Floriculture in India

For Prelims: Floriculture, Paddy, National Botanical Research Institute, APEDA, National Horticulture Board, Per Drop More Crop

For Mains: Floriculture Sector, Agricultural Marketing, Economic Transformation through Crop Diversification

Source: TH

Why in News?

The Jujumara region in Odisha's Sambalpur district is home to one of the **first Farmer Producer Organizations (FPO)** in the state dedicated **exclusively to floriculture,** transitioning from **traditional paddy farming**.

- With support from the **National Botanical Research Institute (NBRI),** local farmers are adopting flower cultivation, resulting in significant economic improvements.

How is Floriculture Transforming Jujumara's Economy?

- **Diversification of Income Sources:** Farmers are transitioning from traditional paddy farming to flower cultivation, reducing **dependence on a single crop** and enhancing income stability.
- **Economic Benefits:** Profits from flower cultivation **can exceed Rs 1 lakh per acre,** compared to around Rs 40,000 per acre from paddy farming, significantly boosting farmers' incomes.
- **Market Adaptation:** Through platforms like **WhatsApp groups**, farmers receive updates on market trends, enabling them to make informed decisions about production and sales.
- **Sustainable Practices:** The integration of **beekeeping** alongside floriculture promotes biodiversity and provides an additional income stream for farmers.

What is Floriculture?

- **About:** Floriculture involves the **cultivation of flowering and ornamental plants** for various purposes, such as direct sale, cosmetics, perfume, and pharmaceutical industries.
    - It includes **seed and plant material production** through techniques like cutting, grafting, and budding.
    - The **Agricultural and Processed Food Products Export Development Authority (APEDA),** the nodal organisation for promotion of agri-exports including flowers.
- **Market of Floriculture in India:** The government of India has identified floriculture as a **"sunrise industry".**
    - About **297 thousand hectares** of the area were under Cultivation for floriculture in 2023-24 (2nd Advance Estimate).
    - India exported around 20,000 metric tonnes of floriculture products worth Rs 717.83 crores in 2023-24, with major importers including the **United States of America (USA), the Netherlands, the United Arab Emirates, the United Kingdom, Canada, and**

Malaysia.
    - Due to the exceptional performance of the sector, it is expected to grow to USD 5.9 billion by 2030 with a **Compounded Annual Growth Rate (CAGR)** of 7.4% (2021-2030).
- **Varieties:** India's floriculture industry covers cut flowers, pot plants, bulbs, tubers, and dried flowers.
    - The important floricultural crops in the **international cut flower trade** are Rose, Carnation, Chrysanthemum, Gargera, Gladiolus, Gypsophila, Liatris, Nerine, Orchids, Archilea, Anthurium, Tulip, and Lilies.
    - Floriculture crops like **Gerberas, Carnation, etc. are grown in greenhouses.** The **open field crops** are Chrysanthemum, Roses, Gaillardia, Lily Marigold, Aster, Tuberose, etc.
        - **Greenhouses are inflated structures** covered with transparent material, where crops are grown under controlled environmental conditions.
- **Leading Floriculture Regions:** Karnataka, Tamil Nadu, Madhya Pradesh, West Bengal, Chhattisgarh, Andhra Pradesh, Gujarat, Uttar Pradesh, Assam and Maharashtra have emerged as major floriculture centres.

What are the Key Challenges in India's Floriculture Industry?

- **Low Knowledge Base**: Floriculture being a relatively new concept, scientific and commercial floriculture is not well-understood, leading to **inefficiencies in production and marketing.**
- **Small Land Holdings**: Most floriculture farmers have **small land holdings**, limiting their ability to invest in large-scale, modern cultivation practices.
- **Unorganised Marketing**: The marketing system is fragmented and lacks organised platforms like **auction yards and controlled condition storage facilities,** making it difficult for farmers to get fair prices.
    - Although India has a large domestic market, it lacks modernised marketing systems to handle surplus production and meet increasing quality demands.
- **Inadequate Infrastructure**: Poor post-harvest management and lack of cold storage lead to quality degradation, especially in flowers grown for domestic markets.
- **Biotic and Abiotic Stresses**: Flower production in open fields exposes crops to various stresses, making the produce **less suitable for high-quality export markets.**
- **High Initial Costs**: Commercial floriculture requires heavy investments in infrastructure, and **farmers struggle to access affordable finance options**. More schemes like the **soft loan initiative by the National Horticulture Board are needed.**
- **Export Barriers**: **High air freight rates, low cargo capacity,** reduce the global competitiveness of Indian floriculture products.

What are India's Initiatives for Floriculture?

- **APEDA (Agricultural and Processed Food Products Export Development Authority):** Supports floriculture exporters with cold storage, freight subsidies, and infrastructure development.
- **Council of Scientific & Industrial Research (CSIR) Floriculture Mission:** It is a nation-wide mission being implemented in 22 states with an aim to enhance the income of farmers and develop **entrepreneurship through high value floriculture** utilising **CSIR technologies.**
- **FDI in Floriculture:** 100% **foreign direct investment (FDI)** under the automatic route is allowed in the Floriculture sector making the investment process much easier for the foreign investor.
- **Integrated Development of Commercial Floriculture Scheme**: Provides access to quality planting material, promotes off-season cultivation, and enhances post-harvest management.

Way Forward

- **Essential Service and Market Modernization**: Flowers should be classified as essential services, like fruits and vegetables, to ensure uninterrupted supply and sales during crises such as lockdowns.
    - Floriculture markets need modernization through **solar-powered air-cooled pushcarts,** and improved packaging with foldable crates.

- **Micro-Irrigation and Mulching**: Extend the **"Per Drop More Crop"** initiative to floriculture by bringing all flower cultivation under micro-irrigation.
    - Mulching (covering the topsoil) techniques should be promoted to reduce labour, improve water use efficiency, and minimise weed.
- **Skilling**: Train **tribal women and unemployed youth** in dry flower production under **"Skilling India"** **and** **"Standup India."**
- **Support for Quality Planting Materials**: Promote **certified nurseries and tissue culture labs** to ensure virus-free planting materials. Strengthen biosecurity standards and ensure the availability of quality planting stock for commercial floriculture.
- **Flori-Malls and Value Addition**: Create integrated **"Flori-Malls"** with cold chains, essential oil extraction, pigment extraction, and vermicompost units.
    - This will help farmers turn excess flowers into products like dyes, gulkand (the sweet preserve of rose petals), and dry flowers, adding value and reducing wastage.

Drishti Mains Question:

Discuss the significance of floriculture and its role in transforming the rural economy.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Mains:

Q. What are the present challenges before crop diversification? How do emerging technologies provide an opportunity for crop diversification? (2021)