Climate and Weather

Rainfall Analysis





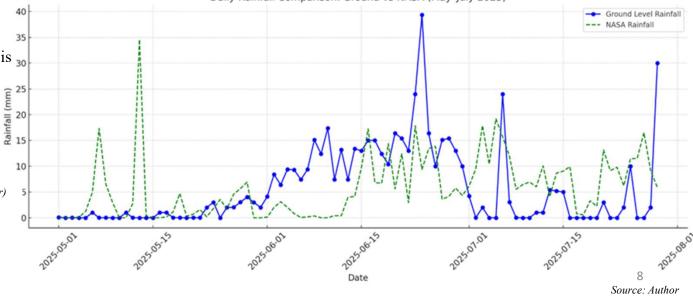
The Symon's gauge (non-recording type) rain gauge is 30 installed by Krish Vigyan Kendra, Nandarubar in Hanipada. Daily observation taken at 8.30 AM.

Source: Non-recording type Rain Guage, Katri village (Source: Author)

Table 7: Month-wise and % Error in ground data and NASA Data (Source: Author)

Month	Ground Data	NASA Data	Absolute Difference	% Error
May	24.29 mm	103.94 mm	-79.65 mm	-327.91%
June	412.00 mm	165.72 mm	+246.28 mm	+59.78%
July	139.90 mm	257.15 mm	-117.25 mm	-83.81%
Total	576.19 mm	526.81 mm	49.39 mm	8.5%

Daily Rainfall Comparison: Ground vs NASA (May-July 2025)



Drought Prone Conditions, After Monsoon

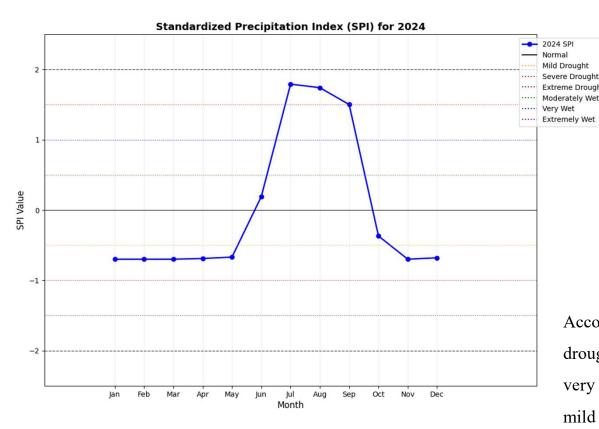


Figure 32: Drought Indicator: Standardised Precipitation index for 2024, Katri (source: NASA Power)



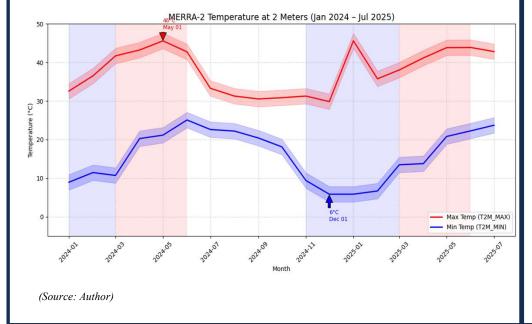
Source:TOI

According to the 2024 SPI graph, January to May had mild drought (SPI of approximately -0.8), June to September had very wet (SPI of greater than +1.5), and then October, back to mild drought. Therefore, standardised precipitation also shows that before and after rainfall, there is always mild drought in village.

Temperature & Wind Analysis

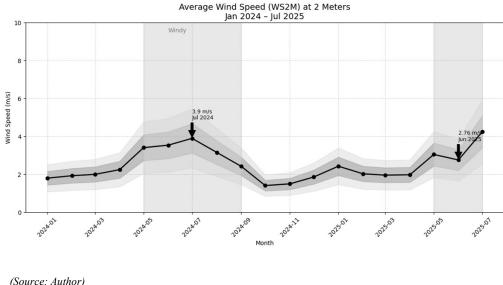
Temperature

In Katri village, the temperature changes a lot throughout a year. The hottest month is may with highest temperature is 46 °C and having 6°C as lowest temperature in December month. This pattern of hot summer and mid winters is common in semi arid climate.



Windspeed

The village usually has moderate to high wind speed changes with season. The graph indicate the wind speed is high during the manson season (peaks in April 2024 (3.9 m/s) and June 2025 (4.25 m/s)) and as monsoon ends it slow downs the wind speed. The average wind speed is around 2.75-3 m/s.



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Overflowing Of Hakrya River, Katri

कात्री गावाजवळील हाकरा रील पल ठरतोय धोकादायक



लोकामत

जळगाव, राववार, ाद. ६ जुल र०र५





Source:Lokmat newspaper

The images illustrate the effects of heavy monsoon rainfall on the local river and bridge.

The first image shows the river in flood, with strong currents making the bridge extremely dangerous for traffic.

The second image captures the aftermath, with water levels receding but leaving debris and residual water on the road, indicating ongoing safety concerns.

According to the news report, intense rainfall in the area caused a sudden rise in the river's water level, leading to water overflowing across the bridge.

This kind of heavy rain, resulting in flooding and hazardous conditions on roads and bridges, commonly occurs during the peak monsoon months of July and August in Katri Village

Consequently, local residents have demanded the construction of a higher, safer bridge to mitigate such risks in the future.

Overall, the illustrated rainfall pattern is characteristic of frequent, heavy monsoons in the region, which regularly cause rivers and bridges to become dangerous, affecting transportation and community safety.

DEMOGRAPHICS

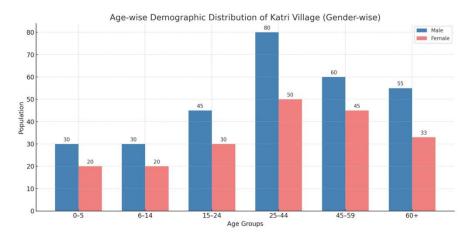


Figure 22: Age-wise Demographic Distribution of Katri village (Source: Author)

Cast wise population Distibution Open total (Source: All Graphs HH)

Patil Pada, Katri Village, Nandurbar District, Maharashtra

•Total Population: 598 people

•Total Households: 172 households

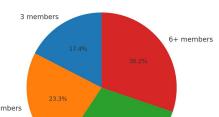
•Average Family Size: 3-5 members per household

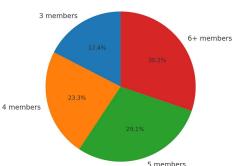
Gender Composition:

•Males: 300 •Females: 198

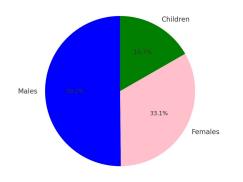
•Children (0–14 years): 100

Household Size Distribution in Patil Pada





Overall Gender & Children Distribution in Patil Pada



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