

WOMEN IN AGRIBUSINESS

OPPORTUNITIES AND CHALLENGES



Contributors

Prof. Vidya Vemireddy (Principal Investigator and Lead Author), Faculty Member, IIMA

Ms. Reema Lucia (Co-author and Lead Researcher) Research Associate, IIMA

The conceptual development and implementation of this research initiative were made possible through the strategic vision and institutional support of the Godrej leadership team:

Ms. Mallika Mutreja, Chief Human Resources Officer, Godrej Agrovet

Mr. Parmesh Shahani, Head, Godrej DEI Lab

Ms. Vidhi Verma, AVP Organisation Development, Godrej Agrovet

Ms. Supriya Nair, Head, Research & Media, Godrej DEI Lab

Ms. Prarthana Uppal, Lead - Diversity, Equity, and Inclusion, Godrej Agrovet

The methodological design and analytical rigor of this study were significantly enhanced through the contributions of: Ms. Manasi Nair, Mr. Rahul Tejannavar, Ms. Kirti Dutt, Ms. Navya Sharma, Ms. Shristhi Sharma, Mr. Daksh Hirpara, Mr. Himanshu Murjani, Mr. Zuned Mansuri and Ms. Priyanka Sharma who provided essential support for data collection, interpretation, contextual analysis, development of insights and design of this report.

Acknowledgments

Academic Institutions

This investigation benefited substantially from the institutional cooperation of leading agricultural universities that facilitated primary data collection through systematic Focus Group Discussions: Anand Agricultural University, University of Agriculture Sciences, Bengaluru, University of Agriculture Sciences, Vijayapura, University of Agriculture Sciences, Dharwad, G.B. Pant University of Agriculture and Technology, Sardar Vallabhbhai Patel University of Agriculture and Technology, Sam Higginbottom University of Agriculture, Technology And Sciences (SHUATS), Banaras Hindu University, Tamil Nadu Agricultural University, National Institute of Agriculture Extension Management (MANAGE). We extend particular gratitude to the faculty members who for this study created spaces for FGDs, facilitated connections with diverse respondent communities, and provided contextual insights that strengthened the analytical framework.

Industry Professionals

The analytical framework and applied aspects of this research were enriched through consultations with recognized industry experts: Mr. Ram Kaundinya, Ms. Amrita Kumar, Ms. Hetalben Desai, Ms. Indira Dhumne, Ms. Ridhi Kumar, Ms. Sangeeta Bojappa Moorthy, Ms. Sarita Bahl, Ms. Shital Somani Kasat, Ms. Shubhi Mishra, Ms. Tonisha Dixit, Ms. Priya D’cruz, Mr. Ananda UVL, Mr. Jaideep Iyengar, Ms. Anuja Kadian, Ms. Nilima Vohra, Mr. Saibabu Paritala, Ms. Sudeshna Dey and Mr. Nana Mhaske. Their sector-specific insights and experiential knowledge have substantially enhanced the practical applicability of the research findings and strengthened the validity of the strategic recommendations presented in this report.

RIGHTS AND PERMISSIONS

© Indian Institute of Management Ahmedabad and Godrej Agrovat Limited, March 2025. All rights reserved.

The material in this work is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. This report is distributed with the understanding that it shall not, by way of trade or otherwise, be sold, hired out, or otherwise circulated without the publisher's prior consent in any form of binding or cover other than that in which it is published.

For permission to reproduce or transmit any part or all of this work, please contact: vvproject@iima.ac.in

Indian Institute of Management Ahmedabad Vastrapur, Ahmedabad 380015 Gujarat, India

All queries on rights and licenses should be addressed to the above entity.

First published March 2025

How to cite this report:

Vemireddy, V., & Lucia, R. (2025, March). Women in Agribusiness Report 2025: Opportunities and Challenges. Indian Institute of Management Ahmedabad.

TABLE OF CONTENTS

FOREWORD

AUTHOR'S NOTE

EXECUTIVE SUMMARY

SECTION 1: AGRIBUSINESS OVERVIEW AND INTRODUCTION

Chapter 1: Introduction And Setting The Context 1

Chapter 2: Global Trends In Women's Participation In Agribusiness 5

SECTION 2: RESEARCH METHODOLOGY, ANALYSIS AND FINDINGS

Chapter 3: Research Methodology And Data Collection..... 11

Chapter 4: Academic Landscape: From Education to Workforce Integration 16

Chapter 5: Corporate Landscape: Women In The Workplace 44

SECTION 3: BEST PRACTICES, RECOMMENDATIONS AND WAY FORWARD

Chapter 6: Best Practices And Success Stories 65

Chapter 7: Recommendations And Way Forward 71

FIELD FORWARD 76

APPENDIX..... 79

REFERENCES 88

FOREWORD



Foreword by Balram Singh Yadav
Managing Director, Godrej Agrovet

As our industry steps into a new era of innovation and progress, it becomes clearer than ever that our success is tied to inclusive growth for all its participants, with a critical focus on women. Over 80 percent of all economically active women in India are engaged in agriculture, yet, fewer than 15 percent hold decision-making roles. Across the food and agri-business sector, women professionals constitute less than five percent of the workforce.

This report marks a milestone in identifying and evaluating the obstacles to women's progress in the sector. It provides what we believe is a unique study of issues in education, entry-level employment, and workplace policies. Its analysis of existing literature points to a persistent gap in our knowledge of women's education and working conditions in agri-business. Its study of workplace realities and trends in women's representation provides deep insights into the challenges we face as we strive to create a more inclusive sector. Its recommendations clarify how critical it is for us to build sustainable paths to education and employment, to welcome women into agribusiness, and to enable women to thrive and grow in our workplaces.

Godrej Agrovet is deeply committed to nurturing innovation, sustainability, and inclusion within the agricultural sector. Our values are rooted in the legacy of the Godrej Industries Group, which has always put the well-being of our people and planet alongside profit. We are proud to support this report's vision of a more equitable future. We hope to be part of a collective effort to implement its recommendations, and find solutions to enable women's participation and leadership in our sector.

We are thankful to Professor Vidya Vemireddy and her team at IIM Ahmedabad for conducting their meticulous pan-India study to create this report and its findings. I invite all stakeholders in the agri-business ecosystem to engage with their insights, and join us in enabling a more equitable, progressive, and resilient future for our industry.

AUTHOR'S NOTE



Prof. Vidya Vemireddy
Indian Institute of Management Ahmedabad

The agricultural landscape in India presents us with a striking paradox: women constitute a significant portion of the agricultural workforce and educational cohorts, yet a major proportion of the graduates do not enter the formal employment structures and leadership positions. This disparity represents not merely a social equity challenge, but points to structural barriers which need to be addressed to unlock the sector's innovation potential and economic resilience.

This study moves beyond merely documenting this disconnect to providing actionable pathways for transformation. As one of its kind research, we examine how enhancing women's participation in agribusiness creates demonstrable business advantage through enhanced talent acquisition and retention, accelerated innovation, improved market responsiveness, and strengthened operational resilience—particularly crucial as our sector navigates digitalization and sustainability imperatives in the future.

This report addresses critical knowledge gaps regarding women's participation in formal employment relationships within agribusiness enterprises. While existing research has focused primarily on smallholder contexts, we explore the untapped potential of women in management and leadership capacities, quantifying both the structural barriers and the economic opportunities their inclusion represents.

The findings offer guidance for educational institutions aligning curriculum with industry needs, enterprise leaders creating inclusive organizational cultures, and policy makers addressing systemic barriers. By translating social progress into economic metrics, we demonstrate pathways to move the needle on realizing women's potential in the sector.

As we share these insights, we invite stakeholders across the agribusiness ecosystem to join us in reimagining a sector where potential is unlocked, talent is fully leveraged—creating organizations that are simultaneously more equitable, innovative, and economically vital.

EXECUTIVE SUMMARY

Women in Agribusiness: Opportunities and Challenges

This report addresses a critical gap in understanding women's participation in India's Agribusiness sector. For decades, discussions about women in agriculture have focused on their roles as small-scale farmers or micro-entrepreneurs—a narrow lens that ignores their potential as professionals shaping agribusiness at scale. The Paradox of Presence and Absence : The agriculture sector employs 80% of all economically active women; they comprise 33% of the agricultural labor force. Despite women constituting the overwhelming majority of the agricultural workforce there remains a significant knowledge gap regarding their formal employment and advancement in agribusiness companies. Women's presence is disproportionately limited in the formal agribusiness structures and leadership positions. What we found was striking: women face a series of compounding barriers that effectively push them out of the industry despite their qualifications and capabilities. The other insight was that the challenges are different across the lifecycle of women and need more targeted solutions. This lifecycle-specific approach reveals how structural inequities manifest differently at critical career transition points, demanding interventions that address both immediate barriers and a long-term systemic transformation.

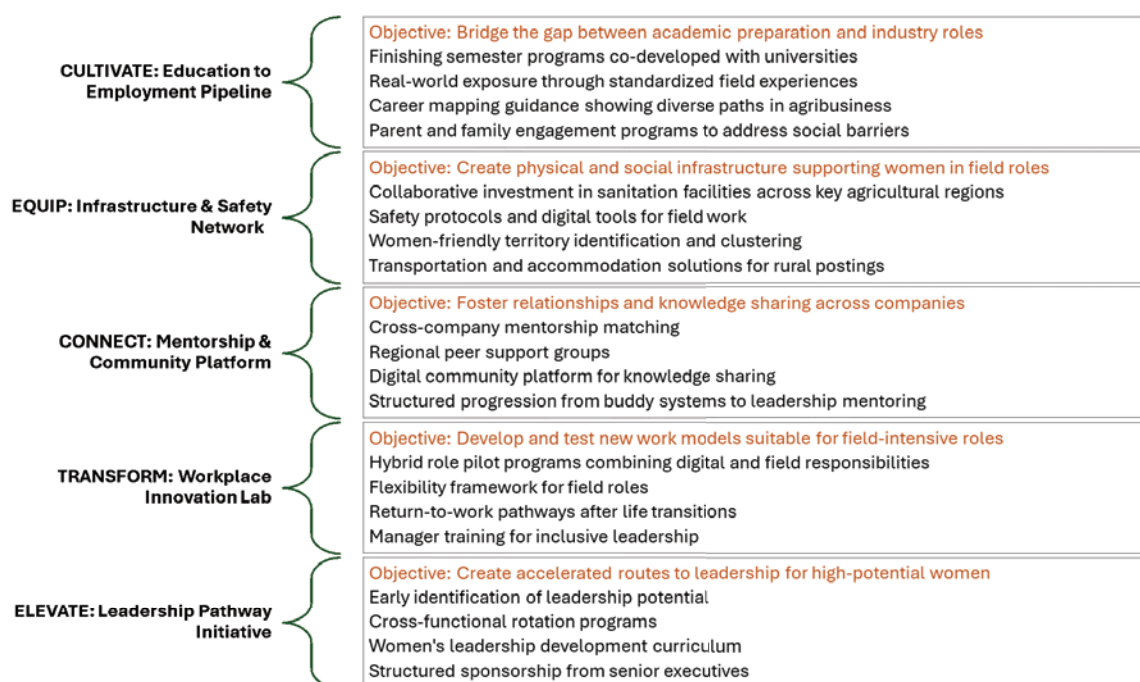
Our research methodology employed a mixed-methods approach, triangulating quantitative data from 780 survey respondents (40.8% female, 49.0% male, 10.2% other genders) with qualitative insights from 287 students who participated in focus group discussions conducted across 14 agricultural institutions. This convergent parallel design enabled cross-validation of findings while helping us capture the nuanced lived experiences of women across the educational-to-employment pipeline. Statistical analysis of enrollment patterns was further contextualized through in-depth stakeholder interviews with industry leaders and academic administrators to ensure a comprehensive representation of structural factors.

There are critical gaps in how agricultural education prepares women for professional success. Although the programs excel at imparting technical expertise, they underdeliver in equipping women with practical tools for navigating the realities of agribusiness environments. This educational shortfall particularly affects women's ability to work and excel in remote locations and male-dominated settings where implicit norms often determine career progression. Field-based work is at the heart of the agribusiness sector—visiting production sites, managing complex supply chains, and developing relationships with farming communities. These experiences provide the foundational knowledge essential for leadership development. However, women face systematic exclusion from these career-critical opportunities through multiple, reinforcing barriers.

Our survey data reveals this exclusion operates through both institutional and individual dimensions. Companies frequently exhibit reluctance to deploy women in field operations, citing inadequate infrastructure and security protocols. Simultaneously, women themselves express significant hesitation, with 60% of our female respondents identifying personal safety as their primary concern regarding field positions. This hesitation represents a rational response to legitimate security risks rather than any capability limitation.

For women who do enter the industry, rigid workplace structures force impossible choices between career advancement and family responsibilities. Unlike other sectors that have embraced flexible arrangements, the rapidly changing agribusiness sector needs change and update in the work models. The result is a classic “sticky floor” situation where women remain concentrated in support functions like administration or research without clear pathways to decision-making roles. This leadership gap means companies miss out on diverse perspectives at the exact moment when agricultural challenges require innovative thinking.

The business case for transformation is compelling and multidimensional. By supporting women in realizing their full economic potential across the agricultural value chain, companies aren't merely addressing equity concerns—they're unlocking substantial operational and strategic advantages. When women participate fully in agribusiness, from field operations to executive decision-making, organizations gain access to broader talent pools, diverse problem-solving approaches, and enhanced community insights that drive innovation and market responsiveness. This isn't simply about representation; it's about leveraging the complete spectrum of available talent to address increasingly complex agricultural challenges.



Framework for Systemic Transformation

Our study proposes a multi-layered approach that addresses both immediate opportunities and long-term systemic change. We begin with short-term recommendations that individual organizations can implement within 0-6 months focusing on bridging the education-employment gap, implementing region-specific field role pilots, and taking stakeholder-specific actions around recruitment, HR policies, and career progression.

Building on these initial steps, we've identified five strategic implementation priorities that can be undertaken by individual companies or small consortiums to create more substantial change. These five pillars—CULTIVATE, EQUIP, CONNECT, TRANSFORM, and ELEVATE—form an integrated ecosystem of interventions targeting each critical barrier women face across the agribusiness career lifecycle, from education through leadership advancement. This interconnected framework addresses the full spectrum of structural, institutional, and cultural barriers simultaneously, creating reinforcing mechanisms that accelerate change.

For a truly transformative sector-wide change, we present the FIELD FORWARD coalition—a comprehensive three-phase approach (Foundation, Acceleration, and Transformation) that unites companies, universities, and industry associations in reshaping the agricultural ecosystem. This initiative addresses critical career transition points where women consistently exit the pipeline while establishing sustainable frameworks that embed change in industry infrastructure and standards.

The Path Forward

As India's agricultural sector confronts unprecedented opportunities for innovation and growth, the integration of women's talents, perspectives, and leadership capabilities represents not merely a moral imperative but a strategic necessity. The transformation we envision builds upon existing strengths while opening new pathways for collaborative advancement.

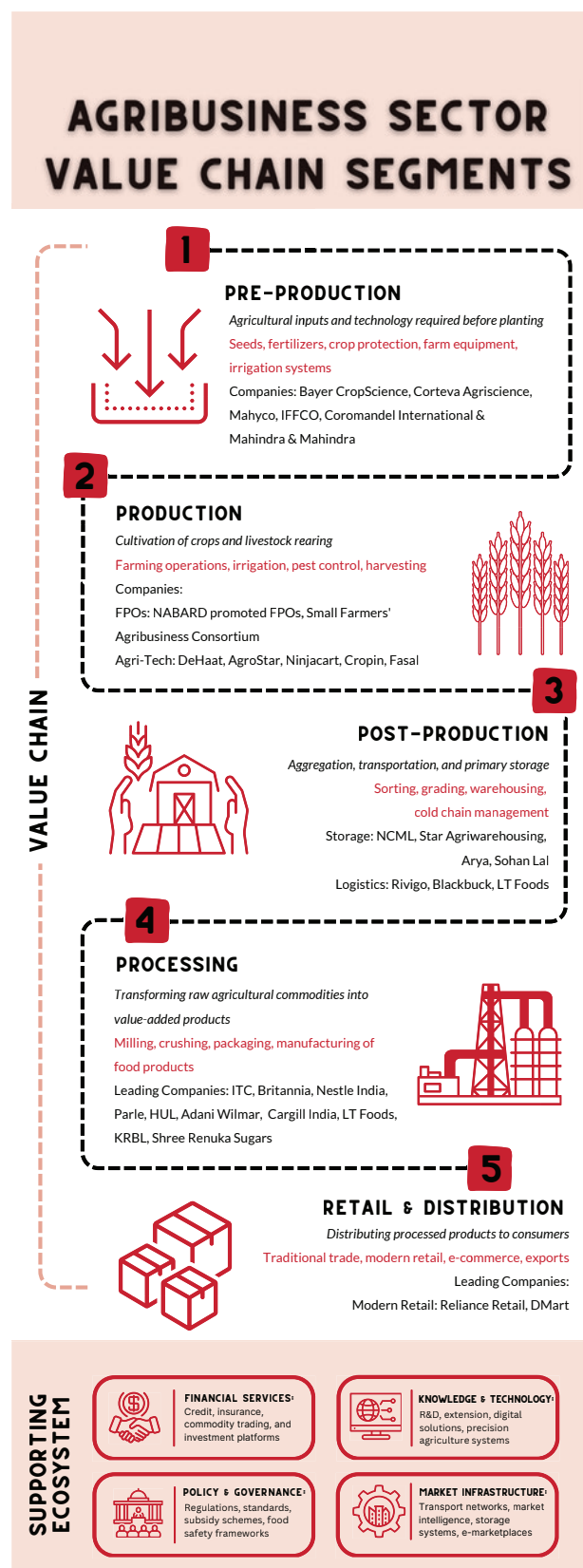
Throughout our research, we encountered pioneering organizations already implementing elements of these frameworks—companies creating dignified infrastructure, universities developing immersive field experiences, and industry associations establishing cross-organizational mentorship networks. These early adopters demonstrate the tangible benefits of inclusive approaches: enhanced innovation capacity, strengthened community relationships, and more resilient operational models.

The roadmap we've outlined offers practical guidance for organizations at every stage of this transformation journey. Through coordinated implementation of these strategic interventions, organizations can create not only more equitable workplace environments but fundamentally strengthen the agricultural sector's capacity to meet increasingly complex global challenges with diverse, innovative leadership approaches. This collective action transcends individual organizational boundaries, creating an ecosystem where sustained, systemic change becomes possible.

SECTION 1:

AGRIBUSINESS OVERVIEW AND INTRODUCTION

1 INTRODUCTION AND SETTING THE CONTEXT



Agribusiness Sector: An Overview

The agribusiness sector encompasses the entire commercial ecosystem of the agricultural value chain, connecting all commercial activities from farm inputs to consumer food products. An ecosystem that connects every aspect of how food makes its journey from field to fork. This integrated system includes:

- All business enterprises involved in food production, from input suppliers to retailers,
- The full spectrum of commercial activities throughout the agricultural value chain,
- Both on-farm and off-farm businesses that enable agricultural production and distribution.

The agribusiness value chain structure has become increasingly sophisticated. At each stage, specialized stakeholders perform distinct functions that add value to agricultural products: Input providers develop and distribute agricultural technologies and materials, farmers manage production processes while navigating climate and market uncertainties, processors transform raw agricultural commodities into consumer products, distributors and retailers ensure products reach markets efficiently while financial service providers, technology companies, and advisory services support these core activities

The industry is currently facing a whole range of challenges surrounding food security, economic growth, and sustainable development which demands innovative approaches to ensure sustainable growth. During his address at the 2024 Annual Meetings Plenary, World

Collective business activities that are performed from farm to table. It covers agricultural input suppliers, producers, agro processors, distributors, traders, exporters, retailers and consumers. Agro-industry refers to the establishment of linkages between enterprises and supply chains for developing, transforming and distributing specific inputs and products in the agriculture sector. Consequently, agro-industries are a subset of the agribusiness sector. Agribusiness and agro-industry both involve commercialization and value addition of agricultural and post-production enterprises, and the building of linkages among agricultural enterprises. (IPBES)

Figure 1: Agribusiness Sector Value Chain

Bank Group President Ajay Banga stressed, “*the effort to transform agribusiness is not only about securing the food systems of tomorrow—it is fundamentally a jobs initiative*” noting that some 1.2 billion young people in lower-income countries will enter the workforce over the next decade, but only 420 million jobs are expected to be available. As Banga noted, “*The specter of unemployment looms large, potentially leaving 800 million young people without meaningful employment, and threatening to destabilize societies and hinder economic growth.*” He also highlighted the critical need to address food security, as the world will require 60% more food to sustain a population of 10 billion by 2050. This employment gap underscores the critical importance of developing the agribusiness sector not only for food security but as an engine for sustainable economic growth and job creation.

Current state of women in agribusiness

Agribusiness plays a key role in food security, employment, and sustainable growth in many low- and middle-income countries. Women make up over 40 percent of the global agricultural workforce, according to the U.N. Food and Agriculture Organization, and are vital participants in agribusiness value chains worldwide. The full potential of women in agribusiness remains largely untapped despite their crucial role across the entire food system. Women form the very backbone of agricultural production in numerous regions, yet their contributions often lack proper recognition, investment and support.

Agribusiness leaders increasingly recognize that gender inclusion isn’t merely about social responsibility—it directly impacts profitability, sustainability and innovation capacity. In the short term, growing expectations from consumers, stakeholders and investors create urgency for agribusiness corporations to proactively address gender disparities throughout their operations and supply chains. Despite mounting evidence of their transformative impact on agricultural enterprise outcomes, women employed in agribusiness corporations face persistent structural barriers that significantly restrict their advancement into technical and managerial leadership roles.

Status of women in education

The educational pipeline for women in agribusiness shows both promising developments as well as persistent challenges and in order to understand the enrollment and pass-out patterns in agriculture universities and colleges in India, the study in the report has utilized the All-India Survey on Higher Education (AISHE) data from 2017-2022. The detailed analysis of the persistent gender disparities across agricultural and allied education programs, based on AISHE data will be presented in Chapter 4 Academic Landscape: From Education to Workforce Integration. The chapter will examine enrollment patterns, program-wise distribution, and advancement rates across bachelor’s, master’s, and doctoral levels to provide evidence-based insights into

women’s participation in agricultural higher education, forming a crucial foundation for understanding the educational pipeline into agribusiness careers.

According to Tripathi et al. (2025), ICAR data published in the Indian Express in March 2024 documented a significant 175% increase in female enrollment in agricultural education over an eight-year period. The researchers note that among India’s 76 agricultural educational institutions, which collectively can accommodate 47,000 students, female representation has grown substantially. In the reporting year, women accounted for 23% of total enrollment, with 8,360 female students pursuing agricultural studies across these institutions.

The AISHE data analysis reveals that while overall enrollment in agricultural programs has grown at a CAGR of 11% over the past decade, the educational landscape remains characterized by considerable regional variation. Maharashtra, Uttar Pradesh, Tamil Nadu, Karnataka, and Rajasthan dominate agricultural education, collectively accounting for more than 50% of total enrollments (Tripathi et al., 2023). This geographic concentration has implications for women’s access to agricultural education, particularly for those from underrepresented states. Despite increasing enrollment rates, the education-to-employment transition presents persistent challenges, especially for women graduates. The gap between educational achievement and employment outcomes suggests structural barriers that disproportionately affect female agricultural professionals entering the workforce.

A recent study by Tripathi et al. (2025) shows approximately 29% of female agricultural students strongly prefer private sector jobs, favoring established companies for employment. Meanwhile, about 24% are focused on competitive exams to secure government positions. The research identified four key motivational domains for pursuing agricultural careers, with gender empowerment ranking highest, followed by career aspirations. Notably, parental guidance played a crucial role, with 80% of respondents citing parental support as the primary social influence in their educational decisions, underscoring the significance of family backing when choosing agricultural education.

Despite encouraging trends in enrollment, a critical need persists to significantly increase women’s participation in university-level agricultural science programs across India. Strategic interventions are needed to increase women’s representation in agricultural research, extension management, and education while simultaneously addressing the structural barriers that impede their transition from education to meaningful employment, particularly in regions where agricultural education remains limited.

Status of women in the agribusiness workforce

Recent government data demonstrates a consistent upward trend in women’s workforce participation in India, with

the female Labor Force Participation Rate (LFPR) nearly doubling from 23.3% in 2017-18 to 41.7% in 2023-24 (Ministry of Labour & Employment, 2024). While this represents significant progress, Deshpande (2025) cautions that this increase has been primarily driven by unpaid and low-productivity work, particularly in rural areas, with limited growth in regular wage employment or higher-earning opportunities. Despite these improvements, significant barriers remain—43% of women cite childcare and homemaking responsibilities as obstacles to workforce participation (PIB, 2024). This highlights the persistent challenge of reconciling paid employment with unpaid care work, which affects women’s ability to access quality employment opportunities with fair compensation and social protection.

Global Agrifood Workforce Dynamics

The agribusiness sector continues to grapple with significant gender disparities in corporate employment. Women represent a minority of employees in agribusiness firms, with representation becoming progressively lower as one moves up the organizational hierarchy. While entry-level positions show some gender diversity, leadership roles remain predominantly male-dominated, with women occupying a disproportionately small percentage of senior management and executive positions.

According to the World Bank’s Women, Business and the Law 2022 report, approximately 2.4 billion women of working age lack equal economic opportunities. Additionally, 178 countries have legal obstacles in place that prevent women from fully participating in economic activities. Women play a vital role as key stakeholders throughout agribusiness value chains globally.

Traditional workforce structures have systematically limited women’s participation, particularly in leadership and technical roles. The Status of Women in Agrifood Systems report published by FAO in 2023 points out that while they constitute 40% of the global agricultural workforce (up to 50% in many regions), women typically work under less favorable conditions than men. They earn 18.4% less in agricultural wage employment (receiving only 82 cents for every dollar earned by men) and face a 24% productivity gap on farms of the same size.

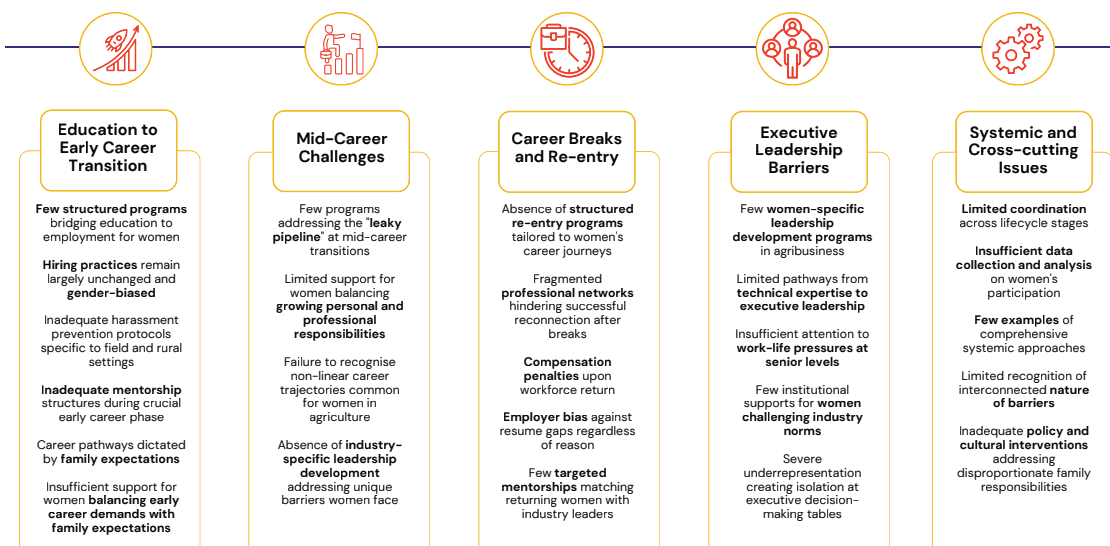
Problem statement, research objectives and methodology

Now, more than ever, it is imperative to understand agribusiness in all its complexity. Women continue to play a crucial role in the agribusiness sector, and agriculture remains the most important source of employment for women in low- and middle-income countries. Despite this centrality, women continue to face persistent barriers that limit their full participation and advancement across the value chain. This report aims to examine disparities through a value chain analysis using a lifecycle approach. A value chain analysis involves breaking down a business into its core activities and analyzing each stage of the value chain to understand where opportunities for improvement lie. By breaking down agribusiness into its core activities—from input supply to consumer marketing—we can pinpoint exactly where improvements are possible. Some activities create tremendous value while others drain resources; identifying which is which allows for strategic intervention rather than scattershot efforts. Meanwhile, the lifecycle approach used in this case accounts for the varied constraints that emerge at different stages of a woman’s involvement in the agribusiness sector: from education and employment to leadership roles. Without this deeper understanding, we’re simply scratching the

Figure 2: Key Challenges in the Agribusiness Sector

Key Challenges

Women in agribusiness experience **interconnected challenges** across their career journey—from limited mentorship during education-to-career transitions and mid-career advancement opportunities, through family-related career pauses and leadership pathways — highlighting areas where targeted support could enhance professional development



surface of the real opportunities and challenges facing women across the sector.

This report is structured around a fundamental reframing: every challenge identified is immediately paired with the question, “What corresponding opportunity does this present?” And thus, the report seeks to identify actionable solutions that not only address these challenges but also leverage the untapped potential of women within the agribusiness sector. Their essential contributions span the entire agricultural process, from planting, cultivation, and harvesting to post-production activities including processing, logistics, and sales operations. Women participate across all stages of the value chain but often face unique barriers including biased hiring practices, rigid gender norms, greater burden of unpaid domestic and care work, and limited access to networks, capital, and technology. The persistent barriers that limit women’s complete engagement in agribusiness represent significant market inefficiencies.

The agribusiness sector faces challenges such as climate volatility, supply chain disruptions, labor shortages, changing consumer preferences, increasing regulatory requirements, and rapid technological transformation which demands leveraging every possible talent advantage. Companies cannot afford to exclude nearly half their potential workforce while struggling with persistent labor shortages. By addressing the barriers women face and overcoming systemic limitations, organizations can tap into significant business opportunities while establishing a competitive advantage in their markets. This presents a clear business case – one with tangible economics returns. At the same time improving employment opportunities for women in this sector creates ripple effects that extend far beyond individual livelihoods, positively influencing broader economic and social development indicators.

Within large agribusinesses in developing countries, women tend to be segregated into low-skilled, low-paid, informal and casual jobs.

Source: FAO, Status of Women in Agrifood Systems, 2023

Background and Rationale of the study:

Despite comprising 30-40% of agricultural education students, women face systemic barriers that causes them to remain disproportionately low in the agribusiness sector. What we know so far is that this underrepresentation stems from multiple challenges: such as structural barriers, educational-employment mismatch and the employment landscape in the agribusiness sector. These challenges are further compounded by societal expectations, family responsibilities, and deeply rooted gender biases in traditionally male-dominated agricultural settings. The result is a significant loss of talent and diversity

in the sector, where women’s capabilities remain largely untapped.

With the help of this research, we seek to understand the extent and nature of these challenges through empirical evidence and to develop recommendations to improve the quality and to increase women’s participation in agribusiness roles.

The research study will:

1. Document and analyse women’s roles across the value chain and identify any systemic barriers or constraints. The study will also provide actionable insights that will help bridge the gap between education and employment.

2. The research will assess the economic and social benefits of gender equality within the agribusiness context. Several studies have shown that the impact of empowering women has a multiplier effect that results in improving family and community well-being. Women’s participation drives productivity and resilience while reducing poverty and fostering social cohesion.

3. Inform relevant stakeholders to address specific challenges and opportunities for women. The lack of gender-disaggregated data on women’s participation in agribusiness hinders effective intervention design by providing empirical evidence.

4. Present case studies and best practices from the industry and globally relevant policies to foster inclusivity.

Methodology: Mixed methods

This study employs a mixed-methods approach, combining both quantitative and qualitative research methods to provide a comprehensive understanding of the challenges and opportunities for women in Indian agribusiness. The mixed-methods approach allows for triangulation of data, ensuring the validity and reliability of the findings.

Quantitative Research: The quantitative component involves a large-scale primary survey of students, faculty, and industry professionals to gather data on enrollment patterns, employment trends, and gender-specific challenges in agribusiness. And statistical analysis of enrollment (AISHE data) and employment data (BRSR report).

Qualitative Research: The qualitative component includes focus group discussions (FGDs), in-depth interviews with industry leaders, and interactions with academic institutions to gain insights into the lived experiences of women in agribusiness.

2 GLOBAL TRENDS IN WOMEN'S PARTICIPATION IN AGRIBUSINESS

Global Trends in Women's Participation in Agribusiness

Women play a critical, yet underrecognized, role along the global agribusiness value chain, which spans input supplies, production, post-harvest processing, distribution, and retail. According to the Food and Agriculture Organization, globally, 36 percent of working women and 38 percent of working men work in agrifood systems (FAO, 2023). However, women's roles are typically clustered around subsistence-level farming, food processing, and other labor-intensive activities, while they remain significantly underrepresented in decision-making and professional leadership roles.

Global trends indicate increased visibility of women's participation in agribusiness, partly driven by the growing interest of corporate stakeholders in workforce diversity. Institutions like the International Finance Corporation (IFC) emphasize that integrating women into agribusiness is not just a moral imperative, but also a strategic necessity for improving productivity, innovation, and profitability (IFC, 2016). Studies show that gender-inclusive agribusinesses are better positioned to meet the increasing challenges of climate change adaptation, global food security, and supply chain resilience.

In many regions, employment in particular agricultural sectors has evolved, both in terms of quality and structure. This is particularly true for the agricultural industry, which for a long time was characterized by job redundancy (White B. 2012). Currently, certain environmental and societal factors are associated with agriculture's generally poor productivity - which impacts the amount of money created and, consequently, salaries are contributing factors to its abandonment. However, not all regions have seen this tendency; in some cases, students have continued to seek professions in agriculture because of creative approaches or advantageous local conditions that sustain the industry's profitability and favourable working conditions (Kozera M. and Uglis J. (2021)).

A study by Kozera M. and Uglis J. (2021) conducted in Poland found that both male and female students perceive agribusiness working conditions as aligned with their expectations. They also view the sector as an appealing field for employment and entrepreneurship. The study showed that among agribusiness students, men

had higher aspirations for starting their own businesses. This may be due to women's strong desire for higher education, particularly pursuing post-graduate studies like Master's degrees, which has been a consistent trend among female students (Kozera M. and Uglis J. 2021). Additionally, women are distinguished by their later entry into the workforce, the expectation of positive social interactions at work, increased employer loyalty, and heightened awareness of environmental protection issues. agriculture represents a disproportionately significant livelihood source for women in many countries, making the persistence of gender barriers throughout the sector particularly consequential. These structural inequities manifest in multiple dimensions: limited access to technical training, inadequate field infrastructure, cultural resistance to women's leadership, and systemic exclusion from advancement pathways.

Note on Global Gender Disparities in Employment

Despite decades of advocacy for gender equality, significant disparities persist in workplaces worldwide. Recent research from McKinsey & Company and LeanIn.Org (2024) highlights the "broken rung" phenomenon, where women face their first major barrier at the initial promotion to management—with only 79 women promoted for every 100 men in 2018 and this figure in 2024 stood at 81 women promoted for every 100 men. This bottleneck creates lasting inequality throughout organizational hierarchies.

The International Labour Organization (2025) presents even more concerning data in their report "Women and the Economy: 30 Years after the Beijing Declaration," revealing that at current rates of progress, achieving gender parity in employment will take over 190 years. Women currently hold just 30% of managerial positions globally, and the gender employment gap has narrowed by only 4 percentage points in three decades.

Financial inequality remains entrenched, with women earning approximately 77 cents for every dollar men earn (World Bank Group, 2024). This pay gap reflects not only direct discrimination but also structural issues including occupational segregation, with women overrepresented in lower-paying sectors and underrepresented in leadership positions.

These persistent disparities represent not only social

inequity but also significant economic inefficiency, as societies fail to fully leverage the talents and contributions of women in the workforce. Addressing these issues requires comprehensive policy approaches, organizational commitment, and cultural shifts to create truly equitable workplaces.

Women's Role in Agriculture - A Global Overview

Women work in both cash and subsistence agriculture sectors, generating a large portion of the food consumed worldwide in households and communities. The agricultural responsibilities carried by women differ from region to region, but men and women's roles are complementary in crop production, livestock raising, fishing, and care and use of forest products. In some instances, men and women have clearly defined roles and responsibilities when it comes to specific crops, livestock, fisheries, and forestry. Women play a crucial role as key stakeholders in the agrifood system value chain. However, despite women's essential role in the sector, they face various challenges such as power dynamics and socio-cultural norms, which impact their productivity and growth, these challenges in turn impact the businesses and growth of the rural economies (World Bank; Malhotra S. and Masset E. (2024)). Worldwide women have restricted or no access to agricultural land (World Bank). Globally women constitute about 43% of the agricultural workforce. However, only 15% of the landholders are women (IFAD, 2022). Women are also deprived of agricultural education and access to training opportunities (World Bank). Extension services are frequently targeted at farmers who own land and have the collateral to secure finance for inputs and other services, as well as cash and export crops. Compared to men, women farmers are less likely to own land and have collateral for financing, and they are more likely to be in charge of food crops for family consumption (FAO,2023).

Women have restricted access to agricultural inputs and mechanical equipment, along with limited knowledge of their use. They also face significant barriers in obtaining credit and other financial services (World Bank). Lack of credit and rural organization membership, as well as gender-blind development programs and research and technology development programs that ignore the needs of women farmers, limit women farmers' access to agricultural inputs and technologies (FAO,2001). Additionally, women face significantly lower wages for the same work as men (World Bank). In poorer countries women are largely dependent on agricultural wage employment for their livelihoods, thus removing the gender wage pay gap is essential in achieving gender equality, particularly among the poorer households (NICO G. and Azzarri C. (2023)).

For instance, hired women's pay in Senegal's horticultural industry are typically 24% less than men's (Fabry, Van den Broeck and Maertens, 2022), and male agricultural wage laborers in the Philippines were paid 13–18% more

than female wage workers on average between 2006 and 2009 (Valientes (2015)). Gendered social norms and policy frameworks create significant structural barriers that constrain women's full participation and benefit-sharing within food systems. Transformative changes to these entrenched sociocultural structures are essential to enhance women's agency in decision-making processes that affect their well-being, food security, and economic outcomes. Despite facing systematic constraints in accessing opportunities, technologies, and resources, women make vital contributions across food value chains as producers, processors, traders, and consumers (Njuki et al., 2022).

Indian Agricultural Sector: An Overview

India's agricultural sector remains one of its largest economic contributors, employing nearly 45.6% of the national workforce and accounting for approximately 18% of GDP (Ministry of Agriculture, 2023). Women form an integral part of this workforce, constituting nearly 37% of agricultural laborers and 80% of food processors and packagers at the grassroots level. Despite this, their roles often remain invisible in national statistics, as much of their labor is classified as informal or unpaid family work (SOIL Report, 2024).

The agribusiness sector in India has been undergoing rapid transformation, with large-scale investments in agri-tech, climate-resilient farming, and food processing industries. However, women's participation in these emerging spaces has been uneven. Disparities in education, access to resources, and structural power dynamics perpetuate inequality, barring women from benefiting fully from these advancements.

Given its importance in creating jobs and promoting rural development, India has always placed a high priority on the agro-industry in its policies and development initiatives. During the independence movement, Mahatma Gandhi placed a strong emphasis on village-based agro-industries; this idea still influences national development plans today. Agro-industry was emphasized by the development commission (1996) as a key element of economic development (Gandhi V et al., 1999).

Key Highlights of Female Workforce Participation in India

- Recent data shows encouraging trends in women's participation in the Indian workforce:
- According to PLFS data, women's labor force participation rate has significantly increased from 23.3% in 2017-18 to 41.7% in 2023-24.
- The Worker Population Ratio (WPR) for women has nearly doubled from 22% to 40.3% between 2017-18 and 2023-24, indicating substantially more women are now employed.
- Rural women have shown remarkable progress, with rural FLFPR increasing by 23 percentage points from 24.6% in 2017-18 to 47.6% in 2023-24.
- The overall unemployment rate for women has

significantly reduced from 5.6% to 3.2%, suggesting improved job opportunities and economic stability.

- Higher education is correlating with increased workforce participation, with 39.6% of women with post-graduate qualifications working in 2023-24 compared to 34.5% in 2017-18.
- Among women with only primary education, workforce participation has doubled from 24.9% in 2017-18 to 50.2% in 2023-24, showing improvements across educational levels.
- The Economic Survey 2023-24 notes that the rise in FLFPR is not likely distress-driven as it has continuously increased rather than peaking during COVID-19 and declining afterward.
- Despite employment gains, 43.04% of women outside the workforce cite domestic commitments and childcare responsibilities as the primary barrier to employment (Ministry of Labour & Employment, 2024).

Current Status and Representation of Women in Agribusiness

Women represent a substantial portion of the labor-intensive segments of agribusiness value chains globally. For instance:

- In post-harvest processing and handling, women account for 70-80% of the workforce, given the precision and manual dexterity required in activities like sorting, grading, and packaging (IFC, 2016).
- Despite this high participation, women are often concentrated in low-wage positions, reinforcing occupational hierarchies that undervalue women's work relative to men's. Studies reveal that while women contribute significantly to agricultural output, their compensation often lags far behind.

In India, women contribute to primary production and post-harvest activities, but they remain virtually absent from corporate decision-making roles in agribusiness and food enterprises. A mere fraction of senior management roles in the agricultural sector are held by women, highlighting systemic barriers in climbing corporate ladders (Deshpande et al., 2023). Additionally, women's economic participation is skewed heavily toward micro-entrepreneurship in rural settings, with limited opportunities to transition into formal employment streams.

With their active participation in every stage of crop production, women are vital to Indian agriculture. In India, about 45% of the people are engaged as agricultural workers, however, about 62.9% of them are females (PIB, 2023). They perform important tasks like transplanting, fertilizing, harvesting, and post-harvest processing, making up about 33% of the agricultural labor force and 48% of independent farmers. But agriculture is more than just production, and there are still few women in professional and managerial positions.

Despite their substantial contributions to agricultural activities, socioeconomic limitations, family obligations, and prevalent gender stereotypes prevent women from participating fully in the agribusiness sector and limit their access to leadership and decision-making roles (Miryala R. and Aluvala R., 2015).

Despite comprising nearly 50% of students at the majority of agricultural colleges (Times of India [TOI], 2024), women's educational gains have not translated proportionally to leadership positions in agriculture. Research indicates a persistent gender disparity across the employment pipeline, with women facing structural barriers to advancement despite their academic qualifications. According to the International Labour Organization (2025), global progress toward gender parity in employment has been modest, with the gender gap narrowing by only 4 percentage points over three decades. This pattern is particularly evident in agribusiness, where women remain concentrated in support functions rather than operational leadership roles. The McKinsey and LeanIn.Org (2024) Women in the Workplace study further confirms this trend, revealing that even in sectors showing improvement, women's representation decreases at each step up the corporate ladder.

Research Gap in the Formal Employment of Women in Agribusiness

Most existing literature focuses narrowly on women as smallholder farmers or entrepreneurs, with limited attention given to their roles in formal employment within agribusiness companies. Research by Meinzen-Dick et al. (2020) highlights this critical gap, showing a lack of understanding of career pathways for women in formal agribusiness organizations, as well as barriers to their leadership advancement.

Identified research gaps include:

- **Career Pathways:** Women's roles within commercial agribusiness firms are rarely studied. Many career pathways within the sector remain unexplored, including entry-level positions, mid-level technical and managerial roles, and leadership opportunities.
- **Intersectional Barriers:** Studies need to examine how gender intersects with caste, socioeconomic status, and rural-urban divides to further marginalize women in agribusiness careers.
- **Longitudinal Analysis:** There is inadequate longitudinal data regarding the impacts of economic shocks, policy changes, or globalization on women's employment within agribusiness.
- **Business Case for Inclusion:** While some evidence links gender inclusion to positive business outcomes, this remains insufficiently quantified, particularly in emerging economies like India.

Women's Participation and Challenges in Agrifood Systems: Insights from the FAO Report (2023)

The FAO report "**The Status of Women in Agrifood Systems**" provides comprehensive evidence on women's participation across agricultural value chains globally. Despite their significant contribution to food production and processing, women face persistent barriers that limit their economic opportunities and returns. Women constitute 50% of all agrifood system workers in sub-Saharan Africa and over 40% in several other regions, yet their labor often remains undervalued and underrecognized. Women face systematic inequalities in the types of value chains in which they engage, the conditions of their engagement and the returns they receive.

Employment Patterns and Working Conditions

- Women's employment in agrifood systems is characterized by several concerning trends:
- Women comprised 38% of all agricultural workers in crop, livestock, fisheries, and forestry primary production worldwide in 2019, with little change (-1%) since 2000.
- Nearly half of women in agriculture (49%) work as contributing family workers without direct remuneration, compared to only 17% of men.
- In the aquaculture and fisheries sectors, women represent about 50% of all workers across the entire value chain, but hold only 15% of full-time positions while accounting for 71% of part-time processing jobs.
- Women are consistently less likely than men to work full-time, with women in most regions working fewer than 40 hours per week in agrifood systems.

Persistent Productivity and Income Gaps

The report documents significant gender disparities in productivity and earnings that persist across regions. The gender gap in land productivity between female and male-managed farms of the same size is 24%, while the gap in labor productivity between female and male plot managers averages 35%. These gaps stem from women's limited access to inputs, technologies, and services, as well as structural discrimination. In wage employment, women earn substantially less than men. On average, women in agricultural wage employment earn only 82 cents for every dollar earned by men—an 18.4% wage gap. Strikingly, discrimination (the structural effect) explains 11.9% of this wage gap, more than the differences in observable characteristics like education and experience.

Value Chain Participation and Occupational Segregation

- Women's engagement in agrifood value chains is heavily influenced by gender norms and power dynamics:
- Women are overrepresented in processing and retail but largely absent from more profitable activities like transport (15% female) and wholesale trading (35% female).
- Female retailers trade predominantly in less profitable commodities and report significantly lower monthly profits—in five out of seven countries studied, men's profits were more than twice as high as women's.
- In livestock value chains, men typically control more profitable breeds (cattle, camels, buffalo) while women manage less-profitable species (poultry, small ruminants).
- The heavy burden of unpaid domestic and care work further constrains women's economic opportunities. Women spend an average of 4.2 hours daily on unpaid care work compared to 1.9 hours for men, limiting their ability to engage in full-time or more lucrative employment.

Addressing gender equality and women's empowerment means addressing constraining social norms and rigid gender roles affecting how women participate in agrifood systems

Source: FAO. 2023. The status of women in agrifood systems.

Box 1: Women's Participation and Challenges in Agrifood Systems: Insights from the FAO Report (2023)

Challenges Faced by Women in Indian Agribusiness

- 1. Economic Inequalities:** Indian women in agribusiness face substantial wage disparities. They receive, on average, 14-20% less income than men for similar roles (FAO, 2023). The undervaluation of women's contributions stems from cultural norms, institutional inertia, and occupational segregation, which relegate them to low-wage or unpaid family labor.
- 2. Time Poverty:** Women bear the brunt of India's "triple burden"—productive work, reproductive labor, and community responsibilities. Reduced opportunities for education and skill-building further exacerbate constraints on their professional development (Government of India, Time-Use Survey, 2019).
- 3. Social Barriers and Gender Norms:** Deeply embedded norms about appropriate roles for women restrict their agency across both public and private domains. Female employees frequently face restrictions concerning mobility, professional

networking, and travel for work purposes, which limits opportunities to advance into higher-paying or leadership positions.

- 4. Access to Training and Resources:** Women in Indian agribusiness often lack access to training, leadership opportunities, and technology. Compared to male counterparts, female professionals are less likely to participate in capacity-building programs, thereby curbing their growth potential.

Agribusiness women professionals frequently encounter obstacles that discourage them from entering the field. Agriculture is primarily rural-based, and because of the lack of infrastructure and personal limitations, many women are hesitant to work in these places. Furthermore, because marketing positions need a lot of fieldwork and travel, they are frequently avoided. Women are further deterred from assuming managerial roles by security concerns, especially in operations and sales roles. Despite their growing presence in agricultural education and functional responsibilities within the industry, these factors contribute to the

underrepresentation of women in agribusiness leadership (Miryala R. and Aluvala R., 2015).

Corporate Initiatives in Enhancing Women's Participation

Efforts by leading Indian agribusiness corporations to promote gender equality offer valuable case studies for industry-wide replication.

1. ITC Limited: ITC Limited's Agri-Business Division has introduced several gender-targeted programs, such as the Women Farmer Field Schools and Krishi Sakhi initiative, which have trained over 195,000 female farmers in climate-smart agriculture (ITC Sustainability Report, 2022). ITC actively invests in building women-led farming collectives to empower grassroots leadership in sustainable farming practices.

2. Mahindra & Mahindra's Farm Equipment Sector: Through its #DeshkiShakti campaign, Mahindra has trained women as tractor operators and promoted their leadership as farmers and entrepreneurs. These programs align with efforts to dispel stereotypes about women's roles in mechanized agriculture and strengthen their participation in India's farm equipment industry.

3. International Collaborations: International initiatives such as the FAO-IFAD's joint program on gender and value chains aim to bridge gender gaps by integrating women into agribusiness networks. Additionally, multinational companies like Unilever's Shakti program collaborate with rural women to enhance income opportunities through participation in FMCG distribution networks.

Emerging Research and Practices

Recent studies emphasize the intersection of gender inclusion in agribusiness with global goals such as the United Nations Sustainable Development Goals (SDGs). For example:

- **Circular Economy:** García-Sánchez and Enciso-Alfaro (2025) noted a strong link between companies' commitments to gender equity and their adoption of advanced circular economy principles. Women are seen as key players in driving sustainability efforts.
- **Digital Agriculture:** Agri-tech startups are creating new pathways for women professionals by leveraging digital platforms. Training women in digital tools such as farm management software, blockchain for traceability, and precision agriculture could improve their access to decision-making roles (World Bank, 2023).

A growing number of agri-food companies are recognizing the connection between gender inclusivity and sustainable business practices. García-Sánchez and Enciso-Alfaro (2025) found that companies committed

to gender inclusivity—by increasing women's presence at all organizational levels and developing policies favoring their professional and personal development—are more likely to champion advanced circular business models. This is particularly significant for the agri-food industry, where circular economy principles are vital for addressing waste generation, chemical product use, soil degradation, and single-use packaging.

Recommendations for Addressing Gender Inequities

To address gender inequities in agribusiness and increase women's participation in agriculture entrepreneurship programs, the literature recommends a number of actions:

- Initiatives for career development and specialized training are necessary to address gender gaps in agribusiness. Potential female managers can be prepared for leadership roles by identifying them and offering cross-training across several operational domains.
- One way to combat workplace biases is to mainstream training opportunities and incorporate gender perspectives into current programs. In order to improve business acumen, training for entrepreneurs should also concentrate on quality assurance, cost control, and marketing tactics.
- Specific challenges faced by women agripreneurs must be addressed by gender-sensitive training programs that cover topics including marketing, technology, financial management, and gender issues. Their success depends on making sure they have access to funding through loans, subsidies, and special funds.
- Women can meet experienced business owners and industry professionals through networking and mentoring events. Women-led agribusinesses should also be supported by the development of easily accessible technological solutions.
- In order to quantify progress and impact and promote inclusive and sustainable agricultural development, gender outcomes should be regularly monitored and evaluated.

Conclusion

The literature and industry trends show that while women play a vital role in agribusiness, significant gaps remain in recognizing their contributions, addressing systemic challenges, and supporting upward career mobility. Closing these gaps will require a concerted effort by corporations, policymakers, and international development organizations to create gender-inclusive policies and support structures.

The next chapter will explore policy initiatives and frameworks aimed at advancing gender equality in agribusiness, with detailed case studies offering practical insights into interventions and outcomes.

SECTION 2:

**RESEARCH
METHODOLOGY,
ANALYSIS AND
FINDINGS**

3 RESEARCH METHODOLOGY AND DATA COLLECTION

Overview

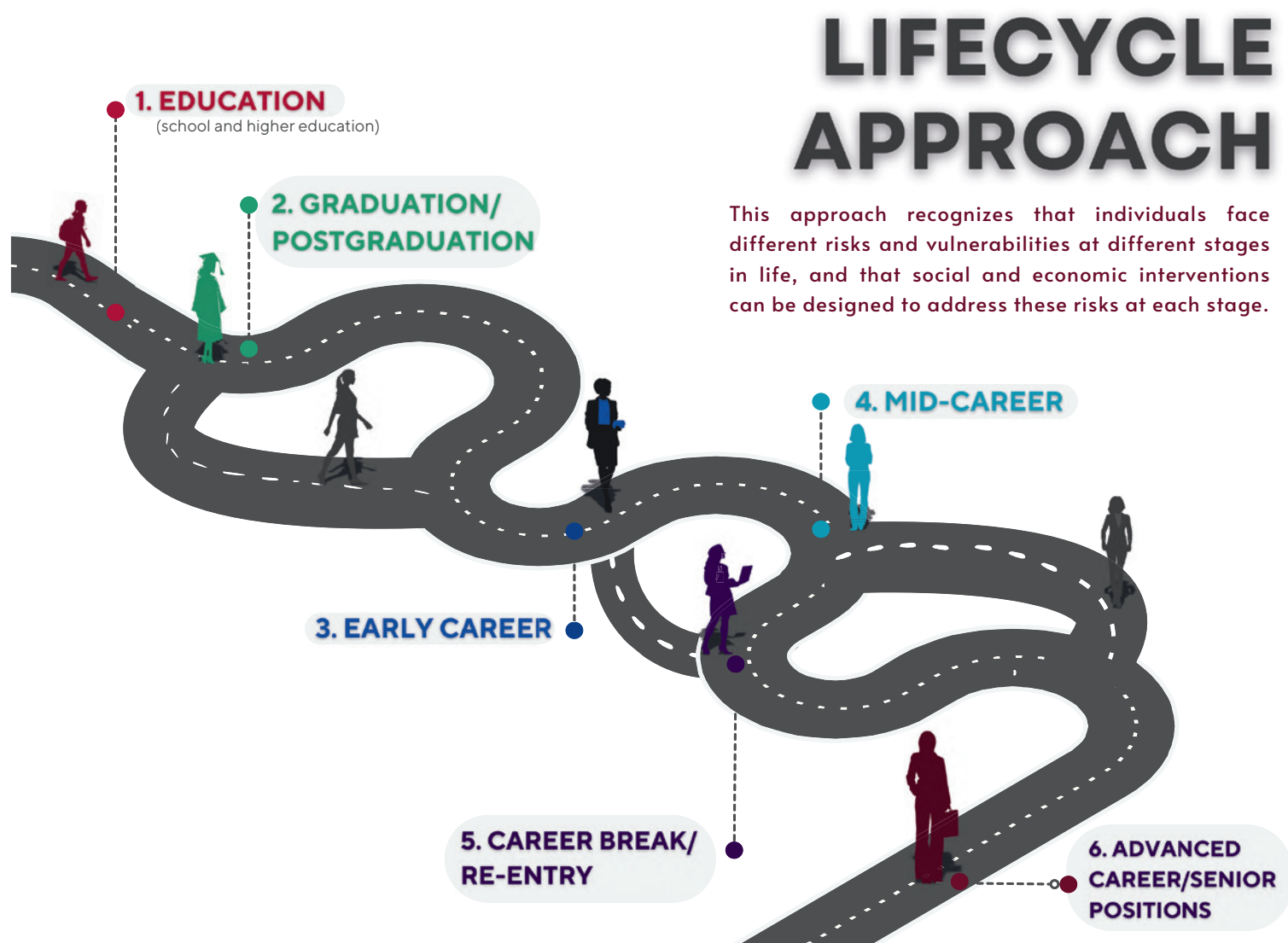
This chapter outlines the research methodology chosen to explore women's participation, challenges, and opportunities in India's agribusiness sector. A mixed-methods approach was implemented, integrating quantitative data analysis with qualitative narratives, to deliver a comprehensive understanding of the subject. By integrating statistical analysis with personal narratives and insights from industry experts, the study sought to uncover both broad systemic trends and the nuanced, context-specific challenges faced by women. This mixed-method approach allowed for a comprehensive exploration of macro-level patterns in employment and education alongside the micro-level barriers, enablers, and lived experiences of women in the agribusiness sector. The result is a holistic perspective that not only reveals structural inequities but also highlights actionable opportunities for enhancing women's participation and leadership within the field.

Problem Statement:

How can Indian Agribusinesses encourage greater women's representation and leverage the resulting business benefits?

Gender imbalance exists in educational institutions, corporate environments, and leadership positions, creating missed opportunities for the sector's growth and innovation. Research shows diverse organizations typically outperform their less diverse counterparts in profitability, innovation, and resilience. This study will identify structural barriers, document successful interventions, and provide evidence-based recommendations to transform the agri-business sector through improved participation.

Figure 3: Lifecycle Approach



Methodology

Research Design

The study follows a two-pronged mixed-methods approach:

Quantitative Component:

Survey Design: A structured online survey was developed and shared across agricultural colleges in India to collect data on enrollment patterns, career aspirations, workplace experiences, and gender-specific challenges in the agribusiness sector.

Survey Distribution: The survey was actively shared on discussion forums and professional groups, particularly on LinkedIn and Telegram channels hosting agricultural students, professionals, and discussion networks. Posts on relevant groups and social platforms ensured increased visibility among potential respondents. To further boost participation and enhance data quality, Focus Group Discussions (FGDs) were conducted at several colleges. These visits allowed for direct interaction with students, during which the online survey was shared in student WhatsApp and Telegram groups.

Themes Captured: Enrollment trends, career intentions, gender disparities, professional growth barriers, and satisfaction levels with educational or career support systems. Check table:

Qualitative Component:

Focus Group Discussions (FGDs): The Focus Group Discussions (FGDs) explored student motivations, career perceptions, challenges, and opportunities in agribusiness. The questions were aimed at uncovering students' understanding of the agribusiness value chain, the gender-specific barriers they face, their educational experiences, and the institutional support required to enhance women's participation in the sector.

(For a list of participating institutions, please refer to Table A5, and to review the FGD questions, refer A2 from the Appendix.)

Agribusiness Leadership Perspectives: In-depth interviews brought professional and industry-level perspectives regarding hiring, retention challenges, and inclusivity strategies. Most of these interviews were conducted with senior professionals possessing 8–10 years of experience in the agribusiness sector. These individuals were specifically engaged to provide expert insights on key issues, including hiring practices,



Focused Group Discussion pictures with the students 1

retention challenges, and inclusivity strategies for women in agribusiness. Their perspectives illuminated systemic barriers, cultural constraints, and structural challenges that hinder gender diversity in the sector.

In particular, the professionals shared personal stories and observations, offering practical insights into how organizations can effectively promote gender equity and foster more inclusive workplaces. They also discussed the challenges they faced in implementing scalable solutions, particularly in smaller companies or geographically dispersed operations.

Panel Discussion and Stakeholder Dialogue: As part of the study, we conducted a structured panel discussion and stakeholder dialogue to gather diverse perspectives on women’s participation in agribusiness. The panel brought together industry leaders, women

professionals, agricultural education representatives, and policy advocates to explore challenges and opportunities across the value chain. Similarly, our stakeholder dialogue facilitated in-depth conversations with key stakeholders from corporate, academic, and development sectors to identify actionable solutions. These engagements provided valuable qualitative insights that complemented our quantitative survey data, offering a more comprehensive understanding of barriers and enablers. Both the panel discussion and stakeholder dialogue were carefully documented, with findings that will be presented in detail in Chapter 5, alongside best practices and successful models for enhancing women’s participation in Indian agribusiness. These sessions aimed to enrich the research by incorporating high-level industry and policy insights that complemented the survey and FGD findings.



Figure 4: Research Dimensions

Data Sources: Primary and Secondary

Primary Data

- Surveys:** Representing a wide demographic of students, researchers, and early-career professionals across India. The survey captured responses from 780 participants, with 40.8% female respondents, 49.0% male respondents, and 10.2% identifying with other gender descriptors.
- Focus Group Discussions (FGDs):** Conducted with students at key agricultural institutions. The Focus Group Discussions were conducted between December-February 2025 at institutions such as Banaras Hindu University (BHU), Tamil Nadu Agricultural University (TNAU), Sardar Vallabhbhai Patel University (Meerut), SHUATS (Prayagraj), G. B. Pant University of Agriculture and Technology (Pantnagar), Anand Agricultural University (Anand), National Institute of Agricultural

Extension Management (Hyderabad) and University of Agricultural Sciences (UAS) Bengaluru, Bijapur, and Dharwad.

- Leadership Interviews:** Insights from senior professionals addressing industry challenges and gender inclusion strategies.

Secondary Data

For Education Data:

All India Survey on Higher Education (AISHE): Provided critical insights into educational enrollment, gender participation, and academic trends in agricultural and related disciplines.

For Employment and Sustainability Data:

Periodic Labour Force Survey (PLFS): Offered

comprehensive employment statistics and workforce participation metrics.

Business Responsibility and Sustainability Report (BRSR): Supplied valuable information on organizational approaches to gender inclusion, sustainability, and corporate social responsibility in the agricultural sector.

Data analysis framework

Data was triangulated using a mixed-methods approach. Descriptive statistics to identify trends, make comparative assessments, and generate comprehensive insights. Qualitative analysis focused on thematic interpretation, narrative exploration, and the generation of contextual insights. Themes derived from qualitative findings were compared against quantitative trends (e.g., how enrollment patterns align with preferences for leadership vs. support roles).

Study limitations

While the study employed a rigorous methodology, certain limitations were noted:

Sample Constraints: Some institutions and professionals declined to participate due to scheduling conflicts, reducing the geographic reach of data collection.

- Response Biases: Students may have understated or overstated barriers, particularly in mixed-gender settings like FGDs.
- Regional Variations: Insights may not fully encapsulate differing regional experiences due to the diversity of the Indian agribusiness ecosystem.

By employing a mixed-methods approach, this study provides a comprehensive analysis of women's educational and workplace experiences within the agribusiness sector. Combining data from surveys, Focus Group Discussions (FGDs), and leadership interviews, the research identifies key barriers, challenges, and opportunities for women in the field. These findings form the basis for actionable recommendations, aimed at assisting policymakers, educational institutions, and industry stakeholders in addressing gender inequality, facilitating a smoother education-to-employment transition, enhancing organizational performance through access to a diverse talent pool, and promoting sustainable career growth for women in agribusiness.



DETAILED SURVEY QUESTIONNAIRE STRUCTURE

COMMON SECTIONS ACROSS ALL SURVEYS

SECTION

- Demographics
- Education
- Conclusion

RESEARCH FOCUS AREAS

Age, Gender, Marital Status, Relationship with Agribusiness Sector
Educational Program Level, Degree Specialization, Funding Sources
Most Fulfilling Aspects, Desired Changes, Women's Leadership Advancement, Survey Referral Sources, Contact Information

SURVEY 1 - FEMALE STUDENTS IN AGRI & ALLIED COURSES

SECTION

- Internship & Work Experience
- Satisfaction with Education
- Awareness & Preferences
- Career Preferences
- Concerns
- Support Needs

RESEARCH FOCUS AREAS

Type of Experience, Organization Type, Internship Discovery, Duration, Role/Responsibility, Influence on Career Interest, Challenges, Skills Gained
Curriculum Alignment, Practical Training, Technical Skills, Digital Technology, Industry Exposure, Career Guidance, RAWE Program, Internship Opportunities
Awareness of Sectors, Job Roles, Career Advancement, Required Skills, Support Systems, Market Trends
Preferred Career Paths, Agribusiness Career Consideration, Alternative Sectors, Expected Compensation, Sales Position Interest
Travel Safety, Rural Travel, Infrastructure Quality, Family Support, Compensation, Work-Life Balance, Field Allowances, Language Barriers, Working Hours, Social Perceptions
Transportation, Flexible Schedule, Accommodation, Mentorship, Work-Life Balance, Skill Development, Healthcare Benefits, Maternity Support, Childcare, Leadership Development, etc.

SURVEY 2 - FEMALE WORKING PROFESSIONALS IN AGRIBUSINESS SECTOR

SECTION

- Current Organization
- Team Structure
- Motivation
- Satisfaction
- Challenges
- Workplace Behavior
- Support system
- Perception

RESEARCH FOCUS AREAS

Agribusiness Domain, Position Level, Division/Sector, Work Experience, Work Location, Location Type, Shift Timings, Travel Requirements, Travel Range, Travel Duration, Transportation Facilities
Team Size, Reporting Structure, Manager Gender
Reasons for Joining Agribusiness
Safety Infrastructure, Work Hour Arrangements, Personal Care Support, Professional Development
Professional Challenges, Technical Challenges, Social Challenges, Field Work, Workplace Dynamics, Safety/Infrastructure, Career Advancement
Experience with Inappropriate Behavior/Harassment
Safety Measures, Most Valuable Support Systems, Parental Leave Policies
Gender Suitability for Field Roles, Safety Policy Implementation, Gender Equality Policies, Gender Treatment Equity, Diversity & Inclusion, Women Mentors, Women Leadership Representation

SURVEY 3 - FEMALE WORKING PROFESSIONALS (TRANSITIONED TO ANOTHER INDUSTRY)

SECTION

- Previous Organization
- Facilities in Previous Role
- Support Needs
- Industry Awareness
- Current Organization
- Workplace Gender Dynamics
- Comparative Perceptions

RESEARCH FOCUS AREAS

Division/Sector, Work Duration, Reasons for Leaving
Workspace/Equipment, Work Flexibility, Professional Development, Health Coverage, Safety/Security
Support That Could Have Encouraged Continuation
Understanding of Industry Sectors, Career Opportunities, Entry Requirements, Growth Prospects, Women's Support
Current Sector, Professional Role, Valuable Aspects
Gender Treatment Equity, Women Mentors, Male Allies, Women Leadership Representation, Diversity & Inclusion, Parental Leave Policies
Current vs Previous Role (Professional Aspects, Work Environment)

SURVEY 4 - MALE/OTHER GENDER STUDENTS

SECTION

- Satisfaction with Education
- Awareness
- Career Preferences
- Concerns

RESEARCH FOCUS AREAS

Curriculum Alignment, Practical Training, Technical Skills, Digital Technology, Industry Exposure, Career Guidance, RAWE Program, Internship Opportunities
Awareness of Sectors, Job Roles, Career Advancement, Required Skills, Support Systems, Market Trends
Preferred Career Paths, Agribusiness Consideration, Alternative Sectors, Sales Position Interest
Personal Safety, Rural Travel, Infrastructure, Family Support, Compensation, Work-Life Balance, Field Compensation, Language Barriers, Working Hours, Social Perceptions

SURVEY 5 - MALE/OTHER GENDER WORKING PROFESSIONALS

SECTION

- Current Organization
- Satisfaction
- Challenges
- Support Systems
- Perception

RESEARCH FOCUS AREAS

Work Experience, Work Location, Location Type, Shift Timings, Team Structure
Safety Infrastructure, Work Hour Arrangements, Personal Care Support, Professional Development
Professional Challenges, Technical Challenges, Social Challenges, Field Work, Workplace Dynamics, Safety/Infrastructure, Career Advancement
Parental Leave Policies
Women Mentors, Women Leadership Representation, Gender Treatment Equity, Gender Suitability for Field Roles, Safety Policy Implementation, Gender Equality Policies, Career Motivation, Diversity & Inclusion

Figure 5: Students and Working Professionals Survey

4 ACADEMIC LANDSCAPE: FROM EDUCATION TO WORKFORCE INTEGRATION

Chapter 4 begins by mapping India's agricultural education system (Educational Landscape Overview) and analyzing student enrollment trends across agricultural fields (Secondary Analysis: AISHE Data). It then explores students' actual experiences through surveys and discussions (Primary Research Findings and Faculty Perspectives). After examining innovative teaching approaches from India and abroad (Complementary Learning Models), the chapter identifies key gaps between what agricultural education provides and what the industry needs (Gap Analysis and Systemic Consequences), revealing why women face barriers while pursuing agribusiness careers.

EDUCATIONAL LANDSCAPE OVERVIEW

Agricultural education in India overview

Agricultural education in India is supported by a robust infrastructure comprising 113 ICAR institutes and 74 agricultural universities, making it one of the largest national agricultural research and education systems globally. The system is guided by the Indian Council of Agricultural Research (ICAR), an autonomous organisation under the Ministry of Agriculture and Farmers Welfare. ICAR has been pivotal in spearheading advancements in agricultural education and research, playing a transformative role in programs tied to the Green Revolution, dairy, and horticulture. The council's efforts have notably enhanced food and nutritional security and improved agricultural productivity in sectors, such as food grains, fisheries, and livestock since 1950-51. Equally important, ICAR has driven the integration of cutting-edge technology in agricultural education, such as precision agriculture, ICT-based platforms, and genome-editing research, which prepare students to meet modern industry demands.

In recent years, ICAR has also emphasized gender inclusivity and skill-building through initiatives like the Student READY Programme and experiential learning methods. According to the ICAR Annual Report 2022-23, technology-integrated training programs and specialized academic curricula have significantly strengthened human resource development in agriculture. However, challenges persist in achieving equitable access to education across rural regions and ensuring alignment with industry expectations. The educational landscape has further expanded with the scaling of e-learning interfaces and platforms designed to bridge skill gaps across technical, financial, and practical levels for students entering the agricultural workforce.

The initiative of Mainstreaming Agriculture Curriculum in School Education (MACE) emerges as a critical step in empowering young minds to pursue opportunities within the agricultural value chain. MACE represents a forward-thinking approach to revamping agricultural education by integrating theoretical and practical components into school curricula, aligning closely with the National Education Policy (NEP) 2020. By exposing students to agricultural principles from an early age, this initiative aspires to redefine agriculture as a core subject, encouraging students to engage with foundational skills crucial for contemporary agricultural enterprises, sustainability, and food systems. The objective of programs like MACE is to promote agriculture as a viable and rewarding career pathway. (NAHEP, 2024) Through this systematic integration of agricultural education at earlier academic stages, MACE has the potential to transform societal perceptions about agricultural careers while establishing a stronger, more diverse foundation for the next generation of agricultural professionals and innovators.

SECONDARY ANALYSIS

AISHE analysis (enrollment rates, pass-out rates, career trajectories)

Enrollment Trends and Gender Distribution

Despite the extensive educational infrastructure, enrollment patterns across agricultural disciplines reveal persistent gender disparities that shape future workforce composition. According to the AISHE reports (2017-2021) gender distribution in major sectors such as Agriculture, Engineering, Law, and Physical Education exhibits the lowest levels of female participation. In her article, "Advancing Gender Equity in Agricultural Education: Policy Imperatives and Strategic Recommendations for India's Future", Dr. Seema Jaggi highlights progress in female enrollment while underscoring challenges like geographical disparities and the need for targeted interventions to ensure equitable participation across regions.

To analyse this issue, we will examine all enrollment trends for undergraduate, postgraduate, and PhD courses across various disciplines, focusing on Agricultural programs, Horticulture, Sericulture, Forestry, Agribusiness Management, and Agricultural Engineering.

Agricultural programs have experienced consistent growth in enrollment numbers, with undergraduate enrollment

expanding from 232,873 in 2017-18 to 294,379 in 2021-22. This upward trajectory indicates a substantially growing interest in agricultural education. However, gender distribution within these programs remains significantly skewed, with female representation consistently below 40% across most agricultural disciplines. The year-wise analysis (check the charts) for agriculture and allied sectors highlights steady growth in enrollment but persistent gender disparities:

1. 2017-18: Agriculture and Allied courses had 26,614 PG students, with 64.8% male and 35.2% female participation. Ph.D. enrollment was 5,612, with 58.9% male students.
2. 2018-19: PG enrollment increased to 27,805 students in the sector, with 63.1% male and 36.9% female students. Ph.D. enrollment rose to 6,056 students, 59.2% of whom were male.
3. 2019-20: PG enrollment grew significantly to 30,222, with 61.9% male and 38.1% female students. Ph.D. enrollment reached 7,292, with 54.9% male students.
4. 2020-21: The number of PG students further increased to 32,570, maintaining a similar gender ratio (63.81% male, 36.19% female). Ph.D. enrollment was 6,751, with 55.99% male students.
5. 2021-22: This year saw 35,783 PG students in Agriculture and Allied courses, with male participation at 64.42% and female participation at 35.57%. Ph.D. enrollment was 7,153, with 54.14% male students.

Overall, while PG enrollment in Agriculture and Allied courses has steadily risen over the years, female participation remains disproportionately low compared to male students.

AISHE DATA ANALYSIS - ENROLLMENT PATTERNS IN SELECTED DISCIPLINES (2017-2022)

1. AGRICULTURE (UNDER GRADUATE, POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Agricultural Education (Under Graduate Level):
Enrollment Numbers and Percentages (2017-2022)

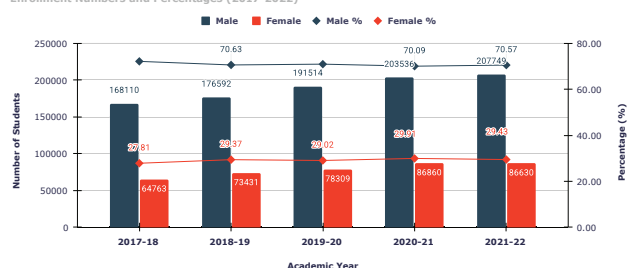


Chart 1: Gender wise Enrollment Distribution in Agricultural Education (Under Graduate Level)

Gender Distribution in Agricultural Education (Ph.D. Level):
Enrollment Numbers and Percentages (2017-2022)

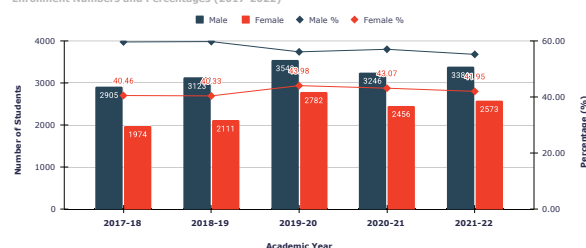


Chart 3: Gender wise Enrollment Distribution in Agricultural Education (Ph.D. Level)

Gender Distribution in Agricultural Education (Post Graduate Level):
Enrollment Numbers and Percentages (2017-2022)

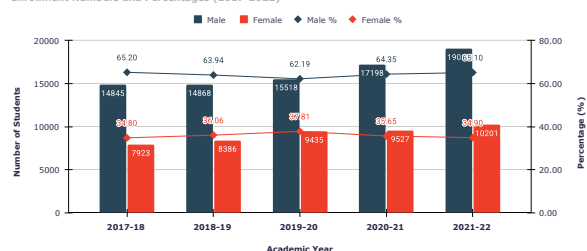


Chart 2: Gender wise Enrollment Distribution in Agricultural Education (Post Graduate Level)

In Agriculture undergraduate programs, enrollment has grown consistently, starting from 232,873 in 2017-18 and reaching 294,379 in 2021-22. This steady growth highlights the increasing interest in the field, which has been supported by the initiatives like ICAR scholarships, standardized admission processes, and changing societal attitudes. Enrollment at the master's programs has risen as well, from 22,768 students in 2017-18 to 29,232 in 2021-22. The Ph.D. enrollments reflect slower progress compared to bachelors and postgraduates, with 6,134 students recorded in 2021-22.

2) FORESTRY (POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Forestry (Post Graduate Level)

Enrollment Numbers and Percentages (2017-2022)

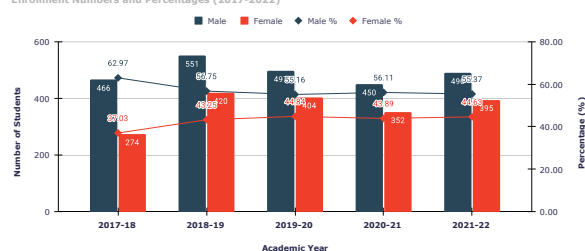


Chart 4: Gender wise Enrollment Distribution in Forestry (Post Graduate Level)

Forestry programs have shown stable growth in postgraduate enrollments. The number of PG students has increased from 740 in 2017-18 to 885 in 2021-22. Ph.D. enrollment in forestry appears more modest, with 293 students recorded in 2021-22 compared to 217 in 2017-18, showing gradual progression in advanced education.

Gender Distribution in Forestry (Ph.D. Level)

Enrollment Numbers and Percentages (2017-2022)

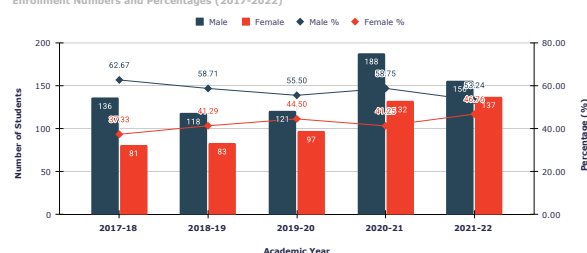


Chart 5: Gender wise Enrollment Distribution in Forestry (Ph.D. Level)

3) HORTICULTURE (POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Horticulture (Post Graduate Level)

Enrollment Numbers and Percentages (2017-2022)

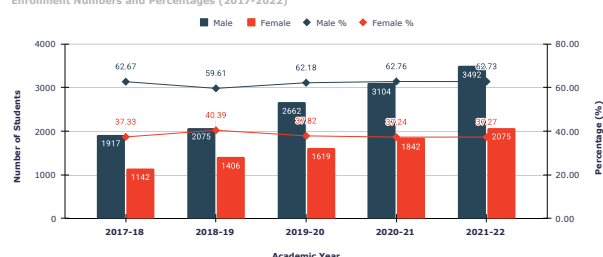


Chart 6: Gender wise Enrollment Distribution in Horticulture (Post Graduate Level)

Gender Distribution in Horticulture (Ph.D. Level)

Enrollment Numbers and Percentages (2017-2022)

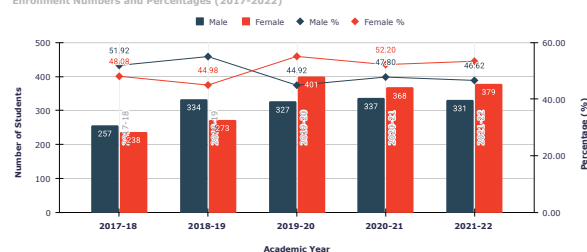


Chart 7: Gender wise Enrollment Distribution in Horticulture (Ph.D. Level)

Postgraduate enrollments in Horticulture have experienced a significant increase, moving from 3,059 students in 2017-18 to 5,567 in 2021-22. Ph.D. participation in horticulture has also expanded gradually, with 710 students enrolled in 2021-22 compared to 495 in 2017-18.

4) SERICULTURE (POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Sericulture (Post Graduate Level)

Enrollment Numbers and Percentages (2017-2022)

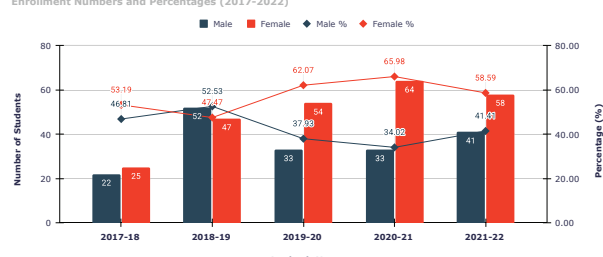


Chart 8: Gender wise Enrollment Distribution in Sericulture (Post Graduate Level)

Gender Distribution in Sericulture (Ph.D. Level)

Enrollment Numbers and Percentages (2017-2022)

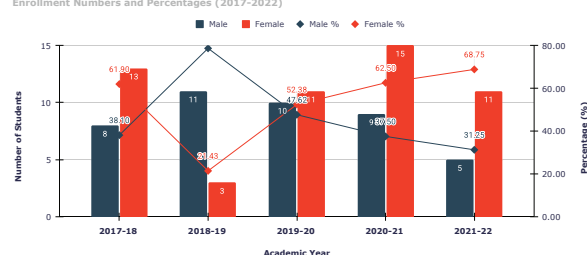


Chart 9: Gender wise Enrollment Distribution in Sericulture (Ph.D. Level)

Sericulture remains a smaller field in terms of enrollment but shows consistency in postgraduate numbers. Enrollment at the PG level hovered around 99 students in 2021-22, maintaining a slow growth throughout the period from 2017-18 with around 47 students. Ph.D. engagement in this discipline is notably minimal.

5) AGRI-BUSINESS MANAGEMENT (POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Agribusiness Management (Post Graduate Level):
Enrollment Numbers and Percentages (2017-2022)

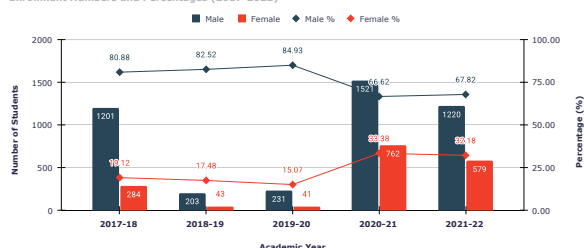


Chart 10: Gender wise Enrollment Distribution in Agribusiness Management (Post Graduate Level)

Gender Distribution in Agribusiness Management (Ph.D. Level):
Enrollment Numbers and Percentages (2017-2022)

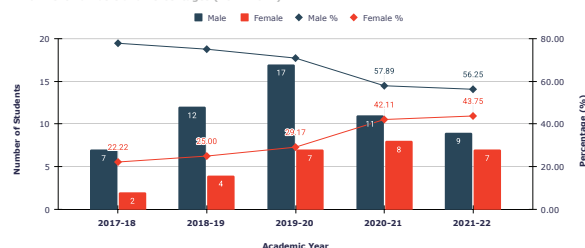


Chart 11: Gender wise Enrollment Distribution in Agribusiness Management (Ph.D. Level)

Enrollment trends in AgriBusiness at the postgraduate level show a steady increase over the years. In 2017-18, a total of 1,485 students were enrolled, with a significant rise to 1,799 students in 2021-22. Over these years, male students consistently accounted for a majority of the enrollments, representing 67.82% of the total in 2021-22. Ph.D. enrollments in AgriBusiness remained minimal throughout the years, with only 16 students enrolled in 2021-22.

6) AGRICULTURAL ENGINEERING (UNDER GRADUATE, POST GRADUATE AND PH.D ENROLLMENT TRENDS)

Gender Distribution in Agriculture Engineering (Under Graduate Level)
Enrollment Numbers and Percentages (2017-2022)

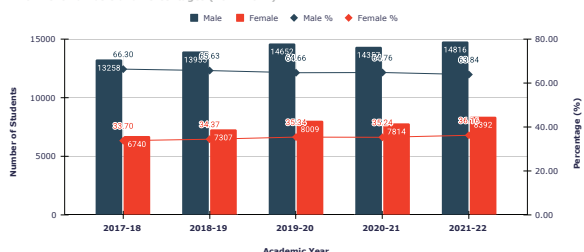


Chart 12: Gender wise Enrollment Distribution in Agriculture Engineering (Under Graduate Level)

Gender Distribution in Agriculture Engineering (Post Graduate Level)
Enrollment Numbers and Percentages (2017-2022)

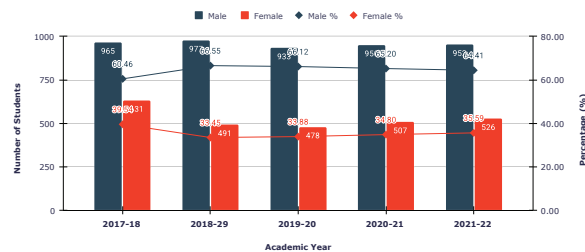


Chart 13: Gender wise Enrollment Distribution in Agriculture Engineering (Post Graduate Level)

Gender Distribution in Agriculture Engineering (Ph.D. Level)
Enrollment Numbers and Percentages (2017-2022)

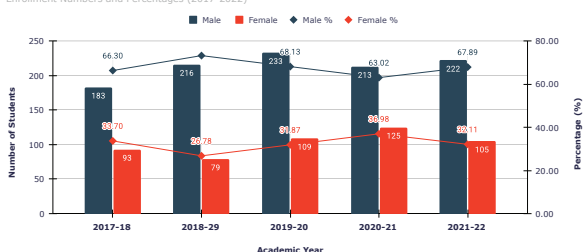


Chart 14: Gender wise Enrollment Distribution in Agriculture Engineering (Ph.D. Level)

In Agriculture Engineering, undergraduate enrollment increased gradually from 19,998 in 2017-18 to 23,208 in 2021-22. Postgraduate enrollment has remained consistent, with 1,478 students in 2021-22, up from 1,596 in 2017-18. Ph.D. enrollment saw marginal growth, reaching 327 students in 2021-22 compared to 276 in 2017-18.

Passout Rates Across Disciplines

After examining enrollment trends, we now take a look at the passout trends. Passout rates reflect the proportion of students completing their programs. The pass-out rate (graduation rate) is calculated by dividing the total number of pass-outs (graduates) by the total number of enrolled students in a particular year and multiplying by 100 to express it as a percentage (see Annexure 2 for the pass out rates).

While male students consistently dominate in absolute enrollment across most disciplines, females often perform better in passout rates at postgraduate and Ph.D. levels. Notable examples include AgriBusiness postgraduate programs, where females had a passout rate of 42.83% compared to 31.15% for males, and Agriculture postgraduate courses, where females achieved 38.27% versus 33.61% for males.

Passout rates are calculated separately for males, females, and the total population. This allows for a comprehensive understanding of trends, especially in gender-based performance. (See Annexure 2: Data Tables)

Passout Rates Across Disciplines

Passout rates highlight student performance and completion across various Agriculture and Allied subjects. In Agribusiness postgraduate programs, the pass out rate for 2021-22 was 34.91%, reflecting 31.15% for males and 42.83% for females. Meanwhile, Agriculture undergraduate programs recorded a passout rate of 21.61%, with males achieving a rate of 21.43% and females slightly higher at 22.04%. For Agriculture postgraduate programs, the pass out rate stood at 35.24%, with males at 33.61% and females at 38.27%.

In Horticulture postgraduate programs, the passout rate for 2021-22 was 35.08%, with males at 36.05% and females slightly behind at 33.45%. Similarly, Agriculture Engineering undergraduate programs recorded a passout rate of 20.22%, with males performing at 21.38% and females at 18.16%. At the postgraduate level in Agriculture Engineering, the passout rate was 35.05%, comprising 38.45% for males and 28.90% for females.

AISHE DATA ANALYSIS OUT-TURN/PASS-OUT TRENDS

1) AGRICULTURE (UNDERGRADUATE, POSTGRADUATE AND PH.D. OUT-TURN/PASS-OUT TRENDS)

Gender Distribution in Agricultural Education (Under Graduate Level)
Out-turn/Pass-Out Numbers and Percentages (2017-2022)

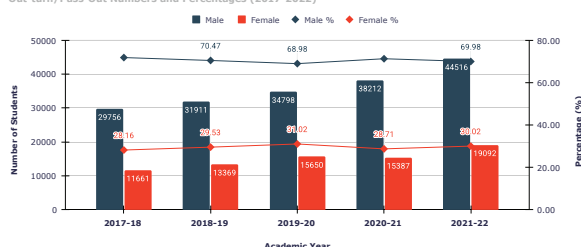


Chart 15: Gender wise Pass-out Distribution in Agricultural Education (Under Graduate Level)

Gender Distribution in Agricultural Education (Post Graduate Level)
Out-turn/Pass-Out Numbers and Percentages (2017-2022)

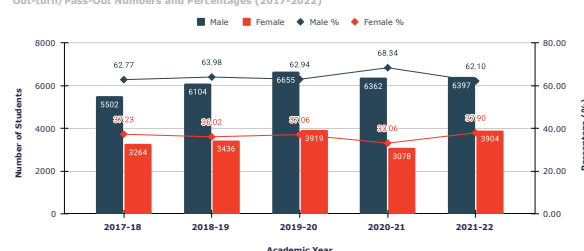


Chart 16: Gender wise Pass-out Distribution in Agricultural Education (Post Graduate Level)

Gender Distribution in Agricultural Education (Ph.D. Level)
Out-turn/Pass-Out Numbers and Percentages (2017-2022)

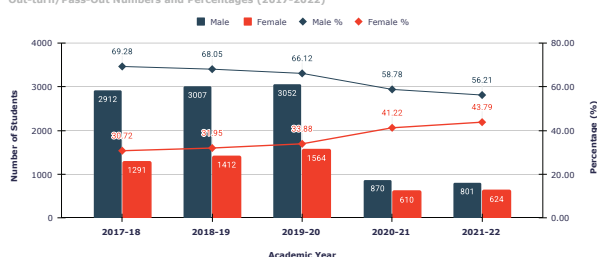


Chart 17: Gender wise Pass-out Distribution in Agricultural Education (Ph.D. Level)

In 2021-22, there were 63,608 graduates at the undergraduate level in Agriculture, with males contributing 44,516 (69.98%) and females 19,092 (30.02%). This distribution has been consistent over the years, reflecting a higher male presence among passouts. The previous year, 2020-21, saw 53,599 passouts, of which 38,212 were males and 15,387 females.

At the postgraduate level, a total of 10,301 students graduated in 2021-22, with 6,397 males (62.10%) and 3,904 females (37.90%). Comparatively, in 2020-21, 9,310 students graduated, with 6,362 males and 3,078 females. The figures suggest modest growth in overall passout numbers, maintaining gender distributions.

2) FORESTRY (POST GRADUATE AND PH.D OUT-TURN/PASS-OUT TRENDS)

Gender Distribution in Forestry (Post Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

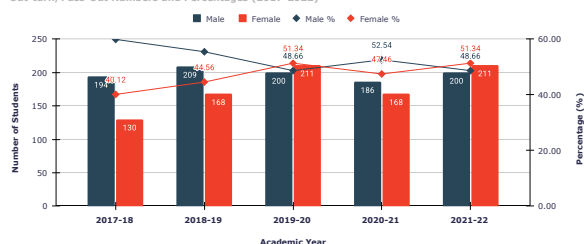


Chart 18: Gender wise Pass-out Distribution in Forestry (Post Graduate Level)

Gender Distribution in Forestry (Ph.D. Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

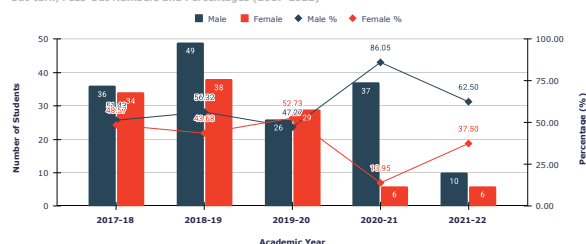


Chart 19: Gender wise Pass-out Distribution in Forestry (Ph.D. Level)

Postgraduate Forestry programs recorded 411 passouts in 2021-22, with 200 males (48.66%) and 211 females (51.34%). Interestingly, females surpassed males in passout numbers in this discipline, demonstrating a comparatively more balanced gender performance. In 2020-21, total passouts were 354, with 186 males and 168 females, continuing a similar balanced trend.

3) HORTICULTURE (POST GRADUATE AND PH.D OUT-TURN/PASS-OUT TRENDS)

Gender Distribution in Horticulture (Post Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

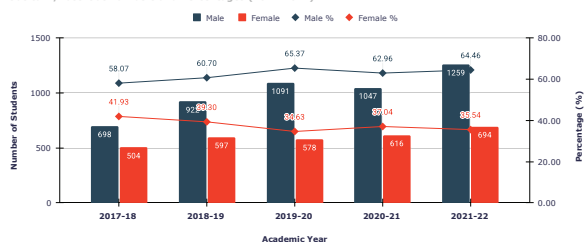


Chart 20: Gender wise Pass-out Distribution in Horticulture (Post Graduate Level)

Gender Distribution in Horticulture (Ph.D. Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

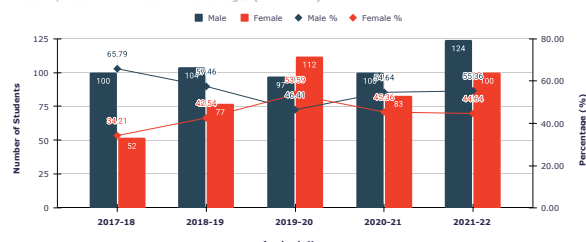


Chart 21: Gender wise Pass-out Distribution in Horticulture (Ph.D. Level)

In 2021-22, Horticulture postgraduate programs had a total of 1,953 passouts, of whom 1,259 (64.46%) were males and 694 (35.54%) were females. These figures reflect a higher male completion rate consistently over the years. In 2020-21, 1,663 students graduated, including 1,047 males and 616 females.

4) SERICULTURE (POST GRADUATE AND PH.D OUT-TURN/PASS-OUT TRENDS)

Gender Distribution in Sericulture (Post Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

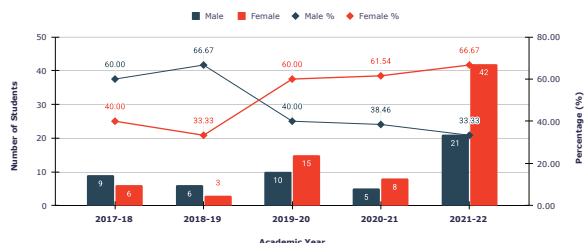


Chart 22: Gender wise Pass-out Distribution in Sericulture (Post Graduate Level)

Postgraduate Sericulture programs recorded 63 passouts in 2021-22, with 21 males (33.33%) and 42 females (66.67%). This represents a female majority in passout numbers, which has been a consistent trend in prior years. For instance, in 2020-21, 13 students graduated, including 5 males and 8 females, maintaining higher female representation despite the smaller scale of the discipline.

Gender Distribution in Sericulture (Ph.D. Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

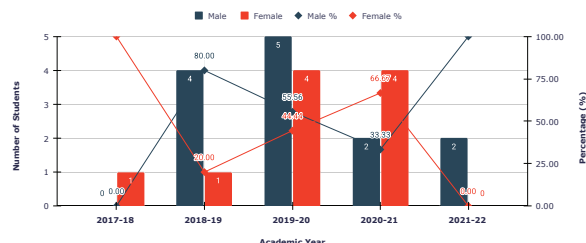


Chart 23: Gender wise Pass-out Distribution in Sericulture (Ph.D. Level)

5) AGRI-BUSINESS MANAGEMENT (POST GRADUATE AND PH.D OUT-TURN/PASS-OUT TRENDS)

Gender Distribution in Agri-business Management (Post Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

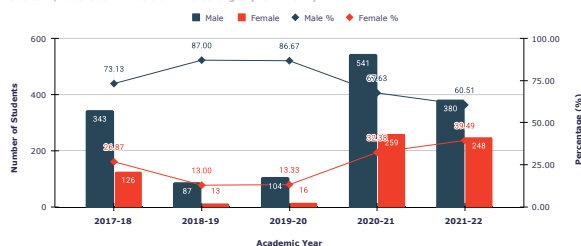


Chart 24: Gender wise Pass-out Distribution in Agribusiness Management (Post Graduate Level)

Gender Distribution in Agri-business Management (Ph.D. Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

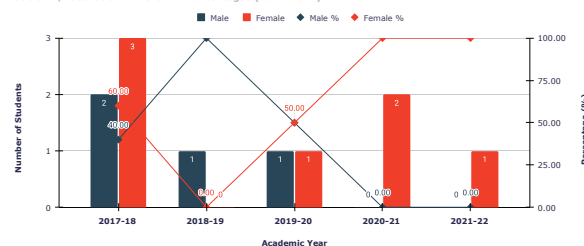


Chart 25: Gender wise Pass-out Distribution in Agribusiness Management (Ph.D. Level)

At the postgraduate level, the total number of students passing out in 2021-22 was 628, comprising 380 males (60.51%) and 248 females (39.49%). These figures reflect a relatively steady balance in passout numbers over the years, with males consistently forming a higher proportion. The preceding year, 2020-21, saw a total of 800 passing out, including 541 males and 259 females.

6) AGRICULTURAL ENGINEERING (UNDER GRADUATE, POST GRADUATE AND PH.D OUT-TURN/ PASS-OUT TRENDS)

Gender Distribution in Agricultural Engineering (Under Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

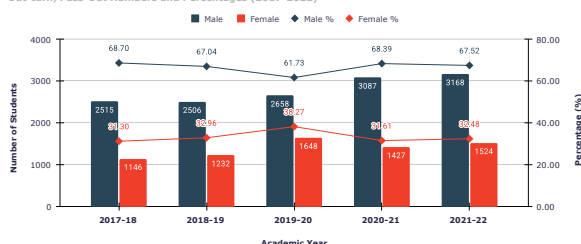


Chart 26: Gender wise Pass-out Distribution in Agriculture Engineering (Under Graduate Level)

Gender Distribution in Agricultural Engineering (Post Graduate Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

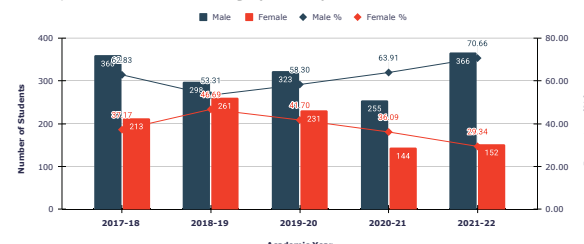


Chart 27: Gender wise Pass-out Distribution in Agriculture Engineering (Post Graduate Level)

Gender Distribution in Agricultural Engineering (Ph.D. Level)

Out-turn/Pass-Out Numbers and Percentages (2017-2022)

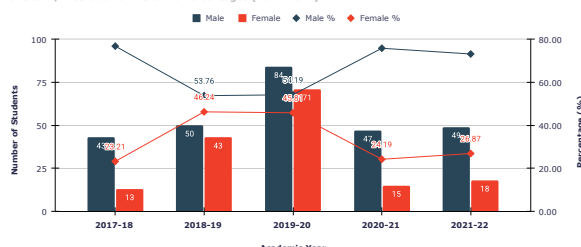


Chart 28: Gender wise Pass-out Distribution in Agriculture Engineering (Ph.D. Level)

At the undergraduate level in Agriculture Engineering, 4,692 students graduated in 2021-22. Of these, 3,168 were males (67.52%) and 1,524 were females (32.48%). The trend has been relatively steady in prior years, with males consistently forming the majority. For postgraduate programs, 518 students graduated in 2021-22, of whom 366 were males (70.66%) and 152 were females (29.34%). This male-dominant trend continues across all levels of Agriculture Engineering programs.

PRIMARY ANALYSIS

Survey Findings - Students in Agriculture and Allied Sectors

1. Demographic Profile and Educational Background

The Women in Agribusiness 2025 Survey analyzed responses from 780 participants across India’s agribusiness ecosystem, with 40.8% female respondents, 49.0% male respondents, and 10.2% identifying with other gender descriptors. The survey achieved robust representation with 505 students pursuing agricultural education and 275 working professionals or career transitioners, enabling comprehensive gender-comparative insights across the agribusiness sector’s educational, professional, and aspirational dimensions. This methodologically sound

approach ensured statistical validity while capturing diverse perspectives from multiple stakeholder groups across different career stages. The survey instrument incorporated both quantitative metrics and qualitative response options, allowing for nuanced analysis of both demographic patterns and individual experiences within agricultural education and employment pathways. For complete survey methodology and question framework, please refer to Appendix A

Age Distribution (N=780)

Table 1: Age Distribution of Survey Respondents

Age	Number of Respondents	% of Respondents
18-28	543	71.45%
29-38	101	13.29%
39-48	54	7.11%
49-58	33	4.34%
59 or above	29	3.82%
Grand Total	760	100.00%

Note: 20 respondents did not provide their age information

Table 2: Gender Distribution of Survey Respondents

Gender	Number of Respondents	% of Respondents
Female	318	40.77%
Male	382	48.97%
Prefer to self-describe my gender	80	10.26%
Grand Total	780	100.00%

Total sample size: 780 respondents

Gender Composition of Survey Participants

Distribution of 780 Respondents by Gender Identity

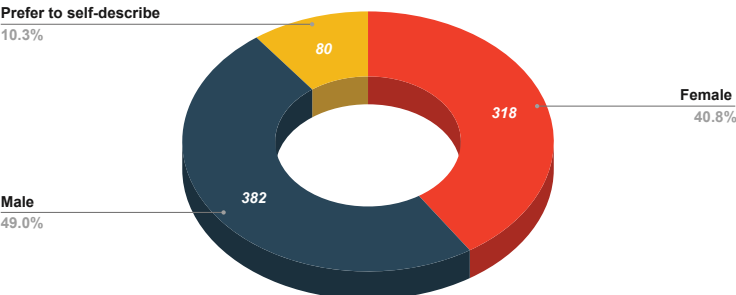


Chart 29: Gender Composition of Survey Participants

Note: This analysis includes 780 respondents (from 1,160 initial participants) who completed at least 60% of the survey. The 60% threshold was established as many participants opted to skip the open-ended questions

2. Marital Status Overview

Table 3: Marital Status of Survey Respondents

Marital Status Overview	Number of Respondents	% of Respondents
I am married	196	25.23%
I am unmarried	581	74.77%
Grand Total	777	100.00%

3. Gender Distribution Across Agribusiness Sector Engagement Categories

Table 4: Gender Distribution Across Agribusiness Sector Engagement Categories

Gender	Agribusiness Sector Engagement Status	% of Respondents	% of Respondents
Female	I am currently pursuing my education in agriculture or allied sectors	225	28.85
Female	I am currently working in the agribusiness sector	73	9.36
Female	I previously worked in the agribusiness sector but have transitioned to a different sector	20	2.56
Total Female Respondents		318	40.77
Male	I am currently pursuing my education in agriculture or allied sectors	226	28.97
Male	I am currently working in the agribusiness sector/ I have worked in the agribusiness sector.	156	20.00
Total Male Respondents		382	48.97
Prefer to self-describe my gender	I am currently pursuing my education in agriculture or allied sectors	54	6.92
Prefer to self-describe my gender	I am currently working in the agribusiness sector/ I have worked in the agribusiness sector.	26	3.33
Total Self-Described Gender		80	10.26
Grand Total		780	100

The largest segment of respondents (225 females, 28.9% and 226 males, 29.0%) are currently pursuing education in agriculture or allied sectors. While educational participation shows gender parity, a significant difference emerges in professional engagement, with males representing 20.0% of current agribusiness professionals compared to 9.4% of females, highlighting a substantial gender gap in industry participation despite similar educational enrollment.

4. Analysis of Current Educational Levels Among Agricultural Student Respondents

Educational Level Distribution: Female Agricultural Students

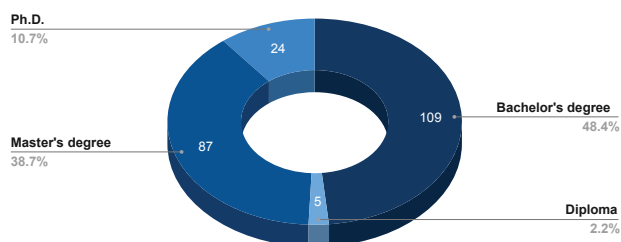


Chart 30: Education Level Distribution: Female Agricultural Students

Educational Level Distribution: Male Agricultural Students

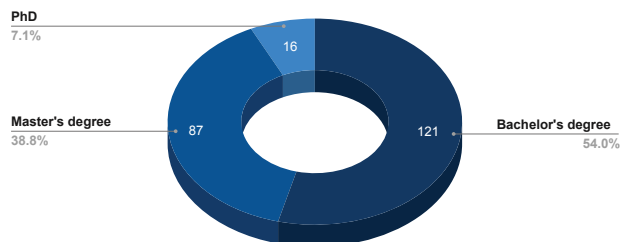


Chart 31: Education Level Distribution: Male Agricultural Students

Educational Level Distribution: Self-Described Gender Agricultural Students

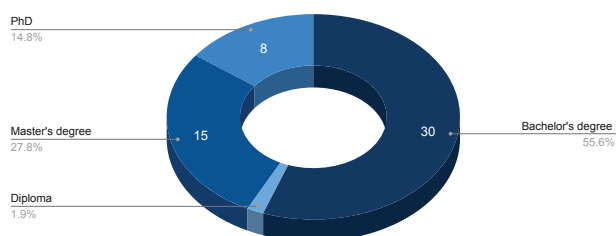


Chart 32: Education Level Distribution: Self-Described Gender Agricultural Students

Note: Data represents current educational levels of student respondents pursuing agriculture or allied studies as of January 2025

Among female student respondents, 48.4% hold a Bachelor's degree, 38.7% have attained a Master's degree, 10.7% have earned a PhD, and 2.2% possess a Diploma qualification in agricultural studies. Among male student respondents, 54.0% hold a Bachelor's degree, 38.8% have attained a Master's degree, 7.1% have earned a PhD, and there is no visible Diploma qualification data shown in the chart. Among self-described gender agricultural students, 55.6% hold a Bachelor's degree, 27.8% have attained a Master's degree, 14.8% have earned a PhD, and 1.9% possess a Diploma qualification.

5. Educational Specializations and Pathways (FGD insights)

Many students highlighted their family backgrounds in agriculture as the key inspiration for pursuing agribusiness education, often aiming to modernize inherited farmlands and explore innovative processes like food labeling, packaging, and value addition. Women, in particular, expressed interest in bridging traditional farming methods with contemporary practices, including sustainable farming and agri-based entrepreneurship. The growing influence of startups and success stories in areas like honey production, food processing, and agritech further fueled their aspirations.

6. Findings: Students in Agribusiness Education

Educational Experiences and Satisfaction

Curriculum to Internships: Female Students' Satisfaction with Agricultural Education

Curriculum, Skills Development, and Career Support Assessment

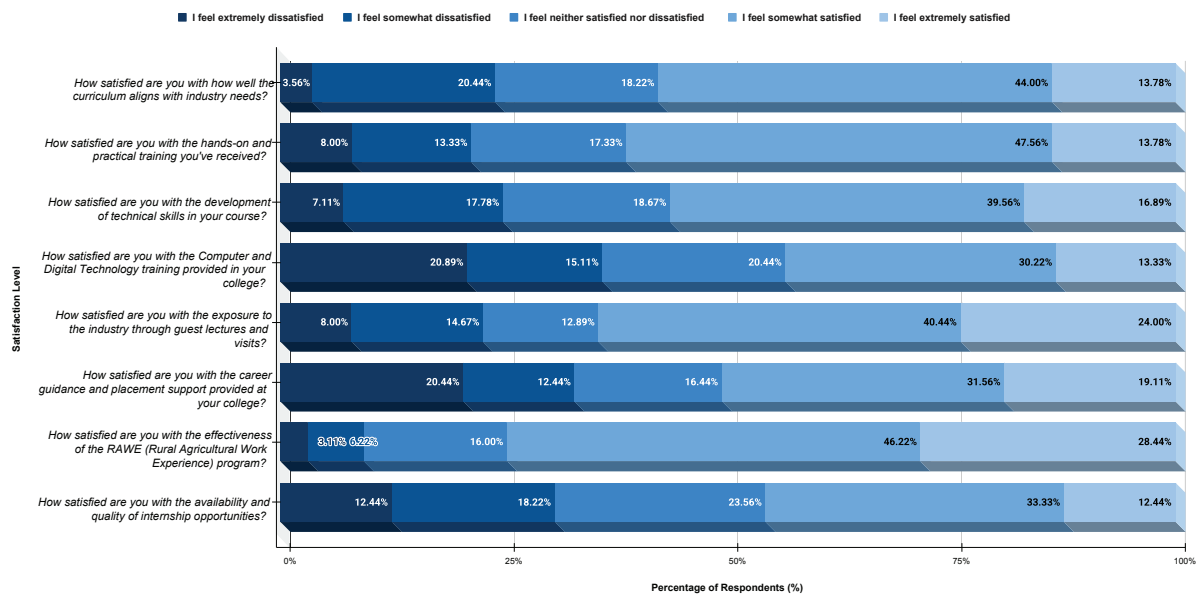


Chart 33: Curriculum to Internships: Female Students' Satisfaction with Agricultural Education

Curriculum to Internships: Male Students' Satisfaction with Agricultural Education

Curriculum, Skills Development, and Career Support Assessment

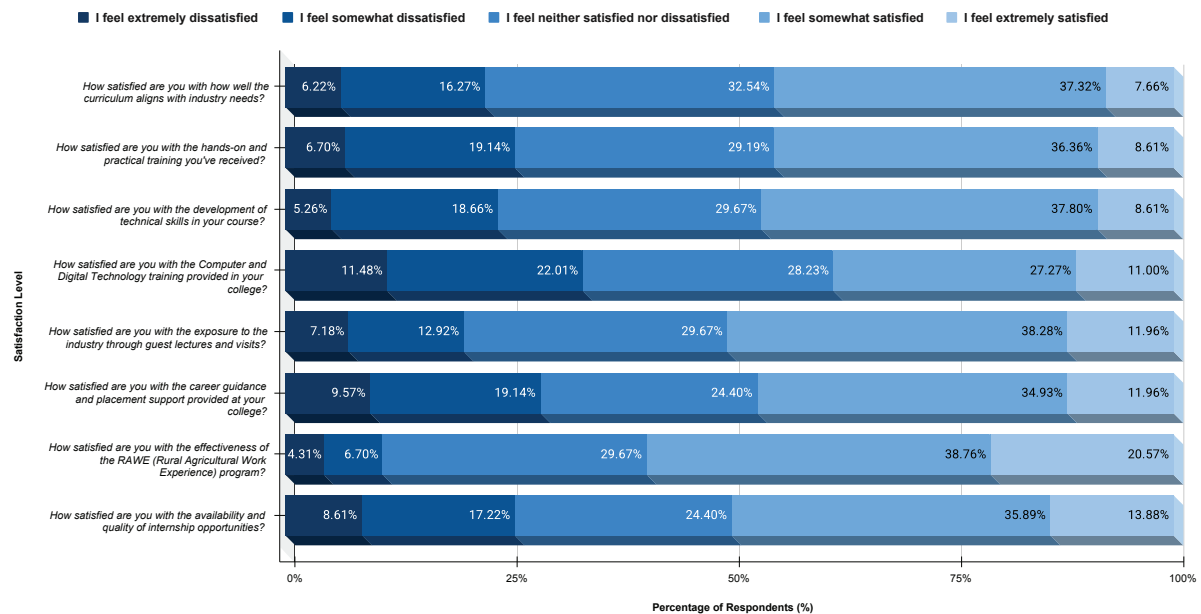


Chart 34: Curriculum to Internships: Male Students' Satisfaction with Agricultural Education

Curriculum to Internships: Other Gender Students' Satisfaction with Agricultural Education

Curriculum, Skills Development, and Career Support Assessment

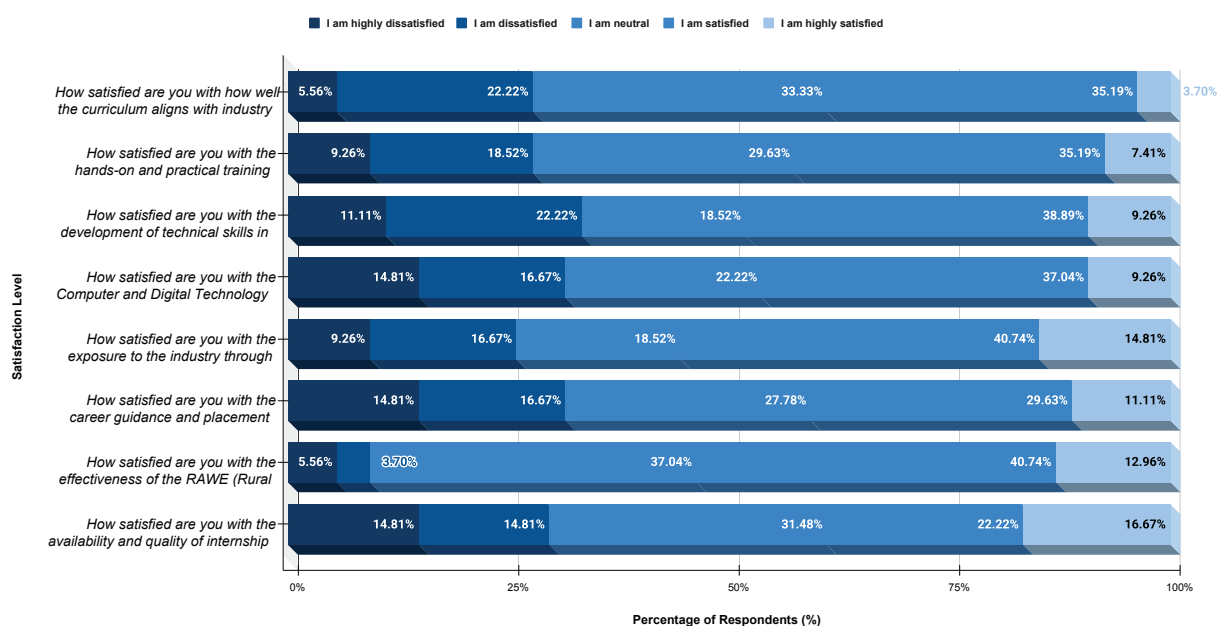


Chart 35: Curriculum to Internships: Other Gender Students' Satisfaction with Agricultural Education

Female students in agriculture and allied education exhibit the highest satisfaction levels (44.00% “somewhat satisfied”) with hands-on and practical training compared to male students (36.36%) and students of other genders (35.19%). In contrast, satisfaction with digital technology training and availability of internships is relatively low across all groups, with less than 20% of students from any group rating them as “highly satisfied.” Career guidance

and placement support also appear to be areas of concern, with fewer than 20% students highly satisfied, regardless of gender. Only 14.81% (Other Gender), 12.44% (Female), and 8.61% (Male) students feel “extremely satisfied” with internship opportunities. A large number of students remain neutral or dissatisfied, reflecting an acute need to introduce high-quality internships.

7. Awareness of Agribusiness Opportunities

Female Students' Awareness of Agribusiness: From Sector Knowledge to Support Systems

Survey Results from 225 Respondents

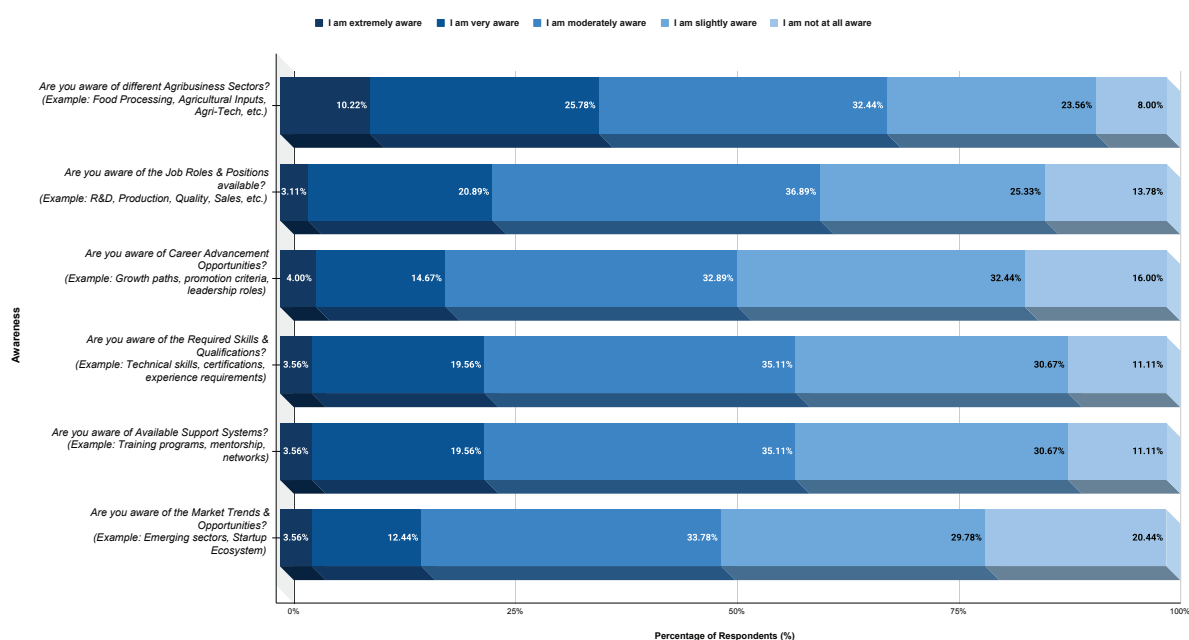


Chart 36: Female Students' Awareness of Agribusiness: From Sector Knowledge to Support Systems

Germany's Dual Vocational Training System: A Model for Skills Development

Germany's dual vocational training system stands as a global benchmark for workforce development, combining theoretical knowledge with practical application. Students spend 1-2 days at vocational schools learning technical foundations, while remaining days are dedicated to hands-on training at partner companies. This structure creates job-ready professionals who receive monthly stipends averaging €1,066 throughout their 2-3.5 year programs. With 328 recognized training pathways and excellent employment outcomes, this model has contributed significantly to Germany's strong manufacturing and technical sectors. Crucially, the system reduces skills mismatch between education and industry by directly involving employers in training design and delivery.

India's Student READY Program: A Comprehensive Framework for Agricultural Education

The Student READY (Rural Entrepreneurship Awareness Development Yojana) program, launched by India's Prime Minister in July 2015, represents a holistic approach to agricultural education focused on knowledge, skill, ability, and experience. Implemented across all agricultural universities in India (Central, State, ICAR Deemed Universities), it is a mandatory component for fourth-year undergraduate students in ten disciplines including Agriculture, Agricultural Engineering, Biotechnology, Dairy Technology, Fisheries, and Forestry. The program consists of five interconnected components: Experiential Learning with business mode (following "Earn while Learn" principles to develop entrepreneurial competence), Rural Agricultural Work Experience (exposing students to village settings and farm families), In-Plant Training/Industrial Attachment (providing industrial exposure), Hands-on Training (skill development), and Student Projects (developing analytical and problem-solving capabilities). Students receive monthly stipends of Rs. 3,000 for up to six months during their village/rural training phase. These interactive components are conceptualised to build skills in project development, decision-making, team coordination, and end-to-end problem-solving approaches.

Bridging Educational Models for Comprehensive Workforce Development

While Student READY provides excellent rural and entrepreneurial exposure, incorporating elements of Germany's employer-integrated approach would strengthen students' readiness for formal employment in agribusiness companies. By expanding the In-Plant Training component with more structured company-based training similar to Germany's model, agricultural universities could forge stronger links with employers while equipping graduates, particularly women, with industry-specific skills and professional networks. This hybrid approach would address the dual needs of developing both entrepreneurial capacity and employability skills, creating versatile agricultural professionals who can navigate various career pathways.

Recommendation: The Student READY framework already provides an excellent foundation that could be enhanced through formal partnerships with agribusiness employers, particularly focusing on women students' participation in industrial attachments with companies committed to gender inclusion like those featured in Chapter 6

Source: Federal Ministry for Economic Affairs and Climate Action, 2024; Indian Council of Agricultural Research, 2024; Agricultural Education Portal, ICAR, 2024.

Box 2: Complementary Learning Models for Agribusiness Workforce Development - Part 1

General awareness of agribusiness sectors demonstrates the highest recognition, with 10.22% of respondents identifying as “extremely aware” and 25.78% as “very aware.” In contrast, understanding of career advancement opportunities is significantly weaker, with only 4.00% of female students reporting “extreme awareness.”

Approximately one-third of students across all categories report “moderate awareness,” suggesting familiarity with the industry but a lack of deep knowledge or specialized insights. Awareness of support systems and market trends reflects similar patterns, with 11.11% of

respondents reporting they are “completely unaware” in both categories.

The data reveals a consistent trend where basic industry knowledge (e.g., sector-level awareness) surpasses specialized understanding, such as career development pathways, leadership opportunities, or emerging market trends. This highlights a critical gap in preparing students for agribusiness careers, particularly in terms of long-term strategy and awareness of external enablers.

8. Internship and Work Experiences

Internship Organizations of Female Agricultural Students

Table 5: Organizations Where Female Agricultural Students Completed Internship

Organizations Where Female Agricultural Students Completed Internship		
Organization Type	Number of Students	% of Female Students that Completed Internships
Agri-Tech Startups	7	10.29
Agribusiness Companies	21	30.88
Agricultural Consulting Firms	1	1.47
Agricultural Cooperatives & NGOs	2	2.94
Agricultural Equipment Manufacturers	3	4.41
Agricultural Research Institutions & Universities	11	16.18
Corporate Social Responsibility (CSR) Programs	1	1.47
Environmental & Sustainability Organizations	2	2.94
Farm-to-Table & Direct-to-Consumer Agribusinesses	2	2.94
Farming Enterprises and Agricultural Production Units	5	7.35
Food and Beverage Industry	4	5.88
Government Agencies & Public Sector Organizations	7	10.29
International Organizations and Research Networks	1	1.47
Supply Chain & Logistics Companies	1	1.47
Grand Total	68	100.00

Among female agricultural students who completed internships, nearly one-third (30.9%) gained experience at Agribusiness Companies, making this the most common internship setting. Academic and innovation sectors also provided significant opportunities, with Agricultural Research Institutions & Universities (16.2%) and Agri-Tech Startups (10.3%) representing the second and third most frequent internship environments.

Complementary Learning Models for Agribusiness Workforce Development – Part 2

"AgriLaunchpad": An Industry-Integrated Final Semester

Recommendations for Business-Education Integration:

For agribusiness companies seeking to address talent gaps while promoting gender inclusion, we recommend creating formalized Student READY partnership programs modeled after Germany's dual training approach. Companies can:

1. **Develop structured 6-month industrial attachments** with defined learning outcomes, reducing training costs for entry-level positions while creating pre-assessed talent pipelines
2. **Establish "Women in Agribusiness" tracks** within these programs, offering specialized mentorship and leadership development for female students
3. **Create co-funded scholarship programs** with agricultural universities that guarantee industrial placement, building brand loyalty while addressing diversity goals
4. **Design competency certification programs** aligned with industry needs that participants can earn during their attachment period, enabling direct recruitment of qualified, pre-trained candidates

These business-education partnerships would address recruitment challenges and diversity goals while giving companies direct input into agricultural curricula development—creating a **self-reinforcing ecosystem** that produces work-ready professionals tailored to industry needs.

Box 3: AgriLaunchpad: An Industry-Integrated

9. Internship Roles of Female Agricultural Students

Table 6: Internship Roles of Female Agricultural Students

Internship Roles of Female Agricultural Students	Number of Students	% of Interns
Agri E-commerce Intern	1	2.08%
Agri-Data Intern	2	4.17%
Agri-Fintech Intern	1	2.08%
Agri-Marketing Intern	10	20.83%
Cold Chain Logistics Intern	1	2.08%
Farm Operations Intern	4	8.33%
Farming Extension Services Intern	2	4.17%
Food Processing Intern	4	8.33%
FPO (Farmer Producer Organization) Management Intern	3	6.25%
ICAR Research Intern	1	2.08%
Market Linkage Intern	1	2.08%
Organic Farming Intern	1	2.08%
Others	11	22.92%
Precision Agriculture Intern	2	4.17%
Sustainability in Agriculture Intern	2	4.17%
Urban Farming Intern	2	4.17%
Grand Total	48	100.00%

Among respondents, Agri-Marketing Intern was the most common internship role held by female agricultural students (20.83%), while the “Others” category represented the largest segment (22.92%), indicating diverse opportunities beyond traditional agricultural roles. Farm Operations and Food Processing internships were also notable, each representing 8.33% of the experiences reported.

10. Challenges Faced by Female Interns in Agribusiness: Structural and Gender-Specific Barriers

Challenges Faced During Internships (% of Total Responses)

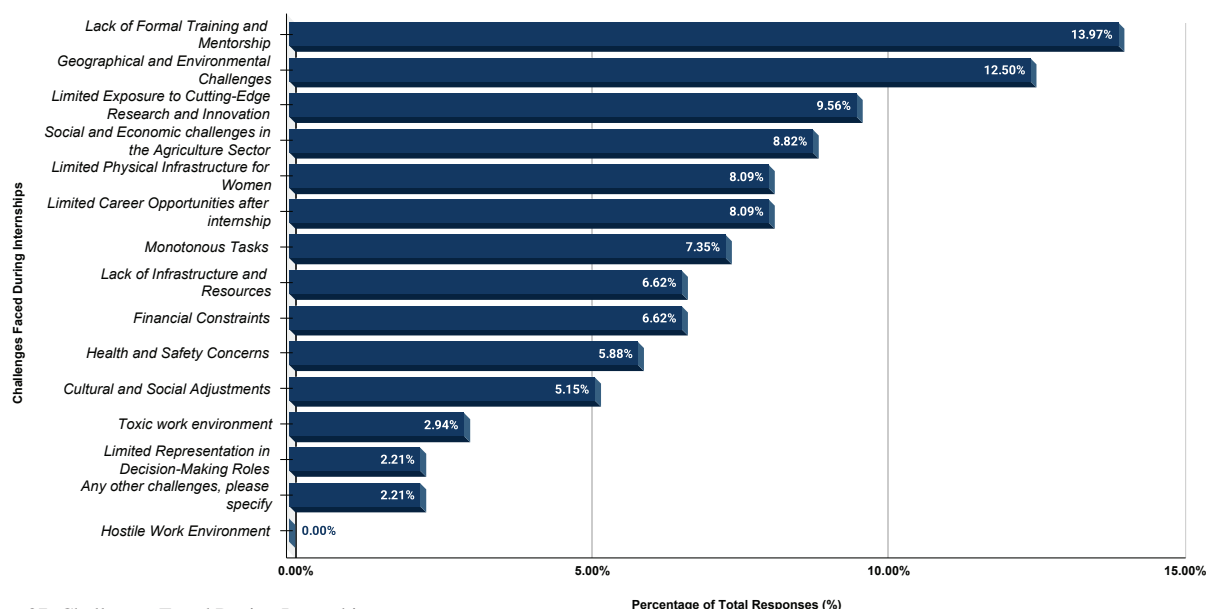


Chart 37: Challenges Faced During Internships

Female interns predominantly struggle with lack of formal training and mentorship (13.97%) and geographical/environmental challenges (12.50%), indicating significant structural barriers in the industry. Without proper guidance, interns are often unprepared to meet workplace demands. Agribusiness internships, often field-based, are heavily influenced by environmental and geographical constraints.

These challenges include rural postings, extreme climates, and poor accessibility, which can hinder the internship experience. Additionally, the absence of gender-specific infrastructure, such as safe accommodations or transportation, exacerbates difficulties for female interns. Such barriers not only affect their learning outcomes but also discourage long-term career aspirations in agribusiness.

During internships, students often engage in field-based roles such as interacting with farmers, overseeing production processes, and working on supply chain logistics. However, many participants in the FGDs highlighted that these experiences are typically unstructured and lack proper mentorship, leading to difficulties in bridging academic knowledge with practical applications. Female interns particularly face challenges such as safety concerns in rural postings, lack of gender-sensitive infrastructure like safe accommodations, and social biases that limit access to critical learning opportunities, such as negotiation or handling financial data. This results in a gap between internship experiences and industry expectations, making students feel underprepared for technical and managerial roles During

internships, students often engage in field-based roles such as interacting with farmers, overseeing production processes, and working on supply chain logistics. However, many participants in the FGDs highlighted that these experiences are typically unstructured and lack proper mentorship, leading to difficulties in bridging academic knowledge with practical applications. Female interns particularly face challenges such as safety concerns in rural postings, lack of gender-sensitive infrastructure like safe accommodations, and social biases that limit access to critical learning opportunities, such as negotiation or handling financial data. This results in a gap between internship experiences and industry expectations, making students feel underprepared for technical and managerial roles.

11. Voice of Experience: Lessons from the Internship

Below are quotes from survey respondents highlighting key skills, technical knowledge, and personal growth gained during their internships in the sector. This illustrates the diverse challenges and learning opportunities in the sector. Students frequently mention the value of direct farmer interaction and the development of problem-solving abilities specific to agricultural contexts.

1. *“Working in Agribusiness unlike other business sectors is very different. It comes with a lot of challenges. Language came as a barrier for me; Gujarati not being my mother tongue brought in a few problems.”*
~ MBA Agribusiness Management student (Agri-Marketing Intern)
2. *“I have gained exposure to rural marketing and realized that there are challenges beyond what we study and anticipate in books. I have also developed problem-solving skills in real-world scenarios, gained an understanding of market dynamics, and learned how the supply value chain operates in rural areas. Additionally, I recognized the critical role of extension services in these regions.”*
~ BSc (Hons) Agriculture Student
3. *“Practical exposure to what farmers face at the ground level enhanced my communication skills and helped me deal with challenges.”*
~ MBA Agribusiness Management student (Agri-Marketing Intern)
4. *“One-to-one communication with farmers made me realize how they are disconnected with technology due to geographical conditions. I also understood what policies the government is implementing to uplift rural farmers.”*
~ M.Sc. Agricultural Economics Student (Precision Agriculture Intern)
5. *“I improved my communication skills, learned how to deal with other workers, improved time management, and gained self-confidence.”*
~ M.Sc. Horticulture Student

The insights emphasize how internships offered experiential learning by equipping interns with prudent technical and soft skills, industry exposure, and practical understanding of supply chains, marketing strategies, and rural dynamics. Interns gained awareness of sector-specific challenges, niche skills (e.g., tissue culture, mushroom farming), and entrepreneurship opportunities, preparing them for diverse roles in agribusiness. **Internship opportunities are critical for shaping women’s pathways in agribusiness, yet their internship landscape reflects gaps in exposure, mentorship, and safety.**

“Mentorship and sponsorship are game-changers. Providing women with access to experienced professionals and internal champions empowers them to navigate challenges and reach their full potential”

~Ms. Ananda UVL, Head Corporate Communications & Public Affairs, East-West Seed

11. Career Aspirations and Concerns

Career Path Selection Rate Among Female Agricultural Students

Percentage of Students Selecting Each Option as One of Their Three Preferences

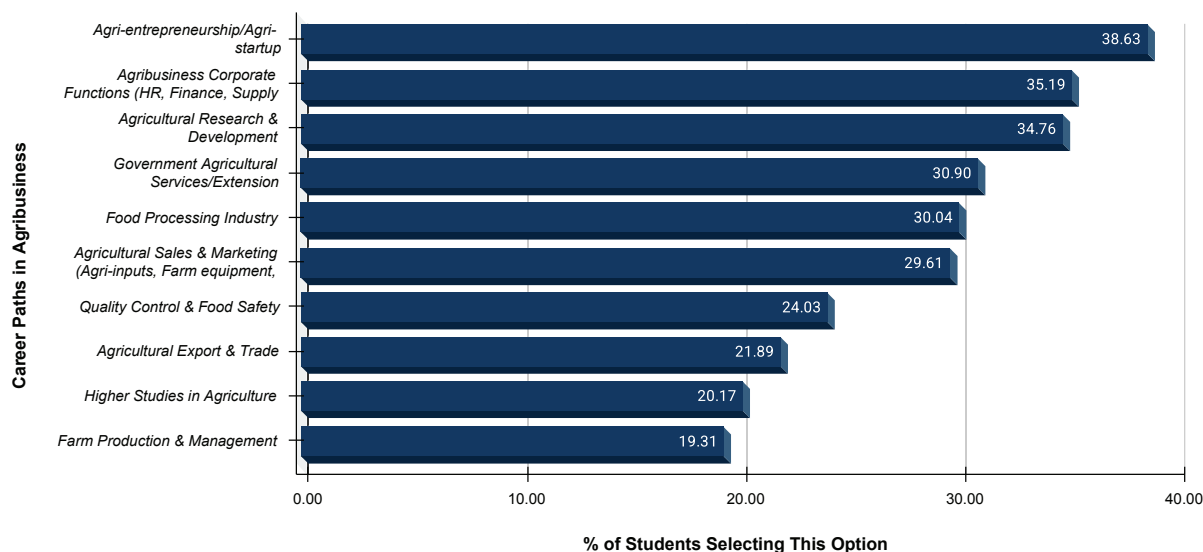


Chart 38: Career Path Selection Rate Among Female Agricultural Students

Note: Each female respondent (n=222) selected their top 3 career preferences, showing the percentage of students who included each path among their choices.

Female agricultural students show a strong preference for entrepreneurial and innovation-focused career paths. Among all options, Agri-entrepreneurship/Agri-startup rank the highest (selected by 38.6% of students and comprising 13.5% of total selections). Research-oriented and corporate functions are also highly valued, with Agricultural Research & Development and Agribusiness Corporate Functions each selected by approximately 35% of respondents. Traditional farming roles (Farm Production & Management) rank notably lower, selected by only 19.3% of students, suggesting a potential shift away from conventional agricultural careers toward business and innovation-oriented roles. Government Agricultural Services maintain significant interest at 30.9%, indicating continued recognition of public sector opportunities.

Key Takeaways:

- The strong preference for entrepreneurship and corporate roles underscores that the agribusiness sector should focus on developing structured pathways to help female talent transitioning from education to innovation-driven and management roles.
- The relatively low interest in traditional farming and production roles (19.3%) compared to other options signals a potential future talent gap in core agricultural operations that may need to be addressed through targeted recruitment and career development initiatives.

12. Career Intentions and Alternative Sector Preferences

Responses regarding an agribusiness career among female agricultural students

Table 7: Agribusiness Career Consideration Among Female Agricultural Students

Consideration Level	Number of Students	% of Respondents
I am considering it.	156	69.64%
I am not considering it.	6	2.68%
I might consider it.	62	27.68%
Grand Total	224	100.00%

Out of 224 female respondents, the majority, 69.64% (156 students) - indicated they are considering a career in agribusiness. Meanwhile, 27.68% (62 students) stated that they might consider it, and 2.68% (6 students) stated that they are not considering agribusiness careers.

A follow-up question was posed to the 68 female students (those considering alternative sectors: not considering agribusiness or might consider it). Of these, 67 students responded, choosing alternative sectors they would prefer to transition into.

13. Alternative Sector Preferences Among Female Agricultural Students

Table 8: Alternative Sector Preferences Among Female Agricultural Students

Preferred Transition Sector	Number of Students	% of Students Considering Alternatives
Banking & Financial Services	16	23.88%
Education & Training	19	28.36%
Environmental & Sustainability	16	23.88%
Healthcare	3	4.48%
Information Technology/Software	7	10.45%
Others (please specify)	6	8.96%
Grand Total	67	100.00%
Note: Based on responses from 67 female students who indicated interest in alternative sectors		

Of the 68 students exploring alternatives, 67 responded, with Education & Training (28.36%), Environmental & Sustainability (23.88%), and Banking & Financial Services (23.88%) being the top preferred sectors.

14. FGD insights: Motivations for pursuing agribusiness education

During the Focus Group Discussions (FGDs), the majority of conversations revolved around the students' perceptions, preferences, and challenges in pursuing agribusiness careers. Students highlighted significant gender-based differences in career choices. Male students demonstrated a strong inclination toward field-based roles, such as sales and production, whereas female students leaned more towards desk-oriented jobs including research, HR, and quality control. This preference among women was largely attributed to safety concerns, logistical challenges, and societal norms that often discourage them from taking on field roles.

technical and field-based roles, as these are perceived to be more physically demanding and requiring extensive travel. Women, on the other hand, were often overlooked for such opportunities due to concerns about their efficiency and safety risks. Some noted that this bias was particularly evident in job advertisements that explicitly specified male candidates for certain roles. These barriers not only limit women's professional options but also perpetuate traditional gender stereotypes in the agribusiness sector. In Addition to this students expressed frustration about the lack of industry support and infrastructure that was needed to enable more inclusive hiring practices. Female participants specifically highlighted the absence of appropriate accommodation facilities during field visits and internships in rural areas as a concrete barrier limiting their practical training opportunities.

The gap starts at the college level.
Except for a few agricultural universities, most institutions don't provide students with adequate exposure to functional areas in agribusiness.
We need stronger industry-academic partnerships to build awareness and interest.

- An Industry Leader in Agribusiness

15. Student Perspectives on Challenges

Female Students' Concerns About Field-Based Agricultural Roles

Concerns for Women in Field-Based Agricultural Work

Concerns Assessment for Field-Based Roles

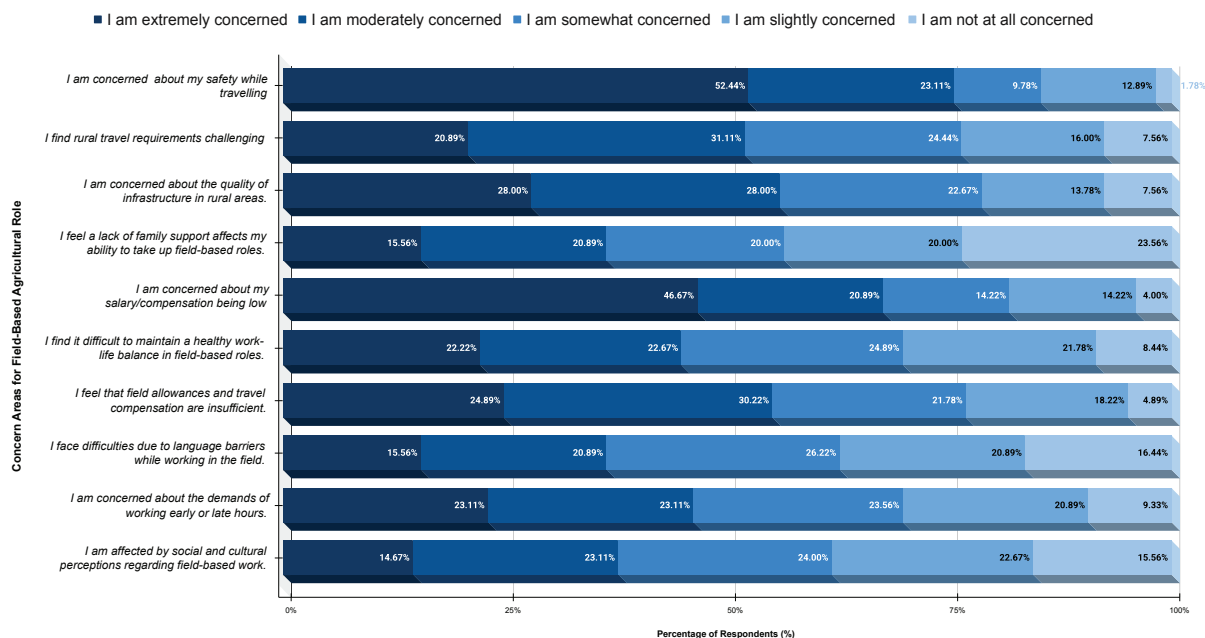


Chart 39: Female Students' Concerns About Field-Based Agricultural Roles

Female agricultural students expressed highest concern about safety during travel (>50% extremely concerned) and inadequate compensation (45% extremely concerned), establishing these as the primary barriers to field-based careers. Rural infrastructure quality and insufficient field allowances represent secondary but significant concerns (25-30% extremely concerned). Work-life balance challenges and irregular working hours affect a moderate proportion of respondents, while language barriers and family support show lower extreme concern levels (approximately 15%). The data suggests that addressing practical barriers like safety protocols and compensation packages would likely be more effective than cultural initiatives in increasing female participation in field-based agricultural roles.

Female Student Insights from FGD Discussions:

Safety concerns dominated our focus group conversations, with many participants vividly recounting incidents during field internships that left them feeling vulnerable while traveling to remote agricultural sites—reinforcing the survey finding that over 50% are extremely concerned about this issue. This apprehension connects directly to compensation inadequacies, as students explained that entry-level agricultural salaries simply don't stretch to cover the additional costs women must bear for secure transportation and accommodation in rural *postings*. In addition to this, the irregular scheduling demands of agricultural field roles further complicate matters, with participants describing the practical challenges of balancing early morning farmer meetings and late evening field visits with family expectations—highlighting why many survey respondents expressed extreme concern about these working hours.

16. Support Systems for Women in Agribusiness Careers (Female Agricultural Students' Perspectives)

Table 9: Preferences Among Female Agricultural Students

Support Systems That Would Encourage Women to Pursue Agribusiness Careers Preferences Among Female Agricultural Students (n=244)			
Support Type	Count	% of Respondents	% of Total Selections
Safe and reliable transportation facilities	131	53.69	7.22
Flexible work schedule options	112	45.90	6.17
Residential accommodation/housing assistance	108	44.26	5.95
Professional mentorship opportunities	110	45.08	6.06
Work-life balance support	118	48.36	6.50
Skill development programs	149	61.07	8.21
Healthcare benefits	98	40.16	5.40
Maternity Care Support	71	29.10	3.91
Child care support	61	25.00	3.36
Women's networking groups	99	40.57	5.45
Career advancement programs	112	45.90	6.17
Safety and security measures	114	46.72	6.28
Rural location allowance	63	25.82	3.47
Family relocation assistance	74	30.33	4.08
Leadership development programs	95	38.93	5.23
Relocation Assistance and Travel Allowances	66	27.05	3.64
Competitive Salaries	123	50.41	6.78
Flexible Benefits Package (Insurance, retirement plans)	105	43.03	5.79
Others please specify	6	2.46	0.33
Grand Total	1815		100.00

Sample: 244 female students currently enrolled in agricultural education programs across 14 institutions

Work-life integration mechanisms form the third tier of priorities, with work-life balance support (48.36%), safety measures (46.72%), and flexible scheduling options (45.90%) clustered closely together. This grouping suggests that flexibility is valued not merely as a convenience but as a fundamental enabler for women to navigate both professional responsibilities and societal expectations. The data reveal that these support systems are not viewed as accommodations but as strategic mechanisms to unlock female talent in a sector that has traditionally structured work patterns around men's life cycles.

Professional development support constitutes another significant cluster, with career advancement programs (45.90%), mentorship opportunities (45.08%), and leadership development (38.93%) underscoring the importance of structured growth pathways. The relatively lower ranking of child care support (25.00%) and maternity care (29.10%) compared to broader career advancement mechanisms challenges the stereotype that women's career decisions are predominantly driven by family considerations, suggesting instead that the current cohort of female agricultural students envisions

comprehensive professional trajectories that extend beyond accommodation of family responsibilities.

These findings present a nuanced picture of female agricultural students' priorities, indicating that effective intervention strategies must address both immediate infrastructural barriers (safety, transportation, accommodation) and long-term career development needs (skills, mentorship, advancement). The data points to a generation of women who approach agribusiness as a viable, long-term career path rather than a temporary engagement, provided that appropriate enabling mechanisms are established.

I've seen that when organizations provide clear growth paths and opportunities, women can progress from field roles to leadership positions over time.

~ Sudeshna Dey, Sales Force (MDO) and Campaign Productivity Lead at Syngenta

Stakeholder Dialogue

During the stakeholder dialogue that was organized on December 22, 2024 several critical insights about the state of agricultural academia were discussed. The dialogue highlighted eight key challenges affecting agricultural education and career pathways

1. **Outdated Curricula and Limited Practical Exposure** Agricultural education in India remains heavily focused on theoretical aspects, which fail to align with the evolving demands of the agribusiness industry. There is limited emphasis on modern concepts such as supply chain optimization, mechanization, and financial management. These gaps in curricula make it difficult for students to transition into practical, operational, or leadership roles in the agricultural value chain. Stakeholders highlighted the urgent need for educational reforms that incorporate hands-on training and updated technical knowledge to prepare graduates for real-world industry challenges.
2. **Gender Bias in Career Pathways** Systemic barriers persist within educational institutions that inadvertently promote traditional stereotypes. Women are often steered toward roles such as teaching and research while being overlooked for field-based or managerial positions, which are critical for career advancement in agribusiness. This bias, reinforced by societal norms, creates a structural disadvantage for women and perpetuates their underrepresentation in leadership roles within the sector. Panelists called for an inclusive curriculum and active interventions to dismantle such biases.
3. **Weak Industry-Academia Partnerships** Education and industry rarely align in ways that meaningfully bridge the gap between academic learning and professional expectations. Strong collaborations between academic institutions and agribusiness companies were pointed out as necessary by stakeholders. It was suggested to establish centers of excellence and tailored programs that provide students with relevant industry exposure while addressing specific role requirements. Creating robust linkages between institutions and businesses can unlock career pathways and help students transition into agribusiness leadership.
4. **Limited Access to Experiential Learning** Internships and experiential learning opportunities in agricultural education are seen as inadequate, often falling short of providing the depth of knowledge and skill-building that is standard in other disciplines like medicine. Panelists recommended introducing year-long immersive training programs during college, where students could work on farms, interact with the farming community, and develop critical insights into agribusiness operations. Such initiatives would equip them with the technical, managerial, and operational skills that directly meet industry needs.
5. **Safety and Mobility Concerns for Women** Safety and mobility challenges significantly deter women from taking up core roles in areas like sales and field marketing within agribusiness. Companies often bear additional costs to ensure safety and provide resources such as secure transportation, which further limits their willingness to employ women in such roles. A practical suggestion during the dialogue was to incentivize the hiring of women from their native regions, which creates a culturally and geographically familiar setting, making it easier for women to succeed in these positions.
6. **Lack of Visibility for Agricultural Career Pathways** Agriculture is still perceived as an unattractive career option, often viewed as a fallback rather than an aspirational choice. This perception stems from a lack of awareness among students and families about the diverse and lucrative roles in agribusiness. Stakeholders stressed the need for schools and colleges to showcase role models, success stories, and career trajectories that highlight the transformative potential of agribusiness careers. Changing the narrative around agriculture as a dynamic and multidisciplinary field is critical for its long-term appeal.
7. **Inadequate Mentorship and Leadership Training** Women pursuing agribusiness education often lack structured mentorship programs that can help them overcome unique challenges in the field. Experts emphasized the importance of mentorship at different career stages, from entry-level to mid-management, to build confidence, provide guidance, and support professional growth. Training programs targeted specifically at leadership readiness could also unlock better representation of women in senior roles.
8. **Neglect of Multidisciplinary and Innovation-Oriented Approaches** Agricultural education at all levels has not sufficiently highlighted the interdisciplinary nature of the sector, which overlaps with fields like business, technology, and sustainability. Integrating agriculture into STEM education and framing it as a driver of innovation was suggested to capture the interest of younger generations. Teaching agriculture through the lens of problem-solving and innovation, such as tackling issues like pest control or resource optimization, could make it more relevant and engaging.

Conclusion The dialogue on education and its role in agribusiness brought to light the pressing need for systemic reforms that balance theoretical knowledge with practical training, while addressing structural biases that limit women's participation. Expanding partnerships between academic institutions and industry players can enable better career transitions, while robust mentorship programs and safety reforms can empower women to take up critical roles in the agribusiness value chain. Lastly, transforming agriculture's image through storytelling,



Focus Group Discussions across various colleges in India (December 2024 - February 2025)

exposure to success stories, and vertical integration with other disciplines can make it a highly aspirational career choice. By implementing these changes, agricultural education can better prepare a dynamic, inclusive, and skilled workforce that meets industry demands.

17. Student experiences

(Highlights from Focus Group Discussions:)

These discussions provided a platform for students to share their motivations, career preferences, hurdles faced during internships and education, as well as their views on how women's participation in agribusiness can be nurtured and expanded. The participants represented diverse regions, backgrounds, and academic programs, offering valuable insights into gender-based experiences within the agribusiness ecosystem. The Focus Group Discussions (FGDs) were conducted across various institutions between December-February 2025, covering universities and colleges specializing in agriculture, agribusiness, and allied fields at institutions such as: Banaras Hindu University (BHU), Tamil Nadu Agricultural University (TNAU), Sardar Vallabhbhai Patel University (Meerut), SHUATS (Prayagraj) and University of Agricultural Sciences (UAS) Bengaluru, Bijapur, Dharwad (check the list - Appendix A5). For a complete list of FGD questions that guided these

structured conversations across institutional contexts, please refer to Appendix A2

1. Why Students Chose Their Specific Institutions or Programs?

Convenience such as proximity to home and safety were critical factors for women when selecting institutions. Institutions with lower fees, reputable academic standing, and industry-aligned courses were preferred. Some students opted for programs offering better career pathways, including management-oriented curricula that broaden employment options.

2. Students' Understanding of the Agribusiness Value Chain

While most participants demonstrated an appreciation of the "farm-to-fork" model, many admitted to having a limited understanding of the value chain's breadth. Through courses and internships, they gained clarity about different segments including their:

- Preferred Areas: Processing, supply chain, and production were key points of interest for most students due to their growth potential and practical relevance.
- Challenges in Comprehension: An interesting insight emerged when some students shared their confusion about concepts like logistics, branding, and market

linkages, pointing to the need for more exposure.

- Value-addition Focus: Activities like drying, packaging, and branding of farm products fascinated many students, who recognized their importance in increasing profitability for farmers.

3. Career Perceptions Among Male and Female Students

The FGDs revealed important gender differences in career preferences:

- Field Roles: Male students typically leaned towards field-oriented roles in sales and production, while female students preferred desk jobs in research, analysis, or HR due to safety concerns and cultural expectations. One participant explained, “It’s not that women don’t want to work in the field, but safety and sanitation in rural postings make it hard.”
- R&D and Teaching Jobs: Many women were guided by family or professors to opt for “safe” roles like research, teaching, or administrative work. “My professor advised me to pursue an MSc and become an assistant professor because it’s a stable career,” a student shared.

Companies’ hiring practices further reinforced disparities, with male candidates prioritized for technical and field roles due to logistics and travel-related responsibilities. Challenges such as late hours, unsafe travel, and societal biases reinforce the notion that certain roles are “unsuitable” for women, even when they showcased equal skillsets.

4. Barriers and Challenges for Women in Agribusiness

Women participating in agribusiness education and careers face a range of challenges:

During Education:

- Lack of safety in rural areas, where housing and travel infrastructure remain underdeveloped.
- Relevance of Curriculum: Many noted a strong theoretical focus, with insufficient practical training for professional readiness.
- Limited Mentorship: A recurring theme was the lack of senior women in the industry or academia to provide guidance.

At Workplace:

- Recruitment Barriers: Companies often prefer men for physically demanding or technical roles. Students observed occurrences specifically noting male candidates for sales roles. One student said, “Even though I was interested in marketing, the company didn’t select me—it was deemed unsafe for women.” This pattern of exclusion is particularly pronounced in agri-input companies where field mobility is prioritized over technical expertise, creating a structural disadvantage that persists despite institutional diversity policies.
- Pay Gaps and Career Growth: Women often reported earning 20% less than male counterparts in similar roles. Another challenge was the

difficulty in obtaining leadership positions, with rural biases contributing to lack of career progression. “In villages, farmers don’t value the guidance of female extension workers as much as they listen to men,” one participant shared.

5. Strengths Women Bring to Agribusiness

Participants highlighted skills unique to women that are undervalued:

- Negotiation and Communication: Women’s ability to engage empathetically was observed as effective in community interactions and customer-facing roles.
- Organizational and Analytical Skills: Participants noted that women often excel in research, quality control, and planning functions. “Women’s organizational ability makes them ideal for logistics and planning,” one contributor remarked.
- Creative Problem-Solving: When asked, most students pointed to roles in value-added agribusiness like food innovation and design, where women outperformed due to their creativity.

5. Educational Takeaways and Industry Preparedness

Despite general satisfaction, most students felt that their education lacked alignment with real-world industry demands:

- Practical Exposure: Students criticized the lack of experiential learning, stating that three years of theory outweighed one year of practical training in a four-year degree. “More field visits and early industry exposure during the first year would help bridge gaps,” suggested a participant.
- Soft Skills Development: Key concerns included inadequate training in communication, negotiation, and team leadership.

6. Strategies to Increase Women’s Participation

Participants suggested actionable strategies to increase women’s representation, including:

Workplace Changes:

- Introducing flexible work hours, overtime pay, and guaranteed maternity leave to address retention issues.
- Providing safe accommodations and secure transportation for women posted in rural or remote areas.

Educational Reforms:

- Updating agricultural curriculums to include modern business and data analysis tools.
- Introducing mentorship programs that connect female students with successful women professionals.
- Policy and Advocacy: Several pointed to the need for government-backed financing schemes and subsidies to encourage women entrepreneurs in agribusiness.

7. Entrepreneurial and Leadership Opportunities

The discussions also mapped opportunities for women in agribusiness entrepreneurship:

- Inspiring Success Stories: Stories of local female entrepreneurs helped some participants envision running businesses. Many suggested that showcasing these stories would encourage more women to take up roles in this sector. The problem, as some discussed, was that there weren't enough role models to look up to.
- Barriers: Cultural expectations and financial constraints were frequently raised obstacles. "Society often discourages women from pursuing independent ventures," noted a participant.
- Government-backed programs providing 50–70% subsidies were acknowledged as enablers and should be widely publicized. Targeted subsidies, gender-specific agricultural training programs, and rural infrastructure investments were also highlighted as essential policy enablers for increasing women's participation across the agribusiness value chain.

8. Institutional Support and Recommendations

Students also provided suggestions on how they felt institutions can adapt to better support women studying agribusiness:

- Increasing industry-academia collaboration through internships, workshops, and job placements.
- Encouraging local placements to address safety and cultural constraints faced by women.
- Leveraging CSR programs and government funding to provide state-of-the-art infrastructure, including sanitation and housing, in rural areas.

While interest in pursuing an education in an agriculture related field is often rooted in family connections and community-driven examples, systemic challenges such as limited practical exposure, safety concerns during fieldwork, and biased recruitment practices continue to deter women from realizing their full potential. The discussions also highlighted the gendered perceptions of agribusiness careers, with women disproportionately drawn to desk jobs over field roles due to workplace and societal constraints.

9. Faculty perspectives - Key Highlights

While conducting Focus Group Discussions across various agricultural colleges, we had the opportunity to engage with institutional leadership, including deans and department heads. These conversations provided valuable institutional context that complemented the student perspectives. Our discussions with faculty members—including department heads, placement coordinators, and experienced instructors—revealed significant insights into the systemic factors shaping gender-differentiated educational outcomes.

Several key themes emerged from these faculty interviews:

1. Family influence remains paramount in shaping female students' career decisions. Faculty observed that parental expectations and concerns frequently override individual preferences, particularly regarding field-based positions or roles requiring relocation. This constraint operates across socioeconomic backgrounds but intensifies significantly in more conservative regions. As one department head noted, "Even our most academically talented female students ultimately make career decisions that align with family approval rather than personal interest or aptitude." One faculty member shared a revealing example: "In our recent graduating batch, we had a female student who received a highly competitive international package and successfully relocated abroad with family support, while a male student from the same class couldn't even secure permission to move to another state despite an excellent offer." This nuanced reality challenges simplistic assumptions about gender constraints, highlighting that family dynamics can restrict mobility for all students, albeit through different mechanisms and with varying frequencies. "The conversation about relocation is challenging with families across the socioeconomic spectrum," noted a placement coordinator. "Even when we demonstrate the career advancement and compensation benefits, many parents remain resistant to the idea of their children—particularly but not exclusively daughters—moving far from home for work opportunities."

Perhaps most concerning was an observation shared by multiple faculty members regarding educational intent. In a candid conversation, a faculty member mentioned, "Many families permit their daughters to pursue agricultural degrees solely for credential acquisition rather than professional application. The explicit understanding is that the degree enhances marriage prospects but will never be utilized professionally." This fundamental misalignment of educational purpose creates significant downstream consequences, as institutions invest in training students who are not expected or encouraged to contribute their skills to the agricultural sector.

2. Risk aversion characterizes agricultural career planning broadly. Faculty noted that students across gender categories prefer established pathways—particularly government positions—over entrepreneurial or private sector opportunities with higher growth potential but greater uncertainty. This tendency further narrows the already limited options for female students.
3. Curriculum constraints limit practical skill development. Faculty acknowledged that current

agricultural curricula emphasize theoretical knowledge at the expense of practical application, creating a disconnect between educational content and industry requirements. This gap affects all students but compounds the barriers faced by women, who often have fewer opportunities for independent skill acquisition outside formal educational settings.

4. Placement processes reflect rather than challenge industry biases. Faculty placement coordinators described their limited leverage in addressing gender-based specifications from recruiting companies. As one coordinator noted, “When companies explicitly request male candidates for sales roles, we can attempt to challenge these requirements, but ultimately we need to facilitate employment opportunities for our students within existing constraints.”
5. Mentorship and role modeling gaps persist. The relative scarcity of women in senior agricultural faculty positions creates a visible representation gap that influences students’ career aspirations. “Students internalize what they see,” observed a senior professor. “When all the technical specialists and research leaders they encounter are men, it shapes their perception of who belongs in these roles. This subliminal messaging often proves more powerful than our explicit encouragement.”

These institutional perspectives highlight how educational structures and practices—despite often well-intentioned leadership—can inadvertently reinforce rather than disrupt the gender disparities that characterize India’s agribusiness sector. Faculty insights reveal the complex interplay between educational systems, family dynamics, and industry practices that collectively shape pathways from agricultural education to employment for students of all genders, with particularly pronounced effects on women’s career trajectories.

GAP ANALYSIS

1. Demand-Supply Analysis (Demand-Supply Mismatch)

The gap analysis systematically examines the mismatch between industry requirements (demand side) and women’s professional realities (supply side) to identify structural barriers rather than capability deficits.

Demand Side: Represents the agribusiness industry requirements, including specific skills, qualifications, availability expectations, and workplace conditions established by employers. This encompasses operational needs, organizational policies, industry standards, and market dynamics that shape employment opportunities.

Supply Side: Represents the female workforce pipeline, including current and potential women workers, their skills, capabilities, availability, and constraints. This

encompasses female students, early-career professionals, mid-career employees, those on career breaks, and women in advanced career stages. Please check the table on the next page.

A demand-supply gap analysis is essential for addressing women’s employment challenges in agribusiness because it provides a structured framework that illuminates the critical disconnects between what women can offer (supply-side) and what the industry requires (demand-side). The misalignments are particularly pronounced at critical transition points: from education to early career (especially for field-based roles), from technical to managerial positions, and from middle management to leadership roles.

Addressing these gaps requires coordinated intervention across educational institutions, industry stakeholders, and policy frameworks. Most promising approaches are those that recognize these issues as systemic rather than individual, focusing on infrastructural, policy, and cultural transformations rather than perception change alone. The successful transformation of these misalignments would enhance both gender equity and agricultural sector competitiveness throughout India’s agricultural value chains.

2. Systemic Consequences

This educational mismatch creates a cascade of effects that perpetuate gender disparities in Indian agribusiness:

1. **Skills Gap:** Female graduates enter the workforce with theoretical knowledge but lacking the practical skills and technical confidence required by employers
2. **Career Channeling:** Women are disproportionately directed toward limited career pathways (research, teaching, administration) rather than diverse roles across the agricultural value chain
3. **Innovation Deficit:** The agricultural sector loses potential innovation and diverse perspectives that would emerge from greater female participation in technical and leadership roles
4. **Perpetuated Stereotypes:** The cycle reinforces perceptions about “appropriate” roles for women in agriculture, limiting both individual opportunities and sector-wide progress
5. **Unrealized Potential:** India’s agricultural sector fails to fully leverage the talents, perspectives, and capabilities of approximately half its potential workforce

The findings firmly support the contention that the sector exhibits persistent gender disparities that intensify at each career transition point for women. Based on the results obtained, we can conclude that capability gaps are not driving women’s low participation in agricultural careers. In some cases, female students perform better than their male counterparts in academic achievement, with higher

Table 10: Structural Barriers to Women's Participation Across the Agribusiness Value Chain: A Demand-Supply Gap Analysis

Gap Area	Demand Side (Industry Requirements)	Gap Factors (Elements Enhancing the Mismatch)	Supply Side (Women's Reality)	Business Impact
Field Operations & Mobility	Need for professionals in procurement, sales, and farmer engagement roles	Lack of safety protocols and infrastructure for women in field roles	Legitimate safety concerns in remote agricultural areas	Gender-segregated workforce with women absent from core operations
	Requirement for extensive rural travel across diverse agricultural regions	Stereotyping in job advertisements favoring male candidates	Inadequate rural infrastructure (transportation, accommodation, sanitation)	Higher recruitment and training costs due to limited talent pool
	Expectation of field presence during critical agricultural seasons	Insufficient investment in safe transportation and accommodation	Family and societal restrictions on women's mobility	Reduced market intelligence from farming communities
	Demand for professionals who can build direct relationships with farming communities	Cultural resistance from male farmers toward female agricultural professionals	Limited decision-making autonomy regarding relocation and field postings	Compromised service delivery in regions where female engagement is culturally important
		Limited recognition of women's capabilities in farmer engagement		
		Limited family-supportive relocation policies in agribusinesses		
Technical Role Allocation		Stigma associated with women traveling or living independently		
	Ability to manage farmer networks and sourcing relationships while ensuring quality standards and consistent supply	Theory-heavy curriculum with minimal practical exposure	Institutional and family steering toward "safer" career paths	"Sticky floor" phenomenon keeping women in support functions
	Need for agri-marketing specialists with rural consumer insights	Limited industry-academia collaboration for technical internships	Channeling into administrative, research or teaching roles	Underutilization of technical capabilities and innovation potential
	Rising requirement for professionals who can manage farmer producer organizations	Unconscious bias in technical role assignments	Limited exposure to core business operations during education	Homogeneous approaches to problem-solving
		Absence of women role models in technical positions	Bias against women in technical recruitment despite qualifications	Limited diversity in product and market development teams
		Insufficient mentorship during critical early career transitions		
Leadership Pipeline		Resistance to accommodating gender-specific needs perceived as "special treatment"		
	Recognition of diverse leadership benefits for innovation	Rigid work structures incompatible with caregiving responsibilities	Mid-career exits due to inflexible work structures	Empty leadership pipeline for female talent
	Need for managers who understand diverse customer perspectives	Higher performance standards for women leaders	Absence of mentorship and sponsorship	Loss of experienced professionals at peak value-adding stage
	Requirement for leaders with both technical and people skills	Exclusion from informal networks where decisions occur	Limited advancement opportunities despite proven capabilities	Reduced organizational innovation capacity
	Demand for fresh approaches to complex agricultural challenges	Lack of formal sponsorship for advancement	Few re-entry pathways after career breaks for family reasons	Perpetuation of male-dominated leadership approaches
		Inadequate return-to-work programs after career breaks		

passout rates. Further to this, a significant number of female respondents express active interest in agribusiness careers, indicating strong professional motivation. The misalignment between demonstrated capability and limited professional representation reveals a systematic funneling effect that progressively constrains women's opportunities. The journey begins with geographical limitations in educational choices, narrows further through specialization channeling, and culminates in gender-segregated employment outcomes. This restriction operates through interconnected mechanisms across multiple stakeholder groups:

1. Institutional Constraints: Curriculum designs that emphasize theoretical knowledge over practical application, limited industry exposure through structured internships, and in some cases faculty guidance that also reinforces traditional gender roles.
2. Familial Influence: Parental preferences that prioritize proximity and safety over educational quality, permission for degree completion without professional application, and resistance to geographical mobility for employment.
3. Industry Barriers: gender-targeted job advertisements (both explicit and implicit, communicated formally and informally to students at times), inadequate safety infrastructure for field operations, and compensation disparities in identical positions.

Our demand-supply gap analysis identifies three critical misalignments that create both organizational and sector-wide inefficiencies:

- Field Operations & Mobility: Safety concerns, infrastructure limitations, and cultural resistance restrict women's participation in core operations, reducing market intelligence and customer engagement
- Technical Role Allocation: Academic channeling and employer bias create a "sticky floor" phenomenon that keeps technically qualified women in support functions
- Leadership Pipeline: Rigid organizational structures and exclusion from informal networks limit women's advancement, reducing innovation capacity and strategic adaptability

The primary research conducted with 780 survey respondents, 287 focus group participants, and faculty members across multiple institutions points toward actionable intervention priorities:

- Safety infrastructure enhancement for field-based roles.
- Curriculum redesign emphasizing practical skill development.
- Structured mentorship programs connecting students with established professionals.
- Team-based field operation models rather than individual remote postings.

- Industry partnerships that challenge rather than reinforce gender segregation.

These findings underscore that women's limited representation in agricultural careers stems not from individual choices but from structural arrangements historically designed around male participation patterns. The path forward requires systemic interventions across educational institutions, industry stakeholders, and policy frameworks to unlock India's substantial female talent pool, thereby enhancing both gender equity and agricultural sector competitiveness.

The subsequent chapter will translate these insights into specific, evidence-based recommendations for transforming agricultural education and employment pathways, creating a sector that fully leverages the capabilities of its entire workforce.

“WOMEN FACE
SYSTEMATIC
INEQUALITIES IN
THE TYPES OF VALUE
CHAINS IN WHICH
THEY ENGAGE, THE
CONDITIONS OF
THEIR ENGAGEMENT
AND THE RETURNS
THEY RECEIVE.”

FAO 2023



5 CORPORATE LANDSCAPE: WOMEN IN THE WORKPLACE

Chapter 5 examines women’s representation in agribusiness companies through comprehensive workforce composition analysis and comparative career experiences. The research integrates quantitative survey data from female professionals—both current and former agribusiness employees—with qualitative insights from industry leaders and stakeholders to identify critical transition barriers.

SECONDARY ANALYSIS

1. Female Labor Participation in the Economy

Recent data from the Periodic Labour Force Survey (PLFS) indicates a significant increase in women’s participation in India’s workforce. The Worker Population Ratio (WPR) for women aged 15 years and above has nearly doubled from 22.0% in 2017-18 to 40.3% in 2023-24, while the Labour Force Participation Rate (LFPR) increased from 23.3% to 41.7% during the same period (Ministry of Labour & Employment, 2024). However, substantial gender disparities persist in corporate settings, particularly in agribusiness companies where women constitute less than 10% of permanent employees and of permanent workers (BRSR Data, 2024). Urban women continue to face higher unemployment rates (8.1%) compared to men (5.8%), though these rates have improved from previous years

(Ministry of Statistics & Programme Implementation, 2025). The government has implemented various initiatives to boost female workforce participation, including provisions for paid maternity leave, flexible working hours, and equal wages (Ministry of Labour & Employment, 2024).

2. BRSR Data Analysis

The Business Responsibility and Sustainability Report (BRSR) framework introduced by SEBI in 2021 marks a significant advancement in corporate transparency requirements. This standardized reporting structure requires the top 1,000 listed companies to disclose various Environmental, Social, and Governance (ESG) metrics, including detailed breakdowns of workforce composition by gender.

For our analysis, we collected and analyzed BRSR data from 101 Indian companies where agriculture and agribusiness activities comprise more than 60% of total revenue. This focused approach ensures that our findings accurately represent the agribusiness sector rather than reflecting broader cross-industry patterns. Data extraction involved systematically downloading and analyzing Excel files from the BRSR portal for each company, focusing on gender distribution across employment categories, management levels, and board composition.

3. Workforce Composition Analysis

Table 11: Workforce Composition Analysis

Employees	Female Permanent Employees	Male Permanent Employees	Female (Other than Permanent Employees)	Male (Other than Permanent Employees)
% of Employees	6.35	93.65	9.39	90.61

Note: All percentages were calculated by aggregating gender-disaggregated employment data from BRSR reports of 101 companies where agriculture-related activities constitute >60% of revenue, with category-specific ratios determined by dividing the number of women/men by total positions in each employment classification.

Gender Distribution in Permanent Employment

The data reveals profound gender imbalance in permanent workforce structures. Male employees constitute an overwhelming 93.65% of permanent positions, while female representation stands at merely 6.35%.

This stark disparity indicates systemic barriers to women’s integration into stable, long-term employment within the agribusiness sector.

Contract and Temporary Employment Patterns

Table 12: Contract and Temporary Employment Patterns

Workers	Female Permanent Workers	Male Permanent Workers	Female Other than Permanent Worker	Male Other than Permanent Worker
% of Workers	7.58	92.35	13.00	87.00

In non-permanent employment categories, gender disparities persist but show marginal improvement, with female representation increasing to 9.39% compared to 90.61% male representation in non-permanent employee roles. This pattern becomes even more pronounced at the worker level, where female representation in temporary positions reaches 13.00%, nearly double their representation in permanent worker roles (7.58%).

This higher representation in temporary positions suggests that while women can access entry points into the agribusiness sector, they encounter substantial barriers to securing permanent positions. This pattern aligns with other studies that find women in agricultural value chains often remain concentrated in more precarious employment categories with limited job security, benefits, and advancement opportunities.

The gradual improvement in female representation from permanent to temporary roles suggests that hiring practices, rather than availability of qualified female candidates, may be a significant barrier. Companies appear more willing to engage women through temporary arrangements, which typically involve lower investment in training, benefits, and career development. This creates what is known as a “sticky floor” phenomenon, where women can enter the sector but struggle to progress into secure, growth-oriented positions.

4. Leadership and Management Representation

Table 13: Leadership and Management Representation

Leadership Representation	Percentage
Percentage of Female Board Members	20.36
Percentage of Male Board Members	79.64
Percentage of Female Key Management Personnel	12.99
Percentage of Male Key Management Personnel	87.01

Board Composition and Gender Diversity

At board level, female representation improves to 20.36%, while men occupy 79.64% of director positions. This relatively better representation likely reflects the impact of regulatory mandates requiring female board members rather than organic organizational inclusion efforts. The Companies Act 2013 mandates at least one woman director on the boards of certain classes of companies, which has driven formal compliance without necessarily changing organizational culture or expanding the pipeline of female leadership talent.

When examined against the backdrop of overall female workforce representation (6.35%), this board-level figure creates what researchers Mehrotra and Sinha (2023) term a “regulatory diversity illusion” – a situation



Panel Discussion on Women in Agribusiness, 22 December 2024, IIMA

where compliance-driven representation at governance levels masks persistent exclusion throughout the organizational hierarchy.

5. Key Management Personnel Analysis

Within Key Management Personnel (KMP) positions – including Managing Directors, Whole-Time Directors, Chief Financial Officers, and Company Secretaries – female representation drops significantly to 12.99%, with men occupying 87.01% of these roles. This decline from board representation to executive management highlights the limitations of regulatory interventions that target governance without addressing operational leadership pathways.

Research by McKinsey (2024) has shown that this pattern of declining representation up the corporate ladder (from 13% at entry level to below 5% at senior leadership in agricultural companies) results from a combination of factors including bias in promotion processes, lack of mentorship, and work-family balance challenges that disproportionately impact women.

The data reveals that agribusiness companies face a dual challenge: substantially increasing female representation throughout the workforce while simultaneously strengthening pathways to leadership positions. Without addressing both dimensions simultaneously, efforts to improve gender diversity are likely to yield limited results.

PANEL DISCUSSION ON WOMEN IN AGRIBUSINESS

A panel discussion on women's participation in agribusiness was organized on December 22, 2024, at the Indian Institute of Management Ahmedabad (IIMA).

The panel discussion featured distinguished industry leaders including Ms. Indira Dhumne (Deputy General Manager, Mahindra HZPC Private Limited), Ms. Amrita Kumar (Director, Dayal Group), Ms. Sangeeta Bojappa Moorthy (Chief Farmeress and Founder, Farmington), and Ms. Shital Somani Kasat (CoFounder, S4S Technologies). These executives shared evidence-based insights on gender diversity challenges, organizational interventions, and strategic approaches to enhancing women's participation in agricultural corporations. While entrepreneurship pathways were extensively discussed, this analysis concentrates specifically on women as employees in agribusiness organizations, examining recruitment barriers, leadership development initiatives, and retention strategies implemented across the sector.

• Recruitment and Selection Challenges

Female candidates face systematic disadvantages throughout agricultural recruitment processes, particularly during initial screening stages. Ms. Indira Dhumne noted that “most of the resumes [from women] get rejected at that level only,” highlighting unconscious bias in candidate evaluation. Progressive

organizations are implementing structural reforms including gender-neutral application procedures where “the hiring manager doesn't know the gender till he goes for the exact interview.” Ms. Dhumne explained that her organization has begun “planning to have the gender neutral resumes to be given” because “that bias plays a lot in people's mind.” Companies report success with targeted recruitment mandates, with Ms. Dhumne explaining: “For certain positions we give mandate to hiring agency also for especially the women candidates.” These interventions demonstrate measurable improvements in female candidate advancement through selection pipelines, addressing foundational barriers to gender diversity in agricultural workforces.

• Leadership Development and Visibility Initiatives

Organizations committed to female advancement are implementing comprehensive leadership development programs addressing both skill acquisition and visibility challenges. Ms. Indira Dhumne observed that “women don't have that natural tendency to market themselves, market their talent, market their achievements,” creating advancement barriers within organizational hierarchies. To counter this pattern, companies are developing structured interventions including “specifically designed women leadership talent development programs in which we have specific mentorships for the women.” These programs incorporate targeted project assignments, formal visibility platforms, and strategic mentorship relationships with senior executives. As Ms. Dhumne emphasized: “Making them visible, giving them that visibility is one major work we are doing as well as mentorship by the senior leadership.” These targeted interventions demonstrate how organizations are addressing both the systemic and behavioral barriers to women's advancement in agricultural corporations.

• Organizational Dynamics and Male Engagement

Panel evidence revealed how gender imbalance affects meeting dynamics and decision-making processes, with Ms. Amrita Kumar describing instances where “every time a lady spoke...the other men would join together” in opposition. Ms. Kumar shared a specific experience: “I was sitting in a meeting and we were 14 people, two of us were women and the rest were men...every time a lady or head of the department spoke, if a man was defending his position or she was from finance, if the other department was defending his position, the other men would join together.” Addressing these behavioral patterns requires cultural transformation strategies centered on male engagement and allyship development. Ms. Indira Dhumne emphasized: “One great thing is we are having our male leaders who are supporting this

Women as key drivers of sustainable growth in farming and agribusiness: Insights from IFC Report (2016)

Agribusiness companies create much-needed formal employment opportunities for women in rural areas, where secure jobs are otherwise scarce. By investing in women workers, companies can address multiple business challenges simultaneously. Creating supportive environments for women workers improves attendance and retention of all workers, resulting in significant cost savings. Additionally, investing in women and their communities can help alleviate labor shortages exacerbated by regional migration patterns, particularly in remote areas.

The business benefits of gender diversity extend to decision-making and innovation. According to international studies, gender diversity in management drives better market performance. One US study of Fortune 500 companies found that companies with at least three female board members had 60% higher return on investment than all-male boards. Higher levels of gender diversity in teams can also enhance problem-solving and spark innovation. For these reasons, it makes business sense for companies to take a gender-smart approach to their internal leadership pipeline.

Practical approaches to increasing women's participation include: clearly communicating that women and men can apply for all jobs; providing additional training for women to learn skills needed for traditionally male-dominated roles; ensuring safe transportation to and from work; providing gender-separated facilities and accommodations for mothers; and offering childcare support and flexible working arrangements. The first women in non-traditional occupations often provide powerful examples that motivate other women to follow similar career paths.

Several case studies from the IFC report illustrate these concrete business benefits:

- 1. SolTuna (Solomon Islands):** This tuna processing facility identified that high levels of absenteeism among its predominantly female workforce were causing significant lost revenue due to reduced production output. The company also faced additional costs from excessive overtime and overstaffing that was needed to handle fluctuations in worker attendance. By addressing the root causes of absenteeism—including health issues, family problems, and financial literacy—SolTuna has been able to reduce absenteeism and improve business performance. The company has also benefited from training women forklift drivers, which has opened new career pathways for female employees and helped address labor shortages in these positions.
- 2. Biosev (Brazil):** This sugarcane processor has found that women play an important role in the company's goal to achieve best-in-class safety standards. Supervisors report that women are more likely to adhere to safety rules and procedures. Male co-workers note that having women on teams leads to more respectful behavior and better compliance with safety protocols. Women machine operators take better care of their equipment, leave it cleaner, and more promptly report maintenance issues, resulting in reduced maintenance costs and less machine downtime. Women in traditionally male roles, such as tractor driving, also help modernize the company's image, making it more attractive to potential recruits in a competitive labor market.
- 3. Vinaseed (Vietnam):** This seed production company has seen substantial business benefits from gender diversity in its research and development teams and leadership. According to CEO Tran Kim Lien, having both women and men in the company's top management provides a "yin-yang balance" that deepens the quality of discussions and decision-making. The gender balance in Vinaseed's research team has contributed to successful development of new seed varieties, increasing company revenue from internally developed scientific products. The company's merit-based HR approach has also resulted in high employee retention rates, reducing recruitment and training costs.

Source: (IFC, 2016), "The Business Case for Women's Employment in Agribusiness", pp. 15-29, 61-67, 69-85, 87-102, 115-125.

Box 4: Women as Key drivers of Sustainable Growth in Farming and Agribusiness: Insights from IFC Report (2016)

gender diversity because it is very important that the other gender also need to be acceptable and aligned to this agenda otherwise it creates a conflict in the system." Ms. Kumar noted that leadership neutrality is particularly critical in conflict resolution: "As a leader, especially because I'm a woman, I can't be only espousing one cause. I have to show that I'm an unbiased, neutral authority sitting in that room."

• Skills Development and Technical Proficiency

The panel dedicated significant attention to the skills gap affecting women's advancement in agribusiness. Ms. Amrita Kumar provided particularly compelling insights on this topic, stating: "I always believe that soft skill can be the most important part for average. They lack that confidence, they lack that leadership roles, they lack that interpersonal skill sets, they are so scared to face interviews, they don't know how to communicate, they are technically very strong. Believe me most of the sound engineering students from this type are excellent in getting marks." Ms. Sangeeta Bojappa Moorthy reinforced this perspective, noting: "What we need is the hands-on experience and as well as soft skill." This observation highlights the paradoxical situation where female employees often possess superior technical capabilities but lack the complementary soft skills essential for career advancement. Ms. Shital Somani Kasat explained that organizations addressing this imbalance implement integrated training models: "We get about 30 to 35 students who are NSC graduates, VCBC graduates and we run a 3 month training program

and every month in a different role." These innovative approaches demonstrate measurable improvements in female advancement metrics through comprehensive skills development.

• Work-Life Integration and Retention Strategies

The panel acknowledged how societal gender roles impact women's career progression in agribusiness. Organizations addressing these challenges implement comprehensive support systems including extended leave policies, flexible arrangements, and family-integration approaches. One innovative strategy described by Ms. Sangeeta Bojappa Moorthy involves hiring family units rather than individuals: "In the rural side, it is always good to employ the family as such, both husband and wife. This also has reduced a lot of gender missing." Ms. Shital Somani Kasat explained that companies implementing rotation-based training programs report superior retention metrics compared to traditional recruitment methods: "We are willing to invest in the 3 months because the months that will stay are much better than even if I were to hire 1 year or 2 year experience folks. Because in these 3 months they are fresh people who have been trained in my culture, who know how to work the day to day." These targeted interventions demonstrate how organizations are addressing the complex interplay between societal expectations and workplace demands affecting women in agricultural corporations.

The panel culminated in a transformative insight challenging

conventional diversity frameworks: reconceptualizing gender inclusion from compliance obligation to operational strategy that strengthens core agricultural functions. This approach embeds gender considerations into standard business processes rather than isolating them as separate initiatives, potentially creating measurable performance advantages across the agricultural value chain.

Key Takeaways

1. The panel proposed exploring an innovative recruitment approach for rural agricultural contexts that would target family units rather than individuals, potentially transforming familial dynamics from barriers into enablers of women's participation. This conceptual model warrants further empirical investigation to determine whether it might improve retention while addressing safety concerns and building community acceptance for women in field-based roles.
2. **Structural Interventions:** Effective gender diversity initiatives require comprehensive reforms across recruitment, leadership development, organizational culture, and retention mechanisms rather than isolated programs. Ms. Indira Dhumne's organization has implemented targeted recruitment mandates and gender-neutral resume processes that demonstrate measurable improvement in female candidate advancement.
3. **Male Allyship:** As emphasized by Ms. Indira Dhumne, successful gender diversity initiatives depend on active engagement from male colleagues who are "supporting this gender diversity because it is very important that the other gender also need to be acceptable and aligned to this agenda otherwise it creates a conflict in the system."
4. **Balanced Skill Development:** Organizations must address the paradox identified by Ms. Amrita Kumar, where many female employees possess strong technical capabilities but "lack that confidence, they lack that leadership roles, they lack that interpersonal skill sets," limiting their career advancement despite academic excellence.
5. **Industry-Academia Collaboration:** As noted by Ms. Shital Somani Kasat, effective education-industry alignment requires "joint R&D projects or joint problems where the industry and academics they are coming on the same platform and they are solving." Ms. Sangeeta Bojappa Moorthy emphasized that "every college would have practical simulation centers where they actually learn how it is to work somewhere else."
6. **Strategic Implementation:** As articulated by multiple panelists, gender diversity should be positioned as a strategic business imperative rather than a compliance requirement, with Ms. Indira Dhumne noting that "when there is a conflict things

doesn't go that smooth," highlighting the operational advantages of genuine cultural alignment.

STAKEHOLDER DIALOGUE

The stakeholder dialogue held on December 22, 2024, following the panel discussion, brought together representatives from corporate agribusiness companies, agricultural universities, development organizations, and policy institutions. The discussion explored innovative intervention strategies across educational, organizational, and policy domains that would best address systemic barriers limiting women's participation in agribusiness careers. Some of the key Insights from the Stakeholder Dialogue are mentioned below

1. Agribusiness as an Untapped Opportunity for Women:

Despite women's significant representation in agricultural labor, their participation in agribusiness roles—including marketing, finance, procurement, and sales—remains alarmingly low. Cultural conditioning, limited access to training, and outdated perceptions about careers in agriculture were identified as the key obstacles.

"Agribusiness is still not portrayed as a modern or aspirational career. Misconceptions about the sector as 'unexciting' discourage women from pursuing education or professions in this field."

Stakeholders emphasized the need to reposition agribusiness as a dynamic, interdisciplinary field that not only incorporates agriculture but also integrates innovation, technology, and entrepreneurship. Success stories of women in agribusiness were stressed as a tool to inspire future generations.

2. Updating Agricultural Curricula for Industry Relevance:

A critical barrier to improving gender diversity in agribusiness is the existing disconnect between academic training and the demands of industry. Many agricultural programs fail to prepare students—especially women—for corporate agribusiness roles, such as sales, supply chain management, and marketing.

"How can we expect women to step into procurement or marketing roles when agricultural education doesn't teach them the skills they need to succeed in these domains?"

Participants advocated for updating agricultural curricula to include: Training on financial literacy, sales, and marketing; Practical fieldwork experiences aligned with corporate requirements; Case studies showcasing success stories of women leaders in agribusiness

The introduction of bridge programs to link education and employment was suggested, enabling graduates to transition smoothly into high-value roles in the corporate agribusiness sector.

3. Nurturing Women as Farm and Business Leaders: Participants highlighted the untapped potential of women to lead enterprises such as farmer-producer organizations (FPOs), agribusiness start-ups, and cooperatives. Women-led FPOs were cited as highly effective, particularly due to their focus on small, incremental profits and community building.

“Women-led FPOs in rural areas perform exceptionally well in coordination and efficiency, yet they are rarely supported to scale or integrate into larger agribusiness value chains.”

However, systemic challenges persist, such as:

- Lack of land ownership: Without formal ownership, women have limited access to credit, government subsidies, and farming resources.
- Weak integration with markets: Women-led organizations often struggle to connect with corporate agribusinesses and global value chains.

Policy-level interventions, such as land-leasing reforms and better integration of women-led FPOs into corporate supply chains, were recommended as necessary steps to address these gaps.

4. Safety and Gender Sensitivity in Agribusiness Operations: Safety and gender-specific challenges, particularly in field roles, remain significant deterrents to women’s participation in front-line agribusiness jobs. Concerns are particularly acute in procurement, logistics, and sales—roles critical to agribusiness operations.

“Companies hesitate to hire women in sales positions as they worry about late hours, remote field visits, and additional safety costs. These structural issues need urgent solutions.”

Suggestions for creating safer and more inclusive workplaces for women included:

- Providing transportation, safe accommodations, and hygiene facilities for women working in agribusiness roles
- Gender-sensitivity training for both male and female employees, especially at the managerial level
- Developing local talent to allow women to work in familiar areas, reducing mobility risks

Additionally, POSH (Prevention of Sexual Harassment) policies and their awareness were flagged as vital mechanisms for creating safer corporate environments in agribusiness firms.

5. Industry-Academia Partnerships to Bridge Skill Gaps: One of the most frequently discussed solutions was the need for partnerships between agribusiness corporations and academic institutions to better prepare women for industry demands. Outdated curricula, lack

of field exposure, and unclear career pathways were identified as bottlenecks in academic programs.

“We need corporate players to collaborate with colleges on bridge programs—similar to industrial training in engineering and medicine—so students receive practical knowledge along with their degrees.”

Stakeholders proposed:

- Bridge programs where students spend their final year working in agribusiness firms
- Dual mentorship programs to support women through both technical training and life transitions, such as maternity or career breaks
- Tailored retention programs for women who leave jobs early due to family responsibilities

Such collaborations could help women navigate early-stage career barriers while also addressing the industry’s acute talent shortage in mid-level and leadership roles.

6. Media and Advocacy: Reframing Agriculture and Agribusiness Narratives: Participants stressed the role of media and advocacy in making agribusiness more attractive to women. Current narratives around agriculture often focus on negative issues, such as poverty or suicides, while failing to highlight the innovations and global opportunities the sector offers.

“Most media coverage on agriculture brands it as a punishment, not a career. There’s an urgent need to amplify women’s success stories in agribusiness, both to educate the public and inspire young talent.”

Stakeholders suggested incorporating agribusiness success stories into school curriculums and strengthening communication campaigns to emphasize agribusiness as a field of innovation and impact.

7. Retention Strategies for Women in Agribusiness: Retention challenges, particularly for women, were a recurring theme in the dialogue. Many women leave agribusiness roles within their first two years due to family responsibilities, societal biases, and disconnects between job expectations and realities. Limited career pathways beyond R&D or desk roles further restrict growth opportunities.

“As employers, we fear that women might leave after marriage or childbirth. This puts us in a dilemma when hiring, especially for high-cost training programs.”

Proposed retention strategies included:

- Advancing Women in Leadership: Structured re-entry programs for women returning from career breaks, employer-led mentorship initiatives, and quotas in leadership pipelines were suggested to ensure

equitable advancement. Women leaders emphasized the importance of fostering male allies to support diversity goals.

- Flexible work arrangements, localized recruitment, maternity support, and provision of safe transport were identified as critical enablers for retaining women employees.
- Structured re-entry programs targeting mid-career women returning from maternity or childcare breaks
- Mentorship and leadership development focused on creating long-term career paths for women in agribusiness
- Tailored retention programs for women who leave jobs early due to family responsibilities

8. Practical Implementation: Recruitment and Mentorship

- Inclusive Recruitment: Gender-blind resumes and targeted hiring campaigns focusing on women were proposed to remove biases and increase representation in technical and managerial roles. Businesses can harness women's expertise better with tailored recruitment strategies.
- Mentorship Programs: Senior female leaders stressed the transformative impact of mentorship programs in helping women navigate sector-specific challenges, such as rural outreach or negotiating fieldwork. Mentors can also bridge cultural gaps by engaging families of women employees to dispel societal biases.
- Transitioning to Leadership: Dual mentorship and leadership development programs designed for technical professionals can help women transition to decision-making roles. Access to peer networks and sponsoring women for professional courses like MBAs can strengthen advancement pathways.

9. Actionable Strategies and emerging opportunities

- Women-Led Initiatives: Examples such as Jeevika and women-led Farmer Producer Organizations (FPOs) in Bihar demonstrate the business value of women's leadership in rural community mobilization and efficient resource management.
- Emerging Technologies: Opportunities in hydroponics, solar dehydration, and digitized supply chains were discussed as areas offering scalable entrepreneurial potential. These innovations reduce physical challenges and enable better market access for women.
- Policy Support: Government subsidies targeting women entrepreneurs and gender-incentivized finance schemes emerged as critical tools. Public-private partnerships can also play a significant role in upskilling women through community-driven agritech initiatives.
- Agri-Tech Integration: Digitization in agriculture provides new opportunities, particularly in fields such as data management, e-commerce platforms, and robotics, where women could lead innovation and operations.

- Sustainability and ESG Integration: Sustainability projects, like organic farming or climate-resilient farming, align with global ESG goals and offer lucrative career opportunities for women entrepreneurs in the agribusiness sector.
- Role Models: Showcasing women leaders and entrepreneurs in agribusiness through platforms such as educational case studies can inspire younger women to consider agribusiness careers.

Key Recommendations from Stakeholder Dialogues

- Implement structured protocols in meetings to ensure women's contributions are acknowledged and valued equally to counter hidden gender bias in leadership interactions.
- Provide specialized leadership training for women in male-dominated sectors to help navigate perception challenges without compromising authority or effectiveness.
- Design family-inclusive employment models in rural workforce initiatives to gain family support and reduce resistance to women's professional participation.
- Establish targeted mentorship programs that focus specifically on building self-efficacy and confidence alongside technical skills for women professionals.
- Develop culturally-sensitive, localized training programs that address specific community needs rather than implementing generic skill development initiatives.
- Create accessible platforms for market intelligence and analysis specifically targeting women entrepreneurs to improve their competitive positioning.
- Invest in digital infrastructure and remote working models to help women entrepreneurs overcome mobility constraints that limit business expansion.
- Redesign professional development programs to balance technical training with soft skills development, focusing on negotiation, presentation, and communication abilities.

Conclusion: A Transformative Path for Women in Agribusiness

From building stronger education-to-employment pipelines to addressing organizational safety issues, stakeholders agreed on the need for systemic reforms to better align women's contributions with the demands of agribusiness. The stakeholder dialogue revealed that transforming women's participation in agribusiness requires coordinated interventions across multiple systems—educational institutions, corporate practices, and policy frameworks—rather than isolated initiatives. Stakeholders emphasized that enhancing women's leadership in agricultural value chains would generate multidimensional returns through strengthened operational performance, increased family economic resilience, and sustainable rural development. This approach recognizes gender inclusion not merely as a social imperative but as a strategic economic lever for addressing increasingly complex agricultural challenges in resource-constrained environments.

INDUSTRY LEADER PERSPECTIVES

To supplement the panel discussion and stakeholder dialogues, we also conducted interviews with senior executives from leading agribusiness companies to understand institutional perspectives on women's participation in the agribusiness sector.

Hiring practices and challenges

- Field-based roles constitute 60-70% of agribusiness jobs, but safety concerns and poor infrastructure create substantial barriers for women's participation and integration.
- Job postings may appear gender-neutral, but internal referrals often favor male candidates, particularly for field positions, reflecting unconscious bias in recruitment channels.
- Geographic and cultural considerations heavily influence hiring decisions, with companies preferring local recruits for language abilities and cultural fit, disadvantaging women in conservative regions.
- Educational institutions often fail to provide practical exposure to commercial aspects of agribusiness like sales and procurement, limiting women graduates' employability in these crucial operational roles.

Retention strategies

- Safety infrastructure remains inadequate across rural locations, with larger companies implementing solutions like travel companions and mobile safety apps that smaller firms cannot afford.
- Male-dominated workplace cultures create complex dynamics ranging from overprotection to exclusion, with women often sidelined from key growth experiences and networking opportunities.
- Marriage and family obligations drive many women to transition from field to desk roles, a pattern companies are addressing through structured mentorship programs and support systems.
- Successful retention strategies include "buddy systems" for field roles, women-specific training initiatives, and phased re-entry programs after maternity leave or career breaks.

Key Findings from Industry Leaders

The conversations reveal several consistent themes:

1. **Field Roles Present the Greatest Challenge:** 60-70% of agribusiness jobs involve field work with extensive travel to rural areas, creating specific barriers for women including safety concerns, lack of sanitation facilities, and social acceptance issues.
2. **Perception and Reality Gaps:** While many assume women aren't interested in field roles, evidence suggests that when provided with proper support systems and infrastructure, women can excel in these positions.

3. **Entry-Level Hiring is Critical:** Companies struggle to build a leadership pipeline when women aren't hired at entry-level positions. The leadership gap is directly connected to the entry gap.
4. **Ecosystem Barriers Are Significant:** Infrastructure challenges like inadequate sanitation facilities and transportation safety create major obstacles that individual companies find difficult to address alone.
5. **Changing Attitudes Among Younger Women:** Recent female graduates are increasingly interested in field roles, suggesting a positive shift in mindset that companies can leverage.
6. **Internal Biases Persist:** Male managers and colleagues often exhibit unconscious biases that impact women's experiences, either through exclusion or overprotection, creating barriers to equal participation.
7. **Regional and Cultural Variations:** The acceptance of women in professional roles varies significantly by region, requiring localized approaches rather than one-size-fits-all solutions.
8. **Family Support Systems Are Decisive:** Women's career choices are often influenced by family and societal expectations, with many decisions not made independently but through family consultation.
9. **Knowledge Gap Between Education and Industry:** Educational institutions often fail to provide students with clear understanding of agribusiness roles, leading to mismatched expectations and preparation.
10. **Lack of Cross-Industry Collaboration:** Despite similar challenges across companies, there's limited sharing of best practices and coordinated approaches to common infrastructure and support needs.

Addressing women's participation in agribusiness requires a coordinated approach across the entire ecosystem. Industry experiences demonstrate that while significant barriers exist, targeted interventions can create meaningful progress. These five strategic priorities provide a framework for creating sustainable change and building a more inclusive agribusiness sector that leverages the full talent pool available.

The economic case is clear: as agriculture faces unprecedented challenges from climate change, resource constraints, and feeding a growing global population, the sector cannot afford to exclude half of the potential workforce and leadership talent. Forward-thinking companies that address these challenges systematically will gain competitive advantages in innovation, talent attraction, and market understanding.

Check the case of Finlay on page 70 (Case name: Structured Networking as a Strategy for Women's Leadership in Agribusiness) for a detailed example of this issue.

PRIMARY ANALYSIS- SURVEY FINDINGS

Among the survey respondents, we received responses from 93 female agribusiness professionals capturing workplace experiences and career transitions across the sector. The respondent demographic—featuring 90% with advanced degrees—documents concentration in research and technical support functions rather than operational roles. By comparing current practitioners with professionals who left the sector, we identify retention factors and departure drivers, creating a framework for organizational in

Findings: Working Professionals in Agribusiness

1. Female Professionals' Engagement in the Agribusiness Sector

Table 14: Female Respondents Participation in the Agribusiness Sector (Working Professionals)

Female Respondents Participation in the Agribusiness Sector (Working Professionals)		
Current Employment Status	Number of Respondents	% of Respondents
I am currently working in the agribusiness sector	73	78.49%
I previously worked in the agribusiness sector but have transitioned to a different sector	20	21.51%
Grand Total	93	100.00%

2. Educational Qualifications of Female Professionals in the Agribusiness Sector

Table 15: Educational Qualifications of Female Professionals in the Agribusiness Sector (Currently Working in the Agribusiness Sector)

Educational Qualifications of Female Professionals in the Agribusiness Sector (Currently Working in the Agribusiness Sector)		
Highest Educational Qualification	Number of Respondents	% of Respondents
Bachelor's degree	4	5.48%
Master's degree	45	61.64%
Ph.D.	22	30.14%
Diploma	2	2.74%
Grand Total	73	100.00%



Stakeholder Dialogue on Women in Agribusiness, 22 December 2024, IIMA

Table 16: Educational Qualifications of Female Professionals (Professionals Who Transitioned from Agribusiness Sector)

Educational Qualifications of Female Professionals (Professionals Who Transitioned from Agribusiness Sector)		
Highest Educational Qualification	Number of Respondents	% of Respondents
Bachelor's degree	1	5.00%
Master's degree	12	60.00%
PhD	6	30.00%
Diploma	1	5.00%
Grand Total	20	100.00%

Our survey captured responses from 93 female professionals with experience in the agribusiness sector, providing a robust sample for analysis. Among these, 78.49% were currently working in agribusiness, while 21.51% had transitioned to other sectors, allowing for comparative analysis of retention factors and career trajectories.

The educational qualifications of respondents reveal a highly educated talent pool, with 91.78% of current female agribusiness professionals holding postgraduate or doctoral degrees. This high level of educational attainment, particularly the significant proportion of doctoral qualifications (30.14%), suggests that women who succeed in establishing agribusiness careers typically possess advanced credentials—potentially indicating higher qualification thresholds for women compared to men in the sector. Notably, the educational distribution remains consistent among women who have

transitioned away from agribusiness, with 90% holding postgraduate or doctoral qualifications. This similarity suggests that education level alone does not appear to be a determining factor in retention, pointing instead to workplace conditions and career pathway challenges as more significant influences on women's decisions to remain in or leave the sector.

3. Sectoral Distribution and Role Analysis

Female professionals in our sample were distributed across various agribusiness subsectors, with notable concentrations in Crop Protection & Inputs (28.77%) and Research & Development (26.03%). This distribution aligns with patterns identified in the BRSR analysis, showing higher female representation in research-oriented and technical support functions compared to core operational roles.

Educational Qualification Distribution Among Female Professionals

Currently Working in the Agribusiness Sector

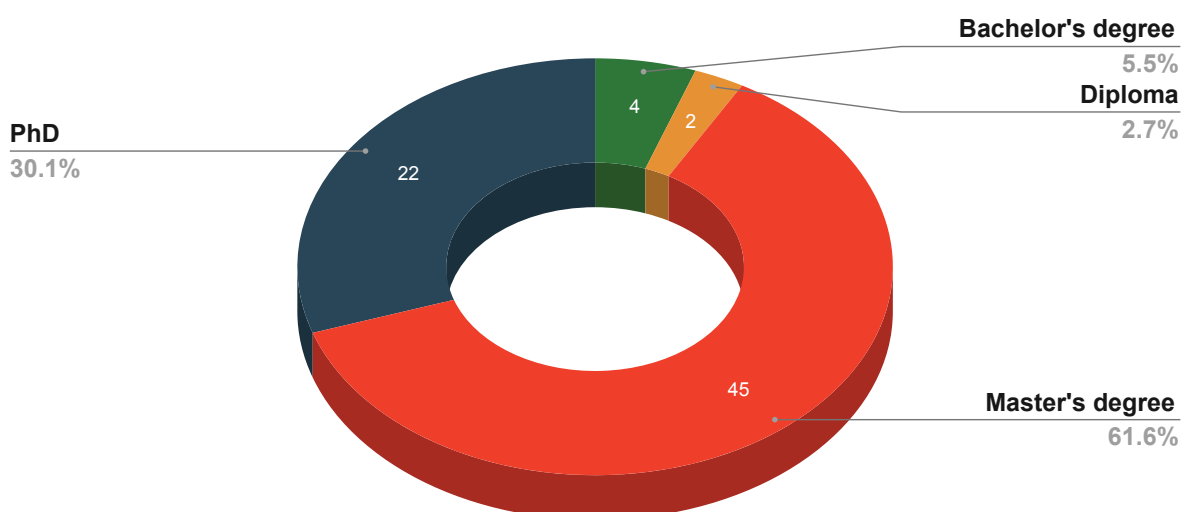


Chart 40: Educational Qualification Distribution Among Female Professionals (Currently Working in the Agribusiness Sector)

Educational Qualification Distribution Among Female Professionals Transitioned from Agribusiness Sector

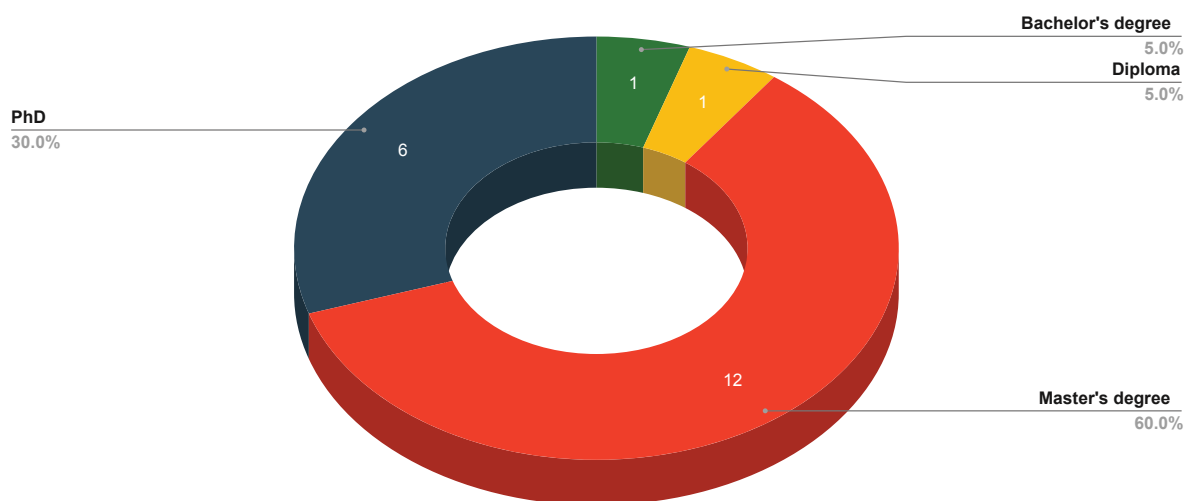


Chart 41: Educational Qualification Distribution Among Female Professionals (Transitioned from the Agribusiness Sector)

Table 17: Female professionals' sector wise distribution

Agribusiness Sector	Number of Respondents	% of Respondents
Agri-Tech Services	6	8.22%
Animal Feed & Nutrition	1	1.37%
Crop Protection & Inputs	21	28.77%
Food Processing	3	4.11%
Others, please specify	21	28.77%
Research & Development	19	26.03%
Trading & Distribution	2	2.74%
Grand Total	73	100.00%

Female professionals in our sample were distributed across various agribusiness subsectors, with notable concentrations in Crop Protection & Inputs (28.77%) and Research & Development (26.03%). This distribution aligns with patterns identified in the BRSR analysis, showing higher female representation in research-oriented and technical support functions compared to core operational roles.

Those who selected “Others” primarily mentioned roles in consulting, public sector management, agricultural advisory, FPO management, agricultural economics, and agricultural education – areas often characterized by more predictable working hours and limited field travel

requirements compared to core operational functions.

The position-level distribution reveals that 35.62% of female respondents occupied mid-level positions, followed by manager/supervisor roles (20.55%), with equal proportions (12.33% each) in entry-level positions, senior leadership roles, and entrepreneurial positions as owners/founders. This distribution suggests reasonable advancement opportunities for women who remain in the sector, though the relatively small proportion in senior leadership aligns with the leadership pipeline challenges identified in the BRSR analysis.

Role and Sector Distribution of Female Professionals in Agribusiness

Table 18: Role and Sector Distribution of Female Professionals in Agribusiness

Current Position Level	Agribusiness Sector	Number of Respondents	% of Respondents
I am an Owner/Founder	Agri-Tech Services	2	2.74%
	Crop Protection & Inputs	2	2.74%
	Others, please specify	4	5.48%
	Research & Development	1	1.37%
I am an Owner/Founder Total		9	12.33%
I am at a Director/Executive Position	Others, please specify	1	1.37%
I am at Director/Executive Position Total		1	1.37%
I am at an Entry-level/Junior Position	Animal Feed & Nutrition	1	1.37%
	Crop Protection & Inputs	2	2.74%
	Others, please specify	2	2.74%
	Research & Development	4	5.48%
I am at Entry-level/Junior Position Total		9	12.33%
I am at a Manager/Supervisor Position	Agri-Tech Services	1	1.37%
	Crop Protection & Inputs	5	6.85%
	Food Processing	1	1.37%
	Others, please specify	4	5.48%
	Research & Development	2	2.74%
	Trading & Distribution	2	2.74%
I am at a Manager/Supervisor Position Total		15	20.55%
I am at a Mid-Level Position	Agri-Tech Services	2	2.74%
	Crop Protection & Inputs	7	9.59%
	Food Processing	2	2.74%
	Others, please specify	7	9.59%
	Research & Development	8	10.96%
I am at a Mid-Level Position Total		26	35.62%
I am at a Senior/Leadership Position	Crop Protection & Inputs	4	5.48%
	Others, please specify	2	2.74%
	Research & Development	3	4.11%
I am at Senior/Leadership Position Total		9	12.33%
Other (please specify) Total		4	5.48%
Grand Total		73	100.00%

The relatively high proportion of women in ownership/founder positions (12.33%) presents an interesting counterpoint to the overall representation challenges. This suggests that entrepreneurship may represent an alternative pathway for women facing barriers in traditional corporate structures, allowing them to create more accommodating work environments aligned with their needs and values.

4. Motivational Factors Driving Women's Participation in Agribusiness

Table 19: Motivational Factor for Female Professionals in Agribusiness

Motivational Factor	Number of Respondents	% of Respondents
Education in agriculture/related field	41	56.16%
Family agricultural background/business	2	2.74%
Inspired by mentors/role models	3	4.11%
Market opportunities and growth potential	4	5.48%
Others (please specify)	4	5.48%
Personal interest in agri-innovation	16	21.92%
Suggested by friends or relatives	3	4.11%
Grand Total	73	100.00%

Education in agriculture-related fields represents the dominant pathway, accounting for 56.16% of respondents. This suggests formal educational channels serve as the primary entry point for women entering agribusiness careers. Personal interest in agri-innovation emerges as the second most significant driver (21.92%), indicating that intrinsic motivation and entrepreneurial mindset play substantial roles in attracting female talent to the sector.

5. Female Professionals' Perspectives on Gender Suitability in Agribusiness Field Roles

Table 20: Female Professionals' Perspectives on Fields roles

Do you think field roles in agribusiness (e.g., farm operations, field sales) are more suited for men than women?	Number of Respondents	% of Respondents
Yes	36	49.32%
No, can you explain why	37	50.68%
Grand Total	73	100.00%

The survey data reveals a nearly even division in perspectives, with 50.70% of female agribusiness professionals challenging traditional gender role assignments and 49.30% affirming them.

Qualitative responses illuminate this division through direct experiences:

"The field ecosystem has become supportive of women. Government officials, distributors now openly discuss business with female leaders," noted one respondent, highlighting evolving stakeholder acceptance. Performance excellence is evidenced through concrete metrics: *"During my initial three years in field sales, I grew the market by 110%. My female colleague expanded her territory by 150%."* Regional constraints persist despite these gains: *"In my area, due to cultural backgrounds, women are often not allowed to work after evening."* However, respondents emphasized that with appropriate organizational support, these barriers are surmountable: *"With proper resources, women can travel in rural areas and take up field roles successfully."* Many advocated for competency-focused evaluation: *"It all depends on what you want to achieve. Willingness to work matters more than gender,"* while others directly challenged stereotypes: *"This is a myth—women need to break the bias and step into fieldwork."*

6. Organizational Safety and Dignity: Perceptions and Realities

Table 21: Female Professionals' Perspectives on Safety and Dignity Policies

Do you think workplace safety and dignity policies are effectively implemented in your organization?	Number of Respondents	% of Respondents
Yes	47	64.38%
Maybe	14	19.18%
No	12	16.44%
Grand Total	73	100.00%

A predominantly positive assessment among female agribusiness professionals, with 64.38% of respondents affirming effective implementation. However, a combined 35.62% express uncertainty (19.18%) or negative assessment (16.44%), indicating meaningful variation in organizational performance on this critical dimension. When contextualizing these findings within previously analyzed data on gender perspectives in field roles, important correlations emerge. Organizations with effective safety and dignity policies likely facilitate greater female participation in field operations, as evidenced by respondent statements such as: *"With proper resources, women can travel in rural areas and take up field roles successfully."* Conversely, the 16.44% reporting ineffective policy implementation may represent environments where, as one respondent noted, *"In my area, due to cultural backgrounds, women are often not allowed to work after evening."*

7. Structural Inequities In Agribusiness Support Systems: Satisfaction Assessment And Implementation Gaps

Female Agribusiness Professionals: Satisfaction with Workplace Support Systems

Evaluation of Support Systems

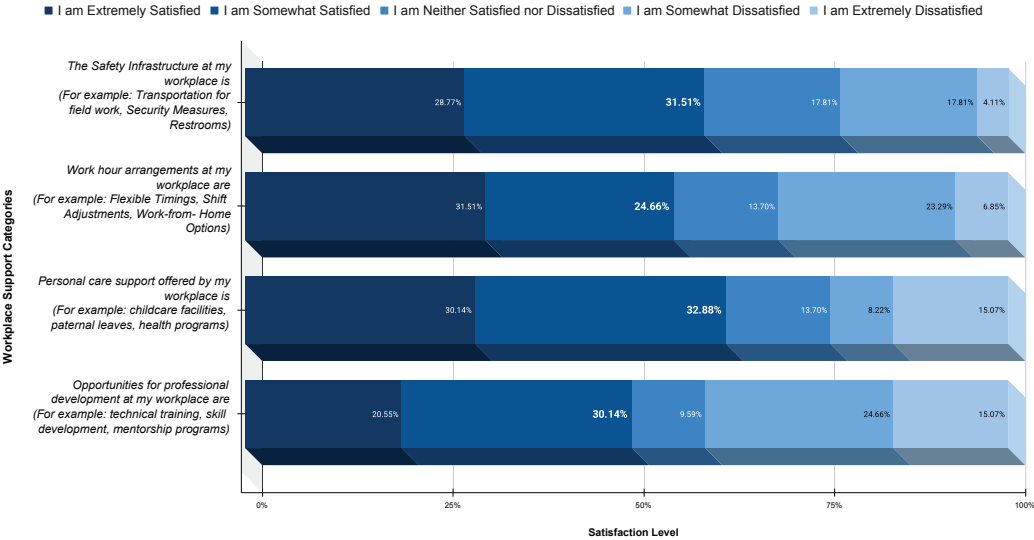


Chart 42: Female Agribusiness Professionals: Satisfaction with Workplace Support Systems

The satisfaction data reveals significant implementation disparities across support categories for female agribusiness professionals. While safety infrastructure demonstrates modest adequacy (60.28% satisfied), profound deficiencies emerge in professional development systems (39.73% dissatisfied) and personal care support (15.07% extremely dissatisfied). This pattern indicates organizational underinvestment in domains most critical to women’s career sustainability. Work hour flexibility shows pronounced polarization (56.17% satisfied vs. 30.14% dissatisfied), suggesting inconsistent implementation between headquarters and field environments. These findings align with

previous gender equality policy assessments where 65.76% questioned policy effectiveness, confirming a fundamental disconnect between formal frameworks and operational realities that creates structural barriers to gender equality within the sector. The data reveals a pattern of “policy performativity” where organizations establish compliance-oriented frameworks without corresponding operational mechanisms. As one respondent noted regarding field operations: “This is a myth—women need to break the bias and step into fieldwork,” indicating policies have not addressed structural barriers in field contexts where “cultural backgrounds” continue to restrict professional opportunities.

8. Assessment Of Challenges Faced By Women In The Sector

Challenges Faced by Female Professionals in the Agribusiness Sector

Assessment of Professional, Social, and Operational Barriers

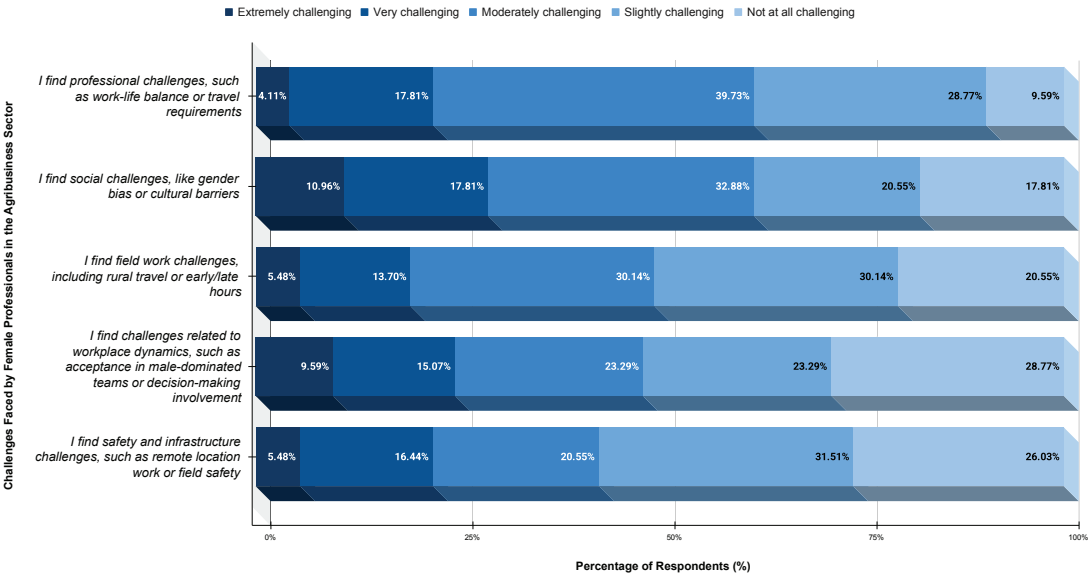


Chart 43: Challenges faced by Female Professionals in Agribusiness Sector

The survey data reveals a multifaceted barrier landscape impeding women’s full participation in the agribusiness sector. Gender bias and cultural constraints emerge as the most significant challenge (28.77% rating these as “extremely” or “very” challenging), aligning with industry leader insights that 60-70% of agribusiness roles involve field work where women face substantial infrastructure and safety barriers. This implementation gap between formal safety policies and operational realities creates systematic exclusion patterns, particularly in field contexts where cultural norms often restrict women’s professional mobility.

Field work challenges present acute barriers (19.18% finding these extremely or very challenging), with industry leaders confirming that despite gender-neutral job postings, internal referral systems favor male candidates for field positions. This perpetuates gender segregation despite evidence that when provided appropriate support systems, women demonstrate exceptional performance—as one respondent noted, “I grew the market by 110%.” The economic implications are significant: as agriculture confronts unprecedented climate change and resource challenges, the sector cannot afford to exclude half its potential talent pool, particularly when educational institutions serve as the primary pipeline for female talent (56.16%) rather than traditional industry advancement pathways.

9. Priority Support Systems For Female Agribusiness Professionals

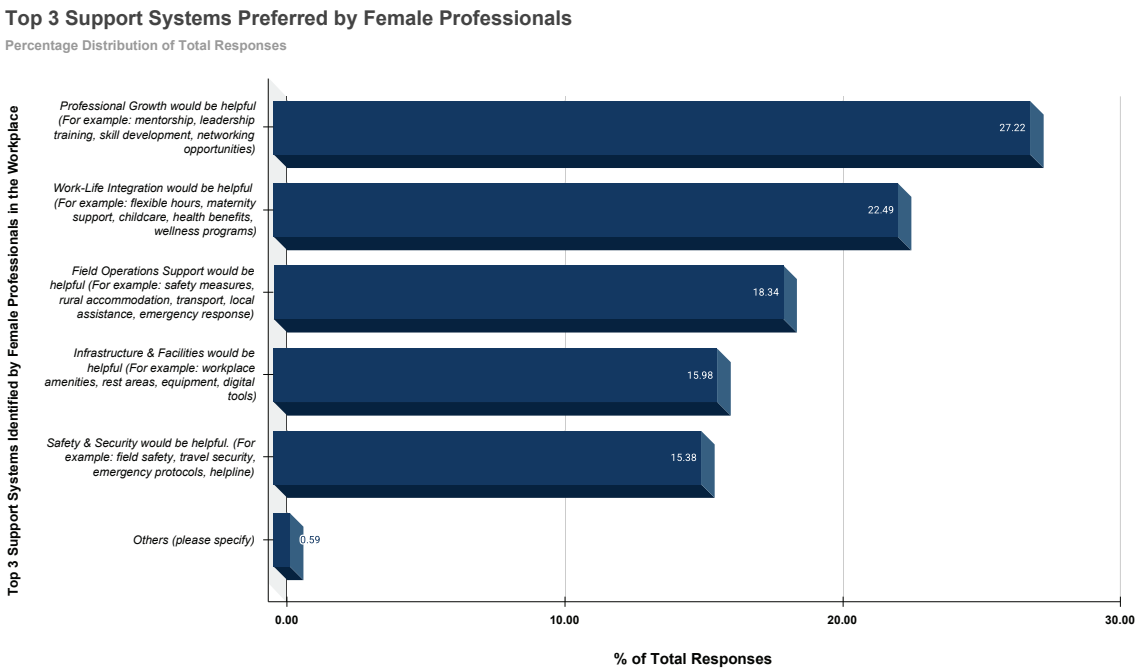


Chart 44: Top 3 Support Systems for Female Agribusiness Professionals

The data reveals a clear hierarchy of support system preferences among female agribusiness professionals, with professional growth opportunities emerging as the dominant priority (63.89% of respondents), followed by work-life integration mechanisms (52.78%) and field operations support (43.06%). This prioritization directly addresses previously identified deficiencies in organizational support frameworks, where 39.73% expressed dissatisfaction with professional development systems and 28.77% identified gender bias and cultural constraints as significant barriers. Industry evidence confirms that when provided appropriate support systems in field operations—where 60-70% of agribusiness roles are concentrated—women demonstrate exceptional performance outcomes. As industry leaders acknowledge, “the economic case is clear: facing unprecedented climate and resource challenges, the sector cannot afford to exclude half its potential talent pool,” making these strategic investments essential business imperatives rather than mere compliance objectives.

10. Parental leave policies at the Organization

Table 22: Parental Leave Policies

Which of the following parental leave policies does your organization offer?	Number of Respondents	% of Respondents
Both maternity and paternity leave	52	73.24%
Maternity leave only	14	19.72%
Neither maternity nor paternity leave	4	5.63%
Paternity leave only	1	1.41%
Grand Total	71	100.00%

Table 23: Parental Leave Benefits

Does your organization offer parental leave benefits that go beyond the legal requirements?	Number of Respondents	% of Respondents
I'm not sure	31	43.06%
No, only the minimum legal requirements	22	30.56%
Yes, significantly more than required	6	8.33%
Yes, slightly more than required	13	18.06%
Grand Total	72	100.00%

The data reveals a predominantly compliance-oriented approach to parental leave in agribusiness organizations, with 73.24% offering both maternity and paternity leave, yet only 26.39% exceeding minimum legal requirements. This limited progressive adaptation beyond statutory standards aligns with substantial information asymmetry—43.06% of respondents cannot identify whether their organization exceeds requirements—suggesting inadequate prioritization of family support as a strategic talent management tool. The exclusively maternity-focused approach in 19.72% of organizations

reinforces traditional gender roles and likely contributes to field position attrition rates among female professionals, where industry leaders confirm “marriage and family obligations drive many women to transition from field to desk roles.” This implementation gap represents a critical missed opportunity for addressing persistent gender disparities, particularly as comprehensive family support directly enhances female talent retention in field-intensive operational environments where women remain significantly underrepresented despite demonstrated performance excellence.

Findings: Female Professionals Who Transitioned from the Agribusiness sector

Educational Qualification Distribution Among Female Professionals

Transitioned from Agribusiness Sector

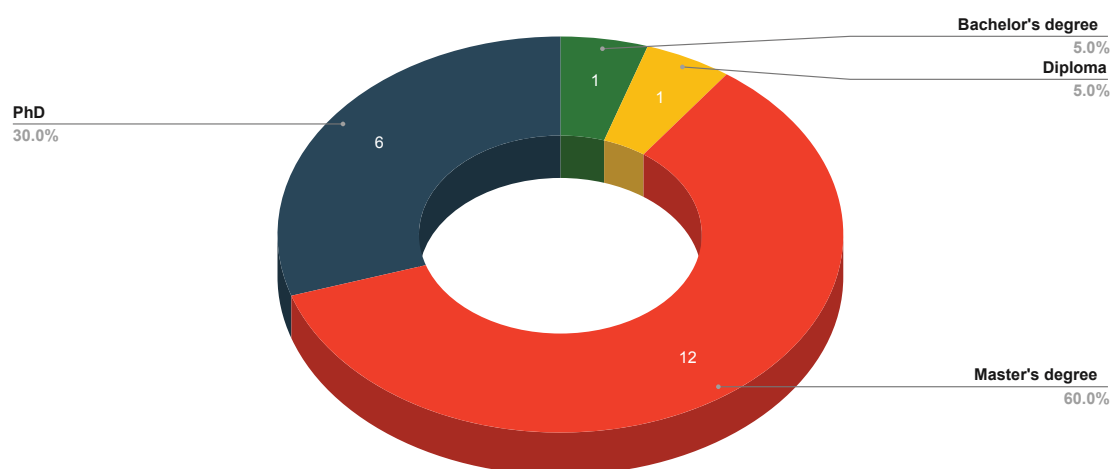


Chart 45: Educational Qualification Distribution Among Female Professionals (Transitioned from Agribusiness Sector)

Analysis of educational qualifications among female professionals who have transitioned out of agribusiness reveals a concerning pattern of sector attrition among highly qualified individuals. Master's degree holders constitute the largest segment of departing professionals (60.0%), followed by PhD holders (30.0%), with Bachelor's degree holders and Diploma qualifications representing 5.0% each.

11. Structural Distribution Analysis: Pattern Recognition in Transitional Demographics

Table 24: Female Professionals' roles previously in the Agribusiness Sector (Transitioned from Agribusiness)

Which division/sector were you working in?	Role	Number of Respondents	% of Respondents
Corporate Functions	Administration Manager	1	5.00%
	Strategy Analyst	1	5.00%
Field Operations	Extension Worker	1	5.00%
	Field Officer	2	10.00%
Others (please specify)	Others (please specify)	3	15.00%
Quality and Food Security	Quality Assurance Manager	1	5.00%
Research & Development	Research Scientist	3	15.00%
Sales & Marketing	Product Manager	1	5.00%
	Sales Manager	2	10.00%
Supply Chain & Operations	Procurement Specialist	1	5.00%
	Supply Chain Manager	1	5.00%
Technical Services	Plant Protection Specialist	1	5.00%
	Others (please specify)	2	10.00%
Grand Total		23	100.00%

Distribution analysis of female professionals leaving agribusiness reveals concentration in Research & Development (15% Research Scientists), Field Operations (15% combined), and specialized technical positions (25% total). This pattern correlates directly with previously identified departure factors including inadequate professional development (50%), infrastructure deficiencies (60%), and work flexibility constraints (45%). The concentration of attrition among highly qualified technical specialists and field roles represents significant lost opportunity costs.

Reason for leaving the sector

Percentage of Total Responses

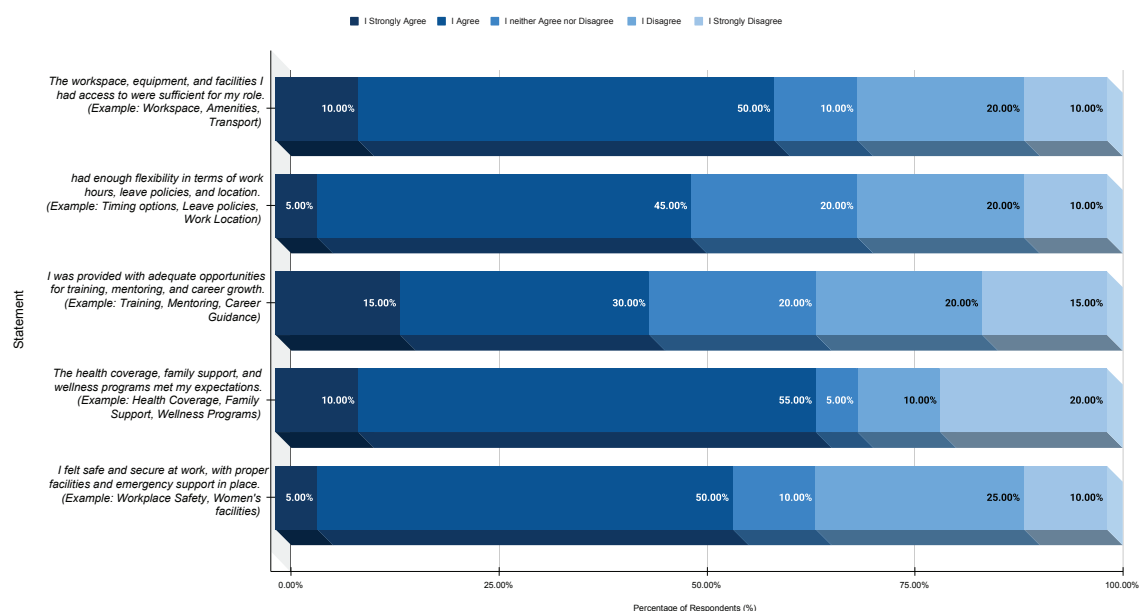


Chart 46: Reason for Leaving the Sector

Analysis of departure factors among female professionals transitioning from agribusiness reveals substantial organizational deficiencies driving talent attrition. Infrastructure inadequacies emerge as the predominant push factor, with 60.0% of respondents indicating workspace, equipment, and facilities were insufficient for their roles—a finding particularly pronounced among field operations professionals. Professional development deficiencies represent another critical driver, with 50.0% citing inadequate training, mentoring, and career advancement opportunities, directly correlating with the disproportionate attrition of highly educated talent (90.0% holding postgraduate qualifications). Work flexibility constraints (45.0% strongly agreeing), health/wellness support inadequacies (55.0%), and workplace safety concerns (50.0%) create a multidimensional barrier ecosystem that systematically undermines female talent retention, representing significant lost performance potential for a sector where evidence demonstrates exceptional results when women receive appropriate organizational support.

12. Transition analysis

Table 25: Female Professionals' role transitions from Agribusiness to Current Industry (Transitioned from Agribusiness)

Original Division in Agribusiness	Previous Position Held	Current Industry of Employment	Number of Respondents
Corporate Functions	Administration Manager	Education/Training	1
	Strategy Analyst	Banking/Financial Services	1
Field Operations	Extension Worker	Other (please specify)	1
	Field Officer	Other Services	1
		Other Services,Other (please specify)	1
Others (please specify)	Others (please specify)	Education/Training	2
		Other Services	1
Quality and Food Security	Quality Assurance Manager	IT/Technology,Consulting	1
Research & Development	Research Scientist	Education/Training	1
		IT/Technology	1
		Other (please specify)	1
Sales & Marketing	Product Manager	Education/Training	1
	Sales Manager	Other (please specify)	1
		Other Services,Other (please specify)	1
Supply Chain & Operations	Procurement Specialist	Education/Training	1
	Supply Chain Manager	Consulting	1
Technical Services	Plant Protection Specialist	IT/Technology	1
	Others (please specify)	Other Services	1
		Other Services,Other (please specify)	1
Grand Total			20

Education/Training emerges as the predominant destination sector, attracting 30% of transitioning professionals across multiple original divisions including Research & Development, Corporate Functions, and Sales & Marketing.

13. Quality differentials in post-agribusiness employment

Table 26: Comparison of Current and Previous roles (Transitioned from Agribusiness)

How does your current role compare to your previous role in terms of:	Professional Aspects (Example: Growth, Compensation, Skill Development)	Work Environment (Example: Infrastructure, Support, Work-Life Balance)
About the same as the previous role	5	3
Much better than previous role	6	7
Somewhat better than previous role	5	1
Somewhat worse than previous role	1	5
Grand Total	17	1

Comparative analysis of post-transition employment quality reveals significant enhancement patterns, with 64.1% of respondents reporting improved professional circumstances after leaving agribusiness (39.2% “much better” and 24.9% “somewhat better”). This pronounced improvement directly correlates with previously identified departure factors—professional development deficiencies (50.0%), infrastructure inadequacies (60.0%), and flexibility constraints (45.0%)—and aligns precisely with stated retention enabler priorities where respondents indicated professional growth opportunities (37.93%), work-life integration (24.14%), and field

operations support (20.69%) would have preserved their agribusiness employment. The minimal deterioration rate (8.8%) confirms systematic access to these priority support mechanisms in post-transition environments, particularly educational institutions (30% destination) and service sectors (30% destination), reinforcing the strategic imperative for agribusiness organizations to implement comprehensive retention frameworks addressing these specific dimensions to counteract continued expertise outflow essential for agricultural innovation and productivity.

14. Retention Analysis

Table 27: Support systems to encourage employees to continue in Agribusiness (Transitioned from Agribusiness)

What support/changes could have encouraged you to continue in your previous agribusiness role? (Select any 2)	Number of Respondents	% of Respondents
Better support for fieldwork (better travel arrangements, rural accommodation, local assistance)	6	20.69
More balance between work and life (flexible hours, location options, family-friendly policies)	7	24.14
Opportunities to grow professionally (clear career path, promotions, leadership roles)	11	37.93
Fairer compensation packages (better salary, field allowances, benefits package)	5	17.24
Grand Total	29	100.00

Analysis of retention enablers directly corresponds with previously identified departure factors, revealing a clear strategic roadmap for female talent retention. Professional development emerges as the predominant retention priority (37.93%), directly addressing the 50.0% who cited inadequate advancement opportunities as a departure driver and explaining the significant migration toward educational institutions (30% of transitions). Work-life integration (24.14%) and field operations support (20.69%) represent the second and third highest priorities, correlating with the 45.0% citing flexibility constraints and 60.0% identifying infrastructure deficiencies as departure factors. This evidence-based retention framework addresses the systematic expertise transfer from agribusiness to educational and service sectors by aligning organizational structures with the specific support requirements of female professionals across technical specializations and operational domains.

Navigating Barriers and Enablers for Women in Agribusiness: A Career Lifecycle Perspective

Building on our comprehensive analysis of the corporate landscape and educational ecosystem, we now examine the multidimensional barriers and enablers that shape women’s participation across the agribusiness sector. This analysis adopts a lifecycle approach—from educational foundations through career stages to leadership positions—to identify strategic intervention points for enhancing gender diversity. Our synthesis draws on extensive secondary research from international organizations (IFC, World Bank, FAO), insights from stakeholder dialogues, and the robust primary data presented in earlier sections. This holistic perspective reveals how barriers cascade and compound across career stages, requiring coordinated interventions rather than isolated initiatives.

Women’s professional journeys in agribusiness encounter interconnected barriers that operate as a self-reinforcing system across career stages, beginning with educational challenges where entrenched gender stereotypes, inadequate institutional support, and limited practical field exposure systematically channel women away from core agricultural pathways despite their significant global farming contributions.

FOR EACH LIFECYCLE NODE OF WOMEN'S PARTICIPATION IN THE AGRIBUSINESS

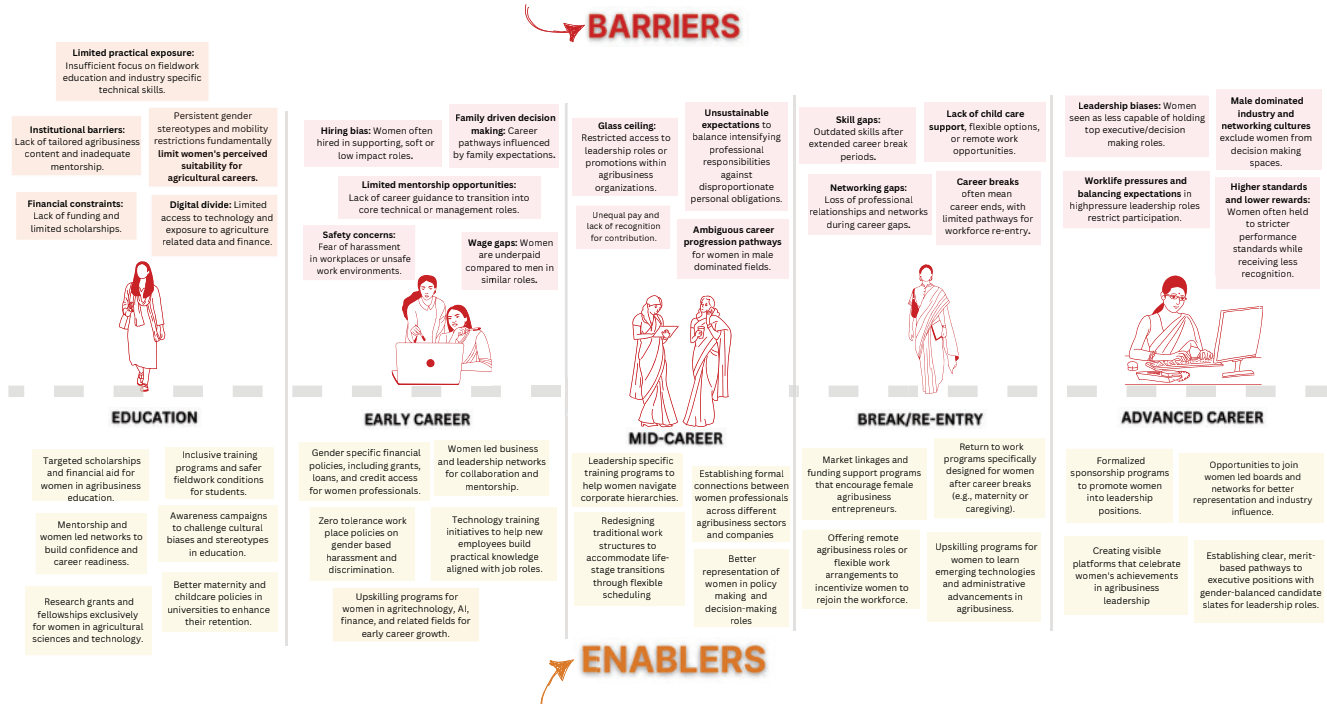


Figure 6: Barriers and Enablers for Women's Advancement in Agribusiness

Early career transitions magnify these disparities through recruitment practices that encode masculine traits as essential qualifications for field positions, workplace infrastructure deficits that disproportionately impact women's safety and mobility, and organizational cultures that channel women toward supporting functions rather than operational roles with advancement potential.

Mid-career progression becomes increasingly constrained through the compounding effects of informal exclusion from decision-making networks, disproportionate scrutiny of women's performance, insufficient access to strategic development opportunities, and work structures incompatible with caregiving responsibilities that predominantly fall to women across global agricultural contexts. Career interruptions – whether for childbearing, family care, or relocation – impose severe and lasting penalties through skill perception gaps, network disruption, and institutional biases against non-linear career trajectories, while executive advancement faces final barriers through heightened performance standards, isolation in leadership contexts, and persistent stereotypes questioning women's capability to manage core agricultural operations.

Progressive organizations counteract these systemic barriers through comprehensive interventions including gender-responsive education-to-employment pathways, infrastructure investments addressing women's safety and mobility needs, formal sponsorship programs ensuring equitable advancement opportunities, flexible work structures accommodating life-stage transitions, structured reintegration programs recognizing non-linear career values, and leadership cultivation

strategies that transform agricultural governance through meaningful diversity. These enabling structures address root causes rather than symptoms by fundamentally reconceptualizing agricultural work, leadership, and performance evaluation through gender-inclusive frameworks that simultaneously enhance organizational effectiveness while creating sustainable pathways for women's full participation throughout agribusiness value chains.

Beyond mere numbers, transforming agribusiness demands a complete workplace redesign—one where women's contributions aren't just a diversity checkbox but a competitive edge. This shift helps companies tackle innovation, climate challenges, and food security with greater effectiveness in our changing world. What happens when we remove the barriers and let all talent flourish?

SECTION 3:

BEST PRACTICES, RECOMMENDATIONS AND WAY FORWARD

6 BEST PRACTICES AND SUCCESS STORIES

In this chapter we take a look at innovative organizational initiatives that are reshaping women's participation across the agribusiness value chain, in some cases also drawing relevant insights from adjacent industries. Moving beyond theoretical frameworks, these case studies showcase how intentional design, comprehensive support systems, and authentic leadership commitment translate into measurable outcomes. The examples highlight a fundamental shift in perspective—from viewing women's participation as a peripheral concern to positioning female talent as central to competitive advantage and market relevance in agricultural enterprises.

Best Practices and Cases

The theoretical frameworks and structural challenges explored in previous chapters find their most powerful expression in the lived experiences of organizations actively reimagining gender inclusion within agribusiness. In this chapter we focus on how innovative enterprises are transcending traditional approaches to create sustainable pathways for women's meaningful participation across the agribusiness value chain. When we started the research for best practices while speaking to leaders and professionals we discovered a landscape fragmented by institutional silos, where organizations were simultaneously searching for solutions while lacking access to each other's innovations—revealing a critical absence of documented best practices that could catalyze collective progress across the agribusiness sector.

The case studies presented here are a few selected interventions that directly address the field operations gap, infrastructure inadequacies, and professional development barriers identified in our earlier research. These organizations have moved beyond viewing women's integration as a peripheral concern to positioning female talent as central to their competitive advantage and market relevance. Their experiences reveal how intentional design, comprehensive support systems, and authentic leadership commitment can transform theoretical possibilities into operational realities for women in agriculture.

Companies can consider adopting and customizing these strategies according to their specific contexts, organizational culture, and regional challenges to accelerate women's meaningful participation in the agricultural sector and harness the untapped potential of female talent that remains sidelined due to systemic barriers.

1. Institutional Champions: Pioneering Organizational Approaches

These cases illustrate how leading organizations have moved beyond surface-level diversity initiatives to create structural frameworks that position female talent as central to competitive advantage and operational effectiveness.

Example 1: Bayer's Samavesh Initiative:

Bayer's Samavesh is designed to address the persistent gender imbalances within India's agricultural sector through a comprehensive, fully sponsored 12-week post-graduate certificate program. The curriculum architecture strategically balances theoretical instruction with practical application through a 5-week academic component covering technical agricultural knowledge and business fundamentals, complemented by 7 weeks of field-based experiential learning that facilitates direct farmer engagement, healthcare professional interaction, and development of market-relevant commercial methodologies. The program operates within Bayer's integrated talent development ecosystem that includes the Leadership Link platform offering women targeted coaching sessions with global leaders on topics particularly relevant to professional advancement, innovative digital learning systems, and structured internal mobility frameworks facilitating cross-functional career progression. The three-month preparatory program combines technical training in crop protection and seed technologies with practical safety modules including self-defense, emergency response, and cultural navigation. This integrated approach directly addresses the safety concerns that have been identified as crucial barriers preventing women from pursuing agricultural field careers.

The program operates within Bayer's broader talent development ecosystem that includes the Leadership Link platform, which offers women targeted coaching sessions with global leaders on topics particularly relevant to professional advancement. This is further enhanced by innovative digital learning systems and structured internal mobility frameworks that facilitate cross-functional career progression, ensuring that participants have clear pathways for long-term professional growth in the agricultural sector. The company has also actively engaged with several agricultural universities to encourage and attract women to unconventional roles in Sales functions, creating a sustainable pipeline of female talent for the agricultural sector.

Sources: Bayer CropScience Limited 66th Annual Report 2023-24, Sarda, P. (2019, August 6). Bayer: Employing a winning habit. Forbes India and Bayer India's 2023 Corporate Profile Documentation.

“The original vision we had was to continue Samavesh and scale it to 1000 women. We envisaged companies in the agri-sector participating to together realise this ambition. Addressing this as an industry cohort would really help attract women to the workplace”

~Priya D'Cruz, HR Cluster Lead, South Asia, Bayer

Example 2: Tata Chemicals

Women's Leadership Development at Tata Chemicals

Tata Chemicals implements multiple initiatives to develop women employees across levels. Their "Breakthrough Series for Women Leaders" provides specialized leadership training for female talent in India entities. The Graduate Engineer Trainees program maintains 50% intake of women engineers, creating a pipeline of technical female talent for operational roles. Women now work across all three shifts at manufacturing sites, breaking traditional barriers in the chemical sector.

Building on these initiatives, Tata Chemicals launched the "Breakthrough Series New Wave for Women at the Shopfloor" program in collaboration with the DEI team of Tata Group and Tata Management Training Centre. This specially-curated initiative for women in manufacturing locations includes two modules: "Swabhav," which focuses on career path development through self-discovery, and "Prabhav," which helps women quantify goals and manage key relationships needed for success. Over 50 women employees have participated in this comprehensive program designed to elevate women in traditionally male-dominated manufacturing roles.

Source: Tata Chemicals. (2023). *Integrated Annual Report 2022-23*. p. 137-138.

Box 5.1: Women's Leadership Development at Tata Chemicals

Tata's Women in Blue: Transforming Automotive Shop Floors

Tata Motors' 'Women in Blue' initiative, launched in 2021 under the Tata Lead gender diversity program, has revolutionized female participation in automotive manufacturing. Starting with just five women on the Pune assembly line, the program has expanded to over 6,500 female shopfloor technicians nationwide, with 3,000 women now fully assembling the flagship Harrier and Safari SUVs. The company's innovative 'Earn and Learn' program, partnered with the Nettur Technical Training Foundation, helps economically disadvantaged women achieve self-reliance through skills development and financial independence. The first cohort of 80 women graduated in February 2023. Additional support systems include the Second Careers, Inspiring Possibilities (SCIP) platform for women returning after career breaks, equal pay policies, childcare assistance, and safe travel arrangements—resulting in attrition rates less than half the industry benchmark.

Sources: Tata Group. (2019). "Women At Work." Retrieved from Tata.com; Tata Group. (2023). "Notes From The Shop Floor." Retrieved from Tata.com; Economic Times. (2024). "Women Floor the Pedal at Auto Factories."

Box 5.2: Women's Leadership Development at Tata Chemicals

2. Corporate Leadership Strategies

The following initiatives demonstrate how companies are establishing comprehensive talent development ecosystems that create pipeline-to-leadership pathways specifically designed to overcome gender-specific barriers in agribusiness.

Example 3: UPL

UPL's Women in Agriculture Initiative

UPL's subsidiary nurture.farm launched the "Women in Agriculture" (WIA) program to create economic opportunities for rural women in farming. The initiative employs women as field partners (Krishi Mitras) who educate farmers about agricultural best practices and the company's services. Since April 2021, the program has recruited over 180 women field partners, comprising 20% of the overall field workforce, with Haryana reaching 99% female representation. Participants receive specialized training in operating farm machinery and work under a performance-based compensation model, with top performers earning up to INR 22,000 monthly. The program has demonstrated positive outcomes beyond employment, enhancing women's financial independence, skills development, and confidence in traditionally male-dominated agricultural settings.

Source: UPL Corporate Website. (2023). *People Development & Human Rights: Diversity & Inclusion*.

Box 6: UPL's Women in Agriculture Initiative

3. Returnship & Reintegration Programs

These innovative approaches directly address mid-career transition challenges, creating structured pathways for women to reenter the workforce after career breaks with their accumulated expertise intact.

Example 4: SOAR by Mahindra Group

The SOAR: Seamless Opportunity for Amazing Returnships program, launched by the Mahindra Group in 2025, is aimed at enabling women professionals to return to the workforce after a career break. Designed for women with at least five years of prior experience and a career gap of six months to three years, the program offers full-time career roles aligned with their pre-break experience. Through induction at the Mahindra Leadership University (MLU), participants engage in networking, upskilling, and mentorship to facilitate a smooth transition.

Each participant is provided a mentor and a "buddy," offering guidance and support for personal and professional reintegration. The program also incorporates flexible work arrangements, such as part-time roles and

job sharing, to help participants balance responsibilities. Continuous feedback sessions and leadership development opportunities ensure participants rebuild their careers while contributing effectively at work.

The program is part of Mahindra's philosophy of "Rise," which focuses on creating inclusive workplaces, fostering innovation, and promoting gender equity by supporting women professionals in mainstream corporate roles.

Mahindra Group. (2025, January 16). Mahindra leads with first-of-its-kind 'Returnship' for women in mainstream roles. Retrieved from <https://www.mahindra.com/news-room/press-release/mahindra-leads-with-first-of-its-kind-returnship-for-women-in-mainstream-roles>

Example 5: Returnship Programs

Returnship Programs: Strategic Framework for Women's Reintegration in Agribusiness

The integration of returnship programs in the agribusiness sector represents a significant opportunity to address gender disparities while accessing valuable talent pools. Based on successful models implemented by leading organizations such as Deloitte, Amazon, and TCS, the following strategic elements should be considered for agribusiness-specific returnship initiatives: (1) formalized 6-12 month reintegration pathways specifically designed for women with agricultural expertise who have taken career breaks; (2) targeted skills recalibration addressing technological advancements in agricultural systems; (3) specialized mentorship networks connecting returnees with senior agricultural professionals; (4) corporate-wide accountability frameworks with measurable objectives for program effectiveness; and (5) cross-sector knowledge transfer leveraging successful returnship models from technology and financial sectors to create flexible work arrangements suitable for seasonal agricultural production environments.

Source: Secondary research compiled from corporate websites of Deloitte (Encore Program), IBM (Tech Re-Entry), Goldman Sachs (Returnship Program), Wipro (Begin Again), Amazon India (Rekindle), SAP India (Career Restart), TCS (Rebegin with #TheBigMove), Infosys (Restart with Infosys), and HCLTech (Returnship Program) (2022-2024).

Box 7: Returnship Programs: Strategic Framework for Women's Reintegration in Agribusiness

Example 6: Finlays

Routes to Grow: Finlays' Approach to Talent Development

Finlays Horticulture Kenya developed "Routes to Grow," a succession planning program that strengthens their talent pipeline at all organizational levels. The initiative encourages internal promotion, resulting in 90% of roles being filled internally. This approach has delivered substantial savings - the internal promotion of 69 women between 2010-2012 saved the company approximately KES 17 million (US\$200,000) in recruitment costs, training expenses, and productivity losses. Senior management notes that investing in human resources is ultimately more cost-effective than the alternatives, particularly in labor-intensive operations where experienced workers can be three times more productive than inexperienced ones.

Source: Finlays Horticulture Kenya case study, IFC report "Investing in Women's Employment," p. 78.

Box 8: Routes to Grow: Finlays' Approach to Talent Development

4. Innovative Talent Acquisition Approaches

These recruitment and development frameworks challenge traditional hiring models by creating gender-responsive talent pipelines that specifically target the persistent representation gaps in field operations and technical roles.

Example 7: WINGS - Transforming Talent Acquisition in Agribusiness

WINGS (Women Inspiring Next-Generation Sales) is a groundbreaking initiative by Godrej that systematically addresses gender diversity in agribusiness sales roles. The program goes beyond traditional recruitment, creating a comprehensive talent development ecosystem across multiple business units including Frozen Food, Animal Feed, Dairy, Oil Palm Plantation, and Crop Protection businesses. By touring 20+ campuses and implementing a rigorous selection process, WINGS identifies and nurtures talented women graduates with potential for sales and field roles.

The program's innovative approach includes an intensive 6-month learning journey featuring structured training, leadership interactions, shadowing experiences with senior professionals, and on-the-job skill development.



Recognizing the unique challenges women face in field roles, WINGS implements critical support mechanisms like safety provisions, regular mentorship, and dedicated support systems to ensure successful professional integration. The program addresses critical workforce challenges in agriculture and by creating structured career pathways, WINGS transforms individual professional trajectories whilst challenging deep-rooted societal perceptions about women's capabilities in agricultural sales and field operations.

Key elements include customized training across business units, focus on agricultural graduates, and a commitment to creating inclusive work environments. Participants undergo an intensive onboarding process with two weeks of orientation, two months of shadowing experienced professionals, and two months of independent project work. WINGS aims to increase women's participation in agricultural sales, targeting 32% workforce diversity by 2028.

Source: Godrej Agrovet Limited (GAVL) WINGS Program Documentation, 2024

"There has to be a champion in every company to champion the cause of women. Someone who will really spot people with potential and bring them out and create better solutions for them."

~Ms. Ananda UVL, Head Corporate Communications & Public Affairs, East-West Seed

Example 8: We-Chemie by BASF

The We-Chemie program, introduced by BASF India in collaboration with Somaiya Vidyavihar (SVV) and the Indian Chemical Council (ICC), aims to empower underprivileged women studying *B.Sc.* and *M.Sc.* in Chemistry by fostering industry readiness. The program combines training, industry visits, mentorship, and self-development for participants, all while addressing the gender gap in the chemical and agribusiness sectors. Over 40 women aged 20–23 completed the first batch, with job placements facilitated through ICC's industry network. The initiative aligns with India's National Education Policy and the UN Sustainable Development Goals, paving the way for greater gender diversity and inclusion in technical fields.

Source: BASF India, Somaiya Vidyavihar (SVV), & Indian Chemical Council (ICC), April 11, 2024, BASF Celebrates Inaugural We-Chemie Program for Women in Chemistry

The gap starts at the college level. Except for a few agricultural universities, most institutions don't provide students with adequate exposure to functional areas in agribusiness. We need stronger industry-academic partnerships to build awareness and interest.

~ An Industry Leader in Agribusiness

5. ADDRESSING STRUCTURAL BARRIERS

These policy interventions tackle the fundamental infrastructure gaps and work-life integration challenges that disproportionately affect women's advancement in the agricultural sector.

Example 9: Nestlé's Maternity Protection Policy

In addressing one of the critical barriers women face in agribusiness, Nestlé's Maternity Protection Policy, introduced in June 2015, offers a compelling case study of supportive workplace practices.

According to the Nestlé Maternity Protection Policy document, the company recognizes that the first 1000 days of a child's life are crucial, and instead of viewing motherhood as a career obstacle, they transform it into an opportunity for supporting women's professional growth. By providing 14 weeks of paid maternity leave, flexible working arrangements, and dedicated breastfeeding spaces, the company directly tackles the systemic challenges that often force women to choose between career and family.

In the agribusiness sector, where field roles and extensive travel are common, these support mechanisms become even more critical. The policy acknowledges that women are not just employees, but primary caregivers who need structured support to continue their professional development. By offering paternity leave, childcare support, and a commitment to non-discrimination, Nestlé creates an ecosystem that doesn't just accommodate women, but actively enables their success.

Concerns about productivity loss during maternity leave are overstated. Calculations show minimal impact over a 30-year career, yet managers cling to biases. Normalizing temporary replacements and flexible support can mitigate this.

~ Jaideep Iyengar, Founding Partner, AgVayā LLP (Former HR Lead, Bayer/Monsanto)

This approach goes beyond traditional diversity initiatives. It represents a strategic recognition that supporting women's holistic needs is not a cost, but an investment in building a more robust, innovative, and committed workforce. For an industry like agribusiness, which has historically been male-dominated, such policies can be transformative in attracting and retaining talented women.

The policy sends a clear message: women's professional aspirations and family responsibilities are not mutually exclusive, but interconnected parts of a fulfilling career journey.

Source: Nestlé Maternity Protection Policy, June 2015

6. Ecosystem Transformation

These cases demonstrate how coordinated interventions across multiple systems—from workplace design to community engagement—create environments where women's participation becomes both possible and sustainable.

Example 10: Cross-Industry Innovations-Employing Women at Meghmani FineChem Limited (Epigral Limited)

The Meghmani FineChem Limited (now Epigral Limited) initiative, supported by IFC, sought to increase women's workforce participation at its new chemical plant in Dahej, Gujarat. Despite having no female employees at its other facilities, the initiative implemented targeted strategies like gender-specific infrastructure (bathrooms, locker rooms), flexible work roles to accommodate societal and legal constraints, and revised HR policies to create a mixed-gender workplace. A proactive recruitment effort reached out to women in technical fields, leading to higher skill diversity within the workforce.

Outcomes and Impact:

- Women filled 7% of the workforce (45 out of 630 roles) at the new plant.
- Management noted women's strong contributions to work efficiency, attention to detail, and safety compliance.
- The initiative earned positive press and strengthened community relationships, symbolizing inclusivity and progress.

The IFC case study explores how Meghmani FineChem Limited (Epigral Limited) broke gender barriers in the Indian chemical industry by integrating women into its workforce. The initiative highlights how changes in workplace infrastructure, HR policies, and recruitment strategies resulted in increased inclusivity, operational improvement

7. Regional Impact

The geographical case (Krishnagiri Model) reveal how concentrated investment in women's economic participation catalyzes broader social transformation beyond the workplace, reshaping community attitudes and creating virtuous cycles of inclusion.

As highlighted in the World Bank's recent South Asia Development Update (2024), the economic potential of women's inclusion extends far beyond individual enterprises: *"Key policy reforms to integrate more women into the workforce and remove barriers to global investment and trade can accelerate growth. Our research shows that raising female labor force participation rates in the region to those of men would increase regional GDP by up to 51 percent"* (World Bank, 2024). This substantial economic dividend underscores why targeted interventions supporting women's participation should be viewed as strategic investments in regional economic resilience rather than simply social initiatives.

Source: World Bank. (2024). South Asia Development Update: Women, Jobs, and Growth. Retrieved from <https://www.worldbank.org/en/region/sar/publication/south-asia-development-update-october-2024>

Conclusion

The cases and examples presented in this chapter show transformative pathways for increasing women's meaningful participation across the agribusiness value chain. These initiatives demonstrate how intentionally designed programs can dismantle structural barriers while simultaneously improving organizational performance. What emerges clearly is that gender inclusion in agribusiness is not merely a social responsibility imperative but a clear strategic business advantage that drives innovation, expands market reach, and enhances operational resilience along the value chain.

The most effective interventions share fundamental elements: comprehensive support ecosystems that address both professional development and caregiving responsibilities; authentic leadership commitment translated into measurable accountability frameworks; and recognition that women's integration requires systemic rather than isolated approaches. By providing accessible transportation options, flexible work arrangements, and robust childcare support,

If we don't start building strong networks of women in agribusiness forums where they can learn from each other—
we will always be stuck solving the same problems over and over again.

~ An Industry Leader in Agribusiness

Krishnagiri: A Model for Women's Economic Empowerment Transforming Social Dynamics

A recent wave of industrial investment over the past decade has catalyzed significant employment opportunities for women in Krishnagiri, a formerly disadvantaged district in Tamil Nadu. This case study, featured in India's Economic Survey 2023-24 (p. 252), demonstrates how economic empowerment serves as a powerful agent for social transformation. Prior to this development, Krishnagiri faced severe gender-related challenges, including high rates of child marriage, prenatal sex selection resulting in a skewed child-sex ratio, and female literacy at just 65 percent.

The establishment of manufacturing units across diverse sectors—electronics, mobile assembly, electric scooters, footwear, and notably agro-processing—has created substantial employment opportunities specifically benefiting women. Manufacturers have particularly sought female workers, recognizing their productivity and dexterity. This industrial growth has triggered a profound mindset shift within communities—households that once viewed girls as financial burdens now recognize them as valuable breadwinners. This changing perception has yielded measurable social outcomes: declining child marriage rates, reduced female school dropout rates, rising average marriage age, and increased enrollment in polytechnic institutes.

The success has prompted supportive government initiatives, including career guidance programs in schools beginning from class 9, establishment of industrial hostels, and parent counseling services. Additionally, growing competition among employers for female workers has resulted in improved compensation, relaxed educational requirements through on-the-job training programs, and practical support systems including transportation services and daycare facilities.

The Krishnagiri experience exemplifies the broader trend of rising female labor force participation in Tamil Nadu, which has become a national leader in women's industrial employment. Supporting this industrial growth are innovative initiatives like the Thozhi Hostels—affordable, secure accommodations with 24/7 security systems and flexible room options that enable women to migrate safely to industrial centers, removing a critical barrier to workforce participation.

Sources: Economic Survey 2023-24, World Bank Group (2024)

Box 9: Krishnagiri: A Model for Women's Economic Empowerment Transforming Social Dynamics

organizations create infrastructures where women can thrive professionally without sacrificing personal responsibilities. These measures directly alleviate the disproportionate burden that has historically limited women's career advancement.

We now move to Chapter 6, where we shift from exemplary cases to actionable frameworks—translating inspiration into implementation. The strategies outlined in the following chapter provide a structured blueprint for transformative change across multiple stakeholder dimensions. The roadmap provided is organized by timeframes, responsibility centers, and measurement mechanisms, we bridge the critical gap between aspirational goals and tangible transformation. This framework recognizes that sustainable change requires coordinated action across policy structures, educational institutions, corporate leadership, and industry associations—creating not merely a vision for gender-inclusive agribusiness, but a practical pathway toward economic ecosystems where diverse talent can thrive and contribute to collective prosperity.

Structured Networking as a Strategy for Women's Leadership in Agribusiness

Finlays Women in Business Networks: Strategic Networking Approaches

Finlays' approach to women's leadership development between 2021-2024 showcased how structured networking programs were implemented to address gender representation challenges in agribusiness leadership. Their Women in Business Networks operated on a dual-track strategy with distinct regional approaches. The UK network engaged 60 women across business functions through their three-pillar framework: **'Life in Work,' 'Life Beyond Work,' and 'Growth and Development,'** which initially increased women's participation in professional development modules by 30%.

In the US, the Women in Leadership Committee launched monthly virtual **"Ladies Who Lunch"** sessions in 2021, creating low-pressure opportunities for women to build meaningful connections. These lunch gatherings fostered camaraderie and mutual support networks crucial for navigating traditionally male-dominated environments. The initiative demonstrated Finlays' understanding that effective gender empowerment extends beyond metrics and quotas to creating an environment with genuinely equitable opportunities for professional growth and leadership development across genders.

Source: Finlays Sustainability Report 2021, p. 14. "Our People in action."

Box 10: Structured Networking as a Strategy for Women's Leadership in Agribusiness

7 RECOMMENDATIONS AND A WAY FORWARD

Aligning with the key takeaways from the detailed primary and secondary analysis, this study proposes a strategic plan that outlines initiatives to increase women's participation and advancement in agribusiness, focusing on education, infrastructure, mentorship, flexible work, and leadership development. This chapter outlines a multi-layered framework for meaningful change—one that acknowledges both the urgency of immediate action and the necessity of sustained, systemic transformation.

The recommendations are structured as a progressive intervention ecosystem, recognizing that addressing deeply entrenched barriers requires coordinated efforts across multiple timeframes and organizational scales:

Short-term Recommendations (Section 7.1): Practical interventions that can be implemented by individual organizations within 0-6 months to create immediate impact

Strategic Implementation Priorities (Section 7.2): Five high-potential initiatives that can be undertaken by either individual companies or small consortiums to address systemic barriers through coordinated action

FIELD FORWARD Initiative (Section 7.3): Finally, a transformative industry-wide coalition designed to create lasting change across the entire agricultural ecosystem, requiring broad stakeholder participation. The initiative unites companies, universities, and industry associations in a shared commitment to building a more inclusive agribusiness sector— not just because it's right, but because it's essential for the sector's future.

7.1. SHORT TERM RECOMMENDATIONS

1. Bridge the Education-Employment Gap (0-6 months)

The transition from agricultural education to meaningful employment represents a critical juncture where many women exit the talent pipeline. This disconnect stems not merely from informational gaps but from deeply embedded structural misalignments between educational frameworks and industry realities. See Table 28: Bridge the Education-Employment Gap for a breakdown of targeted interventions designed to create structured pathways that align employer talent needs with student skill sets. These initiatives help demystify field roles and provide women with essential professional networks

during their most vulnerable career phase. Each component of this framework addresses a specific barrier identified in our research:

2. Implement Region-Specific Field Role Pilots

Cultural and logistical barriers often prevent women from succeeding in field roles. These targeted pilot programs can be implemented by individual companies to recognize regional differences and leverage existing opportunities. This section proposes piloting women-focused field teams in culturally receptive regions, especially targeting mid-career women for leadership roles, and conducting gender sensitization workshops.

- Identify 2-3 states with higher cultural acceptance of women in professional roles.
- Create women-focused field teams in these regions with cluster-based deployment rather than isolation.
- Implement location-specific hiring strategies targeting mid-career women with managerial experience from other sectors seeking geographic stability. This approach addresses the critical leadership gap while leveraging the untapped talent pool of experienced women professionals who may have relocated due to family circumstances or are returning to the workforce after career breaks. Companies can design dedicated onboarding programs to provide industry-specific knowledge while benefiting from these women's proven leadership capabilities and local community connections.
- Conduct mandatory gender sensitization workshops for all employees, with specialized modules for field teams and management, addressing unconscious biases, appropriate workplace behavior, and creating inclusive environments that support women's full participation and advancement.

3. Stakeholder-wise recommendations

Effective transformation requires coordinated action across multiple stakeholders. These targeted actions align with key pillars such as attraction and recruitment, HR policies, career progression, and legal frameworks.

See Table 29: Stakeholder-Wise Action Plan on the next page for a detailed breakdown of stakeholder-specific recommendations.

Table 28: Educational and Professional Development Interventions for Enhancing Women's Participation in Agribusiness

Initiative	Description
UNIVERSITY ENGAGEMENT	<p>Establish direct partnerships with 3-5 agricultural universities to conduct immersive “Day in the Life” workshops featuring diverse field roles.</p> <p>Conduct regular campus engagement sessions where women field leaders share their professional journeys and technical expertise.</p> <p>Integrate industry perspectives into curriculum development to ensure practical relevance of agricultural education.</p> <p>Create structured mentorship connections between female students and industry professionals during critical decision-making periods.</p>
EXPERIENTIAL LEARNING PROGRAMS	<p>Establish semester-long live projects with colleges to provide students with real-world field experience.</p> <p>Design project challenges that address authentic agricultural problems requiring multidisciplinary approaches.</p> <p>Develop evaluation frameworks that recognize diverse problem-solving approaches beyond traditional technical metrics.</p> <p>Create opportunities for students to present solutions directly to industry executives, establishing professional visibility.</p>
ROLE CLARITY IMPROVEMENT	<p>Create detailed role profiles with explicit skill requirements to address expectation-reality mismatches.</p> <p>Document both technical competencies and relational skills often undervalued in traditional agricultural position descriptions.</p> <p>Develop progression frameworks that illustrate potential career pathways in field operations and technical leadership.</p> <p>Detail the organizational support mechanisms available to field professionals, dismantling perceptions of isolation.</p>
CROSS-DISCIPLINARY TALENT ACQUISITION	<p>Expand recruitment beyond traditional agricultural programs to target allied disciplines with complementary skills.</p> <p>Develop competency-mapping frameworks that identify transferable skills from adjacent professional domains.</p> <p>Create specialized onboarding programs that build agricultural context while leveraging diverse professional perspectives.</p> <p>Establish cross-functional teams that demonstrate how multidisciplinary approaches enhance agricultural innovation.</p>
VIRTUAL EXPERIENCE DEVELOPMENT	<p>Develop virtual field experience modules for agricultural positions to provide realistic job previews.</p> <p>Create immersive simulations that reflect the daily realities of field operations across seasonal variations.</p> <p>Incorporate scenarios addressing common challenges and demonstrating effective problem-solving approaches.</p> <p>Include virtual mentorship opportunities connecting prospective candidates with current field professionals.</p>
EARLY CAREER PIPELINE DEVELOPMENT	<p>Implement early outreach programs targeting first and second-year students to prevent attrition from agricultural pathways.</p> <p>Establish structured transition support mechanisms for early-career professionals navigating field operations.</p> <p>Create near-peer support networks connecting recent entrants with professionals 2-4 years into their careers for authentic operational guidance.</p> <p>Develop recognition programs that celebrate early achievements, reinforcing professional identity development.</p> <p>Implement regular career pathing discussions identifying potential advancement trajectories.</p>
INCLUSIVE RECRUITMENT LANGUAGE	<p>Revise job descriptions and recruitment materials to eliminate gender-coded language and implicit bias.</p> <p>Redesign visual recruitment materials to feature diverse professionals in various job roles.</p> <p>Incorporate testimonials addressing common concerns about field positions from women who have navigated these roles.</p> <p>Ensure recruitment communications highlight initiatives that support women's advancement in agricultural careers.</p>

3. Stakeholder wise recommendations

Table 29: Stakeholder Action Framework: Recommended Interventions for Enhancing Women's Participation in Agribusiness

Stakeholders	Recommendations	Relevant pillars
Educational institutions	Strengthen collaboration between agricultural educational providers and employers to support women's recruitment into the agribusiness sector.	Attraction and recruitment
	Promote access to agricultural science education for young women and girls and create an educational environment that encourages them to take agro-technical studies.	Attraction and recruitment
	Collaborate with employers and policy makers to support the design and implementation of gender equality initiatives, strengthen policy frameworks, and disseminate best practice.	HR policies and practices
Employers	Strengthen outreach efforts to women and girls to attract them to careers in agribusiness.	Attraction and recruitment
	Strengthen recruitment processes to eliminate gender bias, particularly for technical field roles.	Attraction and recruitment
	Adopt an organizational strategy on gender equality in employment and leadership, and strengthen data collection to measure progress.	HR policies and practices
	Strengthen availability of policies to support workers with caring responsibilities, including flexible work arrangements suitable for agricultural contexts.	HR policies and practices
	Ensure that working environments address the specific safety and security needs of women in agricultural settings, including anti-harassment protocols.	HR policies and practices
	Collaborate on improving women's professional development through mentorship programs and leadership training specific to agribusiness.	Retention, career progression and leadership
	Creating standardized safety protocols for field operations	HR policies and practices
	Provide targeted technical training to enable women's progression into higher-paying agricultural technical roles.	Retention, career progression and leadership
Policy makers	Initiate or contribute to a policy dialogue to address legal and policy obstacles to employing and advancing women in agribusiness.	Legal and policy framework
	Adopt or strengthen existing policies to encourage young women and girls to access agricultural education and training needed to enter the agribusiness sector.	Attraction and recruitment
	Encourage a more equitable distribution of family and care responsibilities through legal and policy reforms.	HR policies and practices
	Adopt targets for women's participation in technical and managerial roles in agribusiness and monitor progress.	Retention, career progression and leadership
	Address legislative barriers related to land rights, asset ownership, and inheritance that hinder women's employment and progression in the sector.	Legal and policy framework
All Stakeholders	Promote women's entrepreneurship in agribusiness through targeted financing, market access, and business development services.	Attraction and recruitment
	Collect, analyze, and disseminate sectoral gender statistics to support evidence-based interventions; evaluate existing gender interventions to identify what works and what does not; identify and undertake new research to accelerate efforts to close gender gaps in the sector.	Data collection and research
	Establish best practice repository of gender responsive interventions across agricultural value chains.	Data collection and research

Strategic Implementation Priorities

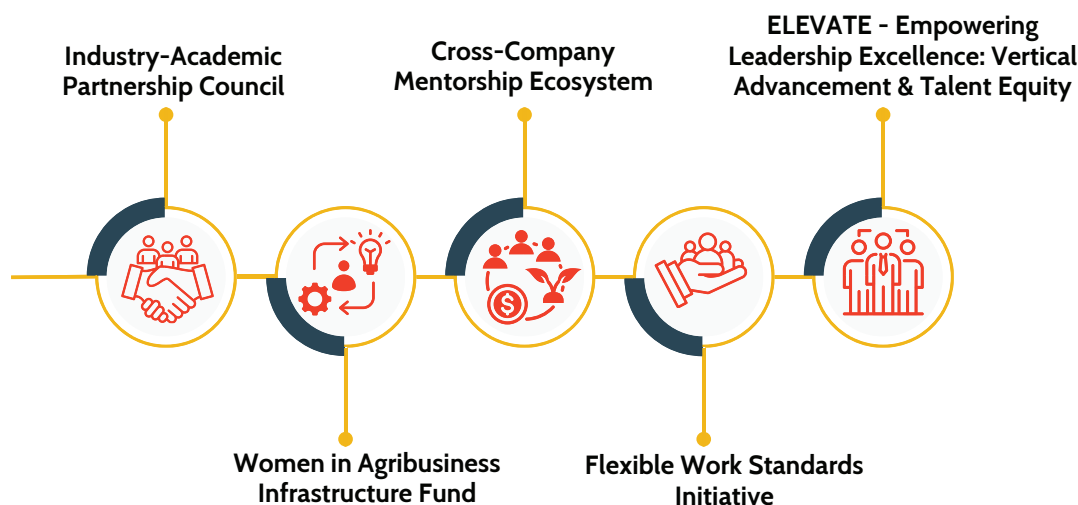


Figure 7:Figure: Strategic Implementation Priorities

7.2. STRATEGIC IMPLEMENTATION PRIORITIES

While short-term recommendations address immediate opportunities through individual organizational efforts, more substantial change requires strategic initiatives that tackle systemic barriers. These five high-impact priorities can be undertaken by individual companies or small consortiums of organizations working together to address common challenges:

1. Industry-Academic Partnership Council

Context: The significant gap between education and employment persists because students graduate without understanding functional roles or realistic expectations about field positions. This misalignment particularly affects women, who often lack exposure to field career opportunities.

Proposed Solution: Forming an Industry-Academic Partnership Council - A company or small group of companies can establish this council in partnership with key agricultural universities to develop standardized “finishing semester” programs, industry-sponsored internships, and clear competency frameworks. By establishing structured pathways from education to employment, the council directly confronts gender biases steering women away from field-based careers. Through this multi-stakeholder approach, the Industry-Academic Partnership Council reconstructs the talent pipeline, ensuring graduates enter the workforce, equipped with relevant skills and a clear understanding of agribusiness career trajectories.

Impact Potential: Addressing the education-to-employment gap would significantly increase women’s entry into the sector, particularly in field roles, creating a stronger talent pipeline from the beginning.

2. Women in Agribusiness Infrastructure Fund

Context: Physical infrastructure limitations—particularly sanitation facilities, safe transportation, and secure accommodation in rural areas—create fundamental barriers that disproportionately affect women. These challenges are too large for any single company to solve independently.

A consortium of companies operating in the same regions can establish this collaborative funding mechanism to develop standardized infrastructure solutions in agricultural zones. By pooling resources and using data-driven region selection, the participating companies create shared, high-quality infrastructure that benefits all members. The Women in Agribusiness Infrastructure Fund establishes a collaborative, multi-company funding mechanism designed to address critical gaps in rural workplace environments. By pooling resources from agribusiness organizations, the fund develops standardized infrastructure solutions targeting fundamental challenges: safe transportation, dignified sanitation facilities, and secure accommodation in agricultural zones. This approach goes beyond traditional corporate social responsibility, positioning infrastructure development as a direct business imperative. Data-driven region selection, based on safety and agricultural productivity metrics, enables targeted interventions that solve practical challenges while signaling organizational commitment to gender equity. Partnerships with local governments ensure sustainable maintenance and community integration of these critical investments. This initiative restructures the ecosystem determining women’s professional mobility in agribusiness. By creating shared, high-quality infrastructure accessible to multiple companies, we transform a fragmented landscape into a cohesive, supportive professional environment that unlocks untapped talent potential.

Impact Potential: Addressing fundamental physical barriers would make field roles immediately more accessible to women while demonstrating industry commitment to inclusion through tangible investments.

3. Cross-Company Mentorship Ecosystem

Context: Women in agribusiness often face professional isolation, lacking role models and support networks, particularly in field roles and leadership positions. This isolation limits knowledge transfer and career progression opportunities.

Proposed Solution: Two or more companies can partner to connect professionals across organizational boundaries through structured support networks, intentional knowledge sharing, and leadership development programs. This collaboration integrates male allies and creates scalable mentorship pathways from entry-level buddy systems to strategic leadership development. By designing cross-company platforms that facilitate intentional knowledge sharing, leadership development, and strategic career guidance, this initiative not only connects individuals but also builds a collaborative infrastructure that dismantles systemic career limitations. This approach transforms mentorship from a passive intervention to an active career acceleration mechanism.

Impact Potential: A coordinated mentorship ecosystem would provide continuous support through critical career transitions while building networks that counter isolation and facilitate knowledge sharing across participating organizations.

4. Flexible Work Standards Initiative

Context: Traditional field roles often require extensive travel and rigid schedules that conflict with caregiving responsibilities, leading to mid-career attrition among women. This structural barrier limits advancement regardless of performance or potential. Particularly in the agribusiness sector, rigid work structures have long forced talented professionals—especially women—to choose between career progression and personal responsibilities.

Proposed Solution: Individual companies can develop flexible work frameworks that blend digital and on-site responsibilities, leveraging technology to reduce unnecessary travel while maintaining critical customer relationships. Companies can then share best practices through industry associations to establish emerging standards. This initiative aims to systematically dismantle traditional field role constraints by creating hybrid work models that blend digital and on-site responsibilities. The initiative develops industry-standard flexible work frameworks, leveraging technology to reduce unnecessary travel while maintaining critical customer relationships. By piloting adaptive work arrangements and creating robust measurement tools that evaluate productivity beyond physical presence, we're not just accommodating workforce diversity—we're fundamentally redesigning how field-intensive roles operate. This approach directly targets mid-career attrition, providing sustainable pathways that recognize professional capabilities without demanding unsustainable personal sacrifices.

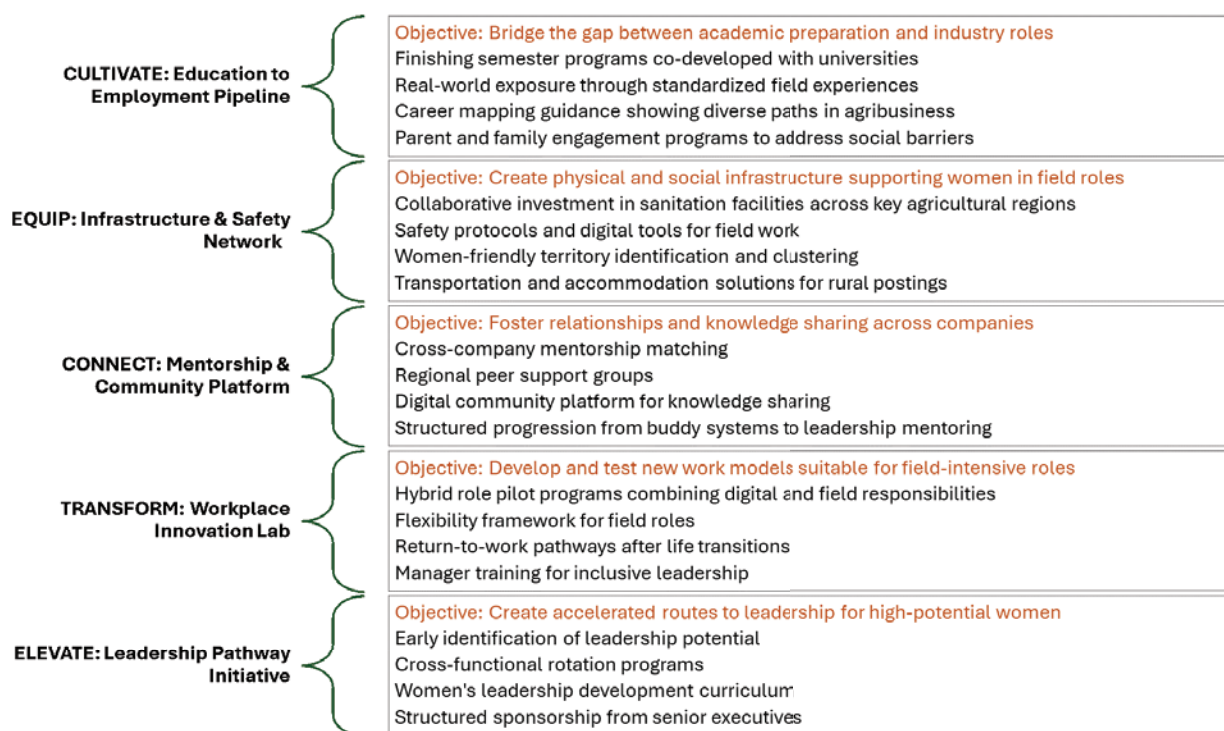


Figure 8: Strategic Implementation Priorities (Five Pillars for Advancing Women in Agribusiness)

Impact Potential: Addressing this persistent barrier would significantly improve retention through life transitions and create more sustainable career paths for all professionals, particularly those with caregiving responsibilities.

5. E.L.E.V.A.T.E - Empowering Leadership Excellence: Vertical Advancement & Talent Equity

Context: Women often don't remain in field roles long enough to reach leadership positions, creating a "sticky floor" challenge that limits advancement beyond entry-level positions.

Proposed Solution: Individual companies or small consortiums can implement this structured intervention targeting systemic barriers through talent identification, skill development, and leadership acceleration mechanisms. The program implements mentorship networks, transparent performance metrics, and mandatory diversity training to systematically increase women's representation in mid-management and executive roles. ELEVATE provides a strategic framework for breaking through entry-level constraints.

Impact Potential: Building the pipeline of future leaders would create visible role models while addressing the leadership representation gap, fundamentally changing perceptions about women's capabilities in agribusiness.

Measuring Success

These initiatives should establish clear metrics focusing on representation, retention, advancement, satisfaction, business impact, and infrastructure development to ensure accountability and track progress over time.

1. **Representation:** Percentage of women at entry, mid-level, and leadership positions
2. **Retention:** Comparative retention rates between men and women, particularly through life transitions
3. **Advancement:** Speed and rate of advancement to leadership positions
4. **Satisfaction:** Employee satisfaction and engagement metrics
5. **Business Impact:** Productivity, innovation, and financial performance of diverse teams
6. **Infrastructure Development:** Number and quality of facilities developed through collaborative efforts

Collectively, these five strategic priorities create an integrated intervention framework addressing critical transition points in women's agribusiness careers. By tackling educational gaps, infrastructure limitations, professional isolation, rigid work structures, and advancement barriers through coordinated action, the industry can transform fragmented inclusion efforts into measurable business impact. These initiatives offer practical pathways through which companies can drive systemic change while strengthening organizational resilience.

7.3. FIELD Forward: Future-ready Innovation & Empowerment for Leadership Development

Advancing Women in Agribusiness

FIELD FORWARD represents the most ambitious tier of recommendations—a transformative industry-wide coalition designed to create lasting systemic change across the entire agricultural ecosystem. This initiative requires broad participation from companies, educational institutions, industry associations, and policymakers in a shared commitment to building a more inclusive agricultural sector – not just because it's right, but because it's essential for the industry's future.

Strategic Vision and Rationale

As agriculture confronts unprecedented challenges in feeding a growing population while adapting to climate change, the industry cannot afford to overlook half of its potential innovators and leaders. FIELD FORWARD transforms this challenge into an opportunity – creating an agricultural sector that attracts the brightest talent, embraces diverse thinking, and builds resilience through inclusion.

Through targeted interventions at critical career transitions – from education to entry-level roles, field positions to management, and mid-career to leadership – FIELD FORWARD builds sustainable pipelines of female talent throughout the agricultural ecosystem. By pooling expertise and resources, participating companies gain access to larger talent pools, innovative workplace models, and diverse perspectives that drive business performance.

Despite women constituting a significant proportion of agricultural graduates, their representation diminishes dramatically at each progression point in the talent pipeline, particularly in field operations and technical leadership positions. This systematic underutilization represents not merely a representation gap but a critical strategic vulnerability for the sector's innovation capacity and adaptive resilience. The initiative addresses three critical transition points where female talent consistently exits:

Education-to-Employment Interface: Restructuring the transition from agricultural education to initial field positions

Field-to-Management Progression: Transforming advancement pathways from technical roles to operational leadership

Mid-Career-to-Executive Development: Creating sustainable bridges to senior decision-making positions

By addressing these specific transition points with targeted interventions, FIELD FORWARD creates structural support at precisely the moments when women are most vulnerable to career disruption. This targeted approach maximizes impact while optimizing resource

FIELD FORWARD Implementation Roadmap

From Vision to Reality: A Three-Phase Approach

Phase 1: FOUNDATION (Year 1)

Building the Coalition and Infrastructure

The Foundation phase establishes the operational framework and creates momentum through high-impact early wins that demonstrate the initiative's potential while building essential infrastructure.

Key Actions:

- **Coalition Formation:** Establish a founding consortium of diverse agribusiness companies committed to the vision, representing various sectors, scales, and geographic regions to ensure comprehensive industry perspective
- **Baseline Assessment:** Conduct comprehensive industry audit documenting current women's representation patterns and identifying specific advancement barriers across the talent pipeline
- **Strategic Pilots:** Launch targeted interventions in priority agricultural regions specifically addressing identified transition barriers at education-to-field, technical-to-management, and mid-career-to-executive levels
- **Digital Framework:** Develop integrated knowledge platform connecting mentorship programming, resource sharing, and standardized impact measurement
- **Governance Structure:** Establish balanced advisory structure with representation from industry leadership, academic institutions, and women agricultural professionals

Early Wins:

- **Learning Hub Launch:** Create comprehensive resource center with implementation toolkits, training curricula, and evidence-based practices tailored to agricultural contexts
- **Cross-Company Mentorship Program:** Implement structured mentorship framework connecting women across organizational boundaries with specific focus on navigating identified transition barriers
- **Infrastructure Pilots:** Establish targeted improvements in high-need agricultural regions, addressing physical and organizational barriers to women's field participation
- **Benchmark Publication:** Develop comprehensive baseline analysis establishing clear metrics and shared measurement framework for evaluating intervention effectiveness

Phase 2: ACCELERATION (Years 2-3)

Scaling Success and Deepening Impact

The Acceleration phase expands successful pilots and strengthens the initiative's network effect, moving from isolated interventions to interconnected ecosystem development.

Key Actions:

- **Program Scaling:** Expand proven interventions across all transition points to additional agricultural regions based on readiness assessment and implementation capacity
- **Network Expansion:** Integrate additional companies throughout the agricultural value chain with emphasis on creating connected implementation clusters
- **Evidence Development:** Implement systematic data collection across participating organizations to identify highest-performing interventions and contextual success factors
- **Standards Framework:** Create certification structure with tiered recognition levels and comprehensive implementation guidelines based on pilot learnings
- **Industry Integration:** Begin systematically embedding validated practices within existing industry associations, educational institutions, and standards bodies

Success Indicators:

- Substantial increase in women's participation across field roles, with particular emphasis on technical positions
- Widespread adoption of certification framework across participating organizations and educational institutions
- Development of comprehensive implementation resources addressing common advancement barriers
- Measurable improvements in retention rates at each critical transition point within member organizations

Phase 3: TRANSFORMATION (Years 4-5)

Creating Lasting Systemic Change

The Transformation phase moves beyond individual programs to embed changes in industry infrastructure and standards, ensuring sustainable impact beyond the initiative timeframe.

Key Actions:

- **Sustainable Financing:** Transition from founding funding structure to diversified revenue model with balanced contribution mechanisms ensuring long-term operational viability
- **Educational Integration:** Systematically incorporate advancement frameworks within agricultural education curricula and professional certification standards
- **Policy Advancement:** Develop evidence-based policy recommendations addressing structural barriers at regional and national levels
- **Model Adaptation:** Expand validated approaches to additional agricultural contexts and international markets based on documented success patterns
- **Future Planning:** Establish innovation framework to address emerging workplace challenges and technological disruptions

Long-Term Impact:

- Documented transformation in gender composition across organizational levels, particularly in technical and leadership positions
- Comprehensive integration of equity standards throughout agricultural education and professional development pathways
- Establishment of self-sustaining industry network with clear governance mechanisms continuing beyond the initial implementation timeline
- Recognition as effective collaboration model for addressing complex systemic challenges across the agricultural sector

Implementation Architecture

Guiding Principles

The initiative is guided by four core principles that inform all activities and ensure consistent implementation:

- **Evidence-Based Methodology:** All interventions are grounded in research, with continuous evaluation measuring both implementation quality and outcome effectiveness
- **Collaborative Resource Model:** Implementation costs and operational responsibilities are strategically distributed across participating organizations, creating efficiency through shared investment
- **Contextual Adaptation:** Core programmatic elements are adapted to regional agricultural contexts while maintaining quality standards and measurement consistency
- **Systems-Level Focus:** Interventions target fundamental structural elements rather than symptomatic manifestations, creating sustainable transformation

Governance Framework

A multi-stakeholder structure ensures balanced representation and clear accountability:

- **Executive Council:** Senior leadership representatives from founding organizations providing strategic direction and resource commitments
- **Implementation Team:** Dedicated professionals managing operational execution and programmatic quality
- **Advisory Board:** Diverse experts providing technical guidance and independent assessment
- **Regional Networks:** Local implementation teams adapting frameworks to specific contexts
- **Annual Review:** Transparent reporting on progress metrics, implementation challenges, and resource stewardship

FIELD FORWARD represents a once-in-a-generation opportunity to fundamentally transform the agricultural sector's approach to gender diversity. By addressing systemic barriers through coordinated action, we can create an industry that fully leverages all available talent to meet the unprecedented challenges facing global agriculture.

Forward Path: A Call to Collective Action

As indicated throughout our analysis, no single entity can create comprehensive change independently—yet all organizations stand to benefit from a more diverse, innovative, and resilient agricultural sector.

The roadmap provided in this chapter offers clear guidance for this transformation journey—from immediate organizational interventions to industry-wide coalition building. By implementing these evidence-based recommendations, agribusiness can develop the leadership capacity and innovative potential required to address the sector's most pressing challenges.

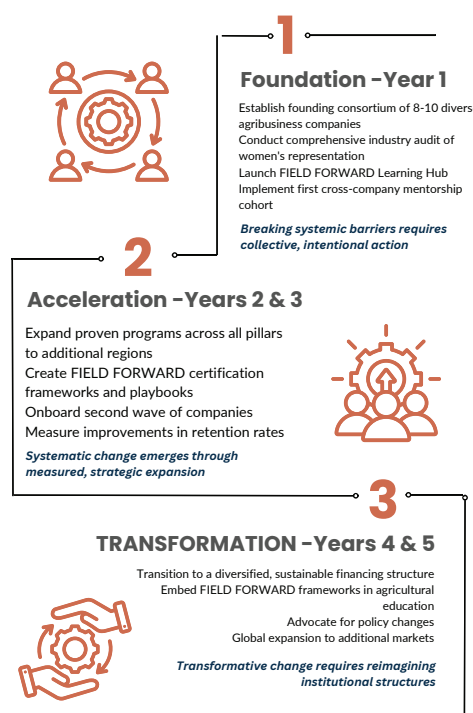
Through coordinated implementation of these strategic interventions, organizations can create not only more equitable workplace environments but fundamentally strengthen the agricultural sector's capability to meet increasingly complex global challenges with diverse, innovative leadership approaches.

FIELD FORWARD

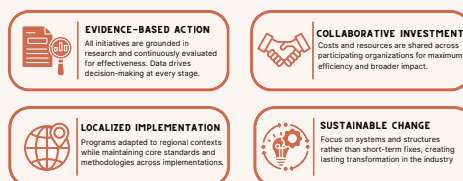
F Future-ready I Innovation E Empowerment L Leadership D Development

ADVANCING WOMEN IN AGRIBUSINESS

A dynamic industry coalition dedicated to empowering women in agriculture by tackling career barriers through targeted interventions



IMPLEMENTATION PRINCIPLE



A fundamental reconstruction of how talent, expertise, and potential are conceptualized

APPENDIX

Annexure 1: Primary Research Tools

A1. Primary Survey Structure Overview

The survey branched into five versions based on gender identification and the respondents' relationship to the Agribusiness sector.

Survey 1: Female students currently pursuing education in agriculture or allied sectors

Survey 2: Female Working Professionals in the Agribusiness sector

Survey 3: Female Professionals Who Transitioned to Other Industries

Survey 4: Male/Other Gender Students currently pursuing education in agriculture or allied sectors

Survey 5: Male/Other Gender Working Professionals in the Agribusiness sector/Professionals Who Transitioned to Other Industries

Please check the next page for the detailed Survey themes

DETAILED SURVEY QUESTIONNAIRE STRUCTURE

COMMON SECTIONS ACROSS ALL SURVEYS

SECTION	RESEARCH FOCUS AREAS
1 Demographics	Age, Gender, Marital Status, Relationship with Agribusiness Sector
2 Education	Educational Program Level, Degree Specialization, Funding Sources
3 Conclusion	Most Fulfilling Aspects, Desired Changes, Women's Leadership Advancement, Survey Referral Sources, Contact Information

SURVEY 1 - FEMALE STUDENTS IN AGRI & ALLIED COURSES

SECTION	RESEARCH FOCUS AREAS
1 Internship & Work Experience	Type of Experience, Organization Type, Internship Discovery, Duration, Role/Responsibility, Influence on Career Interest, Challenges, Skills Gained
2 Satisfaction with Education	Curriculum Alignment, Practical Training, Technical Skills, Digital Technology, Industry Exposure, Career Guidance, RAWE Program, Internship Opportunities
3 Awareness & Preferences	Awareness of Sectors, Job Roles, Career Advancement, Required Skills, Support Systems, Market Trends
4 Career Preferences	Preferred Career Paths, Agribusiness Career Consideration, Alternative Sectors, Expected Compensation, Sales Position Interest
5 Concerns	Travel Safety, Rural Travel, Infrastructure Quality, Family Support, Compensation, Work-Life Balance, Field Allowances, Language Barriers, Working Hours, Social Perceptions
6 Support Needs	Transportation, Flexible Schedule, Accommodation, Mentorship, Work-Life Balance, Skill Development, Healthcare Benefits, Maternity Support, Childcare, Leadership Development, etc.

SURVEY 2 - FEMALE WORKING PROFESSIONALS IN AGRIBUSINESS SECTOR

SECTION	RESEARCH FOCUS AREAS
1 Current Organization	Agribusiness Domain, Position Level, Division/Sector, Work Experience, Work Location, Location Type, Shift Timings, Travel Requirements, Travel Range, Travel Duration, Transportation Facilities
2 Team Structure	Team Size, Reporting Structure, Manager Gender
3 Motivation	Reasons for Joining Agribusiness
4 Satisfaction	Safety Infrastructure, Work Hour Arrangements, Personal Care Support, Professional Development
5 Challenges	Professional Challenges, Technical Challenges, Social Challenges, Field Work, Workplace Dynamics, Safety/Infrastructure, Career Advancement
6 Workplace Behavior	Experience with Inappropriate Behavior/Harassment
7 Support system	Safety Measures, Most Valuable Support Systems, Parental Leave Policies
8 Perception	Gender Suitability for Field Roles, Safety Policy Implementation, Gender Equality Policies, Gender Treatment Equity, Diversity & Inclusion, Women Mentors, Women Leadership Representation

SURVEY 3 - FEMALE WORKING PROFESSIONALS (TRANSITIONED TO ANOTHER INDUSTRY)

SECTION	RESEARCH FOCUS AREAS
1 Previous Organization	Division/Sector, Work Duration, Reasons for Leaving
2 Facilities in Previous Role	Workspace/Equipment, Work Flexibility, Professional Development, Health Coverage, Safety/Security
3 Support Needs	Support That Could Have Encouraged Continuation
4 Industry Awareness	Understanding of Industry Sectors, Career Opportunities, Entry Requirements, Growth Prospects, Women's Support
5 Current Organization	Current Sector, Professional Role, Valuable Aspects
6 Workplace Gender Dynamics	Gender Treatment Equity, Women Mentors, Male Allies, Women Leadership Representation, Diversity & Inclusion, Parental Leave Policies
7 Comparative Perceptions	Current vs Previous Role (Professional Aspects, Work Environment)

SURVEY 4 - MALE/OTHER GENDER STUDENTS

SECTION	RESEARCH FOCUS AREAS
1 Satisfaction with Education	Curriculum Alignment, Practical Training, Technical Skills, Digital Technology, Industry Exposure, Career Guidance, RAWE Program, Internship Opportunities
2 Awareness	Awareness of Sectors, Job Roles, Career Advancement, Required Skills, Support Systems, Market Trends
3 Career Preferences	Preferred Career Paths, Agribusiness Consideration, Alternative Sectors, Sales Position Interest
4 Concerns	Personal Safety, Rural Travel, Infrastructure, Family Support, Compensation, Work-Life Balance, Field Compensation, Language Barriers, Working Hours, Social Perceptions

SURVEY 5 - MALE/OTHER GENDER WORKING PROFESSIONALS

SECTION	RESEARCH FOCUS AREAS
1 Current Organization	Work Experience, Work Location, Location Type, Shift Timings, Team Structure
2 Satisfaction	Safety Infrastructure, Work Hour Arrangements, Personal Care Support, Professional Development
3 Challenges	Professional Challenges, Technical Challenges, Social Challenges, Field Work, Workplace Dynamics, Safety/Infrastructure, Career Advancement
4 Support Systems	Parental Leave Policies
5 Perception	Women Mentors, Women Leadership Representation, Gender Treatment Equity, Gender Suitability for Field Roles, Safety Policy Implementation, Gender Equality Policies, Career Motivation, Diversity & Inclusion

Figure 9

A2. Focus Group Discussion Questions for Students

Introduction to Agribusiness Interest and Motivation

1. What inspired you to pursue an education in agriculture or agribusiness? (For instance, was it a mentor, a personal passion, or a specific company or sector that motivated you?) Did you do any internships during your course or the RAWE program?

Choosing the Program and Institution

2. Key factors in choosing this specific program/institute? [Explore: curriculum, placement records, industry connections, location, and reputation]

Understanding Agribusiness and Areas of Interest

What does the term 'Agribusiness Value Chain' mean to you?

3. Looking at the agribusiness value chain - from inputs (seeds, fertilizers, equipment) through production (farming, livestock), processing (food manufacturing, packaging), distribution (logistics, supply chain), to retail (marketing, sales)
 - a. Which areas interest you most and why?
 - b. How have your education and experiences, such as specific courses or internships, influenced your interest in particular segments of the agribusiness value chain?

Perceptions of Agribusiness Career

4. In your experience, how do male and female students in your program perceive agribusiness as a career? (For instance, are they more inclined to pursue agribusiness or are other fields more appealing, and what factors influence this?)
5. What specific job roles in agribusiness are you particularly interested in? Why?
 - a. Are you considering jobs outside this sector? Why?
6. Do you think female students tend to prefer certain job roles that are not field-based? If so, which roles are most commonly chosen, and what might influence these preferences?

Opportunities, Barriers, and Challenges for Women

7. Do you believe women have access to the same opportunities as men in agri-related jobs? Why or why not? What factors, in your opinion, contribute to any differences or gaps in opportunities?
8. In your opinion, are there any barriers/challenges you think women face during:
 - a. Education: During internships/fieldwork? (safety, facilities, field tasks)
 - b. Job Entry: During placements/early career? (role biases, locations)
 - c. Career Growth: (e.g., cultural norms, lack of mentorship, lack of leadership opportunities)
9. Are you aware of any reasons why some female students may drop out of the program? [Delve into: family pressures, marriage, academic difficulties, or specific fieldwork requirements]

Women's Unique Contribution to Agribusiness

10. What specific skills or qualities do you think women bring to agribusiness that might be currently undervalued? Can you share examples?

Education, Experience, Industry Expectations, and Career Preparedness

11. Has your education aligned with industry requirements and job expectations? Share if you feel confident about your technical knowledge, practical skills, and overall career preparedness. (For instance, do you feel confident in your technical knowledge, practical skills, and career preparedness?)
12. What experiences during your education have shaped your confidence in pursuing technical roles (e.g. supply chain management, equipment handling, laboratory research) or field-based roles (e.g., on-farm advisory, crop production management, livestock care, field surveys) in agribusiness? Can you share specific examples?

Increasing Women's Participation in Agribusiness Education & Career

13. What strategies can be implemented to increase women's participation in agribusiness education? [Probe: Could initiatives like scholarships, improved infrastructure, enhanced safety measures, or mentorship programs make a significant impact?]
14. What are the key features of a workplace culture that supports gender equality in agribusiness? What practical steps do you think companies can take to create more inclusive and supportive environments for women?

Institutional Support for Women

15. What types of policies or institutional support could be put in place to encourage more women to join and succeed in agribusiness? [Probe: How could policies like gender-inclusive recruitment, mentorship programs, access to leadership training, safer work environments]
16. What do you believe is the most pressing challenge for women in agribusiness today, and how can both individuals and organizations work together to address it?
17. Are women more inclined to pursue entrepreneurial opportunities in agribusiness? How can startups and innovation in agribusiness become more accessible and supportive for women?

Leadership Skills

18. What steps can educational institutions or organizations take to help women develop leadership skills early in their careers? How important is mentorship in this regard?
19. What are the barriers that prevent women from taking on leadership roles in agribusiness, and how can they be addressed both during education and in the workplace? What would help prepare women for leadership positions?

A3. In-Depth Interview Questions For Company Heads, Leads, And Industry Leaders

1. What inspired you to pursue a career in agribusiness, and how has your background shaped your interest in this field?
2. In your experience, what are some of the unique challenges that women face when starting their careers in agribusiness?
3. Do you believe women have equal opportunities to advance in agribusiness compared to their male counterparts? Why or why not?
4. How can organizations within agribusiness create a more inclusive environment that supports the professional growth of women, especially in leadership roles?
5. Have you encountered any gender biases in your agribusiness career? If so, how did you handle them, and what could be done to reduce such biases?
6. What skills or qualities do you believe women bring to the agribusiness sector that are often undervalued? Can you share any examples from your own experience?
7. What role do mentorship and professional development programs play in helping women succeed in agribusiness, and how can these programs be improved?
8. How do field-based roles in agribusiness impact women, and what changes could be made to ensure that these roles are more accessible and inclusive?
9. What do you think are the biggest barriers preventing women from becoming entrepreneurs in agribusiness, and how can these barriers be addressed?
10. In your opinion, what are the most effective strategies to increase women's representation in leadership positions within agribusiness?

A4. In-Depth Interview Questions For HR

1. What are the key strategies your organization has implemented to attract more women into agribusiness roles, and how successful have they been?
2. In your opinion, what are the unique challenges women face in agribusiness careers compared to their male counterparts, particularly during the hiring process?
3. How does your organization address gender biases during recruitment and career progression, and what more could be done to level the playing field?
4. What steps have been taken to ensure that women in your organization have equal access to mentorship, training, and leadership development opportunities?
5. Can you share any policies or initiatives your organization has in place that specifically support work-life balance for women in agribusiness, particularly for those in field or operational roles?
6. What are the most effective ways you believe organizations can foster an inclusive work environment that supports women's growth, particularly in agribusiness?
7. How do you measure and ensure the gender equality of career advancement opportunities within your company, especially for leadership positions?
8. What role does employee feedback play in shaping your company's policies on gender inclusion, and how does your organization respond to concerns from female employees?
9. Have you observed any cultural or institutional barriers within the agribusiness sector that discourage women from entering or remaining in the industry? How can these be addressed?
10. What changes or innovations do you think are necessary within HR policies and practices to increase the retention of women in agribusiness, particularly in leadership or high-impact roles?

A5. List of Colleges for FGDs

	Date of FDG	University	Organizing College	Participating Departments	No. of Students attended FGD
1	13/01/2025	University of Agriculture Sciences, Bengaluru	College of Horticulture	Food Science, Horticulture	21
2	13/01/2025	University of Agriculture Sciences, Bengaluru	College of Agriculture	Agriculture	15
3	15/01/2025	University of Agriculture Sciences, Vijayapura	Department of Agriculture	Horticulture, Agriculture, Soil Science	25
4	16/01/2025	University of Agriculture Sciences, Dharwad	College of Agriculture	Agriculture, Agribusiness	15
5	07/01/2025	G. B. Pant University of Agriculture and Technology	Department of Agribusiness Management	Agribusiness Management	30
6	08/01/2025	Sardar Vallabhbhai Patel University of Agriculture and Technology	College of Technology	Agriculture, Agronomy, Horticulture, Agriculture Engineering	30
7	10/01/2025	Sam Higginbottom University of Agriculture, Technology And Sciences (SHUATS)	Naini Agricultural Institute (NAI) -Department of Agriculture	Agronomy	8
8	11/01/2025	Banaras Hindu University	Institute of Agricultural Sciences	Food and Agribusiness	30
9	11/01/2025	Banaras Hindu University	Institute of Agricultural Sciences	Horticulture	17
10	07/01/2025	Anand Agricultural University	International Agribusiness Management Institute, Anand	Agribusiness Management	14
11	10/01/2025	Tamil Nadu Agricultural University	Agribusiness Management [Directorate of Agribusiness Development (DABD)]	Agribusiness Management	35
12	11/02/2025	National Institute of Agriculture Extension Management (MANAGE) - (online)	Agribusiness Management (Agri Extension)	Agribusiness Management (Agri Extension)	26
13	12/10/2024	Indian Institute of Management Ahmedabad	Indian Institute of Management Ahmedabad	Food and Agribusiness Management (Ph.D.)	6
14	28/10/2024	Indian Institute of Management Ahmedabad	Indian Institute of Management Ahmedabad	Food and Agribusiness Management (PGP1)	15

A6. List of HRs and Industry leaders

Sr no.	Date	Name	Designation	Company
1	20/11/2024	Ram Kaundinya	Founding Partner	Agvaya LLP
2	22/01/2025	Priya D'cruz	HR Cluster Lead, South Asia	Bayer
3	27/01/2025	Ananda UVL	Head Corporate Communications & Public Affairs	East-West Seed
4	27/01/2025	Jaideep Iyengar	Founding Partner	AgVayā LLP
5	28/01/2025	Anuja Kadian	Asia Pacific Government Affairs Director	Corteva Agriscience
6	03/02/2025	Nilima Vohra	Vice President	DeHaat
7	24/01/2025	Saibabu Paritala	Deputy Manager Human Resources	Kaveri Seed Company Limited
8	19/02/2025	Sudeshna Dey	Sales Force (MDO) and Campaign Productivity Lead	Syngenta

A7. Stakeholder Dialogue

	Name	Designation	Company
1	Ms. Amrita Kumar	Director	Dayal Group
2	Ms. Hetalben Desai	AGM (M&P)	Gujarat Agro Industries Corporation
3	Ms. Indira Dhumne	Deputy General Manager	Mahindra HZPC Private Limited
4	Ms. Ridhi Kumar	AVP	EY-Parthenon
5	Ms. Sangeeta Bojappa Moorthy	Chief farmeress and Founder	Farmington
6	Ms. Sarita Bahl	Independent Board Director	BharatRohan
7	Ms. Shital Somani Kasat	CoFounder S4S Technologies	S4S Technologies
8	Ms. Shubhi Mishra	Head, Food and Drink, Policy, Advocacy and Trade Promotion	UK India Business Council
9	Ms. Tonisha Dixit	Project Lead	EY LLB

A8. Panel Discussion

Sr. no	Name	Designation	Company
1	Ms. Amrita Kumar	Director	Dayal Group
2	Ms. Indira Dhumne	Deputy General Manager	Mahindra HZPC Private Limited
3	Ms. Sangeeta Bojappa Moorthy	Chief farmeress and Founder	Farmington
4	Ms. Sarita Bahl	Independent Board Director	BharatRohan

Annexure 2: Data Tables

All India Survey on Higher Education (AISHE)					
Gender-Wise Passout Rates in Agriculture and Allied Disciplines (Year-wise)					
	Degree	Year	Male %	Female %	Total%
AgriBusiness	Post Graduation	2021-22	31.15	42.83	34.91
		2020-21	35.57	33.99	35.04
		2019-20	45.02	39.02	44.12
		2018-19	42.86	30.23	40.65
		2017-18	28.56	44.37	31.58
		Year			
	PhD	2021-22	0.00	14.29	6.25
		2020-21	0.00	25.00	10.53
		2019-20	5.88	14.29	8.33
		2018-19	8.33	0.00	6.25
		2017-18	28.57	150.00	55.56
		Year	Male %	Female %	Total%
Agriculture	Bachelor	2021-22	21.43	22.04	21.61
		2020-21	18.77	17.71	18.46
		2019-20	18.17	19.98	18.70
		2018-19	18.07	18.21	18.11
		2017-18	17.70	18.01	17.79
		Year	Male %	Female %	Total%
	Post Graduation	2021-22	33.61	38.27	35.24
		2020-21	36.99	32.31	34.84
		2019-20	42.89	41.54	42.38
		2018-19	41.05	40.97	41.03
		2017-18	37.06	41.20	38.50
		Year	Male %	Female %	Total%
	PhD	2021-22	23.69	24.25	23.23
		2020-21	26.80	24.84	25.96
		2019-20	86.14	56.22	72.98
		2018-19	96.29	66.89	84.43
		2017-18	100.24	65.40	86.14
Categories	Degree	Year	Male %	Female %	Total%
Forestry	Post Graduation	2021-22	40.82	53.42	46.44
		2020-21	41.33	47.73	44.14
		2019-20	40.24	52.23	45.62
		2018-19	37.93	40.00	38.83
		2017-18	41.63	47.45	43.78
		Year	Male %	Female %	Total%
	PhD	2021-22	6.41	4.38	5.46
		2020-21	19.68	4.55	13.44
		2019-20	21.49	29.90	25.23
		2018-19	41.53	45.78	43.28
		2017-18	26.47	41.98	32.26
Categories	Degree	Year	Male %	Female %	Total%
Horticulture	Post Graduation	2021-22	36.05	33.45	35.08
		2020-21	33.73	33.44	33.62
		2019-20	40.98	35.70	38.99
		2018-19	44.43	42.46	43.64

Categories	Degree	Year	Male %	Female %	Total%
		2017-18	36.41	44.13	39.29
		Year	Male %	Female %	Total%
	PhD	2021-22	37.46	26.39	31.55
		2020-21	29.67	22.55	25.96
		2019-20	29.66	27.93	28.71
		2018-19	31.14	28.21	29.82
		2017-18	38.91	21.85	30.71
Categories	Degree	Year	Male %	Female %	Total%
Sericulture	Post Graduation	2021-22	51.22	72.41	63.64
		2020-21	15.15	12.50	13.40
		2019-20	30.30	27.78	28.74
		2018-19	11.54	6.38	9.09
		2017-18	40.91	24.00	31.91
		Year	Male %	Female %	Total%
	PHD	2021-22	40.00	0.00	12.50
		2020-21	22.22	26.67	25.00
		2019-20	50.00	36.36	42.86
		2018-19	36.36	33.33	35.71
		2017-18	0.00	7.69	4.76
Categories	Degree	Year	Male %	Female %	Total%
Agriculture Engineering	Undergraduation	2021-22	21.38	18.16	20.22
		2020-21	21.50	18.26	20.36
		2019-20	18.14	20.58	19.00
		2018-19	17.96	16.86	17.58
		2017-18	18.97	17.00	18.31
		Year	Male %	Female %	Total%
	Post Graduation	2021-22	38.45	28.90	35.05
		2020-21	26.84	28.40	27.39
		2019-20	34.62	48.33	39.26
		2018-19	30.50	53.16	38.08
		2017-18	37.31	33.76	35.90
		Year	Male %	Female %	Total%
	PhD	2021-22	22.07	17.14	20.49
		2020-21	22.07	12.00	18.34
		2019-20	36.05	65.14	45.32
		2018-19	23.15	54.43	31.53
		2017-18	23.50	13.98	20.29

REFERENCES

1. Atmavilas, Y. (2024). State of India's livelihoods. ACCESS Development Services. <https://livelihoods-india.org/wp-content/uploads/2024/12/SOIL-Report-2024-.pdf>
2. Banga, A. (2024, October 28). Remarks by World Bank Group President Ajay Banga at the Agriculture and Food as an Engine of Sustainable Growth and Jobs Event. World Bank Group. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099041012112425709>
3. Benali, M., Slavchevska, V., Piedrahita, N., Davis, B., Sitko, N., Nico, G., & Azzarri, C. (2023). Gender pay gaps among agricultural and non-agricultural wage workers: A cross-country examination. Food and Agriculture Organization. <https://openknowledge.fao.org/server/api/core/bitstreams/1ab96cce-b51b-4e60-8c16-0464cca0766d/content>
4. Department of Agriculture & Farmers Welfare. (2023). Annual Report 2022-23. Ministry of Agriculture & Farmers Welfare.
5. Deshpande, A. (2023). Illusory or real? Unpacking the recent increase in women's labour force participation in India. Centre for Economic Data and Analysis (CEDA), Ashoka University.
6. Deshpande, A. (2025). Too good to be true? Steadily rising female labour force participation rates in India. Centre for Economic Data and Analysis (CEDA), Ashoka University.
7. Fabry, A., Van den Broeck, G., & Maertens, M. (2022). Decent work in global food value chains: Evidence from Senegal. *World Development*, 152, 105790. <https://doi.org/10.1016/j.worlddev.2021.105790>
8. Food and Agriculture Organization. (2011). *Women's access to rural finance: Challenges and opportunities*. The State of Food and Agriculture. Food and Agriculture Organization. <https://openknowledge.fao.org/server/api/core/bitstreams/584bd6ce-792c-4009-97b5-1d5eec30ad86/content>
9. Food and Agriculture Organization. (2023). The status of women in agrifood systems. Rome. <https://doi.org/10.4060/cc5343en>
10. Gandhi, V., Kumar, G., & Marsh, R. (1999). Agroindustry for rural and small farmer development: Issues and lessons from India. *The International Food and Agribusiness Management Review*, 2(3-4), 331-344.
11. García-Sánchez, I.-M., & Enciso-Alfaro, S.-Y. (2025). Women and circular transition in agri-food industry: The commitment to gender diversity as an engine of change. *Sustainable Development*, 33(1), 1044–1067. <https://doi.org/10.1002/sd.3170>
12. Indian Council of Agricultural Research. (2016). Student READY: Rural and entrepreneurship awareness development yojana. Government of India. https://icar.org.in/sites/default/files/inline-files/StudentReadyBooklet_for-web-1-25102016.pdf
13. Indian Council of Agricultural Research. (2023). ICAR annual report 2022-23. Government of India. <https://icar.org.in/sites/default/files/2024-03/ICAR-Annual-Report-2022-23-English.pdf>
14. International Finance Corporation. (2016, September 15). The business case for women's employment in agribusiness. <https://www.ifc.org/en/insights-reports/business-case-womens-employment-agribusiness>
15. International Labour Organization. (2025, March 6). Women and the economy: 30 years after the Beijing Declaration. ILO Brief. <https://www.ilo.org/research/publications/women-and-economy-30-years-after-beijing-declaration>
16. Kołodziejczak, W. (2018). AN ATTEMPT TO ASSESS THE SCALE OF HIDDEN UNEMPLOYMENT IN POLISH AGRICULTURE IN 2017. *Journal of Agribusiness and Rural Development*, 50(4), 395-401. <https://doi.org/10.17306/J.JARD.2018.00444>

17. Kozera-Kowalska, M., & Uglis, J. (2021). Agribusiness as an attractive place to work—A gender perspective. *Agriculture*, 11(3), 202.
18. Malhotra, S. K., Mantri, S., Gupta, N., Bhandari, R., Armah, R. N., Alhassan, H., Young, S., White, H., Puskur, R., Waddington, H. S., & Masset, E. (2024). Value chain interventions for improving women's economic empowerment: A mixed-methods systematic review and meta-analysis: A systematic review. *Campbell systematic reviews*, 20(3), e1428. <https://doi.org/10.1002/cl2.1428>
19. McKinsey & Company and LeanIn.Org. (2024, September 17). Women in the Workplace 2024: The 10th-anniversary report. <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>
20. Mehrotra, S., Gandhi, A., Parida, J., & Sinha, S. (2014). Explaining employment trends in the Indian economy: 1993-94 to 2011-12. *Economic and Political Weekly*, 49(32). <https://www.epw.in/journal/2014/32/special-articles/explaining-employment-trends-indian-economy-1993-94-2011-12>
21. Meinzen-Dick, R., Kovarik, C., & Quisumbing, A. (2014). Gender and sustainability. *Annual Review of Environmental Resources*, 39, 29-55. <https://doi.org/10.1146/annurev-environ-101813-013240>
22. Ministry of Education, Government of India. (2020). National Education Policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
23. Ministry of Finance, Government of India. (2024, February 20). Economic survey 2023-24. <https://www.indiabudget.gov.in/economicsurvey/>
24. Ministry of Labour and Employment. (2023, March 27). *Agriculture has the highest estimated percentage distribution of female workers followed by manufacturing as per the Annual Periodic Labour Force Survey (PLFS) Report 2021-22*. Press Information Bureau.
25. Ministry of Statistics and Programme Implementation. (2019). Time-use survey. National Statistical Office.
26. Njuki, J., Eissler, S., Malapit, H., Meinzen-Dick, R., Bryan, E., & Quisumbing, A. (2022). A review of evidence on gender equality, women's empowerment, and food systems. *Global Food Security*, 33, 100622. <https://doi.org/10.1016/j.gfs.2022.100622>
27. Pathak, H. (2024, November 18). Enhanced female workforce participation in economic activity: *Data shows improved employment indicators over the last six years*. Press Information Bureau. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2074399>
28. TNN. (2024, January 21). More than 50% students in agri varsities are girls. Times of India. <https://timesofindia.indiatimes.com/city/kochi/presence-of-women-in-academic-field-of-agriculture-is-increasing-in-india/articleshow/107022905.cms>
29. Tripathi, H., Agrawal, R.C., & Pathak, H. (2023). Human resource requirements in agriculture in India. Indian Council of Agricultural Research.
30. Tripathi, H., Joshi, R., Singh, D. K., Agrawal, A., & Agrawal, R. C. (2025). Assessing factors motivating female students to pursue agricultural higher education in India. *The Journal of Agricultural Education and Extension*, 1-28.
31. World Bank. (2024). *Women, business and the law 2024*. World Bank Group. <https://doi.org/10.1596/978-1-4648-2063-2>
32. World Economic Forum. (2024, February 27). *The global gender gap report 2024*. https://www3.weforum.org/docs/WEF_GGGR_2024.pdf

NOTES

