

# A Qualitative and Quantitative Study to Analyze the Impact of Government Millets Promotion Scheme on Awareness Among Indian Households

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## Abstract

The present study aims to explore the impact of government funded schemes and programmes to aware consumers of millets and its nutritional benefits. The study is based on qualitative and quantitative data. For the same quantitative data was composed through self-structured questionnaire and convenient random sampling technique. The SPSS 26 version was used to analyze the data. And for the qualitative data, MOFPI Agricultural and ICAR Annual Report 2022 and 2023. The findings of the study concluded that in spite of government heavy expenditure on millets promotion schemes, consumers are aware of millets only because of family traditions. In this led, consumers are not aware of the government millets promotional schemes. Even those are aware of nutritional benefits of millets are not able to consume because of not easy to cook, tasteless and price also matters in low- income group. The present government is doing best efforts to create awareness among the Indian households and but still there are some areas to be covered to make it more impactful. In this sense, the government should make more efforts towards subsidization of millets cultivation in respective states of India and some “Minimum Support Price” must be fixed for all types of millets so that in agriculture sector, farmers could be motivated to cultivate every variety of millet and supply can be enhanced. This will lower the price of millets and low-income group consumers can afford to consume millets.

**Key Words:** Millets, Delhi, National Capital Region (NCR), Nutritional Value and Government schemes

## 1. Introduction

Currently India is moving towards “Viksit Bharat by 2047”, “Sashakt Bharat” quoted by The Prime Minister of India (National Informatics Centre, 11 December, 2023). In order to make fulfil the gap between the nutrition and healthcare, government is making provisions of funds in the budget 2023-2024. (Verma, et al., May 2023) “Year 2023 has been declared as International Year of Millets in G-20”. “The finance minister referred millets as “Shri Anna” and said that India is the second larger producer of Shri Anna at international level” (Tripathi, 2023). As per information of the agriculture minister,

“The Ministry of Food Processing Industries (MOFPI) has approved the Production Linked Incentive Scheme for Food Processing Industry for Millet-based products (PLISMBP) for implementation during 2022-23 to 2026-27 with an outlay of Rs 800 crores” (Ministry of Agriculture & Farmers Welfare; PIB, 2023). Even in order to motivate to farmers to cultivate millets “Minimum Support Prices (MSP) has been declared to only Jowar, Bajra and Ragi” but no support to other millets. In this led, “The pradhan mantri formalisation of Micro food processing enterprises (PMFME) schemes have been launched under the “Atmanirbhar Bharat Abhiyans” which was implemented in only 35 states and Union Territories (UTs). The Indian government is also popularizing “Agri-infrastructure Fund Scheme” to invite Farmers/FPOs/Entrepreneurs to get the benefit of interest subvention on loans up to 2 crores for setting up primary processing units in Millets” (Ministry of Agriculture & Farmers Welfare; PIB, 2023).

In order to generate domestic and global demand for Millets and to offer nutrition in the form of millets to people, (Verma, et al., May 2023; Vibha, January 8, 2024) the Government of India sponsored the United Nations General Assembly (UNGA) resolution establishing 2023 as the international year of millets (Asrani, Ali, & Tiwari, 2023; Dwivedi, 2023). This move of Indian Government was supported and endorsed by 72 countries. In addition to it four challenges of national and societal value have been issued by the “Atal Innovation Mission, NITI Aayog”. These challenges comprise of processing efficiency, decentralized processing, shelf-life augmentation marketing and market linkages, the solution to these challenges would help bridge the gap in existing millet supply chain, supporting sustainable production, improved nutrition, greater acceptability, and increasing consumption. Thus, the current study aims to understand and analyse the impact of Government sponsored Millet’s awareness programs specially after 2018 in the Indian households in the states of Delhi NCR and suggest policy implications.

Millets are highly varied small- seeded grasses. They were among the first traditional crops to be grown in the Indian subcontinent because of the capability of Indian soil's adoption of diverse agro-climatic conditions. According to archaeological evidence, between 2500 and 1900 BCE millets such as “ragi (finger millet), bajra (pearl millet), kangni (foxtail millet) and kutki (small millet)” were farmed in the Indus Valley Civilization. (Verma, et al., May 2023) Generally, two types of are farmed in India, these are major millets and minor millets. Major millets include “sorghum, pearl millet, and finger millet, whereas foxtail, tiny millet, kodo, proso, and barnyard millet are minor millets”. Not only India, millets are widely farmed across the world as cereal crops or grains for human food as well as animal fodder, that provides food security to millions of people while also contributing to agricultural economic efficiency. Because of their high nutritional content, millets are considered the next big thing in nutrition, akin to a nutri-cereal. They are gluten-free, allergen-free, and high in proteins, carbs, dietary fibre, and vital amino acids. “Millets have the potential to contribute to the achievement of the SDGs, particularly SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 12 (Sustainable Consumption and Production)”. Some of the Policies, Schemes and initiatives by Government of India can be seen in figure 1 & 2 respectively (Jadhav & Londhe, 2023).



Figure 1: Policies and Schemes by Government of India for Millets at a Glance

Source: (Jadhav & Londhe, 2023)

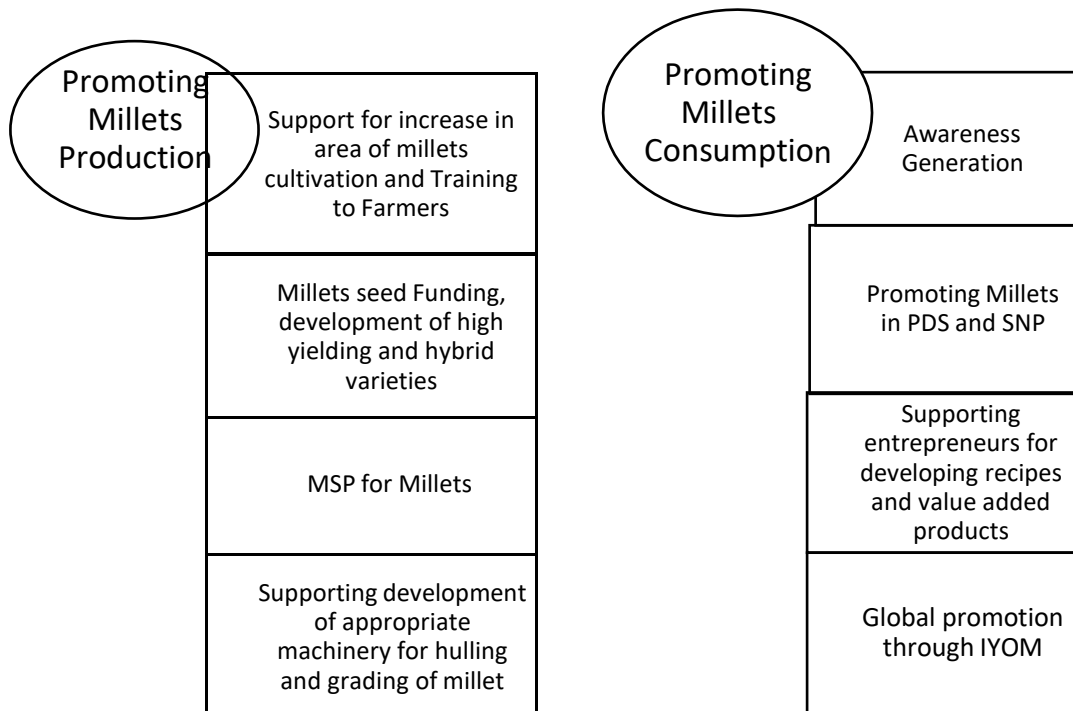


Figure2: Governmental schemes to boost the production and consumption of millet

Source: (Jadhav & Londhe, 2023)

Growing awareness of the health and environmental advantages of growing millets, as well as initiatives like these can help in the restoration of ancient agricultural practices and help small-scale farmers, thereby, leading to India's Millet Revolution. It is viewed as a way to address the country's trio issues of increasing public health and encouraging sustainable agriculture and promoting self-reliance. Since the objective of the study is to suggest policy measures to bring about an increase in sustainable consumption of millets in north Indian states by exploring the impact of the government-initiated awareness campaigns and bring out the impact thereof and suggest the policy implications thereto.

*Relevance of the proposed study for policy making*

The present study will help the government and policy makers to understand

- The impact of the awareness campaigns related to millets that are going on in the Delhi NCR.
- The study will be able to suggest the ways and means to make the campaign more effective and the policy implications thereto.
- To suggest policy measures to bring about an increase in sustainable consumption of millets in Indian states leading to the trickle-down effect on the sustainable production of millets leading to self-reliance.
- The research would help in identifying the challenges that need to be taken care of in the promotion of millets as the staple food which can be incorporated in the policy-making.
- The study covers the Delhi NCR of India where wheat and rice are eaten majorly and a behavioral change towards millets' acceptance is required.

*Relevance of the proposed study for society*

This study will help the people to understand that adding millets to diet has proven to have many health benefits which will lead to:

- Increased sustainable consumption would lead to increased sustainable production that would lead to self-reliance and self-employment opportunities for the society at large leading to the goal of “Samarth Bharat” or “Samradh Bharat”
- The study would help achieve the national policies of “Zero Hunger”, “Good Health and Well-Being” and “Sustainable Consumption” and “Production” on a macro level.

**2. Review of literature**

(Weber, Lehman, Barela, Hawks, & Harriman, 2010) conducted research that helped us understand the relationship between the organization of craft production and the socio-economic systems that surround it. This study also analysed the relationship between the introduction and use of these crops in Southeast Asia. (Erlor, Keck, & Dittrich, 2022) study was conducted to highlight the interconnectedness between organic shops, cosmopolitan consumers and the changing perception of millets in Bengaluru. It sheds light on the motivations behind organic purchases, the role of women in grocery shopping, and the influence of international experiences on food preferences. By exploring these dynamics, the research contributes to a deeper understanding of the shifting meanings associated with millets and the emergence of distinctive consumption practices in the context of Bengaluru, India. Although there have been researches to probe people's impressions, awareness, and knowledge about millets and their nutritional values but on small sample sizes (Nambiar & Patwardhan, 2014; Kp & Shaji, 2017). (Patel, Guenther, Wiebe, & Seburn, 2014) conducted a case study to find out the role of street food vendors of Madurai, Tamil Nadu, India in promoting food security and livelihoods for urban poor through the informal sector. It was found that many diverse meals and beverages were traditionally created using these grains at various places, which played a significant role in the local culinary culture as a basic food (Kp & Shaji, 2017). However, their significance in the Indian food market has declined over time, owing primarily to government policies promoting the cultivation and consumption of quality grains like rice and wheat (Kane-Potaka, et al., 2021). Increase in wages and urbanization further fueled their decline. Between 1960 and 2015, India's wheat output increased by more than three times, while rice production increased by 800%; millet production, on the other hand, remained low (Kane-Potaka, et al., 2021). India's per capita millet consumption fell sharply from 32.9 kg to 4.2 kg between 1962 and 2010, while wheat consumption almost tripled from 27 kg to 52 kg during that same period (Basavaraj, Rao, Bhagavatula, & Ahmed, 2010). According to a different study (Basavaraj, Rao, Bhagavatula, & Ahmed, 2010), the per capita consumption of pearl millet in India fell between 1972/1973 and 2004/2005 in both rural and urban areas from 11.4 to 4.7 and 4.1 to 1.4 kg annually, respectively. In India's rural and urban areas, the per capita consumption of sorghum decreased similarly, from 19.1 to 5.2 and 8.5 to 2.7 kg annually, corresponding to reductions of 68 and 70%, respectively (Rao, Basavaraj, Ahmed, & Bhagavatul, 2010; MOFPI\_Annual Report, 2023).

Millets are also promoted by the Department of Agriculture and Farmers Welfare (DA&FW) by executing “Nutri-Cereals (Millets) Sub-Mission under the National Food Security Mission (NFSM) in 212 Districts across 14 States since 2018-19” (Promoting Millets Consumption, 2023; Vibha, January 8, 2024). (Verma, et al., May 2023; Vibha, January 8, 2024) farmers receive incentives from states and union territories under “NFSM-Nutri Cereals for crop production and protection

technologies”, “cropping system-based demonstrations”, “manufacturing and distribution of certified seeds of recently developed varieties/hybrids”, “Integrated Nutrient and pest control techniques”, “enhanced the farm implements/tools/resource conservation machineries”, “water-conserving devices”, “capacity building of farmers through cropping season trainings” and “organization of farmers”. (Verma, et al., May 2023) NFSM has also sponsor initiatives such as the establishment of “Centers of Excellence (CoE)” and “seed hubs” for “Nutri Cereals” (Ministry of Agriculture & Farmers Welfare, 2023). (MOFPI\_Annual Report, 2023; Cultivation of Coarse Cereals, 24 MAR 2023; PROMOTING MILLETS, 1 AUG 2023) “The Ministry of Food Processing Industries (MoFPI) has approved the Rs. 800 crore, Production Linked Incentive Scheme for Food Processing Industry for Millet-based Products (PLISMBP) for implementation from 2022-23 to 2026-27”. “The Pradhan Mantri Formalization of Micro Food Processing Enterprises (PMFME) Scheme, which was introduced as part of the Atmanirbhar Bharat Abhiyanis, is being carried out in 35 states and union territories (UTs)”. (Vibha, January 8, 2024; Verma, et al., May 2023) The government is also promoting the "Agri-Infrastructure Fund Scheme," allowing farmers, FPOs and entrepreneurs to establish primary production facilities for millets and receive interest subsidies on loans up to 2 crores. "To encourage farmers to grow millet, higher Minimum Support Prices (MSP) for Jowar, Bajra, and Ragi have been announced” (ICAR; Annual Report, 2022 published in 2023).

Although various researches have been undertaken to probe different aspects related to millets but there is a dire need to base a study on a large sample survey encompassing several Indian states to investigate consumers' knowledge, opinions, and attitudes about millets especially after the launch of various government sponsored awareness campaigns that too after 2018 when the Government declared “2018 the Year of Millets” (Verma, et al., May 2023). This study becomes all the more relevant as the year 2023 has been declared as “The international year of Millets”. The research paper proposes to investigate the impact of Government sponsored Millet’s awareness programmes on the awareness and adoption of millets in Indian households in the states of Delhi NCR on a very large sample and suggest policy implications thereto. In essence the study would contribute to bridge the gap related to the challenges of millet supply chain, supporting sustainable production, improved nutrition and greater acceptability.

#### *Objectives of the study*

- i. To explore Indian Households’ awareness, attitudes and preferences regarding various Millets.
- ii. To understand and analyze the impact of Government sponsored Millet’s awareness programmes specially after 2018 in the Indian households in the states of Delhi NCR and suggest policy implications thereto.
- iii. To suggest policy measures to bring about an increase in consumption of millets in Indian states leading to the trickle-down effect on the production of millets and to understand the challenges thereof.
- iv. It will help in establishing an innovation driven India that would be contributing towards the SDGs in international arena by exploring the challenges related to sustainable and healthy consumption patterns that would further drive sustainable production based on four basic tenets: Improved nutrition by creating awareness about millets as staple food, Greater acceptability and increased consumption of millets, Sustainable and self-sustenance through production of millets.

### **3. Research Questions**

RQ1: What is the Impact of Government Sponsored Millets Awareness Programmes on its Usage in Indian Households with Special Reference to Delhi NCR?

RQ2: How can the effectiveness of the Government Sponsored Millets Awareness Programmes be improved?

RQ3: What type of challenges are being faced by the people in adoption of millets in their day-to-day sustainable food habits?

#### **4. Research Methodology**

As 2018 and 2023 are declared as 'National Year of Millets' and 'International Year of Millets' respectively, thus the main focus of the present study, all kinds of Millets produced in India. Primary data was obtained through the household survey based on the open-ended questionnaire administered to a given population. The convenient random sampling method is used to assess the Impact of Government sponsored Millet's awareness programmes on Indian Households with special reference to Delhi NCR. For Secondary data, government reports published were considered

##### **4.1 Research design**

Since the objective of the study is to suggest policy measures to bring about an increase in sustainable consumption of millets in north Indian states by exploring the impact of the government-initiated awareness campaigns and bring out the impact thereof and suggest the policy implications thereto.

##### **4.2 Data Analysis Techniques**

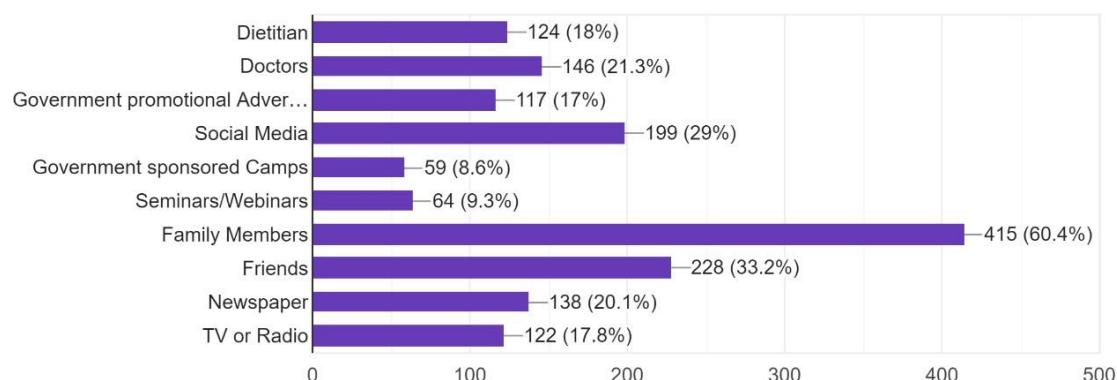
For the present study, qualitative and quantitative data was collected. For the quantitative data analysis, self-structured questionnaire was prepared and convenient random sampling technique was used. The sample data was collected and 687 respondents agreed to fill the questionnaire.

#### **5. Results and Findings**

The study was administered to a sample size of 686 households belong to Delhi NCR. Out of sample size, there are 55.5% i.e., 395 females and 42.5% i.e., 292 males, who belong to different kind of religions and regions. As in Delhi NCR, people come from different parts of the India that's why there is diversity among households. The majority of the respondents fall in the age group between 19-37 years. When educational level of respondents was considered then it was realised that 67 percent respondents (460) having education up to secondary level (12<sup>th</sup> class) and most of the respondents i.e., 33% (225) respondents have income level between Rs 1,00,000-5,00,000. 29% respondents having their own business or self-employed and 27% are homemakers.

When respondents were asked about the millets, 80% respondents were aware of the millets and they confirmed that the major source of awareness of millets was provided by family members which is followed by friends and their frequency of consumption is once or twice in a month. Only 17% respondents confirmed about awareness because of government promotional advertisements and 8.6% from government sponsored camps. This is very negligible number to consider as government is making continuously efforts to promote millets consumption in Indian households.

Fig:3 Source of Awareness



When the awareness was measured across various millets available in the Indian market for consumption, it was found that 42.5% respondents were aware of only Pearl millet (Bajra) and 13% respondents were aware of finger millet (Ragi/Mandua) and Sorghum (Jowar) each. It depicts other millets are not even considered for consumption purposes. The reasons could be the difference in the states of India where they belong and their family is aware of only those millets which were used to produce in their states or region.

Beyond this there is major obstacle in consumption of millets is “Not easy to cook” and “Tasteless”. In absence of easy recipes for cooking millets, consumers are avoiding its consumption. Those who are consuming are among those having some or other health issues or are health alert for its nutritional value awareness. The other reason is that the price of millet is 3 times higher than the wheat and other grains, the information regarding the price of millets was collected through market survey. It is gaining popularity in high-class income group as it has become a lifestyle food. Whereas millets consumption was main part of Indian foods but due to low demand farmers reduced the cultivation of millets thereby increasing the prices of millets.

## Conclusion

As the main objective of the study was to explore the impact of government sponsored schemes for awareness of millets among Indian consumers. The qualitative data and quantitative data reported that those consumers are consuming millets, they were already aware of the nutritional benefits of millets and it is because of their traditional staple food. The Indian government spending extravagantly on promotional schemes for consumption of millets despite of this consumers are aware but not consuming frequently because of not easy to cook and its tasteless nature of food. The study has some limitations due to geographical location of the study conducted and Delhi is a metro city where life is moving so fast as people don't have much time to cook the millets. They moreover look for healthy outlets so that they need not to give much for cooking the millets. The further studies can be conducted at large scale in different states of India especially where millets are cultivated. This might affect the results of the study. The government should subsidize the price of millets to make it easily available at cheap cost to every household as well as cultivation of millets must be subsidized at large scale. In this sense, the government should make more efforts towards subsidization of millets cultivation in respective states of India and some “Minimum Security Price” must be fixed for these types of crops so that in agriculture sector, farmers could



be motivated to cultivate millets and supply can be enhanced. This will lower the price of millets and low-income group consumers can afford to consume millets.

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