WORLD AGRICULTURE FORUM

Millets for Climate and Nutrition

Bringing Millets Back into Agriculture and Food Systems Agenda

Date	March 18, 2026
Format	Virtual Webinar
Organized by	World Agriculture Forum

1.0 Background and Rationale

Millets are gaining global attention for their potential to address interconnected challenges of malnutrition, climate change, and rural livelihoods. Following the UN's International Year of Millets in 2023, which catalysed momentum for increased research, investment, and policy support, these resilient grains are now positioned at the intersection of climate adaptation, nutritional security, and sustainable food systems transformation[1]. Several international programs have been launched, for example, the International Atomic Energy Agency (IAEA), through the Joint FAO/IAEA Centre, launched a Coordinated Research Project building an international consortium of research institutes from Burkina Faso, China, Ethiopia, India, Namibia, Sri Lanka and the USA to accelerate genetic improvement of millets for climate adaptation[1].

The global challenges like persistent malnutrition and continuing climate crisis demands urgent action that uses millets as a potential solution. It is imperative that the momentum created in the last few years for promoting millets as a solution to climate and nutrition challenges is not completely lost.

Millets offer a distinctive response to interconnected crises facing food systems. For example, as C4 plants with high water-use efficiency, research demonstrates that foxtail millet uses 257 grams of water to produce 1 gram of dry biomass compared to maize (470g) and wheat (510g), indicating exceptional climate resilience [2]. They thrive on poor-quality soils with minimal irrigation, making them ideal for sustainable agriculture in challenging environments.

Nutritionally, millets represent an underutilized solution to global malnutrition. For example, pearl millet contains 3–4 mg/100g zinc and 4–8 mg/100g iron, while finger millet contains 344 mg/100g calcium, the highest calcium content of any cereal grain.[3] Further, technological advances such as biofortification through conventional breeding, gene editing, and agronomic practices offers promising strategies to combat micronutrient deficiencies in regions where millets are staple foods.

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1. Seed Today. *Global Efforts to Harness Science and Partnerships to Transform Millets. Seed Today. April 24, 2025.* 2025.
2. Ejigu D, Pushpalatha R, S. S, et al. Millets as a dual-purpose crop for sustainable nutritional and energy security: A comprehensive review. *Journal of Agrometeorology*. 2025;27(2):245-257. doi:10.54386/jam.v27i2.2892
3. Sharma A, Ceasar SA, Pandey H, et al. Millets: Nutrient-rich and climate-resilient crops for sustainable agriculture and diverse culinary applications. *Journal of Food Composition and Analysis*. 2025;137:106984. doi:10.1016/j.jfca.2024.106984

Despite these advantages, millets remain underutilized in mainstream food systems. Key barriers include: limited access to improved seed varieties, inadequate post-harvest processing infrastructure, weak market linkages, insufficient policy backing, and consumer perception deficits. For example, traditional dehulling methods result in significant grain loss, and appropriate small-scale processing technologies remain unavailable in many regions. Investment in millet breeding has historically been minimal compared to major cereals.

This policy dialogue seeks to reposition millets as a food systems solution integrating:

- Climate resilience – through drought-tolerant, low-water intensive cropping systems suited to rainfed ecologies
- Nutrition security – through biofortified varieties and institutional feeding programs targeting vulnerable populations
- Market integration – by strengthening value chains from seed systems to retail and export markets
- Policy coherence – aligning agricultural subsidies, public procurement, nutrition guidelines, and climate finance
- Knowledge and innovation – facilitating exchange of best practices and research findings across countries

2.0 Guiding Question

How can millets be systematically integrated into agriculture and food systems agenda to address climate adaptation, nutritional security, and inclusive market development?

Purpose and Audience

This dialogue is designed for a wide range of stakeholders including policymakers, researchers, private sector actors, farmers' representatives, development agencies, and civil society organizations working across agriculture, nutrition, climate adaptation, and rural development. The session will foster cross-sectoral learning and identify actionable strategies to mainstream millets into national, regional, and global food policies.

3.0 Objectives

- Build shared understanding of millets' contribution to climate adaptation, nutrition security, and livelihoods.
- Identify systemic gaps in millet value chains, from seed systems to consumer markets, across different geographic contexts.
- Showcase innovations in millet processing, value addition, market linkage, and institutional procurement.
- Discuss policy and investment frameworks needed to scale millet production and consumption.

- Foster partnerships among farmers, governments, researchers, and businesses to integrate millets into agriculture and food systems agenda.

4.0 Key Themes & Discussion Gaps

i. **Climate Resilience and Agronomic Support**
Gap: Weak extension services, limited seed availability, and inadequate research investment in improved millet varieties, despite evidence of superior water-use efficiency.
Question: What policies and investments can promote millets as a climate-smart alternative in drought-prone regions?

ii. **Nutrition and Health Integration**
Gap: Limited inclusion of millets in dietary guidelines and nutrition programs, despite documented nutrient content and biofortification potential.
Question: How can millets be embedded in school feeding, maternal and child nutrition, and social protection programs at scale?

iii. **Value Chain Development and Processing Infrastructure**
Gap: Inadequate village-level processing infrastructure leads to post-harvest losses and excludes smallholders from value chains.
Question: How can decentralized processing models be financed and scaled, building on successful policy frameworks like production-linked incentives?

iv. **Market Creation and Consumer Awareness**
Gap: Low urban demand and perception deficits limit millet market development.
Question: What campaigns and partnerships can reposition millets as a modern, nutritious choice?

v. **Institutional Procurement and Feeding Programs**
Gap: Untapped potential for integrating millets into public food programs, school meals, safety nets, and hospital feeding.
Question: How can successful procurement models be adapted and scaled across countries?

vi. **Seed Systems and Genetic Resource Conservation**
Gap: Limited access to improved, climate-resilient varieties and erosion of traditional diversity.
Question: How can genetic diversity be conserved while ensuring farmer access to improved planting material?

vii. **Gender and Inclusivity**
Gap: Women's labor in millet value chains is high, but their control over income and participation in value-added activities is limited.
Question: How can millet value chains be made more gender-responsive?

viii. **Policy and Financing Enablers**
Gap: Fragmented policies and limited dedicated financing for millet systems.
Question: What integrated policy framework can accelerate millet scaling, drawing on successful models like India's Production Linked Incentive Scheme?

ix. **Knowledge Exchange and South-South Cooperation**
Gap: Limited sharing of experiences and technologies across countries.
Question: How can platforms for knowledge exchange be strengthened, and what mechanisms can facilitate South-South cooperation?

5.0 Proposed Format

Time (CET)	Session
14:00 – 14:05	Opening Remarks – World Agriculture Forum
14:05 – 14:15	Moderator's introduction to the issues – Millets for Climate and Nutrition: Evidence, Opportunity, and Systemic Integration
14:15 – 15:00	Panel Discussion on: From Seed to Plate – Strengthening Millet Value Chains Across Geographies; Mainstreaming Millets – Policy, Procurement, and Financing
15:00 – 15:15	Open Dialogue & Q&A
15:15 – 15:30	Closing Reflections & Call to Action

6.0 Expected Outcomes

- Shared understanding of millets as a multi-dimensional solution for climate adaptation, nutrition security, and livelihood enhancement.
- Identification of key policy, investment, and innovation priorities across different geographic contexts.
- Strengthened network among millet champions across sectors and regions.
- A policy brief and dialogue report synthesizing key messages and actionable recommendations.
- Identification of potential partnerships for follow-up action, including South-South cooperation initiatives.