



# REPUBLIC OF KENYA

## MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND FORESTRY

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## KIAMBU COUNTY CLIMATE OUTLOOK FOR MARCH-APRIL-MAY (MAM) 2025 LONG-RAINS SEASON; AND REVIEW OF THE OCTOBER-NOVEMBER-DECEMBER (OND) 2024 RAINFALL SEASON

### 1. HIGHLIGHTS

- *The Climate Outlook for the March-April-May (MAM) 2025 “Long Rains” season indicates that several parts of the county are likely to experience near to below normal rainfall.*
- *The distribution of the rainfall in time and space is expected to be generally fair over several areas in the county.*
- *The season is expected to be characterised by a normal to late onset with occasional dry spells.*
- *Occasional storms are likely to be experienced in some parts of the county during the season.*
- *In the month of January, heavy rains were experienced in the last week of the month.*
- *Kiambu County received below normal rainfall during October-November-December (OND) 2024.*
- *Seasonal rain expected to start between 4<sup>th</sup> week of March and 1<sup>st</sup> week of April (21<sup>st</sup> March to 1<sup>st</sup> April), 2025 and end by 3<sup>rd</sup> to 4<sup>th</sup> week of May (15<sup>th</sup> to 21<sup>st</sup>), 2025.*
- *Sunny and dry weather conditions prevailed over most parts of the county in January and February.*
- *Temperatures were generally higher than the January and February LTM over most parts of the county.*

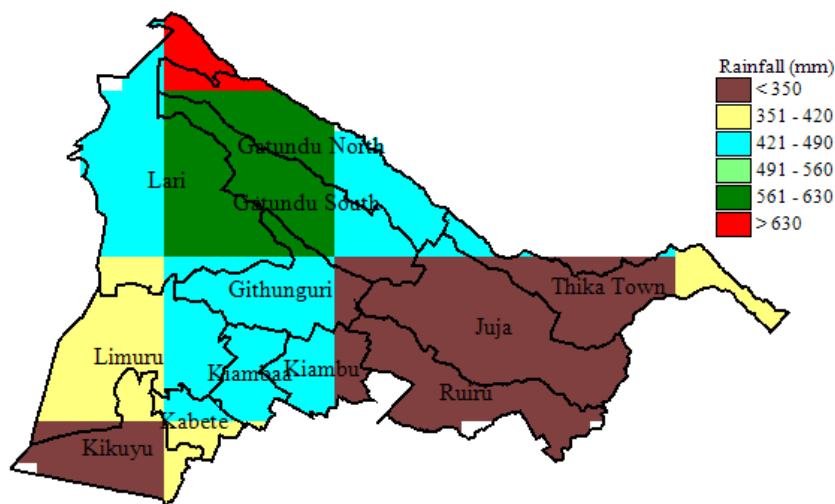
### 2. FORECAST FOR MARCH-APRIL-MAY (MAM) 2025 “LONG RAINS” SEASON

#### 2.1 Climatology for MAM season

The County has four broad topographical zones: Upper Highlands found in Lari constituency and it is an extension of the Aberdare ranges that lies at an altitude of 1,800-2,550 metres

above sea level. It is very wet, steep and important as a water catchment area; Lower Highlands zone (lies between 1,500-1,800 metres above sea level) covering Limuru and parts of Gatundu North and Gatundu South, Githunguri and Kabete constituencies, characterized by hills and high elevation plains (plateaus). The zone has a High rainfall regime characterized by tea and dairy farming, maize and horticulture farming and also pineapples in Thika constituency. The upper midland zone (lies between 1,300-1,500 metres above sea level) covers most parts of Juja. The lower midland zone (lies between 1,200-1,360 metres above sea level) partly covers Thika town (Gatuanyaga), Limuru with physical features like steep slopes and valleys and Kikuyu constituencies. Large parts of Lari Gatundu North/South sub counties are covered by forests with physical features like steep slopes and valleys. The distinct agro-climatic zones receive varied rainfall amounts that determine the type of livelihood adopted, potential hazards among others. The rainfall amounts range from minimum of less than 350 mm in Thika (Gatuanyaga, Kamenu, Hospital); Ruiru (kiuu), Juja (Juja, Kalimoni, Witeithie), Kikuyu (Nachu, Karai). Some few parts of Limuru receives amount ranging from(350-420)mm of rainfall. Subcounties:(Githunguri, Kiambaa, Kiambu and Gatundu South, Gatundu North, Lari ) receives an amount ranging from (420mm to an amount around 680mm)

Long term rainfall distribution for March – May “Long Rains” season in Kiambu is as shown in fig 1. Below



KIAMBU COUNTY LONG TERM (NORMAL) RAINFALL DISTRIBUTION FOR MARCH - APRIL - MAY (LONG TERM) SEASON

Figure 1: March-April-May (MAM) Seasonal Rainfall Long-Term Mean (1981 - 2010)

## 2.2 Outlook for MAM 2025

The “Long Rains” March-April-May (MAM) 2025 season constitutes an important rainfall season in the county.

During MAM 2025, it is expected that several parts of the county will experience near to below normal rainfall that will be fairly distributed both in time and space as shown in **figure 2** below. Despite the near to below normal rainfall, isolated incidences of storms are likely, even in the areas expected to receive depressed rains which may cause flash floods.

**The specific outlook for March-April-May (MAM) 2025 is as follows:**

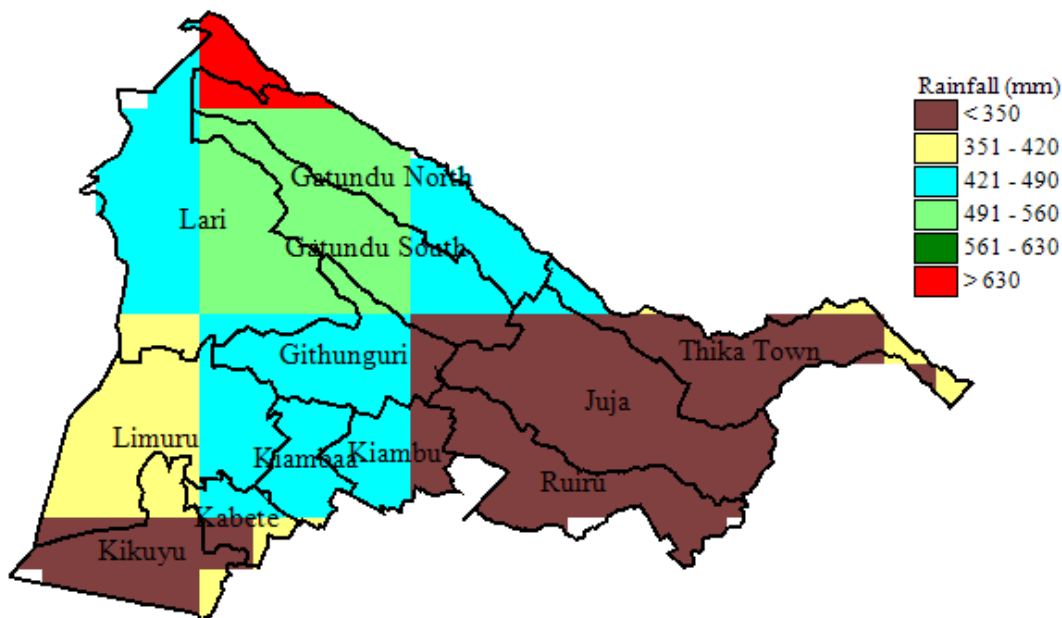
**The South Western and Eastern parts of the County:** (Kikuyu, Juja, Thika, Ruiru) are likely to experience less than 350mm of rainfall during the season.

**The Central regions** (Githunguri, Gatundu South/North, Kiambaa, parts of Lari and Parts of Kiambu) are expected to receive (420mm to 560mm) of rainfall.

**Limuru Sub County** is expected to receive (350 to 490) mm of rainfall.

**The North most regions (Kinale)** is expected to receive the highest amount of rainfall of more than 630mm.

### KIAMBU COUNTY FORECAST FOR MAM 2025



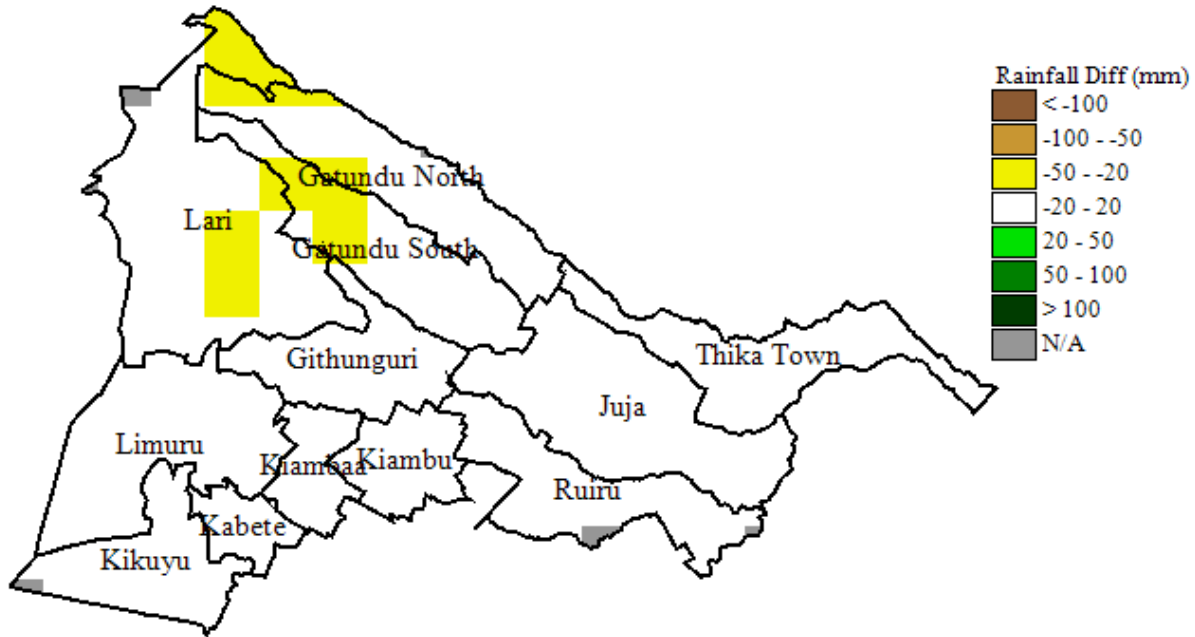
### KIAMBU COUNTY MARCH - APRIL - MAY - (MAM) 2025 RAINFALL FORECAST

Figure 2: March-April-May 2025 Weather Forecast for Kiambu County.

### 2.3 The March – April – May 2025 Rainfall Anomalies

It indicates that most parts of Kiambu are expected to receive average amount of rainfall for the March-April-May (MAM) Season. Only few regions like Gatundu South, Gatundu North and some parts of Lari Sub County are expected to experience below average rainfall for the Season of between -20mm to -50 mm during the entire season.

#### KIAMBU COUNTY SEASONAL ANOMALIES FOR MAM 2025

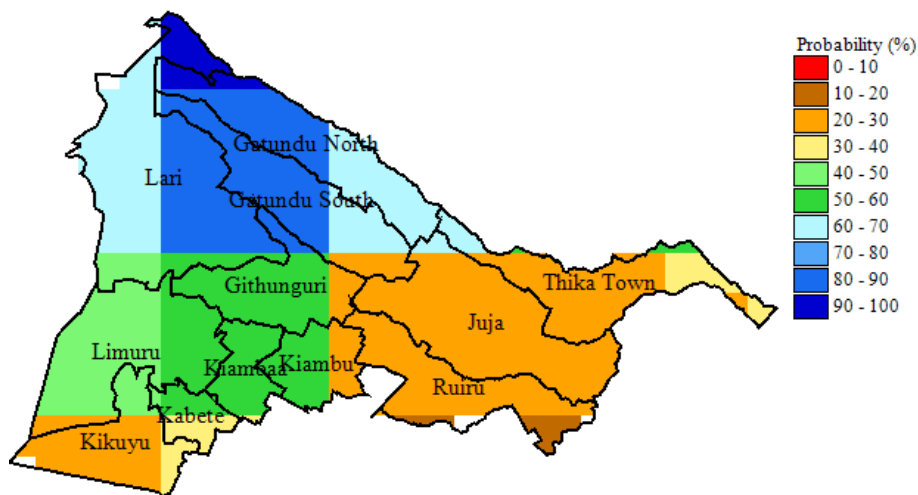


**KIAMBU COUNTY RAINFALL DIFFERENCE BETWEEN CLIMATOLOGY AND MARCH - APRIL - MAY (MAM) 2025 RAINFALL FORECAST**

*Figure 3: March-April-May 2025 Seasonal Anomalies.*

### 2.4 Rainfall Probability

Most parts of Kiambu County (Githunguri, Kiambu, Kiambaa, Gatundu North, Gatundu South, Lari) are expected to receive more than 400mm of Rainfall during the entire season



PROBABILITY OF KIAMBU COUNTY RECEIVING MORE THAN 400MM OF RAINFALL DURING MARCH - APRIL - MAY (MAM) 2025 SEASON

## 2.5 Temperature Forecast for March-May season

The forecast indicates that warmer than average temperatures are likely over most parts of the county. There are enhanced probabilities for warmer than average temperatures in the county.

## 3. Expected Distribution of the MAM Rainfall, Onset and Cessation dates

### Onset and Cessation dates

Seasonal rains expected to start *between 4<sup>th</sup> week of March and 1<sup>st</sup> week of April (21<sup>st</sup> March to 1<sup>st</sup> April), 2023 and end by 3<sup>rd</sup> to 4<sup>th</sup> week of May (15<sup>th</sup> to 21<sup>st</sup>), 2023.*

### Expected Distribution

The MAM 2023 rainfall is expected to have *delayed onset which will be fairly distributed in both time and space*. Rainfall amounts are expected to be Near to Below season's long-term mean characterized by long dry spells over most areas. Occasional **localized storms** are however still likely to be experienced in some parts of the county.

## 4. Potential Impacts of the March - April – May (MAM) 2025 Seasonal Rains

In view of the forecasted Near to below average rainfall, many sectors are likely to be impacted in different ways. With adequate preparations, the County can avoid some of the likely negative impacts while taking full advantage of the positive ones.

#### **4.1 Agriculture, Livestock Development and Food Security Sectors**

*Late onset, fair distribution and Near Average to Below Average amounts of rainfall is likely to negatively affect agriculture production. Food prices are expected to rise further and accessibility to food is also expected to be poor. With Near to Below rains, farmers are advised to adopt Climate Smart Technologies like,*

- *Conservation Agriculture*
- *On-farm rain water harvesting. e.g roof catchment, road run off, water pans,*
- *Plant early at onset of rains*
- *Use proper water conservation measures of harvested water e.g drip irrigation*
- *Farmers are advised to be on the lookout in case of army worms and report immediately for better control measures to be taken.*
- *The state department of agriculture should advice on; drought tolerant varieties, early maturing crops, drought-resistant and fast-maturing grass and pasture seeds, in order to make the best use of the anticipated poor rainfall performance.*
- *Relevant authorities and humanitarian institutions are advised to closely monitor the situation and provide food and food supplements to the most vulnerable*

#### **4.2 Environment and Forestry Sectors**

*During periods of flash floods, soil erosion is likely to occur as the ground is bare following prolonged dry spells. To mitigate this, plans should be put in place to enhance soil conservation measures. These measures can help to prevent the loss of fertile topsoil, which is essential for agriculture and ecosystem services. Conservation measures should also be promoted to allow for improved vegetation regeneration and restoration of forest habitats. Quarry owners should ensure the quarries are properly fenced and temporally stop quarrying activities.*

Therefore;

- *Protect and rehabilitate riparian and water catchment areas by planting water friendly trees, Bamboo and vetiver grass. However, avoid massive tree planting due to expected depressed rainfall in some areas.*
- *Stop any farming activities along the riparian areas to avoid soil erosion and crops being washed away. by waters even from high ground source.*
- *Residents advised to quit quarry areas and to ensure the quarries are fenced. The abandoned quarries should be back filled before the start of rains. This will ensure no water*

*pools on those areas.*

- *Adopt soil conservation practices such as Mulching, Contour farming especially on sloppy areas.*
- *Department of Environment should work hand in hand with KFS and KEFRI to identify best tree varieties for these season.*

#### **4.3 Water Resource Authority (WRA) and Water and Sanitation Sectors**

*The expected seasonal rainfall that will be Near to below Normal may lead to reduced recharge of our rivers hence low flows. This will therefore lead to reduced amount of water that will be available for abstraction.*

*Health risks may arise due to the lowered water levels. This is because less water may take long to dilute the harmful effluents from our industries and households. The springs and shallow wells yield is likely to reduce since the water table will likely go down due to low recharge. Long dry spells may lead to dusty conditions which may deposit dust on solar panels and reduce their performance.*

- *Residents should be advised to enhance rainwater harvesting from the slightest down pour. This water will then be used during dry spells*
- *Efficient water management should be carried out to ensure enough water resources for the animal and human population needs*
- *Water abstraction for agriculture should be limited*
- *Construction of structures that can hold / withstand floods.*
- *Ensure water treatment*
- *Soil conservation measures ensured to reduce siltation of water resources.*
- *Dams, all water pans and farm ponds should be done de siltation.*
- *Continuous monitoring and cleaning of solar panels should be enhanced*

#### **4.4 Disaster Management Sector**

*Where Near to Below rainfall is expected, water scarcity and lack of pasture for domestic use and livestock are likely to be experienced. Competition for diminishing water, pasture, and browse is expected to increase. This therefore may cause community conflicts over limited resources.*

*There is a possibility of isolated storms that may cause floods in low-lying areas, poor drainage systems and along rivers. The public is advised not to walk through flooded waters or cross flooded rivers to avoid loss of lives.*

Therefore;

- *Temporary closure of the activities carried out close to water sources during the season*
- *Residents are advised to prepare silage and enhance storage for use at a later time.*
- *Rain water harvesting should be enhanced.*
- *The Ministry of Interior and Coordination of National Government and other humanitarian institutions are therefore advised to put in place measures to avert possible negative impacts that may arise including loss of lives, livelihoods and property.*
- *The Government and local leaders are advised to enhance conflict resolution mechanisms among the residents and provide equitable distribution of resources*
- *County Government are also advised to clear drainage in good times to avert artificial flooding of the urban*
- *Communities, MDA, KENHA, WRA, County GOVT, MOH, Meteorological department, Kenya Red cross and disaster management team should work hand in hand*

#### **4.5 Health Sector**

*In regions where we expect Near to Below rainfall, respiratory tract diseases are likely due to dust, Water scarcity is likely to lead to an upsurge in water related and water washed diseases such as diarrhoea, dysentery, typhoid, scabies, trachoma and amoebiasis. Water Related diseases such as malaria are likely to emerge, this is due to rise in breeding of mosquito and other vectors in poorly drained areas*

- *Stocking of malaria drugs in health facilities such as malaria testing reagents and also provision of mosquito nets*
- *Bushes should be cleared to check breeding of mosquitoes and other harmful insects*
- *The Ministry of Health and Public Health officers should ensure sensitization on water treatment*
- *Relevant Authorities are urged to provide safe drinking water and treatment chemicals to residents that draw water from open sources as well as promote public education on water and sanitation hygiene (WASH)*

#### **4.6 Transport and Public Safety Sector**

*Isolated storms may occur over a few areas leading to flash floods. This may result in structural damage to roads and bridges which may in turn lead to transport challenges. Slippery roads and poor visibility during rainstorms and especially due to foggy condition may also pose a danger to motorists and pedestrians.*



*Utmost care should be taken to minimize accidents to all road users that could result from such weather conditions. Therefore,*

- *Roads repairs should therefore be done as well as clearing drainage systems, bridges also should be done repair in good time. This will ensure smooth transportation of farm produce and safety.*
- *Pedestrians advised to take optimum care*
- *Drivers should avoid careless driving*
- *Road users should be careful when crossing rivers. They are advised to use bridges appropriately and to avoid driving through flooded roads.*
- *Motorists should take maximum care on roads due to poor visibility due to foggy condition especially over Kinungi area, Kimende, Kamae forest and all other sections of the County that may experience foggy condition.*

## **5. Review of Weather during October-November-December (OND) 2024 Season**

The “Short Rains” October to December (OND) 2024 season constitutes an important rainfall season in Kiambu County.

- *Average to below average rainfall) was expected over most parts of Kiambu County,*
- *The rainfall distribution was expected to be fair to poor and was likely to be characterized by occasional storms and prolonged dry spells within the season.*
- *Seasonal rains were expected to start between 3<sup>rd</sup> to 4<sup>th</sup> week of October (15<sup>th</sup> to 21<sup>st</sup> October) 2024 and end by 1<sup>st</sup> to 2<sup>nd</sup> week of December 2024 with occasional rains towards the end of December.*

### **5.1 Impacts experienced during OND 2024 Season**

**Some of the experienced impacts include.**

- For farmers who followed instructions on the best crop varieties, did timely planting.  
Good harvest was attained

***NB: Please use this seasonal forecast in conjunction with monthly and weekly weather forecasts issued by this office.***

Signed,



**MAGDALENE GATERI,  
COUNTY DIRECTOR OF METEOROLOGICAL SERVICES KIAMBU\_KENYA**