

Recognizing the Unseen: Contributions and Challenges of Women in Indian Agriculture

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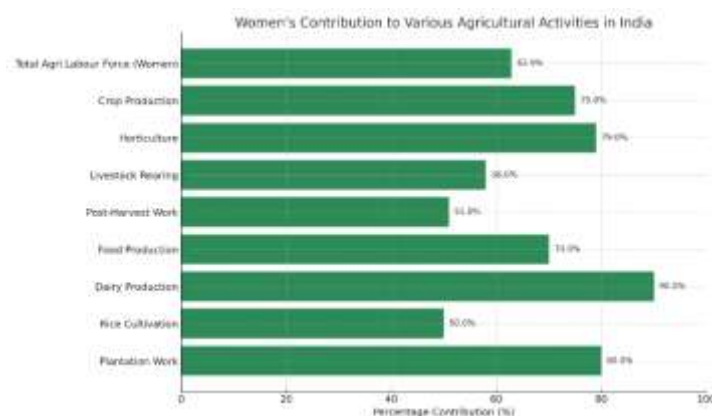
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Whenever we talk about working women, the image of office-going professionals often comes to mind. However, we overlook the fact that crores of women farmers work in the fields every day across the country. According to the Food and Agriculture Organization (FAO, 2011), Indian women's contribution to agriculture is about 32%. Eminent agricultural scientist Dr. M. S. Swaminathan noted that women were the first to start agriculture and promote scientific farming, a view that underscores their historical significance in this field.

As per the Periodic Labour Force Survey (PLFS), 2021-22, nearly 78% of India's employed women work in agriculture, and agriculture has the highest female labour force participation rate at 62.9% (MoSPI, 2022). Despite this high participation, rural women are often perceived as laborers rather than recognized as "farmers" in their own right. The Central Institute for Women in Agriculture (CIWA) reports that women in hilly areas contribute significantly more labor than men. Data from nine Himalayan states show that women work 3,485 hours/year in agriculture, compared to 1,212 hours by men and 1,064 hours by oxen (FAO, IFAD, & UN Women, 2015). Overall, women contribute 60-80% of the labor in farming (FAO, 2011). In specific activities, women's participation is 75% in crop production, 79% in horticulture, 58% in livestock rearing, and 51% in post-harvest work (Oxfam India, 2013). They are also responsible for 60-80% of food production and nearly 90% of dairy production. In rice cultivation and plantation crops, women perform a majority of the tasks, including sowing, weeding, harvesting, drying, cleaning, and value addition (Oxfam India, 2013).

In horticulture, women play a vital role in producing vegetables, fruits, and flowers and even take produce to weekly markets for sale. Inter-culture operations and harvesting in backyard gardens are largely managed by women. Likewise, in livestock rearing, women spend 3-6 hours daily on tasks such as feeding, milking, cleaning sheds, and animal care (FAO, 2011). Ironically, livestock ownership remains largely with men.



In forestry, especially in tribal areas, women collect fuelwood, wild edibles, and commercial produce used in handicrafts and household items, contributing significantly to forest-based livelihoods (Agarwal, 2010).

Status of Women in Agriculture: Data Insights

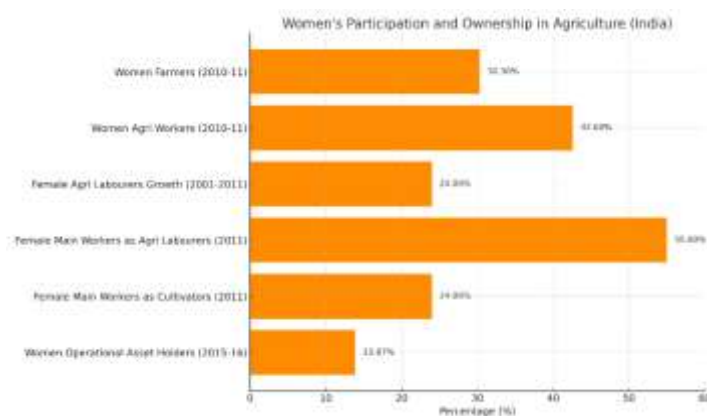
- According to the Agricultural Census (2010-11), 30.30% of the estimated 118.7 million farmers were women. Similarly, 42.60% of the estimated 144.3 million agricultural workers were women.
- As per Census 2011, the number of female agricultural labourers increased by 24% between 2001 and 2011. Furthermore, 55% of the total female main workers were agricultural labourers, and 24% of all agricultural labourers were women.
- The Economic Survey of Agriculture 2017-18 states that, due to increasing rural-to-urban migration by men, the agriculture sector is experiencing a process of 'feminization', with a growing number of women taking on multiple roles as farmers, entrepreneurs, and labourers. As women's participation in agriculture and allied activities becomes increasingly significant, it is essential to place women at the center of India's agricultural policy initiatives (GoI, 2018).
- The situation in 2015-16 remains concerning in terms of ownership of operational assets. Out of 146 million operational holdings, only

13.87% (20.25 million) were held by women-representing an increase of merely one percentage point over five years.

Problems faced by women farmers

1. Land Ownership

- Women often do not own the land they cultivate. 86% of women farmers lack land ownership, limiting their access to credit and institutional support (Agricultural Census,



2016).

- Global research indicates that when women have access to secure land rights, formal credit, and markets, they are more likely to invest in crop improvement, enhance productivity, and contribute to household food security and nutrition (FAO, IFAD, & UN Women, 2015).

2. Land Acquisition

- Land acquisition has doubled in recent years, leading to a reduction in the average size of farms. As a result, most farmers now fall under the small and marginal category-owning less than 2 hectares of land. This category undeniably includes a large number of women farmers (Oxfam India, 2013).

3. Labour-Intensive Roles and Technology Gap

- Women farmers and agricultural workers usually engage in labour-intensive tasks, such as digging holes using spades or shovels, cutting grass, weeding, harvesting, collecting sugarcane, and tending to livestock.
- It is essential to develop and promote women-friendly tools and machinery for various agricultural operations.
- However, most existing agricultural machinery is not ergonomically suitable for

women, making it difficult for them to operate. Manufacturers must be encouraged to design inclusive solutions that consider the physical needs and limitations of women.

4. Access to Resources

- A major challenge is that women farmers generally have less access than men to key agricultural resources and modern inputs such as quality seeds, fertilizers, pesticides, and credit facilities.
- According to the Food and Agriculture Organization (FAO, 2011), ensuring equal access to productive resources for both male and female farmers could increase agricultural output in developing countries by 2.5% to 4%.

5. Disempowerment of Women Farmers

- Despite working longer hours-both paid and unpaid-than their male counterparts, women farmers lack ownership and control over production, and often cannot demand fair wages (Agarwal, 2010; Oxfam India, 2013).
- In addition to farm work, they also bear the burden of household and caregiving responsibilities, resulting in increased workload with minimal or no compensation, which further marginalizes them.
- Yet, women farmers remain largely invisible in farmers' organizations, cooperatives, and agricultural movements. Their contributions are often overlooked, even though the agricultural economy cannot thrive without their active participation.

Solutions for Empowering Women in Agriculture

- **Ensure Land Ownership Rights for Women:** As more women enter the agricultural workforce, the most crucial step to ensure their continued engagement is granting them land property rights. Recognizing women as primary earners and landowners will facilitate their access to institutional credit (FAO, 2011). With ownership, they can make informed decisions regarding crop selection, mechanization, and marketing, thus establishing their identity as real and visible farmers.
- **Promote Collateral-Free Loans and Financial Inclusion:** The micro-finance initiative of the

National Bank for Agriculture and Rural Development (NABARD) should be expanded to offer collateral-free loans to women farmers. Improved access to credit, coupled with technology support and entrepreneurial training, will enhance their confidence and recognition in the farming community.

- **Encourage Collective Farming and Cooperative Models:** The promotion of collective farming models can help make women farmers self-reliant. Successful initiatives like Saras in Rajasthan and Amul in Gujarat have empowered women through self-help groups (SHGs) and cooperative dairies by providing them with training and livelihood skills. These efforts can be scaled up through the formation of Farmer Producer Organizations (FPOs).
- **Mainstream Women in Agricultural Flagship Schemes:** Government schemes such as the National Food Security Mission (NFSM), Sub-Mission on Seeds and Planting Material, and the Rashtriya Krishi Vikas Yojana (RKVY) should incorporate women-centric strategies with dedicated budget allocations to ensure meaningful participation of women farmers.
- **Establish Agricultural Machinery Banks and Custom Hiring Centres:** State governments can support women by establishing agricultural machinery banks and custom hiring centres that offer subsidized services. This would reduce the physical burden on women and promote the adoption of modern techniques.
- **Leverage Krishi Vigyan Kendras (KVKs) for Training:** Each Krishi Vigyan Kendra (KVK) should take up the additional responsibility of educating and training women farmers in innovative technologies, climate-resilient practices, and value addition, while continuing to provide extension services tailored to women's needs.

Government Incentives for Women in Agriculture

- To promote the role of women farmers in the country, the Government of India has designated October 15 as National Women Farmers' Day, coinciding with the International Day of Rural Women observed

by the United Nations. Since 2016, the Ministry of Agriculture and Farmers' Welfare has been celebrating this day to highlight the vital role women play in all stages of agriculture-from sowing, planting, irrigation, fertilization, and plant protection to harvesting, weeding, and storage.

- Recognizing the need for focused research and support for women in agriculture, the Ministry established the ICAR - Central Institute for Women in Agriculture (CIWA) in 1996 at Bhubaneswar, Odisha. The Institute addresses various gender-specific issues in agriculture. Additionally, over 100 ICAR institutes have developed technologies aimed at reducing the drudgery of women and empowering them in farming activities.
- A network of 731 Krishi Vigyan Kendras (KVKs) operates across the country, each equipped with a Home Science wing to provide training and support to women in agriculture.
- In 2016-17, 21 women-centric technologies were evaluated, and approximately 2.56 lakh women received training in agriculture-related fields, including tailoring, construction, value addition, rural handicrafts, animal husbandry, beekeeping, poultry farming, and fish farming (GoI, 2018).
- Furthermore, at least 30% of funds under various government schemes and development programmes are earmarked for women. To ensure that the benefits of these schemes reach women, the government emphasizes the formation of Women Self-Help Groups (SHGs), capacity building, linkages with micro-credit, and enhanced access to information, while also encouraging women to participate in planning and decision-making processes.

Conclusion

Whether it is cropping cultivation, livestock management, or household responsibilities, the contributions of women in agriculture are indispensable. While the government has taken steps to train women in poultry farming, beekeeping, rural crafts, and other allied sectors, these efforts remain modest when measured against the sheer scale and

number of women engaged in agriculture across India.

Despite limited access to information and extension services, women often make crucial decisions such as seed selection and post-harvest practices. However, many studies only offer surface-level insights into their roles. What is fundamentally needed is a societal shift in perception, especially among rural men, which can be fostered through public education and consistent women's empowerment efforts.

Ensuring that women farmers have greater access to land, water, credit, technology, training, and markets is essential. A critical analysis of policy frameworks must be undertaken to address the gender disparities in the agricultural sector.

Empowering women in agriculture is not an overnight task. It requires sustained efforts, visionary leadership, and inclusive policymaking. By recognizing women as farmers in their own right, and not merely as helpers, we can enhance agricultural productivity, ensure food security, and move closer to achieving gender equality in Indian agriculture.

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