

Becoming the Global Hub for Millets

A Look into the Millets Market of India





The year 2023 has been declared as the International Year of Millets by the United Nations, at the behest of the Government of India as an attempt to promote the cultivation and consumption of these crops. In parallel, the Government is also positioning India as the 'Global Hub for Millets' and has undertaken numerous promotional events for facilitating multi-stakeholder engagements to boost the export of Indian millets across the world.

This article aims to explore the economics of millet cultivation in India, the reasons behind the recent push towards increasing their consumption and pain points that might require addressal in order for the initiative to become a success.

What Are Millets?

Millets is a group of small seeded annual grasses that are cultivated as a cereal crop for human consumption

and fodder. These can be categorised into two broad categories based on the size of their grain – major millets (Jowar, Bajra) and minor millets (Ragi, Foxtail, Barnyard, Proso, Kodo).

Post the Green Revolution, wherein the production of fine grains like wheat and rice was prioritised, the share of millets declined, and they primarily became a subsistence crop for local consumption and as a green fodder crop for livestock.

Their cultivation today is largely extensive, limited to rainfed regions or on soils with low organic matter content. In areas where irrigation is available and conditions are more favourable, farmers tend to prefer more remunerative, high-value crops over millet cultivation.

Despite this, India is among the top millet producing countries, accounting for almost 50% of the global output. Our annual production touched 16.507 million tonnes in 2021-22.

Top Millet Producing States in India

| S.No. | State | Production (lakh tonnes) in 2021-22 | | | |
|-------|---------------|-------------------------------------|----------------------|----------------------|---------------|
| | | Jowar (Sorghum) | Bajra (Pearl Millet) | Ragi (Finger Millet) | Small Millets |
| 1 | Rajasthan | 5.90 | 37.51 | _ | 0.04 |
| 2 | Maharashtra | 17.47 | 4.75 | 0.93 | 0.17 |
| 3 | Uttar Pradesh | 2.75 | 19.49 | _ | 0.05 |
| 4 | Karnataka | 9.04 | 1.71 | 11.33 | 0.21 |
| 5 | Haryana | 0.16 | 11.20 | | |
| 6 | Gujarat | 0.57 | 10.56 | 0.19 | 0.23 |

Source: APEDA

Top export destinations for Indian millet include UAE, Saudi Arabia, Nepal, USA, Japan, and Germany. In 2021-22, the country exported

INR 479.56 Crores worth of millets and millet related products.1 This quantity constitutes a meagre 0.09% of the total millet produced in the country that year.

What Makes Them So Important?

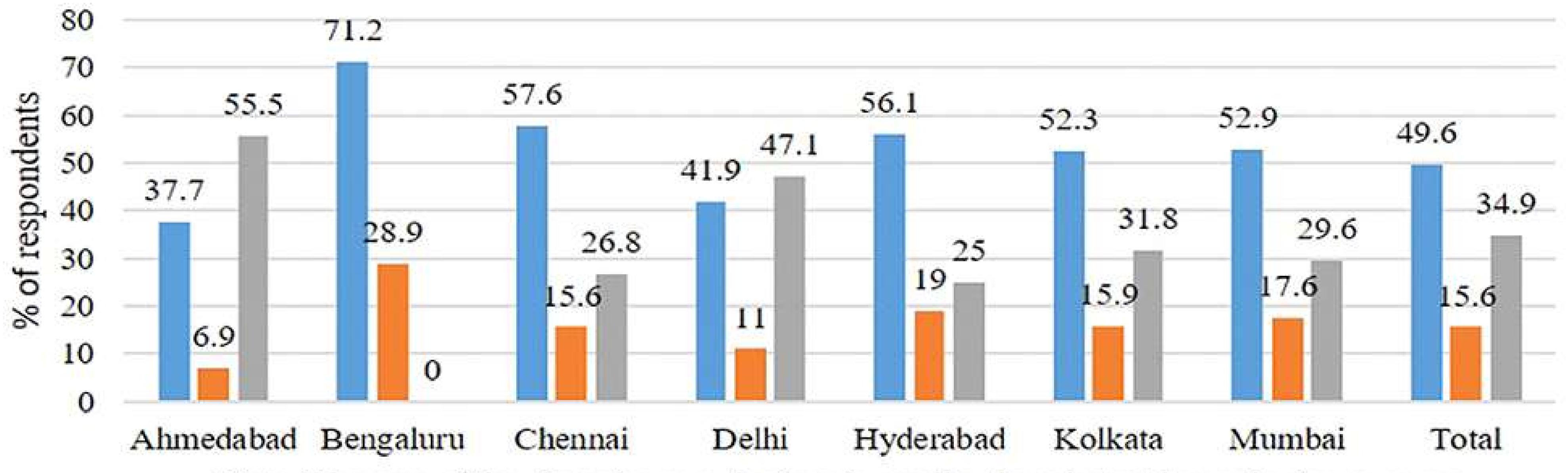
- Health & Nutrition: Millets (popularly known as nutri-cereals) are rich sources of, micronutrients, and dietary fibre due to which they have the potential to provide affordable nutrition to the burgeoning global population. Their consumption is also known to prevent the occurrence of cardiovascular diseases, type 2 diabetes, gastrointestinal conditions can be used as a substitute for wheat and other gluten containing grains for celiac patients.
- Sustainable Farming: Millets form a critical piece in the puzzle of facilitating sustainable development due to their ability to act as hardy cereals (requiring less water than many crops) that can thrive in areas experiencing high temperatures and low erratic rainfall, while reliably producing grain. This makes them a preferred crop for marginal lands in the dry areas of temperate, sub-tropical and tropical regions.



Consumption Behaviour of Millets in Urban India

An ICRISAT led large scale survey to assess millet consumption behaviour of urban India indicated people with health problems being the top (28%) early adopters of millets. Other reasons for their consumption included weight loss (15%), and their taste (14%).

Frequency of Millet Consumption Across Cities Covered under the Survey



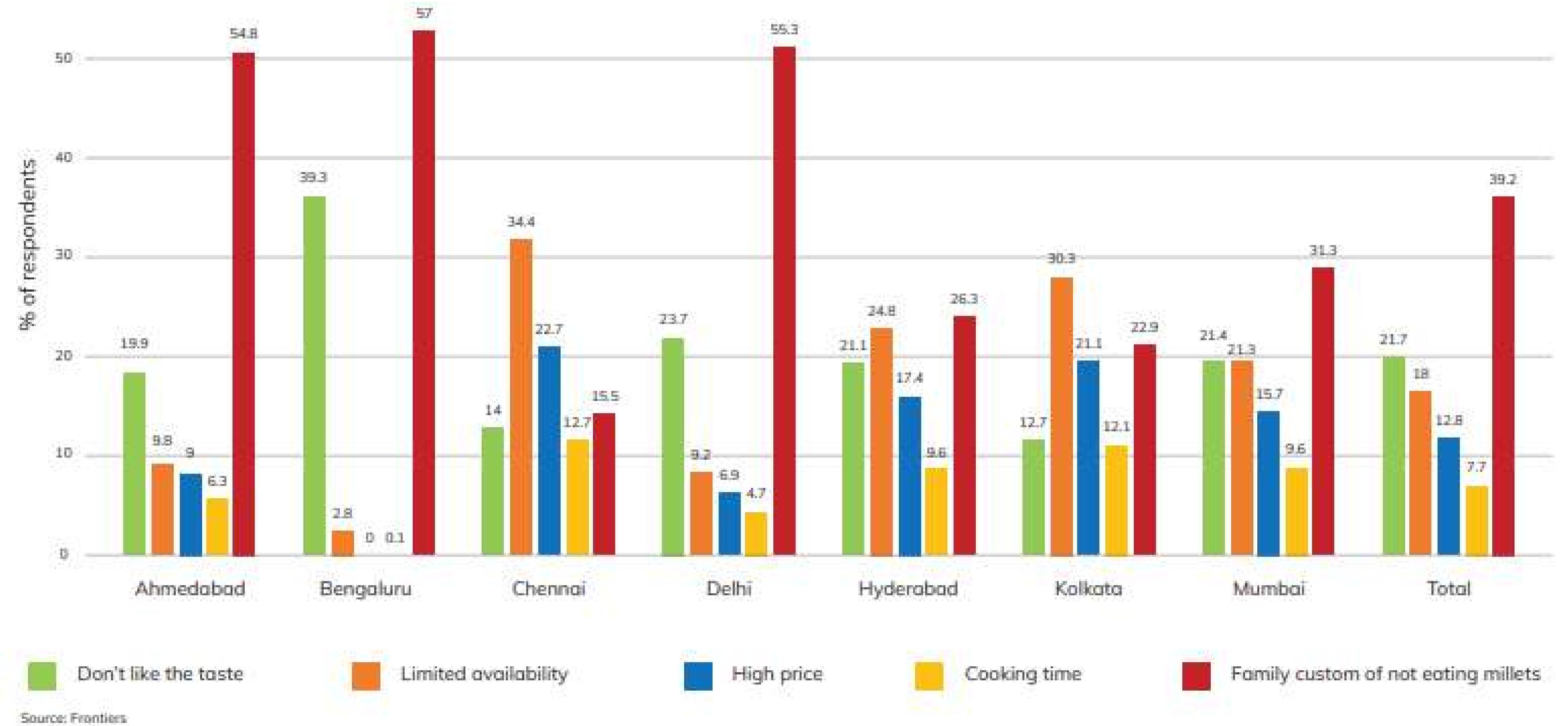
Note: The sum of the city-wise sample sizes is smaller than the total sample size as some observations did not have entries in the city name variable.

■Frequent (1/more times a week) ■ Moderate (once a month) ■ Never or up to 2 times a year



On the flip side, respondents reasoned that their low intake of millets was mainly due to factors like the cereal not being eaten at their homes (40%) and a dislike for their taste (22%).

Reasons for Survey Respondents Not Consuming More Millets



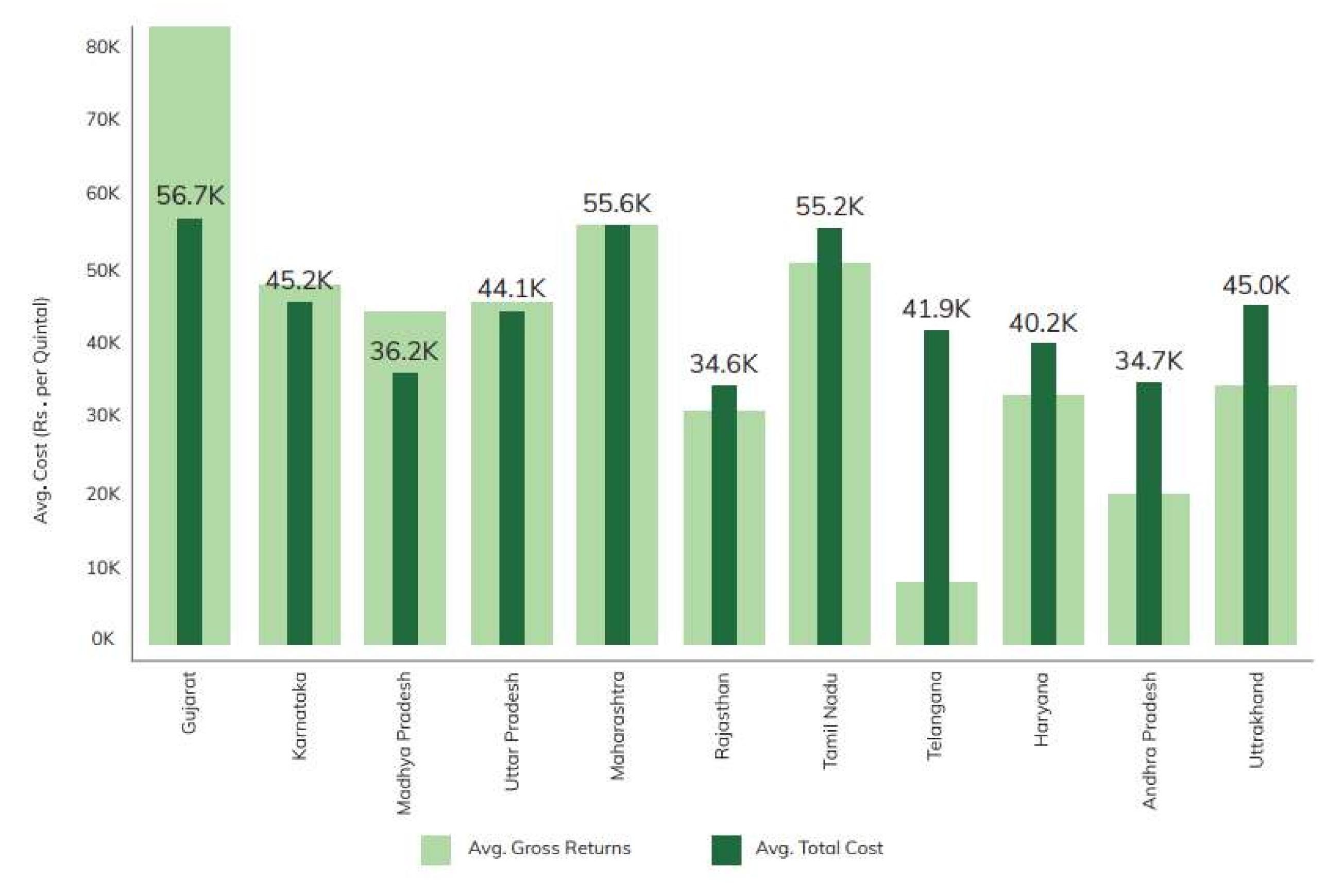
Increasing Farmer Income through Millet Production – The Reality

Due to their short cultivation cycle (70-100 days), limited water and fertility requirements (one rice plant requires almost 2.5 times the water consumed by a millet plant), pest and disease resistance, and the ability to survive

extreme weather conditions, millets have been stated to have the ability to boost farmer incomes significantly.

However, a closer look at the current cost of cultivation and gross returns on these crops in fact paints a very different picture. The graph provided below indicates that most states incurred losses in cultivating these crops.

State-wise Average Cost of Cultivation of Major Millets in 2021-22



A Case Study of Millet Production in Rajasthan

Millets are generally cultivated as a Kharif crop in the districts of Barmer, Bikaner, Jodhpur and Kota. Other alternate crop options for the farmers in these areas include soyabean, paddy, cluster bean, and green gram.

The below numbers indicate greater protability for farmers when cultivating soyabean instead of pearl millet. Farlense's primary interactions with farmers in these districts also highlighted an overall preference for cultivating soyabean instead of millets due to greater market demand and assured market cum protability

| Parameter | Pearl Millet | Soyabean | |
|------------------------------------|---|--|--|
| Cost of Seed | INR 120-150/kg (Hybrid) | INR 200/kg | |
| Seed Rate | 1.5-1.6 kg/acre | 20 kg/acre | |
| Cost of Field Preparation & Sowing | INR 1,500-2,000/acre | INR 4000/acre | |
| Harvesting | High cost of harvesting since manual labour is required | Mechanised harvesting using a combined harvester | |
| Yield | 810-1,012 kg/acre | 810-1,215 kg/acre | |
| Local Market Price (Lean Season) | INR 25-27/kg | INR 60/kg | |

Ensuring the Success of the Initiative

While the initiative holds great promise, its impact will only be visible if continued efforts are made in the following directions –

Demand Generation:

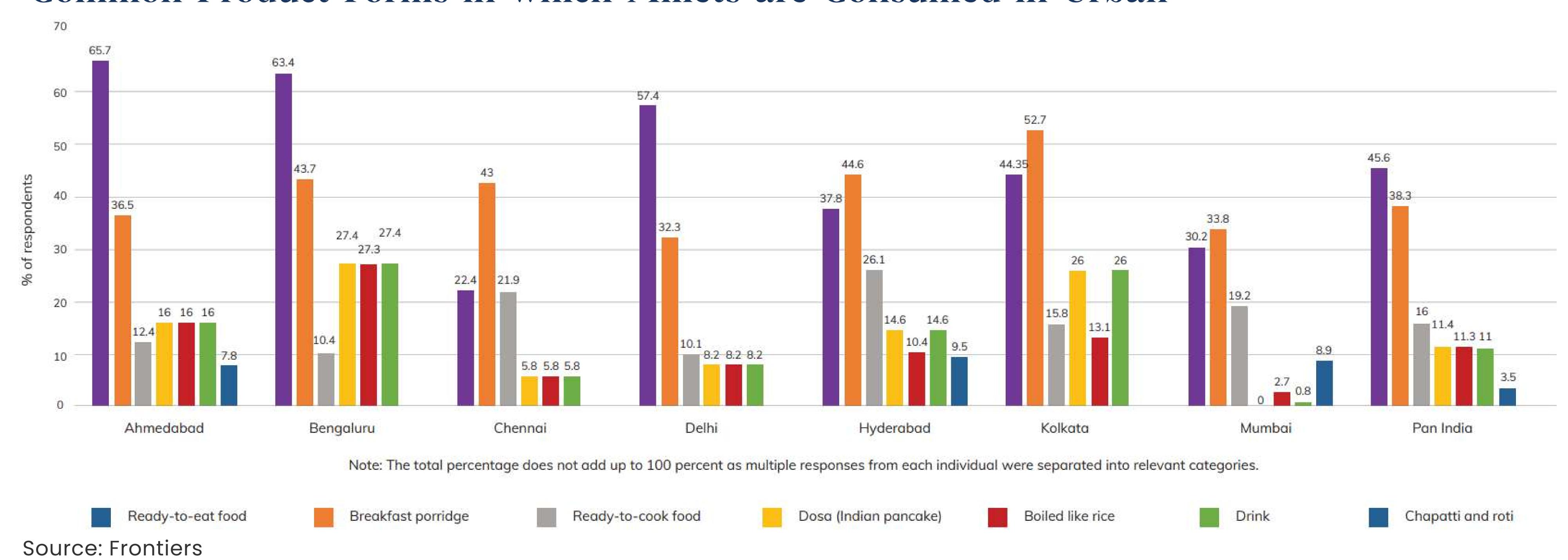
- Uniform inclusion of millets in the PDS system to ensure procurement by the government.
- While the central government has urged the state governments to introduce millets under the midday meal scheme, its implementation is still limited to states like Odisha, Karnataka, Telangana, Chhattisgarh, and Uttar Pradesh. This needs to be homogenised across all states.

• Overall push by government agencies through various platforms to highlight the health benefits of millets to strike consumer interest in trying their products.

Market Development

- Greater focus on developing international markets by establishing regional offices in export markets (similar to the Washington Apple Commission in India and many such organizations promoting their respective produce in India) for aggressive promotion of millet-based value added products.
- Promoting private sector investment in RTE/RTC product development since these products not only fetch greater market prices but also promote customer trials as indicated in the ICRISAT survey findings below.

Common Product Forms in which Millets are Consumed in Urban



Improving the Economics of Cultivation:

- Developing post-harvest processing technologies at village-level, especially for smaller millets with a tougher seed coat that are difficult to process.
 Supporting food processing units run by women self-help groups (SHGs) can be an important stepin this direction.
- Bridging gaps in the value chain by organising stakeholder meetings.
- Aiding farmer producer organisations (FPOs) to leverage the emerging demand from export markets by streamlining the processes of quality control checks, packaging, and branding of millet-based products.

Conclusion

While advocating large-scale millet cultivation and consumption makes a lot of sense for promoting sustainable agriculture and nutrition security for our ever-growing population, concerted efforts are required to improve demand generation, market development, and farm economics to witness a long lasting impact in the desired direction.



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