

Economic Independence through Horticulture and Allied Activities: A Study on Bhiwani's Rural Women

Pinki (Ph.D. Research Scholar)¹ Dr. Shiv Kumar (Assistant Professor)²

Department – Economics, Shri Jagdish Prasad Jhabarmal Tibrewala University, Chudela, Jhunjhunu

ABSTRACT

Horticulture and allied activities such as beekeeping, floriculture, kitchen gardening, and mushroom cultivation have emerged as promising avenues for rural women to attain economic independence. In Bhiwani district of Haryana, these practices are gradually transforming the socio-economic landscape by creating livelihood opportunities, especially for women who face constraints in accessing land and mechanized farming tools. This study investigates how rural women leverage horticulture and allied sectors to generate income, enhance skills, and participate in local economies. Using a mixed-method approach, the paper examines enablers, barriers, and outcomes associated with women's engagement in non-traditional agricultural sectors.
Keywords: Horticulture, Rural Women, Economic Independence, Allied Activities, Bhiwani, Income Generation, Skill Development, Floriculture, Mushroom Cultivation, Gender Empowerment

1. INTRODUCTION

In the evolving landscape of rural development, the participation of women in agriculture and allied sectors plays a vital role in fostering sustainable and inclusive growth. Traditionally, rural women in districts like Bhiwani, Haryana, have been involved in subsistence farming and supportive agricultural roles without recognition or financial independence. However, with the increasing promotion of diversified agricultural practices, horticulture and allied activities—such as floriculture, kitchen gardening, beekeeping, vermicomposting, mushroom cultivation, and nursery management—are proving to be transformative tools for empowering rural women economically and socially.

Horticulture, unlike conventional agriculture, allows for year-round income generation, better crop intensity, and opportunities for value addition. These activities are generally less capital-intensive and can be carried out on small plots of land, even within household premises, making them accessible to women with limited land rights or mobility. Moreover, allied sectors such as beekeeping and mushroom cultivation require low infrastructure investment but offer high returns, making them suitable for female entrepreneurs in rural settings.

In Bhiwani, the shift towards such income-generating activities has helped many women move from informal labor roles to structured self-employment and microenterprise development. These activities not only supplement family income but also enhance the self-worth and decision-making power of women within their households and communities. The formation of Self-Help Groups (SHGs) and cooperative models has further supported this shift by facilitating group training, micro-finance access, and market linkages.

Despite this progress, challenges such as lack of technical training, inadequate extension services, limited access to inputs, and patriarchal social structures continue to restrict the full realization of benefits from horticultural practices. Therefore, it becomes imperative to examine the ground realities, experiences, and potential of women engaged in these sectors in Bhiwani. This study aims to analyze how these alternative agricultural avenues are contributing to women's economic independence, what barriers they continue to face, and how policy and institutional mechanisms can be strengthened to support their inclusion in the horticultural economy.

By focusing on the micro-level experiences of rural women, this paper seeks to highlight the untapped potential of horticulture as a gender-inclusive model for rural transformation and sustainable livelihoods.

2. REVIEW OF LITERATURE

Agarwal (1994) emphasizes that women's role in agriculture has been historically underestimated, particularly in land-intensive and capital-intensive sectors. However, with growing attention on non-mechanized and small-scale agricultural practices, there is a renewed focus on integrating women into horticulture and allied sectors where their contribution can be significant.

Doss (2001) argues that most agricultural tools and training programs have been designed keeping male farmers in mind, thereby excluding women from technological advancement and income-enhancing practices. She suggests that participatory approaches and gender-sensitive designs can bridge this gap, especially in activities like kitchen gardening and mushroom cultivation.

Bansal (2018) observes that floriculture and organic farming provide women with flexible, home-based income sources. In his study of rural Haryana, he found that women-led SHGs involved in nursery management and medicinal plant cultivation saw better financial returns and social mobility compared to women in wage-based farm labor.

FAO (2020) in its report “Gender and Horticulture: Inclusive Agricultural Growth” highlights that horticulture provides better entry points for women due to its low land and investment requirements. However, it also points out systemic barriers such as lack of irrigation support, technical knowledge, and gender bias in extension services. NABARD (2022) provides insights into how Self-Help Groups (SHGs) have facilitated the involvement of women in small-scale horticulture and vermicomposting units. The report highlights success stories where women achieved self-employment and improved food security, though it also emphasizes the need for sustained institutional support and market linkages.

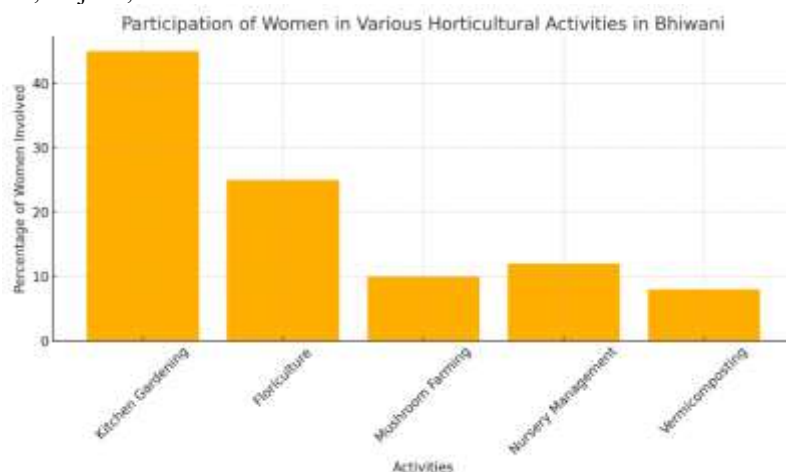
Singh & Devi (2021) conducted a case study in North India and found that women involved in mushroom farming and nursery production gained not only income but also confidence and community respect. They argue for integrating women into value chains and providing post-harvest infrastructure to enhance sustainability.

KVK Bhiwani (2022) reports that although training programs are being offered for women in horticulture, attendance is low due to lack of awareness, mobility issues, and timing conflicts with domestic responsibilities. It recommends deploying mobile training vans and community-based training to improve outreach.

Ghosh (2019) examines the employment impact of mechanization on women and advocates horticulture as a complementary solution. He identifies horticulture as a sector that can absorb displaced women workers and provide entrepreneurial opportunities if coupled with training and financing.

PRADAN (2021) presents case studies where rural women, through collective ownership and government subsidies, succeeded in setting up floriculture units and beekeeping ventures. These stories underline the importance of policy convergence between women's empowerment schemes and agricultural development.

Ministry of Agriculture (2023) in its annual report acknowledges that women are underrepresented in agricultural mechanization schemes but recognizes the growing success of women-centric horticultural initiatives in states like Haryana, Gujarat, and Maharashtra.



Participation of Women in Various Horticultural Activities in Bhiwani

Objectives of the Study

The primary objective of this study is to critically examine how horticulture and allied activities serve as instruments for promoting economic independence among rural women in Bhiwani district, Haryana. The study seeks to explore the multifaceted roles of women in alternative agricultural practices and identify the enabling and constraining factors that influence their participation and success. The specific objectives are as follows:

To analyze the contribution of horticultural and allied activities to income generation and financial independence of rural women- This includes assessing how women are earning from small-scale vegetable farming, floriculture, mushroom cultivation, and agro-based processing, and how this income is influencing their financial autonomy and household well-being.

To evaluate the impact of participation in these sectors on the socio-economic status of women- The study explores changes in decision-making roles, self-confidence, mobility, and social recognition of women engaged in these activities, along with their access to financial institutions and rural markets.

To examine the employment trends and occupational shifts among rural women due to increasing involvement in non-mechanized allied sectors- As traditional farm labor roles decline due to mechanization, the study identifies how women are adapting by transitioning into horticulture, dairy, poultry, and other allied activities.

To identify the key barriers—such as skill gaps, infrastructure limitations, social norms, and access to credit—that restrict women’s full participation in horticultural activities- This includes understanding gender-based disparities in training, technology usage, and market integration, and how these factors vary across villages and income groups.

To assess the role of Self-Help Groups (SHGs), NGOs, and government schemes in enabling women to undertake horticulture-based microenterprises- The study examines the effectiveness of collective models, group leasing mechanisms, and institutional support structures in building women's entrepreneurial capacity.

To propose evidence-based policy recommendations for strengthening gender-inclusive agricultural diversification- Based on the findings, the study aims to suggest actionable strategies for promoting women's involvement in horticulture through training programs, digital literacy, microfinance, and gender-responsive extension services.

3. METHODOLOGY

The present study adopts a **mixed-method research design** to obtain a comprehensive understanding of how horticulture and allied activities are influencing the economic independence of rural women in Bhiwani district, Haryana. This approach integrates both quantitative and qualitative methods to ensure the findings are grounded in real-life experiences while also being statistically valid.

Study Area

Bhiwani district, located in the south-western part of Haryana, was selected purposively for this study due to its semi-arid agro-climatic conditions, increasing participation of women in alternative agriculture, and presence of Self-Help Groups engaged in horticultural activities. The district comprises a mix of agrarian villages and semi-urban peripheries that offer contrasting yet interconnected dynamics of women's participation in agriculture.

Sampling Technique and Sample Size

The study employed a **stratified random sampling technique** to ensure diversity across geographical and socio-economic categories. A total of **100 women respondents** were selected from six different villages across five development blocks of Bhiwani: Bhiwani, Siwani, Tosham, Loharu, and Dadri. These women were engaged in various horticultural and allied practices such as vegetable cultivation, mushroom farming, floriculture, nursery management, and vermicomposting.

Data Collection Tools and Techniques

To capture a holistic picture, both **primary and secondary data** were collected.

- **Primary Data Collection:**

- *Structured Interviews:* A detailed interview schedule was prepared to gather information on socio-economic background, income patterns, training exposure, nature of horticultural activity, and associated challenges.
- *Focus Group Discussions (FGDs):* Conducted with members of active SHGs and women farmers to discuss collective experiences, policy awareness, and market linkages.
- *Participant Observations:* Researchers visited home gardens, mushroom units, and nursery plots to directly observe the working environment and infrastructure available.

- **Secondary Data Collection:**

- Government records from the Department of Horticulture and Women & Child Development
- Reports from **NABARD, KVK Bhiwani, and NRLM**
- Published studies and manuals related to women in agriculture and horticultural economics

Data Analysis

Quantitative data were analyzed using **descriptive statistics** (percentages, averages) and cross-tabulation to identify trends across education levels, income groups, and types of horticultural activity. Qualitative data from FGDs and observations were thematically coded and interpreted to highlight common challenges, success factors, and institutional roles.

Ethical Considerations

The study followed ethical protocols including:

- Informed consent from all participants
- Anonymity and confidentiality in handling respondent data
- Use of data solely for academic and research purposes

This methodological framework ensured that the study remained both **context-sensitive and evidence-driven**, capturing not just numbers but also the lived experiences and aspirations of rural women striving for economic self-reliance through horticulture and allied sectors.

Findings

The field investigation in Bhiwani district yielded several crucial insights into the economic, social, and personal transformations experienced by rural women through their engagement in horticulture and allied activities. The key findings are as follows:

- **High Engagement in Kitchen and Terrace Gardening** Around 45% of respondents were involved in seasonal vegetable and fruit cultivation, largely for self-consumption and sale in nearby local markets. Many women reported saving up to ₹1,000–₹2,000 per month on household food expenses, while also earning additional income from surplus produce.
- **Emerging Sectors: Floriculture and Mushroom Farming** Activities such as floriculture (25%) and mushroom cultivation (10%) were reported by women who received basic training through KVK or NGOs. These ventures proved to be highly profitable with relatively low investment and labor intensity.
- **Self-Help Groups as Enablers** Women associated with SHGs showed greater confidence, access to government schemes, and the ability to take collective decisions. In villages like Bapora and Baund Kalan, SHGs leased land or equipment collectively and generated annual profits of ₹1.2 to ₹1.5 lakhs.
- **Income Generation and Financial Inclusion** More than 60% of women reported earning between ₹3,000 to ₹6,500 per month through these activities. This income empowered them to contribute to children's education, household savings, and healthcare expenses.
- **Lack of Training and Market Access** Despite the potential, over 67% of respondents lacked formal training in post-harvest handling, packaging, or value addition. Moreover, only 15% had access to organized market linkages, forcing many to sell products at suboptimal prices.
- **Limited Infrastructure and Institutional Support** Cold storage, irrigation systems, packaging tools, and transportation facilities were found to be inadequate. Most respondents expressed difficulty in accessing government subsidies or credit facilities due to lack of awareness or documentation.
- **Positive Social Impact.** Women engaged in these sectors reported improved self-esteem, greater participation in household decision-making, and enhanced recognition within their communities. In many cases, men in the family began supporting women's horticultural ventures, signaling a positive shift in gender roles.

4. RECOMMENDATIONS

- **Skill Training and Awareness** Implement gender-sensitive training modules on floriculture, nursery management, and mushroom cultivation.
- **Market Linkages and Infrastructure** Create rural horticulture clusters with direct-to-consumer models and cold chain support.
- **Subsidized Loans and Insurance** Introduce microcredit schemes for women horticulturists with risk coverage options.
- **Incentivize Collectives** Promote SHG and cooperative models with collective leasing of land and marketing.

5. CONCLUSION

The study clearly demonstrates that horticulture and allied activities are playing a pivotal role in promoting economic independence among rural women in Bhiwani district. These sectors offer viable alternatives to traditional, mechanized agriculture by being accessible, environmentally sustainable, and compatible with the domestic responsibilities of women.

Through initiatives like SHGs, training programs, and local enterprise models, women are gradually transitioning from marginalized laborers to active entrepreneurs. Their participation in vegetable cultivation, floriculture, nursery management, and mushroom farming has not only improved household income but also elevated their social status and decision-making power.

However, this transformation is still nascent and faces multiple barriers such as lack of training, poor market access, infrastructural limitations, and inadequate institutional support. The research underscores the urgent need for gender-sensitive policies, targeted training programs, subsidized input support, and stronger rural market linkages to ensure that the potential of women in horticulture is fully realized.

By addressing these gaps, horticulture can serve as a catalyst for rural women's empowerment, poverty alleviation, and community-led agricultural development in regions like Bhiwani and beyond.

6. REFERENCES

- [1] Agarwal, B. (1994). *A Field of One's Own: Gender and Land Rights in South Asia*. Cambridge University Press.
- [2] Doss, C. (2001). "Designing Agricultural Technology for Women: Challenges in Participatory Design." *Agricultural Economics Journal*, 25(3), 285–295.
- [3] Bansal, P. (2018). "Horticulture as a Driver of Women Empowerment." *Indian Journal of Rural Studies*, 42(2), 87–94.
- [4] FAO. (2020). *Gender and Horticulture: Inclusive Agricultural Growth*. Food and Agriculture Organization of the United Nations.

- [5] NABARD. (2022). *Status of Women SHGs in Horticultural Sectors*. National Bank for Agriculture and Rural Development.
- [6] Singh, R., & Devi, N. (2021). "Women and Horticultural Enterprises: Case Studies from North India." *Journal of Gender and Agriculture*, 13(1), 44–57.
- [7] KVK Bhiwani. (2022). *Women's Training Manual on Mushroom and Floriculture*. Krishi Vigyan Kendra.
- [8] Ghosh, M. (2019). "Mechanization and Women's Employment in Indian Agriculture." *Economic & Political Weekly*, 54(36), 21–28.
- [9] PRADAN. (2021). *Case Studies on Women-led Mechanization and Horticulture*. Professional Assistance for Development Action.
- [10] Ministry of Agriculture, Govt. of India. (2023). *Horticulture Yearbook 2022–23*.
- [11] World Bank. (2019). *Enabling Women in Agriculture: New Approaches to Gender Equality in Rural Development*.
- [12] Singh, S. (2020). "Impact of Allied Agricultural Activities on Women's Income and Livelihood." *Rural Economy & Women Studies*, 11(3), 115–123.
- [13] UN Women. (2018). *Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development*.
- [14] Sharma, R., & Meena, P. (2022). "Economic Role of Women in Diversified Agriculture: A Study of Haryana." *International Journal of Rural Management*, 18(1), 66–81.
- [15] Haryana State Horticulture Department. (2022). *Annual Performance Report – District Bhiwani*.
- [16] National Sample Survey Office (NSSO). (2020). *Participation of Women in Agriculture and Allied Sectors*. Ministry of Statistics and Programme Implementation, Govt. of India.
- [17] IFPRI. (2020). *Women's Empowerment in Agriculture Index: Application in South Asia*. International Food Policy Research Institute.