**Linking Forests to Livelihoods: Tendu Leaves and Tribal Income in**

**Chhattisgarh, India**

**ABSTRACT**

Non-Wood Forest Products play a key role in the life and economy of communities living in and around forests.Tendu Leaf have a tremendous potential to create large scale employment opportunity thereby helping in reducing poverty and increasing empowerment of particularly tribal and poor people of the poorest and backward districts of the state.The study reveals that collection of tendu leaves helps to earn income and employment opportunities, though it is seasonal work. This review paper examines the role of NTFPs in the Chhattisgarh region, focusing on their contribution to local economies, nutritional security, and healthcare. The paper further discusses the challenges faced by tribal communities in accessing markets, managing resources sustainably, and dealing with regulatory issues. By synthesizing existing literature, the review highlights the importance of adopting sustainable collection methods, strengthening market linkages, and involving local communities in the management and policy development surrounding tendu leaves. The paper also emphasizes the need for further research and policy interventions to enhance the economic potential of tendu leaves while ensuring the conservation of forests and biodiversity. The result of this study brings that the state produces around 16.72 lakh standard bags of Tendu leaves annually, accounting for nearly 20% of the country's total production.It was also observed that Tendu leaves production was maximum in other NTFPs products of Chhattisgarh.

**Keywords:**Employment Generation,Forest Conservation,Market Linkages,Non-Wood Forest Products (NWFPs),Poverty Alleviation,Sustainable Collection,Tendu Leaves,Tribal Communities.

**Introduction**

On November 1, 2000, the state of Chhattisgarh was created. It became the 26th state in India by splitting from Madhya Pradesh. It is located in central India and has an area of 135,194 square kilometres. Raipur is the capital of Chhattisgarh. Andhra Pradesh shares borders with Madhya Pradesh to the west, Bihar, Jharkhand, and Uttar Pradesh to the north, Odisha to the east, and Chhattisgarh to the south. The state lies between latitudes 17°46' N and 24°5' N and longitudes 80°15' E and 84°20' E. One of India's most forested states, 44% of Chhattisgarh's own land is under forest cover. (Churpal*et al*., 2021).All biological materials that are taken from forests for human use, except from wood, are referred to as non-timber forest products, or NTFPs.(Bargah*et al.,* 2024) These goods are crucial to regional economies and cultural customs and can include, among other things, culinary goods, textiles, resins, medicinal plants, and decorative plants. (Shackleton and Pandey,2014)Through 901 Primary Minor Forest Products Co-operative Societies, Chhattisgarh oversees 34 forest divisions with an emphasis on NTFP harvesting. (Kumar *et al*., 2023) The marketing of 65 NTFP minor forest products (MFP) in Chhattisgarh is done by developing a value chain for MFP and setting a minimum support price (MSP) (CGMFPF, 2023). Approximately 20% of the nation's total production of Tendu leaves, or 16.72 lakh standard bags, are produced in the state each year. There are 1,000 bundles per normal bag, with 50 leaves in each bundle(Netam *et al*.,2017).

One of the most significant NTFP species in central India are the leaves of the Tendu (Indian Ebony). Indian smoking tobacco, or bidi, is wrapped in Tendu leaves. Every year, an estimated 350000 tons of leaves valued at US $2000 million are harvested from Indian forests. Madhya Pradesh is the state that produces the most tendu patta (25% of the nation's total production), followed by Chhattisgarh (20%), Orissa (15–20%), and Maharashtra (10%).(Netam *et al.,*2017)NTFPs are widely used in the tropics and can offer vital resources to individuals in situations where the state does not offer any other kind of social security (Jatav and Ghanghat, 2023).

Forests constitute a significant element of the natural capital of an economy. The forestproducts are classified into two broad categories namely, timber and non-timber forest products(NTFPs)(Padvi*etal*.,2017). India boasts a diverse climate and abundant biodiversity. In many developing nations, non-timber forest products are a vital source of income for the impoverished and a crucial part of food security. The preservation of the woods' productive role for the lumber industry was the only justification for forest conservation in the past. Common property resources such as fuelwood, fodder, charcoal, fencing, poles, medicinal plants, and a range of edibles like game, fruit, nuts, mushrooms, fiber, and resins are examples of NTFPs(Arnold, 1995; Vikas Kumar, 2014; Vikas *et al*., 2014b; Vikas Kumar, 2015). Forest medicine use frequently coexists with the use of forest food. This is a result of growing awareness that NTFPs can meet critical community needs for better rural livelihood, support biodiversity and other conservation goals, help with household food security and nutrition, create new jobs and revenue, and provide opportunities for NTFP-based businesses(FAO, 1995).Tribal groups frequently possess NTFP collections, which hold significant traditional value.Theseare easily accessible in the jungle and offer the tribal people a significant source of financial gain. (Hazari et al., 2023).

Chhattisgarh is a leading state in India for producing high-quality Tendu (Diospyros melanoxylon) leaves, which are used as wrappers forBeedi (a rural cigarette). The stateproduces around16.72 lakhstandard bags of Tendu leavesannually, accountingfor nearly 20% of the country's total production. Each standard bag in Chhattisgarh contains 1,000 bundles, with each bundle consisting of 50 leaves. The collectionseason forTendu leavesin Chhattisgarhruns fromthe thirdweek of April to the second week of June, beginning earlier in the southern regions of the state compared to the northern regions.(Bargah*et al.,*2024)

**Status of Tendu Leaf in Chhattisgarh**

Tendu leaves are an important natural resource in Chhattisgarh. They are frequently used to produce beedis, which are Indian cigarettes. The trading in tendu leaves has been a major source of revenue for many of the local indigenous people. But in recent years, a number of problems have affected Chhattisgarh's tendu leaf production and distribution(Kumar, 2015). In three primary ways, NTFPs greatly boost the economic well-being of rural households in developing nations: first, by meeting subsistence needs and boosting household income through domestic spending. Second, a significant component of climate change adaptation and mitigation is socioeconomic adaptability, and thirdly, use trading to directly generate financial gains. (Latifah et al., 2020). The problems facing the tendu leaf trade have been addressed by the Chhattisgarh government in recent years. Regulation of the trade aims to ensure fair prices for indigenous populations. Tendu leaves play a significant role in the economy of the state of Chhattisgarh in central India. The state has a lot of forest cover, and among the primary forest products that help many local communities make a living are Tendu leaves. Known by another name, Diospyros melanoxylon, tendu leaves are mostly used to manufacture bidis, a common hand-rolled cigarette in India (Kumar *et al*, 2024). NTFPs are gaining international recognition for their sustainable collecting through research and policy assistance as well as consumption.An essential NTFP that gives the reliant forest fringe people a means of subsistence are tendu leaves. (Balraju et al., 2023). The primary tendu leaf gatherers are tribal communities that live in Chhattisgarh's forested areas. The tendu leaf-gathering industry employs a large number of people, primarily women, who harvest the leaves from trees. The leaves are transported to the market to go through further processing after drying. The tendu leaf harvesting season, which typically takes place from March to June, provides many families with a source of income.

Bidi and tendu leaf data is scarce; in other words, there is hardly any reliable national estimate of the amount of bidi produced, tendu leaves harvested, or money made over a certain time frame. (Sabar et al., 2017). The state of Chhattisgarh's tendu leaves has a direct impact on the state's entire social and economic growth. Tendu leaf sales generate revenue for the state's budget and fund various development projects. Additionally, the tendu leaf industry employs a large number of people, especially in rural areas where it is the only source of income. In Chhattisgarh, the socioeconomic status of tendu leaf collectors remains problematic; many of them live in poverty and struggle with issues like social security, healthcare, and education. Tendu leaf collectors need better living conditions and more opportunities for social and economic progress from the government. It is important to implement strategies and projects that will empower these marginalized communities and improve their overall quality of life (Kumar *et al.,* 2024).

**Tendu Forest**

The Indian state of Chhattisgarh is home to a rare type of forest known as Tendu woods, also known as Diospyros melanoxylon forests. These woodlands are distinguished by their tendu trees, sometimes known as ebony trees. The slow-growing, evergreen tendu tree is valued for its wood, which is used to make musical instruments, furniture, and other items. Tendu woods in Chhattisgarh are an important natural resource because they provide home for a wide variety of plant and animal species. These woodlands are home to several endangered species, including the Indian gaur, sloth bear, and Indian wild wolf. Apart from their biological importance, tendu woods are essential to the local communities' livelihoods since they provide food, firewood, and medicinal herbs. (ISFR,2023). (Table 1).

**Table 1:TotalTendu trees in Chhattisgarh**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Species** | **Habit** | **No. of Plants (in ‘000)** |
| 1 | Diospyros melanoxylon | Tree | 3,51,08,100 |

**Source-**ISFR,2023.

**Production of Tendu Leaf in Chhattisgarh**

Tendu (Indian Ebony) leaves are one of the most important NTFP species in central India. The leaves of Tendu are used for wrapping bidi (Indian smoking tobacco)(Shackleton and Pandey,2014). An estimated 350000 tons of leaves worth US $2000 million, is collected annually throughout the forest of India.Chhattisgarh is a pioneer State of India, producing the best quality Tendu (Diasporas melonoxylon) leaves. The tendu leaves are used as Beedi (cheap cigarette) wrappers. The production of Tendu leaves in Chhattisgarh is approximately 16.44 lacs standard bags annually, which is nearly 20% of the total Tendu leaves production of the country. One standard bag of Tendu leaves in Chhattisgarh comprises of 1000 bundles of 50 leaves each. The collection season is from third week of April to last week of May (Kumar *et. al,* 2024).

**Tendu Leaves Collection and Trade Practices**

* The State is divided into 31 District Unions, each of which has 916 Primary Cooperative Societies with their own collection centers. Primary Co-operative Societies are the basic units in MFP trading. Every primary unit that falls under the District Union's purview is overseen by the Managing Director.
* E-tenders and e-auctions are used by the MFP Federation, Raipur, to sell these primary units in advance.
* Only the Primary Co-operative Society is responsible for paying the pluckers their collecting wages.
* At least 10% of the contract amount must be paid as an E.M.D. as a security deposit; the remaining sum must be paid as a discharged fixed deposit receipt or a bank guarantee for an advance sale.
* 10% of the contract amount is paid as a security deposit in the form of E.M.D. for the sale of departmentally collected quantity.
* Primary Co-operative Societies and the District Union handle the processing, transportation and storage of leaves in the unsold units.
* The management of the collection process also involves the district administration.
* The standard bag collection rate for Tendupatta in 2024 is Rs. 5500. Typically, a bag has 1000 bundles, each containing 50 leaves.(Kumar *et al*., 2024).(Table 2)(Fig1)

**Table 2: Year wise detail of collection and sale of Tendu Leaves in the Chhattisgarh State**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Collected Quantity (Lakh Standard Bags) | Collection Wages (Rs. Crores) | Sale Value (Rs. Crores) | Average Sale Rate (Rs. per Std. Bag) |
| 2001 | 16.67 | 75.53 | 165.22 | 1000 |
| 2002 | 19.58 | 88.92 | 198.71 | 1015 |
| 2003 | 18.12 | 82.18 | 173.25 | 956 |
| 2004 | 18.86 | 84.92 | 148.50 | 787 |
| 2005 | 14.92 | 67.17 | 135.06 | 906 |
| 2006 | 14.72 | 66.31 | 140.02 | 951 |
| 2007 | 17.18 | 85.96 | 325.59 | 1895 |
| 2008 | 13.79 | 82.77 | 197.61 | 1434 |
| 2009 | 14.67 | 95.33 | 256.41 | 1748 |
| 2010 | 15.45 | 108.15 | 335.30 | 2170 |
| 2011 | 13.57 | 108.52 | 355.31 | 2619 |
| 2012 | 17.15 | 188.66 | 646.90 | 3772 |
| 2013 | 14.71 | 176.70 | 362.13 | 2461 |
| 2014 | 14.28 | 171.40 | 334.75 | 2345 |
| 2015 | 13.01 | 156.13 | 345.50 | 2656 |
| 2016 | 13.61 | 204.21 | 638.89 | 4693 |
| 2017 | 17.10 | 307.80 | 1358.65 | 7945 |
| 2018 | 14.85 | 371.15 | 744.97 | 5033 |
| 2019 | 15.05 | 602.14 | 783.34 | 5218 |
| 2020 | 9.73 | 389.15 | 470.23 | 4848 |
| 2021 | 13.06 | 522.20 | 776.35 | 5959 |
| 2022 | 15.83 | 633.26 | 1113.05 | 7040 |
| 2023 | 12.94 | 517.64 | 793.39 | 6180 |
| 2024 | 15.56 | 855.68 | 942.08 | 6056 |

**Source-** CGMFP 2024

**Fig1: Year wise detail of collection and sale of Tendu Leaves in the Chhattisgarh State**

**Circle wise Tendu Leaf Collection in Chhattisgarh**

Tendu leaf collection is a major source of income for a large number of tribal people in the state of Chhattisgarh in central India. The state government collects and sells tendu leaves, which are used to make bidis, a traditional Indian cigarette. Tendu leaves are collected methodically district by district to ensure that the tribal inhabitants in Chhattisgarh can sustainably profit from this natural resource. The allocation of tendu leaf collecting rights to tribal people across various districts is a crucial component of tendu leaf collection in Chhattisgarh. Tendu leaf gathering areas are allotted to each district in a specific number, and the local tribal people are then given the opportunity to bid on them.This guarantees that the advantages of collecting tendu leaves are dispersed equally throughout the state's districts. Chhattisgarh's district-level tendu leaf collection is also essential to giving the tribal communities a sense of agency and a source of income. The maximum of 276670 standard bags of tendu leaves were gathered in the Bilaspur Forest Circle in Chhattisgarh (Shackleton and Pandey,2014).

It is worth mentioning that during the current financial year, in Chhattisgarh, 135710 standard bags of tendu leaves worth more than Rs 522 crore have been collected during the tendu leaf collection season. In this, 100% payment of collection amount of Rs 110 crore 21 lakhs has been made to the Tendu Leaf collectors**.(Bargah *et al.,*2024).**

Under Bilaspur Forest circle, 2 lakh 76 thousand 670 standard bags of tendu leaves worth Rs 110 crore 61 lakhs were collected. Of these, 29 thousand 715 standard bags in Bilaspur Forest division, 19 thousand 440 standard bags in Marwahi, 3 thousand 763 standard bags in Janjgir-Champa, 44 thousand 702 standard bags in Raigarh, 70 thousand 157 standard bags in Dharamjaigarh, 42 thousand 960 standard bags in Korba, 65 thousand 932 standard bags in Bora and Katghora, were collected.

After Bilaspur, 2 lakh 55 thousand 675 standard bags of tendu leaves worth Rs 102 crore 10 lakhs have been collected under Surguja forest Circle. Of these, 23 thousand 297 standard bags have been collected in Jashpur forest division, 32 thousand standard bags in Manendragarh, 20 thousand 996 standard bags in Korea, 30 thousand 645 standard bags in Surguja and 58 thousand 207 standard bags in Surajpur.

Similarly, 2 lakh 49 thousand 679 standard bags of tendu leaves worth Rs 98 crore 98 lakh have been collected under KankerVanvrit. These include forest division wise- 91 thousand 320 standard bags in East Bhanupratappur, 70 thousand 120 standard bags in West Bhanupratappur, 12 thousand 446 standard bags in South Kondagaon and 21 thousand 107 standard bags in Keshkal, 15 thousand 322 standard bags in Narayanpur and 34364 in Kanker.

One lakh 88 thousand 527 standard bags of tendu leaves worth Rs 75 crore 32 lakhs have been collected under Forest Circle Raipur. Of these, 22 thousand 890 standard bags have been collected in Dhamtari forest division, 69 thousand 890 standard bags in Gariaband, 74 thousand 871 standard bags in Mahasamund and 20 thousand 877 standard bags of tendu leaves in Baloda Bazar.

One lakh 76 thousand 505 standard bags of tendu leaves worth Rs 70 crore 60 lakhs have been collected under VanvritJagdalpur. Of these, 75 thousand 395 standard bags have been collected in Bijapur Forest division, 75 thousand 913 standard bags in Sukma, 10 thousand 395 standard bags in Dantewada, 14 thousand 802 standard bags of tendu leaves in Jagdalpur.

After this, one lakh 58 thousand 653 standard bags of tendu leaves worth Rs 63 crore 46 lakhs have been collected under Durg Circle. Of these, 65 thousand 559 standard bags have been collected in Rajnandgaon forest division, 34 thousand 698 standard bags in Khairagarh, 20 thousand 383 standard bags in Balod and 38 thousand standard bags of tendu leaves in Kawardha.(Fig 2)

**Fig2:Tendu Leaf collection of Forest Circle in Chhattisgarh.**

**Tribes Involved in Tendu Leaf Collection of Chhattisgarh**

**Cultural Zone wise tribals in Chhattisgarh**

The tribes of Chhattisgarh can be divided into 3 parts in culturally

* **North Cultural Zone (Surguja Division):** Tribes from Surguja, Surajpur, Balrampur, Korea, Jashpur district, and the hill regions of Raigarh and Korba district may be found in this area. There are hills and thick forests all across this area. Tribes like Majhwar, Majhi, Kharia, Savra, Birhor, Kandh, Khairwar, Gond, and Baiga form the majority of the population in the area.
* **Central Cultural Zone (Bilaspur, Raipur, Durg Division):** The tribes of Bilaspur, Janjgir-Champa, Mungeli, Raigarh, and Korba districts, as well as Mahasamund, Raipur, Gariaband, Durg, Dhamtari, Balod, Rajnandgaon, and Kawardha (Kabirdham), may be found in this area. The regions of Gond, Halba, Kamar, Bhujia, Agariya, Baiga, Kondh, Savra, Kanwar, Shikari, Pardhi, Binjhwar, Dhanwar, Saunta, Shaina, and Pardhanet are inhabited. The territory is made up of hills, forests, and flat plains.
* **Southern Cultural Zone (Bastar Division):** Tribes from Dantewada, Bijapur, Sukma, Kondagaon, Bastar, Narayanpur, and Kanker districts may be present in the area. There are hills and thick forests all across this area. Halba, Abujhmadia, Gadba, Parja, Dorla, Bhatra, Muria, Madia, Gond, and so on are among the tribes.

**District Wise Majors Tribes in Chhattisgarh**

The state of Chhattisgarh in central India is renowned for its indigenous populations and wide variety of cultures. The state is divided into numerous districts, each of which is home to a number of important tribes. These tribes have preserved their unique customs, languages, and rituals for a long time. CGTRI.(Table-3).

**Table3. District Wise Majors Tribes in Chhattisgarh**

|  |  |  |
| --- | --- | --- |
| **SN. No** | **District Wise** | **Tribes** |
| 1. | Bastar | Gond, Halba, Dhurvaa |
| 2. | Narayanpur, Bastar | Abujhmadia, Bison Horn Maria, Muria |
| 3. | Raipur, Bilaspur, Raigarh, Durg, Sarguja | Kawar |
| 4. | Raipur, Bilaspur, Raigarh, Sarguja | Binjhwar |

**Source-https://cgtrti.gov.in/**

**Income Generation through Tendu Leaf in Chhattisgarh**

Tendu leaves are a vital source of revenue for a large number of people in the state of Chhattisgarh in central India. Bidis are renowned hand-rolled cigarettes in India that are made from these leaves. The tendu leaf industry in Chhattisgarh gives locals much-needed income and work possibilities, which boosts the state's economy. (Kumar *et al.,* 2024).NTFPs are crucial, particularly for the impoverished, as they serve both a source of money and a food replacement.(Panda*et al.,* 2024). One of the main sources of income for individuals in Chhattisgarh is the sale of tendu leaves to public or private entities. The government typically sets a minimum price for tendu leaves, ensuring that collectors receive just compensation for their labor. This income is crucial because many local households depend on it to provide for their families. (Nayak *et al*.,2016). In order to inform policy development, practice, and management for the area, it was deemed worthwhile to attempt to evaluate the relationship between forestpeople in terms of socioeconomic factors and to produce data on the contributions of NTFPs to household income and livelihood in the study area (Lepcha*et. al.,* 2019). Because they give millions of people worldwide the opportunity to generate cash, non-timber forest products (NTFP) are widely acknowledged to be important for rural lives and the protection of forest biodiversity.(Hwang*et al.,* 2020).

Theeconomy of Chhattisgarh is significantly impacted by the revenue generated by tendu leaf collection. In addition to creating jobs for thousands of people, it increases the state's overall tax revenue. Sales of Tendu leaves generate revenue that boosts the local economy and improves living standards for many local families. The tendu leaf industry also supports related industries like packing, shipping, and bidi manufacturing, providing Chhattisgarh residents with additional financial choices(Kumar *et al*., 2024).

**Government Schemes of Tendu Leaf in Chhattisgarh**

In 2004, the Chhattisgarh government made the significant policy choice to sell the buyer the leaves beforehand rather than selling them as godowned. However, only the primary cooperative society will be responsible for collecting leaves and paying the pluckers' collection salaries. (Shukla and Pandey, 2015). Chhattisgarh, known as the "land of tendu leaves," is one of India's leading producers of tendu leaves. The tendu leaf has long been a major source of income for the state's tribal inhabitants. Many tendu leaf-related initiatives have been implemented by the Chhattisgarh government to support this industry and ensure the wellbeing of the tribal people. One of Chhattisgarh's most significant government programs is the Minimum Support Price (MSP) scheme for tendu leaves. The scheme also emphasizes the development of a value chain for MFPs, which includes creation of cold storage facilities, warehouses, processing units and modernization of *haats*(markets). (Bhatiya, 2020).

For tendu leaves, the government establishes a minimum price under this scheme to ensure that native tribes receive just compensation for their labor. This scheme has helped stabilize prices and provided a steady income stream for the state's tendu leaf collectors. In Chhattisgarh, another important government initiative related to tendu leaves is the Tendu Leaf Collectors Welfare Fund. This fund is intended to provide financial assistance to tendu leaf collectors in times of hardship, such as crop failures or natural catastrophes.(Kumar *et al.,* 2022)

Additionally, it supports healthcare and education initiatives for the indigenous tribes that take part in tendu leaf collection. Additionally, the Chhattisgarh government has collaborated with several civil society organizations and non-governmental organizations (NGOs) to implement projects aimed at improving the living conditions of tendu leaf collectors. These projects range from skill development initiatives to infrastructure development projects in indigenous regions.

**Sharing of Profit from Tendu Leaves trade:** The profit earned from the trade of Tendu Leaves till 2007 season was distributed in the following manner.

1. 70 % of profit as incentive wages to the collector of Tendu leaves.
2. 15 % of profit for village resource development.
3. 15% of profit for the development of forest and forest produce.
4. **Distribution of Charanpaduka's (Shoes) to Gatherers of Tendu leaves:** The Chhattisgarh government decided in 2006 and 2007 to provide each family with one Tendu leaf gatherer (Shoes/Chappal). Only families that have gathered at least 500 gaddies in a single year during the previous two years are eligible for the aforementioned. This is done by the M.F.P. Federation inviting e-tenders at the national level, in which traditional shoe manufacturing companies take part.
5. **Insurance Schemes for Tendu leaves Gatherers:** All tendu leaves gatherers whose age is between 18 and 59 years and whose families have collected 500 or more gaddies of tendu leaves in at least in one of the last two years are insured under following insurance schemes:
6. **Jan Shree Insurance Scheme:** Following benefits are given to the head of the family or the nominated person in case of his death/disability: -
* Normal death - Rs. 30,000/-
* Partial disability - Rs. 37,500/-
* Accidental death or permanent disability - Rs. 75,000/-
1. **Group Insurance Scheme:** Under this scheme following benefits are given to tendu leaves gatherer/ his nominee: -
* Normal death - Rs. 3,500/-
* Partial disability - Rs. 12,500/-
* Accidental death or permanent disability - Rs. 25,000
1. **Atal Group Insurance Scheme:** Under this scheme in case of death of any member of the family of tendu leaves gatherer nominee is paid Rs. 6,500/-. Since 01.03.2018 nominee is paid Rs. 10,000/-.
2. **Pradhan Mantri Suraksha Bima Yojna-**Highlights of the Pradhan Mantri Suraksha Bima Yojana (Pmsby – Scheme 1 – for Accidental Death Insurance)

 For accidental death and full disability – Rs 2 Lakh and for partial disability –Rs 1 Lakh.

1. **Education Promotion Scheme**

Children of tendu leaf gatherer households who have gathered 500 or more gaddies of tendu leaves in at least one of the previous two years are eligible to enrol in educational programs.

1. Award to the meritorious student.
2. Scholarship for Professional Education.
3. Scholarship for Non-Professional Education.
4. Education Incentive scheme for Talented Students.

**Conclusion**

Tribal communities in and around forests depend on NWFP as a major source of employment, income, and sustenance production. Tendu leaves are essential to the economic, nutritional, and therapeutic well-being of Chhattisgarh's tribal populations. Tendu leaves, which are extremely important economically in terms of creating jobs and revenue for a vast number of people, particularly the poorer segments of society like tribals, are relied upon by many tribal tribes. Tribal groups including Majhi, Kharia, Savra, Birhor, Kandh, Khairwar, Gond, Baiga, Binjhwar, Dhanwar, Halba, Abujhmadia, Parja, Dorla, Bhatra, Muria, and Madia dominate the state of Chhattisgarh. According to the study, gathering Tendu leaves, albeit seasonal labor, contributes to revenue and job chances. These goods are essential to Chhattisgarh's forest-dependent populations, as they support tribal economies and offer additional revenue. Notwithstanding their importance, obstacles like poor market infrastructure, unsustainable harvesting methods, and legal restrictions prevent them from reaching their full potential. Focusing on sustainable resource management, enhancing market connections, and improving indigenous people' capabilities are crucial to resolving these problems. Policies that promote forest protection and safeguard the rights of indigenous people must also be inclusive.

**Abbreviation:**

| **Full Term / Phrase** | **Abbreviation** |
| --- | --- |
| Non-Timber Forest Products | NTFPs |
| Tendu Leaves | TL |
| Minor Forest Products | MFP |
| Chhattisgarh Minor Forest Produce Federation | CGMFPF |
| Minimum Support Price | MSP |
| Primary Minor Forest Products Co-operative Societies | PMFPCS |
| Madhya Pradesh | MP |
| Odisha | OD |
| Maharashtra | MH |
| Beedi (traditional Indian cigarette) | Bidi |
| Forest Department of Chhattisgarh | FDCG |
| Diospyros melanoxylon (Botanical name of Tendu) | D. melanoxylon |
| Tribal Empowerment | TE |
| Forest Products | FPs |
| Central India | CI |
| Food and Agriculture Organization | FAO |
| Standard Bag (used for TL measurement) | SB |
| Forest-Based Livelihoods | FBL |
| Traditional Ecological Knowledge | TEK |
| Common Property Resources | CPR |
| Forest Conservation | FC |
| Rural Livelihood Development | RLD |
| Chhattisgarh | CG |

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**References**

1. Arnold, J. E. M. (1995). Socio-economic benefits and issues in non-wood forest products use. *Non-Wood Forest Products (FAO)*, (3).
2. Balraju, W., Dinesha, S., Patil, G., Pradhan, D., Arshad, A., & Tripathi, S. K. (2023). Socio-economic drivers for the collection of Tendu leaves, a case study from Katghora Forest Division, Chhattisgarh, India.
3. Bargah, A. S., Kumar, R., Khandekar, H., &Vaishnaw, A. K. A Status of Different Non-Wood Forest Products in Chhattisgarh, India. *International Journal of Plant & Soil Science*, *36*(11).
4. Bargah, A. S., Toppo, P., Singh, L. S., Tuteja, S. S., Mankur, M. K., Painkra, D. S., &Pankaj.(2024). Effect of nutrient management on growth performance of Geranium (Pelargonium graveolens) under Karanj (Pongamia pinnata) based agroforestry system in Chhattisgarh plain. International Journal of Research in Agronomy, 7(1S), 25–29.
5. Bhatia, A. (2020). Role of Non-Timber Forest Products in Rural Economy of Farmers. *International Journal of Economic Plants*.
6. Churpal, D., Gauraha, A. K., Pathak, H., & Tuteja, S. S. (2021). Economically and traditionally important non-timber forest products (NTFPs) of Chhattisgarh. *Journal of Pharmacognosy and Phytochemistry*, *10*(1S), 89-92.
7. Hazari, S., Kalita, M., & Lahiri, B. (2023). The value of Non-Timber Forest Products (NTFPs) in promoting India's rural livelihoods. *Indonesian Journal of Forestry Research*, *10*(2), 221-237.
8. Hwang, L. C., Juliani, H. R., Govindasamy, R., & Simon, J. E. (2020). Traditional botanical uses of non-timber forest products (NTFP) in seven counties in Liberia. In *African Natural Plant Products, Volume III: Discoveries and Innovations in Chemistry, Bioactivity, and Applications* (pp. 3-43). American Chemical Society.
9. Indian State Forest Report 2023
10. Islam, M. A., &Quli, S. M. S. (2017). The role of non-timber forest products (NTFPs) in tribal economy of Jharkhand, India. *International Journal of Current Microbiology and Applied Sciences*, *6*(10), 2184-2195.Balraju, W., Dinesha, S., Patil, G., Pradhan, D., Arshad, A., & Tripathi, S. K. (2023). Socio-economic drivers for the collection of Tendu leaves, a case study from Katghora Forest Division, Chhattisgarh, India.
11. Jatav, R., &Ghanghat, S. (2023). Role of Non-Timber Forest Products (NTFPs) in The Livelihood in Sahariya Tribal Economy of Shivpuri District Madhya Pradesh, India. *International Journal for Multidisciplinary Research*, *5*(6).
12. Kumar, R., Ramchandra, Bhardwaj, A.K., Chandra, K.K. (2022b). Impacts of varying nitrogen levels on leaf length of onion varieties under poplar based agroforestry system. The Indian Forestor, 148(12):1241-1244.
13. Kumar, V. (2015). Impact of non-timber forest produces (NTFPs) on food and livelihood security: An economic study of tribal economy in Dang's District of Gujarat, India. *International Journal of Agriculture, Environment and Biotechnology*, *8*(2), 387-404.
14. Latifah, S., Lubis, N. A., Fachrudin, K. A., & Purwoko, A. (2020, May). Contribution of Non-Timber Forest Product (NTFP) To Households Income In South Tapanuli Regency Indonesia. In *Journal of Physics: Conference Series* (Vol. 1542, No. 1, p. 012035). IOP Publishing.
15. Lepcha, L. D., Shukla, G., Pala, N. A., Vineeta, Pal, P. K., & Chakravarty, S. (2019). Contribution of NTFPs on livelihood of forest-fringe communities in Jaldapara National Park, India. *Journal of Sustainable Forestry*, *38*(3), 213-229.
16. Padvi, A. T., & Nile Uttam, V. (2016). Role of Non-Timber Forest Products in Forest Dwellers Economy in Western Satpura of Nandurbar District. *Maharashtra BhugolshastraSanshodhan Patrika, 33 (2), 57*, *62*.
17. Panda, L. R., Uniyal, A., Kukreti, J., & Singh, N. (2024). The role of non-timber forest products for livelihood diversification in Bundelkhand region of Uttar Pradesh. *International Journal of Economic Plants*, *11*(1), 70-78.
18. Sabar, B., Nayak, N. S., &Achoth, L. (2016). TENDU LEAVES COLLECTION IN INDIA: LIVELIHOOD, RIGHTS AND CHALLENGES FOR ALTERNATIVE TO TOBACCO-EVIDENCES FROM FIVE INDIAN STATES. *Journal of Governance & Public Policy*, *6*(1), 106.
19. Sabar, B., Nayak, N. S., &Achoth, L. (2016). Tendu leaves collection in india: livelihood, rights and challenges for alternative to tobacco-evidences from five Indian states. *Journal of Governance & Public Policy*, *6*(1), 106.
20. Sahu, L. K., Ayub, M. A., & Netam, O. K. (2017). Trends in growth of collection and sales of'tendu leaves' in Chhattisgarh State, India.
21. Shackleton, C. M., & Pandey, A. K. (2014). Positioning non-timber forest products on the development agenda. *Forest Policy and Economics*, *38*, 1-7.
22. Shukla, N., & Pandey, S. (2015). A Study on Marketing of Forest Produce of Chhattisgarh State. *International Research Journal of Engineering and Technology*, *2*(8), 1665-1671.
23. Vikas Kumar, V. K. (2014). Impact of Non-Timber Forest Produces (NTFPs) on rural tribes economy in PeechiVazhani Wildlife Sanctuary, Western Ghats, Kerala.Kumar, V., Mehta, A. A., & Tripathi, S. (2014). *Non timber Forest Products: Production, Consumption and Policy in Gujarat*. LAP LAMBERT Academic Publishing.