



Opportunities and Challenges in Floriculture Industries

^{*}Aishwarya Ingle¹, Dr. Suganya S.² and Shoaib Adnan³

¹Ph.D. Scholar, Department of Floriculture and Landscaping, Post Graduate Institute, Dr. Panjabrao Deshmukh Krishi Vidyapeeth (PDKV), Akola, Maharashtra

²Assistant Professor, Department of Horticulture, MITCAT, Musiri, Trichy-621 211, Tamil Nadu, India

³Research Scholar, Department of Vegetable Science, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K)

^{*}Corresponding Author's email: aishingole96@gmail.com

Floriculture simply means the act of cultivation or farming of flower. Floriculture is a branch of horticulture that is not only concerned with the growth of flowers and ornamental plants but also with their value addition and marketing. Floriculture is an intricate enterprise in India (Shelke, 2014). In the world of flowers, various segments play a part in the overall growth of the sector. The floriculture industry refers to the process of flower farming with the sole aim of commercializing the flowers and their products or an act of cultivation of flower for trading purpose that will be a source of money generation within an economy. From America to Asia, Europe, and Africa, the trade of floriculture crops, or flowering plants, and their products, such as potted flowers, cut foliage, and bedding plants, plays a significant role in the economies of many nations. Due to its many uses, floriculture crops and their products are in high demand, particularly in developed nations. Floriculture crops and their products are used as gifts for special events like Valentine's Day and birthdays, as well as a way to show sympathy when a loved one passes away. They are also used to decorate buildings both inside and outdoors (Pandey *et al.*, 2015). The achievements made in the global floriculture sector are highlighted in this chapter, along with our predictions for the subsequent years.

The global floriculture industry is constantly changing, largely as a result of globalization. Before the 1970s, most of the world's floriculture consumption was supplied by domestic production. Countries tended to trade floriculture products with their neighbors. Now technological advances in the form of frequent, reliable air transport and improved receiving, handling and shipping facilities have expanded markets and made it possible for countries to trade these products all over the world. This has resulted in a decline in domestic production and an increase in global imports of floriculture products. The effect of the accelerated international trade in these products was that demand exceeded supply in the global markets during the 1970s and 1980s. During these periods, Africa and Latin America shifted their focus from agriculture to higher-value horticultural production and so developed their floriculture production and their export capabilities. Because of its enormous domestic market, floriculture is currently becoming a significant economic sector in India. It was once thought to be a joyful and beautiful thing that always sparked people's imaginations and feelings. Due to the high labor and energy expenses in wealthy nations, it has emerged as a possible source of income for third-world nations. The Indian government allocated one thousand million rupees to this sunrise industry as a highly targeted thrust area for exports during the Eighth Five-Year Plan in order to improve its ability to generate important foreign exchange. Only more than 40 units make up the industry's current functioning capacity, out of 134 floral projects that have been started with a total expenditure of more than Rs. 250

crore. Ninety of the 122 projects that have been registered on tissue culture have gone into operation, with a production capacity of 192 million plants annually. These projects have a total production capacity of 245 million plants annually. According to the estimation, just a small number have successful records. Its home market has grown as a result of the development of this fashion-driven technology and the difficulties in exporting flowers to far-off overseas markets over the past 20 years.

Present scenario of floriculture in India

Because of the positive environment created by a number of economic and seed sector reforms, the 1990s saw the Indian floriculture industry gain commercial significance after remaining a home agriculture activity until the late 1980s (Pathak *et al.*, 2022). The floral industry is quite significant. This move has created opportunities for importing novel plant materials and implementing advanced cultivation technologies, further enriching the agricultural practices in the country. From 1,06,000 ha in 2001-2002 to 283.27'000 ha in 2021-22, with 44.83'000 ha in Karnataka followed by 42.93'000 ha in Tamil Nadu and 38.69'000 ha in Madhya Pradesh. Other states that produce flowers include Karnataka, West Bengal, Mizoram, Gujarat, Orissa, Jharkhand, Haryana, Assam, and Chhattisgarh. Total loose flower production in India is 2295.07'000 MT in 2021-22 and the leading producer of the loose flower is Andhra Pradesh having 515.71'000 MT production and West Bengal is the leading producer of cut flowers having 218.71'000 MT production. Furthermore, over 70% of India's floriculture exports come from the country's thriving dry flower sector. With 322 crores in income, India is the world's largest producer and exporter of dry flowers (Chawla *et al.*, 2016). The product assortment includes things like fruits, seeds, pods, wild harvests, and agricultural byproducts in addition to unique dried flowers. Tuticorin, Cochin, and Kolkata are the main production centers (Kumar *et al.*, 2021).

Opportunities in Floriculture Industries

Pot Plant Production and Rentals: Establish unified standards for planting materials produced in the country to ensure fair pricing and a level playing field for nurseries nationwide. Leverage the Standup India program to encourage new entrepreneurs in this floriculture segment. Provide support for infrastructure, input costs, and connections to Flori Malls for sector growth. Intensive training on bio security issues and environmental concerns for nurserymen is crucial, along with classifying nursery activity and pot plant rentals as agricultural activities in the new GST regime.

Traditional Flower Sector: To boost floriculture productivity, implement micro irrigation with support from government initiatives like MIDH and RKVY. Allocate funds for large-scale mulching to address labor shortages and optimize fertilizer and water usage. Enhance floriculture marketplaces with innovations like solar powered air-cooled push carts for improved hygiene and extended flower shelf life. Incentivize plastic crate adoption for better flower preservation. Revamp the transportation of loose flowers by introducing refrigerated tempos and mini vans, creating a cooling network in rural areas. Empower Self Help Groups to take charge of these facilities. Propose the development of integrated Flori-Malls in key markets, incorporating specialized cooling systems, essential oil extraction, poultry feed production, gulkand crafting, and vermicompost units. Install cold stores in smaller markets for better storage and reduced distress sales.

Dry Flowers: Through training and business initiatives run by Skilling India and Standup India, with an emphasis on the manufacture and export of dry flowers, empower tribal women and young people without jobs. To absorb excess production during market swings, establish a centralized plant for the manufacture of dry flowers. Create and put into practice a variety of drying techniques, such as solar, microwave, and hot air, incorporating them with Flori Malls and greenhouse clusters.

Florist and Floral Decorations: Implementing import limitations will help stop the flood of low-cost plastic flowers from nearby nations. Enable women's self-groups in both rural and urban areas by promoting this sector under Skilling India and Standup India. Give florist

shops the equipment and assistance they require, such as air conditioners, cool boxes, subsidized preservatives, and other necessities, in recognition of their ability to withstand harsh weather.

Challenges in Floriculture Industries

Production level issues : The horticulture sector faces a significant threat from urban real estate expansion, resulting in shrinking land holdings. Proximity of the flower market to floriculture growers is crucial due to the perishable nature of flowers. Production challenges stem from ground-level obstacles such as inadequate infrastructure, a scarcity of high quality planting material, and the need for suitable fertilizers (Krishna and Naik, 2020). Lack of awareness about high-yield plant varieties, soil testing, and the correct application of pesticides and fertilizers poses obstacles to the successful cultivation of flowers.

Climate-related issues : Despite India's varied agroclimatic zones, flower output is greatly impacted by climate change, particularly in open fields. The production of flowers is harmed by extreme heat, cold, and unpredictable rainfall during storms, which also affects native plants in their natural environments. Different locations are impacted by unseasonal monsoons and abrupt seasonal shifts, which can lead to problems like drought or flooding or deprive them of necessary precipitation. Low yields or poor flower quality are caused by new diseases, pests, and changes in resistance to existing pathogens brought about by climate change.

Marketing and Transport Related Challenges: The market related challenges is the main obstacle in improving economic status of floriculture producers from small growers to large. The economic crisis has significantly affected the floriculture industry worldwide with demand for floricultural products considerably declining in all major consuming countries. There are various market related challenges faced by floriculturist which are non-availability of market, difficulties in transportation due to high perishable produce, commission agents, delayed in payment after sell of flowers, inadequate arrangements for grading and storage due to such factors growers have to sell their produce at very cheap prices to the wholesalers or commission agents. Various local taxes by the government on transportation of floriculture produce create a big issue for the growers so that most of the growers prefer spot sale to avoid such expenses and they sale their produce with a very low profit margin. Due to such challenges faced by the growers, every time during sale of produce the growers instead of using their future sight, satisfied in what they grab in their hand immediately after sale of their produce, due to inadequate market and transport facilities in India. For export of flowers, air freight rates are very exorbitant compared to other countries this is also an obstacle in transportation.

Institutional Related Challenges: The biggest obstacle to the use of new manufacturing procedures and the downward dispersion of technical know-how is a lack of awareness. Therefore, it is important to focus on raising farmers' knowledge levels through coordinated extension education initiatives, such as demonstration trials. In the majority of floriculture produce locations, there is no expansion for production and marketing. Another major problem is the lack of essential materials at sale places. Farmers have demanded that the government declare a support price for floriculture produce, but no support price has been announced as of yet. As a result, more farmers turned to the floriculture sector.

References

1. Shelke, A. (2014). Commercial floriculture industry in India: Status and prospects. *International Journal of Management and Information Technology*, 10(2), 1837-1843.
2. Pandey, A. K., Pandey, M., & Tripathi, B. D. (2015). Air Pollution Tolerance Index of climber plant species to develop Vertical Greenery Systems in a polluted tropical city. *Landscape and Urban Planning*, 144, 119-127.
3. Pathak, H., Mishra, J. P., & Mohapatra, T. (2022). Indian agriculture after independence. *Indian Council of Agricultural Research, New Delhi*, 110(001), 426.

4. Chawla, S. L., Patil, S., Ahlawat, T. R., & Agnihotri, R. (2016). Present status, constraints and future potential of floriculture in India. *Commercial Horticulture*, 1, 29-38.
5. Kumar, S., Malik, A., & Hooda, V. (2021). Drying of flowers: A money-spinning aspect of floriculture industry. *Journal of Pharmacognosy and Phytochemistry*, 10(2), 27-31.

