



**MALARIA EPIDEMIC EARLY WARNING PREDICTION SYSTEM FOR WESTERN KENYA HIGHLAND FOR FEBRUARY 2025**

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**1. Summary**

The model outputs for the malaria epidemic early prediction system for the western highlands of Kenya indicate no risk of Malaria in all the three areas in the months of February 2025 and March 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 February 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
2024	12	29.5	27.5	2.0	112.2	0	4	4.5
2025	01	29.9	28.3	1.6	85.3	0	4	18.2

The observed climate data for January 2025 indicates an increase in maximum temperature from 29.5°C in December 2024 to 29.9°C in January 2025. This observation in January 2025 was positive (1.6 above the mean of the month). Rainfall decreased from 112.2mm in December 2024 to 85.3mm in January 2025. The additive model percentage risk is **18.2%**.

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

**Consequently, there is no risk of Malaria Epidemic in Kakamega in the month of February 2025 and March 2025 (See Figure 1)**

Table 2 below shows the malaria epidemic early prediction system for Kisii for February 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
2024	12	27.0	25.7	16.3	15.4	1.6	0.9	2.5	3	143.7	0	0
2025	01	26.4	26.1	16.1	15.7	0.3	0.4	0.7	0	206.4	1	0

The observed climate data for Kisii for January 2025 indicates an increase in maximum temperature from 25.7°C in December 2024 to 26.1°C in January 2025. This observation in January 2025 was positive (0.3 above the mean of the month). Rainfall increased from 143.7mm in December 2024 to 206.4mm in January 2025. The Model output risk is **Nil**.

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

Hence, there is no risk of malaria epidemic in Kisii in the month of February 2025 and March 2025. (See Figure 2).

## 2.2 Malaria epidemic early prediction system for Nandi

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

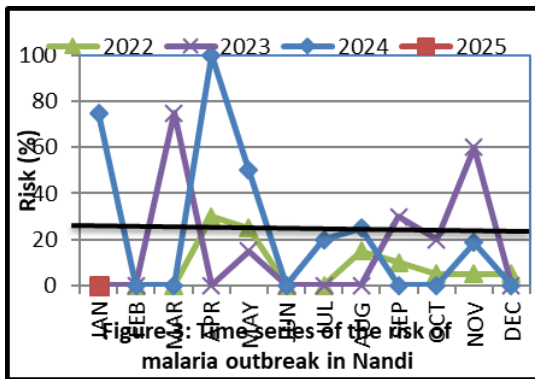
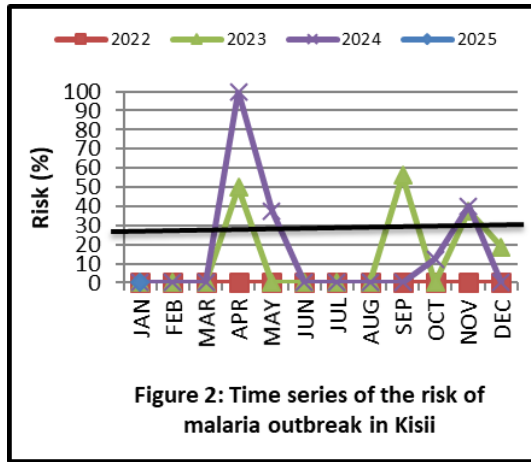
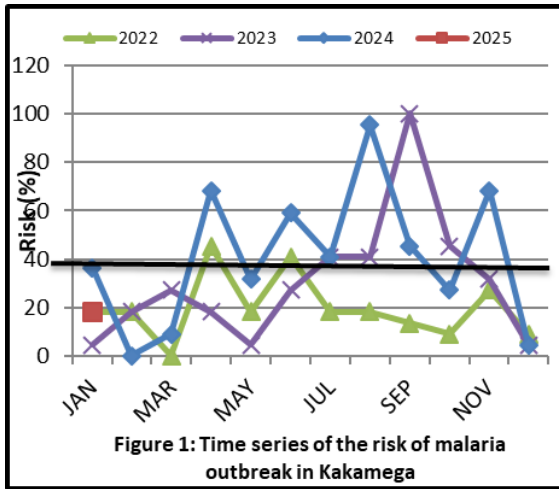
**Table 3: NANDI MALARIA EPIDEMIC EARLY PREDICTION SYSTEM**

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
2024	12	23.8	23.7	0.1	11.3	10.8	0.5	0.6	71.6	1	0	<b>0.0</b>
2025	01	25.1	23.3	1.8	11.8	10.9	0.9	1.	101.0	1	0	<b>0.0</b>

The maximum temperature in Nandi indicates an increase from 23.8°C in December 2024 to 25.1°C in January 2025. This observation in January 2025 for Nandi was positive (1.8°C above the mean of the month). Rainfall increased from 71.6mm in December 2024 to 101.0mm in January 2025. The additive model percentage risk is **Nil**.

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

Hence, there is no of malaria epidemic in Nandi in the month of February 2025 and March 2025. (See Figure 3)



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