

Horticulture: A Growing Pathway for Women's Livelihood Security in India

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Horticulture has become one of the most dynamic sectors of Indian agriculture. It provides food, nutrition, income and employment through fruits, vegetables, flowers, spices, plantation crops and medicinal plants. Recent estimates show that India's horticulture production reached 370.74 million tonnes in 2024-25 and is projected at 370.85 million tonnes in 2025-26. This growth creates scope for women to move from farm labour to skilled enterprise. Women are already active in nursery raising, planting, harvesting, grading, processing and local marketing. With training, credit, group-based support and digital market linkage, rural women can build small enterprises in kitchen gardening, seedling production, mushroom cultivation, floriculture, beekeeping, fruit processing and direct sale of fresh produce.

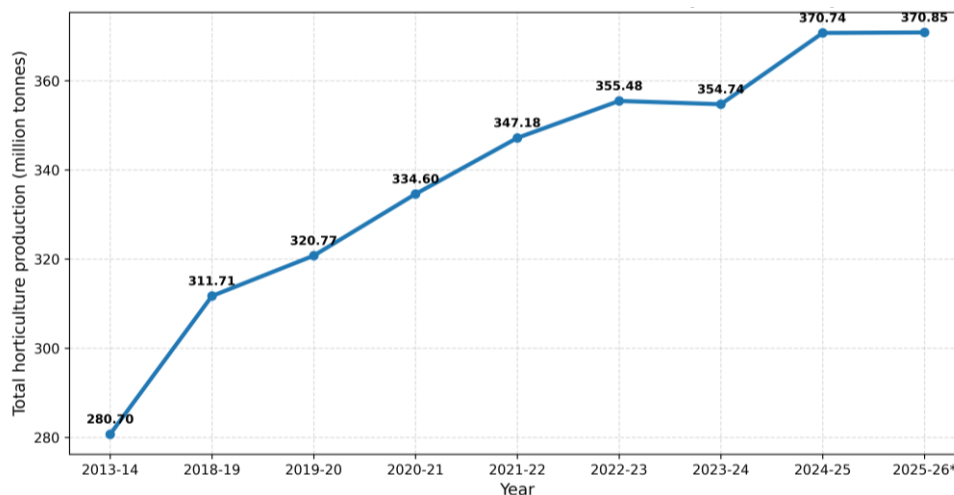
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India is moving steadily from cereal-dominated farming towards diversified, high-value and market-oriented agriculture. Horticulture is at the centre of this shift because it gives better returns from limited land, creates year-round employment and improves household nutrition. Fruits, vegetables, flowers, spices, plantation crops, mushrooms and medicinal plants are useful not only as crops but also as raw material for many rural enterprises.

For rural women, horticulture is especially important. Many horticultural operations such as raising seedlings, transplanting, harvesting, cleaning, grading, packing, processing and local sale can be performed near the household or village. These activities need skill, patience and regular care, and women have long experience in performing them. However, their contribution is often treated as family work rather than as skilled economic work. Recognizing women as horticulture entrepreneurs can strengthen both household income and rural development.

According to the Ministry of Agriculture and Farmers Welfare and the Press

Information Bureau, India's total horticulture area reached 301.36 lakh hectares during 2024-25, while production reached 3707.38 lakh tonnes or 370.74 million tonnes. The first advance estimates for 2025-26 projected production at 3708.46 lakh tonnes or 370.85 million tonnes. This rising production shows the importance of post-harvest handling, storage, processing, branding and marketing. These are the areas where women-led self-help groups can play a major role.



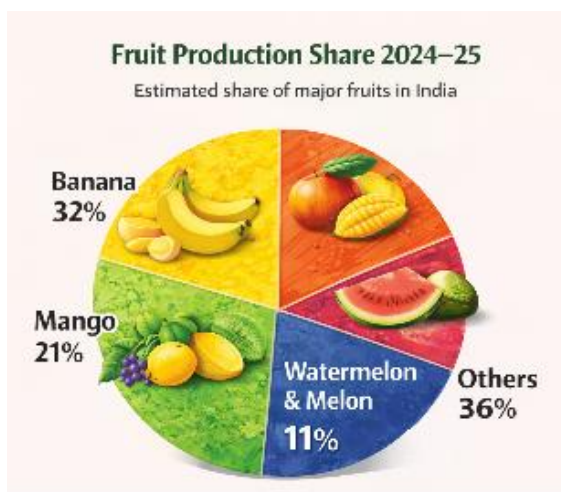
*2025-26: First Advance Estimate. Sources: Ministry of Agriculture & Farmers Welfare/PIB; Horticultural Statistics at a Glance; ICAR.

Fig. 1. Horticulture production trends in India from 2013-14 to 2025-26. Source: Ministry of Agriculture and Farmers Welfare/PIB; Horticultural Statistics at a Glance; ICAR.

Recent horticulture scenario in India

Horticulture is now a strong pillar of Indian agriculture. In 2024-25, fruit production was estimated at 1176.49 lakh tonnes and vegetable production at 2177.97 lakh tonnes. Fruits such as banana, mango, mandarin, papaya, guava, watermelon and jackfruit contributed to the increase in fruit output. In vegetables, crops such as onion, potato, green chilli, cauliflower, cabbage, brinjal, okra, peas, pumpkin, bottle gourd, bitter gourd, cucumber, tapioca, sweet potato, radish and capsicum supported growth.

The sector is also important because horticultural crops are perishable. Without proper handling, farmers lose income after harvest. Sorting, grading, pack-houses, cold storage, ripening chambers, primary processing and transport facilities help reduce loss and improve price realisation. These services create employment beyond the field. A village with horticulture crops can support nursery workers, graders, packers, processors, transporters, marketers and digital sellers.



Fruits and vegetables are directly linked with nutrition security. Regular availability of fresh produce helps families improve diet quality. Home gardens and kitchen gardens managed by women are a low-cost way to supply leafy vegetables, tomato, brinjal, chilli, gourds, papaya, drumstick and herbs to the household. Surplus produce can be sold in the village or nearby market.

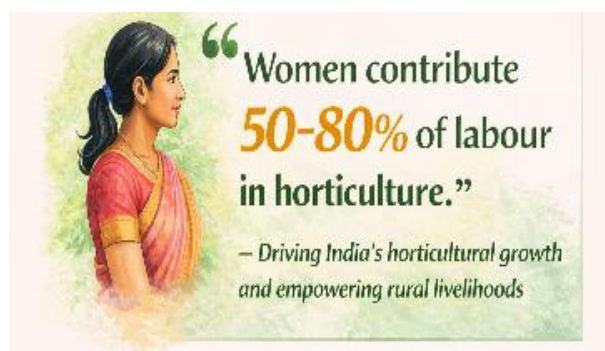
Women at the Centre of horticulture:

Women contribute in almost every stage of horticulture. They prepare seed beds, fill polybags, water seedlings, weed gardens, harvest produce, sort fruits and vegetables, prepare flowers for market and process surplus produce into household products. In many villages, women also decide which vegetables are grown in home gardens and how produce is used for family nutrition.



Fig 2: Women Participation in Horticulture Activities in India (Sharma et al., 2023; FAO, 2022)

The major advantage of horticulture is that it offers small-scale and flexible enterprises. Women can start with one activity such as nursery raising, mushroom cultivation, floriculture, pickling or kitchen garden seed kits. Later, the enterprise can be expanded through self-help groups or farmer producer organisations. Group activity reduces risk, increases bargaining power and makes it easier to access government schemes and bank loans. Women's participation in horticulture also adds social value. Income earned by women is often used for food, children's education, health care and household needs. When women control some part of the income, family nutrition and decision-making generally improve.



Livelihood opportunities for women

- **Home gardens and nutrition gardens:** Women can grow vegetables, papaya, drumstick and herbs near the house for family nutrition and extra income.
- **Nursery and seedling production:** Women can raise vegetable seedlings, fruit grafts and polybag plants with small investment and basic training.
- **Protected cultivation:** Shade net and polyhouse cultivation of capsicum, cucumber, tomato, leafy vegetables and flowers can provide higher returns.

- **Fruit and vegetable processing:** Women-led groups can prepare pickle, squash, jam, sauce, puree, chips and dehydrated products to reduce post-harvest losses.
- **Floriculture and ornamental plants:** Flower cultivation, garland making, bouquet preparation and indoor plant marketing offer regular income.
- **Mushroom cultivation:** Oyster and milky mushrooms can be grown in a small space using crop residues and provide quick returns.
- **Beekeeping:** Beekeeping with orchards and flowering crops gives income from honey and wax and improves crop pollination.
- **Digital marketing:** Women can use mobile phones, WhatsApp groups, digital payments and direct sales to reach consumers and get better prices.

Government support and policy initiatives

Several government schemes can help women move from labour participation to enterprise ownership. The most useful schemes for horticulture-based livelihoods are those that support production, post-harvest management, processing, market linkage, credit and group mobilisation.

Table 1. Government schemes relevant to women's horticulture livelihoods.

Scheme	Major support	How women can use it
Mission for Integrated Development of Horticulture (MIDH)	Supports fruits, vegetables, flowers, spices, plantation crops, protected cultivation, nurseries, post-harvest management and value-chain development.	Useful for women's groups interested in nursery raising, protected cultivation, floriculture, pack-house activity and horticulture clusters.
Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME)	Provides financial, technical and business support to micro food processing enterprises, including groups such as SHGs, FPOs and cooperatives.	Useful for women-led units preparing pickles, jams, squash, dehydrated products, spice powders and ready-to-cook products.
Deendayal Antyodaya Yojana - National Rural Livelihood Mission (DAY-NRLM)	Mobilises rural women into self-help groups and supports financial inclusion, livelihood diversification and producer groups.	Useful for collective enterprises, bank linkage, skill development and market access.
Agriculture Infrastructure Fund (AIF)	Provides medium- and long-term debt financing for post-harvest management infrastructure and community farming assets.	Useful for SHGs, FPOs and cooperatives planning sorting, grading, warehousing, cold storage, processing and farm-gate infrastructure.

Scheme	Major support	How women can use it
Lakhpati Didi and Mahila Kisan initiatives	Promote women's income-generating activities, skill development and farm-based livelihood improvement.	Useful for training women in horticulture enterprises, natural farming, processing and value addition.

Sources: Ministry of Agriculture and Farmers Welfare, Ministry of Food Processing Industries, Ministry of Rural Development and PIB.

The PMFME scheme is particularly relevant for women because food processing can be started at micro level. It supports formalisation, training, credit linkage, branding and marketing. Under PMFME, loans had been sanctioned to 75,456 women micro food processing enterprises and 1,427 self-help groups as on 31 December 2025. This shows the possibility of converting traditional household processing skills into formal enterprises.

DAY-NRLM is another important platform. As of June 2025, 10.05 crore women had been mobilised into 90.90 lakh women self-help groups in the country. The programme also supports Mahila Kisans and women-owned producer groups. Such groups can collectively purchase inputs, establish nurseries, operate processing units and market products with a common brand.

The Agriculture Infrastructure Fund helps create facilities such as warehouses, processing units, sorting and grading centres, cold stores and other post-harvest assets. As of 30 June 2025, Rs 66,310 crore had been sanctioned for 1,13,419 projects under AIF. These facilities can reduce losses in perishable horticulture produce and create jobs for women in quality control, packing, record keeping and marketing.

Practical village-level model

A simple women-led horticulture model can be built in three stages. First, women can produce seedlings, organic inputs and nutrition garden kits. Second, they can cultivate vegetables, flowers, fruits or mushrooms using improved practices. Third, they can process and market surplus produce through local shops, weekly markets, schools, hotels, farmer producer organisations and digital platforms.

For example, one self-help group can raise vegetable seedlings in a small shade-net nursery. Another group can grow vegetables and flowers. A third group can prepare value-added products such as pickles, squash, chips and dehydrated vegetables during peak harvest season. Together, these groups can build a local horticulture value chain. Bookkeeping, common packaging, simple branding and digital payments will make the enterprise more professional.

Training is necessary at every stage. Women need practical training on crop production, pest and disease management, hygiene, food safety, packaging, label preparation, cost

calculation and market negotiation. Krishi Vigyan Kendras, horticulture departments, rural livelihood missions, universities and non-government organisations can provide such support.

Challenges and way forward

Women still face several barriers. Many do not own land and therefore find it difficult to access formal credit or subsidies. Mobility restrictions can reduce their ability to visit markets, banks and training centres. Digital literacy is still limited in many villages. Lack of cold storage, transport and packaging facilities can reduce profit from fruits and vegetables. In addition, women's work is often not recognised as skilled work.

These challenges can be addressed through women-friendly training, village-level resource centres, simple credit procedures, group-based enterprises and local market linkage. Government schemes should be converged at the village level. For example, a women's group can receive training under DAY-NRLM, credit support under PMFME, infrastructure support under AIF and technical support under MIDH. Such convergence will help women build sustainable horticulture enterprises.

The way forward is to treat women not only as labourers but as farmers, managers and entrepreneurs. Horticulture offers many small but profitable entry points. With quality planting material, improved production practices, post-harvest care, value addition, branding and digital marketing, women can lead the next stage of horticulture-based rural livelihoods.

Summary

Horticulture is becoming a powerful pathway for income, nutrition and rural employment in India. Recent estimates show that production has reached more than 370 million tonnes, creating opportunities in cultivation, nursery raising, protected cultivation, floriculture, mushroom production, beekeeping, processing and marketing. Women are already involved in many horticultural operations, but their contribution needs greater recognition and enterprise support. Government schemes such as MIDH, PMFME, DAY-NRLM and AIF can help women access training, credit, infrastructure and markets. Women-led self-help groups and producer organisations can reduce post-harvest losses, improve value addition and strengthen local markets. Empowering women in horticulture will improve household income, nutritional security and sustainable rural development.

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