**Minor Forest Produce Livelihoods and Gendered Challenges in Keshkal Forest Division, Chhattisgarh: A Review**

**ABSTRACT**

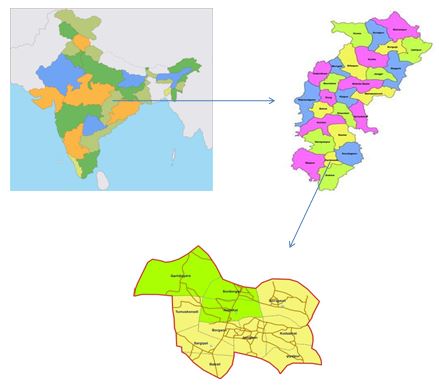
In Keshkal Forest Division tribal inhabitants rely heavily on Minor Forest Produce (MFP) for their livelihoods and sense of cultural identity. Despite its enormous socioeconomic importance, MFP collection and marketing present numerous systemic obstacles for tribal women, who are the main gatherers. These studies include severe health and safety hazards during collecting, stringent forest rules, and environmental degradation that affects the availability of resources. The economic potential of marketing is severely hampered by problems including remote geographic areas, poor infrastructure, widespread middleman exploitation that results in low and variable prices, a significant lack of value addition capabilities, and weak business acumen. In addition to these challenges, women have a "double burden" and intersectional vulnerability due to historical dispossession, patriarchal norms, and ingrained sociocultural impediments. To tackle these intricate problems, a multifaceted strategy is required. To ensure efficient execution and equitable rewards, solutions include fortifying government programs such as the Van Dhan Yojana, PESA, the Forest Rights Act (FRA), and Minimum Support Price (MSP) schemes. Importantly, empowering cooperatives and Self-Help Groups (SHGs) can support sustainable harvesting methods, improve value addition, and increase collective bargaining power. Enhancing market connections, developing processing and marketing skills, and establishing comprehensive capacity are also essential.

**Keyword:** Minor Forest Produce, Tribal livelihoods, Sustainable harvesting, Economic empowerment, Value addition.

**1. INTRODUCTION**

MFP not only support the state's ecology and economy, but they also give the local indigenous population food. A valuable resource that comes from forests is minor forest produce, or MFP. A wide variety of non-wood products are included in MFP, such as tendu leaves, tamarind, lac, honey, sal seeds, and medicinal plants. Many people in rural areas and indigenous communities depend on forest ecosystems for their livelihood, and these goods are essential to their way of life (Kumar et al., 2023; Bawara et al., 2010). There are a lot of obstacles to managing, trading, and using MFP, even if it could help with sustainable development. Examining the economic, ecological, and socio-cultural aspects of MFP, this essay explores the possibilities and obstacles of MFP in Jharkhand and provides recommendations for maximizing its potential. Thenation's most abundant and pristine natural resources are found in Chhattisgarh. According to the Forest Survey of India (2021), the state's recorded forest area is 59,772 km2, which is 44.21 percent of its geographical area (Bhardwaj et al., 2023; Dixit and Ekka, 2023)) About 31 per cent of the world’s land surface is covered by forests, which make up just over 4.06 billion hectares, (corresponding to 0.6 ha per capita) which includes Primary forests account for 34% of the total forest area, Plantation forests (7 per cent of total forest area) and other naturally regenerated forests for 57% of the total forest area. Forest produce can be divided into several categories. However, based on their intended use, forest produce can be divided into two categories: Timber and Non-Timber forest products. Timber forest products mainly include the woody portion of tree, which is widely used as a fuel and raw material for home construction and furniture making (Bhardwaj et al., 2024). While Non timber forest products refer to a wide array of economic or subsistence material that come from forests, excluding timber. Chhattisgarh has a population of 255.45 lakh. The state's tribal population, which comprises 78.22 lakh people, accounts for 30.62 percent of the total population (Gupta et al., 2025).

The Keshkal Forest Division, situated in the state of Chhattisgarh, India, represents a crucial ecological area distinguished by its abundant biodiversity and cultural significance (Fig.1). Covering an expanse of roughly 1,750 square kilometers, this division is an integral component of the broader forested region of the state, renowned for its vast forests and precious natural resources (Kumar, 2019). The Keshkal Forest Division predominantly consists of mixed deciduous forests, showcasing a varied collection of flora and fauna. This region acts as a vital habitat for numerous species, including several endangered plants and animals, thereby making it a critical area for conservation initiatives. The collection of Minor Forest Products (MFP) in Keshkal transcends simple economic benefits; it is intricately woven into the cultural identity of the indigenous populations (Kumar, 2019; Agrawal et al., 2015). The traditional knowledge and practices related to the gathering and utilization of MFP are transmitted through generations, reflecting a profound comprehension of the local ecosystem. For example, various communities have developed distinct abilities to identify and harvest particular plants, which are essential for their nutritional and medicinal needs 9Soni and Shahi, 2021). The socio-cultural significance of these resources is evident in community events, festivals, and traditional healing practices, where MFP plays a pivotal role. Consequently, MFP not only meets fundamental needs but also fortifies community ties and cultural identity, rendering it a vital component of social unity in Keshkal.



**Fig.1 Map of Keshkal Forest Divison Chhattisgarh, India.**

**2. Role of Government in MFP Production**

Minor Forest Produces (MFPs) in the livelihoods of tribal communities and their potential to generate significant employment opportunities, reducing poverty, and empower marginalized groups including women and residents of backward districts across the nation. The Government of India launched the “Van Dhan Yojna” on 14th April 2018, initiated by the Ministry of Tribal Affairs and TRIFED, and unveiled by the Prime Minister during Ambedkar Jayanti in Bijapur, Chhattisgarh, the scheme emphasizes the importance of value addition to MFPs to boost tribal incomes.It constitutes an integral part of the 'MSP for MFP Scheme' - a framework designed for the 'Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain for MFP'. The Van Dhan Programme operates in 27 states and 307 districts with rich Minor Forest Produce (MFP) resources and significant tribal populations (Bargah et al.,2024; Dixit et al., 2005). It aims to enhance tribal livelihoods by ensuring fair prices for MFPs, which contribute 40–60% of their annual income (Bargah et al., 2024). The scheme also addresses challenges like lack of land and housing rights, limited access to MFPs, exploitation by middlemen, displacement due to conservation efforts, and underdevelopment in forested areas.

**3. MFPS AND TRIBALS IN CHHATTISAGRH**

MFPs are crucial for the poorest households living in forested areas, particularly for women. A research study by The Livelihood School, BASIX (2010) shows that in Chhattisgarh, women's participation in the MFP economy is very high, with tribal and poorer households relying on it more than non-tribal and better-off households. The MFP economy is vital for society’s most vulnerable groups. Around 13.76 lakh rural households in the state depend on collecting Minor Forest Produce (MFP). The state government has designated Chhattisgarh as an "Herbal State" to conserve MFP resources, including medicinal plants, promotes their cultivation, ensure sustainable harvesting, support organized trade, and develop MFP-based processing industries (Kumar et al., 2022; Singh et al., 2024). Tribals make up about 32.5% of Chhattisgarh’s population, primarily residing in the densely forested regions of Sarguja and Bastar (Census, 2011). They are recognized for their distinct customs, traditions, rituals, and beliefs. Prominent tribal communities in the state include the Gond, Baiga, Kanwar, Korba, Abhuj Maria, Bison Horn Maria, Muria, Halba, Bhatra, and Dhurvaa. Most of these tribes rely on forests, hunting, fishing, and small-scale cottage industries for their livelihood (Darro et al., 2022).

The major MFPs collected in Chhattisgarh includes Tendu leaves, Harra, Palash flowers and seeds, Mahua flowers and seeds, Sal seeds, Kusum seeds, mango kernels, Babool gum, Neem seeds, and Charota seeds (Table 1) (Tiwari *et al.,* 2024). The state is rich in over 200 species of medicinal, aromatic, and dye-producing plants, giving it a competitive edge in the 62 billionUSD global herbal market (ICS-UNIDO, 2004) and offering significant potential for rural livelihood generation (Chandra et al., 2024).

Chhattisgarh's forests are home to over 625 NTFP species, with an estimated annual potential worth around ₹1,000 crore. According to CGMFPFED, the NTFP trade is valued at approximately ₹700 crore. However, apart from Tendu leaves, accurate data on the yearly collection of especially non-nationalized NTFPs is lacking (Kumaret al., 2024).

**Table 1. MFP collection contribute in various month of Chhattisgarh.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No** | **MFP** | **Scientific Name** | **Month** | **Collection (%)** |
| 1. | Tendu | *Diospyros melanoxylon* | May-June | 90.83 |
| 2. | Mahua | *Madhuca longifolia* | May-June | 86.67 |
| 3. | Tamarind | *Tamarindus indica* | March April | 65 |
| 4. | Chironji | *Buchanania lanzan* | April-may | 54.17 |
| 5. | Harra | *Terminalia chebula* | December-January | 45.83 |
| 6. | Kusum Seed | *Carthamus tinctorius* | May-June | 41 |
| 7. | Beheda | *Terminalia bellirica* | October-December | 38.33 |
| 8. | Anola | *Phyllanthus emblica* | October-December | 26.67 |
| 9. | Beal | *Aegle marmelos* | May-June | 25 |
| 10. | Lac | Kerria lacca | May | 20 |
| 11. | Dhawai Flower | *Woodfordia fruticosa* | February-March | 15.83 |
| 12. | Bhilawa | *Semecarpus anacardium* | May-June | 16.60 |
| 13. | Nagar Motha | *Cyperus scariosus* | April-May | 9.15 |

**4. MFPS IN INDIA**

NTFPs are sources of food and livelihood security for communities living in and around forests. They are also known as Non-wood, minor, secondary, special or specialty forest products (Shiva, 1993). The term Non-Timber Forest Products (NTFPs) refers to all biological materials other than timber, which are extracted from forests for human use (De Beer and McDermott, 1989). Non- Timber Forest Products play a vital role in livelihood of people in and around the forests (Quang, 2006). NTFPs comprise medicinal plants, dyes, mushrooms, fruits, resins, bark, roots and tubers, leaves, flowers, seeds, honey and so on (Anonymous, 1995). According to FAO, MFPs defined as “all goods for commercial, industrial or subsistence use derived from forest and their biomass” (Chandra et al., 2021).

In India over 50 million people are dependent on MFPs for their subsistence and cash income (Hegde et al., 1996). This provides 50 per cent of household income for 20 to 30 per cent of rural population particularly for tribal. Potentially around 3000 species of forest products are considered useful, but only 126 have established markets (Maithani, 1994). MFPs account for roughly 50% of forest revenue and 70 per cent of forest-based export income. This depicts that MFPs form one of the mainstays of income and sustenance for many tribal communities (Rao, 1987; Gauraha, 1992; Chopra, 1993; Mallik, 2000).

**5. IMPORTANCE OF MFPs**

NFPs are considered to be essential for maintaining rural livelihoods, reducing rural poverty, conserving biodiversity, and facilitating rural economic growth (Global NTFP partnership, 2005). An estimated 80 per cent of the population of the developing world uses NWFP (Non-Wood Forest Products) to meet some of their health and nutritional needs (FAO, 2008). It is a key income source for the poor in many developing countries and also for many agriculturally oriented tribal groups, particularly during slack seasons. Moreover, several opportunities for better rural development are linked to NFP (Aashutosh et al.,2024).

An estimated 100 million people directly rely on the collection and marketing of MFPs for their livelihood (Report of the National Committee on Forest Rights Act, 2011). Although the MFP economy is unstable, it provides for about 275 million people in rural India(quoted in 'Down To Earth' Report, November 1-15 2010) - a significant part of which comprises the tribal population. MFPs make up a significant portion of the non-cash income of people living in forested areas by providing them with essential nutrients and also used for household purposes. MFPs also serve as a source of cash income for many agriculturally oriented tribal groups, particularly during slack seasons (Table 2). The following table illustrates the economic dependence of tribal communities on MFPs:

**Table 2: Seasonal collection of MFP.**

|  |  |  |
| --- | --- | --- |
| **Seasons** | **MFPs collected** | **Economy** |
| January-March | Lac (resin), Mahua, flower and tamarind | Over 75 per cent of tribal households in Chhattisgarh, Orissa, Madhya Pradesh and Andhra Pradesh collect mahuwa flower. 3 million people are involved in lac production |
| April-June | Tendu leaves, Sal seeds and Chironji | 30 million forest dwellers depend on seeds, leaves and resins from sal trees; tendu leaf collection provides about 90 days of employment to 7.5 million people, a further 3 million people are employed in bidi processing |
| July-September | Chironji, Mahua fruits, Silk cocoons and Bamboo | 10 million people depend on bamboo for livelihood; 1,26,000 households are involved in tussar silk cultivation only |
| October- November | Lac, Kullu gum, Resins used in incense sticks | 3 lakh person days of employment from collection of gums. |

**6. PROBLEMS OF COLLECTION AND MARKETING IN MFP**

Tribals neither have knowledge of the method of collection of minor forest produce nor of marketing. Many minor forests produce collecting tribals do not even know where, to whom and how to sell these forest produce (Soni *et al.,* 2025) Most of the time forest produce is plucked raw; hence they do not get a fair price. The tribals do not have the knowledge of proper technology of processing minor forest produce (Vaishanv *et al.,* 2025). The contractors, middlemen buy the minor forest produce from these tribals at a very low price. In all the blocks, even today, the tribals send Mahua flower after measuring it in a vessel made of iron. There is a lot of exploitation by these contractors. Even today, the tribals do not have the means of transport to reach the local market (Aashutosh *et al.,* 2023). Therefore, they are forced to give their forest produce at the local level at a low price, which is easily available to them. Minor forest produce can hardly be called a source of income today (Kumar *et al.,* 2022).

Collecting Minor Forest Produce (MFP) like tendu leaves, honey, bamboo, sal seeds, and medicinal plants often sounds idyllic, but for the forest-dependent communities, especially tribal populations, it comes with a tangle of challenges:

1. **Market Access & Price Fluctuations:** Collectors often lack direct access to fair markets. Middlemen take advantage, buying MFP at low rates and reaping huge profits.
2. **Poor Storage & Processing Facilities:** Without proper infrastructure, much of the produce goes to waste or fetches a lower price due to deterioration.
3. **Legal & Policy Barriers:** Inconsistent laws across states and forest regulations can limit when, where, and how MFPs are collected, making the livelihood insecure.
4. **Lack of Value Addition:** Raw materials usually leave the village without being processed. If local processing and packaging were encouraged, it could boost earnings significantly.
5. **Climate Change & Resource Depletion:** Erratic weather and overharvesting affect the availability of many forest products, threatening sustainability.
6. **Limited Financial & Institutional Support:** Many collectors lack access to credit, insurance, or training that could help them improve productivity and stability.

**7. SUGGESTIONS OF COLLECTION AND MARKETING OF MFPs**

To overcome the challenges associated with the collection and marketing of Minor Forest Produce (MFPs), respondents in various studies and consultations have proposed several practical and policy-level suggestions. Here are some commonly recommended strategies:

* **Improved Infrastructure:** Development of storage facilities, transport networks, and processing units closer to collection points to reduce spoilage and ensure better pricing.
* **Strengthening Cooperatives and SHGs:**Empowering forest-dependent communities through Self-Help Groups (SHGs) and cooperatives to manage collection and marketing, ensuring fair returns.
* **Market Linkages:** Establishing direct market connections with buyers, industries, e-commerce platforms to eliminate middlemen and increase transparency.
* **Government Support and MSP:** Expanding the Minimum Support Price (MSP) scheme to include more MFPs and ensuring its effective implementation to protect gatherers from market fluctuations.
* **Capacity Building:**Providing training to forest dwellers in sustainable harvesting techniques, value addition, grading, and packaging to enhance product appeal and marketability.
* **Digital Tools and Platforms:** Utilizing mobile apps and digital platforms for price discovery, demand forecasting, and market access, especially in remote areas.
* **Legal and Policy Interventions:** Simplifying forest produce transit rules and giving rights to communities under the Forest Rights Act for better control over MFPs.

**8. CHALLENGES FACED BY TRIBAL WOMEN IN MFP COLLECTION**

* **Scattered Distribution of MFPs:** Forest produce is often spread across vast and difficult terrain, requiring women to travel long distances sometimes over 10 km daily.
* **Unpleasant Weather & Harsh Conditions:** Nearly 80% of tribal women report facing extreme weather during collection seasons, which affects both their health and productivity.
* **Wildlife Threats & Safety Concerns:** Fear of wild animal attacks is a real and constant danger, especially for women who often collect MFPs alone or in small groups.
* **Time-Intensive Labor:** The collection process is physically demanding and time-consuming, leaving little room for other income-generating or domestic activities.
* **Deforestation & Resource Depletion:** Shrinking forest cover and overharvesting reduce the availability of MFPs, forcing women to travel farther and collect less.

**9. SUGGESTIONS FOR IMPROVEMENT**

* **Village-Level Processing Units:** Establish solar dryers, oil extractors, and packaging units to reduce perishability and add value locally.
* **Strengthen SHGs and Cooperatives:** Encourage women-led Self-Help Groups to collectively bargain, process, and market MFPs. Successful models in Odisha and Madhya Pradesh show this works.
* **Digital Literacy and ICT Tools:** Provide mobile-based apps or kiosks for real-time price updates, weather alerts, and buyer connections.
* **Minimum Support Price (MSP) Awareness:** Educate women about the MSP scheme for MFPs and ensure procurement centers are accessible.
* **Sustainable Harvesting Training:** Teach eco-friendly collection methods to preserve biodiversity and ensure long-term income.
* **Legal Aid and Rights Education:** Conduct workshops on forest rights, land ownership, and grievance redressal mechanisms.

**10. GOVERNMENT’S ROLE AND POLICIES OF MFP**

* **Legal Empowerment:** Through the Forest Rights Act (2006) and Panchayat Extension to Scheduled Areas (PESA) Act (1996), forest dwellers are granted ownership rights over MFPs. This means they can collect, use, and sell these products without interference.
* **Minimum Support Price (MSP) Scheme:**To protect gatherers from exploitation and ensure fair income, the Ministry of Tribal Affairs launched the MSP for MFP scheme in 2013. It guarantees a minimum price for 87 listed MFPs and supports value chain development.
* **TRIFED and Van Dhan Yojana:** The Tribal Cooperative Marketing Development Federation (TRIFED) helps in marketing and value addition of MFPs. Under the Van Dhan Yojana*,* tribal groups receive training, tools, and infrastructure to process and sell forest produce more profitably.
* **National Forest Policy (1988):**This policy emphasizes sustainable forest management, including enhancing the productivity of MFPs and ensuring that tribal communities benefit from them. It also encourages afforestation and conservation to maintain ecological balance
* **State-Level Initiatives:** Many states have their own procurement agencies and policies to implement MSP and support tribal cooperatives. For example, Madhya Pradesh and Chhattisgarh have robust kendu leaf procurement systems.

**Conclusion**

Finally, it should be noted that although indigenous groups in Keshkal Forest Division deped heavily on Minor Forest Produce (MFP) for their livelihoods and sense of cultural identity,

stuctural obstacles limit their ability to make a living. It is crucial to address these issues by

strengthening market access, empowering cooperatives, and increasing government support

in order to promote sustainable practices and guarantee fair rewards for these marginalized

goups.

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

Author hereby declares that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during writing or editing of manuscripts.

**COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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