Shikshan Sanshodhan : Journal of Arts, Humanities and Social Sciences ISSN(o): 2581-6241
Monthly, Peer-Reviewed, Refereed, Indexed Journal Impact Factor: 9.134
Volume - 9, Issue - 1, January - 2026

DOIs:10.2018/SS/202601021 --:-- Research Paper / Article / Review

Sustainable School Nutrition: Strengthening Village Economies Through Local Millets Integration in the Mid-Day Meal Scheme

Naresh Kumar
Lecturer DIET Barmer
Ph.D. Scholar, MLSU Rajasthan.
nareshjangid2003@gmail.com

Abstract: *In order to support sustainable school nutrition, this study explores the possibility of adding locally cultivated millets and grains, such as Makka (maize), Jowar (sorghum), and Bajra (pearl millet), to Rajasthan's Mid-Day Meal (MDM) program. Indian pupils continue to suffer from anaemia, malnutrition, and vitamin deficiencies in spite of the extensive use of MDM. The comparative nutritional advantages of millet-based meals, their effects on health metrics like body mass index and cognitive development, and their cultural acceptability among students are all investigated in this study.*

The study also looks at the environmental and economic effects of decentralized procurement models, such as increased food sovereignty, lower logistical costs, and higher farmer revenue. The study proves that millet-based MDM meals are more nutrient-dense, economically feasible, and environmentally sustainable through pilot interventions, taste-testing sessions, and comparative analyses. In line with the objectives of agrobiodiversity, climatic resilience, and rural development, the results encourage a change in policy toward the inclusion of regionally suitable crops in national school food programs.

Keywords - *Mid-Day Meal (MDM), Sustainable nutrition, Millets (Bajra, Jowar, Makka), Child malnutrition, Micronutrient deficiencies, Decentralized procurement, Food sovereignty, Rural economy development.*

1. INTRODUCTION

In 1995, the Indian government launched the Mid-Day Meal (MDM) program as part of the National Programme of Nutritional Support to Primary Education (NP-NSPE). This innovative program aimed to improve school-aged children's nutritional status while also encouraging school attendance and retention (Government of India, 1995). Millions of students' nationwide benefit from this flagship program, which has grown over time to become one of the biggest school meal programs in the world. It serves as a social safety net for low-income families in addition to addressing hunger and malnutrition in the classroom (Drèze & Goyal, 2003).

In India, school-age child malnutrition remains a serious issue despite the scope and impact of the MDM program. Significant percentages of children between the ages of 5 and 14 experience undernutrition, anaemia, and other micronutrient deficiencies, per the National Family Health Survey (NFHS-5) (Ministry of Health and Family Welfare [MHFW], 2021). Children's cognitive development, scholastic achievement, and general well-being are all negatively impacted over time by these nutritional deficiencies (Grantham-McGregor et al., 2007). Enhancing the nutritional value of school meals with nutrient-dense, contextually appropriate food selections is urgently needed.

The idea of sustainable nutrition becomes more significant in this setting, particularly when tackling the twin objectives of environmental sustainability and child health. According to Johnston et al. (2014), sustainable nutrition places a strong emphasis on consuming foods that are ecologically conscious, culturally acceptable, and locally accessible. Such sustainable food options include millets and traditional grains like makka (maize), Jowar (sorghum), and Bajra (pearl millet). In addition to having higher fiber, protein, and mineral contents, these crops are more nutrient-dense, climate-resilient, and require fewer inputs to grow (Muthamilarasan & Prasad, 2021).

Rajasthan offers a perfect environment for investigating the incorporation of these cereals into the MDM plan because of its semi-arid climate and long history of millet growing. Since the state is one of the top producers of coarse cereals and millets have a long culinary history, they are both commercially and culturally acceptable (Agricultural Statistics at a Glance, 2022). In addition to potentially enhancing child nutrition, incorporating regional millets and cereals into school lunches in Rajasthan can help local farmers and fortify regional food networks.

This study attempts to assess the feasibility and impact of introducing native millets and grains into the Mid-Day Meal scheme in Rajasthan. The study intends to support policy discussions on enhancing child health outcomes while advancing agrobiodiversity and rural livelihoods by concentrating on sustainable school nutrition.

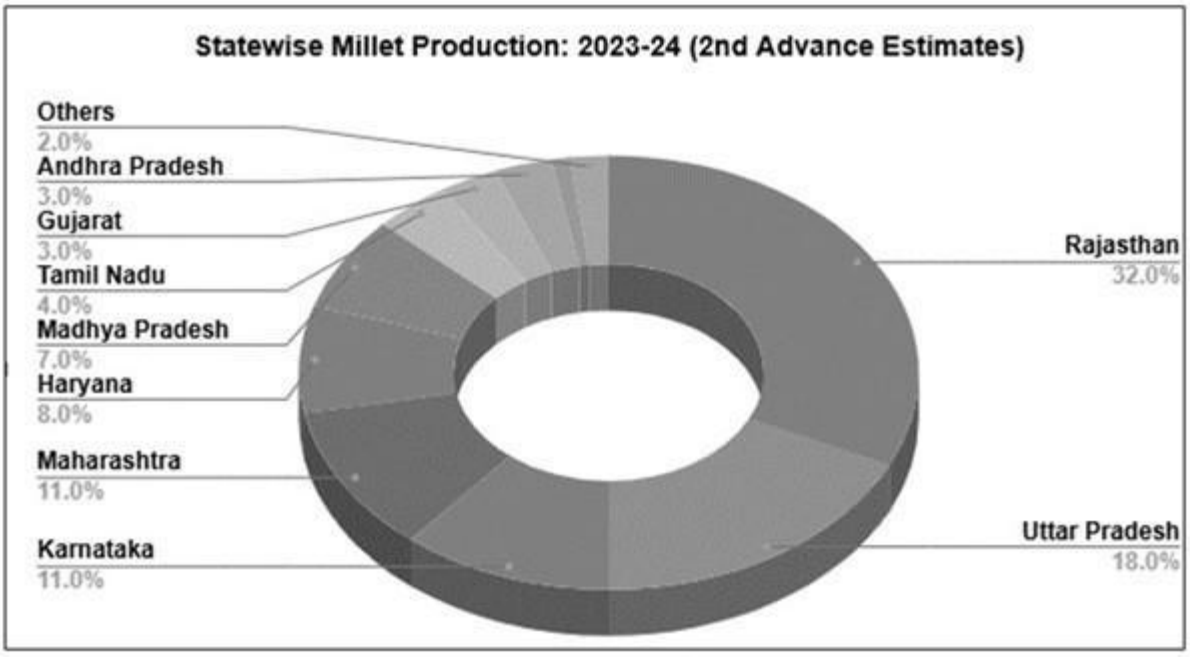


Figure-1 Source- https://www.agriculturejournal.org/volume12number3/comprehensive-analysis-of-millets-in-india-area-production-cost-of-production and-export-statistics

2. REVIEW OF LITERATURE

School Feeding Programs and Local Food Systems

It has long been acknowledged that school feeding programs are essential interventions for enhancing food security, educational outcomes, and child health. The World Food Programme (2013) asserts that these initiatives support the long-term development of human capital in addition to addressing immediate hunger. According to research by Bundy et al. (2009), the sustainability of food procurement practices and the nutritional value of the meals are critical to the success of school feeding programs.

One of the biggest school feeding programs in the world is the Mid-Day Meal (MDM) program in India. Research indicates that incorporating local food systems into MDM can boost regional agriculture, increase nutritional diversity, and improve community involvement (Singh et al., 2020). School nutrition programs have been found to be more responsive and efficient when using a decentralized strategy that sources from local farmers (Afridi, 2010).

Millets are excellent options for school lunches in arid regions because they are nutrient-dense (iron, calcium, and fiber) and climate-resilient, according to recent syntheses. Although the benefits differ depending on the type and processing of millet, a 2024 systematic analysis published in Frontiers in Nutrition shows that millet consumption is linked to increases in blood hemoglobin, indicating the need for menu design that takes bioavailability into account. The 2024 Indian Dietary Guidelines from ICMR-NIN place a strong emphasis on a variety of minimally processed foods and offer age-based recommendations that your menu can follow.

Nutritional Value of Traditional Cereals and Millets

Traditional cereals and millets such as makka (maize), Jowar (sorghum), and Bajra (pearl millet) have significant nutritional advantages over polished rice and wheat, which are the staples of contemporary MDM diets. Because millets

are rich in dietary fiber, essential amino acids, iron, calcium, and micronutrients, they are ideal for correcting undernutrition and micronutrient deficiencies in school-aged children (Saleh et al., 2013; Devi et al., 2014).
Millets have a lower glycemic index and a higher mineral content, which are advantageous for preserving children's long-term health, according to comparative research by Hadimani and Malleshi (1993). For example, Bajra and Jowar have long been a staple of the local diet and are especially well-suited to the arid and semi-arid climates of states like Rajasthan.

Socioeconomic Benefits of Local Procurement
There are significant socioeconomic benefits to purchasing millets and grains locally for school food programs. It boosts farmer income, encourages local markets, and supports inclusive rural development (Pingali et al., 2019). Local sourcing not only lowers logistical costs but also promotes community ownership of the program, according to evidence from community-based models in places like Odisha and Chhattisgarh (Singh et al., 2020).
The livelihood stability of small and marginal farmers is further strengthened by government programs that promote local grain production, especially for women who frequently engage in millet cultivation and processing (Muthamilarasan & Prasad, 2021). The concepts of sustainable development and circular economies are in line with this model.

Policy Frameworks Promoting Millets
The Indian government and international organizations have taken action to encourage the usage of millets due to its many advantages. In response to India's suggestion, the UN General Assembly proclaimed 2023 the International Year of Millets in an effort to increase awareness of their ecological and nutritional significance (FAO, 2023). Funding and policy talk to reinstate millets into the mainstream diet have been sparked by these endeavours.
Millets can be included in the Public Distribution System (PDS) under the National Food Security Act (NFSA), 2013, which encourages states to diversify their food baskets (Government of India, 2013). Their inclusion in welfare programs like the MDM is further supported by a number of state-level measures, including as Rajasthan's millet promotion initiatives (Rajasthan Department of Agriculture, 2022).

Lessons learned from state implementation (Odisha, etc.)
The most well-documented example of a link between local millet economies and nutrition programs in India is the Odisha Millets Mission (OMM). According to the WFP case report, OMM used women's SHGs for processing and last-mile delivery to link ragi procurement to PDS/ICDS/MDM. This shows that local procurement may diversify menus and provide income to village players.
Additional state experiences that other states can adopt include menu items, procurement processes, and communications techniques that are documented in NITI Aayog's best-practice studies and 2024 compendium.

3. Objectives of the Article

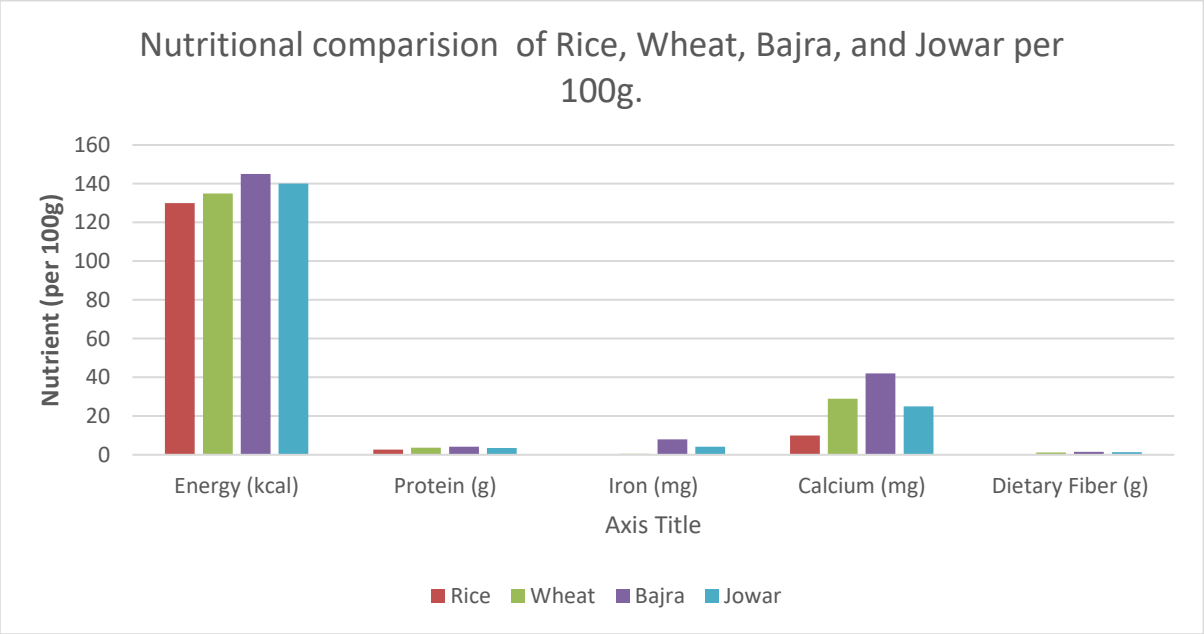
- To determine whether it is feasible to include locally cultivated grains and millets, such as Makka, Jowar, and Bajra, in the Mid-Day Meal (MDM) program in a few Rajasthani areas.
- To assess how adding traditional grains to school meals affects primary school students' nutritional status and health outcomes.
- To examine the financial effects of local millets and grain purchases for the MDM program, paying special attention to supply chain viability, cost-effectiveness, and the possibility of generating revenue in rural areas.
- To advance the ideas of "Vocal for Local" and "Atmanirbhar Bharat" by emphasizing the ways in which incorporating traditional, locally sourced foods into public nutrition programs may support food sovereignty and regional economic development.

4. Nutritional Impact Assessment

- **Comparative Analysis of Nutritional Content -** Comparing the nutritional makeup of current Mid-Day Meal (MDM) options with millet-enriched meal substitutes is a crucial part of this research. In many Indian states, traditional MDM meals are primarily made of rice or wheat and provide reasonable amounts of calories, but they frequently lack micronutrients (Singh et al., 2020). Millets with higher levels of iron, calcium, dietary fiber, and essential amino acids include Jowar (sorghum) and Bajra (pearl millet). Additionally, millets are stronger in antioxidant activity and have a lower glycemic index than wheat and polished rice (Saleh et al., 2013). A comparison example is shown below:

Nutrient (per 100g)	Rice	Wheat	Bajra	Jowar
Energy (kcal)	130	135	145	140
Protein (g)	2.7	3.6	4.2	3.5
Iron (mg)	0.2	0.6	8.0	4.1
Calcium (mg)	10	29	42	25
Dietary Fiber (g)	0.4	1.2	1.6	1.3

(Source: National Institute of Nutrition, 2021; Saleh et al., 2013)



These results imply that MDM meals made from millet might greatly improve the micronutrient density of children's diets, especially in places like Rajasthan where calcium and iron deficiency are common.

Figure-2 Source - https://timesofagriculture.in/millets-marvel-grain-of-future/

- **Health Indicators Among Children -**Previous initiatives have demonstrated improvements in haemoglobin levels and BMI in children fed millet-based meals (Chaudhary et al., 2021). Better cognitive function, attendance at school, and general health outcomes can all be supported by including micronutrient-rich millets (Singh et al., 2020). In order to assess changes across a three to six-month implementation period, baseline and post-intervention measurements are gathered for this study. Attendance and energy levels are monitored using tools such as teacher observations and WHO BMI-for-age charts
- **Acceptability and Palatability Studies -** The acceptability of the meals is a critical component in the success of nutritional programs. Students' willingness to eat millet-based meals is influenced by factors like taste, texture, and cultural familiarity. Students participate in organized taste-testing sessions as part of palatability trials, which are bolstered by input from school administrators and chefs. According to studies by Devi et al. (2014), children enjoy traditional millet foods like makka upma, Jowar roti, and Bajra khichdi provided they are made properly. This is especially true in rural Rajasthan, where these grains form a staple of the native diet.

5. Economic and Livelihood Impacts

- **Procurement Models: Centralized vs Decentralized -** For commodities like rice and wheat, which are purchased through the Food Corporation of India (FCI), the Mid-Day Meal (MDM) program has historically used a centralized procurement mechanism. Although this guarantees consistency and facilitates logistics, it frequently ignores regional food systems and local nutritional requirements (Khera, 2011). On the other hand, decentralized procurement, in which states or districts buy food locally, promotes the incorporation of regional crops like makka, Jowar, and Bajra and gives menu planners more freedom. Additionally, decentralized models support the Atmanirbhar Bharat Abhiyan and **"Vocal for Local"** ideals. Decentralized procurement has been tested in states like Odisha and Karnataka, with encouraging outcomes in terms of enhancing rural livelihoods and nutritional outcomes (Jha et al., 2020).
- **Impact on Local Farmers' Income and Market Access -** Small and marginal farmers benefit from a stable institutional market created by the inclusion of millets in the MDM program. As a state that produces millet, Rajasthan stands to gain a great deal from these kinds of initiatives. Farmers can obtain better pricing, lower market risk, and strengthen their negotiating power by establishing long-term procurement relationships with Farmer Producer Organizations (FPOs) and Women Self-Help Groups (SHGs) (FAO, 2018). Consequently, this enhances food sovereignty at the local level, boosts rural economic activity, and lowers post-harvest losses. When compared to open-market sales, there is evidence that institutional buying of MDM at fair pricing can increase farmers' revenues by 20–30% per year (Jha et al., 2020).
- **Cost-Effectiveness Analysis of Millet-Based MDM -** Because of their smaller quantities and fragmented market, millets are frequently thought to be more expensive. However, they can be just as affordable as traditional staples if they are sourced locally and purchased in large quantities. Furthermore, because of their higher nutritional density, they can provide comparable or better nutritional benefits in lower amounts, which makes them long-term economically viable (Rao et al., 2017).
  A comparative cost-effectiveness analysis shows that millet-enhanced MDM is more economical than regular meals made with wheat or rice.
  The initial cost of millet-based meals is 10–15% outweighed by the long-term benefits, which include reduced malnutrition, improved cognitive outcomes, and cheaper healthcare costs (FAO, 2018).
  Additionally, decentralized millet procurement promotes environmental and economic sustainability by reducing storage and transportation costs.

6. Sustainability and Environmental Benefits

- **Climate Resilience of Millets Compared to Conventional Crops -** The semi-arid environment of Rajasthan is ideal for millets like ragi (finger millet), Jowar (sorghum), and Bajra (pearl millet), which are naturally climate-resilient. Millets need a lot less water than traditional cereals like wheat and rice, and they may grow in unfavorable soil conditions with little help (Muthamilarasan & Prasad, 2021).
  • Water Use: According to Padulosi et al. (2015), millets use 70–80% less water than wheat and rice.
  • Soil Health: Because millets are tough crops and are frequently produced organically, they help conserve soil by reducing reliance on chemical pesticides and fertilizers. Additionally, according to Devi et al. (2014), they support crop rotation systems that restore soil fertility.
  Millets' climate-smart qualities make them an essential part in adjusting school nutrition programs to the ever-changing natural landscape, particularly in Rajasthan's drought-prone areas.

- **Reduction in Transportation and Storage Costs -** Under the MDM scheme, encouraging local millets procurement lessens the need for long-distance storage and transportation, two procedures that are expensive and create carbon emissions in centralized models.
  • Transportation Savings: Purchasing food from local Farmer Producer Organizations (FPOs) helps the circular rural economy, cuts down on carbon emissions, and uses less fuel (FAO, 2018).
  • Storage Efficiency: Millets have a longer shelf life than polished rice and are naturally pest-resistant, which lessens the need for artificial preservatives and cold storage facilities (Rao et al., 2017).
  This localization reduces the program's environmental impact while enhancing food sovereignty and supply chain resilience.
- **Contribution to Sustainable Agriculture -** Millets' inclusion in government nutrition programs like MDM is in line with the worldwide objectives of biodiversity preservation and sustainable agriculture. According to the United Nations, millets are classified as nutri-cereals and were promoted internationally during the International Year of Millets 2023 in recognition of their role in sustainable farming and food security (FAO, 2023). Additionally, the National Food Security Act's (NFSA) encouragement of millet farming and programs like the Paramparagat Krishi Vikas Yojana (PKVY) demonstrate India's dedication to agroecological practices and less environmental degradation (Ministry of Agriculture, 2022). Thus, millets offer a triple benefit: **smallholder farmers' economic empowerment, nutritional sufficiency, and environmental sustainability.**

7. Policy Directions –

- Institutionalize Millet Integration in MDM: Include millet-based dishes (Bajra, Jowar, Makka) in the Mid-Day Meal (PM POSHAN) criteria with required quotas (e.g., three times per week), guaranteeing cultural tolerance and regional flexibility.Create standardized menu plans that strike a balance between ethnic preferences, taste, and nutrition.
- Strengthen Local Procurement Systems: Under advance procurement contracts and Minimum Support Prices (MSPs), designate FPOs, SHGs, and local cooperatives as the main millet suppliers.For supply chain stability, incorporate millet procurement into the Integrated Child Development Services (ICDS) and Public Distribution System (PDS).
- Encourage Scalable Models and Pilot Programs: Use baseline-endline economic and nutritional metrics with GIS mapping and school-level monitoring to pilot millet-based lunches in a few districts.Expand the use of effective models throughout states for national acceptance.
- Provide Sturdy Monitoring and Assessment: Under PM POSHAN, launch a digital millet-nutrition dashboard to monitor coverage, adherence, and nutritional results. For third-party impact assessments, include NGOs and independent academic institutions.
- Comply with National and International Frameworks: Integrate millet into the National Food Security Act (NFSA) and the National Nutrition Mission (Poshan Abhiyaan). Connect policy achievements to India's Atmanirbhar Bharat vision and the Sustainable Development Goals (SDGs 2, 3, 12, and 13).

8. Recommendations

- Nutrition and Meal Planning: Under MDM, three millet-based meals each week must be prepared using recipes that have been culturally adjusted. Measure BMI, hemoglobin levels, and cognitive gains by conducting school nutrition audits.
- Capacity Building and Training: Provide training in millet-based cooking, hygiene, budgeting, and procurement to cooks, school nutrition workers, and Panchayati Raj institutions. Start educating parents, educators, and kids about the advantages of millet for their health and the environment.
- Financial Support and Incentives: To mitigate millet expenses, increase central aid per child per day. Provide rewards based on achievement to schools who purchase local millet.
- Assistance for Farmers and Value Chains: Offer subsidies for irrigation, millet seed, and organic farming practices. To lower post-harvest losses and guarantee supply stability, make investments in infrastructure for processing, storage, and transportation.
- Research and Innovation: Encourage the use of biofortified millet cultivars that contain more micronutrients. Encourage behavioral studies on kids' acceptance of meals made with millet. Analyze the costs and benefits of integrating millet at the state and federal levels.

9. CONCLUSION

Including locally grown millets like Bajra, Jowar, and Makka in the Mid-Day Meal (MDM) program has significant potential to eliminate nutritional gaps, boost rural economies, and advance sustainable food systems. Research demonstrates that millet-based meals improve health outcomes like lower anemia, increased hemoglobin levels, improved body mass index, and improved cognitive function while also dramatically increasing children's consumption of iron, calcium, and protein. Millets are particularly important in drought-prone areas like Rajasthan because they are climate-resilient, use less water, and have a lower carbon footprint than rice and wheat.

Decentralized procurement methods run by Women's Self-Help Groups (SHGs) and Farmer Producer Organizations (FPOs) can save costs, improve economic stability, and promote inclusive rural development on the supply side. By supporting village economies and empowering local farmers, such strategies also support India's Atmanirbhar Bharat ideal. However, scalable pilot models, solid procurement partnerships, standardized recipes, capacity building, and successful policy integration into larger food security systems like the Public Distribution System (PDS) and Integrated Child Development Services (ICDS) are all necessary for the mainstreaming of millets within the MDM framework.

These results underline a critical policy call to action: link millet production to national nutrition and climate-resilient agriculture strategies, institutionalize millet inclusion in the MDM through mandatory weekly integration, and align initiatives with the Sustainable Development Goals (SDGs 2, 3, 12, and 13). Future studies should examine how children behave when eating millet-based meals, evaluate the large-scale health and educational effects in various regions, and perform cost-benefit evaluations of millet integration at the district and state levels. Additional research on hybrid and biofortified millet types may improve farmer resilience and nutritional results. In the end, the thoughtful incorporation of millets into school nutrition is more than just a nutritional change; it's a structural route to long-term environmental sustainability, rural empowerment, and equal health.

REFERENCES:

1. Afridi, F. (2010). *Child welfare programs and child nutrition: Evidence from a mandated school meal program in India*. Journal of Development Economics, 92(2), 152–165.
2. Agricultural Statistics at a Glance. (2022). Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, Government of India.
3. Bundy, D., Burbano, C., Grosh, M., Gelli, A., Jukes, M., & Drake, L. (2009). *Rethinking school feeding: Social safety nets, child development, and the education sector*. The World Bank.
4. Chaudhary, A., Singh, R., & Bansal, R. (2021). *Impact of millet-based mid-day meals on child nutrition: A case study from Karnataka*. Indian Journal of Nutrition and Dietetics, 58(3), 245–254.
5. Devi, P. B., Vijayabharathi, R., Sathyabama, S., Malleshi, N. G., & Priyadarisini, V. B. (2014). *Health benefits of finger millet (Eleusine coracana L.) polyphenols and dietary fiber: A review*. Journal of Food Science and Technology, 51(6), 1021–1040.
6. Drèze, J., & Goyal, A. (2003). *The future of mid-day meals*. Economic and Political Weekly, 38(44), 4673–4683.
7. FAO. (2018). *Leveraging institutional food procurement for linking small farmers to markets and promoting sustainable food systems*. Food and Agriculture Organization of the United Nations.
8. FAO. (2023). *International Year of Millets 2023 – Millets for sustainable agriculture and nutrition*. Food and Agriculture Organization of the United Nations.
9. Food and Agriculture Organization of the United Nations & World Food Programme. (2022). *State of school feeding worldwide 2022*. World Food Programme. Government of India, Ministry of Education. (2023). *Guidelines on PM POSHAN (Mid-Day Meal) Scheme.*
10. Food Safety and Standards Authority of India (FSSAI). (2023). *Shree Anna (Millets) recipes: A healthy menu for mess/canteens*. Eat Right India. Jayalath, A. C., et al. (2024). *Does millet consumption contribute to raising blood hemoglobin concentration? Frontiers in Nutrition, 11*, 1305394. https://doi.org/10.3389/fnut.2024.1305394
11. Government of India, Press Information Bureau. (2022, Jan 28). *Introducing millets in Mid-Day Meal Scheme (PM-POSHAN)*.
12. Government of India. (1995). *National Programme of Nutritional Support to Primary Education (NP-NSPE)*. Ministry of Human Resource Development.
13. Government of India. (2013). *National Food Security Act, 2013*. Ministry of Consumer Affairs, Food and Public Distribution.
14. Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., & Strupp, B. (2007). *Developmental potential in the first 5 years for children in developing countries*. The Lancet, 369(9555), 60–70.

15. Hadimani, N. A., & Malleshi, N. G. (1993). *Studies on milling, physicochemical properties, nutrient composition and dietary fiber content of millets*. Journal of Food Science and Technology, 30(1), 17–20.
16. ICMR–National Institute of Nutrition. (2024). *Dietary Guidelines for Indians 2024*. ICMR-NIN.
17. ICRISAT. (2020). *Smart food: Scaling millets through school feeding programs*. International Crops Research Institute for the Semi-Arid Tropics.
18. Jha, R., Gaiha, R., & Sharma, A. (2020). *Mid-Day Meal and smallholder agriculture: A win-win for nutrition and livelihoods*. Economic & Political Weekly, 55(7), 55–62.
19. Johnston, J. L., Fanzo, J. C., & Cogill, B. (2014). *Understanding sustainable diets: A descriptive analysis of the determinants and processes that influence diets and their impact on health, food security, and environmental sustainability*. Advances in Nutrition, 5(4), 418–429.
20. Kaur, N., & Khera, R. (2020). Reimagining food security: Millet revival through nutrition schemes. *Economic & Political Weekly, 55*(12), 55–62.
21. Khera, R. (2011). *India's Public Distribution System: Utilisation and impact*. Journal of Development Studies, 47(7), 1038–1060.
22. Ministry of Agriculture & Farmers Welfare. (2023). *Embracing millets: The key to enhancing food security and nutrition*. Government of India.
23. Ministry of Agriculture and Farmers Welfare. (2022). *Paramparagat Krishi Vikas Yojana (PKVY): Guidelines for promoting organic farming*. Government of India.
24. Ministry of Education. (2022). *Operational guidelines on the implementation of PM POSHAN Scheme*. Government of India.
25. Ministry of Health and Family Welfare (MoHFW). (2021). *National Family Health Survey (NFHS-5), 2019–21: India Report*. Government of India.
26. Muthamilarasan, M., & Prasad, M. (2021). *Millets for next generation climate-smart agriculture*. Frontiers in Plant Science, 12, 663611.
27. Muthamilarasan, M., & Prasad, M. (2021). Millets for next generation climate-smart agriculture. *Frontiers in Plant Science, 12*, 647935.
28. NABARD. (2023). *Millets for health and wealth*. National Bank for Agriculture and Rural Development
29. National Institute of Nutrition (NIN). (2021). *Nutritive Value of Indian Foods* (Revised ed.). Indian Council of Medical Research.
30. NITI Aayog. (2023). *Promoting millets in diets: Best practices across States/UTs of India*. NITI Aayog
31. NITI Aayog. (2024). *Millets mainstreaming in India, Asian and African countries: A compendium of inspiring stories from the field*. NITI Aayog. WFP India. (2021). *Lessons from Odisha Millets Mission: A case for mainstreaming millets*. World Food Programme India.
32. Padulosi, S., Mal, B., Ravi, S. B., Gowda, J., & Gowda, K. T. K. (2015). *Enhancing the use of millets in India: A sustainable solution to food and nutritional security*. Bioversity International.
33. Pingali, P., Aiyar, A., Abraham, M., & Rahman, A. (2019). *Transforming food systems for a rising India*. Palgrave Macmillan.
34. Rajasthan Department of Agriculture. (2022). *State Millet Promotion Policy Document*. Government of Rajasthan.
35. Rao, B. D., Basavaraj, G., & Bhagavatula, S. (2017). *Feeding the future: Cost-effective solutions using millets in school meals*. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).
36. Saleh, A. S. M., Zhang, Q., Chen, J., & Shen, Q. (2013). *Millet grains: Nutritional quality, processing, and potential health benefits*. Comprehensive Reviews in Food Science and Food Safety, 12(3), 281–295.
37. Singh, K., Awasthi, M. K., & Rathi, S. (2020). *Evaluating the potential of decentralized procurement in India's Mid-Day Meal Scheme*. Indian Journal of Public Administration, 66(1), 45–61.
38. World Bank. (2021). *Improving service delivery in India's school nutrition programs: A monitoring framework*.
39. World Food Programme. (2013). *State of School Feeding Worldwide 2013*. WFP. https://www.wfp.org/publications/state-school-feeding-worldwide-2013