

Agricultural Marvels Achieved by Women Farmers

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Abstract:

India's agricultural sector plays a crucial role in its economy, with 65-75% of the population engaged in farming. Despite their essential contributions, women often face challenges, including lower labour productivity compared to men. However, recent data from the 2022-23 Periodic Labour Force Survey (PLFS) reveals a notable increase in female labour force participation in agriculture, reaching 64.3%. This reflects the growing role of women in various aspects of the agricultural sector, from cultivators to entrepreneurs. To harness the full potential of women in agriculture, it's essential to ensure equitable access to critical resources such as land, water, credit, and training. The 2011 census data underscores the significant presence of women in Indian agriculture, with 36 million women involved in farming and 61.5 million engaged as agriculture labours, driving agricultural growth and enhancing food security. The Ministry of Agriculture and Farmers Welfare in India has introduced empowering initiatives like the "Innovation and Agri-Entrepreneurship Development" and "Mahila Kisan Sashaktikaran Pariyojana," supporting women-led startups, fostering innovation, providing training; promoting modern and sustainable farming practices. These efforts aim to make a significant impact in the agricultural sector, acknowledging the indispensable role of women in Indian agriculture. Additionally, women excel in crop cultivation; livestock rearing, and empowerment strategies which include forming cooperatives, enhancing resource access, offering mentorship, promoting sustainability, and advocating for gender equality in agriculture. This comprehensive approach not only empowers women but also serves as an example for future generations.

Introduction:

India is widely recognized as an agrarian nation, with approximately 65-75% of its population directly or indirectly reliant on agriculture and related sectors. In rural areas, agriculture is the predominant occupation. On a global scale, it's noteworthy that around 43% of the agricultural workforce comprises women. Renowned agricultural scientist Swaminathan has emphasized that women played a pivotal role in the early domestication of crop plants, laying the foundation for the practice and science of farming. Across various agricultural activities like transplanting, weeding, and tending to animals, women make substantial contributions, often working for wages. Agriculture holds a pivotal position in driving economic growth and poverty reduction worldwide. Women play a significant role in shaping the economies of developing countries, assuming various roles in agriculture as farmers, laborers, and entrepreneurs. Agriculture also generates numerous employment opportunities for women within the sector. Studies examining women's labour productivity in countries such as India and Nepal, encompassing a diverse range of crops, have frequently shown that the marginal productivity of women's labour tends to be lower compared to men, as highlighted by Quisumbing in 1993.

Agricultural Work Participation by Women:

According to the annual Periodic Labour Force Survey (PLFS) report for the year 2022-23, agriculture boasts the highest estimated percentage distribution of female workers, standing at a significant 64.3%. This data highlights a noticeable trend of increasing female labour force participation in agriculture, as it was 61.26% in 2020-21 and 62.9% in 2021-22. This steady rise in the number of women engaged in agricultural activities reflects their growing role in multiple facets of the agricultural sector, including cultivators, entrepreneurs, and laborers.

These estimates underscore the fact that women have become increasingly instrumental in the management and utilization of diverse natural resources to address critical food security needs. However, for



women to effectively contribute to agricultural productivity and food security, they must have equitable access to essential resources, including land, water, credit, and training. These resources are pivotal in empowering women to make significant strides in agriculture whilethrough extension, the broader food production landscape can be achieved. It is worth noting that women's involvement in agriculture is pivotal for enhancing agricultural productivity, by their unique insights and contributions to the sector. This is further evidenced by the data from the 2011 census conducted by the government of India, which revealed that there were approximately 3.6 crore (36 million) women farmers and 6.15 crores (61.5 million) women involved in agriculture across the country. These numbers highlight the substantial and indispensable presence of women in Indian agriculture, signifying their vital role in driving agricultural growth and food security.

Parameters	(%)2001	(%)2011
Overall work participation rate in India	39.2	39.8
Work Participation Rate amongst women	25.6	25.5
Work participation Rate amongst men	51.9	53.2
Cultivators to total workers	31.7	24.6
Argil. Labourers (AL) to total workers	26.7	30.0
Women cultivators amongst total cultivators	32.3	30.3
Women AL amongst total AL	46.6	42.7
Men)Cultivators amongst men workers)	31.3	24.9
Women) cultivators amongst women work-)	32.5	24.0
ers		
Men)AL amongst total men workers)	20.8	24.9
Women)AL amongst total men workers)	39.4	41.1

Source: Gender statistics on work participation in India (ICAR-CIWA)



Source: Instagram shraddha farms



Source: India Speed.com



Source: Photograph by Ashutosh Kumar



Source: Pic by Neil Palmer (CIAT).



Source: PIB India



Source: By Pranab K. Aich / Heifer International



The Government's Role in Empowering Women in Agriculture:

The Ministry of Agriculture and Farmers Welfare in India has taken significant steps to empower women in agriculture by launching the "Innovation and Agri-Entrepreneurship Development" component under the Rastriya Krishi Vikas Yojana (RKVY-RAFTAAR) initiative in the year 2018-19. This component is aimed at fostering innovation and promoting entrepreneurship in agriculture. As a result of this initiative, a notable 173 women-led startups and entrepreneurs have received support through the Innovation and Agri-Entrepreneurship Development programs. In addition to this, the Indian Council of Agricultural Research (ICAR) has been playing a vital role in supporting agricultural startups through its project known as the "National Agriculture Innovation Centres" (NAIF). These centers have been established within the ICAR network and are fully operational. They serve as platforms to nurture and promote innovation and entrepreneurship in the agricultural sector. This presents a significant opportunity for more women-led startups and entrepreneurs to benefit from these programs, enabling them to make a meaningful impact in the agricultural landscape.

For women farmers, a dedicated scheme known as the "Mahila Kisan Sashaktikaran Pariyojana" (MKSP) has been initiated under the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM). The primary objective of MKSP is to empower women in agriculture and allied sectors by providing them with the latest techniques and knowledge. To achieve this, women farmers are provided with comprehensive training under the DAY-NRLM scheme, which also includes support for state extension programs, such as Agricultural Technology Management Agency (ATMA). These programs focus on agricultural extension and aim to enhance the skills and capabilities of women in agriculture, enabling them to adopt modern and sustainable farming practices.

Role of women in agriculture and allied sectors

- 1. Crop Cultivation: Women's involvement in agriculture spans a diverse range of activities. They actively participate in sowing, transplanting, weeding, hoeing, harvesting, and threshing, both in the fields and at home. Often, they work as unpaid laborers on their own farms, contributing significantly to reduce the cost of cultivation.
- 2. Livestock Rearing: Within integrated agricultural systems, activities such as livestock rearing, poultry management, and fisheries play a pivotal role in improving the financial situation of farmers. Women are heavily engaged in these components to generate profits. Their contributions in livestock rearing encompass tasks like cleaning animals, maintaining sheds, feeding, milking, collecting eggs, and administering vaccinations. Research consistently shows that women are actively involved in and contribute significantly to the success of livestock rearing, often surpassing the participation of men in these critical tasks.

Approaches for empowering women in agriculture:

- 1. Establish women's agricultural cooperatives to enhance collective bargaining power.
- 2. Support value addition and processing for increased product value and income.
- 3. Improve access to agricultural extension services for productivity enhancement.
- 4. Provide mentorship and networking opportunities for guidance and support.
- 5. Ensure access to childcare services for work-life balance.
- 6. Incentivize sustainable and organic farming for higher income and environmental stewardship.
- 7. Provide access to climate-resilient seeds and technology for increased productivity.
- 8. Promote gender-sensitive data collection and research for informed policies.
- 9. Facilitate microfinance and savings groups for economic empowerment.
- 10. Advocate for government policies and legal reforms to protect women's land rights and promote gender equity in agriculture.

Inspirational stories of women in agriculture:

*Shradda Dawan, a resident of Nigoze village in Maharashtra's Ahmedabad district, is an extraordinary individual. Despite facing significant challenges, she has assumed a leadership role as the eldest child in her family. Shradda manages a thriving dairy business within her village, which comprises a herd of 400 buffalos.



She plays a hands-on role in the daily operations of the dairy, from caring for the buffalos to driving the delivery truck. What sets her apart is the collective effort of her entire family, who actively participate in the dairy business. Together, they have achieved considerable success, earning a substantial income that amounts to lakhs of rupees. Shradda's journey is not only a testament to her unwavering determination but also serves as an inspirational example, especially for the younger generation, illustrating the possibilities of achieving success in the dairy industry.

*Smt. Sunitha, a sericulture farmer in Telangana's Rangareddy district, manages a 20-acre plot. Formerly a social worker, her journey took a turn towards farming when she developed a keen interest in sericulture. Starting with the cultivation of mulberry for silkworm rearing, she underwent specialized training in sericulture. Sunitha's dedication paid off as she began producing high-quality cocoons and significantly increased her productivity. Her accomplishments have made her a role model for other women in agriculture. Remarkably, she operates independently without family support, earning a substantial income from her efforts. Sunitha is actively encouraging and inspiring other women to embrace sericulture as a path to empowerment and financial independence in agriculture.

*Smt. Sangeeta Sanjeev Kanti, resident of Karnataka state Bagalkot district Jakanur villageisan enterprising woman farmer, adeptly manages 8 acres of land. She employs the Integrated Farming System (IFS) model to cultivate a diverse array of crops, including sugarcane, maize, black gram, green gram, and various vegetables. To overcome irrigation limitations, she wisely utilizes drip irrigation. To boost profits and adopt eco-friendly practices, Sangeeta has embraced vermicomposting and organic bio inputs alongside her agricultural endeavours. Her ultimate goal is to become an entrepreneur, and to achieve this, she undertook training through the ATMA program. Subsequently, she established a Food Security Group (FSG) under the ATMA Scheme, marking another step toward her entrepreneurial aspirations.

*Smt. K. Laxmi is a highly successful figure in Telangana's agricultural landscape. Her farming endeavours are diverse, including the cultivation of paddy, the growth of citrus fruits, and the rearing of poultry, goats, and dairy animals on her own land. Laxmi is well-versed in water harvesting techniques and has created farm ponds to support her sustainable agricultural practices. Her holistic approach, incorporating various crops and livestock, not only ensures sustainability but also mitigates agricultural risks. Additionally, her entire family is actively involved in farm activities, effectively managing labour costs. The dairy and poultry sectors have proven to be significant sources of income in her thriving agricultural venture.

*Lahari Bhai, a 27-year-old tribal woman from Dindori village in Madhya Pradesh, has earned recognition as the brand ambassador for millets in her district. In a display of immense dedication, she remains unmarried to care for her parents. Lahari has collected around 60 varieties of millets and cereals, showcasing her passion for seed preservation by maintaining a seed bank at her home. Her remarkable efforts have not gone unnoticed, as she has received accolades and awards from both the Prime Minister and the President of India, acknowledging her exceptional contribution to the promotion and preservation of these essential crops.

Conclusion:

Rural women play a pivotal role in enhancing agricultural productivity by actively participating in various aspects of farming. They are not just laborers but also entrepreneurs and effective managers, contributing significantly to crop production, livestock rearing, horticultural cultivation, and resource management. What makes their contribution even more commendable is their ability to balance family responsibilities with active involvement in farm activities. Moreover, it's essential to recognize that there are certain agricultural tasks and activities, such as intricate handwork and specific machinery operation, where women's labour is indispensable. Women in rural areas perform these tasks with remarkable skill and dedication, making them integral to the agricultural workforce. Furthermore, rural women exhibit great potential for innovation in agriculture. They engage in activities like seed production, functioning as breeders, experts in animal husbandry and cultivating



a diverse range of crops etc. Their unique perspectives and contributions are not only valuable but also essential for the sustainability and growth of agriculture in rural communities.

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