

Future Aspects of Floriculture and Landscaping in India

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INTRODUCTION

India, with its diverse agro-climatic zones and rich biodiversity, holds immense potential for the development of floriculture and landscaping. According to the National Horticulture Board (NHB), floriculture in India covers over 300,000 hectares of area, producing a wide variety of cut flowers, loose flowers, foliage, and ornamental plants.

Landscaping, on the other hand, is becoming an integral part of urban planning, hospitality, and real estate sectors. Increasing awareness about green spaces, pollution control, and mental wellness is driving demand for professionally planned landscapes in residential, institutional, and commercial spaces.

2. Current Status and Growth Potential

2.1 Floriculture Industry in India

India ranks among the top 10 producers of flowers globally. Major flower-producing states: Karnataka, Tamil Nadu, West Bengal, Maharashtra, and Andhra Pradesh.

Flowers such as rose, chrysanthemum, gerbera, marigold, and tuberose dominate cultivation.

India's floriculture exports reached INR 707 crore in 2022–23, mainly to the USA, Netherlands, UK, UAE, and Japan (APEDA, 2023). With rising global demand for cut flowers and value-added products like essential oils, dried flowers, and floral extracts, the future of floriculture is promising.

2.2 Landscaping Trends in India

Landscaping is expanding rapidly, especially in:

- ❖ Smart cities
- ❖ Gated communities
- ❖ Urban green spaces
- ❖ Corporate campuses and hospitality projects

There's growing emphasis on eco-landscaping, green roofs, vertical gardens, and rain gardens, particularly in metropolitan areas like Delhi, Bengaluru, Hyderabad, and Mumbai.

3. Future Aspects of Floriculture and Landscaping in India

3.1 Technological Innovation

- ❖ Greenhouse and polyhouse cultivation will expand to allow year-round flower production and export quality.
- ❖ Use of drip irrigation, fertigation, and soil-less growing techniques will improve efficiency.
- ❖ Integration of AI, IoT, and drones in floriculture for pest detection, growth monitoring, and smart irrigation is expected to rise (Mohanraj et al., 2016).
- ❖ Landscaping will be increasingly driven by 3D visualization, GIS-based design, and automated maintenance systems.

3.2 Urban and Eco-Friendly Landscaping

- ❖ As cities grow denser, the need for green lungs is increasing:
- ❖ Vertical gardens, green facades, and urban forests using methods like Miyawaki plantation are gaining popularity.
- ❖ Municipal corporations are incorporating sustainable landscaping in public parks, road medians, and drainage systems.
- ❖ Landscaped campuses can significantly reduce urban heat islands, improve air quality, and enhance urban biodiversity.

3.3 Climate-Resilient and Native Landscaping

- ❖ Future landscaping in India will focus more on climate-resilient native species, which are low maintenance and adapted to regional conditions.
- ❖ Xeriscaping (landscaping with minimal water use) will become crucial in drought-prone states like Rajasthan and Gujarat.

3.4 Organic and Sustainable Floriculture

- ❖ With increasing awareness, consumers are shifting toward chemical-free, organically grown flowers.
- ❖ Use of biopesticides, vermicompost, and natural dyes will define future cultivation practices (Sharma et al., 2021).

4. Government Support and Policy Framework

4.1 Schemes and Subsidies

- ❖ The Mission for Integrated Development of Horticulture (MIDH) supports floriculture infrastructure including nurseries, greenhouses, and cold chains.
- ❖ The Floriculture Cluster Development Programme launched by APEDA in 2021

focuses on boosting exports and creating regional clusters (APEDA, 2022).

- ❖ Smart Cities Mission and AMRUT include landscaping and green infrastructure components in urban design.

4.2 Skill Development

Government initiatives such as Skill India and PMKVY are training youth in horticulture and landscape management, addressing the skilled labor gap in these sectors.

5. Challenges

- ❖ Despite its potential, several challenges need to be addressed:
- ❖ Lack of cold chain logistics for fresh flower exports.
- ❖ Price volatility and poor post-harvest infrastructure.
- ❖ Limited awareness of native landscaping techniques among builders and planners.
- ❖ Urban land constraints and water scarcity.

6. CONCLUSION

Floriculture and landscaping in India are set to become powerful contributors to the economy, environment, and quality of life. Technological integration, sustainable practices, and supportive policies will shape their future. With proper education, investment, and awareness, India can not only meet domestic demand but also emerge as a global leader in ornamental horticulture and urban green development.

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