



Growing Millets: The Nordic Approach to Ending Hunger

(*Pinaki Roy, Ram Eshwar Prasad, Kinkar Kumar and Prakash Chandra)

Krishi Vigyan Kendra, Sitamarhi, Bihar-843320

*Corresponding Author's email: roypinaki51@gmail.com

With a deepening climate crisis and aggravating environmental stresses, there is a sharp need for crop diversification by promoting crops suitable for grown in the harsh environment. Promoting crops that can be cultivated in challenging environments is crucial given the growing climate catastrophe and intensifying environmental stressors. In order to feed the world's rapidly expanding population—which is expected to exceed 8.5 billion people by 2030 and an astounding 9.7 billion people by 2050—more food must be produced. Millet is a climate-resilient crop that produces nutritious food. A crop that can withstand harsh weather conditions, millet yields wholesome meals. Because of its immense potential to support food security in a climate-affected world more sustainably, the United Nations has proclaimed 2023 as the International Year of Millets.

Status of millets in India

India is facing a difficulty in growing of millets, especially tiny millets. The cultivated area under millets fell sharply between 1961 and 2009 (80% for small millets, 46% for finger millet, 59% for sorghum, and 23% for pearl millet); the total production of small millets fell by 76%; the per capita availability of all millets significantly decreased (despite high productivity gains for some varieties); and the consumption of millets fell precipitously overall. However, India is being the world's largest producer millets in many households.

Millets- Towards sustainability in the environment and nutrition

Millets require little external inputs, may flourish in arid environments, and can survive on comparatively poor soil. They are a basic food with more nutritional content than other cereals. Millets contain iron and calcium and are also rich in protein, fiber, resistant starch. Additionally, they have a low glycemic index, which may help prevent or control diabetes. It is economically viable to grow them in mixed agricultural systems for both food and fodder. Furthermore, because of rich varietal diversity, millets improve agro-biodiversity, facilitate intercropping with other important crops, sequester carbon and increase opportunities for CO₂ abatement, and have a significant cultural value owing to their long history on the Indian subcontinent.

Millets- substitute to paddy-wheat to achieve zero hunger

Based on the indices of poverty and nutritional status in India, these concerns need to be addressed urgently. According to various reports it has been found between 37 and 77% of people live in poverty; the percentage is higher in rural than in metropolitan areas. Comparable data reveal shockingly high rates of malnutrition in India (about one-fifth of the population), which are particularly alarming for women (more than 35% have body mass indices below normal) and children (about 50% have stunted growth). Human welfare, poverty, nutrition, and economic progress are all interrelated. The primary pillars of India's food system, wheat and irrigated rice, are becoming less productive, which makes achieving

food and nutritional security in the nation more challenging. Approximately 60% of Indian agriculture is still rain-fed, which provides 40% of the nation's food supply, despite considerable developments in irrigation. Increased productivity on the large tracts of rainfed land that millets are found on will be required to attain food security in the near future due to administrative and physical limitations that hinder the indefinite growth of irrigated systems. A larger availability of grains in terms of nutrition and quantity will result from a higher proportion of millets in the food chain.

Obstacles for promotion of Millets

In light of this, it is essential to pay great attention to millets' promotion. However, it is challenging to come up with strategies to encourage millets' production and consumption given the negative trends. Many significant factors have limited millets' production and use, and they still do. These factors include the following:

- Insufficient or nonexistent production assistance in comparison to other crops;
- Lack of advancements in technology and production techniques;
- With the exception of finger millet, no appropriate post-harvest processing technology exist for small millets;
- Competition from other profitable and marketable crops;
- Insufficient assistance for public procurement and marketing,
- Insufficient funding, either public or private, to promote millets as a nutrient-dense food type

Way forward approach

Lack of proper policy leads slower adoption of millets. It is evident that many of the challenges outlined above are the product of these policy shortcomings. Promotion of millets' production and consumption will not advance without addressing the policy-related roadblocks. It is commendable that policymakers are now ready to concentrate on millets; but, in order to optimize population welfare, caution must be exercised in the development and implementation of enabling policies, as well as in the deployment of tailored location-specific strategies. Furthermore, location-specific Packages of Practices (PoPs) must be created, supported, and implemented, with a focus on tiny millets. It is necessary to provide farmers with access to high-quality millets varieties at their doorstep. In addition, to counteract the negative perception of these crops that persists in certain areas and jeopardizes supply-focused interventions such as the inclusion of millets in PDS, there is a need to increase awareness about millets through the mainstream media, direct consumer promotion programs, and image.

Conclusion

Given the potential of millet to address issues related to nutrition, agriculture, and climate change, there is a pressing need to raise public awareness of the health, climate resilience, and nutritional benefits of millet and to promote a varied, well-balanced diet by promoting more sustainable millet production and consumption.