

Current Status of Millets in India: Trends, Prospects and Challenges

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Abstract:

India is the world's largest producer of millet, accounting for 20% of global production and 80% of Asia's production. In 2021, India had a 41% share of global millet production, followed by Niger at about 12% and China at about 8%. Millets have been a staple in the Indian diet for hundreds of years, offering an affordable nutritional option, particularly for those in rural areas. Numerous millet varieties are naturally gluten-free, making them suitable for individuals with celiac disease or gluten sensitivity. Additionally, millets contribute to better soil health and reduced erosion due to their shallow root systems, which help prevent nutrient depletion and sustain soil fertility. India's top millet producing states are Rajasthan, Uttar Pradesh, Maharashtra, Karnataka, Gujarat and Madhya Pradesh. The potential for millets in India is promising due to strong demand for nutrient-rich grains, positioning millets as a crucial element of the country's food policy. This article offers an analysis of the current state of millet production in India, future opportunities and various challenges faced.

Introduction:

Millet is a group of cereals that belong to the *Poaceae* family commonly known as the grass family. There are various types of millet, which differ in their color, texture, appearance, grain size, and species. Millets are well-suited for India due to their ability to withstand drought, adapt to various soil types and climates, and thrive under changing rainfall patterns. There are a total of nine types of millet widely cultivated in India- Jowar (sorghum), Bajra (pearl millet), ragi (finger millet), Jhangora (barnyard millet), Barri (Proso or common millet), Kangni (foxtail/ Italian millet), Kodra (Kodo millet), Buckwheat and Amaranthus. They can be grown throughout the year, across both the kharif and rabi seasons, allowing for several harvests annually. This makes millets a sustainable and economical choice for smallholder farmers and marginalized communities. Millet has been grown in India for over 5,000 years and was a key staple for many ancient civilizations. It is believed to have been the first grain cultivated in India, predating wheat and rice. In ancient India, millets were referenced in sacred

texts such as the Veda, Purana, and Samhita, highlighting their cultural importance and nutritional benefits. These grains were esteemed for their exceptional resilience in challenging environmental conditions, which made them a reliable option for cultivation.

Millet production scenarios in India:

India is the leading producer of millet globally, followed by Niger coming next. The country is also the top producer and exporter of cereal products worldwide. In the financial year 2021–2022, India exported cereals worth \$12,872.64 million (Rs. 96,011.42 crore). India ranks among the top five nations in the world for millet exports. Data from the Agriculture Ministry indicates that in 2018–19, three millet crops—bajra (3.67%), jowar (2.13%), and ragi (0.48%)—together made up almost 7% of India's total cultivated land.

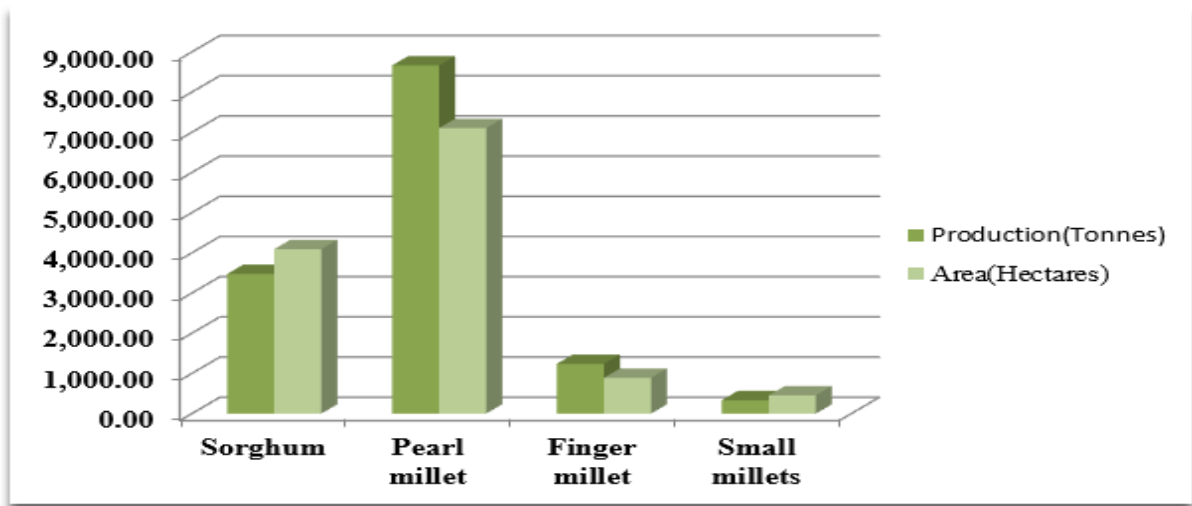


Fig: Millet Production Vs Area all over India (IIMR-Milletstats)

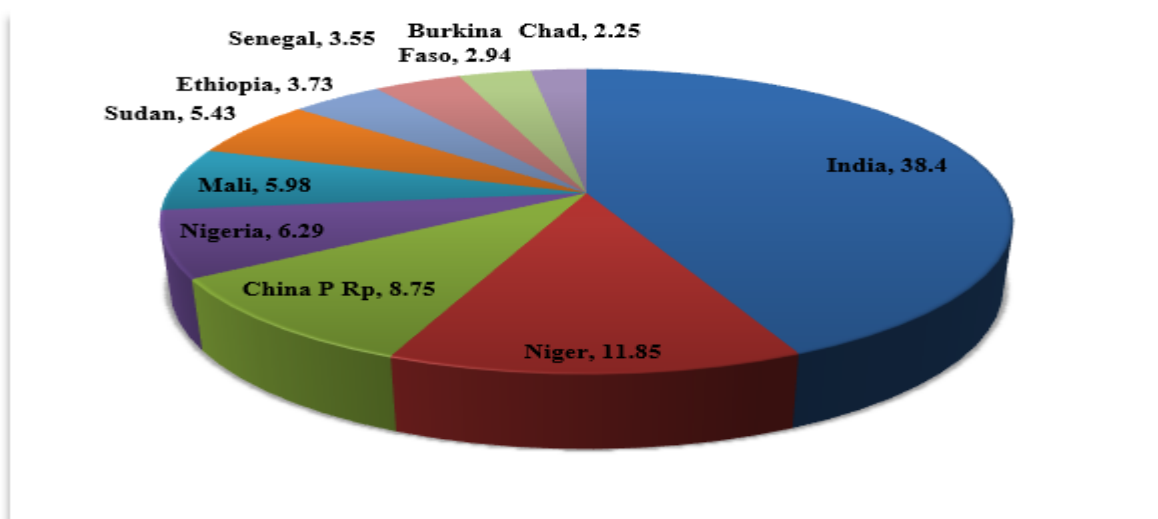
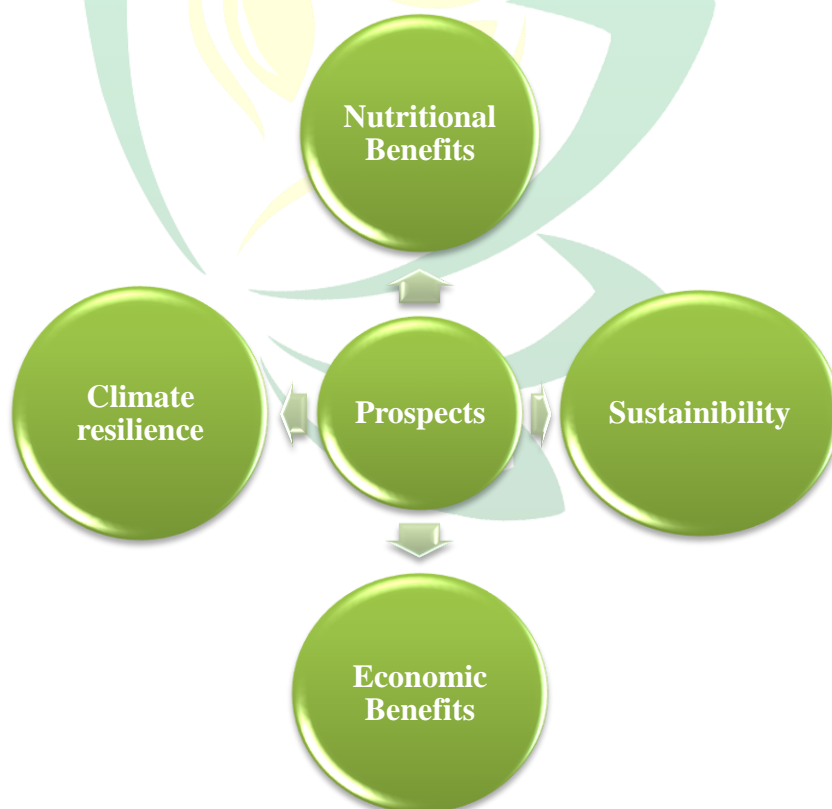


Fig: Country wise millet production (APEDA-2022)

Prospects of Millet Production in India:

Millets are gaining increasing attention in India due to their nutritional benefits and sustainability. Here are some key prospects and trends related to millet production in India:

- 1. Nutritional Benefits:** Millets are rich in essential nutrients like fiber, protein, vitamins, and minerals. They are often considered a healthier alternative to more common grains like rice and wheat. This makes them appealing to health-conscious consumers and those looking to improve their diet.
- 2. Climate Resilience:** Millets are well-suited to India's diverse climates and can grow in arid and semi-arid regions with minimal water. Their drought resistance makes them an important crop for regions facing water scarcity and climate change challenges.
- 3. Economic Viability:** Millets can be a lucrative option for farmers due to their lower input costs and resilience. They can provide a stable income, especially in regions where other crops may fail due to adverse weather conditions.
- 4. Sustainability:** Millets flourish in arid areas, needing just 300-400 mm of water, which is significantly less than the 1400-1500 mm required for rice and the 1900-2000 mm for sugar cane. This makes millet cultivation a more water-conserving option.



Challenges faced:

Millet production in India, despite its advantages, faces several challenges:

1. **Low Yield:** Compared to major cereals like rice and wheat, millet yields are often lower. This can make them less attractive to farmers who are focused on maximizing output.
2. **Limited Awareness:** There is a general lack of awareness about the nutritional and economic benefits of millets among consumers and producers. This hampers demand and growth in the sector.
3. **Market Access:** Farmers face difficulties accessing markets due to inadequate infrastructure, lack of value-added processing facilities, and limited market linkages. This can affect their ability to sell millets at competitive prices.
4. **Research and Development:** Investment in research and development for millets has been relatively limited compared to major crops. This impacts the development of high-yielding and disease-resistant varieties.
5. **Economic Incentives:** Subsidies and support systems are often skewed in favor of more widely grown crops like rice and wheat. This reduces the incentives for farmers to grow millets.
6. **Processing and Technology:** There is a lack of advanced processing technology for millets, which limits their value addition and market appeal. Improved processing methods are needed to enhance the versatility and shelf life of millet products.
7. **Cultural Preferences:** In many regions, rice and wheat are deeply ingrained in the diet and cultural practices. Changing dietary habits to incorporate millets can be challenging.
8. **Climate Variability:** While millets are resilient, they are not immune to extreme weather events. Unpredictable climate patterns can still affect their production.

Conclusion:

Promoting millet production in India is essential for advancing nutritional, environmental, and economic goals. Millets offer significant health benefits, are environmentally sustainable, and provide economic advantages due to their low resource requirements and resilience to climate change. However, to fully realize these benefits, it is crucial to address existing challenges such as low yields, limited awareness, and inadequate

market infrastructure. Fostering a culture of millet production and consumption in India requires a long-term, multi-faceted approach. By addressing current challenges and leveraging the opportunities that millets present, stakeholders can build a more resilient and sustainable agricultural sector. This shift will not only contribute to better health outcomes and environmental stewardship but also enhance the economic stability of rural communities and support national food security goals. A more concerted effort to highlight and address the benefits and challenges of millet production can lead to a more resilient and sustainable agricultural sector, contributing to the broader goals of food security and environmental sustainability in the country.

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