



## RESEARCH PAPER

## To identify the problems faced by the poplar growers in the Saharanpur ,district of Western Uttar Pradesh.

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### Abstract

Poplar-base agroforestry has emerged as an important commercial farming system in Western Uttar Pradesh, particularly in Saharanpur district, due to its fast growth, compatibility with agricultural crops, and high industrial demand. Despite its economic significance, poplar growers face several production, marketing, and management constraints that adversely affect profitability and sustainability. The present study aims to identify and analyze the major problems encountered by poplar growers in the study area. Primary data were collected from selected farmers through a structured interview schedule. The study reveals that labor scarcity and price fluctuation were the most severe constraints, each reported by 100 percent of the respondents and ranked first. Problems related to direct marketing (88%), damage due to high wind (80%), and lack of technical knowledge (50%) were also found significant. Other constraints included plantation problems, leaf shading, insect-pest incidence, irrigation issues, and cutting-related difficulties. The findings suggest the need for institutional support, price stabilization mechanisms, technical training, improved extension services, and organized marketing facilities for enhancing the sustainability and profitability of poplar cultivation in the region.

### KEYWORDS:

Poplar cultivation, Agroforestry, Marketing constraints, Production problems, Saharanpur, Uttar Pradesh, Farmers' perception.

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### Introduction

Agroforestry plays a vital role in enhancing agricultural sustainability, environmental conservation, and rural livelihoods in India. Among various agroforestry species, poplar (*Populus deltoides*) has gained considerable popularity in the north-western plains of India due to its rapid growth, high market demand, and compatibility with seasonal crops. In Uttar Pradesh, especially in the western region, poplar cultivation has become an important source of income for farmers.

The district of Saharanpur is well known for poplar-based agroforestry systems because of favorable climatic conditions, fertile soils, and proximity to plywood and paper industries. Farmers prefer poplar cultivation because it provides regular income, employment opportunities, and diversification in farming systems. However, despite these advantages, growers encounter several technical, environmental, labor, and marketing-related challenges. The sustainability and economic viability of poplar cultivation largely depend upon how effectively these constraints are addressed. Therefore, understanding the



problems faced by poplar growers is essential for designing suitable policies, extension programs, and institutional interventions. Keeping this in view, the present study was undertaken to analyze the major constraints experienced by poplar growers in Saharanpur district.

### Research Methodology

The present study was conducted in Saharanpur, district of western Uttar Pradesh. Primary data were collected from

selected poplar growers using a pre-tested structured interview schedule. Farmers were asked about various production, management, environmental, and marketing constraints associated with poplar cultivation.

The responses obtained from farmers were analyzed using percentage analysis and ranking techniques. The problems were ranked according to the frequency of responses received from the respondents.

**Table 1: Problems Faced by Selected Poplar Growers**

| Sr. No. | Problems                       | Farmers Response | Percentage | Rank |
|---------|--------------------------------|------------------|------------|------|
| 1.      | Problems of Plantation         | 18               | 36         | V    |
| 2.      | Problems of Inter-Cultivation  | 8                | 16         | X    |
| 3.      | Effect of leaf Shading         | 16               | 32         | VI   |
| 4.      | Damage due to high wind        | 40               | 80         | III  |
| 5.      | High incidence of insect/pests | 12               | 24         | VIII |
| 6.      | Labor Problems                 | 50               | 100.00     | I    |
| 7.      | Lake of Technical Knowledge    | 25               | 50         | IV   |
| 8.      | Irrigation Problems            | 10               | 20         | IX   |
| 9.      | Problems of Direct Marketing   | 44               | 88         | II   |
| 10.     | Problems of Cutting            | 15               | 30         | VII  |
| 11.     | Price Fluctuation              | 50               | 100.00     | I    |

### Results and Discussion

The study revealed that poplar growers in Saharanpur face several production and marketing constraints affecting the profitability of poplar cultivation. Labor problems and price fluctuation were identified as the most serious constraints, each reported by 100 percent of respondents and ranked first. The shortage of skilled labor and rising wage rates increased the cost of cultivation, while unstable timber prices created income uncertainty among farmers. Problems related to direct marketing were reported by 88 percent of growers, mainly due to dependence on middlemen and lack of organized timber markets. Damage caused by high wind was another major issue, reported by 80 percent of respondents, resulting in tree breakage and economic losses. Lack of technical knowledge regarding scientific cultivation practices was also a significant constraint. Other problems included plantation difficulties, leaf shading effects, pest incidence, irrigation issues, and harvesting-related challenges. The study emphasizes the need for better extension services, technical guidance, and efficient marketing support for poplar growers.

#### Labor Problems and Price Fluctuation

Labor problems and price fluctuation emerged as the most severe constraints, each reported by 100 percent of respondents and jointly ranked first. The shortage of skilled labor during plantation, pruning, harvesting, and transportation operations significantly increases production costs. Rising wage rates further reduce farmers' profitability.

Similarly, fluctuation in poplar prices creates uncertainty among growers. Farmers often suffer financial losses due to unstable market prices and lack of assured procurement systems. Since poplar timber prices are heavily influenced by industrial demand, growers remain vulnerable to market instability.

#### Problems of Direct Marketing

Problems related to direct marketing were reported by 88 percent of respondents and ranked second. Most farmers depend on middlemen or contractors for the sale of poplar wood, resulting in reduced bargaining power and lower producer shares in the final price. The absence of organized timber markets and cooperative marketing systems further aggravates the situation.

#### Damage Due to High Wind

About 80 percent of farmers reported damage caused by high winds, ranking it third among the major constraints. Poplar trees are highly susceptible to wind damage because of their tall and slender structure. Strong winds often lead to stem bending, uprooting, and breakage, causing substantial economic losses to farmers.

#### **Lack of Technical Knowledge**

Lack of technical knowledge was reported by 50 percent of respondents and ranked fourth. Many farmers were unaware of scientific plantation techniques, pest management practices, spacing requirements, pruning methods, and irrigation scheduling. Limited extension support and inadequate training programs contribute to this problem.

#### **Plantation and Leaf Shading Problems**

Problems associated with plantation practices were faced by 36 percent of respondents and ranked fifth. Farmers experienced difficulties related to selection of quality planting material, spacing, and proper field management. Leaf shading effects were reported by 32 percent of growers and ranked sixth. Excessive shading from poplar

#### **Policy Implications and Suggestions**

Based on the findings of the study, the following measures are suggested:

1. **Establishment of Organized Timber Markets:** Government and cooperative agencies should develop regulated timber markets to ensure fair prices for farmers.
2. **Price Stabilization Mechanism:** A minimum support price or price stabilization fund may be introduced to protect growers from market fluctuations.
3. **Technical Training Programs:** Regular training and awareness programs should be organized for farmers regarding scientific poplar cultivation practices.

#### **Conclusion**

The study concludes that poplar cultivation in Saharanpur district is constrained by several production and marketing-related problems. Labor scarcity and price fluctuation are the most critical challenges faced by growers, followed by direct marketing problems, wind damage, and lack of technical knowledge. These constraints significantly affect the profitability and sustainability of poplar-based agroforestry systems.

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trees adversely affects the growth and yield of intercrops by reducing sunlight availability, particularly during the later stages of tree growth.

#### **Problems of Cutting and Pest Incidence**

Problems of cutting were reported by 30 percent of respondents and ranked seventh. Farmers faced challenges in obtaining skilled labor and appropriate equipment for cutting mature trees.

High incidence of insects and pests was observed by 24 percent of respondents and ranked eighth. Pest attacks not only reduce tree growth but also lower timber quality and market value.

#### **Irrigation and Inter-Cultivation Problems**

Irrigation problems were reported by 20 percent of respondents and ranked ninth. Water scarcity and irregular irrigation facilities affect tree growth, especially during summer months.

Inter-cultivation problems were reported by 16 percent of respondents and ranked tenth. As tree canopy expands, agricultural operations become difficult, reducing the efficiency of intercropping practices.

4. **Strengthening Extension Services:** Agricultural universities and forestry departments should enhance extension support to provide timely technical guidance.
5. **Promotion of Farmer Producer Organizations (FPOs):** Collective marketing through FPOs can improve bargaining power and reduce dependence on middlemen.
6. **Development of Wind Protection Measures:** Shelterbelts and proper plantation design should be encouraged to minimize wind damage.
7. **Research on Pest-Resistant Varieties:** Research institutions should develop improved poplar varieties resistant to pests and adverse climatic conditions.

Addressing these issues requires coordinated efforts from government agencies, research institutions, extension organizations, and farmer groups. Institutional support, scientific management practices, and efficient marketing systems are essential for strengthening the poplar economy and improving the livelihood security of farmers in the region.

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