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Urban Vegetable Clusters as Engines of Sustainable Urban Livelihood: A Case Study of Narkara, Srinagar

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Abstract: ***This study examines the socio-economic viability and sustainability of vegetable cultivation in urban clusters, focusing on the Narkara belt of Srinagar city in Jammu & Kashmir. The research identifies the role of peri-urban agriculture in enhancing food security, reducing poverty, and generating employment. Primary data from 60 urban vegetable growers and market functionaries were analyzed using both descriptive and analytical methods. Findings highlight how vegetable farming contributes substantially to household income and nutrition, and how institutional support and market reforms could enhance its performance. Recommendations for urban agricultural policy are proposed.***
Keywords: Urban agriculture, Peri-urban farming, Food security, Livelihoods, Srinagar, Sustainable development

I. INTRODUCTION

Urban and peri-urban agriculture has emerged as a critical component of food security and income generation, especially in rapidly urbanizing regions. In India, vegetable cultivation in and around cities is gaining momentum due to increased urban demand and land-use changes. Srinagar city and its adjoining areas, especially Narkara in Budgam district, offer a unique example of urban vegetable clusters playing a transformative role in ensuring food and nutritional security.

With increasing migration to urban areas and rising food costs, cultivating vegetables within or near city boundaries reduces supply chain inefficiencies and enhances dietary diversity. The United Nations Development Program (UNDP) and FAO have long emphasized peri-urban agriculture's potential to meet SDGs 1 (No Poverty) and 2 (Zero Hunger).

This paper explores the socio-economic importance and sustainability of urban vegetable cultivation in the Narkara cluster, focusing on livelihood enhancement, constraints, and policy implications.

II. THEORETICAL FRAMEWORK

Urban agriculture, defined as the cultivation of food within city boundaries, plays multiple roles: food provision, income generation, waste recycling, and urban greening. According to the Sustainable Livelihoods Framework, assets (natural, physical, human, social, and financial) influence people's strategies and outcomes.Vegetable cultivation, a form of intensive horticulture, aligns well with this model. It employs family labor, utilizes available land efficiently, and directly contributes to household food security. The performance of such clusters depends on access to resources, institutional support, and market linkages.

III. METHODOLOGY

A. Study Area

Narkara cluster in Budgam district, within 7–9 km from Srinagar city, was purposively selected for the study due to its high density of vegetable cultivation and proximity to urban markets.

B. Sampling

A total of 60 vegetable farmers were randomly selected from four villages in the Narkara belt (Qazipora, Bunpora, Badamohalla, and Baghandar). Farmers were classified as small (<1 ha) or medium (1–2 ha) based on landholding size. Additionally, 20 market functionaries (10 commission agents and 10 wholesalers) were surveyed.

C. Data Collection

Primary data were collected through structured schedules on demographics, landholding, production, income, constraints, and marketing practices. Secondary data were sourced from the Department of Horticulture, Economic Survey of J&K, and FAO.

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D. Analytical Tools

Descriptive statistics (mean, percentage, ratio), and livelihood metrics were used to analyze data. The Sustainable Livelihoods Framework guided interpretation.

IV. RESULTS AND DISCUSSION

A. Demographic Profile

The average family size of the respondents was 6. Most farmers had primary to secondary education, with farming as the primary occupation. Family labor predominated in farming activities.

B. Landholding and Cropping

The average operational landholding was 0.85 ha, with 90% of land used for vegetable cultivation. Brinjal, cabbage, spinach, onion, and peas were major crops. Cropping intensity exceeded 300% due to year-round production.

C. Income Contribution

Vegetable cultivation contributed over 70% of total household income for the majority of growers. The annual gross income ranged from INR 1.2 to 3.5 lakhs for small and medium farmers. Net returns were higher due to multiple cropping and proximity to market.

D. Livelihood Impact

The sector significantly contributed to food security, dietary diversity, and women's participation in labor. Income from vegetable cultivation supported household education, healthcare, and consumption stability.

E. Institutional and Infrastructural Gaps

Constraints identified include: - Lack of cold storage and transportation facilities - Dependence on commission agents and market intermediaries - Limited access to credit and crop insurance - Inadequate technical support from extension services

V. URBAN AGRICULTURE AND SUSTAINABLE DEVELOPMENT GOALS

Vegetable cultivation in Narkara addresses SDG 1 (No Poverty) by providing income to landless and marginal farmers and SDG 2 (Zero Hunger) by increasing vegetable availability and affordability. Moreover, it supports SDG 11 (Sustainable Cities) by promoting green spaces and local food systems.

VI. POLICY RECOMMENDATIONS

- Infrastructure Support: Establish cold chains, pack houses, and rural haats to reduce post-harvest losses.
- Market Linkages: Promote farmer cooperatives and direct marketing models to eliminate middlemen.
- Financial Services: Facilitate access to microcredit and include urban farmers in crop insurance schemes.
- Capacity Building: Strengthen agricultural extension services with urban focus; conduct training on sustainable practices.
- Land Use Planning: Integrate urban agriculture into municipal planning to ensure land security.

VII. CONCLUSION

Urban vegetable clusters like Narkara play a pivotal role in ensuring urban food security, livelihood improvement, and environmental sustainability. Despite facing infrastructural and institutional bottlenecks, the sector demonstrates high potential for growth and policy integration. Future urban development strategies must prioritize urban agriculture as a resilient food and livelihood system.

VIII. ACKNOWLEDGMENTS

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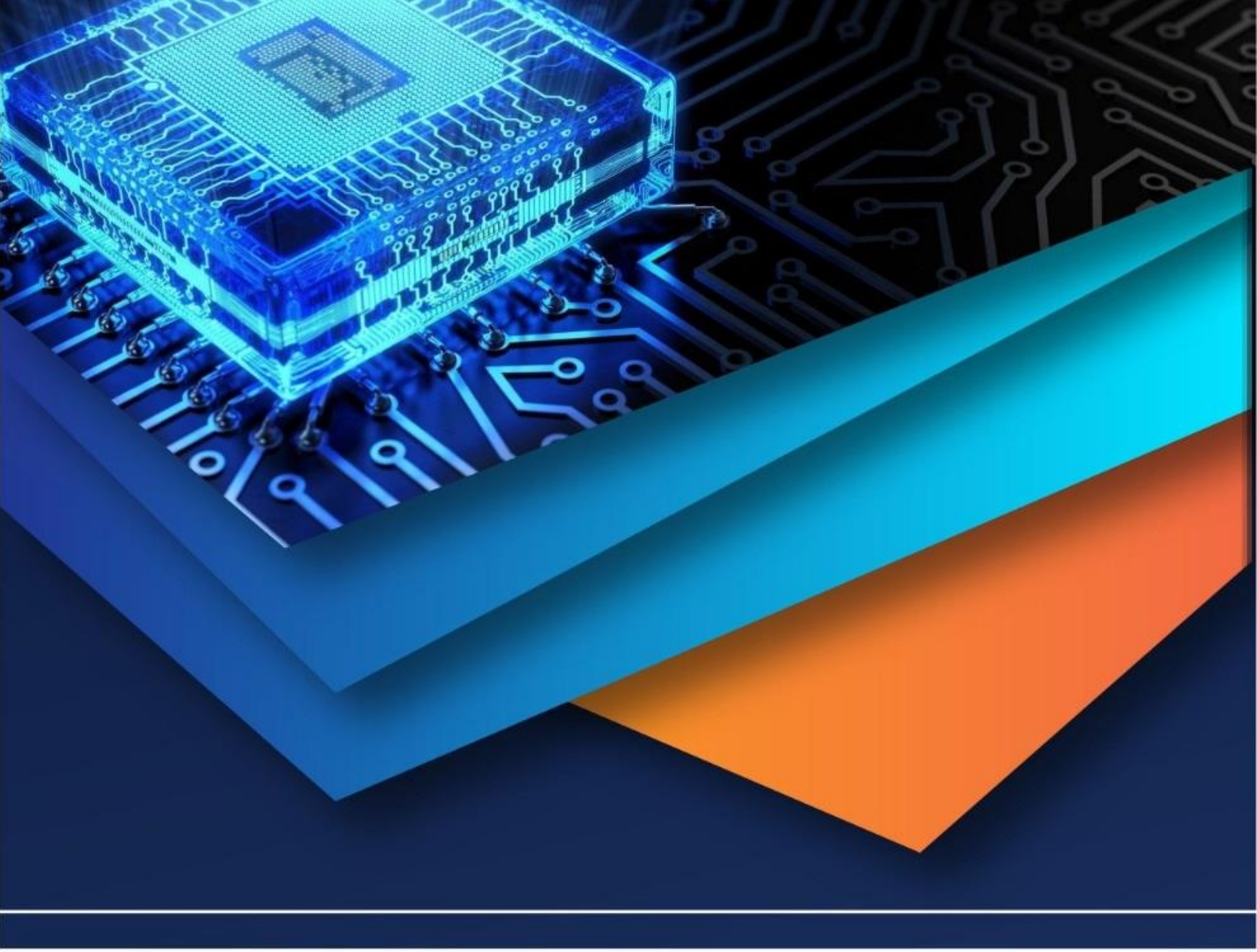

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