezi West	Kikumbulyu North	5–10 mm	Light–Moderate	Uneven spatial distribution
Makueni	Wote	5–10 mm	Light–Moderate	Intermittent showers
Makueni	Mavindini	5–8 mm	Light	Limited agricultural impact
Kaiti	Ukia	<1–5 mm	Dry–Light	Minimal rainfall expected

Subcounty	Ward	Forecast Rainfall (mm)	Rainfall Category	Remarks
Kaiti	Kee	<1–5 mm	Dry–Light	Dry conditions persist
Kilome	Kasikeu	<1–5 mm	Dry–Light	Limited pasture response
Kilome	Kiima Kiu/Kalanzoni	1–8 mm	Light	Scattered showers
Mbooni	Mbooni	<1–5 mm	Dry–Light	Highlands remain relatively dry
Mbooni	Kalawa	5–8 mm	Light	Slight moisture increase

---

3. Summary by Rainfall Intensity

Rainfall Intensity	Rainfall Range (mm)	Wards Affected
Dry	<1 mm	**Parts of Ukia, Kee, Mbooni**
Light	1–5 mm	**Kilome, Kaiti, northern Makueni wards**
Moderate	5–20 mm	**Wote, Mavindini, Mtito Andei, Thange**
Heavy (Localized)	>20 mm	**Masongaleni, Nguumo, Kikumbulyu South**

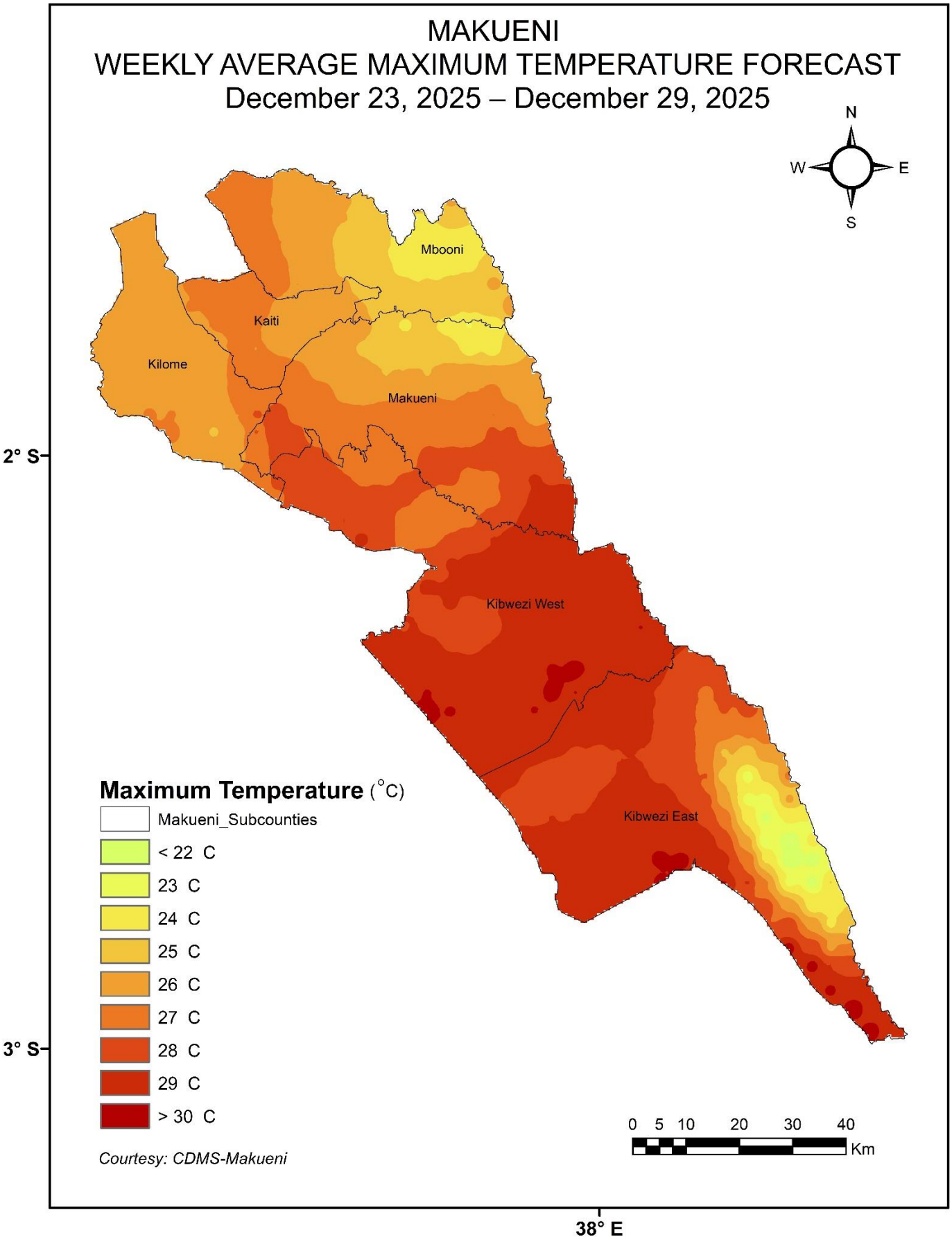
---

4. Key Takeaways

- **Heaviest rainfall** is expected in the **southern and south-eastern wards**, particularly **Masongaleni, Nguumo, and Kikumbulyu South**, with localized risks of **waterlogging and increased surface runoff**, consistent with lowland hydrological behavior.
- **Northern highland zones** (Mbooni, Kaiti, parts of Kilome) will remain **largely dry**, limiting pasture regeneration and requiring **conservative water use**, similar to dry-season rainfall outcomes noted in historical OND climatology.
- **Central transitional zones** receive **moderate rainfall**, supporting **short-cycle crops, pasture recovery, and soil moisture recharge**, aligning with standard semi-arid agricultural thresholds (≈10–20 mm/week).
- The **southern corridor remains the primary rainfall hotspot**, contributing positively to **vegetation cover, surface water replenishment, and livestock forage availability**.

Weather Highlights: Temperature

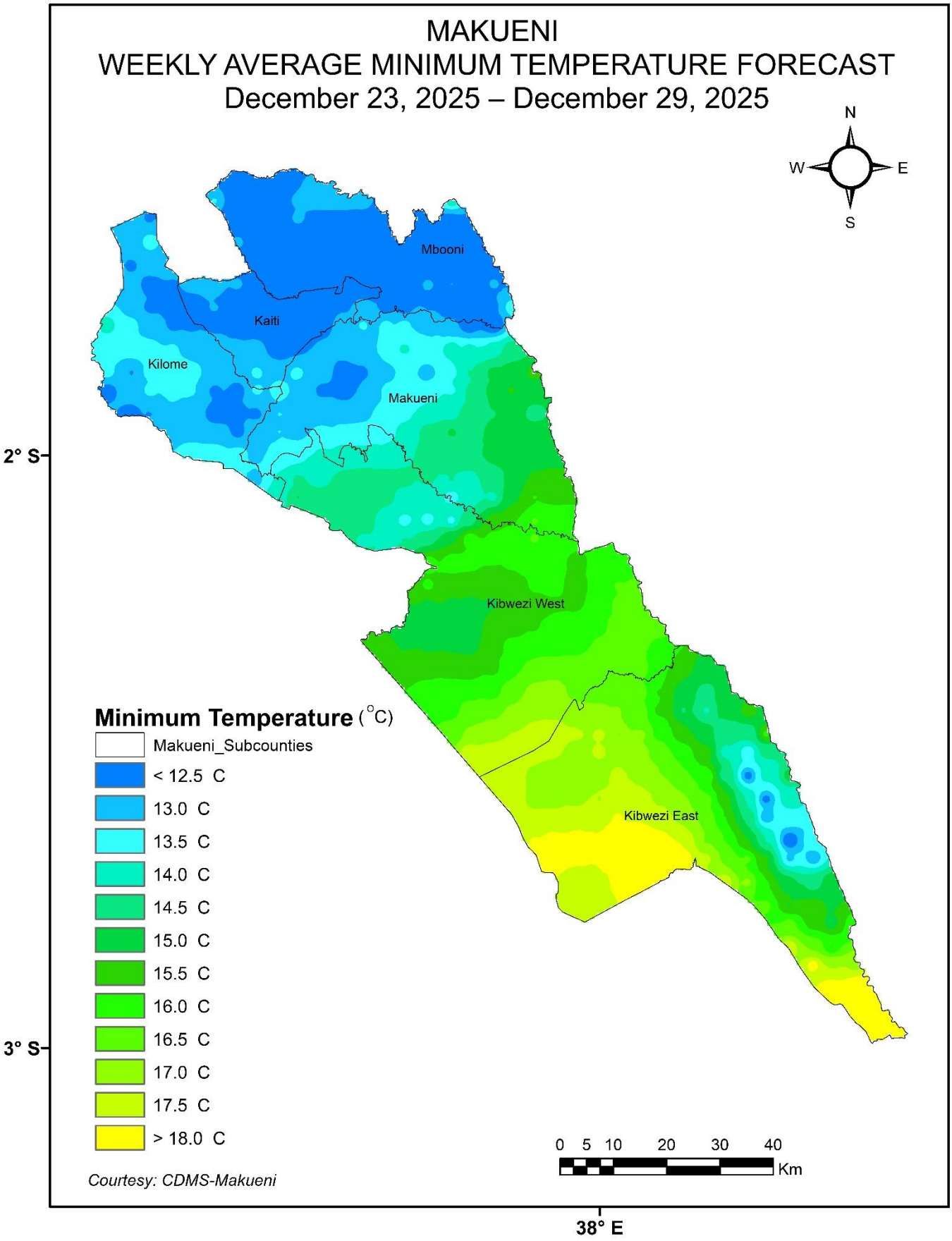
Maximum Temperature Map for the week



Makueni Weekly Average Maximum Temperature Forecast Map

Content: Spatial variation of forecasted weekly average maximum temperatures across subcounties.

Minimum Temperature Map for the week



Makueni Weekly Average Minimum Temperature Forecast Map

Content: Spatial variation of forecasted weekly average minimum temperatures across subcounties.

Makueni County Weekly Temperature Forecast Summary (December 23–29, 2025)

General Overview

During the forecast period **23–29 December 2025**, Makueni County is expected to experience **warm to very hot daytime conditions** and **cool to warm nighttime temperatures**, reflecting strong spatial control by **altitude and physiography**.

- **Maximum temperatures (daytime)** range from **≤25 °C in the northern highlands** to **≥34 °C in the southern and south-eastern lowlands**.
- **Minimum temperatures (nighttime)** range from **≤12.5 °C in elevated northern zones** to **≥19 °C in low-lying southern areas**.

A **distinct north–south thermal gradient** is evident:

- **Cooler highlands** (Mbooni, Kaiti, Kilome) experience **mild days and cool nights**.
- **Central transitional zones** (Makueni, parts of Kibwezi West) show **warm days and mild nights**.
- **Southern lowlands** (Kibwezi East and southern Kibwezi West) register **hot to very hot days and warm nights**, resulting in **high evapotranspiration demand**.

Implications:

- Agriculture in lowlands may experience **heat and moisture stress**, requiring irrigation and mulching.
- Highlands remain **thermally favorable for horticulture**.
- Livestock in southern zones may face **heat stress**, especially under warm night conditions.
- Human comfort decreases markedly in southern wards due to **limited nocturnal cooling**.

Subcounty and Ward-Level Temperature Summary

Subcounty	Ward	Max Temp (°C)	Max Temp Category	Min Temp (°C)	Min Temp Category	Remarks
Mbooni	Mbooni	23–25	Cool–Mild	≤12.5–13	Cold–Cool	Mild days, cool nights; suitable for horticulture
Mbooni	Kalawa	24–26	Mild	13–14.5	Cool	Favorable thermal regime for crops
Kaiti	Ukia	25–27	Mild–Warm	13–14.5	Cool	Moderate days; comfortable nights
Kaiti	Kee	26–27	Warm	13–15	Cool	Warm days; minimal heat stress
Kilome	Kasikeu	26–28	Warm	13–15	Cool	Warm afternoons; good for cereals

Subcounty	Ward	Max Temp (°C)	Max Temp Category	Min Temp (°C)	Min Temp Category	Remarks
Makueni	Wote	28–30	Warm–Hot	15–17	Mild	Warm days, mild nights; suitable for planting
Makueni	Mavindini	27–29	Warm	14.5–16	Mild	Transitional thermal zone
Kibwezi West	Kikumbulyu North	30–32	Hot	16–18	Mild	Hot afternoons; increased ET
Kibwezi West	Thange	31–33	Hot	17–18.5	Mild–Warm	Heat stress risk emerging
Kibwezi West	Nguumo	33–35	Very Hot	18–20	Warm	Very hot days; livestock stress possible
Kibwezi East	Ivongoni/Nzambani	31–33	Hot	17–18.5	Mild–Warm	Hot days; warm nights
Kibwezi East	Masongaleni	34–36	Very Hot	≥19–21	Warm	Extreme heat; high water demand
Kibwezi East	Mtito Andei	32–34	Hot–Very Hot	18–20	Warm	Persistent heat; limited nighttime cooling

---

Maximum Temperature Summary by Category

Category	Range (°C)	Interpretation	Wards Affected
Cool	≤25	Mild daytime heat	**Mbooni (upper), parts of Kalawa**
Warm	26–29	Comfortable	**Ukia, Kee, Kasikeu, Mavindini**
Hot	30–33	Intense afternoon heat	**Wote, Thange, Kikumbulyu North, Ivingoni**
Very Hot	≥34	Extreme daytime heat	**Masongaleni, Nguumo, Mtito Andei**

Minimum Temperature Summary by Category

Category	Range (°C)	Interpretation	Wards Affected
Cold	≤12	Chilly nights; dew likely	**Upper Mbooni**
Cool	13–15	Mild nights	**Kalawa, Ukia, Kee, Kasikeu**
Mild	16–18	Favorable for growth	**Wote, Mavindini, Kikumbulyu North**
Warm	≥19	Warm nights; limited cooling	**Masongaleni, Nguumo, Mtito Andei**

Key Takeaways

- **Highest daytime temperatures** occur in **southern lowlands (Masongaleni, Nguumo, Mtito Andei)**, posing **heat stress risks to crops and livestock** and increasing **irrigation demand**.
- **Northern highlands** remain **thermally moderate**, with **cool nights and mild days** favorable for **horticulture and moisture conservation**, consistent with orographic cooling principles.
- **Warm night conditions** in southern wards reduce nighttime recovery for crops and livestock, increasing **physiological stress and water consumption**.
- Overall, the county exhibits a **strong maximum–minimum temperature contrast**, with **altitude-driven cooling in the north** and **persistent heat in the south**, a pattern typical of semi-arid landscapes during late December.

Temperature Category Reference Tables

Maximum Temperature Categories

Category	Range (°C)	Meaning
Cool	≤25	Mild daytime heat; low stress
Warm	26–29	Comfortable; suitable for crops
Hot	30–33	Intense heat; moderate stress
Very Hot	≥34	Extreme heat; possible crop/livestock stress

Minimum Temperature Categories

Category	Range (°C)	Meaning
Cold	≤12	Chilly; dew/fog possible
Cool	13–15	Mild; minimal stress
Mild	16–18	Favorable for growth
Warm	≥19	Warm nights; limited cooling

NB: This forecast should be used with the 24-hour, 5-day, 7-day, and monthly outlooks, special forecasts, alerts, and regular updates/advisories issued by this department.
