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**AN ANALYSIS OF FOREST PRODUCT MARKETING IN SURGUJA DI  
VISION, CHHATTISGARH**

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**\*Dr. Jyoti Sahu**

Former Research Scholar, School of Studies in Geography, Pt. Ravishankar Shukla  
University, Raipur, Chhattisgarh.

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**\*Corresponding Author: Dr. Jyoti Sahu**

Former Research Scholar, School of Studies in Geography, Pt. Ravishankar Shukla  
University, Raipur, Chhattisgarh.

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**ABSTRACT**

A thorough data collection underpins the analysis of Chhattisgarh's policies, innovative wood products, markets for wood energy, value-added wood products, and housing. The review emphasizes the importance of sustainable forest products in global markets, discusses policies about forests and forest products, and identifies key drivers and trends. It also examines the overall state of the economy and the uncertainty surrounding forest product markets in the challenging economic climate. A thorough data collection forms the basis of the analysis. The Review emphasizes the importance of sustainable forest products in global markets, discusses policies about forests and forest products, and identifies key trends and drivers. In the challenging economic climate, it also examines the overall state of the economy and the uncertainties surrounding forest product markets. The markets for forest products are impacted by a wide range of policies, some of which directly impact how wood is perceived as a component of an emerging green economy. These policies include trade-related agreements and regulations on illegal logging, as well as policies on renewable energy, greenhouse gas reduction targets, carbon accounting, and green building. Several policies directly impact the perception of wood as a component of a developing green economy. These include trade-related agreements and laws about illicit logging. Carbon accounting, green construction policies, renewable energy legislation, and greenhouse gas reduction targets also impact wood markets. The potential for Chhattisgarh's production centers to be used more widely could increase those impacts. Forest certification policies frequently intersect with forest product policies, which could be seen as opportunities or threats, putting the green credentials of wood products under scrutiny. This allows the forest sector to modify

its practices to reduce impacts and improve its monitoring and reporting of responsible production practices in Chhattisgarh's forest products.

**KEYWORDS:** Forest products, markets, wood, Forest Federation. Production, policies.

## 1. INTRODUCTION:

Forest product marketing in Surguja Division, Chhattisgarh, is a critical livelihood source for rural households, driven by extensive Minor Forest Produce (MFP) collection like Tendu leaves, Mahua, and Sal seeds. Even though government programs like Minor Forest Produce (MFP) cooperatives emphasize value addition and the Minimum Support Price (MSP) to reduce reliance on intermediaries, collectors continue to struggle with fair pricing and market access. Through their ecological roles in pollination, decomposition, seed dispersal, seed predation, herbivory, and predation, forest animals also indirectly benefit humanity by helping to create and maintain the forest environment, which enables it to provide the ecological services essential to human livelihoods. Through these roles, animals influence forest characteristics such as vegetation composition and structure. Pollination, decomposition, seed distribution, seed predation, herbivory, and predation are among the ecological functions that animals perform. Animals affect forest features, including vegetation composition and structure, through these roles. They also contribute to soil fertility, affect plant reproductive success, and control insect populations. With 44% of its land covered by forests, Chhattisgarh is an extremely rich state with a variety of tradable and non-tradable products. Tradable products are either exportable or interchangeable (i.e., items that a household can import or export). Non-tradable goods can be normal (superior) in that their consumption rises with household income, or inferior in that their consumption decreases with rising household income. Its abundance and replacement rate determine the forest's capacity to supply goods. Households are economically rational and seek higher standards of living. Demand for the items produced by the community is limitless relative to the community's capacity to supply them; hence, goods exported by the community do not affect demand or prices. This assumption does not apply to locally traded items, which frequently experience boom-and-bust cycles driven by oversupply and volatile demand. When the value of a forest and an agricultural good is the same, and the capacity to increase production of both goods is equal, households should choose to produce a surplus of forest goods for trade, because the community bears some of the costs of extracting goods from the forest commons. In contrast, the household bears all of the costs of producing agricultural

goods. Rural populations use this product as both medicine and nourishment. Furthermore, the collection and sale of this produce generate significant cash for rural communities, particularly during the non-agriculture season. Currently, the Chhattisgarh State Minor Forest Produce regulates and organizes trading in nationalized products. Cooperative Federation. The unorganized trade of non-nationalized medicinal herbs has resulted in low collecting prices for collectors and unsustainable harvesting in forest areas. Furthermore, processing and manufacturing facilities are primarily located outside the state (Anderson, TW, 1958).

**Table 1.1 Trade Volume of *Behavior of Production in Chhattisgarh Forest Products.***

S. No.	Category	Species/Produce	Estimated Trade in Rs. Crores
1	Nationalized	Tendu Leaves, Sal seed, Harra, and Gums- Kullu, Dhawda, Babul, Khair	750
2	Non-Nationalized	Sal Seed, Imli, Mahua, Lac, Kosa, Mahul Leaves, Chironjee Baibarring, Vanjeera, Kalmegh, Aonla etc	75

Forests and trees play a significant role in the lives of rural families. Farming homes near woods frequently combine agricultural output with forest-product collection, resulting in a diverse range of items, including feed, meals, fuel, and medicines. Indirectly, various other forest products contribute to food security by being used to create farm implements, for food storage or preservation, or exchanged to meet necessities. Many studies have documented the direct and indirect roles of forests and trees (Chaturvedi, J. C., 1953).

## 2. OBJECTIVE

The following objectives were for the study.

1. To determine the forest product marketing mix of the Surguja Division, Chhattisgarh.
2. To comprehend Chhattisgarh's forest product marketing dynamics.
3. To research and evaluate the function and impact of marketing in Chhattisgarh's forest products.
4. To research how the state uses such resources and how the principal forest products sustain their market.
5. To comprehend the challenges Chhattisgarh faces in promoting forest produce suppliers.
6. To offer appropriate modifications to the management structure and marketing approach to get superior outcomes, as well as, if feasible, suggest measures for enhancements.

## 1. RELATED WORKS:

With increased trade, the extraction of forest-based exportable and superior non-tradable items will intensify, while their availability will decrease. Large, slow-growing, slow-reproducing species are more vulnerable to local extinction than small, fast-growing, quickly reproducing species. However, high market value and efficient technology can lead to the local extinction of any forest-based exportable item. Kosa has significant potential in the region as a host plant for growing Kosa cocoons, with government support for seed distribution and a market for cocoon sales (Rath, Bikash, 2005). As a forest-based commodity becomes increasingly scarce due to over-exploitation for export, the market for it may shift as trade encourages households to specialize in producing local commodities for export. We would expect commerce to improve the conservation of substitutable and inferior non-tradable forest commodities as households reduce or discontinue exploitation (Kothari, C. R., 1984). Institutional systems, subsistence rubber estates, extractive households, orientation modern, agribusiness, farmer, market, ranches, forest management integration. Chhattisgarh is a pioneering state in India, producing the highest-quality Tendu leaves used as beedi wraps. Chhattisgarh produces roughly 16.44 lacs standard bags of Tendu leaves each year, accounting for nearly 20% of the country's total Tendu leaf production. A common bag of Tendu leaves in Chhattisgarh contains 1000 bundles, each with 50 leaves. The collecting season runs from the third week of April until the last week of May. The collection season begins earlier in the South than in the North (Koul, Lokesh, 2003). In 2004, the Chhattisgarh government made a crucial policy move to offer godowns on lease to the purchaser in advance, rather than selling them outright. However, the primary co-operative organization will be solely responsible for collecting leaves and paying collection wages to pluckers. Green leaves will be handed out to the customer who has been pre-appointed at the pickup center. The purchaser will treat the leaves at the collection center, transport them, and store them in his own godowns or Forest Federation godowns.

In a nutshell, the change in the Tendu leaf trade policy has yielded positive results. The purchaser will pay the purchase price in four equal installments. In the first year of the policy's implementation in 2004, the Federation sold 73% of the total quantity in advance. In the collection years 2007, 2009, 2010, 2011, and 2012, 100% of the quantity was sold in advance to the purchasers. Additionally, the average sale rates are increasing year after year. Following the introduction of this policy, in the first year of 2004, the Federation disposed of 73% of the total quantity in advance. In the collection years 2007, 2009, 2010, 2011, and 2012, 100% of the quantity was sold in advance to consumers. Furthermore, average sale

rates are increasing year after year. In a nutshell, the modification to the Tendu leaf trading policy has yielded positive outcomes (Gandhi, J. C., 1985).

## 2. METHODOLOGY

The government of Chhattisgarh has designated the state a "Herbal state" to conserve medicinal plants by cultivating and harvesting them without causing damage, encouraging organized trade, and supporting processing-based companies. The following study methodology can be used to investigate the frequency, nature, determinants, and underlying dynamics of thought. Universe: Universe is the sum of all units that conform to a specified specification. The universe/population in this study is the Surguja division of Chhattisgarh.

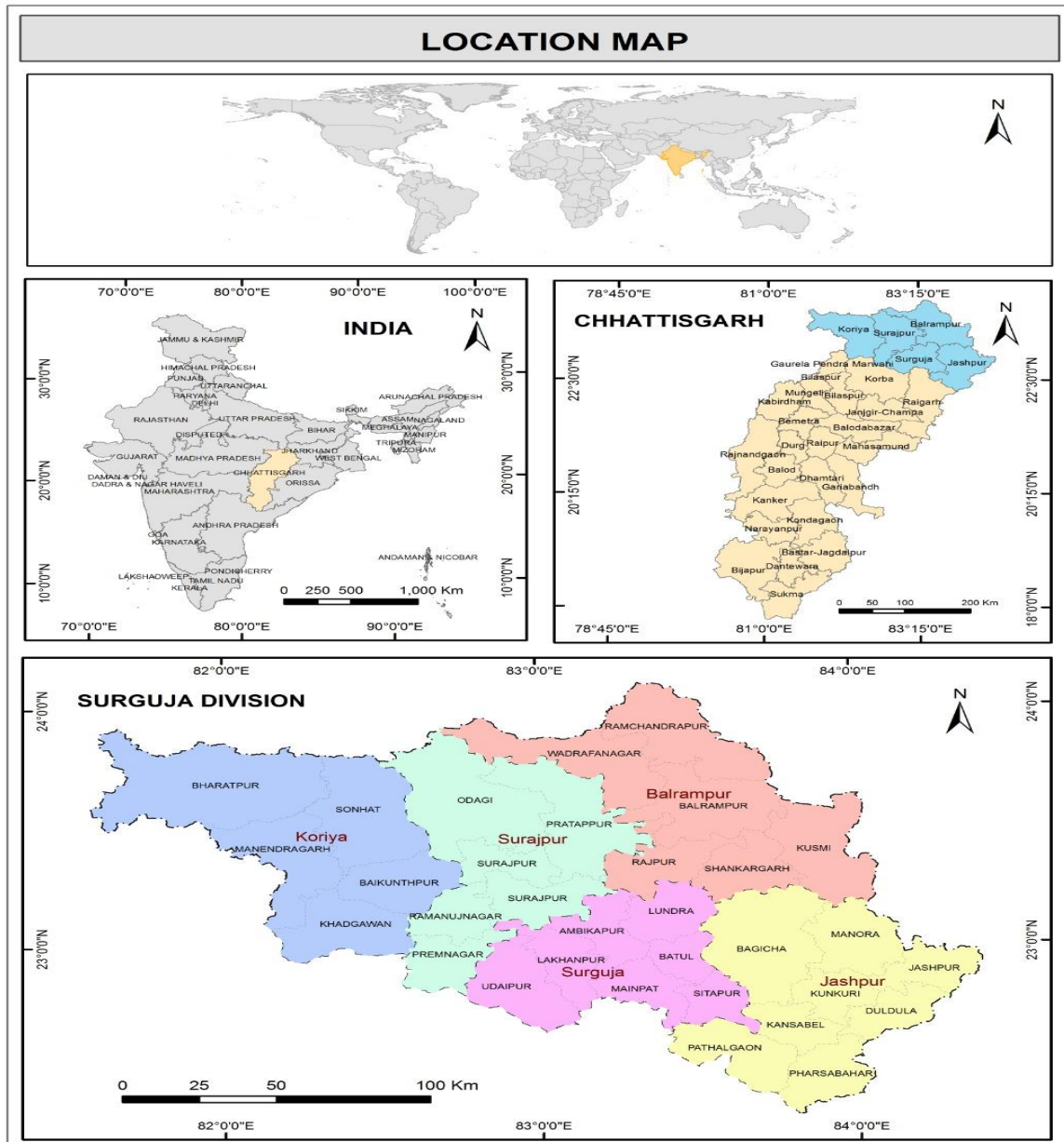
Sample: The researcher used public and private service undertakings as a representative unit of the population. Deliberate purposive sampling is employed in this study. The number of objects chosen from the universe to make up a sample is referred to as the sampling size. 400 people will comprise the sample for this study.

Research Type: Both exploratory and descriptive research form the basis of the research "title." While exploratory research is used to develop the working hypothesis from an operational perspective, descriptive research encompasses many types of surveys and fact-finding investigations.

Data Collection: Both primary and secondary sources will be used to get the data. It is possible to employ statistical methods, such as parametric or non-parametric tests, to assess correlation.

## 3. STUDY AREA

The Surguja division is situated in the northern part of Chhattisgarh state and comprises five districts: Koriya, Surajpur, Balrampur, Surguja, and Jashpur. According to Fig. 1, the study area is situated between latitudes 22°16'38" and 24°6'20" north and longitudes 81°03'40" and 84°00'40" east. The Surguja division covers 27553.29 square kilometers, or 20.38 percent of Chhattisgarh's total area. Madhya Pradesh in the northwest, Uttar Pradesh in the north, Jharkhand in the northeast, Odisha in the east, and the state's Gaurela Pendra Marwahi, Korba, and Raigarh districts in the south encircle it (Verma, 2017). The Surguja division has a total population of 3870472, with 1952612 males and 1917859 females, according to the 2011 Census. This represents 15.16% of Chhattisgarh's total population. This area has an average population density of 161 people per square kilometer (Verma, 2018). 87.39% of people live



**Fig. 1 Surguja Division: Location Map.**

In rural areas, while 12.67% live in urban areas. Physiographically, the Surguja division can be separated into two main sections. The Eastern Baghelkhand Plateau and Pat Region are further divided into several Pats, including the Jashpur Samri Pat, Jamir Pat, Lahsoon Pat, Jarang Pat, Mainpat, and the Rihand, Kanhar, and Hasdo basins, as well as plateaus like Changbhakhar and Sonhat Plateau and hills like Murragarh, Deogarh, and Koriya (Tiwari, 2004). Gondwana, which is 250 million years old, and Lametta and Deccan traps, which are 6 million years old, are modern rock deposits. Granite, laterite, pyroxene, gneiss, limed granite, granulated limestone, quartzite, and schist are among the various rock types found in this area. The northern region of the state receives roughly 15% of the Ganga River's flow and

spans 18,406 square kilometers. The districts of Koriya, Surajpur, Balrampur, Surguja, and Jashpur are where this drainage river flows. Son originates in the Maikal Hills and is the principal tributary of the Ganga River system. The river Son's tributaries are the Rihand, Banas, Gopad, and Kanhar. The Deogarh hills in the Koriya district separate the waters of the Ganga and Mahanadi basins, with each basin's waters flowing in opposite directions (north or south). The Mahanadi basin includes the Hasdo River, the largest river flowing southward, and the IB River, the Mahanadi's second-largest branch. Chhattisgarh's Surguja division is tropical. It is hot and muggy due to its closeness to the Tropic of Cancer and dependence on the monsoons for precipitation. In this region, the rainy season runs from June 15 to October 15. The area had a moist deciduous forest with 200–100 cm of rainfall. The forest's commercially significant species include teak, bamboo, sal, shisham, Khair, Kusum, Arjun, and mulberry. Dry deciduous forests occur in areas with rainfall between 70 and 100 cm. Open spaces are used to cultivate teak, sal, peepal, neem, and mahua. The study area's location map is displayed in Fig. 1.

#### **4. POTENTIAL INTERVENTIONS FOR NTFP DEVELOPMENT**

In the Surguja division of Chhattisgarh, potential interventions for the development of Non-Timber Forest Produce (NTFP) center on turning raw harvesting into a sustainable, value-added tribal economy. Building infrastructure for primary processing and cold storage near harvesting locations must be a top priority for interventions aimed at protecting the livelihoods of forest-fringe communities and minimizing post-harvest losses of perishable goods such as Mahua flowers, Chironji, and wild honey. To avoid exploitative intermediaries and ensure transparent procurement at Minimum Support Prices (MSP), strengthening the institutional framework entails expanding the network of primary forest cooperative societies and Van Dhan Vikas Kendras (VDVKs). To prevent overexploitation of native plant species and preserve forest biodiversity, cultivators should get training in sustainable, non-destructive harvesting techniques. Additionally, incorporating specialized local crafts under the registered brand "Chhattisgarh Herbals"—such as lac farming, tassar silk rearing, and medicinal herb processing—will elevate regional goods to national markets. The Surguja division can effectively transform its tribal gatherers into successful micro-entrepreneurs by combining interest-free agricultural credit with contemporary packaging and group marketing techniques.

#### **4.1 Marketing for primary commodities**

The marketing framework for primary commodities in Chhattisgarh's Surguja division operates as a multi-tiered supply chain significantly affected by conventional trading arrangements and expanding governmental cooperative involvement. Primary commodities in this northern tribal region include agricultural staples such as paddy, maize, peanuts, and red gram, as well as high-value Non-Timber Forest Produce (NTFP) such as Mahua, Chironji, lac, and medicinal herbs. Smallholder farmers and tribal gatherers often sell their raw surplus in three ways: directly to local consumers, to wandering village merchants or petty urban dealers, or through commission brokers at regional wholesale hubs. Because of the substantial presence of intermediaries and the lack of real-time market data, village-level transactions often lead to wide price spreads and reduced producer shares. Traditional trade networks primarily base prices on buyer-supplied samples, leaving isolated producers with weak bargaining positions. To avoid these exploitative private middlemen and stabilize rural incomes, the state government uses institutional marketing mechanisms such as Krishi Upaj Mandis and Van Dhan Vikas Kendras (VDVKs) to impose Minimum Support Prices. Primary assembly locations, such as the central Ambikapur Mandi, serve as critical consolidation hubs, aggregating commodities, principally grading them, and routing them to larger processing clusters both within and outside the state. Marketing methods are increasingly focusing on value addition through local Self-Help Groups (SHGs) and Primary Forest Cooperative Societies, which turn raw forest and agricultural products into packaged, higher-margin items. Under World Bank-funded initiatives such as the One District One Product (ODOP) scheme and the CHIRAAG project, the division is modernizing distribution logistics, expanding cold chain infrastructure, and developing institutional brands to connect Surguja's primary producers to prominent national commodity markets. If you want to further grow this region's trading network, please let me know. Check the daily Mandi wholesale prices for commodities in Ambikapur. Describe the One District One Product (ODOP) choices made for the districts.

#### **4.2 Processed product marketing**

The marketing of processed products in the Surguja division focuses on transforming raw forest and farm goods into high-value items to boost tribal income. Instead of selling raw items at low prices, local Self-Help Groups (SHGs) and Van Dhan Vikas Kendras (VDVKs) process commodities locally. For example, raw Mahua is made into health drinks, Chironji is packaged as premium nuts, and local herbs are processed into medicines. These finished goods are marketed under the state's popular "Chhattisgarh Herbals" brand, which guarantees

quality and commands better prices. To reach consumers, these processed items are sold through specialized state-run retail outlets called Sanjeevani Kendras, located in major cities across the state. They are also available on popular e-commerce platforms such as Amazon and Flipkart, allowing rural entrepreneurs to bypass local intermediaries entirely. Backed by government initiatives such as the One District One Product (ODOP) scheme, the Surguja division provides local groups with modern packaging, branding, and distribution support to help these unique regional products reach major national supermarkets.

- a. Evaluate the market and develop a marketing plan.
- b. Educate processors on quality assurance and market-specific product requirements.
- c. Let processors know about other markets' prices.
- d. Connect collectors and customers who use processed goods
- e. Encourage the purchase and use of responsibly made goods to boost demand in both domestic and international markets.
- f. Enhance labeling and packaging
- g. Provide funding for marketing, shipping, and storage.

The state has dense forest cover with all three canopies, and the forest ecosystems can be broadly classified into the following three types based on species composition. Chhattisgarh, which has 44% of its land covered by forest, is very rich in biodiversity due to favorable agroclimatic conditions, such as good rainfall and relatively little biotic interference. All three canopies are present in the state's extensive forest cover. Depending on the species mix, forest ecosystems can be broadly categorized into three types. (Henry Mintzberg, 1979)

**Table 1.2 Productions in Chhattisgarh Forest Type Area Biodiversity Status, Products.**

S. No.	Forest Type	Area ( Sq. Km.)	% of G.A.	Biodiversity Status
1.	Sal Forest	19682	14.56	Very Rich
2.	Teak Forest	5858	4.33	Fairly Rich
3.	Mixed Forest	34230	25.32	Rich
	<b>Total</b>	<b>59772</b>	<b>44.21</b>	

### 6.3 Depending on how much money might be made

- (a) Mahua, Lac, and Tendu patta considerably raise household income in the project region.
- (a) Although Kosa has a lot of promise, very few people in the project area are growing it.
- (c) Since Tori, Harra, Chironji, and Anola contribute very little to farmers' revenue, any Government intervention is unlikely to have a major effect on farmers' total income.

#### **6.4 Changes in Market Price**

Active participation in supplying market data

- a. Planting trees that allow for the cultivation of both types of Lac
- b. Adding value from scraped lac to seed lac, which can be kept longer.
- b. Assist the forest department in setting up

#### **6.5 Trade and Collection Methods**

- a. The collection area is separated into various units.
- b. Federation, Raipur, uses tenders and auctions to sell these units ahead of time to make the Harra collection easier.
- c. As a security deposit, the buyer must pay 10% of the sale value, which is determined using the quantity specified in the tender notice.
- d. The buyer pays the collection fees to the collectors at collection centers at the government-set rate.
- e. Under the Mechanism for Marketing of Minor Forest Produce through Minimum Support Price and Development of Value Chain, the Indian government agreed to buy Harra.
- f. For the years 2014–15, Harra's collection rates are Rs—1100 per quintal.
- g. The buyer is permitted to take the collected Harra wherever he chooses after paying the collectors the collection charge and the difference between the sale rate and the collection rate in the District Union.
- h. Primary Societies use Phad Munshies to collect and pay collectors for unsold units in advance, and District Union handles transportation to the permanent godowns.
- i. M.F.P. Federation Raipur uses tenders and auctions to sell the godown quantity of Harra.

#### **6.6 Sharing of Profit from Tendupatta trade**

The following shows the distribution of the profit from the sale of Tendu Leaves up until the 2007 season.

- a. The Tendu leave collector receives incentive wages equal to 70% of the earnings.
- b. 15% of earnings for the improvement of village resources.
- c. 15% of earnings for forest and forest product development. The following shows the distribution of profit from the sale of Tendu Leaves in 2008.
- d. The collector of Tendu leaves will receive 80% of the profit as incentive pay.
- e. 15% of profits from the collection, sale, acquisition, and enhancement of non-nationalized small forest products.
- f. Societies will be temporarily compensated for losses with 5% of profits.

## 6.7 Methods of Trade and Collection

The supply chain for forest produce in Chhattisgarh begins at the grassroots level, where local gatherers sell their collected items directly to petty traders in nearby towns, at local haat-bazars, or to small-time merchants who regularly visit their villages. Major forest produce traders acquire these raw materials through designated agents or petty vendors stationed directly in these villages and local markets. Once collected, this initial produce undergoes grading and primary processing by the petty traders or agents to enhance its market value. Following primary processing, the goods flow into local mandis or are sold directly to major vendors situated in key Chhattisgarh trading hubs, including Jagdalpur, Bilaspur, Dhamtari, and Raipur. At this stage, the major traders may perform secondary grading and advanced processing to align the products with specific market demands. Driven by long-standing connections in the traditional market, pricing is typically set based on customer-provided samples. Finally, these processed forest products are distributed to major domestic markets outside the state, with the primary destinations being Delhi, Uttar Pradesh, Maharashtra, Madhya Pradesh, West Bengal, Tamil Nadu, and Andhra Pradesh.

**Table 1.3 Forest Produce in Chhattisgarh: Estimated Collection and Trade Quantities for Marketing**

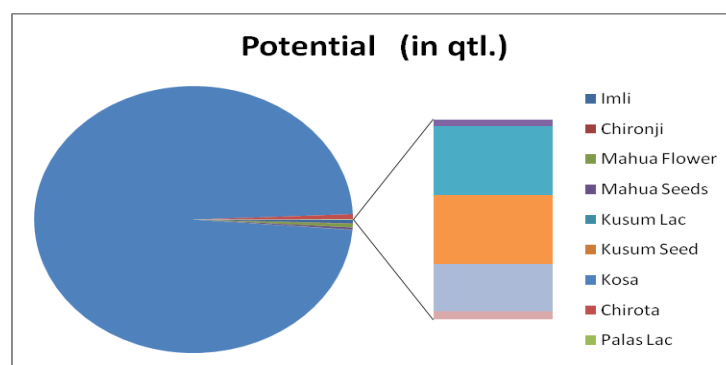
S.NO	Local Name	Potential (in qtl.)	Approximate Value (In Crores)
1	Imli	510000	161.68
2	Chironji	51200	44.29
3	Mahua Flower	500000	110.00
4	Mahua Seeds	302000	50.17
5	Kusum Lac	10000	10.00
6	Kusum Seed	27000	2.70
7	Kosa	113009644	24.92
8	Chirota	700000	42.00
9	Palas Lac	10000	4.00
10	Palas seeds	2000	0.12
11	Palas Flower	22000	1.54
12	Mahul leaves	22000	5.20
13	Phulbahari	15000	1.50
14	Baichandi	2700	0.29
<b>TOTAL</b>			<b>458.41</b>

## 5. FINDINGS

The Chhattisgarh government includes the Chhattisgarh State Minor Forest Produce Co-Operative Federation. Its goal is to significantly improve the lives of the tribal poor by

gathering, processing, and selling small quantities of forest products. To accelerate growth, the project involved developing a brand architecture and communication guidelines, positioning the retail brand among key consumers, and designing a marketing strategy.

Aonla Dry	<i>Embilica officinalis</i>	31000
Van Tulsi	<i>Ocimum Gratissimum</i>	44000
Bel Pulp	<i>Aegle Marmelos</i>	15600
Baibadang	<i>Embelia Ribes</i>	11300
Dhawai	<i>Wooddfordia</i>	26250
Flower	<i>fruticosa</i>	
Kalmegh	<i>Andrographis paniculata</i>	13950
Bhelwa Fruit	<i>Semicarpus anacardium</i>	12250
Baheda	<i>Terminalia belerica</i>	26700
Nagarmotha	<i>Cyperus esculentus</i>	14800



This map was combined with the area's resource chart, and to determine where to concentrate development efforts, people's preferences, government backing, and professional advice were taken into account. The forest department administers Tendu patta; thus, it was eliminated based on farmers' preferences, government support, and resource availability in the research area. Mahua is mostly used to make alcohol and occasionally prickly. There is little commercial demand for Mahua prickly, and indigenous people utilize Mahua alcohol for personal usage. Collectively purchasing, conserving, and marketing Mahua flowers is one potential intervention. Kosa has a lot of promise in the area for host plants to produce Kosa cocoons and for government assistance in supplying seeds and a cocoon market. Only 22% of individuals are aware of Kosa farming, and of those who are, 76% are unwilling to attempt Kosa, according to a more thorough examination of the poll data. The most common explanation offered was the Kosa crop's low yield relative to the labor required to grow it. Most people find it difficult to protect the Kosa crop from birds and owls, and Kosa cocoons are quite inexpensive on the market. Another deterrent was the distance from the main revenue land to the wasteland where the Kosa host tree is located. As a result, any Kosa

intervention will have to begin from the beginning. Kosa cocoon output in the project region is minimal, according to data from the State Silk Board, which is the only purchasing organization for the commodity. This further demonstrates that tribal families in the project villages do not currently cultivate Kosa despite its significant potential.

## 6. CONCLUSION

The state government of Chhattisgarh is actively promoting the development of its forest produce marketing through several strategic measures. A primary focus is on the lac sector, particularly in the Kanker district and designated project areas, where the forest department uses European Commission funding to drive growth. These initiatives aim to bring producers together, helping them achieve higher output, establish group marketing frameworks, and develop local processing capabilities. Furthermore, the state focuses on the systematic gathering and selling of nationalized minor forest products—such as Tendu leaves, Sal seeds, Harra, and gums from Kullu, Dhawda, Khair, and Babool—alongside non-nationalized products like medicinal and aromatic plants. These efforts are reinforced by encouraging microbusinesses to collect and process non-wood forest products, ensuring the long-term sustainable use, development, and conservation of these vital resources. However, the lac sector faces critical challenges regarding supply chains and severe market volatility. Data indicates that previous crop failures left 76% of local producers without access to viable lac seeds, a situation worsened by the forest department's delayed delivery of ineffective seeds. Compounding this issue, only 13% of respondents knew how to source seeds from outside their own crops or local farmers. This supply instability directly contributes to extreme price fluctuations both within and between seasons. For instance, Kusumi lac prices soared to more than three times the previous season's crop. This volatility stems from a stark imbalance between supply and demand, coupled with farmers' limited capacity to negotiate effectively at current output levels. To overcome these market hurdles, the suggested strategies leverage available resources, ongoing project support, and cooperation from stakeholders such as the forest office. Interventions must focus on stabilizing the seed supply chain by establishing reliable, timely distribution networks to prevent future crop failures. Strengthening the bargaining power of local farmers through primary producer collectives will help mitigate seasonal price fluctuations and counter supply-demand imbalances. By building these robust institutional frameworks and integrating stakeholder support, Chhattisgarh can successfully transform its raw forest materials into a stable, high-yield marketing economy.

## 7. RECOMMENDATIONS

The shift in economic development from traditional peasantries to agribusinesses and autonomous forest-managing families enables a more sustainable approach to resource conservation when supported by proper forest valuation, price regulations, taxes, and quotas. To operationalize this model, master trainers will guide farmers. At the same time, specialized "Lac Leaders" will track host trees, aggregate brood lac requirements before the inoculation season, and provide expert technical advice on pruning, tree selection, pest management, and drying. These leaders will also deliver critical market updates, organize raw lac sales, and foster collective business groups to maximize farmer profits. In return for driving these novel techniques, Lac Leaders will receive community recognition, a per-farmer execution fee, and a small percentage of the surplus crop profits.

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