

# Addressing Gender Inequality in Agriculture





# Foreword



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Today's India is a trend setter enjoying global mindshare for its rapid rise. Having achieved 5th position globally in GDP terms the country is poised for influencing global trends - be it in geopolitics, economy, cutting edge technologies, themes like inclusion and climate change mitigation.

Notwithstanding this trajectory, India has many challenges to address, one among them is gender parity in all spheres of life. This report **“Addressing Gender Inequality in Agriculture.”** mainly deals with Indian women in agriculture. It provides a comprehensive overview of the status of women in agrifood systems. It analyses the multiple sources of inequality that constrain their empowerment and suggests policies that can change the scenario.

Agrifood systems are an important source of livelihood for women than for men in India. Approximately 80 percent of all economically active women are employed by the agricultural sector. Despite this when we talk about agriculture in India, we don't necessarily talk about women farmers. Women are engaged in sowing, winnowing, harvesting to processing and all being highly labour intensive. In spite of being present along the entire food chain as contributors, they tend to become 'invisible' when it comes to enjoying the economic benefits.

If I say that “its women who put food on the table” literally and figuratively, very few will agree. The statement implies that women are responsible for both earning the food and cooking it. They understand that women prepare the food but draw a blank when they have to conclude that women are also responsible for 'earning' the food. This is where women become invisible – their contribution remains unnoticed. They remain the unpaid, unvalued and unrecognized. Discriminatory social norms limit the choices available to women, who usually are more involved in unpaid care and domestic work. Women; therefore, are labelled as irregular, informal, part-time, low-skilled and thus vulnerable.





This report highlights the systemic issues on what prevents a woman farmer from becoming 'annadata', a food-provider.

It shows how women farmers are trapped in a vicious cycle. They work in the farms having no 'land ownership' and that deprives them access to credit, government programmes, subsidies, technologies, markets and labour slipping them further into anonymity. This negatively impacts their income and options.

Addressing systemic issues is not easy. It takes transformative policies. Studies indicate that women's equality in agrifood systems could boost the global economy by a whopping \$1 trillion yet women enjoy equal rights in barely 12 countries.

Governments across the world are realising that agrifood systems where women are made 'economic partners' can positively impact not just families, societies, but even economies.

The report has recommendations for policymakers and other stakeholders to strengthen investments, policies, and strategies to support women farmers in India. It illustrates the substantial enhancements that the country could achieve in terms of food security, higher income levels, and improved resilience by closing gender gaps. It offers concrete, tangible, and empirical evidence on gender inequalities and solutions to address them.

India is committed to achieving gender equality and sustainable development as per United Nations Sustainable Development Goals.

In this context, let me draw your attention to the Sunderbans, the ecological treasure of India- when ferocious tigers killed thousands of men, it was the 'Tiger Widows' a band of 3000 women who lost their husbands to tiger attacks, rallied together to protect the key mangrove species of Sunderbans threatened by the devastating effects of climate change. Notwithstanding their emotional and economic trauma, they fiercely protected our ecological assets. Such is India's Legacy!

Given the legacy, women and farming are inseparable. For a country like India that's on a dream run with several schemes like 'Drone Didi', Lakhpati Didi, women driving Agri Start-ups, it's not difficult to transform the lives of women farmers.

Women are an important resource for the nation - amply acknowledged by the government thru schemes like Pradhan Mantri 'Awas Yojana' where houses for the poor have been registered on a woman's name ensuring that she 'owns the house'. This should be the guiding light for securing land rights for women farmers.

Women farmers in India will soon be shaped as 'Annadata' – providers of food. For a country that's changing the orbit ever so frequently, it should not be a challenge.



# Acknowledgement



**Sharmistha Ghosh Solomon**

Sr. Vice President -  
Healthcare and Social Impact

This report is a testament to Avian WE's commitment to fostering gender equality in all walks of life. Writing this report was a strenuous task, and it would not have been possible without the sincere efforts of all the stakeholders involved.

We extend our heartfelt gratitude to all those who have contributed their insights, expertise, and unwavering dedication to this vital cause. From researchers and practitioners to policymakers and grassroots changemakers, your collective efforts have played an invaluable role in shaping the discourse on gender equality in agriculture.

As we reflect on the insights of this report, we recognize that our work is far from over. There are still formidable challenges to overcome and new opportunities to seize. Yet, with the continued dedication and collaboration, we are confident that we can build on our achievements and accelerate progress toward a more equitable future for all.

We would like to express our sincere appreciation to everyone who has contributed to this vital issue. Most importantly, this report is a shoutout to all the women in agriculture who work tirelessly day and night, on and off the fields, to ensure food security for not just their families but for all of us. This report is nothing without their efforts, dedication, and strength.

Together, we can create a world where every individual, regardless of gender, can thrive and contribute to sustainable development.

# Testimonials

(Names have been listed in alphabetical order)



This report underscores the crucial role of women in agriculture, revealing their significant contributions and persistent challenges. It serves as a wake-up call for policymakers and stakeholders to prioritize gender-inclusive strategies and ensure equitable access to resources, empowering women for sustainable agricultural development.

**Dr. Anil Agrawal**

Chancellor of HRIT University and a former parliamentarian



Many researchers and observers tend to undervalue the work done by women in agricultural fields. To be fair, in rural societies, they tend to play an equally important role which awaits fair assessment.

**Arjun S. Kadian**

Academic-Author



Women are the backbone of Indian agriculture, contributing significantly to both family farms and wage labor. Their role is crucial in driving sustainable farming practices and ensuring food security, yet they often face systemic barriers that hinder their full potential. Empowering women in agriculture is not just a matter of equity but a catalyst for broader economic growth and rural development.

**Dr. Arkaja Goswami**

Professor, University of Delhi



The lack of gender-disaggregated data hampers our understanding of women's contributions to agriculture. Let's invest in data for change—that is, collection and analysis—to inform inclusive policies and empower women farmers. Kudos to the team for their efforts to highlight this issue in the report.

**Arunansh B. Goswami**

Advocate, Supreme Court of India, Historian and Consultant with Scindia family of Gwalior



This report illuminates the intersection of gender, agriculture, and climate change, revealing the disproportionate impact on women farmers. By understanding these dynamics, we can develop targeted strategies to enhance resilience and sustainability in agriculture, ensuring a more equitable and resilient future for all.

**Prof. Aseem Prakash**

Professor of Public Policy and Deputy Director, Tata Institute of Social Sciences, Hyderabad

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Gender disparities in India's agriculture sector are a significant issue. Avian WE has taken this issue for study because, despite women constituting about 33% of the agricultural labour force, they face numerous challenges that hinder their productivity and well-being. Women often lack equal access to resources such as land, credit, training, and technology. They typically have less ownership of land, which restricts their decision-making power and access to financial services. Additionally, societal norms and gender roles limit their participation in formal agricultural markets and extension services. Addressing these disparities is crucial for improving agricultural productivity and ensuring equitable development. It's the responsibility of the government and agro-industry to empower women with equal opportunities in agriculture, which can lead to more sustainable and inclusive growth in the sector. Avian WE, in this study, recognised gender disparities in agriculture, and take adaptive measures according to the SDGs. Avian WE observed that the main bottleneck in this whole process is the socio-cultural barriers established by patriarchal norms; therefore, policymakers must take into account these norms and incorporate provisions that provide answers to tackle them. I agree that the government needs to have targeted budgetary allocations for women-specific provisions rather than leaving it as a demand-driven policy. We have to raise awareness and provide support to encourage women's involvement in decision-making processes related to agricultural policies. I believe that the increasing contribution of women to this sector must be integrated into the overall policy framework, and women must be supported financially as well, and not only government but also civil society and the private sector are needed to advance gender education.

**Brijmohan Shrivastav**

National General Secretary and Chief National Spokesperson,  
Nationalist Congress Party

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Studies suggest that mechanisation in agriculture often relegates women to traditional roles with lower wages, such as harvesting, seed sowing, and livestock rearing, thereby reinforcing the gendered nature of modernisation in agriculture.

**Dr Fauzia Khan**

Member of Parliament, Rajya Sabha, and a former  
Maharashtra minister





In Uttar Pradesh, women are already at the forefront of the agricultural workforce. Empowering these women through Gandhian principles will significantly boost the developmental growth of our nation.

**Dr Heera Lal**

IAS, Special Secretary – Irrigation,  
Government of Uttar Pradesh

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Women are frequently responsible for food production, water collection, and acquiring fuel for cooking and warmth, but climate change is exacerbating these tasks. Extreme weather events such as droughts and floods disproportionately impact the impoverished and most vulnerable populations, of which 70% are women. This disparity arises because women are more likely to live in poverty, have less access to fundamental freedoms such as property ownership and mobility, and face routine violence, which intensifies during times of instability.

**Dr Kaviraj Singh**

Founder and Managing Director, Earthood

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Women are the backbone of agriculture. This report celebrates their tireless dedication and resilience in the face of numerous challenges. Let us recognize their potential, empower their voices, and work towards a future where the fields echo with gender equality.

**Dr. Kirit P Solanki**

ex-Member of Parliament, Lok Sabha

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Women play a vital role in farming, nurturing the land, and ensuring food security. Empowering women in agriculture is essential not only for gender equality but also for the development and prosperity of our nation. Their contributions are the foundation of sustainable growth and rural advancement.

**Neha Mehrotra**

Managing Director, Avian WE



Women are the backbone of India's agricultural sector, playing a crucial role in farming and food production. Their contributions, often unrecognised, are vital for the sustainability and growth of our rural and tribal economies. Empowering women in agriculture is essential for achieving food security and economic resilience in India.

**Nitin Mantri**

Regional Executive Managing Director for Asia-Pacific, WE Communications, and the Group CEO of Avian WE.

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It is finally time we realised the gender-differentiated impacts of climate change and how the burden falls more on women due to a lack of access to suitable and efficient agricultural technologies and the perilous conditions of work, both in farms and households. This report provides a gendered perspective on climate change, which is important for developing inclusive and effective climate change mitigation and adaptation strategies that prioritise the needs and experiences of women.

**Pradeep Singhvi**

Executive Director, Energy & Climate Practice, Grant Thornton Bharat LLP

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In the men-dominated sector, women farmers have to work twice as hard to prove themselves. But they should not get discouraged; their strength, dedication, and resilience will make them the ones to lead the way.

**Dr Pratapsingh Khapte, Scientist**

Indian Council of Agricultural Research

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Empowering women farmers for food security and nutrition is not only about sustenance but also about building healthy communities and ensuring that women understand their power to transform present and future generations. The role of women as food producers and their contribution to household food security is largely unrecognized. As they are key to impacting agricultural development and food and nutrition security, it is essential to improve and recognize the role of women as agricultural producers. I commend this report for bringing this issue to light and providing suggestions for women's food security.

**Dr Sujeet Ranjan**

Public Health Expert | Tata Trusts | Coalition for Food & Nutrition Security | CARE

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This report serves as testimony to the indispensable role of women in agriculture, as it breaks stereotypes and highlights their plight, despite being the biggest contributors. By recognizing the root causes of gender disparities in agriculture, we can contribute to the policy discourse and foster more inclusive and sustainable agricultural systems.

**Tuhin A. Sinha**

National Spokesperson, BJP

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Despite women performing most of the labor-intensive work in agriculture, they are not at the forefront of the industry. To change this, we need to encourage young women and girls towards agri-tech education, provide training to those already involved, empower them technologically, ensure fair land holdings, and guarantee equal pay and recognition for their contributions.

**Dr. Veerendra Mishra**

IPS officer from MP Cadre, H. Humphrey Fulbright  
Fellow and Kalinga Fellow

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Indian agriculture is largely driven by women, especially in rural and tribal areas. The agriculture sector must empower women with decision-making abilities. It's time for young, bright girls to step forward, join the agricultural workforce, and become part of the mainstream.

**Vikas Ghumare**

Agronomist and Grower

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Extreme events disrupt on-farm operations, deeply impacting women's roles in agriculture. Variable rainfall and prolonged droughts reduce crop yields, further jeopardising food security. Women, integral to on-farm operations and household food management, particularly bear the brunt of the said changes thereby hinting at the need for ecological feminism.

**Vipin Juneja**

Lead - Editorial & Strategic Partnerships, News24



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# Introduction

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When we think of a farmer, instantly the first image that comes to our mind is that of a man, in his white dhoti and bare upper body, face covered with soil, sweating and working tirelessly in the fields. This is how we have been conditioned to think since humankind knew about agriculture. India is an agrarian state, because it employs more than 50% of the Indians and contributes around 20.2% in the Indian GDP. However, a lesser known fact is that nearly 63% workers are females in the agriculture sector at the pan-India level, as per the latest Periodic Labour Force Survey (PLFS) survey. Despite their substantial presence, women's efforts in agriculture often go unnoticed.

Gender inequality seeps into agriculture and allied activities as well. In the vast agricultural landscapes of developing countries like India, women play a pivotal role, both as informal family farm workers and as formal wage employees. However, their involvement in agriculture is filled with challenges, ranging from limited access to resources and financial services to gender-differentiated impacts of climate change. Additionally, the burden of unpaid care work further restricts women's engagement in agriculture, limiting their opportunities for economic empowerment and advancement within the agricultural value chain.

This intersection of gender and agriculture is not only significant but imperative for understanding the complexities and addressing the disparities within the sector. Various schemes and programs aim to mainstream the participation of rural women in agriculture, providing access to resources, skill development, and capacity-building opportunities. Yet, significant gaps persist, necessitating a more comprehensive, gender-responsive and 'rights-based' approach to agricultural development. Hence, this report aims to delve deeper into this intersection by bringing into limelight various issues surrounding gender in agriculture and adapting India's context to it.

As per Landesa, a non-profit organisation working towards securing land rights for poor families, gender inequality continues to be a problem despite legal allowances. Inheritance laws, guided by personal laws, have transformed, and evolved. Despite the 2005 amendment to the Hindu Succession Act eliminating Section 4(2), which prioritised specific local laws about the devolution of tenancy rights in agricultural holdings, such as state laws preventing fragmentation of agricultural land, setting land ownership ceilings, or determining the devolution of tenancy rights, it created further confusion about which laws govern the inheritance of agricultural land.

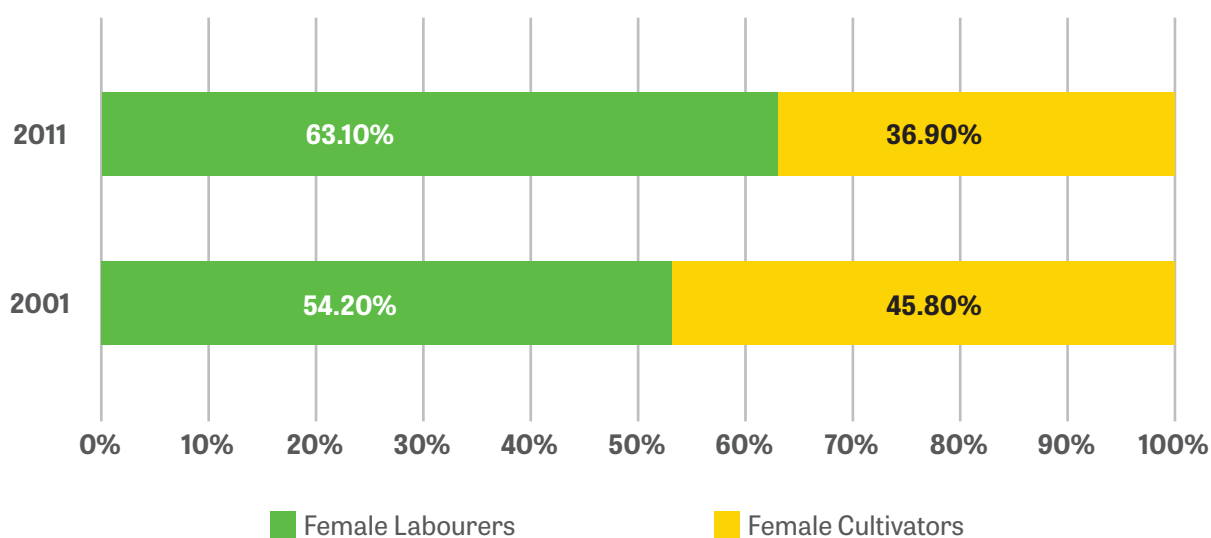
The Landesa report titled "Gender Inequality in Inheritance Laws: The Case of Agricultural Land in India" furthers the confusion and mentions that gender inequality arises from fundamental, antagonistic contradictions and issues. In the Indian Constitution, succession and transfer of non-agricultural land are placed on the concurrent list, allowing both the Centre and the states to legislate on these matters. However, agricultural land falls under the state's list. Despite this, the Hindu Succession Act, which governs inheritance for the majority of Indians as property inheritance is typically regulated by personal laws, addresses both agricultural and non-agricultural property. Now the debate that arises here is whether agricultural land should be governed by personal laws or state laws. Some states have mentioned explicit rules on the governance of agricultural land. Hence, this has become a topic of contention with a web of laws governing it, making it all the more difficult with already existing social barriers.

# Gender and Agriculture: Key Issues

## Land Rights; Recognition, Ownership and Control

In a country like India, where over 70% of the total population and 80% of the poor live in rural areas, the centrality of land to people's lives and livelihoods cannot be overstated. Apart from being a key livelihood asset, arable land is also the most valued form of property and productive resource in the rural agrarian economy. For a significant majority of rural households in the country, land is the single most important source of security against poverty. Traditionally, it has been the basis of political power and social status. At a symbolic and cultural level too, land provides a sense of identity and rootedness to many.

In contrast to their high participation, women own 13.9% of landholdings, the agricultural census of 2015-16 found. Access to other resources is based on this single hold of land titling. In India, one must own land to be considered as a farmer. The census categorises individuals who work on agricultural land as 'cultivators.' Operational land refers to land utilised for agricultural purposes, regardless of whether the user owns it or not. While land falls under the jurisdiction of state governments, only individuals possessing land titles are recognized as 'farmers' by these authorities. Consequently, despite being labelled as 'cultivators,' approximately 3.6 crore women are not officially recognized as 'farmers' by the government. Since more than 87% of women do not own land, they are classified as 'cultivators' who work on agricultural land. Consequently, they are ineligible for government schemes intended for farmers, depriving them of access to institutional credit and subsidies for farming activities.



Source: Census of India, 2011





The graph shows a decadal comparison of the census data that shows a rise in the number of women as labourers, who do work as an extension of household activities and are not classified as cultivators, again indicating women's increasing loss of access to cultivable agricultural lands.

The Agriculture Census 2015-16 revealed an increase in percentage of female operational holders of all size groups from 12.78 to 13.96, indicating participation of more and more women in operation and management of agricultural holdings in the country. However, women are often unpaid agricultural workers as most profits are appropriated by their husbands. In addition, they mostly do it for the family business and hence, ownership cannot translate to control and equality.

“Development economist Bina Agarwal, in her 1994 book “A Field of One's Own,” says landlessness is the most significant factor upholding female subjugation in India. She discusses the importance of land ownership – a woman's bargaining and decision-making power in the household increases when she owns land. This study spurred a female land rights' movement, which has led to gender-sensitive legislation on land ownership.”

The 2011 Census Report recognised a large number of women as 'cultivators' but not 'farmers'. It does not guarantee them the rights which being recognised as farmers would, such as loans for cultivation, loan waivers, crop insurance, subsidies – or even compensation to their families in cases where they commit suicide.





## Gaps in agricultural productivity

Gendered yield gap in agricultural productivity is estimated to be in the range of 20-30 percent (FAO, 2011). Several studies have explained that farms managed by women exhibit lower productivity compared to those managed by men. This discrepancy arises from several factors, including limited access to crucial agricultural resources such as inputs, labour, and extension services. Despite legal and institutional reforms aimed at safeguarding women's land rights, they still experience less secure land tenure than men. This insecurity, coupled with factors like limited ownership of assets, lower literacy levels, mobility constraints, and entrenched social norms, results in restricted access to financial services such as credit and insurance. Women also bear a disproportionate burden of unpaid care and domestic work, which constrains their time and labour available for agricultural activities. All of these are guided by social norms, for instance, they are asked to focus on subsistence crops, considering their primary responsibility to be household food production. Consequently, it affects women's agricultural productivity, economic empowerment and overall well-being.

Educational opportunities for rural women in India are often limited, which impacts their capacity to adopt improved farming techniques, use modern technologies, and access market information. Lack of education and skills training hampers their ability to enhance productivity and adapt to changing agricultural practices. Lack of access to institutionalised credit also becomes a major barrier. A recent World Bank paper hypothesises the labour and credit market imperfections – by discouraging off-farm income-generating activities and restricting access to inputs, respectively – affect female farm productivity more deeply than male productivity. Based on empirical evidence and analysis, it is argued that agricultural labour productivity is, on average, 44% lower on female-headed plots than on those managed by male heads. This gap is explained by differences in labour market access and 29% by differences in credit access (Lopez and Lopez, 2015).

Additionally, inadequate access to agricultural extension services and climate change adaptation tools and technologies further restricts women's ability to enhance crop production and resilience to climate-related shocks and stresses. They do not have access to tools and technology that can keep their agricultural productivity unhampered during climate crisis times.

## Deprivation of Access to Resources

Despite women's vital contribution to agriculture and other allied sectors in India, they lack control over productive assets such as land and livestock and in accessing technologies such as irrigation, credit, extension services and markets etc., that are vital for sustaining agriculture.

Availability and access to adequate, timely and low cost credit from institutional sources is of great importance to women who form the bulk of small and marginal farmers in the country. Along with other inputs, credit is essential for establishing sustainable and profitable farming systems. Women farmers face major constraints in accessing credit and other financial services such as crop insurance, coverage of risk and compensation in the event of crop loss and damage, etc. The primary reason for a large number of women farmers being denied equal access to credit is because the land is not in their name. Differential access to credit and related support services also adversely impact the productivity, investment capacity, and incomes of farms managed or operated by women farmers.

A report by the "Task Force on Credit Related Issues of Farmers" set up by the Ministry of agriculture shows that when women farmers take credit for agricultural purposes from other non-banking institutions such as Self Help Groups (SHGs), it is often not recorded as 'agricultural loans'. Further, in the case of tenant farmers, sharecroppers, oral lessees, who had received loans for agriculture through Joint Liability Groups (JLGs), it is often recorded as 'other loans' (GOI, 2010). Experience from different parts of India reveals that when banks don't lend money, women farmers end up taking debts from private moneylenders often at very high rates of interest thus leading them into a vicious cycle of indebtedness. Further, in areas where men have left farming and migrated to cities or in cases where women are widowed and single, they also find it harder to hire farm hands for hard physical labour such as ploughing and cannot afford help or cannot find men willing to work for them. In the absence of additional labour, women are forced to till smaller plots of land, perpetuating the cycle of disadvantage.

This also made them highly vulnerable to occupational health hazards. As per a study conducted by the Directorate of Research on Women in Agriculture (DRWA), hazards faced by farm women in their daily activities were mainly due to lack of modern equipment/ technology (41%), low wage (43.3%), monotonous work (40.8%), irregular hours (31.9%) and excess responsibilities (20.4%).

It is important to have an identity card for recognition of women, to allow them to practise their rights. The Kisan Credit Card requires having land ownership to access these rights. M.S. Swaminathan, the leader of green revolution, emphasised on the importance of women having ID cards to access their entitlements.



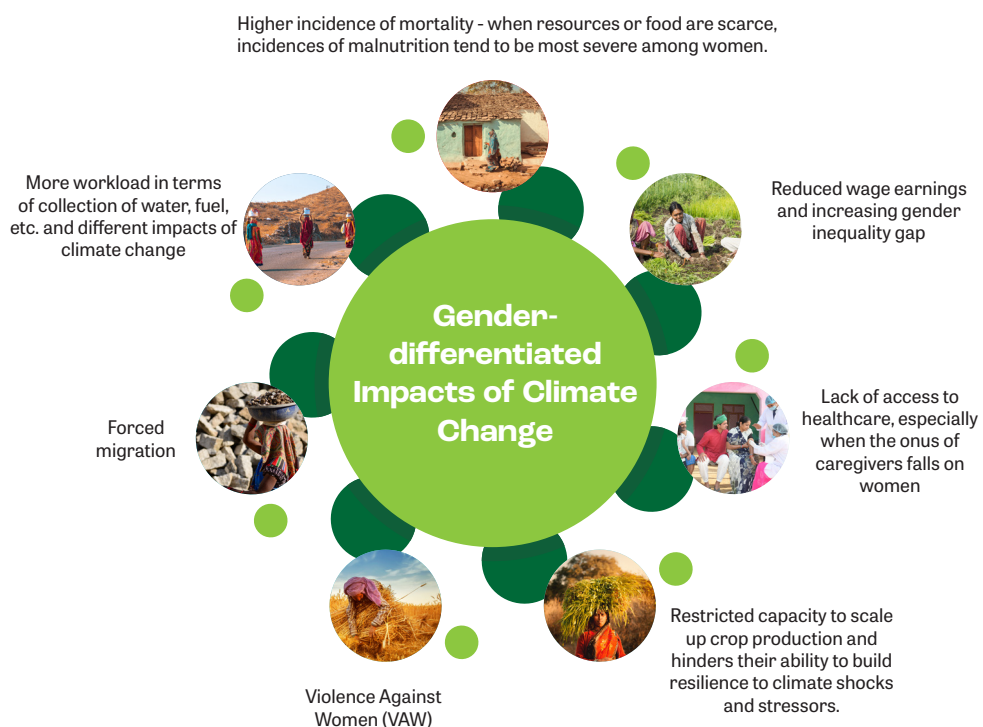


## Dearth of Gender based disaggregated data in agriculture in India

A study published in the *Frontiers in Sustainable Food Systems* journal mapped hotspots in Low and middle income countries, wherein women might be most affected due to climate change, and what could be the plausible reasons behind it. It was found that women engaged in agri-food systems in Africa and Asia, including in India, face the highest climate risks such as droughts, floods or shortened crop-growing season. It ranked 87 countries based on the level of climate change threat faced by women working in agricultural sectors. The study covered nations in Latin America, Asia and Africa. India stood 12th on the risk index developed by the researchers. Within these countries, local climate hazards tend to negatively affect women more than men, the analysis showed. Moreover, women's adaptive capacities tend to be more restrained than men's because of underlying gender inequality and unequal access to resources.

Role of women in agricultural activities further highlights how women's livelihoods are highly dependent on natural resources, making them particularly vulnerable to a changing climate. Hence, the negative effects of climate change on agricultural production will impact women the hardest as they work under the most perilous circumstances in the sector, with lower wages, tougher conditions and poorer livelihood opportunities. As women and young people make up the majority of the rural poor, their economic ability to adapt to shifting agricultural constraints & opportunities in a changing climate is restricted. Finally, limited access to agricultural extension services and climate change adaptation tools and technology restricts women's capacity to scale up crop production and hinders their ability to build resilience to climate shocks and stressors.

A gender perspective on climate change affecting agri-food systems is important for two reasons. Recent conceptual frameworks linking climate change, gender and agri-food systems lay out that, on the one hand, climate related hazards affect women and men involved in agri-food systems differently (Kristjanson et al., 2017; Theis et al., 2019). Part of the differential impacts on men and women can be directly linked to differences in exposure to climate hazards (Bryan et al., 2023). On the other hand, women and men experience different vulnerabilities. There are gender differences in sensitivity to harm caused by climate related hazards (Bryan et al., 2023).



Recent studies show that the extent to which climate, agriculture, livestock and natural resource policies – and their implementation and budgets – are gender responsive is variable across countries (Ampaire et al., 2020; Huyer et al., 2020). In East Africa, Uganda and Tanzania in particular, policies are increasingly gender responsive, although this varies across governance levels and budgets are not always well aligned to or sufficient for the intended gender responsiveness. In South Asia, like for instance in India, Nepal, and Sri Lanka, climate action policies in South Asia are oriented toward improving climate resilience but are often gender-blind and non-inclusive.

In the Interim Budget, the allocation for the Agriculture Ministry for 2024–25 has been 1.27 lakh crore rupees, an increase from the revised estimates of ₹1.16 lakh crore in 2023–24. The Finance Minister mentioned in her speech that “The sector is poised for inclusive, balanced, higher growth and productivity. These are facilitated from farmer-centric policies, income support, coverage of risks through price and insurance support, promotion of technologies and innovations through start-ups.” However, there is no mention of the impact of climate change on women farmers, or innovation ideas in terms of PPP models to mitigate climate change risks.





## Lack of Gender based disaggregated data in agriculture in India

The Agricultural Census in India which was carried out for the first time in 1970-71 and is carried out at an interval of every five years forms an important statistical data base for various policy decisions related to agriculture. In the collection of Agriculture Census data, the 'agricultural operational holding' (as against ownership holding) is considered as the basic unit of decision-making in all programmes of agriculture development and is therefore adopted as the basic unit for data enumeration in the census. It is important to mention here that the collection of agricultural Census data related to land holdings is drawn from existing land records available with the revenue departments in various states. However, the Census data does not accurately reflect the true picture on the ground given the poor state of land records that have not been updated for a long time in many states.

It is also extremely difficult to obtain data on land titles held by women from official land records since land records for the entire country are not disaggregated by gender and digitised accordingly for easy access. In the land title recording system in India, the responsibility of mutation and registration of land titles lies with the land holder. Land records are often outdated and inaccurate when landholders do not report transfers in land title. More importantly, land transferred to women by various means such as family or through government land distribution is often not verified and recorded correctly by the revenue officials. Therefore, the data from Agricultural Census is only indicative of the extent of land holdings operated by various categories of farmers, including women but does not truly reflect the actual land ownership and cultivation patterns, including tenancy across the country.

Accompanying poor ownership and control of assets such as land, another major challenge for women farmers is their lack of visibility and identity as farmers despite their major contribution to agriculture and allied sectors such as animal husbandry, poultry, fisheries, etc. However, their actual time and contribution to the rural economy is not accurately captured in official statistics.

There is no gender disaggregated data with regard to the exact number of women farmers availing credit for agricultural purposes from various sources. While various initiatives have been taken by the government over the years for enhancing the flow of credit to agriculture through special farm credit packages, interest subvention to farmers, extension of interest subvention on post-harvest loans, collateral free loans, Kisan Credit Card Scheme (KCC), etc., access to formal credit institutions continues to elude a large number of woman farmers.

## Technological Marginalisation for Women in Agriculture

Technological empowerment for women in agriculture in India involves providing women farmers with access to and training in the use of modern agricultural technologies, tools, and techniques. This empowerment enhances their productivity, efficiency, and resilience to various challenges.

A parliamentary question asked in 2023 about women in agricultural institutes and training centres received the following reply for funds allocated and distributed;

The details of total funds allocated, disbursed and utilised by ICAR specifically for skill development programs targeting women in agriculture in the past five years is as follows:

Table 1 - Funds allocated and utilised by ICAR

Year	Funds allocated (Rs in Lakhs)	Funds utilised (Rs in Lakhs)
2018-19	3979.84	3893.84
2019-20	3562.77	3555.56
2020-21	3096.4	3090.75
2021-22	2868.88	2865.49
2022-23	2926.96	2926.21

The All India Coordinated Research Project (AICRP) on Home Science is carried out by nine state agricultural universities. This project aims to:

- Create databases tailored to gender-specific needs.
- Develop training materials for women in farming.
- Introduce technologies to make women's work in agriculture easier.
- Improve the nutrition and health of farming families.
- Encourage vocational skills among young girls.
- Enhance the value of natural fibers.
- Empower rural women for better livelihoods.



#### A comparison between states revealed

- Women in Assam were more involved in livestock management training.
- In Andhra Pradesh, they focused on homestead management.
- Himachal Pradesh saw more participation in horticulture.
- Uttarakhand had the highest participation in farm-related training and awareness (87%).

Reasons for women not attending training included time constraints, lack of notice, and relevance of training. Challenges in technology adoption included limited access to suitable technologies and region-specific inputs, as well as marketing issues.

Another project, focused on developing sustainable livelihoods through Women Self Help Groups (SHGs), analysed these groups using SWOT analysis. Successful groups were those with strong connections to other SHGs, government departments, and local businesses. Groups that could form partnerships for marketing, product information, and technology support were also more successful. Identifying skill training needs and interests of SHG women was done through a participatory approach.

## Changing gender roles in Agriculture

Contrary to popular belief, agriculture is a female-dominated field. Think of a farmer again. Picture her to be a woman, holding a plough and working in the field. This is the image of the futuristic vision of India.

The Economic Survey 2017-18, presented by Union Minister for Finance and Corporate Affairs, Shri Arun Jaitley in Parliament, highlighted a trend known as the 'feminisation' of agriculture due to increasing rural to urban migration by men. This means more women are taking on various roles in farming, such as cultivators, entrepreneurs, and labourers. Globally, women play a crucial role in ensuring food security and preserving local biodiversity by managing natural resources for daily household needs.

Studies show that in India, women are heavily involved in agricultural activities, ranging from 60-75% participation in tasks like seedling nurseries, sowing, weeding, and grain processing. In activities such as cutting, picking, cleaning and drying of grains, storage and processing, women's participation was found to be almost 100% (Chayal et al, 2010). Men's work in agriculture is largely restricted to ploughing, purchase of seeds, fertilisers and pesticides and marketing of the produce. Several micro-studies point to the fact that there exists a clear gender based division of labour with more woman-days going into farming than man-days in a variety of agricultural operations, which are divided and performed by men and women based on gender (Rao, 2006).

The level of women's involvement in agriculture depends on factors like land ownership. On average, women contribute 50-60% of the labour in farming, but this varies by region and household. Their roles also differ based on factors like cropping patterns and cultural background.

A study conducted by DRWA, analysing data from 23,000 respondents across 11,500 families in 56 zones, found significant variations in rural women's access to resources, particularly in Himachal Pradesh, Maharashtra, and Uttarakhand, where access to land for women was notably higher at 70%, 50%, and 32%, respectively. However, their access to land for sale and purchase was comparatively low. Moreover, women in Himachal Pradesh, Rajasthan, and Karnataka had more complete access to tools and implements compared to other states. Similarly,



their control over storage and retention for household use was higher in Punjab, Uttarakhand, Andhra Pradesh, Himachal Pradesh, Rajasthan, and Haryana.

The study also revealed that rural women's most significant independent participation was observed in activities such as homestead gardening (28.8%), followed by livestock management (22.3%) and post-harvest management (11.4%). In Himachal Pradesh, women had greater control over land resources than men, as men often migrated for livelihoods, leaving women with more responsibilities, especially in backyard management and livestock in states like Punjab, Himachal Pradesh, Rajasthan, and Karnataka. While men were typically seen as the owners of cattle, women were primarily responsible for tasks like feeding, waste management, and dairy income decisions. Considering the predominant role of women across various stages of the agricultural value chain, including production, processing, packaging, and marketing, there's a need for gender-specific interventions to enhance productivity. This entails ensuring women farmers have better access to resources such as land, water, credit, technology, and training. Addressing the differential access of women to resources like land, credit, water, seeds, and markets is crucial for improving agricultural productivity in India.

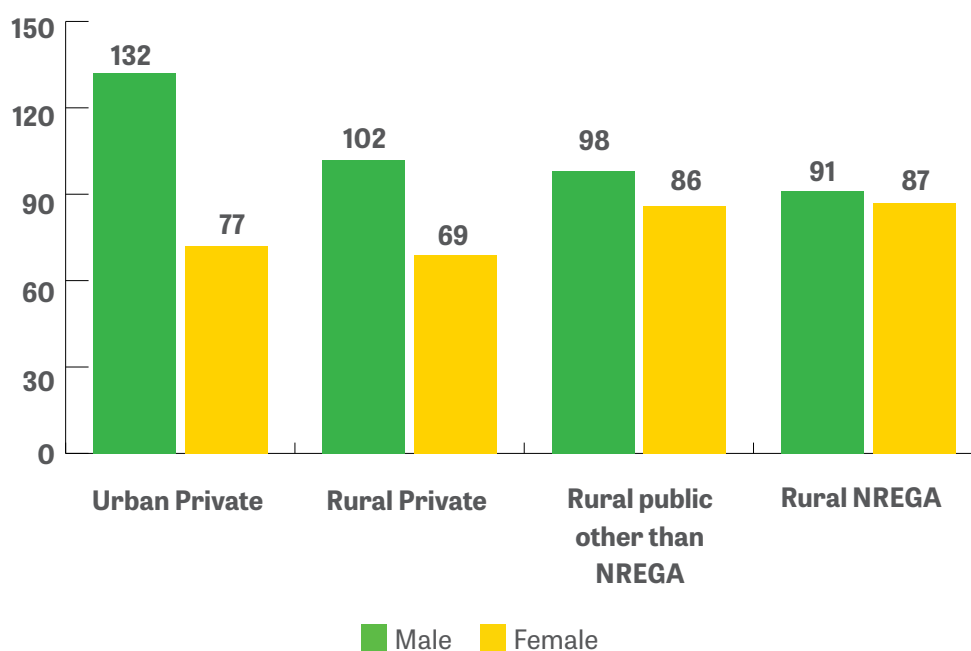
In addition, it is also imperative to recognise the role of social security protection for women in agriculture. Most farmers also relocate and migrate to find work, during which they are exploited by several middlemen and contractors. Beed, also known as the 'Wombless Village' in Maharashtra, faces a large footfall of women during sugarcane cutting season to find work. Contractors pay them a minimal amount, and charge heavy fines if they miss even one or two days of work, which is mostly due to menstruation. Hence, women decide to get hysterectomies done, irrespective of their age, in many unhygienic conditions. This being an unregulated area calls for further social security measures. There are certainly social security measures to protect the agricultural workers like PM Krishi Vikas Yojana, PM Krishi Sinchai Yojana, PM Kisan Sammaan Nidhi, etc. However, they have not been reaching the targeted audience due to lack of awareness and equipment to access these measures. The schemes mainly fail due to procedural barriers (Yadav et al., 2023). Sometimes, they are also excluded by the market due to their fluctuating incomes or legal titles, rendering them ineligible to participate.



## Gender wage gap

Although nearly four-fifths of rural women are engaged in agriculture, the sector suffers from declining wages and unequal treatment based on gender, leading to resource degradation. Approximately 60% of agricultural tasks are carried out solely by women, yet their hourly wages range from 50-75% of men's wages, which are insufficient to lift them out of poverty.

**Daily actual wages of male and female workers in 2009-10 in Rupee (NSSO 2011)**



Source: Based on data from NSSO(2011)

There exists a significant wage gap between men and women, with men earning 1.4 times more than women. The limited control women have over household resources both stems from and contributes to their lack of influence in household decisions and negotiation outcomes. This unequal distribution of assets within households leads to a 'gender-based class division' in the labour market. Women's inability to control productive assets limits their ability to work on them and claim the resulting incomes, further hindering their ability to demand higher wages. Additionally, societal expectations regarding women's roles within the household restrict their freedom to allocate their time and pursue non-agricultural employment opportunities with better pay, reinforcing their disadvantaged position in the labour market. (Da Corta and Venkateshwarlu, 1999; Chaudhary, 1994; Garikipati, 2008).

# Policies and Institutional Analysis

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15th October has been recognised as Women Farmers Day in India. While this recognition is a significant step, along with some imperative interventions, there is a long way to go.

In line with the vision of Aatma Nirbhar Bharat set forth by the Hon'ble Prime Minister, the Government of India has placed significant emphasis on 'Gender Mainstreaming in Agriculture' to ensure rural women engaged in agriculture and allied sectors have access to resources and schemes. The Department of Agriculture and Farmers' Welfare has introduced special beneficiary-oriented schemes aimed at mainstreaming women's participation, requiring states and implementing agencies to allocate at least 30% of expenditure towards women farmers.

## Skill Development and Capacity Building

Various skill-training programs are being conducted under schemes of the Ministry of Agriculture and Farmers' Welfare and Ministry of Rural Development to enhance the skills and capacities of women farmers. Initiatives such as the Agriculture Technology Management Agency (ATMA) under the Sub-Mission on Agriculture Extension (SMAE) provide skill training courses in agriculture and allied areas. Additionally, under the National Food Security Mission (NFSM), 30% of funds allocation is designated for women farmers, with cropping system-based training programs to increase awareness of improved agricultural technologies.

## Community Participation and Self-Help Groups (SHGs)

Efforts have been directed towards promoting women Self-Help Groups (SHGs) to facilitate their connection with micro-credit institutions and enhance their representation in decision-making processes. Farmers Producer Organizations (FPOs) and SHGs play a vital role in disseminating information about various programs among rural women. The Mahila Shakti Kendra (MSK) developed by the Ministry of Women and Child Development empowers rural women through community participation and awareness-raising on issues like girl education and maternal health.



## Technological Empowerment of Women

The Biotech-Krishi Innovation Science Application Network (Biotech-KISAN) Programme, initiated by the Department of Biotechnology (DBT), aims to provide scientific solutions to farmers, especially women farmers in the northeastern region. This program facilitates the adoption of innovative agricultural technologies by small and marginal farmers, thereby empowering women in the agricultural sector.

The Mahila Kisan Sashaktikaran Pariyojana (MKSP) is the only sub-programme operating under the Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM) specifically for women farmers. According to a circular from the Ministry of Rural Development, “a total of 57,270 Mahila Kisan have been registered through 5816 Local Groups for embarking on organic farming.” The same circular also identifies nearly 14.03 lakh women farmers participating in the State Rural Livelihoods Mission and MKSP. This underscores the pivotal role women play in advancing the government’s objectives in organic farming. However, the total budget allocation for MKSP in the fiscal year 2018-19 amounted to a modest Rs 847.8 crore, as mentioned in a Lok Sabha reply.<sup>1</sup> Although allocations for NRLM have seen an increase over time, a corresponding increase in allocations for MKSP has yet to materialise effectively.

In 2021, the state/UT wise funds released under MKSP were published.<sup>2</sup> It was observed that in 2018-19, the funds released were almost 66 crores and in 2021-22, the funds released were a meagre 1.85 crores. It is to be noted that MKSP is a demand-driven programme, and hence, instead of state allocation, it functions on the demands asked by the states. This sharp decline shows the prioritisation of states in empowerment of women farmers.

In 2012, the approval committee for the State Action Plan for Climate Change (SAPCC) within the Ministry of Environment, Forest & Climate Change (MoeF&CC) instructed all state governments to emphasise the gender aspect, including special needs concerning climate change, and ensure women’s involvement in the implementation process (Alternative Futures, 2014). A study by The Energy and Resources Institute (TERI) found that most states’ adaptation strategies for the agriculture sector primarily focus on general strategies, lacking a comprehensive approach to addressing gender-based issues within the sector. Furthermore, the allocated budget for the agriculture sector in most SAPCCs is minimal (CSE 2018: 27).

1. <https://sansad.in/getFile/loksabhaquestions/annex/172/AU2389.pdf?source=pqals>
2. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1740830>

Table 2 - Agriculture Budgetary Allocation in SAPCCs

States	Estimated agriculture budgetary allocation in the SAPCC (in Rs crore)	Share of agriculture in total estimated budgetary allocation
Madhya Pradesh	1756	37%
Punjab	8979	15%
Odisha	1500	9%
Gujarat	585	2%
Uttarakhand	80	0.9%
Uttar Pradesh	103	0.2%

Source - Centre for Science and Environment 2018

Table 3 - Policy framework, institutions and instruments in analysis

Policy Framework	Policy Institutions	Policy Instruments
Public-Private-Partnerships (PPP); the State, Markets and Civil societies work in complete silos to achieve productivity and enhance the agricultural sector.	<ul style="list-style-type: none"> <li>Central level: Ministry of Agriculture and Farmers' Welfare, Ministry of Rural Development, Ministry of Science and Technology, Ministry of Women and Child Development National Bank for Agriculture and Rural Development (NABARD)</li> <li>State Level: State Departments of Agriculture, State Rural Development Agencies (DRDAs), Krishi Vigyan Kendras (KVKs), Agriculture Technology Management Agency (ATMA)</li> <li>Community organisations: Self-Help Groups (SHGs), Women Farmer Producer Organisations (WFPOs)</li> </ul>	<ul style="list-style-type: none"> <li>Subsidies on crops, or agricultural inputs</li> <li>Trainings and capacity building</li> <li>Land titling</li> <li>Financial inclusion</li> <li>Efficient supply chain and storage solutions</li> <li>30% budget earmarked for gender-specific programmes</li> </ul>



# Case Studies and Best Practices

## Self-Sustaining Agriculture Project (FOCAPACI) for the women in El Alto, Bolivia

The main part of the population works in the informal sector and can barely read or write. Only a few people achieve an income of more than 200 Dollars monthly. In order to take care of daily issues in residential areas, local families have organised themselves in almost 600 community organisations. The project focuses on providing women with access to training, resources, and support networks to enhance their agricultural skills, improve food security, and generate income for their families. Key components of the initiative include:



### Training and Capacity Building

Women are offered training in agricultural techniques, such as organic farming and crop diversification, to increase productivity and resilience to climate change. This empowers them with the knowledge and skills needed to sustainably manage their farms and livelihoods.



### Access to Resources

The project facilitates access to land, water, seeds, and other agricultural inputs, addressing structural barriers that often limit women's participation in agriculture. By providing women with essential resources, the initiative enables them to overcome challenges and expand their agricultural activities.



### Collective Action and Networking

Women are encouraged to form cooperatives and support networks, fostering collaboration, knowledge-sharing, and collective decision-making. This strengthens their voice and agency in agricultural development, allowing them to advocate for their interests and access markets more effectively.



### Market Linkages

The project facilitates connections between women farmers and markets, helping them access fair prices for their produce and engage in value-added activities such as food processing and marketing. This enhances their economic opportunities and contributes to local economic development.

Apart from improving health outcomes of the families, the project also contributed to an increase of family incomes as the women are selling the surplus on local markets. Additionally, the producers' associations' self-administration has improved and social recognition of women has increased. Through a reciprocal exchange and regular training, the women have learnt additional production methods; e.g. how to cultivate plants by means of drip irrigation in order to economise the scarce resource water. Overall, the initiative in El Alto, Bolivia, exemplifies how empowering women in agriculture can lead to positive outcomes for both individuals and communities. By providing women with the necessary support, resources, and opportunities, they can play a more active role in agricultural development, improve food security, and contribute to poverty reduction and sustainable rural livelihoods.

## The Zimbabwe Livelihoods and Food Security Programme (LFSP)

The Zimbabwe Livelihoods and Food Security Programme (LFSP) aimed to enhance food security and nutrition among small-scale farmers and rural communities in Zimbabwe, with a focus on empowering women in agriculture. Managed by FAO with DFID funding and a consortium of partners, the program targeted 349,000 Zimbabweans through livelihood support and market development initiatives. Recognizing gender inequality as a key barrier to food security and income, LFSP prioritised gender mainstreaming to promote gender equality and women's empowerment.

The program employed Gender Action Learning System (GALS) and Women's Empowerment Framework. It facilitated women's access to extension services and promoted climate-smart technologies through gender-responsive approaches. By integrating gender equality into climate-smart agriculture programs, the LFSP observed positive outcomes such as increased household productivity, women's control over assets and income, and shared household responsibilities among men.

### Key strategies included

- i. Working directly with women as change agents, supporting their leadership and decision-making roles.
- ii. Developing a gender strategy tailored to the socio-cultural context, addressing constraints and opportunities for men and women.
- iii. Empowering women with tools and resources, including gender-sensitive training and agricultural technologies suitable for women.
- iv. Promoting sustainability through farm enterprise diversification and access to financial services.
- v. Establishing community structures and smart subsidies to facilitate women's acquisition of assets and improve productivity.

## The Pathways program

The Pathways program, funded by the Bill & Melinda Gates Foundation and implemented by CARE across several countries, including India, aims to empower women in agriculture and increase their productivity. By challenging traditional gender roles and providing women with access to resources and training, Pathways has enabled women farmers to increase their yields significantly.

### Key outcomes include

- i. **Increased agricultural productivity:** Through improved practices and access to resources, 47,000 women farmers have boosted food yields by over half a million tonnes compared to traditional methods.
- ii. **Resilience to climate change:** Despite increased household shocks, Pathways participants experienced up to a 56% increase in agricultural production, with yields remaining stable or rising even in challenging conditions.
- iii. **Economic empowerment:** Women's ability to influence household decisions and their leadership roles have increased significantly. The program has facilitated access to credit, markets, and information, resulting in higher incomes and improved bargaining power for women.
- iv. **Gender equality in agriculture:** Pathways challenged stereotypes by recognizing women as farmers and promoting equal participation of men and women in decision-making processes. Male champions have played a crucial role in supporting gender equality efforts.
- v. **Sustainable empowerment:** The program addressed land rights issues and provided access to climate-resistant seeds and agricultural techniques. Women's leadership skills were developed, and access to extension services improved, leading to sustained increases in productivity and income.

## Multi-Partner Programme Support Mechanism (FMM)

The Multi-Partner Programme Support Mechanism (FMM) includes a gender-sensitive value chain development component aimed at empowering women in agriculture. In Ethiopia, this program supports women's associations and cooperatives involved in fruit and horticulture production in the Tigray region. The tomato value chain was chosen due to its potential for women's involvement and market demand for processed products. However, challenges such as low productivity, post-harvest losses, and gender disparities exist.

The FMM initiative in Tigray began in 2015, focusing on upgrading the tomato value chain. Five women's associations were identified, with three selected for support in tomato processing. FAO facilitated partnerships between public institutions, NGOs, and women's associations, providing equipment and capacity-building activities.

### Key successful strategies included

- i. Strengthening partnerships between public and private institutions to address gender disparities in the value chain.
- ii. Enhancing women's business skills to move beyond local markets and negotiate fair prices.
- iii. Focusing on high-potential value chains like tomatoes to increase income and nutrition security.

## Koperasi Mitra Dhuafa (KOMIDA) in Indonesia

Koperasi Mitra Dhuafa (KOMIDA) in Indonesia addresses the significant demand for financial inclusion, particularly among women in rural areas. With a focus on women's empowerment, KOMIDA operates using a client-centric approach, offering loans tailored to the specific needs of disadvantaged women. Inspired by the Grameen Bank Model, KOMIDA employs a solidarity lending approach where group members collectively guarantee loans, fostering peer pressure for repayment.

Through KOMIDA, women have been able to expand their businesses, access financial literacy training, and benefit from additional services such as business development and reproductive health training. KOMIDA's flexibility and responsiveness to client feedback have contributed to its success in promoting women's entrepreneurship in agriculture.

Partnering with Oikocredit, KOMIDA has expanded its reach and capacity to provide financial services to low-income women. This collaboration underscores the importance of multi-pronged strategies and close engagement with clients to spur financial inclusion effectively.

## Fisherfolk Enterprise (FE)

Fisherfolk Enterprise (FE), a women-led social enterprise in Thailand, addresses the challenges faced by local fishing communities, where women comprise 95% of workers. FE, in collaboration with Oxfam, the Thai Sea Watch Association, and ChangeFusion, introduces an alternative seafood value chain model to provide fair prices for fishers and enhance women's business skills.

FE operates within the Gender Transformative and Responsible Agribusiness Investments in South East Asia (GRAISEA) program, targeting smallholder fisher-folks, especially women, to promote sustainable fishing practices and improve livelihoods. Through a rigorous client profiling process and partnerships with local stakeholders, FE empowers women to become better workers and agents of change in their communities.

FE's Blue Brand ensures safe and responsibly sourced food, facilitating access to new markets. Training and mentoring programs enable women to produce high-quality products, leading to increased incomes and stronger skills. The initiative demonstrates the alignment of economic and environmental goals, promoting greener production practices while improving women's participation in the formal labour market.

## Bayu Harvest

Bayu Harvest, a digital platform initiated by Faezrah Rizalman and Jeannette Goon, aims to empower women small farmers in Malaysia's Sabah state by connecting them directly to potential markets. Small farms in Sabah, primarily run by women, face challenges trading their unique products at fair prices due to their location at the bottom of the supply chain. Bayu Harvest utilises a smartphone application to bridge this gap, leveraging the fact that most local women have smartphones and internet access.

Implemented as an e-commerce facility, Bayu Harvest allows farmers to showcase their products, manage inventory, and interact with users through a forum. Initial training workshops in areas like Keningau focus on using the application, packaging, branding, and marketing. Although still in its early stages, the platform has garnered interest from 40-50 farmers, with plans to expand to neighbouring regions and cover more agricultural ingredients in high demand.

Recognized with the 2019 Asia Pacific Economic Co-operation (APEC) Digital Prosperity Award, Bayu Harvest exemplifies the potential of affordable digital platforms to link farmers with markets.

## Women-Led Climate-Resilient Farming Model (WCRF)

The Women-Led Climate-Resilient Farming Model (WCRF) stands out as an exemplary practice in the realm of promoting gender equality and sustainability in agriculture. At its core, this model recognizes the pivotal role of women in farming communities and aims to empower them as agents of change in the face of climate change challenges.

One key aspect of the WCRF is its emphasis on active participation and leadership of women in decision-making processes related to farming practices. By involving women at all levels of planning and implementation, the initiative ensures that their voices are heard and their unique insights are taken into account. This not only fosters gender equality but also leads to more inclusive and effective strategies for climate resilience.

Moreover, the WCRF provides crucial support to women farmers by facilitating access to resources, training, and technology. This includes initiatives such as capacity-building workshops, access to climate-smart agricultural practices, and the provision of essential farming inputs. By equipping women with the necessary tools and knowledge, the initiative enables them to adapt to changing climatic conditions and enhance the resilience of their farming operations.

Importantly, the WCRF operates through partnerships and collaborations with various stakeholders, including governments, non-governmental organisations, and local communities. This multi-stakeholder approach not only ensures the sustainability of the initiative but also maximises its impact by leveraging diverse expertise and resources.

## Case study from Ratnagiri District

Mrs. Harshada Rajendra Palaye, a 38-year-old from Kondye village in Lanja tehsil, Ratnagiri district, transformed her life through agricultural innovation. Initially engaged in traditional subsistence farming with limited income, her journey towards economic independence began after attending a five-day training on vermicompost production at KVK Ratnagiri. The training, coupled with a Rs. 30,000/- subsidy from the Department of Agriculture, Maharashtra, allowed her to construct a vermicompost shed and start production using *Eisenia fetida* species provided by KVK. Harshada also underwent training in nursery management at KVK Ratnagiri, starting a nursery for ornamental, fruit, and forest crops. Her nursery was registered and licensed, and her mother orchards were certified by Dr. B.S. Konkan Krishi Vidyapeeth, Dapoli. Her first production of 5–6 tonnes of vermicompost earned her approximately Rs. ,000. Recognising the demand for organic inputs, she expanded her business by joining the Self-Help Group Shri Samarth Shetkari Swayamsahata Gat and marketing vermicompost under this brand. Today, Harshada produces over 100 tonnes of vermicompost annually, with a turnover of Rs. 12 lakh, and employs 7-8 people. Her success story highlights the impact of agricultural training and support, leading to significant economic and community development.



# Policy

## Recommendations

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Assessing the underlying factors perpetuating gender disparities in Agriculture, the authors have developed a theory of change to propose strategic interventions for promoting women in agriculture.

### Calling for gender-based disaggregated data in agriculture

- Land records for the country are not disaggregated by gender, and hence it becomes difficult to assess the land titles held by women. Currently, the Agricultural census doesn't accurately reflect the actual land ownership and cultivation patterns, more so for women. In addition, there needs to be gender-based disaggregated data in terms of crop division (which crops are mostly cultivated by men and women) to assess patterns and provide training, adoption of modern technology methods to enhance this.
- Most importantly, it is necessary to identify through surveys, the number of women employed and recognised as farmers, and the number of women working in agricultural activities as an extension of household activities (agricultural labourers).
- Gender inequities like time poverty can also be assessed through the time which men and women spend on which activity the most. This can be recorded through regularising time-use surveys by MoSPI, and analysing the time that goes into unpaid care work by women, apart from the time invested in agricultural activities.
- Some state governments like Karnataka have already created a gender-disaggregated database on farmers, that gives a whole picture of the state's agriculture sector and enhances access to government schemes and entitlements.

### Drawing a clear distinction between farmers and agricultural labourers

- In India, the problem persists that many women do not recognise themselves as farmers because most of them are agricultural labourers, i.e. they do agricultural activities as a part of their household activities. In 2011, M.S. Swaminathan had proposed the "Women Farmers Entitlement Bill" which was then lapsed in 2013. The bill called for issuing a "woman farmer certificate" to recognise the status of a woman as a farmer. This would further allow them to have access to land and agricultural inputs. It would further make them eligible for financial support like institutional credit through Kisan Credit Cards, which are currently only available to men because they own the land.
- Hence, it is important to firstly draw this distinction to understand patterns and contribution of agriculture and secondly, issue ID cards or certificates to recognise the status of women as farmers.

### Focus on small and marginal women farmers first, and areas where there is high agrarian distress

High agrarian distress has pulled men out of agriculture, resulting in feminisation in agriculture. However, this becomes worse for small and marginal women farmers who do not have the means and access to institutional credit, proper modern technological inputs and training for value & supply chains, capacity building for climate-resilient agricultural techniques and branding. Hence, the schemes must also look into this intersectionality and focus on the small and marginal women farmers first.

## Asset building approach

- Recent data from the University of Maryland and the National Council of Applied Economic Research (NCAER, 2018) revealed that women make up more than 42 percent of the agricultural workforce in India, yet they own less than two percent of farmland.
- Why are assets important? Assets have the capability to generate other benefits. As per FAO (2011), empowering women through land and ownership rights has the potential to increase total agricultural output in developing nations by 2.5% to 4% and can alleviate hunger worldwide by 12-17%. Land, most importantly, serves as a crucial social and economic asset, which is often overlooked by development schemes. A comprehensive study of Ethiopia's land registration initiative across three states found that joint land registration in the names of both women and men promoted gender equality. However, further efforts are necessary to raise awareness about utilising land more efficiently, facilitate access to credit and agricultural inputs, and enhance legal literacy among both men and women. In Maharashtra, the government is enabling husbands and wives to jointly register for ownership of houses and land. This initiative is backed by the International Fund for Agricultural Development.
- It is also imperative to de-link access to agricultural inputs from ownership of land; currently, the benefits of agricultural inputs are only enjoyed by those who own land in their name. As the above stated, enough women do not hold land in their names, eventually excluding them from the market of agricultural inputs. Hence, it is important to address this loophole and increase their access to modern agriculture tools while increasing their decision-making power.

## Awareness about other sources of income generation

Sometimes what happens is that assets may not generate income. Agriculture sector faces seasonal unemployment, wherein the farmers might have assets (land, machines etc.) that cater to a specific season, which leads to inconsistency in income. Many farmers have to resort to other sources of income, especially after the harvest season. Even in the case of cattle owners, they have the cattle as their major asset but it may not always generate sufficient income. Here, the reason could be low returns on assets. Primarily, the availability of assets like land cannot generate enough income – for instance, the land would also not be used after the harvest season. Due to natural disasters, climate change and outbreak of cattle diseases like the Lumpy Skin Disease, cattle owners have to face huge economic losses. Hence, it is important to raise awareness and train women in allied sectors like animal husbandry, poultry, floriculture etc. to help them generate income from alternate sources as well.

## Empower women farmers for Climate Action Programs

- Climate-smart agriculture (CSA) is an approach that ensures sustainable agriculture as well as guarantee of food security. It is important to increase awareness and access amongst women farmers to these sustainable agricultural methods, and to mainstream women in Climate-change related policies due to their increasing vulnerability.
- Women farmers' awareness can be raised about Zero Budget Natural Farming, rainwater harvesting, and other sustainable agri practices. The policies that provide training and capacity building can adapt to women-oriented measures in agriculture to address the differentiated impacts of climate change.

## Training on good agricultural practices, value addition, market linkages and brand building

- Women-led crop networks for decision-making and food security - Led by the Deccan Development Society (DDS), an NGO, the Sangham Women Farmers Group is dedicated to preserving agro-biodiversity. The women in this group aim to preserve traditional species alongside traditional practices. This approach has not only enabled them to endure severe drought years but has also ensured food security for them. In addition, they hold complete decision making power and are financially independent.
- Value Chain Analysis - According to FAO's gender sensitive value chain, it is important to assess women's role, income, participation and decision making in value chains. Subsequent to the analysis, identifying opportunities and intervention areas in the value chains become easy.
- In today's world, where people are shifting back to "organic" products, it is important to strengthen the women farmer groups to compete in this vast market. Hence, this calls for extensive training in brand building and marketing.

## Supporting Agritech Ventures and Encouraging PPP

- India currently has more than 1000 agritech startups. The adoption of data-driven services in agritech is projected to potentially augment the agriculture sector by \$50-70 billion by 2025. Similar to various other emerging sectors, both central and state governments have been providing support to Indian agritech enterprises through initiatives such as incubators, startup seed funding, government-backed venture capital, tax holidays, exemptions, and other incentives to enhance the scalability of their solutions.
- Telangana, has emerged as the pioneering state in India to embrace a Public-Private Partnership (PPP) framework in collaboration with the World Economic Forum to promote digital agriculture within the state. The Forum in India has introduced two initiatives focused on agriculture and food systems – namely, artificial intelligence for agriculture innovation (AI4AI) and food innovation hubs, with the aim of revolutionising the agriculture sector through the utilisation of agritech and innovative solutions.
- Agritech ventures can provide women farmers with access to information, technology, markets and ensure financial inclusion. This can only be done if they are represented in leadership roles, or have decision making power as well. Hence, it is important to empower the agritech startups to address key challenges faced by women in agriculture and provide a push to the government to recognise and engage in these issues.

# Way Forward

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Moving forward, the first and foremost thing on the agenda is to recognise gender disparities in agriculture, and take adaptive measures according to the SDGs. Primarily, this calls for recognition of women as farmers and giving them access to land entitlements and other agricultural inputs. The main bottleneck in this whole process is the socio-cultural barriers established by patriarchal norms; hence, the policies must take into account these norms and incorporate provisions that provide answers to tackle them.

The Government needs to have targeted budgetary allocations in women-specific provisions, rather than leaving it as a demand-driven policy, like MKSP. Furthermore, investments in infrastructure development tailored to meet the needs of women, including facilities for water and sanitation, storage facilities, and improved market access, are crucial. It is also important to raise awareness and provide support to encourage women's involvement in decision-making processes related to agricultural policies.

It is also imperative to also recognise the tireless and important role of NGOs, agritech startups, Women FPOs and other grassroot-level organisations in their endeavour to work towards sustainable agriculture, food security, enhancement of women farmers' income and protection of their dignity. Their increasing contribution to this sector must be integrated into the overall policy framework, and they must be supported financially as well. Overall, a concerted effort across government, civil society, and private sectors is needed to advance gender equality in agriculture and unlock the full potential of women farmers.



# Reflections of the Author



**Sumit Kaushik**  
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## **Mahila Kisan: Unsung Heroes of the Fields and Catalysts for Socio-Economic Growth**

Being the grandson and son of farmers, with both my grandmother and mother having been farmers at one point, I deeply understand the immense challenges women face in farming and the disheartening reality of their work going unrecognised and unacknowledged.

It was inspiring to witness the Honourable Prime Minister Shri Narendra Modi, upon being sworn in for the third time, sign his first file authorising the release of the 17th installment of PM Kisan Nidhi. This decisive act underscores the Government of India's unwavering commitment to farmer welfare. Now, it is imperative for the Honourable Minister of Agriculture and Farmers Welfare, Shri Shivraj Singh Chouhan, to adopt a progressive approach to empower and uplift women in agriculture.

Women have always played a crucial role in farming, and their contributions are vital for the socio-economic development of our nation, India, that is, Bharat. It's time their efforts were recognised, supported, and elevated to the forefront of our agricultural policies.

*In fields where ancient rivers flow,  
Women's hands have sown and grown,  
From dawn's first light to twilight's glow,  
Their silent strength has long been shown.*

*Since time began, through ages past,  
In India's soil, their roots are cast,  
Their role in farming, rich and vast,  
A legacy that's built to last.*

*Yet in the shadows, they have toiled,  
Their contributions often despoiled,  
By lack of support, their efforts foiled,  
Their dreams, by barriers, uncoiled.*

*Now the time has come to see,  
The power of their legacy,  
With government support, let them be free,  
To shape our land and destiny.*

*Progressive policies must rise,  
To meet their needs, to hear their cries,  
To educate and to apprise,  
For in their growth, our future lies.*

*Empower them with tools and might,  
Encourage their resolve, their fight,  
For socio-economic light,  
To shine across our nation's night.*

*It is our duty, clear and true,  
To give them honour, overdue,  
For in their hands, our fields renew,  
A brighter future, bold and new.*

*In unity, we stand and say,  
To women farmers, lead the way,  
For in your strength, our hopes convey,  
A prosperous India, here to stay.*

*Sumit Kaushik*

# Author's Insights

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**Shirin Pajnoo**  
Former Social Impact Trainee,  
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On-field or off-field, women have been essential to steering society and the economy. As we discuss women on the field and their contributions, it is imperative that we also discuss their role in all processes of agriculture, from the preparation of soil to harvesting. Besides, their role extends to familial duties.

When women work in a particular field that has long been perceived to be a male-dominated arena, it undermines women's contribution and hinders their recognition. Despite women comprising 63% of the agriculture sector, many policies and laws still do not recognise their contributions. This becomes apparent in issues such as the gender wage gap, access to land and other resources, technological marginalisation, and the differentiated impacts of climate change.

As this report was being written, there were new learnings about women farmers. This report aims to share those learnings, increase awareness, and garner consensus on promoting women farmers and their rights. Let's learn together and work for an equitable future.

# Special Mentions

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