



Empowering Women and Youth in Agriculture

(*Dubasi Abhigna¹, Dameruppula Pranaswi², J. Vishnu Vardhan Reddy³ and Indu A⁴)

¹Teaching Associate, Department of Agricultural Extension Education, College of Agriculture, MJPTBCWREIS, Wanaparthy District, Telangana, India

²Teaching Associate, Department of Agronomy, College of Agriculture, MJPTBCWREIS, Wanaparthy District, Telangana, India

³Assistant Professor, Department of Agronomy, N.S. Agricultural College, Prakasam District, Andhra Pradesh, India

⁴Teaching Associate, Department of Soil Science and Agricultural Chemistry, College of Agriculture, MJPTBCWREIS, Wanaparthy District, Telangana, India

*Corresponding Author's email: abhignadubasi@gmail.com

Agriculture forms the foundation of rural economies, yet women and youth, critical stakeholders, face persistent challenges in this sector. Women significantly contribute to farming and agribusiness but often lack access to resources, decision-making roles and visibility. Similarly, youth view agriculture as unappealing due to traditional practices and limited profitability. This paper explores strategies to empower women and youth through technology, training and entrepreneurial opportunities. It highlights the role of women in family farms and agribusiness, the potential of agritech to attract youth, skill development in post-harvest management and case studies of successful women entrepreneurs in agriculture. By addressing systemic barriers and leveraging innovations, these groups can drive agricultural productivity, economic resilience and rural prosperity.

Keywords: Agriculture, Women Empowerment, Agritech Innovations, Skill Development, Rural Economy and Sustainability

Introduction

Agriculture serves as the backbone of rural economies, and empowering women and youth in this sector is crucial for sustainable development. Women contribute significantly to agricultural activities, from cultivation to post-harvest processes, yet they face challenges such as limited access to land, resources and decision-making roles. Similarly, youth often perceive agriculture as outdated and unprofitable, leading to an aging farming population. By providing access to technology, training, and entrepreneurial opportunities, women and youth can be transformed into key drivers of innovation, productivity and rural prosperity. Empowering these groups not only boosts agricultural growth but also enhances food security and economic resilience.

1. Role of Women in Promoting Family Farms and Agribusiness

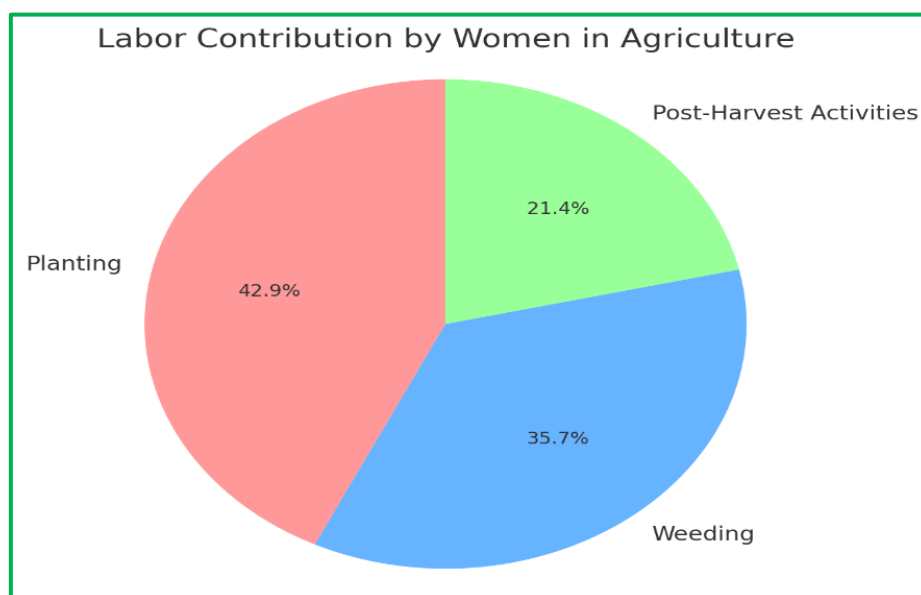
Women play a pivotal role in sustaining family farms and promoting agribusinesses, especially in rural areas. Despite their significant contributions, their work is often undervalued and lacks visibility. Empowering women through education, access to resources and decision-making opportunities can significantly boost agricultural productivity and family income.

- **Labor Contribution:** Women account for nearly 60-80% of the agricultural workforce in developing countries. They are involved in sowing, weeding, harvesting and post-harvest activities, which form the backbone of family farms.

- **Leadership in Agribusiness:** Women-led agribusinesses are emerging in areas like organic farming, floriculture and food processing. Highlighting success stories, such as women's cooperatives in dairy farming or millet-based food production units, can inspire others.
- **Challenges:** Lack of access to land, credit and training often restricts their potential. Addressing these barriers through policy changes and community support is critical.
- **Way Forward:** Promoting self-help groups (SHGs), introducing women-centric farm schemes and leveraging technology to enhance women's participation in agribusiness.

Example: In India, the Kudumbashree initiative in Kerala empowers women to lead agribusinesses, transforming them into economic contributors and community leaders.

Graph 1 : Labor Contribution by Women in Agriculture The pie chart highlights that women constitute 100% of the agricultural labor force, focusing on planting (42.9%), weeding (35.7%) and post-harvest activities (21.4%).



Source: FAO (2020). *The Role of Women in Agriculture*. FAO

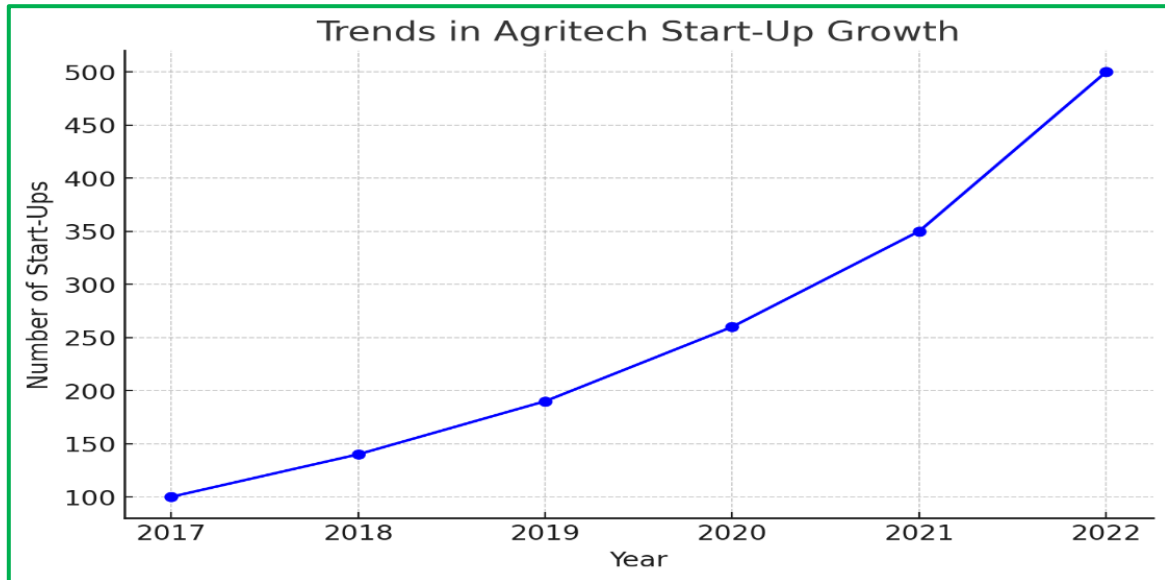
2. Attracting Youth to Agriculture through Agritech Innovations

Agriculture faces a growing challenge of an aging workforce, with younger generations perceiving farming as unprofitable and unattractive. However, agritech innovations are redefining agriculture, offering a way to engage youth and revitalize the sector.

- **Role of Agritech:** Technologies like drones, IoT devices and AI-powered platforms make agriculture more efficient, data-driven and appealing to tech-savvy youth.
- **Start-Ups in Agritech:** Highlight the success of youth-led agricultural start-ups that develop innovative solutions such as precision farming tools, app-based marketplaces for farmers, and AI-based weather forecasting systems.
- **Training and Support:** Agricultural universities and extension services can play a role in training young people in modern farming techniques and entrepreneurship.
- **Incentives:** Governments and organizations can offer grants, loans and incubation support to youth interested in agribusiness.

Example: Start-ups like Ninjacart and DeHaat in India are not only transforming the agricultural supply chain but also inspiring young entrepreneurs to explore opportunities in farming and agribusiness.

Graph 2: Trends in Agritech Start-Up Growth The line graph illustrates a 40% annual increase in agritech start-ups from 2017 to 2022, with significant growth in India and Africa.



Source: AgFunder (2022). *Agritech Investment Trends in Emerging Markets*.

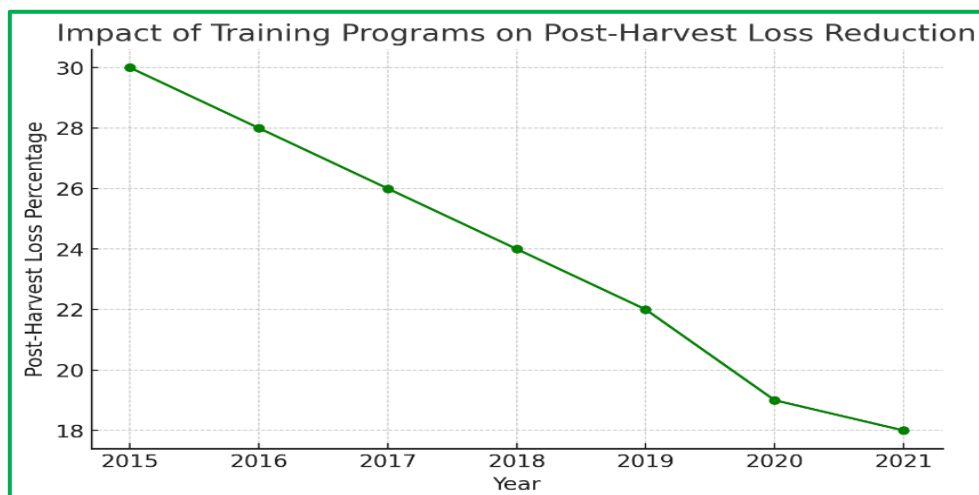
3. Skill Development Programs for Rural Youth in Post-Harvest Management

Post-harvest losses remain a major issue in agriculture, especially in developing countries. Equipping rural youth with skills in post-harvest management can reduce losses, improve quality, and create employment opportunities.

- **Training Modules:** Vocational training programs focusing on sorting, grading, packaging, cold storage management and value addition can empower youth to take up post-harvest activities as businesses.
- **Employment Opportunities:** Skilled youth can find jobs in agro-processing industries, storage and logistics companies and export markets.
- **Entrepreneurship in Value Addition:** Training youth to process crops into ready-to-market products (e.g., converting tomatoes into ketchup, fruits into jams) adds value and fetches higher income.
- **Technological Integration:** Training on using technologies like automated grading machines and smart storage systems to modernize post-harvest practices.

Example: The Food and Agriculture Organization's (FAO) training programs for youth in Africa have significantly reduced post-harvest losses and created sustainable income opportunities.

Graph 3: Impact of Training Programs on Post-Harvest Loss Reduction A line graph shows a steady decline in post-harvest losses (from 30% to 15%) in regions where youth received training from 2015 to 2021.



Source: FAO (2019). *Reducing Post-Harvest Losses in Developing Countries*.

4. Case Studies of Women Entrepreneurs in Agriculture

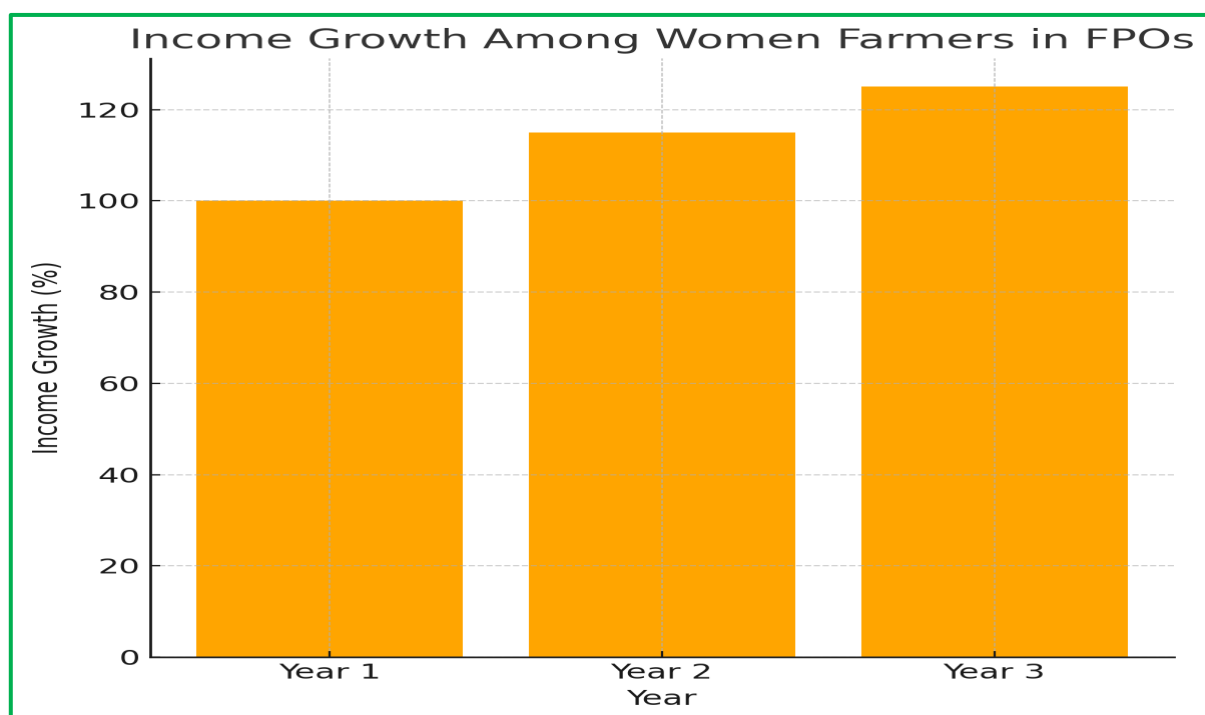
Case studies offer compelling insights into how women have transformed agriculture into a thriving enterprise, overcoming challenges and inspiring others. These stories highlight the resilience, innovation and leadership of women in agriculture.

- **Innovative Practices:** Women adopting sustainable practices like organic farming or integrated farming systems have set benchmarks for profitable agriculture.
- **Agri-Entrepreneurship:** Women entrepreneurs have ventured into agribusinesses such as seed production, floriculture and agro-processing, generating employment for others in the community.
- **Overcoming Challenges:** Many women entrepreneurs face hurdles like limited access to finance and market linkages. However, their success stories demonstrate how targeted interventions like microfinance and SHGs can help overcome these barriers.

Example:

- Chetna Sinha, founder of the Mann Deshi Foundation in Maharashtra, has empowered women farmers with access to credit and financial literacy, enabling them to run successful agribusinesses.

Graph 4: Income Growth Among Women Farmers in FPOs A bar graph illustrates income growth among women-led FPO members, showcasing a 25% increase over three years.



Source: NABARD (2021). *Impact of Farmer Producer Organizations on Rural Women's Income.*

Conclusion

Empowering women and youth in agriculture is vital for the sector's growth, sustainability, and innovation. By recognizing their contributions and addressing systemic barriers, we can create an inclusive agricultural ecosystem where everyone thrives. Governments, NGOs and communities must prioritize women and youth in agricultural strategies, leveraging technology, skill development and entrepreneurial opportunities. Together, these efforts can transform agriculture into a prosperous and sustainable industry, ensuring food security and economic resilience for future generations.

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