

14

Role of Women in Indian Agriculture: A Socio-Economic and Anthropological Perspective

Dr. Laxmi Mathur*

Assistant Professor, Department of Botany, Vedic Kanya P.G. Mahavidyalaya, Raja Park, Jaipur.

*Corresponding Author: laxmimathur@gmail.com

Abstract

Women play a major role in Indian agriculture, although their contribution is often undercounted and poorly recognized. According to the National Statistical Office's Time Use in India, 2019, 62.8% of rural women participated in unpaid domestic services for household members, compared with 24.9% of rural men (NSO, 2021). This unpaid workload exists alongside women's extensive participation in crop production, livestock care, food processing, and natural-resource management. The Food and Agriculture Organization argues that improving women's access to land, credit, technology, and extension services can increase agricultural productivity and strengthen food security (FAO, 2011). This paper examines women's agricultural roles, the challenges they face, and the importance of their traditional knowledge for sustainable farming in India.

Keywords: Women Farmers, Indian Agriculture, Food Security, Rural Development, Sustainable Farming.

Introduction

Women are involved in almost every stage of farming, including seed selection, sowing, transplanting, weeding, harvesting, post-harvest processing, livestock care, and food storage. In many parts of India, these activities are performed by women as unpaid family labour. Their work supports household income, food security, and rural livelihoods, but women are often described as "helpers" rather than farmers.

The gender division of labour is also visible in time-use patterns. The NSO found that rural women spent an average of 301 minutes per day on unpaid domestic services, compared with 98 minutes for rural men (NSO, 2021). This unequal distribution of unpaid work limits women's time for training, paid employment, market participation, and agricultural decision-making. In addition, women's limited

ownership of land reduces their access to formal credit, insurance, subsidies, and government agricultural programmes (Agarwal, 1994; FAO, 2011).

Objectives

- Explain women's role in agriculture.
- Highlight their contribution to food security.
- Identify the challenges faced by women farmers.
- Show the value of their traditional knowledge.
- Suggest ways to support women in agriculture.

Methodology

The study is based on secondary sources, including government reports, books, research publications, and reports from national and international organizations. The main sources are the Food and Agriculture Organization's report on women in agriculture, the National Statistical Office's Time Use in India, 2019, writings on gender and land rights, and government material on rural livelihoods and women's self-help groups. The paper uses a descriptive approach to examine women's agricultural work and the institutional barriers that affect their participation.

Roles of Women in Agriculture

Women contribute to Indian agriculture in several interconnected ways.

- **Seed Management:** Women select, preserve, exchange, and store local seeds. In many farming communities, this knowledge helps maintain crop diversity and protect households from dependence on a single commercial variety. Vandana Shiva has emphasized the importance of women's knowledge in conserving indigenous seeds and biodiversity (Shiva, 1988).
- **Crop Production:** Women participate in sowing, transplanting, weeding, harvesting, threshing, and other field operations. In rice-growing regions of eastern India, for example, women are heavily involved in transplanting and weeding. In cotton-growing areas of Maharashtra and Gujarat, women commonly undertake sowing, intercultural operations, picking, and post-harvest handling.
- **Post-Harvest Work:** Cleaning, drying, grading, processing, and storing crops are often performed by women. These activities are essential for reducing food loss and ensuring that grain, pulses, vegetables, and other products remain available for household consumption.
- **Livestock Care:** Women frequently feed animals, collect fodder, clean cattle sheds, care for calves, and milk cattle. Dairy cooperatives, including women's dairy groups associated with the cooperative movement in Gujarat,

have shown how livestock activities can generate income and strengthen women's collective participation.

- **Kitchen Gardening:** Women often manage household vegetable gardens. These gardens provide vegetables, herbs, and sometimes small cash earnings, thereby improving household nutrition and dietary diversity.
- **Resource Management:** Women collect water, fuelwood, fodder, and other natural resources. This work is particularly important in dryland and forest-dependent communities. It also gives women detailed knowledge of local plants, soil conditions, seasonal changes, and available resources.

These activities demonstrate that women's agricultural work extends beyond field labour. It connects farming with household welfare, nutrition, livestock production, and community life.

Importance of Women's Contribution

Women's work contributes directly to food security and rural livelihoods. Their involvement in crop production and post-harvest processing helps ensure that food is produced, preserved, and distributed within the household. Their livestock work provides milk, manure, income, and financial security. The FAO notes that closing gender gaps in agricultural resources and services can improve productivity and reduce hunger and poverty (FAO, 2011).

Women also preserve knowledge about local seeds, mixed cropping, organic manure, food storage, livestock care, and seasonal resource use. This knowledge is often transmitted from mothers and older women to younger generations. In several Indian communities, women's seed-saving practices have helped maintain traditional varieties of millets, pulses, rice, and vegetables. Such practices are especially valuable in the context of climate change because crop diversity can reduce risks associated with drought, pests, and changing rainfall patterns (Shiva, 1988).

However, women's contribution is frequently treated as an extension of domestic responsibility rather than as agricultural employment. The NSO's time-use findings show the scale of women's unpaid work, while Agarwal argues that unequal land rights weaken women's bargaining power within households and communities (Agarwal, 1994). Without ownership or control over productive assets, women may perform agricultural labour without having authority over crop choices, income, or the use of land.

Challenges Faced by Women Farmers

Limited land ownership: Land is often registered in the names of male family members. This restricts women's access to institutional credit, crop insurance, subsidies, and formal recognition as farmers. Agarwal identifies land rights as central to women's economic security and bargaining power in South Asia (Agarwal, 1994).

Difficulty accessing loans and insurance: Banks and government programmes frequently require land titles or other formal documents that women may not possess. As a result, women may depend on informal lenders or family members.

Lack of suitable tools and training: Many agricultural machines and tools are designed for male users and may not be suitable for women's physical needs. Women also receive less agricultural extension support than men, limiting their access to information about improved seeds, pest management, irrigation, and climate-resilient practices (FAO, 2011).

Poor market access: Women often have limited mobility, transport, storage facilities, and control over agricultural income. These barriers reduce their ability to sell produce directly and obtain fair prices.

Heavy household and farm responsibilities: Women combine agricultural work with cooking, cleaning, childcare, water collection, fuel collection, and care of elderly family members. The NSO's time-use data confirms that unpaid domestic work is distributed unequally between rural women and men (NSO, 2021).

Limited participation in farm decisions: Even when women perform much of the labour, men may control decisions about land use, crop selection, borrowing, sale of produce, and investment.

Lack of recognition for unpaid labour: Women's work is often recorded as household work or family assistance rather than agricultural employment. This makes their contribution less visible in official statistics and policy planning.

These problems reduce women's economic independence and limit their ability to benefit from agricultural development.

Women and Sustainable Agriculture

Women's knowledge of local seeds, organic manure, crop diversity, food storage, and livestock care can support sustainable farming. Shiva argues that women's ecological knowledge has historically contributed to the conservation of biodiversity and the maintenance of local food systems (Shiva, 1988). For example, the cultivation of mixed crops such as millets, pulses, oilseeds, and vegetables can improve soil health, diversify diets, and reduce dependence on a single crop.

Women's self-help groups have also become important institutions for rural development. Supported through programmes such as the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission, self-help groups provide savings, credit, training, and opportunities for collective enterprise. The Ministry of Rural Development has emphasized that women's groups can support activities such as dairy production, food processing, kitchen gardening, poultry, and small-scale marketing (Ministry of Rural Development, Government of India).

Collective action can improve women's bargaining power. When women organize into producer groups or cooperatives, they may purchase inputs collectively, access training, process agricultural products, and negotiate better prices. However, these groups require reliable institutional support, market connections, technical training, and access to affordable credit.

Suggestions

- **Recognize Women as Farmers:** Government records, agricultural surveys, and extension programmes should identify women who cultivate land, manage livestock, or perform agricultural work as farmers.
- **Strengthen Land and Inheritance Rights:** Women should receive clear information and legal support regarding joint land titles, inheritance, and property rights. Joint registration of land in the names of husbands and wives can improve women's access to credit and decision-making (Agarwal, 1994).
- **Improve Access to Credit and Insurance:** Banks and government agencies should simplify documentation and design credit products for women without formal land titles.
- **Provide Suitable Technology and Training:** Agricultural tools should be affordable, safe, and designed according to women's needs. Extension services should include women directly rather than relying only on male household members.
- **Improve Market Access:** Women should receive support for storage, transport, digital marketing, processing, packaging, and collective sales. Producer groups and cooperatives can help women obtain better prices.
- **Support Self-Help Groups:** Self-help groups should be linked with agricultural departments, banks, training institutions, and markets. Their activities should extend beyond savings and credit to include production and value addition.
- **Reduce the Burden of Unpaid Domestic Work:** Access to drinking water, clean energy, childcare, sanitation, and rural transport can free women's time for education, training, and paid work. The NSO's time-use data demonstrates the importance of addressing this burden (NSO, 2021).
- **Include Women in Agricultural Decision-Making:** Women should participate in farmer organizations, water-user associations, cooperatives, village institutions, and local planning bodies.
- **Record Unpaid Agricultural Work:** Agricultural and labour statistics should distinguish between paid employment, unpaid family labour, and domestic work so that women's contribution is accurately measured.

- **Combine Traditional and Scientific Knowledge:** Agricultural programmes should respect women's local knowledge while providing access to scientific information on soil health, climate adaptation, pest management, and improved storage.

Conclusion

Women are central to Indian agriculture. Their work includes seed management, crop production, livestock care, post-harvest processing, kitchen gardening, and natural-resource management. It supports food security, household nutrition, family income, and rural livelihoods. Nevertheless, women continue to face unequal land rights, limited access to credit and technology, poor market opportunities, excessive unpaid work, and inadequate recognition.

The evidence from the NSO shows that rural women carry a much larger burden of unpaid domestic work than rural men, while the FAO emphasizes that reducing gender gaps in agricultural resources can improve productivity and food security (NSO, 2021; FAO, 2011). India-specific experiences with dairy cooperatives, self-help groups, local seed conservation, and women's producer organizations demonstrate that collective support can strengthen women's economic position.

Recognizing women as farmers and providing equal access to land, credit, technology, training, markets, and decision-making is essential for a more productive and equitable agricultural system. Women's empowerment should therefore be treated not as a separate social objective but as a central part of agricultural development and sustainable rural transformation.

References

1. Agarwal, B. (1994). *A Field of One's Own: Gender and Land Rights in South Asia*. Cambridge University Press.
2. Food and Agriculture Organization (FAO). (2011). *The State of Food and Agriculture 2010–11: Women in Agriculture—Closing the Gender Gap for Development*. FAO.
3. Government of India, Ministry of Agriculture and Farmers Welfare. Reports on women in agriculture.
4. Ministry of Rural Development, Government of India. Reports on rural livelihoods and women's self-help groups.
5. National Statistical Office (NSO). (2021). *Time Use in India, 2019*.
6. Shiva, V. (1988). *Staying Alive: Women, Ecology and Development*. Zed Books.

