



MALARIA EPIDEMIC EARLY WARNING PREDICTION SYSTEM FOR WESTERN KENYA HIGHLAND FOR APRIL 2025

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1. Summary

The model outputs for the malaria epidemic early prediction system for the western highlands of Kenya indicate **high risk** of Malaria in Kakamega and low risk Nandi and Kisii in the months of April, 2025 and May, 2025

2. Model Outputs

2.1 Malaria epidemic early prediction system for Kakamega

Table 1 below shows the malaria epidemic early prediction system for Kakamega for April, 2025.

Table 1: MALARIA EPIDEMIC EARLY PREDICTION SYSTEM: KAKAMEGA

Yr.	Month	Tmax	Mean Tmax	Tmax Deviation /anomaly	R/fall (mm)	R/fall Code	Tmax Deviation /anomaly Code	Additive % Risk
2025	1	29.9	28.3	1.6	85.3	0	4	18.2
2025	2	32.7	29.2	3.5	3.9	0	16	18.2
2025	3	30.7	29.1	1.6	190.1	2	4	81.8

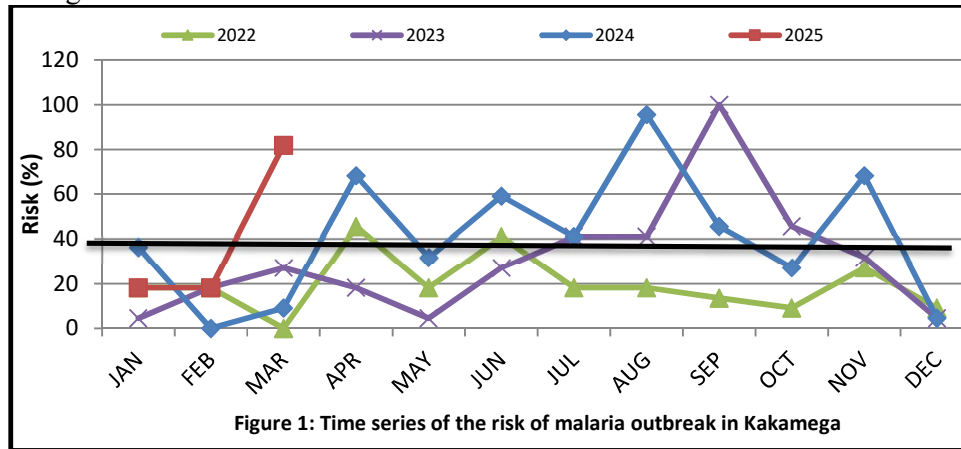
The observed climate data for February, 2025 indicates a decrease in maximum temperature from 32.7°C in February 2025 to 30.7°C in March, 2025. This observation in March, 2025 *was positive (1.6 above the mean of the month)*. Rainfall increased from 3.9mm in

Box 1:
For Kakamega, the epidemic threshold level is 30%.

February, 2025 to 190.1mm in March, 2025. The additive model percentage risk is **81.8%**.

Consequently, there is **high risk** of Malaria Epidemic in Kakamega in the month of April, and May, 2025 (See Figure 1)

Figure 1:



2.2 Malaria epidemic early prediction system for Kisii

Table 2 below shows the malaria epidemic early prediction system for Kisii for April, 2025.

Table 2: MALARIA EPIDEMIC EARLY PREDICTION SYSTEM: KISII

Yr	Mon	Tmax (°C)	Mean Tmax (°C)	Tmin (°C)	Mean Tmin (°C)	Tmax Dev./anom	Tmin Dev./anom	Total Temp Dev./Anom	Temp Dev./anom Code	R/fall (mm)	R/fall Code	Model Output
2025	1	29.9	26.1	16.9	15.7	3.8	1.2	5.0	5	206.4	1	0
2025	2	29.2	27.0	11.3	16.1	2.2	-4.8	-2.6	0	47.6	0	0
2025	3	27.3	27.0	16.7	15.9	0.3	0.8	1.1	2	168.7	0	0

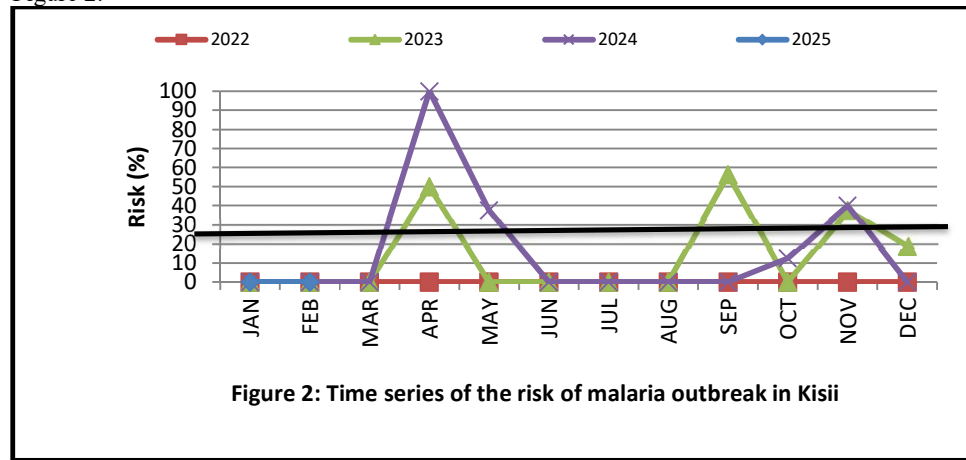
The observed climate data for Kisii for March, 2025 indicates a decrease in maximum temperature from 29.2°C in February, 2025 to 27.3°C in March, 2025.

This observation in March, 2025 was *positive (0.3 above the mean of the month)*. Rainfall increased from 47.6mm in February, 2025 to 168.7mm in March, 2025.

Box 2:
For Kisii, the epidemic threshold level is **20%**.

The model output risk is **Nil**. Therefore, there is no risk of malaria epidemic in Kisii in the month of April, and May, 2025. (See Figure 2).

Figure 2:



2.3 Malaria epidemic early prediction system for Nandi

Table 3 below shows the malaria epidemic early prediction system for Nandi for April, 2025.

Table 3: NANDI MALARIA EPIDEMIC EARLY PREDICTION SYSTEM

Yr	MOn	Tmax (°C)	Mean Tmax (°C)	Tmax Dev.	Tmin	Mean Tmin	Tmin Dev. /anom	Total Temp Dev. /Anom	R/fall (mm)	Temp Dev. Filters	R/fall Filters	Multiplicative Model
2025	1	25.1	23.3	1.8	11.8	10.9	0.9	2.7	101	3	0	0
2025	2	27.6	23.2	4.4	16.8	11.7	5.1	9.5	32.7	5	0	0
2025	3	25.9	23.0	2.9	12.7	11.5	1.2	4.1	189.5	1	0	0.0

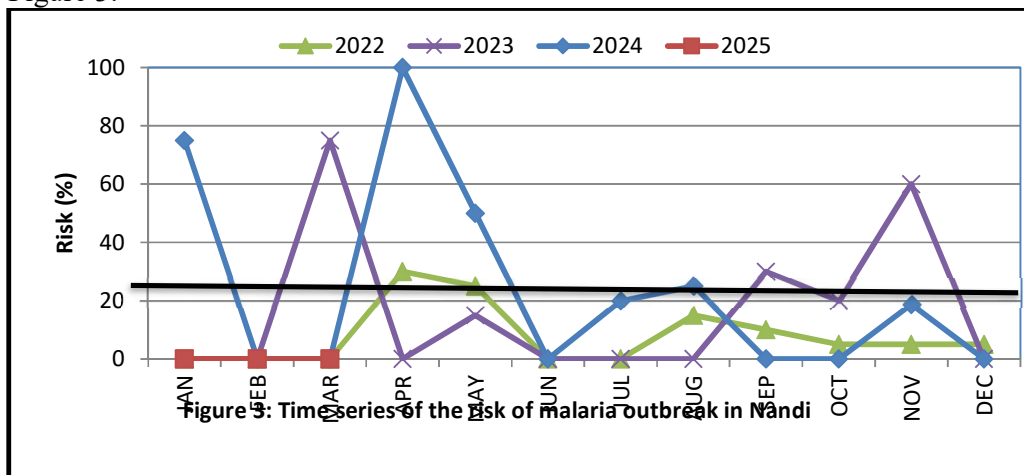
The maximum temperature in Nandi indicates a decrease from 27.6°C in February, 2025 to 25.9°C in March, 2025. This observation in March, 2025 for Nandi was *positive (2.9°C above the mean of the month)*. Rainfall increased from 32.7mm in February, 2025 to 189.5mm in March, 2025.

Box 3:
For Nandi, epidemic threshold level is **20%**.

The additive model percentage risk is **Nil**.

Hence, there is no expectancy for a malaria outbreak for the month of April, and May, 2025. (See Figure 3)

Figure 3:



3. Disclaimer

The information presented in this bulletin is based on [predictive models and observed climate data](#), which are subject to change. While every effort has been made to ensure the accuracy and reliability of the data, the following points should be noted.

Public Health Advisory: This bulletin is intended for informational purposes only. It should not be used as the sole basis for public health decisions. Local health authorities should be consulted for actionable guidance and preventive measures against malaria.

Continuous Monitoring: Malaria transmission dynamics are influenced by numerous factors, including temperature, rainfall, and human behaviour. Continuous monitoring and updates to the predictive models are essential for accurate assessments.

Updates: This bulletin reflects data and predictions as of April 2025. Future updates will be issued as new data becomes available.

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