

## Survey: Droughts in Marathwada

By Ishana Deshpande

The Centre for Rapid Insights conducted an IVR survey to gauge alternative livelihood and sources of income in case of drought among farmers and farm workers. The respondents are part of CRI's opt-in panel.

This survey and its results focus on respondents whose main occupation is farming and the impact of droughts on their livelihoods. The insights drawn from the survey results are consolidated in this brief. The key audience for this policy brief comprises policymakers, with the objective of assisting them in policy formulation and implementation.

You can read more about CRI's surveying methodology in the appendix.

### **History of droughts in Marathwada:**

Droughts have long cast a shadow of uncertainty over Marathwada, a region vital to Maharashtra's agricultural landscape. A vast majority of Marathwada is characterised by low rainfall, primarily due to its location on the leeward side of the Western Ghats. The precipitation over this subdivision experiences high variability (24%–57%), leading to a 20%–30% probability of drought.

Since 1871, India has experienced several droughts of moderate to high intensity with Marathwada considered as one of the most drought-prone regions.<sup>1</sup> All the districts in the Marathwada region of Maharashtra have also witnessed a decline in rainfall over the last 39 years, posing a significant threat to the highly-monsoon dependent agriculture of the region.<sup>2</sup>

Although Maharashtra is an industrialised state, a major chunk of population depends on agriculture and other allied activities increasing vulnerability to drought disasters. The sector contributes to 12% of the state's economy (gross value added) and is currently threatened by repeated drought.<sup>3</sup> Drought is therefore viewed as a major climate hazard given its substantial impact on the country's agricultural economy<sup>4</sup>.

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<sup>1</sup>Kulkarni, S., Kumar, V., Bhanage, V., & Gedam, S. (2023, August 27). Changing crop types and water scarcity: The case of Marathwada. India Water Portal Hindi.

<https://www.indiawaterportal.org/articles/changing-crop-types-and-water-scarcity-case-marathwada>

<sup>2</sup> Bana, H., & Garg, R. D. (n.d.). Rainfall trend and seasonality estimation for ... - research square.

[https://assets.researchsquare.com/files/rs-1147643/v1\\_covered.pdf?c=1640884670](https://assets.researchsquare.com/files/rs-1147643/v1_covered.pdf?c=1640884670)

<sup>3</sup> Mallapur, C., Ahmed, J., & Salve, P. (2019, October 19). *Repeated floods, drought affect Maharashtra, but they are "not an election issue": Experts*. Indiaspend.

<https://www.indiaspend.com/repeated-floods-drought-affect-maharashtra-but-they-are-not-an-election-issue-experts/#:~:text=Agriculture%20contributes%2012%25%20of%20the.by%20repeated%20drought%20and%20floods>

<sup>4</sup>Todmal, R.S. (2019). Droughts and agriculture in the semi-arid region of Maharashtra, Western India, AMETSOC. [https://journals.ametsoc.org/view/journals/wcas/11/4/wcas-d-18-0131\\_1.xml](https://journals.ametsoc.org/view/journals/wcas/11/4/wcas-d-18-0131_1.xml)

Over the past four decades, Maharashtra has experienced a consistent annual mean temperature increase of 0.168°C per decade. This upward trend in temperatures is aggravating drought occurrences in the region, with far-reaching consequences for Indian farmers.

### State of farmers in Marathwada

Small and marginal farmers, burdened with outstanding loans, struggle to secure aid from formal agencies and resort to high-interest moneylenders, making them fall into perilous debt traps. In 2021, loans from licensed private lenders surged by 27%, mainly among small-scale farmers, with loan amounts spiking by 42%. Illegal, unregulated moneylenders further compound farmers' challenges.<sup>5</sup> Rising production costs and erratic climate patterns risk trapping farmers in enduring financial hardship, prompting asset liquidation.

Marathwada and Vidarbha, Maharashtra's major drought-prone regions, accounted for 70% of farmer suicides in the state during the first three months of 2019. Marathwada recorded 1023 farmer suicides in 2022, an increase from 887 the year before.<sup>6</sup> Policy revisions are imperative for uplifting farmers and breaking the cycle of poverty.

### Survey Methodology and Results:

This survey was conducted in Marathwada (comprising districts - Aurangabad, Beed, Hingoli, Jalna, Latur, Nanded, Osamabad, Parbhani) on a sample of 2234 respondents. The following questions were asked as a part of the survey:

1. 'Is your main occupation farming?'
2. 'Has the rainfall been less in your region?'
3. 'Will your income be impacted if there is poor rainfall for another month?'
4. 'If there is less rainfall this year, what will you do?'

Survey insights are based on respondents whose main occupation is farming. Key insights based on the survey results have been substantiated below:

- *The main occupation of 73% of the respondents was farming, of which 88% experienced lesser rainfall in their region*
- *94% of those who experienced lesser rainfall confirmed that their income would be impacted if there is another month of no rainfall*

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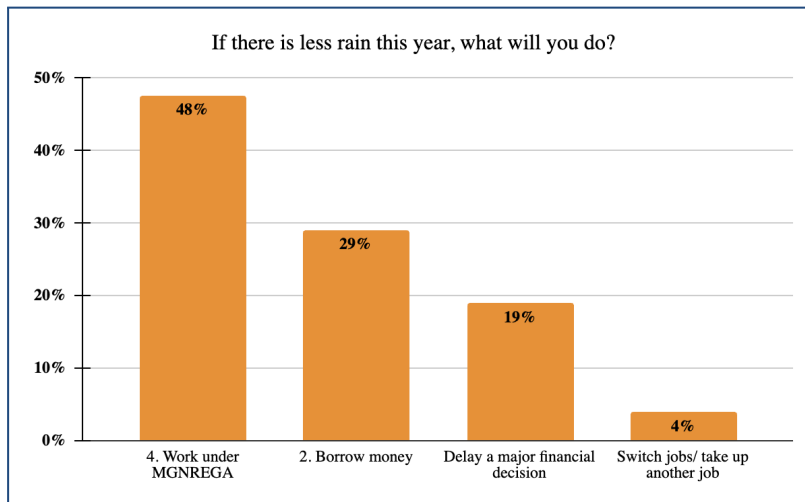
<sup>5</sup> Loans disbursed by licensed private money lenders in state increased by 42% in 2021. (2022, June 22). Hindustan Times.

<https://www.hindustantimes.com/cities/pune-news/loans-disbursed-by-licensed-private-money-lender-s-in-state-increased-by-42-in-2021-101655925655072.html>

<sup>6</sup>Rao, D. (2023, January 16). Maharashtra: 1,023 farmers died by suicide in Marathwada in 2022, reveals Divisional commissioner. The Logical Indian.

<https://thelogicalindian.com/trending/1023-farmers-died-by-suicide-in-marathwada-in-2022-39900>

**Figure 1:** Understanding farmers/ farm workers' alternative sources of income (n = 984)



- *Almost half of the farmers/ farm workers (whose income has been impacted) would choose to work under MGNREGA.*
  - These findings are consistent across age groups.
  - Even among the older age groups of '66+' the most popular choice is to work under MGNREGA (57% respondents in this age group chose this option)

Since almost 50% of the respondents opted to work under MGNREGA, the government should work towards increasing rural employment opportunities. Due to delay in payments/ wages and incomplete works, MGNREGA has turned into a supply based programme with a higher number of workers opting out of it. Improvements in its implementation could encourage farmers/ farm workers to work under the programme and in-turn help rope them out of poverty<sup>7</sup>.

- *30% of the respondents would choose to borrow money due to the impact on income caused by less rainfall while only 4% would choose to switch jobs or take up a new job*

Small and marginal farmers currently borrow from private, unregulated money lenders at high interest rates and land up in huge debt. This is because banks and formal institutions require collateral and necessary documentation which small-scale farmers often lack.

Despite ongoing rapid migration across the country, only 4% of respondents would choose to switch jobs or take up a new job showing that moving industries is an unpopular choice amongst farmers/ farm workers. Thus farmers in the region could be

<sup>7</sup> Daily wage labourers who cannot afford to migrate to other cities demand jobs under MGNREGA in the same village to provide for their children and family.  
<https://www.firstpost.com/india/marathwada-villagers-demand-jobs-under-mgnrega-as-drought-dries-up-work-in-fields-factories-5783501.html>

shielded from frequent drought conditions by proper water conservation processes and greater investment in hydrology schemes that could improve agricultural productivity and help them escape the accumulating stack of debt.

## Conclusion

With nearly 50% of the respondents expressing a preference to work under MGNREGA during drought conditions, it is crucial for the government to enhance the programme's implementation. This includes boosting employment opportunities for daily wage farm workers in rural areas. Apart from employment generation, the scheme also proves to be popular among rural workers as it aims to provide a steady source of income during lean agricultural seasons, reduce distress migration and promote gender wage parity.<sup>8</sup>

Additionally, there is a pressing need for a more inclusive financial system to facilitate lending to small-scale farmers and farm workers to help them escape the mounting agricultural debt. These improvements would not only safeguard their livelihood from extreme weather conditions but also uplift their economic status and well-being.

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<sup>8</sup> Turangi, S. (n.d.). MGNREGS performance (2006–21): An inter-state analysis. <https://journals.sagepub.com/doi/full/10.1177/02627280221085195>

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