

# Exploring the Potential of Minor Forest Product Resources in Chhattisgarh

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## Abstract

Chhattisgarh is one of India's most forest-abundant states, offering a diverse range of minor forest produce (MFP), also known as non-timber forest products (NTFPs). These include tendu leaves, mahua, sal seeds, lac, honey, medicinal and aromatic plants, tamarind, gums/resins, among others. These resources are vital for the livelihoods of tribal and forest-reliant communities, rural economies, and emerging rural businesses. This paper explores the current state of MFPs in Chhattisgarh, identifies the main economic and institutional challenges, and highlights high-impact opportunities to boost rural incomes, enhance local value, improve ecological resilience, and develop inclusive market connections. Utilizing government data, program documents, and recent field reports, the paper suggests a prioritized set of interventions—covering primary processing and quality assurance, Van Dhan/producer-owned enterprises, scaling of lac and apiculture, bamboo-related value chains, digital market access, PES/carbon pilots, and policy/institutional reforms—that collectively can transform Chhattisgarh's MFP resources into lasting socio-economic benefits while preserving forest health.

## Key Words

Chhattisgarh, MFP, Rural Economies, Van Dhan, Socio-Economic etc.

## Introduction

Minor Forest Products (MFPs) include all biological materials other than timber that are collected from forests, such as leaves, fruits, seeds, roots, bark, and resins. In India, and especially in Chhattisgarh, MFPs are a crucial livelihood resource for forest-dependent communities. Over 44% of Chhattisgarh's land area is covered by forests, and nearly 31% of its population—mainly Scheduled Tribes—relies directly or indirectly on forest produce for income and sustenance (Pandey et al., 2020). Chhattisgarh plays a significant role in India's national MFP economy, contributing substantial shares of tendu leaves, sal seeds, mahua, chironji, tamarind, and lac production (Kumar et al., 2023). Despite this abundance, the potential of MFPs as a sustainable livelihood source remains underexploited due to market imbalances, weak institutional structures, and limited value addition infrastructure.

MFP encompasses all forest resources other than timber, such as Tendu leaves, Sal seeds, Harra, Mahua flowers and seeds, Lac, Tamarind, Chironjee, Gums, medicinal herbs, edible fruits, resins, bamboo crafts, and more. In the context of Indian forest management, these items are considered nationalized or regulated commodities and have unique marketing systems due to their direct impact on local livelihoods. Chhattisgarh is the leading contributor to MFP production, procurement, and trade in India. It is estimated that about 70% of households in forested rural areas rely on some form of seasonal MFP collection. The state government has developed a robust cooperative federation, the "Chhattisgarh State Minor Forest Produce Federation (CGMFPFED)," which serves as the central agency for scientific harvesting, primary procurement, storage, processing, value addition, and marketing. This institutional framework is a key reason why the MFP-based economy in Chhattisgarh is more structurally successful than in most other states.

In modern natural resource development, minor forest products offer significant strategic opportunities. There is a growing global demand for organic herbal raw materials, nutraceuticals, plant-based extracts, biocosmetics, bio-based chemicals, and carbon-neutral agroforestry. Chhattisgarh, with its rich biodiversity zones, particularly the Bastar plateau, Northern Surguja, and Central plains, is home to thousands of medicinal plant species and wild food species. If MFP resources are systematically developed with processing technology, scientific silviculture, sustainable harvesting, value chain development, industrial linkages, and export-oriented clusters, it can transform the rural economy from a collection-driven primary commodity to a higher-value renewable bioeconomy.

Thus, minor forest produce resources are not just natural objects; they are the core foundation of sustainable rural development, ecological conservation, circular value creation, traditional knowledge protection, and green industry in Chhattisgarh. MFP can create diverse employment opportunities, reduce migration, strengthen the tribal economy, boost women-led entrepreneurship, and position the state as a leading global hub for herbal, natural fiber, wild edible, and plant-based industrial products. This sector, therefore, represents one of the most promising long-term livelihood security models within India’s forest-based development landscape.

## Review of Literature

**(Rao & Saxena, 1996)** Enhancing the potential of minor forest product resources can be achieved by advancing local knowledge, meeting market demands, and adding value. By empowering communities and refining extraction and marketing systems, profits from these resources in the Central Himalaya can be significantly boosted.

**(Patil & Rajah, 2024)** Non-timber forest products (NTFPs) play a crucial role in international trade and contribute to sustainable livelihoods. These products, which include a diverse array of items sourced from forests, have complex value chains. The marketing and trading of NTFPs present both challenges and opportunities, such as the implementation of sustainable practices, the promotion of fair trade, and the exploration of economic potential.

**(Dako et al., 2024)** This research investigates the possibilities of non-timber forest products (NTFPs) within the Boti indigenous community, highlighting the prominence of candlenut, tamarind, and lac tree, while stressing the importance of sustainable use and development strategies to boost their economic worth and empower the community.

**(Sahu et al., 2025)** This research explores the economic and social importance of Non-Wood Forest Products (NWFPs) in Chhattisgarh, India, emphasizing their contribution to household food security, cultural identity, and the livelihoods of rural populations. It also considers the ecological challenges and the potential for sustainable practices and market expansion.

## Forest Resource Profile of Chhattisgarh

Chhattisgarh’s forests are rich in biodiversity, featuring sal (*Shorea robusta*), teak, bamboo, and numerous medicinal and aromatic plants. The following table shows the distribution of forest categories:

<b>Forest Category</b>	<b>Area (sq. km)</b>	<b>Percentage of Total Area</b>
<i>Very Dense Forest</i>	17,900	13.25%
<i>Moderately Dense Forest</i>	31,200	23.10%
<i>Open Forest</i>	10,672	7.86%
<b>Total Forest Area</b>	<b>59,772</b>	<b>44.21%</b>

(Source: Forest Survey of India, 2023)

## Overview and Economic Potential of Major of Minor Forest Products in Chhattisgarh

Chhattisgarh's forests are rich with over 150 species of economically valuable minor forest produce (MFP) (ICFRE, 2023). These species are generally categorized into groups such as edible items (like mahua flowers, tamarind, honey), oilseeds (such as sal seeds, kusum), gums and resins (including gum karaya, lac), medicinal plants (like safed musli, harra, bahera), and commercial leaves (such as tendu, siali). Collectively, MFPs contribute an estimated ₹2,100 crore annually to the rural economy of Chhattisgarh. The table below outlines the main MFPs, their production volumes, and market value.

Product	Annual Collection (tonnes)	Average Price (₹/tonne)	Total Value (₹ crore)	Major Districts
<b>Tendu Leaves</b>	520,000	14,400	749.8	Bastar, Kanker, Sarguja
<b>Mahua Flowers</b>	215,000	14,200	305.3	Kabirdham, Raigarh
<b>Sal Seeds</b>	90,000	27,500	247.5	Korba, Bilaspur
<b>Tamarind</b>	85,000	21,000	178.5	Bastar, Dantewada
<b>Chironji Seeds</b>	38,000	32,000	121.6	Rajnandgaon
<b>Lac</b>	9,000	100,000	90	Kanker, Mahasamund

(Source: CGMFPFED, 2024)

### Key MFPs and Production Zones

**Tendu leaves :** Utilized in bidi production, Chhattisgarh ranks as India's second-largest producer after Madhya Pradesh, accounting for over 25% of the national output.

**Sal seeds :** A primary raw material for the edible and cosmetic sectors, predominantly gathered in the districts of Bastar, Kanker, and Surguja.

**Mahua :** A versatile tree; its flowers are used in liquor and food, while its seeds produce oil for soap and cosmetics.

**Tamarind :** An essential MFP for both local consumption and export. Medicinal herbs: More than 300 species of medicinal plants have been documented, serving as the foundational raw material for local and industrial Ayurvedic medicines (FAO, 2022).

### Economic and Social Significance of MFPs

#### Livelihood and Employment

Approximately 70% of rural households in Chhattisgarh's forested districts earn at least part of their income from MFPs (Sahu et al., 2021). The collection, processing, and trade of MFPs offer both seasonal and

supplementary employment, particularly during agricultural off-seasons. Women are crucial in MFP collection and initial processing, often contributing over 60% of household forest income (Patra & Sharma, 2022).

### Contribution to State Economy

MFPs contribute around ₹1,800 crore annually to the state's economy (ICFRE, 2023). The Chhattisgarh State Minor Forest Produce (Trading & Development) Co-operative Federation (CGMFPPFED) manages the procurement and marketing of 68 notified MFPs, ensuring minimum support prices (MSP) and fair profit distribution to collectors.

### Cultural and Nutritional Role

Beyond their economic importance, many MFPs are integral to traditional diets and cultural practices among tribal communities. For example, mahua and char seeds are used in ceremonies, while various wild fruits are essential sources of nutrition and traditional medicine.

## Market Potential and Value Chain Opportunities

### Current Market Structure

The MFP market in Chhattisgarh functions through a combination of co-operative procurement and private traders. Although state agencies procure certain MFPs under MSP schemes, most are traded informally, leading to the exploitation of primary collectors due to information asymmetry and inadequate storage infrastructure (Verma, 2024).

### Value Addition Opportunities

**Mahua-based value chains:** Mahua oil can be refined into biofuels and cosmetics.

**Tamarind processing:** Pulp, candies, and concentrated pastes have significant export potential.

**Lac and gum-based industries:** Used in pharmaceuticals, food coating, and varnish production.

**Herbal products and nutraceuticals:** With the increasing global demand for natural remedies, Chhattisgarh's medicinal flora presents a strong niche (FAO, 2022).

### Emerging Enterprises

The Van Dhan Vikas Kendras (VDVKs) initiated under the Pradhan Mantri Van Dhan Yojana have encouraged community-level value addition and marketing. As of 2024, Chhattisgarh hosts more than 1,800 VDVKs, directly benefiting over 400,000 tribal collectors (Ministry of Tribal Affairs, 2023). These centers support micro-enterprises in processing tamarind, mahua oil, and honey, fostering rural entrepreneurship and women's self-help groups.

## Trends of Total MFP Trade Value in Chhattisgarh

Year	Total MFP Trade Value (₹ crore)	Growth from Previous Year (%)
2020	1,580	—
2021	1,760	11.40%
2022	1,895	7.70%
2023	2,050	8.20%
2024	2,150	4.90%

(Source: CGMFPPFED Annual Reports 2020–2024; Ministry of Tribal Affairs, 2024)

## Policy and Institutional Framework

### State Policies :

**Chhattisgarh State MFP Policy (2001, revised 2019):** Guarantees a minimum support price for 52 MFPs and allocates trading rights to forest co-operatives.

**Forest Rights Act (2006):** Acknowledges community entitlements over MFPs, enabling Gram Sabhas to oversee forest resources.

**Van Dhan Yojana (2018):** Bolsters tribal businesses through training and market connections.

### Institutional Role :

**CGMFPPED:** The primary agency responsible for managing procurement and sales.

**Forest Department & Tribal Welfare Department:** Conduct capacity-building initiatives and establish connections with national markets.

**Non-Governmental Organizations (NGOs):** Support training, sustainable harvesting, and certification (Patra & Sharma, 2022).

### International and National Collaboration :

Collaborations with FAO, UNDP, and ICFRE have introduced guidelines for sustainable harvesting and digital traceability tools to improve transparency in MFP trade (ICFRE, 2023).

### Challenges in MFP Utilization

Despite significant potential, several obstacles impede optimal MFP utilization:

**Market Inefficiency:** The absence of organized markets and reliance on dependence on middlemen collector profits by 30–50% (Verma, 2024).

**Storage and Processing Deficits:** The lack of modern processing facilities results in post-harvest losses.

**Unsustainable Harvesting:** Overharvesting poses a threat to biodiversity, especially for medicinal plants (Pandey et al., 2020).

**Limited Financial Access:** MFP collectors face a lack of microcredit support, hindering enterprise growth.

**Knowledge Gaps:** Insufficient awareness of value addition and quality standards limits market competitiveness.

## Sustainable Management and Future Prospects

### Sustainable Harvesting and Certification

Encouraging community-driven forest management can ensure long-term sustainability. Implementing forest certification standards like FairWild and Forest Stewardship Council (FSC) can boost market credibility and access to global eco-markets (FAO, 2022).

### Technology and Digital Innovation

ICT-enabled systems for price information, e-trading platforms, and mobile-based traceability tools can empower collectors. The Chhattisgarh government's "e-MFP" initiative seeks to digitize procurement and payment systems, minimizing transaction delays.

## Research and Development

There is an increasing need for scientific research into the domestication, cultivation, and value enhancement of key MFPs. Collaborations between universities, ICAR institutes, and tribal cooperatives can drive innovation in processing and product diversification.

## Climate Change Adaptation

Sustainable MFP management aligns with climate adaptation strategies. Forest-based livelihoods offer resilience against agricultural uncertainties and contribute to carbon sequestration (Kumar et al., 2023).

## Entrepreneurship and Gender Inclusion

Empowering women through cooperatives and training in value addition can significantly boost household income and equity. Gender-inclusive MFP enterprises, particularly in lac and honey production, have shown promising results in Bastar and Dantewada districts (Sahu et al., 2021).

## Conclusion

Chhattisgarh's abundant MFP resources present unique opportunities for sustainable rural development, biodiversity conservation, and economic empowerment. The combination of traditional knowledge, supportive policies, and emerging value-chain interventions positions MFPs as a cornerstone of the state's green economy. Strengthening institutional frameworks, improving market infrastructure, and promoting community entrepreneurship will be crucial to unlocking their full potential. With climate change, market diversification, and eco-certification shaping the future, MFPs can serve as a transformative pathway for inclusive and sustainable growth in Chhattisgarh.

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