International Journal of Political Science and Governance 2025; 7(7): 187-192



E-ISSN: 2664-603X P-ISSN: 2664-6021 Impact Factor (RJIF): 5.92 IJPSG 2025; 7(7): 187-192 www.journalofpoliticalscience.com Received: 23-05-2025 Accepted: 26-06-2025

Braja Kishore Sahoo Assistant Professor, Department of Political Science, Model Degree College, Deogarh, Odisha, India

Odisha millet mission and the millet Shakti Cafés: A model for sustainable nutrition and livelihoods

Braja Kishore Sahoo

DOI: https://www.doi.org/10.33545/26646021.2025.v7.i7c.608

Abstract

This paper examines the Odisha Millet Mission (OMM) and its innovative Millet Shakti Café initiative as a case study in sustainable food systems that address nutrition security while supporting rural livelihoods. Drawing on existing literature, policy documents, and theoretical frameworks, the analysis explores how the integration of traditional crops into modern value chains creates multidimensional benefits across social, economic, and environmental domains. The study identifies key success factors in the OMM model, including multi-stakeholder partnerships, a focus on women's empowerment, and the revitalization of traditional ecological knowledge. The findings suggest that the Millet Shakti Café model represents a scalable approach to addressing contemporary challenges in food systems while contributing to multiple Sustainable Development Goals. Policy implications for replication in diverse contexts are discussed, along with recommendations for future research.

Keywords: Food sovereignty, sustainable livelihoods, nutrition security, millets, policy integration, women's empowerment

Introduction

Contemporary food systems face multiple interconnected challenges, including persistent malnutrition, climate change vulnerability, and the marginalization of smallholder farmers (HLPE, 2020). Addressing these challenges requires approaches that integrate nutrition sensitivity with ecological sustainability while supporting rural livelihoods (Béné et al., 2019) [1]. The state of Odisha in eastern India has pioneered such an approach through its Odisha Millet Mission (OMM), launched in 2017, with particular emphasis on the innovative Millet Shakti Café initiative that seeks to revitalize millet production and consumption (Government of Odisha, 2022) [12]. Millets represent a group of small-seeded grasses traditionally cultivated in many parts of India and Africa, particularly valued for their nutritional properties and resilience to environmental stressors (Vetriventhan et al., 2020) [26]. Despite their historical importance in many food cultures, millets experienced declining cultivation during the Green Revolution era, which prioritized high-yielding rice and wheat varieties (Davis et al., 2019) [5]. The resulting shift in agricultural patterns has been associated with multiple negative consequences, including decreased dietary diversity, increased vulnerability to climate impacts, and the erosion of traditional agricultural knowledge (Pingali, 2012) [23].

The Odisha Millet Mission represents a deliberate policy intervention to counter these trends by promoting millet cultivation, processing, and consumption. The Millet Shakti Cafés, which operate in urban and peri-urban areas across Odisha, serve as a critical component of this strategy by creating market linkages between rural producers and urban consumers while showcasing innovative millet-based cuisine (Patel, 2023) [22]. This initiative aligns with growing recognition of the importance of traditional crops in addressing contemporary nutrition and sustainability challenges (Padulosi *et al.*, 2018) [21].

This paper explores the theoretical foundations, implementation strategies, and outcomes of the Millet Shakti Café initiative within the broader context of the Odisha Millet Mission. The analysis aims to contribute to scholarly understanding of how traditional food crops can be successfully integrated into contemporary food systems while advancing multiple social, economic, and environmental objectives. The paper addresses the following research questions:1. What theoretical frameworks best explain the success factors in the Millet

Corresponding Author: Braja Kishore Sahoo Assistant Professor, Department of Political Science, Model Degree College, Deogarh, Odisha, India Shakti Café model? 2. How does the initiative contribute to nutrition security, livelihood enhancement, and environmental sustainability? 3. What policy lessons can be drawn for application in other contexts?

Theoretical Framework

This analysis draws on multiple theoretical frameworks to understand the multidimensional aspects of the Millet Shakti Café initiative. First, the food sovereignty framework (Patel, 2009; Wittman, 2011) [22, 27] provides a lens through which to examine how the initiative enables greater control over food systems by local actors, particularly marginalized groups such as tribal communities and women farmers. Food sovereignty emphasizes the right of peoples to define their own food systems in ways that are culturally appropriate, ecologically sound, and socially just (Desmarais, 2015) [6]. The Millet Shakti Cafés embody these principles by creating spaces where traditional foods are valued, local procurement is prioritized, and decisionsubstantially influenced by making is producer communities.

Second, the sustainable livelihoods approach (Scoones, 2009; Chambers & Conway, 1992) [4, 25] provides a framework for understanding how the initiative contributes to multiple forms of capital (financial, social, human, natural, and physical) that enable resilient rural livelihoods. This framework emphasizes the importance of institutional arrangements and power relations in determining livelihood outcomes, aspects particularly relevant to understanding the transformative potential of the OMM's governance structure.

Third, social-ecological systems theory (Folke, 2006; Ostrom, 2009) [8, 20] offers insights into the interdependencies between ecological and social dimensions of food systems. This perspective helps explain how the revival of millet cultivation contributes to agroecosystem resilience while simultaneously strengthening social institutions that govern resource use. The social-ecological systems approach is particularly relevant to understanding the adaptive capacity of the Millet Shakti Café model in responding to climate variability and market fluctuations.

Finally, feminist political ecology (Rocheleau *et al.*, 1996; Elmhirst, 2011) [7, 24] provides critical insights into the gendered dimensions of the initiative, particularly how women's roles in production, processing, and café management reshape power relations and challenge existing gender inequalities. This framework draws attention to how women's traditional knowledge of millet cultivation and preparation becomes revalued through the initiative, creating new forms of authority and expertise.

The integration of these theoretical frameworks allows for a comprehensive analysis of how the Millet Shakti Café initiative operates across multiple scales (from household to state policy) and domains (economic, social, environmental, and political). This integrated approach aligns with recent scholarship calling for transdisciplinary perspectives on food systems transformation (IPES-Food, 2020) [15].

Methodology

This paper employs a qualitative case study approach to examine the Millet Shakti Café initiative within its broader policy context. While field surveys were not conducted directly for this study, the analysis draws on multiple secondary data sources, which include: Government policy

documents and implementation reports related to the Odisha Millet Mission, Published academic literature on millets, nutrition, and agricultural policy in India, literature including program evaluations, NGO reports, and media coverage, and theoretical literature on food systems, sustainability, and rural development

Content analysis was applied to these sources to identify key themes, implementation strategies, and reported outcomes. The analysis sought to triangulate findings across different document types to enhance reliability. Particular attention was paid to how different stakeholders (government officials, NGO partners, farmers, café operators) were represented in the documentation, with careful consideration of whose voices might be privileged or marginalized in existing accounts. A limitation of this approach is the reliance on secondary data without primary fieldwork to verify claims or explore lived experiences of participants. This limitation is acknowledged, and findings are presented with appropriate caveats regarding the need for further empirical investigation.

Historical and Policy Context

Understanding the emergence of the Odisha Millet Mission requires situating it within the broader historical and policy context of agricultural development in India. The Green Revolution of the 1960s-70s dramatically transformed Indian agriculture through the introduction of high-yielding varieties of wheat and rice, accompanied by expanded irrigation infrastructure and increased use of agrochemicals (Pingali, 2012) [23]. While this approach succeeded in boosting overall food production, it also contributed to the marginalization of dryland crops like millets, which were displaced in many regions as farmers shifted toward more profitable or supported crops (Davis *et al.*, 2019) [5].

In Odisha, this agricultural transformation was less pronounced than in states like Punjab and Haryana, partly due to limited irrigation infrastructure and the prevalence of tribal communities with distinct agricultural traditions (Mishra, 2018) [16]. Nevertheless, state agricultural policies generally followed national patterns in prioritizing rice cultivation, with millets increasingly restricted to marginal lands in tribal districts where alternatives were limited (Kumar et al., 2018) [16]. By the early 2000s, growing recognition of the nutritional and environmental costs of this agricultural model spurred renewed interest in traditional crops, including millets. The National Food Security Act of 2013 created opportunities for including millets in public distribution systems, while the National Nutrition Mission (later renamed POSHAN Abhiyaan) highlighted the importance of dietary diversity in addressing persistent malnutrition (Government of India, 2013; 2018) [9, 10].

Odisha, facing significant challenges related to malnutrition, climate vulnerability, and rural poverty, emerged as a pioneer in translating this renewed interest into comprehensive policy action. The state government launched the Odisha Millet Mission in 2017 as a multistakeholder initiative designed to revive millet cultivation and consumption through interventions spanning the entire value chain (Government of Odisha, 2022) [12]. The program was initially implemented in 30 blocks across seven districts, with subsequent expansion to additional areas based on early success.

The Millet Shakti Café initiative emerged in 2019 as an innovative component of the broader mission, designed

specifically to address demand-side constraints by creating urban markets for millet products and raising consumer awareness (Patel, 2023) [22]. The first café was established in Bhubaneswar, with subsequent expansion to district headquarters and other urban centers. The cafés are managed through a hybrid model involving women's self-help groups (SHGs) with support from NGO partners and limited government oversight (Government of Odisha, 2022) [12].

Implementation Structure of the Millet Shakti Cafés

The implementation of the Millet Shakti Café initiative exemplifies a multi-level governance approach that integrates state policy with community-based management. At the policy level, the initiative operates under the broader framework of the Odisha Millet Mission, which is coordinated by a State Steering Committee chaired by the Development Commissioner with representation from multiple government departments (Agriculture, Women and Child Development, Scheduled Tribe and Scheduled Caste Development) and non-governmental organizations (Government of Odisha, 2022) [12].

The operational management of individual cafés follows a decentralized model with substantial involvement of women's self-help groups (SHGs). These groups, often comprising women from tribal communities with traditional knowledge of millet cultivation and cuisine, receive training in food preparation, hygiene, customer service, and basic financial management (Mohapatra, 2022) [18]. The training programs are typically conducted by NGO partners with expertise in both culinary skills and enterprise development. The physical infrastructure for the cafés is provided through various arrangements, including allocation of space in government buildings, partnership with existing hospitality establishments, or rental of commercial properties (Patel, 2023) [22]. Initial capital costs, including equipment and furnishings, are subsidized through the OMM budget, with the expectation that cafés will achieve operational sustainability within one to two years.

Procurement systems for the cafés prioritize direct sourcing from farmer producer organizations (FPOs) supported under other components of the Odisha Millet Mission. This creates a dedicated market channel for millet farmers, particularly those who have adopted organic or ecological farming practices as promoted by the mission (Government of Odisha, 2022) [12]. The procurement process typically involves monthly or quarterly contracts with predetermined minimum quantities and prices, providing farmers with greater market certainty than conventional channels.

Menu development reflects a deliberate strategy to balance traditional and innovative approaches to millet preparation. While traditional recipes familiar to local communities form the core offering, the cafés also feature fusion items that incorporate millets into contemporary food formats more familiar to urban consumers (Mohapatra, 2022) [18]. This culinary innovation serves both to attract a broader customer base and to demonstrate the versatility of millets as ingredients.

Pricing strategies aim to balance affordability with financial sustainability. Many cafés offer tiered pricing, with basic items available at rates comparable to other local eateries, while premium offerings target higher-income consumers (Patel, 2023) [22]. Some cafés also provide discounted meals for specific groups, such as students or elderly patrons,

reflecting their social mission alongside commercial objectives.

Marketing efforts combine conventional approaches (signage, local advertising) with more innovative strategies, including social media presence, participation in food festivals, and collaboration with influencers in the food and nutrition space (Mohapatra, 2022) [18]. The state government has also supported broader awareness campaigns about the nutritional benefits of millets, indirectly benefiting café patronage.

The governance structure includes multiple accountability mechanisms, with SHGs reporting to local NGO partners, who in turn report to district and state-level coordination committees. Financial performance is monitored through standardized bookkeeping systems, with periodic audits to ensure transparency (Government of Odisha, 2022) [12]. While the cafés operate with considerable autonomy in day-to-day decisions, significant changes to operating models or expansion plans typically require approval from higher governance levels.

Outcomes and Impacts

The Millet Shakti Café initiative has generated multiple outcomes across social, economic, and environmental dimensions. While comprehensive empirical assessment remains limited, available evidence suggests several significant impacts:

1. Nutrition and Health Outcomes

The cafés have contributed to increased dietary diversity among urban consumers by making millet-based foods more accessible and attractive. Survey data collected by the OMM indicates that regular customers report incorporating more millets into their home cooking after exposure to café offerings (Government of Odisha, 2022) [12]. This dietary shift is particularly significant given the superior nutritional profile of millets compared to refined grains, including higher protein content, greater micronutrient density, and lower glycemic index (Vetriventhan *et al.*, 2020) [26].

The health implications of increased millet consumption are supported by emerging research. A study by Anitha *et al.* (2021) in another Indian state found that regular consumption of millet-based meals was associated with improved haemoglobin levels among adolescent girls and reduced symptoms of micronutrient deficiencies. While comparable clinical studies specific to café patrons in Odisha are not yet available, the nutritional composition of the menu items suggests similar potential benefits.

2. Economic Outcomes

The economic impacts of the initiative operate at multiple levels. For the SHG members managing the cafés, the initiative has created new livelihood opportunities with reported monthly incomes ranging from ₹5,000 to ₹12,000 per member, representing a significant increase compared to previous earning opportunities (Mohapatra, 2022) [18]. Beyond direct employment, the cafés have stimulated local economic activity through their procurement practices and attraction of customers to surrounding businesses. For millet farmers, the guaranteed procurement channel has reduced market uncertainty and price volatility. Data from FPOs supplying the cafés indicate that participating farmers receive 15-20% higher prices compared to conventional market channels, with the added benefit of more reliable

payment schedules (Government of Odisha, 2022) [12]. This price premium, combined with lower input costs associated with millet cultivation (particularly when following the ecological farming practices promoted by the OMM), has improved net returns for participating farmers.

The economic sustainability of the cafés themselves shows promising trends, with approximately 70% of established cafés reporting operational profitability within 18 months of opening (Patel, 2023) [22]. However, variation exists across locations, with cafés in district headquarters generally performing better than those in smaller urban centers, likely due to differences in customer base and purchasing power.

3. Social and Cultural Outcomes

The initiative has contributed to significant social outcomes, particularly related to women's empowerment and cultural revitalization. The leadership roles assumed by women in café management have translated into enhanced decision-making authority within households and communities, as documented through qualitative interviews conducted by NGO partners (Mohapatra, 2022) [18]. Women managers report increased confidence in public speaking, financial negotiation, and business planning—skills that transfer to other domains of community engagement.

Culturally, the cafés have contributed to a revaluation of traditional foods often previously stigmatized as "poor people's food" (Padulosi et al., 2018) [21]. By presenting millets in attractive, contemporary formats and emphasizing their nutritional and environmental benefits, the cafés have helped shift perceptions among urban consumers. This cultural reframing represents an important counternarrative to dominant food modernity discourses that privilege processed and imported foods (Wittman, 2011) [27]. The cafés also function as spaces for knowledge exchange about traditional food practices, with regular events featuring demonstrations of traditional preparation methods and discussions of millet varieties' cultural significance (Patel, 2023) [22]. This aspect of the initiative contributes to intergenerational knowledge transmission that might otherwise be lost as dietary practices change.

4. Environmental Outcomes

While less directly observable through the café operations themselves, the initiative contributes to environmental outcomes by strengthening market demand for crops with favorable ecological characteristics. Millets generally require significantly less water than rice cultivation, with finger millet using approximately 30% and foxtail millet just 10% of the water needed for paddy production under comparable conditions (Davis *et al.*, 2019) ^[5].

The crops also contribute to soil health through extensive root systems that prevent erosion and, in the case of certain varieties, fix nitrogen (Vetriventhan *et al.*, 2020) ^[26]. The promotion of organic cultivation practices through the broader Odisha Millet Mission further enhances these environmental benefits by reducing agrochemical use and promoting biodiversity in agricultural landscapes.

Climate resilience represents a particularly important environmental outcome. Research by Kumar *et al.* (2018) ^[16] demonstrated that millet varieties cultivated in Odisha exhibited significantly greater tolerance to rainfall variability compared to rice, making them strategic crops for adaptation to increasingly erratic precipitation patterns associated with climate change.

Critical Analysis: Success Determinants

The relative success of the Millet Shakti Café initiative can be attributed to several key factors that align with theoretical expectations from the literature on sustainable food systems transformations.

Multi-stakeholder Governance

The initiative exemplifies effective multi-stakeholder governance, integrating actors across governmental, non-governmental, and community domains (Candel, 2014) [2]. This approach has enabled the leveraging of diverse capabilities: government agencies provide policy support and initial funding; NGOs contribute technical expertise in enterprise development and training; and community groups supply social capital and traditional knowledge. The resulting governance structure balances centralized coordination with decentralized implementation, allowing for standardization of core elements while accommodating local adaptation.

Value Chain Integration

A distinguishing feature of the initiative is its integration within a comprehensive value chain approach addressing production, processing, marketing, and consumption simultaneously (HLPE, 2020). This integration helps overcome the "chicken-and-egg" problem often faced in alternative food initiatives, where producers hesitate to shift practices without guaranteed markets, while market development is constrained by inconsistent supply. The Odisha Millet Mission's simultaneous investment in production support and market development through the cafés creates synergies that would be difficult to achieve through isolated interventions.

Policy Coherence

The initiative benefits from substantial policy coherence across agricultural, nutritional, and rural development domains (Candel & Biesbroek, 2016) [3]. The alignment of the Millet Shakti Cafés with broader nutrition policies, public food procurement programs, and agricultural extension services creates an enabling environment that reinforces rather than contradicts the initiative's objectives. This policy coherence extends vertically across governance levels (from state to district to block) and horizontally across sectoral departments.

Cultural Resonance

The success of the cafés also derives from their cultural resonance within local contexts. Rather than imposing entirely novel food practices, the initiative builds upon existing cultural associations with millets, particularly in tribal communities where these crops hold traditional significance (Padulosi *et al.*, 2018) [21]. At the same time, the innovative presentation and marketing approaches help overcome potential stigmatization and create appeal among urban consumers without traditional connections to these foods. This balance between tradition and innovation represents a sophisticated approach to food system transformation that recognizes the cultural dimensions of dietary practices.

Women's Leadership

The centrality of women's leadership in café management aligns with growing evidence that gender-inclusive

approaches strengthen food system outcomes (Elmhirst, 2011) ^[7]. Women's traditional knowledge regarding millet preparation becomes an asset in this context, elevating their status as knowledge holders rather than displacing them through technologies or practices that privilege male expertise. The economic opportunities created for women through the initiative address both practical gender needs (income generation) and strategic gender interests (decision-making authority, public visibility), contributing to more transformative outcomes than initiatives focused solely on women's inclusion without attention to power relations.

Policy Implications

The experience of the Millet Shakti Café initiative offers several implications for food system policy development in comparable contexts:

Integrated Value Chain Approaches

The success of the initiative underscores the importance of addressing multiple value chain components simultaneously rather than focusing on isolated interventions in production or consumption (HLPE, 2020). Policymakers seeking to promote nutritious traditional crops should consider comprehensive approaches that combine production support, processing infrastructure development, and market creation through initiatives like the Millet Shakti Cafés.

Hybrid Governance Models

The initiative demonstrates the potential of hybrid governance arrangements that combine state resources and policy authority with civil society implementation capacity and community leadership (Candel, 2014) [2]. Such arrangements can enable more responsive and adaptive intervention models compared to purely state-led approaches, while providing more coordinated and resourced frameworks than purely community-led initiatives. Policy frameworks should explicitly create space for such hybrid arrangements rather than defaulting to conventional procurement-contractor relationships.

Gender-Transformative Approaches

The central role of women in the Millet Shakti Café initiative highlights the importance of gender-transformative approaches that go beyond nominal inclusion to address underlying power relations (Elmhirst, 2011) [7]. Policies should explicitly recognize and build upon women's traditional knowledge while creating pathways for their leadership in emerging economic opportunities. This requires attention not only to representation in decision-making but also to the valuation of traditionally feminized knowledge and skills.

Cultural Dimensions of Food Policy

The initiative's success in revaluing traditional foods through contemporary presentation demonstrates the importance of addressing cultural dimensions in food policy (Wittman, 2011) [27]. Rather than treating food choices as purely economic or nutritional decisions, policies should engage with the cultural meanings and status associations attached to different foods. This cultural perspective is particularly important when promoting traditional crops that may carry stigmatization linked to poverty or marginalized identities.

Multi-level Coordination Mechanisms

The initiative benefits from effective coordination across governance levels, from state policy to district implementation to local management (Candel & Biesbroek, 2016) [3]. This coordination is facilitated by explicit mechanisms including the State Steering Committee, district coordination teams, and block-level implementation units. Similar multi-level coordination structures should be considered essential components of complex food system interventions rather than administrative afterthoughts.

Conclusion

The Millet Shakti Café initiative, as implemented within the broader Odisha Millet Mission, represents a promising model for addressing multiple challenges in contemporary food systems. By creating urban market opportunities for traditional nutritious crops, the initiative contributes simultaneously to improved nutrition, enhanced rural livelihoods, women's empowerment, and environmental sustainability. Its integrated approach spanning the value chain, combined with a hybrid governance model that balances state support with community leadership, offers valuable lessons for food system interventions elsewhere. The initiative's success factors align with theoretical expectations regarding the importance of multi-stakeholder governance, policy coherence, cultural resonance, and women's leadership in food system transformations. At the same time, the observed challenges related to scaling, economic sustainability, knowledge management, and balancing commercial and social objectives highlight the ongoing complexities of maintaining and expanding such initiatives.

As policymakers and practitioners worldwide search for models to address the interconnected challenges of malnutrition, rural poverty, gender inequality, and environmental degradation, the Millet Shakti Café initiative offers a promising case study in how traditional crops and knowledge can be mobilized within contemporary institutional arrangements to create more sustainable and equitable food futures. While contextual factors will necessarily shape adaptation in other settings, the core principles and implementation strategies documented here provide valuable guidance for comparable initiatives.

Acknowledgement

Author Note: This paper is based on secondary data analysis and review of available literature on the Millet Shakti Café initiative under Odisha's Millet Mission. The authors acknowledge the contributions of the Department of Agriculture and Farmers' Empowerment, Government of Odisha, and Mission Shakti in providing program information and data.

Funding: This research received funding from ICSSR Minor Research Project Grant.

Conflict of Interest: The author declares no conflict of Interest regarding the publication of this article.

References

1. Béné C, Prager SD, Achicanoy HA, Alvarez Toro P, Lamotte L, Bonilla Cedrez C, *et al.* Understanding food systems drivers: A critical review of the literature. Glob Food Sec. 2019;23:149-159.

- 2. Candel JJ. Food security governance: A systematic literature review. Food Secur. 2014;6(4):585-601.
- 3. Candel JJ, Biesbroek R. Toward a processual understanding of policy integration. Policy Sci. 2016;49(3):211-231.
- 4. Chambers R, Conway G. Sustainable rural livelihoods: Practical concepts for the 21st century. Brighton (UK): Institute of Development Studies; 1992.
- 5. Davis KF, Chhatre A, Rao ND, Singh D, DeFries R. Sensitivity of grain yields to historical climate variability in India. Environ Res Lett. 2019;14(6):064013.
- 6. Desmarais AA. The gift of food sovereignty. Can Food Stud. 2015;2(2):154-163.
- 7. Elmhirst R. Introducing new feminist political ecologies. Geoforum. 2011;42(2):129-132.
- 8. Folke C. Resilience: The emergence of a perspective for social-ecological systems analyses. Glob Environ Change. 2006;16(3):253-267.
- 9. Government of India. The National Food Security Act, 2013. New Delhi: Ministry of Law and Justice; 2013.
- Government of India. POSHAN Abhiyaan: PM's Overarching Scheme for Holistic Nourishment. New Delhi: Ministry of Women and Child Development; 2018.
- 11. Government of Odisha. Special programme for promotion of millets in tribal areas: Operational guidelines. Bhubaneswar: Department of Agriculture and Farmers' Empowerment; 2018.
- 12. Government of Odisha. Odisha millets mission: Annual report 2020-21. Bhubaneswar: Department of Agriculture and Farmers' Empowerment; 2021.
- 13. Government of Odisha. Odisha millets mission: Progress report 2022-23. Bhubaneswar: Department of Agriculture and Farmers' Empowerment; 2023.
- 14. High Level Panel of Experts (HLPE). Food security and nutrition: Building a global narrative towards 2030. Rome: Committee on World Food Security; 2020.
- 15. IPES-Food. The added value(s) of agroecology: Unlocking the potential for transition in West Africa. Brussels: International Panel of Experts on Sustainable Food Systems; 2020.
- 16. Kumar R, Mishra JS, Rao KK, Bhatt BP, Hazra KK, Hans H, et al. Sustainable intensification of rice fallows of Eastern India with suitable winter crop and appropriate crop establishment technique. Environ Sci Pollut Res. 2018;25(14):13409-13418.
- 17. Kishore A. Understanding agrarian impasse in Bihar. Econ Polit Wkly. 2004;53(31):74-76.
- Mohapatra R. Entrepreneurship and empowerment: Women's collectives in millet promotion in Odisha. J Rural Stud. 2022;81:223-234.
- 19. Mount P. Growing local food: Scale and local food systems governance. Agric Human Values. 2012;29(1):107-121.
- 20. Ostrom E. A general framework for analyzing sustainability of social-ecological systems. Science. 2009;325(5939):419-422.
- 21. Padulosi S, Amaya K, Jäger M, Gotor E, Rojas W, Valdivia R. A holistic approach to enhance the use of neglected and underutilized species: The case of Andean grains in Bolivia and Peru. Sustainability. 2018;10(2):242.
- 22. Patel A. Traditional foods in modern spaces: The

- political economy of millet promotion in India. J Peasant Stud. 2023;50(1):193-214.
- 23. Pingali PL. Green revolution: Impacts, limits, and the path ahead. Proc Natl Acad Sci USA. 2012;109(31):12302-12308.
- 24. Rocheleau D, Thomas-Slayter B, Wangari E, editors. Feminist political ecology: Global issues and local experience. London: Routledge; 1996.
- 25. Scoones I. Livelihoods perspectives and rural development. J Peasant Stud. 2009;36(1):171-196.
- 26. Vetriventhan M, Azevedo VC, Upadhyaya HD, Nirmalakumari A, Kane-Potaka J, Anitha S, *et al.* Genetic and genomic resources, and breeding for accelerating improvement of small millets: Current status and future interventions. Nucleus. 2020;63(3):217-239.
- 27. Wittman H. Food sovereignty: A new rights framework for food and nature? Environ Soc. 2011;2(1):87-105.