

# BOTANICAL GARDEN AND NURSERIES

## 1. INTRODUCTION

The botanical garden and nursery industry in India holds great potential due to the growing interest in horticulture, landscape gardening, and environmental conservation. With a population increasingly aware of the importance of greenery, the demand for plants, trees, and flowers has risen across residential, commercial, and government sectors. Establishing botanical gardens and nurseries is an attractive business venture that offers numerous opportunities in plant production, education, tourism, and environmental preservation. Moreover, with initiatives such as the *National Horticulture Mission* and other government programs supporting the horticulture and green space sectors, this business promises good returns on investment.

Uttarakhand, known for its rich biodiversity and favorable climate, provides an ideal environment for starting a botanical garden and nursery. The state's varied topography, coupled with the growing focus on environmental conservation and eco-tourism, presents opportunities for entrepreneurs in this space.

## 2. BOTANICAL GARDEN AND NURSERY MARKET IN UTTARAKHAND AND INDIA

The Indian market for plants, flowers, and greenery has expanded significantly in recent years. The increase in landscaping projects, government policies promoting greenery in urban areas, and the rise in eco-tourism have contributed to the growth of the botanical and nursery industry. In Uttarakhand, the abundance of native plant species and favorable climatic conditions makes it a strategic location for producing and selling a wide variety of plants, ornamental flowers, and trees.

In India, the nursery industry is expected to grow at a steady rate due to increasing urbanization, government initiatives, and growing awareness of environmental sustainability. Urban landscaping, afforestation programs, and demand for ornamental plants from commercial sectors such as hospitality, real estate, and tourism contribute to market growth.

### 3. DESIRED QUALIFICATION FOR PROMOTER

To succeed in establishing a botanical garden and nursery, the promoter should ideally have:

- **Formal education** in horticulture, botany, agriculture, or environmental science.
- **Hands-on experience** in plant cultivation, garden design, and landscape management.
- **Knowledge of plant species, soil management, pest control**, and irrigation techniques.
- **Business acumen** to handle operations, sales, marketing, and customer service.
- **Interest in sustainability** and eco-friendly gardening practices.
- **Ability to manage a team** of skilled and unskilled labor for plant cultivation, maintenance, and sales.

### 4. BUSINESS OUTLOOK AND TRENDS

The botanical garden and nursery sector in India has significant growth potential. Several trends are driving this growth:

- **Landscape Gardening:** Increasing demand for home gardens, commercial landscaping, and urban green spaces creates opportunities for nurseries.
- **Eco-Tourism:** Botanical gardens are increasingly becoming popular tourist attractions, offering educational, recreational, and environmental benefits.
- **Awareness of Sustainability:** With rising environmental concerns, there is a growing interest in eco-friendly gardening and native plants that require less water and care.
- **Government Support:** Various government initiatives, such as subsidies for nurseries and support for afforestation and landscaping projects, make it an attractive industry for investment.

### 5. MARKET POTENTIAL AND MARKETING ISSUES

- **Market Potential:**
  - The global market for ornamental plants is expected to exceed USD 75 billion by 2025, with India contributing a significant share.

- In Uttarakhand, there is a growing demand for local and native plant species, especially in government projects, private landscaping, and real estate development.
- The eco-tourism industry is thriving, providing additional revenue for botanical gardens as tourist destinations.
- **Marketing Issues:**
  - **Seasonality:** Demand for certain plants is seasonal, which may lead to fluctuations in sales.
  - **Competition:** There are numerous small and large players in the nursery market, requiring innovative marketing and value-added services to stand out.
  - **Quality Control:** Ensuring consistent plant quality and maintaining healthy stock is crucial in a highly competitive market.

## 6. BUSINESS INPUTS

To set up a botanical garden and nursery, the following key inputs are required:

- **Raw Materials:** Seeds, saplings, soil, fertilizers, compost, pots, seeds, plant growth regulators.
- **Machinery and Equipment:** Irrigation systems, water pumps, greenhouse structures, planting tools, garden equipment, and packaging materials.
- **Manpower:** Skilled horticulturists, gardeners, laborers for plant cultivation, maintenance, and sales, as well as administrative staff.
- **Technology:** Nursery management software, plant care systems, online sales platforms, and tools for plant disease detection and monitoring.

## 7. PLANTING AND NURSERY OPERATIONS

The operation of a botanical garden and nursery typically includes several stages:

1. **Seed Procurement and Plant Breeding:** Sourcing seeds from certified suppliers and, in some cases, breeding new plant varieties.
2. **Propagation:** Growing new plants from seeds, cuttings, or grafts to create a healthy plant stock.

3. **Soil Preparation:** Ensuring the right soil composition for different types of plants, including proper pH and nutrient levels.
4. **Watering and Fertilization:** Implementing irrigation systems and fertilization schedules to promote healthy growth.
5. **Plant Maintenance:** Regular pruning, pest management, and disease control to maintain plant health.
6. **Sales and Distribution:** Marketing and selling plants to consumers, landscapers, garden centers, and wholesalers, both in-person and online.

## 8. MANPOWER REQUIREMENT

Particulars	No.	No. of months per year	Wages/Salaries per month (Rs. in Lakhs)	Annual Expense (Rs. in Lakhs)
Self-Employed	1	12	-	-
Skilled Labor	5	12	0.15	9.00
Unskilled Labor	3	12	0.10	3.60
Total	9	-	-	12.60

## 9. IMPLEMENTATION SCHEDULE

Sr. No	Activity	Time Required (in months)
1	Acquisition of premises	1
2	Land preparation and landscaping	3
3	Procurement and planting of initial stock	4
4	Installation of irrigation systems	2
5	Arrangement of finance	2
6	Recruitment of staff	1
7	Total time required (some activities run concurrently)	6

## 10. COST OF PROJECT

Sr. No	Particulars	Annual Expenses (Rs. in Lakhs)
1	Land	2.00
2	Building (Rented)	1.20
3	Equipment and Furniture Exp.	4.50
4	Miscellaneous Expenses (Seeds, Fertilizers, etc.)	1.50
5	Preoperative & Preliminary Expenses	0.20

6	Working Capital	1.50
<b>Total</b>		<b>10.90</b>

### 11.MEANS OF FINANCE

Sr. No	Particulars	Amount (Rs. in Lakhs)
1	Promoter's contribution	4.36
2	Bank Finance (60%)	6.54
<b>Total</b>		<b>10.90</b>

### 12.LIST OF MACHINERY AND EQUIPMENT REQUIRED

Sr. No	Particulars	Unit Price (Rs. in Lakhs)	Total Amount (Rs. in Lakhs)
1	Greenhouse Structures	2.50	2.50
2	Irrigation Systems (Pumps, Drip Irrigation)	1.00	1.50
3	Tools and Equipment (Planting, Trimming, etc.)	0.30	0.50
4	Packaging and Storage Equipment	0.50	0.80
<b>Total</b>			<b>4.50</b>

### 13.SALES REALIZATION

Sr. No	Product	Sales Realization (Rs. in Lakhs)
1	Ornamental Plants and Trees	25.00
2	Flowering Plants (Annuals, Perennials)	10.00

### 14.PROFITABILITY CALCULATIONS

Sr. No	Particulars	Annual Expenses (Rs. in Lakhs)
i)	Sales Realization	35.00
ii)	Cost of Production	25.00
iii)	Gross Profit	10.00
iv)	Depreciation	1.00
v)	PBIT	9.00
vi)	Income Tax	1.00
vii)	Net Profit	8.00
<b>Repayment</b>	Annual	1.50
<b>Retained Surplus</b>		<b>6.50</b>

### 15.BREAKEVEN ANALYSIS

Particulars	Rs. in Lakhs
Fixed Cost	6.50

Variable Cost	10.00
Contribution Margin	25%
Break-even Point	26.00
Sales per Unit	3500
Margin per Unit	1200
Number of Sales to Break-even	650 units
Annual Capacity	2000 units

## 16. STATUTORY/GOVERNMENT APPROVALS

The following licenses and approvals are required:

1. **Horticulture License** from the Ministry of Agriculture.
2. **Trade License** from local municipal authority.
3. **GST Registration** for tax compliance.
4. **Land Use Permission** from local authority (if required for expansion).

## 17. TRAINING CENTERS AND COURSES

1. **National Horticultural Research and Development Foundation:** Training on horticulture, plant propagation, and gardening.
2. **Uttarakhand Horticulture Department:** Training on horticulture best practices.
3. **Indian Society of Landscape Architects:** Certification programs for landscape gardening.

The Swayam portal (link: <https://swayam.gov.in/>) can also be accessed for enhanced learning on business commerce, accounting, production, marketing, and areas of entrepreneurship.

Entrepreneurship program that helps to run businesses successfully are also available from Institutes like the Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

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