



POLICY OF MILLET MISSION AND INDIA'S SELF-RELIANCE: OPPORTUNITIES AND PRACTICES

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Abstract

India's Self-reliance in food and nutrition with climate resilient cropping pattern has become the need of the hour. The Covid-19 pandemic and aggravating war situations in Ukraine and gulf countries have created an emergency to adopt such a policy that makes India self-reliant in diverse staple food in congruence with the situations of the climate change. Millets have been a part of several marketing campaigns in recent years, including being called "super food," "diet for all human ailments," "climate-smart food for soil and earth," and many others. As such, the present paper examines India's most recent policy initiatives to achieve nutritional security and national self-sufficiency through Millet Mission. The study is based on secondary sources of data and finds that there are ample prospects 'Millet Mission' in achieving self-reliance in food and nutritional security, climate friendly farming and substantive contribution of food to the rest of the world.

Keywords: Millet Mission, Food Security, Atma Nirbhar Bharat, Climate Resilience, India

INTRODUCTION

Self-reliance for India has become increasingly important in the present scenario. It has provided us with the opportunity to reflect and identify solutions for current issues in the light of principles highlighted by Gandhian ideas of Swadeshi and Swaraj that advocate the self-reliance in producing the commodities for consumption at

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level. Bidyut Chakrabarty (2006) notes that Gandhi connected Swaraj with eshi. Gandhian philosophy of Swaraj, was not just about political freedom but about economic and spiritual liberation. It served as a tool for socio-economic tions that encouraged independence. The recent Indian Government policy initiative of 'Millet Mission' goes with the Gandhian philosophy. The present paper presents a comprehensive account of prospects of Millet Mission in not only achieving self-reliance in food and nutritional security but in farming adaptive to climate change and meet the global food requirements.

'MILLET MISSION': LOCAL AND GLOBAL NEED

India's Millet Mission addresses the problems arising due to the recent Ukraine conflict and COVID-19 Pandemic. Both Western and Ayurvedic medicine regard millets as healthy grains. One of the first foods that people have consumed is millets, which is also maybe the first cereal grain to be employed in domestic spaces. For thousands of years, millet has been a staple grain throughout Africa and India. Additionally, it is known that Swiss lakeside residents in the Stone Age formerly grew this plant (Yadav:2023).

More than one-third of the world's population is dependent on millets, which is currently ranked as one of the most significant cereal grains. In many countries, especially in Africa and the Indian subcontinent, millets are significant crops as it can be grown in hot climate. Millets are extremely special because it may grow from planter seeds to a mature and ready-to-harvest state in as little as 65 days. It has a significant nutritional value compared to other basic foods because it provides about 15% protein, a lot of fibre, B-complex vitamins, and important amino acids. In addition, it contains a lot of minerals including potassium, phosphorus, magnesium, and iron (Yadav, P: 2023). The year 2018 has been proclaimed as the 'Year of Millet' by the Indian government. The United Nations declared 2023 as the 'International Year of Millet'. Such recognition signifies the resurgence of conventional crops and food grains. Millets are also known as 'Mota Anaj' and has long been a staple of traditional Indian consumption because of its advantages for in health, economic viability, and environmental friendliness. During his speech at the UN, India's Prime Minister Mr. Narendra Modi stated - 'Millets have a glorious history of being among the earliest crops grown by humans' (Indian Express: 2023). In her address introducing the Union Budget 2023, Union Finance Minister Nirmala Sitharaman also referred to millets as "Shree Anna" (the Mother of All Grains). The International Year of Millets (IYM) 2023 is being observed by the Government of India using a multi-stakeholder approach. The IYM-2023 action plan focuses on tactics to increase consumption, export, value chain strength, branding, health awareness, etc.

Additionally, to increase demand and production of millets, State Governments and Central Government have created month-by-month action plans. To promote millets throughout the year, various state governments have also created different strategies that includes events such as training farmers, village-level camps, the Bajra Mahotsav, school activities, road shows, and other forms of publicity. State millet missions are also being implemented by states like Odisha, Assam, Chhattisgarh, Karnataka, Tamil Nadu, Andhra Pradesh, Madhya Pradesh, Maharashtra, and Rajasthan to boost production and consumption.

Timeline



Source: NITI Aayog

The National Food Security Mission (NFSM) is being implemented by the Department of Agriculture and Farmers Welfare (DA&FW) in 212 districts of 14 states from 2018–19 to promote millets (ibef.org and Niyogi: 2023). Through the states and UTs, incentives are given to farmers under the NFSM-Nutri Cereals programme, such as for crop production and protection technologies, cropping system-based demonstrations, the production and distribution of certified seeds of recently released varieties and hybrids, integrated nutrient and pest management practises, improved farm implements/tools/resource conservation machineries, water saving devices, capacity building of farmers through training during cropping season, and many more. The NFSM has also sponsored initiatives including the creation of Centres of Excellence (CoE) and seed hubs for Nutri Cereals. The Production Linked Incentive Scheme for Food Processing Industry for Millet-based Products (PLISMBP) has been authorised by the Ministry of Food Processing Industries (MoFPI) for implementation from 2022–23, 2026–27 with an investment of Rs. 800 crore. 35 States and Union Territories (UTs) are now implementing the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme, which has been introduced under the Atmanirbhar Bharat Abhiyan (ibef.org).

The government is also encouraging farmers and entrepreneurs to apply for the Agri-Infrastructure Fund Scheme, which offers interest subsidies on loans up to Rs.2 crore for the establishment of primary millet processing facilities (pvt gov in). An increase in the Minimum Support Prices (MSP) for Jowar, Bajra, and Ragi has been announced in an effort to encourage farmers to grow millets.

MILLETS PROMOTION PROGRAMMES

The INSIMP programme, introduced in 2011-12 as part of the Rashtriya Krishi Vikas Yojana (RKVY-National Agriculture Development Plan), was the first effort to promote millet production and consumption for dietary security in India. The Ministry of Agriculture and Farmers Welfare's Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP) was one of the carefully thought out projects, with an outlay of Rs. 300 crore in 2011-12 for increasing millets cultivation, processing, and value addition in the nation. Millets have many advantages, but their production and processing are labour intensive. However, INSIMP was introduced for increasing the area of cultivation, production and productivity. The plan was designed to help the States by providing funds for crucial components of the millet value chain, such as seed production, installation of processing facilities, and organisation of awareness programmes. Arunachal Pradesh, Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh, Uttarakhand, West Bengal, and Sikkim were among the 16 states putting this scheme into practise. It targeted 149 districts in 16 states totalling 6.71 lakh hectares.

For promotion of farming of millets several institutions were created in 2011 like three National Centres of Excellence (CoEs), Chaudhary Charan Singh Haryana Agricultural University (CCS HAU), Hissar, ICAR-IIMR, Hyderabad and University of Agriculture Sciences, Bengaluru etc. These institutions promoted the cultivation of locally practiced millets crops like sorghum, pearl, finger millet etc. and governments provided funds for increasing the sown area, support to farmers for HYV seeds, technology and related practices. In addition to these, supportive prices of millets produce were also fixed. All these had positive impact on cultivation of millets, which will be evident from the facts that yield rate of millets has improved in the states of Uttar Pradesh (33%) Karnataka (28%), Tamil Nadu (13%), and Uttarakhand (3%), greater yield improvements have been noted with tiny millets. The coverage of sown area under millets reached at 772,857 hectares across 16 states. The scheme has increased consumer demand for millet-based goods through processing and value addition strategies. The IIMR is also developing equipment for primary and secondary processing. More than 300 processing clusters located throughout the country's millet-growing States have implemented some of these technology.

TYPES OF MILLETS CULTIVATED IN INDIA

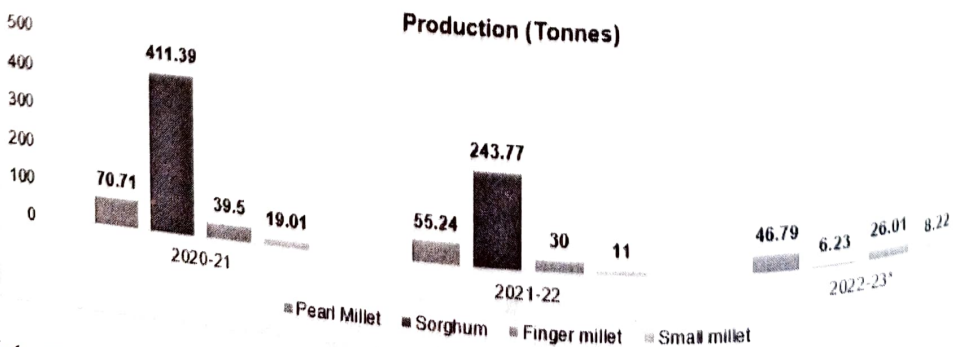
Pearl millet, Sorghum, Finger millet, small millets (Foxtail, Barnyard, Kodo, Proso, Little millet), and Pseudo millets (Buckwheat and Amaranth) are the main millets produced in India. There is a strong push in Rajasthan, Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Kerala, Telangana, Uttarakhand, Jharkhand, Madhya Pradesh, Haryana, and Gujarat for these kinds. These states produce 90 percent of nation's pearl millet.

India is the fifth-largest producer of sorghum. Sorghum (*Sorghum bicolor*), often called Jowar, is grown as a grain for human use and as a forage crop in grasslands. Sorghum is frequently farmed in central and western Maharashtra, northern Karnataka, Andhra Pradesh, and Tamil Nadu during the rainy season and after the rainy season recedes.

A cereal grass mostly grown for its grain is called finger millet. It ranks as India's sixth-most-produced crop, behind bajra, sorghum, maize, wheat, and rice. The main states for finger millet cultivation are Karnataka and Uttarakhand, Andhra Pradesh, Orissa, Jharkhand, Orissa, Tamil Nadu, and Maharashtra.

The group of small grains is represented by five Foxtail grain millets, which is widely farmed in Andhra Pradesh, Karnataka, Tamil Nadu, Maharashtra, Uttar Pradesh, and Bihar. Kodo millet, is the coarsest of all and is wildy grown in Madhya Pradesh, Chhattisgarh, Maharashtra, and Karnataka; Proso millet, is indigenous to India and is wildy grown in Madhya Pradesh, Eastern Uttar Pradesh, Bihar, Tamil Nadu, Maharashtra, Andhra Pradesh, and Karnataka.

Pseudo millets have a good nutritional quality and can withstand hard environments. Two millets - Amaranthus (Chaulai) and Buckwheat (Kuttu) are used to classify them. They both have significant levels of protein (13–15%) and amino acids. Rutin, which is found in buckwheat lowers blood pressure and has anti-inflammatory and anti-carcinogenic qualities. (Agricultural and Processed Food Products Export Development Authority APEDA)



Note: The value of 2022-23 is provisional.

Source: Agricultural and Processed Food Product Export Development Authority (APEDA)

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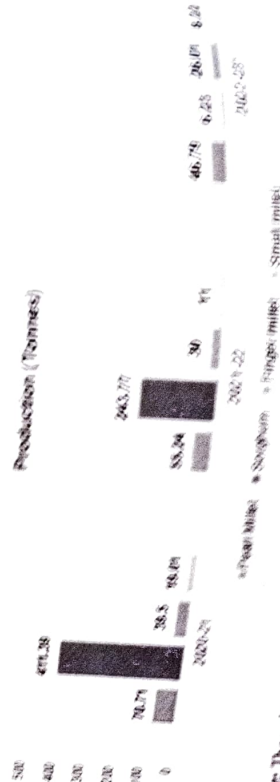
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Pseudo millets have a good nutritional quality and can withstand hard environments. Two millets - Amaranthus (Chaulai) and Buckwheat (Kuttu) are used to classify them. They both have significant levels of protein (1.5-1.5%) and amino acids. Rutin, which is found in buckwheat lowers blood pressure and has anti-inflammatory and anti-carcinogenic qualities. (Agricultural and Processed Food Products Export Development Authority APEDA)



Note: The value of 2022-23 is provisional.
Source: Agricultural and Processed Food Products Export Development Authority (APEDA)

MILLETS: STATE LEVEL SCHEMES

A unique government programme named *Shikhar* (Shikhar means 'Summit' in Sanskrit) was created to compensate for the poor price of brown, orange, and green millets. The scheme is based on the principle of 'one crop, one price'. The Chhattisgarh government provided *Shikhar* (Shikhar means 'Summit' in Sanskrit) in September 2021 in an effort to make the state the millet powerhouse of India. The major objective is to encourage the cultivation of Kodo millet, green gram, and finger millet in the state. A total budgetary allocation of Rs. 17.50 crore was made for this purpose. The State Co-operative Federation Ltd. (S.C.F.L.) has set a goal to develop a millet processing facility for processing conventional small millets in the State Millet Mission in accordance with the State Department of Agriculture.

The most natural crops grown by farmers in the state's hilly regions are amaranthus, finger millet, and barnyard millet covering approximately 30,000 hectares. The Parmanparagat Krishi Vikas Yojana (PKVY), the Rashtriya Kisan Vikas Yojana (RKVY)-Organic Programme covers 33,140 hectares. These projects are centrally sponsored. The state of Madhya Pradesh has been promoting particularly Kodo and Little millet, under the Nutri Cereal sponsored by the Centre. In the tribal districts of Mandla and Dindori, a non-profit organisation called Action for Social Advancement (ASA) has chosen 40 to 45 villages for millet development. The Tamil Nadu Millet Mission, part of the Agriculture Development Programme (NADP), was established in 2017 to revive the cultivation of neglected millets through the provision of inputs and their production. While presenting the Agriculture Budget 2023-24, Agriculture Minister M. R. Panesar announced that the Tamil Nadu government will implement its Millet Mission for a period of five years, to boost production and consumption of millets. The Tamil Nadu Millet Mission will be implementing the financial assistance of the Union and State Governments at an estimated Rs. 82 crore in the coming year.

Odisha Millet Mission (OMM), a special programme the state government launched in 2017, aims at promoting millets in tribal areas to reduce dependence on farms and plates while simultaneously focusing on production, consumption, marketing, and inclusion of millets in government institutions. The primary initiatives to encourage millet consumption has been the of Odisha Millets Mission and SHG Mission Shakti, in order to produce recipes, as well as train women of such SHGs. Such women-led SHGs have an important role in sustaining the economy of millets, preserving and maintaining ecological harmony. Millet (Foxtail) is an important

KEYPOINTS: STATE LEVEL SCHEMES

The Government programme named Bhavantar Bharpavee Yojana in Haryana aims to compensate for the poor price of horticulture farmers' outputs. To support millet farmers in the state, the scheme included the baira crop in the Kharif season. The Chhattisgarh government unveiled Mission Millet Chhattisgarh in 2021 in an effort to make the state the millet powerhouse of India. Its objective is to encourage the cultivation of Kodo millet, small millet, and finger millet in the state. A total budgetary allocation of Rs. 170 crore and an input of Rs. 9000 per hectare are being made for this project. The Uttarakhanda Co-operative Federation Ltd. (UCF) has set a goal to acquire Finger Millet (Madua) and Barnyard Millet (Jhangora), as well as to establish and build a Multi-Stage Processing Facility for processing conventional small millet varieties, under the State Millet Mission in accordance with the State Department of Agriculture.

The State Millet Mission in the state's hilly regions include the most natural crops grown by farmers in the state's hilly regions include sorghum, finger millet, and barnyard millet covering approximately 12, 400 hectares. The Paramparagat Krishi Vikas Yojana (PKVY), the Rashtriya Krishi Vikas Yojana (RKVY)-Organic Programme covers 70,240 hectares, the Namami Gange Programme covers 1,657 clusters (33,140 hectares). These programmes are centrally sponsored. The state of Madhya Pradesh has been promoting millets, particularly Kodo and Little millet, under the Nutri Cereal Sponsored Scheme of the Centre. In the tribal districts of Mandla and Dindori, a non-profit organisation called Action for Social Advancement (ASA) has chosen 30 to 40 communities for millet development. The Tamil Nadu Millet Mission, part of the National Agriculture Development Programme (NADP), was established in 2014-15 to revive the cultivation of neglected millets through the provision of incentives for their production. While presenting the Agriculture Budget 2023-24, Minister of Agriculture M R K Panerselvam announced that the Tamil Nadu government will implement its Millet Mission for a period of five years, to boost production and consumption of millets. The Tamil Nadu Millet Mission will be implemented with the financial assistance of the Union and State Governments at an estimated cost of Rs. 82 crore in the coming year.

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