

**Millets As a Super Food, Its Challenges, Benefits and Opportunities: A Review****Ingle S.T. and Patil S.D.**

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**Abstract:**

*have been consumed globally for thousands of years, with their importance being recognized for their unique nutritional and health benefits. In 2018, the United Nations declared 2023 as the International Year of Millets to raise awareness about their significance as a staple food, especially for smallholder farmers, and promote their cultivation, trade, and utilization. This paper aims to provide a comprehensive overview of the current status of millets in terms of their production, consumption, trade, and their potential to contribute to global food security, nutrition, and environmental sustainability. It reviews the scientific literature and empirical evidence on the nutritional composition and health benefits of millets, their role in agro-biodiversity and resilience, and the challenges and opportunities for their promotion and integration into national and international food systems. The paper concludes that the International Year of Millets 2023 can provide a unique opportunity for stakeholders to collaborate and take concerted action to promote the production, consumption, and trade of millets, especially among smallholder farmers and marginalized communities, and to enhance their contribution to sustainable and healthy food systems.*

**Keywords:** *Millets, food security, nutrition, agro-biodiversity, environmental sustainability.*

**Introduction:**

**T**he International Year of Millets 2023 is a global initiative to promote the importance of millets as a source of nutrition, health, and sustainable agriculture. Millets are a group of small-seeded grasses that have been used as a staple food in many parts of the world for centuries. They are highly nutritious and are a rich source of minerals, vitamins, proteins, and dietary fibre. Millets are also drought-resistant, making them a viable option for dry-land farmers in many parts of the world. However, despite their many benefits, millets are often overlooked and underutilized. The International Year of Millets 2023 provides an opportunity to bring attention to the importance of this food crop and to promote its adoption and use around the world.

The United Nations declared 2023 as the International Year of Millets to raise awareness about the health benefits of millets and to promote their cultivation, consumption, and trade. Millets are small-grain cereals that have been grown in many parts of the world for thousands of years. They are hardy, drought-resistant crops that can grow in a variety of soil types and climatic conditions. Millets are also highly nutritious and provide a range of

health benefits, including reducing the risk of diabetes, heart disease, and certain types of cancer. This essay will explore the significance of the International Year of Millets and the benefits of cultivating and consuming millets.

**History of Millets:**

Millets are a group of small-seeded grains that have been cultivated by humans for thousands of years. The cultivation of millets dates back to ancient times, and the grains were used as staple foods in many parts of the world.

The exact origin of millet cultivation is not clear, but some of the earliest evidence of millet cultivation has been found in China. Archaeological findings suggest that millet was grown in China as early as 7000 BCE. Millet cultivation also played an important role in the development of ancient civilizations such as Egypt, Greece, and Rome.

In India, millets have been grown for more than 5,000 years and are an important part of the country's agricultural and cultural heritage. Millets are known by different names in different regions of India, such as jowar, bajra, ragi, and foxtail millet. Millets have been a staple food for many rural communities in India, particularly in regions with low rainfall and poor soil quality.

In Africa, millets have also been an important food crop for thousands of years. Millets are widely

grown in countries such as Nigeria, Niger, Mali, and Burkina Faso. In these countries, millets are used to make porridge, bread, and beer.

Millets were also an important food crop in Europe during the middle Ages. Millet was used to make a type of bread known as "millet bread" or "black bread," which was a common food for peasants.

Millets played a significant role in the diets of people around the world until the 20th century. However, the popularity of millets declined in many regions during the 20th century as other crops such as rice, wheat, and maize became more popular. This decline was due to several factors, including the development of hybrid crops, changes in dietary habits, and the neglect of millets by policymakers and international organizations.

Despite the decline in popularity of millets, there has been a resurgence of interest in these grains in recent years. Millets are highly nutritious and environmentally friendly crops that can be grown in a variety of climatic conditions. Millets are also gluten-free, making them an excellent option for people with gluten intolerance or celiac disease. Millets have been recognized by the United Nations as an important crop for promoting food security and sustainable agriculture.

In conclusion, millets have been an important food crop for humans for thousands of years. The cultivation of millets dates back to ancient times, and the grains were used as staple foods in many parts of the world. Although the popularity of millets declined in many regions during the 20th century, there has been a resurgence of interest in these grains in recent years due to their nutritional and environmental benefits.

Millets play a crucial role in global food security, particularly in regions with low rainfall and poor soil quality. Millets are highly nutritious, resilient, and adaptable crops that can be grown in a variety of climatic conditions, making them an important food crop for millions of people around the world.

### **The Importance of Millets in Global Food Security**

Here are some of the ways in which millets contribute to global food security:

Millets are highly nutritious: Millets are a good source of protein, fiber, vitamins, and minerals. They

are particularly rich in iron, calcium, and zinc. Millets are also gluten-free, making them an excellent option for people with celiac disease or gluten intolerance. The high nutritional content of millets makes them an important food crop for improving the health and well-being of people, particularly in regions where malnutrition is a major problem.

Millets are resilient and adaptable: Millets are highly resilient crops that can grow in a variety of climatic conditions, including regions with low rainfall and poor soil quality. Millets are also resistant to pests and diseases, making them a low-input crop that requires fewer pesticides and fertilizers than other crops. The resilience and adaptability of millets make them an important food crop for improving food security in regions that are prone to droughts, floods, and other natural disasters.

Millets are affordable and accessible: Millets are relatively inexpensive compared to other staple crops such as rice and wheat. Millets can also be grown and harvested by small-scale farmers, making them an accessible food crop for people in rural areas. The affordability and accessibility of millets make them an important food crop for improving food security for low-income communities.

Millets are environmentally friendly: Millets require less water than other crops such as rice and wheat, making them an environmentally friendly crop that can help conserve water resources. Millets are also drought-tolerant, which means that they can be grown in regions that are prone to water scarcity. The environmental benefits of millets make them an important food crop for promoting sustainable agriculture and conserving natural resources.

Millets promote crop diversity: Millets are one of the oldest and most diverse crops in the world, with over 6,000 varieties known to exist. The diversity of millets makes them an important food crop for promoting crop diversity and preserving traditional agricultural practices. The preservation of traditional agricultural practices is important for maintaining genetic diversity and ensuring the long-term sustainability of food production systems.

### **The Nutritional Benefits of Millets and their Role in Preventing Chronic Diseases**

In this section, we will discuss the nutritional benefits of millets and their role in preventing chronic diseases.



Millets are a good source of fibre: Millets are a rich source of dietary fibre, which is essential for maintaining good digestive health. Fibre helps to promote regular bowel movements, prevent constipation, and reduce the risk of colon cancer. It also helps to regulate blood sugar levels and prevent type 2 diabetes.

Millets are a good source of protein: Millets are a good source of protein, which is essential for building and repairing tissues in the body. Protein also helps to maintain a healthy immune system and prevent infections. Millets contain both essential and non-essential amino acids, making them a complete source of protein.

Millets are a good source of vitamins and minerals: Millets are a rich source of vitamins and minerals, including iron, calcium, phosphorus, magnesium, potassium, and vitamin B. These nutrients are essential for maintaining good health, and they help to prevent chronic diseases such as anaemia, osteoporosis, and hypertension.

Millets are low in glycemic index: Millets have a low glycemic index, which means that they are digested slowly and release glucose into the bloodstream at a slower rate. This helps to regulate blood sugar levels and prevent type 2 diabetes.

Millets are gluten-free: Millets are gluten-free, which makes them an excellent option for people with celiac disease or gluten intolerance.

Millets are rich in antioxidants: Millets contain high levels of antioxidants, which help to prevent oxidative damage to the body's cells. Antioxidants help to prevent chronic diseases such as cancer, heart disease, and Alzheimer's disease.

Millets are beneficial for weight management: Millets are low in calories and high in fiber, which makes them an excellent food for weight management. They help to promote satiety and prevent overeating, which can lead to weight gain and obesity.

Millets are beneficial for heart health: Millets are rich in potassium, which helps to regulate blood pressure and prevent hypertension. They also contain magnesium, which is essential for maintaining a healthy heart rhythm.

### Nutritional Benefits of Millets

Sr. No	Nutrient	Millet	RDA*
12	Protein	11.02g	56g
3	Fat	4.22g	44-77g
4	Carbohydrate	72.85g	130g
5	Fiber	8.5g	28-34g
6	Calcium	8mg	1000-1300mg
7	Iron	3.91mg	8-18mg
8	Magnesium	114mg	310-420mg
9	Phosphorus	285mg	700mg-1.25g
10	Potassium	195mg	4.7g
11	Zinc	2.02mg	8-11mg
12	Copper	0.415mg	0.9-2.3mg
13	Manganese	1.639mg	1.8-2.3mg
14	Selenium	5.6µg	55µg
15	Thiamine	0.424mg	1.1-1.2mg
16	Riboflavin	0.290mg	1.1-1.3mg
17	Niacin	4.72mg	14-16mg
18	Vitamin B6	0.382mg	1.3-1.7mg
19	Folate	85µg	400-600µg
20	Vitamin E	0.05mg	15mg

\*RDA- Recommended Daily Allowance

### The Environmental Benefits of Millet Cultivation and its Role in Sustainable Agriculture

In recent years, there has been renewed interest in millet cultivation due to its potential to contribute to sustainable agriculture and its numerous environmental benefits.

Here are some of the environmental benefits of millet cultivation:

**Drought tolerance:** Millets are highly drought-tolerant and can grow in areas with low rainfall. This makes them a suitable crop for regions that are prone to drought and can reduce the demand for irrigation water.

**Soil conservation:** Millets are known for their deep root system, which helps to improve soil structure and water retention capacity. This makes them an excellent crop for soil conservation and erosion control.

**Reduced pesticide use:** Millets are relatively pest-resistant, which reduces the need for synthetic

pesticides. This can lead to reduced pesticide use and lower environmental contamination.

**Carbon sequestration:** Millet cultivation can help to sequester carbon in the soil, which can contribute to climate change mitigation.

**Biodiversity:** Millet cultivation can contribute to increased biodiversity, as it provides a habitat for a range of beneficial insects, birds, and small animals.

In addition to these environmental benefits, millet cultivation has other advantages that make it a valuable crop for sustainable agriculture. For example, millets are highly nutritious and can contribute to food security. They are also easy to grow and require fewer inputs than many other crops, making them a suitable crop for small-scale farmers in developing countries.

Overall, the cultivation of millets has the potential to contribute significantly to sustainable agriculture and environmental conservation. Its resilience to drought and adaptability to various conditions make it an ideal crop to promote food security and improve the livelihoods of small-scale farmers while preserving the environment.

### **The Socio-Economic Impacts of Millet Farming on Local Communities**

Millet farming can have a range of socio-economic impacts on local communities, depending on factors such as the scale of production, the market demand for millets, and the social and economic context of the region. Here are some of the potential socio-economic impacts of millet farming on local communities:

**Income generation:** Millet farming can provide a source of income for small-scale farmers, particularly in regions where millets are a traditional crop. The sale of millets can help to supplement household incomes, and can also provide a source of cash for farmers to invest in other aspects of their livelihoods.

**Food security:** Millets are a highly nutritious crop, rich in protein, fiber, and essential micronutrients. The consumption of millets can improve the nutritional status of local communities, particularly in regions where access to diverse and nutritious food is limited.

**Employment generation:** Millet farming can provide employment opportunities for local communities, particularly during the peak farming

season. This can help to alleviate unemployment and underemployment in rural areas.

**Cultural preservation:** In regions where millets are a traditional crop, the cultivation and consumption of millets can help to preserve cultural traditions and practices.

**Environmental conservation:** Millet farming can contribute to environmental conservation by promoting soil health, reducing erosion and soil degradation, and reducing the use of synthetic pesticides and fertilizers.

**Market access:** The cultivation of millets can provide local communities with access to new markets, particularly if there is growing demand for millets as a health food or as an ingredient in specialty foods.

However, it is important to note that the benefits of millet farming may not be evenly distributed among local communities, and there may be social and economic disparities that arise as a result of millet production. For example, large-scale millet production may benefit larger landowners and commercial farmers at the expense of small-scale farmers, who may have less access to resources and infrastructure to support their farming activities. Additionally, the integration of millets into global markets may lead to increased competition and price volatility, which may have negative impacts on the livelihoods of small-scale farmers. To ensure that millet farming contributes to sustainable and equitable development, it is important to address these issues and promote inclusive and equitable development strategies.

### **The Challenges and Opportunities of Millet Production and Marketing**

Millet production and marketing face a range of challenges and opportunities, which can vary depending on the geographic region, market demand, and socio-economic context. Here are some of the key challenges and opportunities associated with millet production and marketing:

#### **Challenges:**

**Low yields:** Millet yields can be relatively low compared to other cereal crops, which can limit profitability and increase production costs.

**Limited market access:** Millets are often considered a niche crop, and access to markets for millet products can be limited, particularly in regions where millets are not traditionally consumed.



Climate variability: Millet production is often limited by climate variability, particularly in regions that are prone to drought or flooding.

Limited research and development: Millet research and development has historically been limited compared to other cereal crops, which can limit the availability of improved varieties, technologies, and production practices.

Limited mechanization: Millet production often relies on manual labour, which can limit the scale of production and increase labour costs.

### **Opportunities:**

Growing demand: There is growing demand for millets as a health food and as an ingredient in specialty food products, particularly in developed countries.

Diverse market potential: Millets can be used for a range of food products, from porridges and flatbreads to beer and distilled spirits, which provides opportunities for diverse market access.

Climate resilience: Millets are relatively drought-resistant and can be grown in marginal lands, which can contribute to climate resilience and food security.

Nutritional value: Millets are highly nutritious and can contribute to food security and nutrition, particularly in regions where access to diverse and nutritious food is limited.

Cultural value: In regions where millets are a traditional crop, the cultivation and consumption of millets can have cultural and social significance, which can contribute to the preservation of local traditions and practices.

To fully realize the potential of millet production and marketing, it is important to address the challenges and promote strategies that support sustainable and equitable development. This includes investing in research and development, promoting market access, and supporting small-scale farmers and local communities to increase productivity and profitability.

### **The Role of Governments and International Organizations in Promoting Millets**

Governments and international organizations can play an important role in promoting millets and supporting sustainable and equitable development in millet-producing regions. Here are some of the ways

in which governments and international organizations can support millet production and consumption:

Research and development: Governments and international organizations can invest in research and development to improve millet varieties, production practices, and post-harvest technologies. This can help to increase yields, reduce production costs, and improve the quality of millet products.

Market access: Governments and international organizations can support market access for millet producers by investing in infrastructure, such as roads and storage facilities, and by supporting market linkages between producers and buyers.

Promotion of millet consumption: Governments and international organizations can promote millet consumption through nutrition education programs, public awareness campaigns, and policy initiatives that encourage the use of millets in school feeding programs, government procurement, and other institutional settings.

Policy support: Governments can support millet production through policy measures such as price supports, subsidies for inputs, and credit support for small-scale farmers.

Capacity building: Governments and international organizations can support capacity building for millet producers, particularly small-scale farmers, by providing training on improved production practices, post-harvest management, and market linkages.

International advocacy: International organizations can advocate for the inclusion of millets in global policies and initiatives related to food security, nutrition, and sustainable agriculture.

Overall, governments and international organizations can play a key role in promoting millets as a sustainable and nutritious crop, and in supporting the development of millet-producing regions. By working together, governments and international organizations can help to unlock the potential of millet production and contribute to sustainable and equitable development.

### **Millets in Traditional and Modern Cuisine: Recipes and Preparation Methods**

Millets are versatile grains that can be used in a wide range of traditional and modern cuisines. Here are some popular recipes and preparation methods for millets:

**Millet porridge:** Millet porridge is a popular breakfast dish in many countries. To make millet porridge, combine millet with water or milk in a pot, bring to a boil, and then reduce the heat and simmer until the millet is cooked and the mixture is thick and creamy. Serve hot with sweet or savoury toppings.

**Millet flatbread:** Millet flatbread is a staple in many African and Indian cuisines. To make millet flatbread, mix millet flour with water and salt, knead the dough, and then shape it into flat discs. Cook on a hot griddle until both sides are browned and crispy.

**Millet salad:** Millet can be used as a base for a nutritious and flavourful salad. Cook millet in water or broth, and then toss with vegetables, herbs, and a dressing of your choice.

**Millet pilaf:** Millet pilaf is a savoury side dish that can be served with a variety of main dishes. Cook millet with onions, garlic, and spices, and then add vegetables or meat to the mixture. Serve hot as a side dish.

**Millet bowl:** Millet bowls are a popular way to combine millet with a range of vegetables, proteins, and sauces. Cook millet and then add a variety of toppings, such as roasted vegetables, grilled chicken, avocado, and a spicy sauce.

**Millet muffins:** Millet flour can be used to make delicious and nutritious muffins. Mix millet flour with baking powder, salt, sugar, and milk, and then bake in muffin tins until golden brown.

Overall, millets are a versatile and nutritious grain that can be used in a range of traditional and modern recipes. Experiment with different recipes and preparation methods to find your favourite way to enjoy millets.

## Millets and Climate Change: Adapting to Changing Weather Patterns

Climate change is affecting agriculture around the world, and millet farmers are not immune to its impacts. Millets are a hardy crop that can tolerate drought and other extreme weather conditions, making them an important crop for farmers in regions that are vulnerable to climate change. However, as weather patterns become more unpredictable and extreme, millet farmers may need to adapt their practices to maintain yields and ensure food security.

Here are some strategies that millet farmers can use to adapt to changing weather patterns:

**Diversify crops:** Millet farmers can reduce their dependence on a single crop by diversifying their crops and adopting intercropping practices. This can help to reduce risks associated with climate variability and improve soil health.

**Improve soil health:** Healthy soils can help to increase the resilience of crops to drought and other weather-related stresses. Millet farmers can improve soil health by adopting practices such as cover cropping, crop rotation, and the use of organic fertilizers.

**Use drought-tolerant varieties:** Millet farmers can select drought-tolerant varieties of millet that can withstand dry conditions and other weather stresses. This can help to maintain yields and ensure food security even during periods of drought.

**Improve water management:** Millet farmers can adopt water-saving technologies, such as drip irrigation, to help conserve water and reduce the impact of drought on crops.

Mitigating the Effects of Climate Change on Millet Production

Year	Actual Production (tonnes)	Projected Production (tonnes)
2020	400,000	400,000
2021	350,000	375,000
2022	300,000	350,000
2023	250,000	325,000
2024	200,000	300,000
2025	150,000	275,000
2026	100,000	250,000
2027	50,000	225,000
2028	0	200,000
Actual Production with Climate Change		Projected Production with Adaptation Strategies

(The bar graph shows two bars for each year, representing the actual production of millets with climate change and the projected production with adaptation strategies. The bars decrease over time for the actual production line, showing the negative effects of climate change on millet production, while the projected production line remains relatively stable, showing the effectiveness of adaptation strategies. The graph highlights the importance of implementing adaptation strategies to help mitigate



the negative effects of climate change on millet production.)

Support from government and NGOs: Governments and NGOs can provide support to millet farmers to help them adapt to changing weather patterns. This can include access to credit, training on new farming practices, and access to markets for their products.

Overall, millet farmers can adapt to changing weather patterns by adopting a range of practices that improve the resilience of their crops and improve their ability to cope with drought and other weather-related stresses. By taking action now, millet farmers can help to ensure food security for their families and communities in the face of climate change.

### **Millets and Biodiversity Conservation: Preserving Traditional Varieties and Landraces**

Millets play an important role in biodiversity conservation because they are rich in genetic diversity and have been adapted to a range of local agro-ecological conditions over centuries. Millet landraces and traditional varieties are particularly important because they are adapted to local conditions, and are often more resilient and resistant to pests and diseases than modern varieties.

Here are some ways in which millet farmers and conservationists can preserve traditional varieties and landraces of millets:

Collecting and conserving germplasm: Germplasm collections of millets are important for preserving the genetic diversity of the crop. Millet farmers and conservationists can collect and conserve germplasm of different landraces and varieties in gene banks, seed banks, and community seed banks.

Promoting on-farm conservation: On-farm conservation is an important way to preserve traditional varieties and landraces of millets. Farmers can be encouraged to maintain millet diversity on their farms by growing different varieties, exchanging seeds with other farmers, and saving seeds for future seasons.

Encouraging seed systems: Seed systems that support the production and distribution of traditional varieties and landraces of millets are important for their conservation. Community seed banks, local seed enterprises, and farmer-led seed production and distribution systems can all play a role in supporting the conservation of millet diversity.

Supporting traditional knowledge: Traditional knowledge about millet cultivation, processing, and use is an important part of the conservation of millet diversity. Supporting the transmission of this knowledge from older generations to younger ones is important for maintaining millet diversity and preserving traditional farming practices.

Creating awareness: Raising awareness about the importance of millet diversity and its role in biodiversity conservation is important for its preservation. This can be done through campaigns, workshops, and educational programs targeting farmers, policy makers, and consumers.

Preserving traditional varieties and landraces of millets is important for maintaining the genetic diversity of the crop, ensuring food security, and promoting sustainable agriculture. By working together, millet farmers, conservationists, and policy makers can ensure the conservation of millet diversity for future generations.

### **The Future of Millets: Opportunities for Research and Innovation in Agriculture and Food Systems.**

The future of millets looks promising, with opportunities for research and innovation in agriculture and food systems. Millets are versatile crops that have the potential to contribute to food security, nutrition, and sustainable agriculture. Here are some areas where research and innovation can play a role in the future of millets:

Improving productivity: Despite their many benefits, millets are often considered low-yielding crops. Improving millet productivity is important for their wider adoption and increased contribution to food security. Research can focus on developing high-yielding varieties, improving crop management practices, and developing crop protection strategies.

Enhancing nutritional value: Millets are highly nutritious, with high levels of protein, fiber, vitamins, and minerals. Research can focus on enhancing the nutritional value of millets by breeding for improved nutritional quality, developing processing techniques that retain nutrients, and promoting their use in food formulations.

Developing value-added products: Millets can be used to develop a range of value-added products, including flours, baked goods, snacks, and beverages. Research can focus on developing new products that

appeal to consumers and that can be easily integrated into existing food systems.

**Addressing climate change:** Climate change is affecting agriculture around the world, and millet farmers are not immune to its impacts. Research can focus on developing climate-resilient millet varieties, improving water management, and developing farming practices that are adapted to changing weather patterns.

**Improving market access:** Millet farmers often struggle with limited market access, low prices, and lack of infrastructure for storage and processing. Research can focus on developing new market opportunities for millets, promoting their use in institutional feeding programs, and improving the value chain for millet products.

**Exploring the potential of neglected and underutilized species** Millets are just one example of a group of crops known as neglected and underutilized species (NUS). NUS have been overlooked by agricultural research and development, but they have the potential to contribute to food security and sustainable agriculture. Research can focus on exploring the potential of other NUS, such as sorghum, folio, and tiff, and developing strategies for their wider adoption.

**Promoting agroecology:** Agroecology is an approach to agriculture that emphasizes ecological principles and farmer knowledge. Research can focus on promoting agroecology as a way to increase the resilience of millet farming systems, promote biodiversity conservation, and improve food security.

There are many opportunities for research and innovation in the future of millets. By focusing on improving productivity, enhancing nutritional value, developing value-added products, addressing climate change, improving market access, exploring the potential of neglected and underutilized species, and promoting agroecology, we can ensure that millets contribute to food security, nutrition, and sustainable agriculture in the years to come.

## **Conclusion**

In conclusion, the International Year of Millets 2023 is a critical opportunity to raise awareness about the many benefits of millets and promote their wider adoption in agriculture and food systems. Millets are highly nutritious, environmentally sustainable, and culturally significant crops that have the potential to contribute to food security, nutrition, and sustainable

agriculture around the world. The celebration of the International Year of Millets 2023 is an important opportunity to showcase the role of millets in sustainable development and encourage action to promote their production, consumption, and conservation.

Through the International Year of Millets 2023, governments, international organizations, and civil society can come together to raise awareness about the many benefits of millets and promote their wider adoption. The year provides an opportunity to showcase the innovative ways in which millets are being used in agriculture and food systems, from improving soil health to developing nutritious and delicious food products.

In addition, the International Year of Millets 2023 can help to address the challenges that millet farmers and communities face, such as limited market access, low productivity, and climate change impacts. By promoting research and innovation in millet production, processing, and marketing, we can ensure that millets contribute to food security and sustainable agriculture in the years to come.

The International Year of Millets 2023 is also an opportunity to promote the conservation of millet diversity, including traditional varieties and landraces. Millet diversity is a critical resource for adapting to changing environmental conditions, and conserving it is essential for the long-term sustainability of millet farming systems.

Moreover, the International Year of Millets 2023 can be used to promote the role of millets in cultural heritage and food systems. Millets have been an important part of many traditional diets and culinary traditions, and promoting their use in modern cuisine can help to preserve cultural heritage and promote sustainable food systems.

Finally, the International Year of Millets 2023 can serve as a platform for promoting partnerships and collaboration across sectors and regions. Governments, international organizations, civil society, and the private sector can work together to promote millets in agriculture and food systems, and to develop innovative solutions to the challenges facing millet farmers and communities.

In conclusion, the International Year of Millets 2023 is a critical opportunity to raise awareness about the many benefits of millets and promote their wider adoption in agriculture and food systems. By



celebrating the role of millets in sustainable development, promoting research and innovation, conserving millet diversity, promoting cultural heritage, and promoting partnerships and collaboration, we can ensure that millets contribute to food security, nutrition, and sustainable agriculture in the years to come.

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