

A STATUS OF DIFFERENT NON WOOD FOREST PRODUCTS IN CHHATTISGARH, INDIA

ABSTRACT

Non-wood forest products (NWFPs) are vital to the economy and livelihoods of forest-dependent communities in Chhattisgarh, India. This **aim/objective of this** article to examines the current status of various NWFPs in the region, with a focus on key products such as tendu leaves (*Diospyros melanoxylon*), mahua flowers (*Madhuca longifolia*), sal seeds (*Shorea robusta*), bamboo (*Bambusoideae* spp.), chironji (*Buchanania lanzan*), gums, resins, and medicinal plants. Using a mix of qualitative and quantitative methods, the study assesses the socio-economic significance, harvesting practices, market dynamics, and conservation issues related to each NWFP. The data was gathered through field surveys, interviews with stakeholders, and analysis of secondary sources from government reports and academic literature. NWFPs are shown to make a substantial contribution to local economies by generating income and employment opportunities for rural communities. However, the article also highlights critical challenges such as unsustainable harvesting, lack of value addition, poor market access, and regulatory problems. **The theoretical and practical implications of this study are** emphasizes the need for sustainable forest management practices to ensure the long-term viability of NWFPs and suggests policy interventions to improve market connections, enhance value addition through processing and marketing, and strengthen regulations to protect forest resources. Overall, **the contribution of this study is to** enhances understanding of NWFPs in Chhattisgarh, shedding light on their socio-economic importance, challenges, and the potential for sustainable management and conservation amid evolving environmental and socio-economic conditions.

Keywords: *Non-wood Forest Products (NTFP), Socioeconomic, Marketing, Sustainable Management.*

1. Introduction

The area of Chhattisgarh is one of India's leading forest-rich states, with ### km/sf (44.21%) of its total land area covered by forests (Economic Survey, 2017). It is recognized for its dense forests and significant biodiversity, earning it the designation of a "*green state*" (Kumar and Ramchandra, 2018). According to the FAO, non-timber forest products (NTFPs) include "*all items for commercial, industrial, or subsistence use obtained from forests and their biomass.*" This category encompasses a diverse array of goods such as fruits, nuts, vegetables, fish, gums, medicinal plants, resins, essences, barks, and fibers like bamboo and rattan (Limanpure and Kumar, 2018). NTFPs are crucial for many of the world's

impoverished and less affluent populations, providing essential resources for food, shelter, medicine, cultural practices, and energy.

The aim/objectives of study is....

Non-wood forest products (NTFPs) have gained attention for their potential to generate rural income and enhance markets, their role in preserving traditional knowledge, their contribution to sustainable forest management and conservation, and their impact on improving dietary diversity and providing nourishment, particularly for communities living near forests (Kumar and Ramchandra, 2019). For many rural households, NTFPs are a vital source of income and meet fundamental subsistence needs. These products also hold cultural importance, being used in rituals, as totems, incense, and other ceremonial items. Additionally, some NTFPs have notable medicinal properties, benefiting the health and well-being of the communities that use them (Darro *et al.*, 2022). In summary, NTFPs represent a wide range of forest-derived products beyond timber, fulfilling various roles including economic support, cultural expression, ecological conservation, and health improvement (Ahenkan & Boon, 2011).

The main collectors of NTFPs are indigenous or tribal populations living near forests (Chandra *et al.*, 2021a; 2021b). In Chhattisgarh, these tribal communities are the largest demographic group, totaling 78.22 lakhs individuals, which makes up 30.62% of the state's population (Gupta *et al.*, 2015; Kumar *et al.*, 2022a; 2022b). For these communities, collecting minor forest products is a significant source of income. Chhattisgarh manages 34 forest divisions through 901 Primary Minor Forest Products Co-operative Societies focused on NTFP collection (Kumar *et al.*, 2023). The Department of Commerce and Industries, Government of Chhattisgarh, has also implemented the Food Processing Policy 2012-2019, which includes a special scheme for projects exceeding Rs. 500 crore.2. Status and area of Non Wood Forest Products In Chhattisgarh.

1.1.Sal Seed Production

Sal seeds are harvested from the *Shorea robusta* species and contain 13-14% oil. This oil serves as a substitute for cocoa butter and is used in confectionery and other food products. The residual oil cake, which has a protein content of 10-12%, is used as a high-protein feed for chickens and as organic fertilizer in agriculture. The yield of Sal seeds can fluctuate from year to year. Collection typically occurs from June to July each year. Key Sal seed producing

districts in Chhattisgarh include Jagdalpur, Keshkal, South Kondagaon, East Bhanupratappur, Gariyaband, Dhamtari, Dharamjaigarh, Korba, Jashpur, Balrampur, Surguja, and Korea.Sal

Seed Collection and Trade Practices

The Government of India has introduced the Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chains for MFPs to ensure that collectors receive better prices for their products. In Chhattisgarh, Sal seeds are included in this scheme, with a collection rate set at Rs. 2000 per quintal for the year 2020(Fig 1). Sal seeds are classified as non-specified MFPs, meaning they can be bought from gatherers in the open market by anyone. However, Primary Co-operative Societies also purchase Sal seeds from collectors at the minimum support price.(Fig 2)

Note: Need more elaborations and explanations for Fig.1 and 2...

- The funds for collection of the sal seed are made available to the District Unions by the state level M.F.P. Federation. The District Unions provide funds for procurement to the Primary Societies.
- The Sal seed collected by collectors are purchased and bagged 50 Kgs bag by the Phad Munshi of Primary Society at every collection centre.
- Each family is given a collectors card. The daily collection of the collector is entered. The payment of collection charges of seeds is made and the entry of the payment is made in the card like Tendu leaves.
- Regular anti-insect Treatment/Fumigation is required in godowned Sal seed, which is carried out regularly by Experts.
- The collected and godowned quantity of Sal seed is disposed off by e-Tenders/e-Auctions by M.F.P. Federation, Raipur.

Table1:Collection and Sale of Sal Seed in Different years in Chhattisgarh State

Year	Collected Quantity (Lac Qtls.)	Collection wages (Rs. Crores)	Sale Value (Rs. Crores)	Average Sale Rate (Rs. per Qntl.)
2001	4.77	15.28	19.60	411
2002	1.38	4.84	7.95	574
2003	8.55	42.74	21.80	255
2004	1.25	6.24	5.35	429
2005	9.24	46.22	30.56	331

2006	0.488	2.44	3.59	736
2007	6.06	30.32	59.09	974
2008	0.899	8.99	12.64	1407
2009	8.864	88.64	51.07	582
2010	1.34	6.72	6.76	502
2011	0.392	2.94	3.74	955
2012	7.13	35.72	44.89	629
2013	0.013	0.10	0.11	843
2014	1.257	12.57	16.57	1328
2015	1.120	11.20	5.85	523
2016	0.028	0.28	0.30	1177
2017	1.232	12.32	18.63	1513
2018	0.012	0.16	0.09	711
2019	0.616	12.32	-----	-----
2020	3.492	69.84	-----	-----

Source:

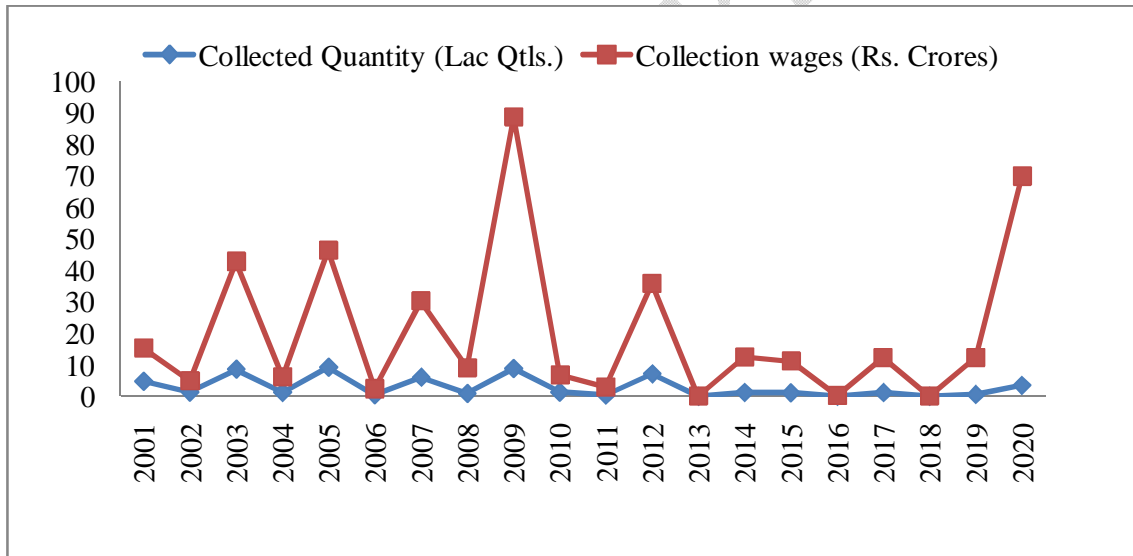


Fig 1: Collection Quantity and Wages of Sal Seeds in Chhattisgarh State.

Source:

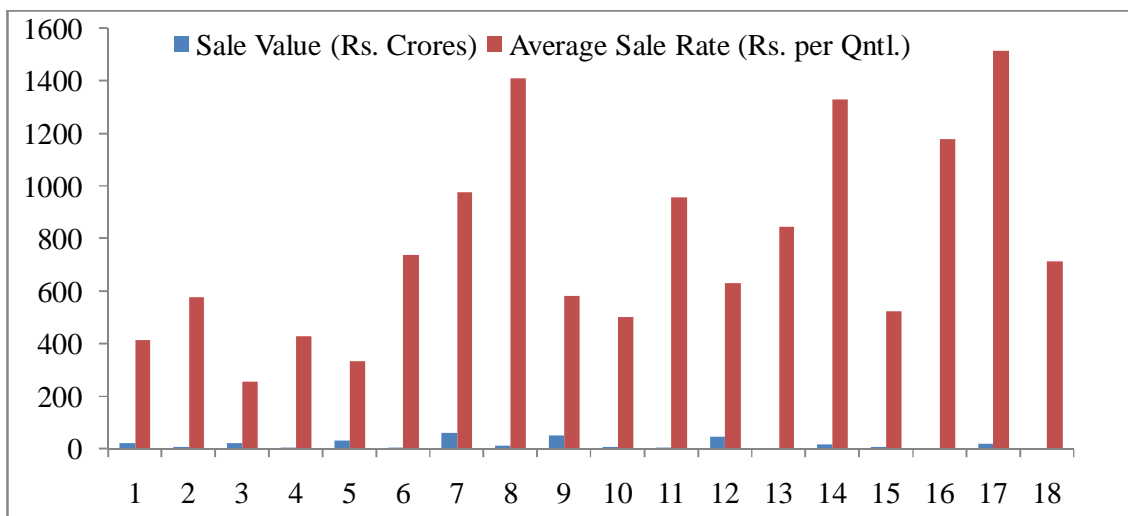


Fig 2: Sale Value and Average Sale Rate of Sal Seed in Different Years in Chhattisgarh State.

Source:

1.2.Harra Production

Harra, commonly known as myrobolan, is a fruit harvested from the Terminalia chebula species. It is utilized in the tannin and pharmaceutical industries and is a key component of Triphala powder used in Ayurvedic medicine. The estimated annual production of Harra in the state is around 50,000 quintals, although this figure fluctuates from year to year. The main districts producing Harra are Kanker, Keshkal, South Kondagaon, East Bhanupratappur, Jagdalpur, Rajnandgaon, Dharamjaigarh, Raigarh, and Jashpur (Fig 3).

Note: need more elaboration and explanations on fig.3

Harra Collection and Trade Practices

Harra is being acquired through the Government of India's Mechanism for Marketing of Minor Forest Produce (MFP) via the Minimum Support Price (MSP) and Development of Value Chain for MFP scheme.(Fig 4) For the year 2019-20, the collection rate for Harra is set at Rs. 1500 per quintal. The collection process for Harra seeds follows the same procedures as for Sal seeds. The stored Harra is sold through e-Tenders or e-Auctions managed by the M.F.P. Federation in Raipur.(Fig 5)

Table 2: Collection and Sale of Harra Seed in Different Years of Chhattisgarh State.

Year	Collected Quantity (Qtls.)	Collection Wages (Rs. Lakhs)	Sale Value (Rs. Lakhs)	Average Sale Rate (Rs. per Qntl.)
2001-02	60634.45	181.90	150.74	249
2002-03	85264.86	213.16	216.32	254
2003-04	63085.63	157.71	167.50	266
2004-05	60606.48	151.52	153.68	254
2005-06	44116.75	110.29	118.64	269
2006-07	59904.615	149.76	166.45	278
2007-08	42535.30	116.97	144.59	340
2008-09	49651.86	186.19	215.06	433
2009-10	33159.55	124.35	137.44	415
2010-11	16343.76	73.55	98.04	600
2011-12	71480.28	714.80	662.19	926
2012-13	29734.23	237.87	258.44	869
2013-14	15803.06	102.72	129.95	823
2014-15	34644.720	381.09	155.97	456
2015-16	57126.900	628.40	332.78	583
2016-17	3087.760	24.70	21.04	682
2017-18	178.820	1.97	1.40	1100
2018-19	1670.330	18.37	18.69	1119
2019-20	3346.360	50.20	46.44	1836

Source:

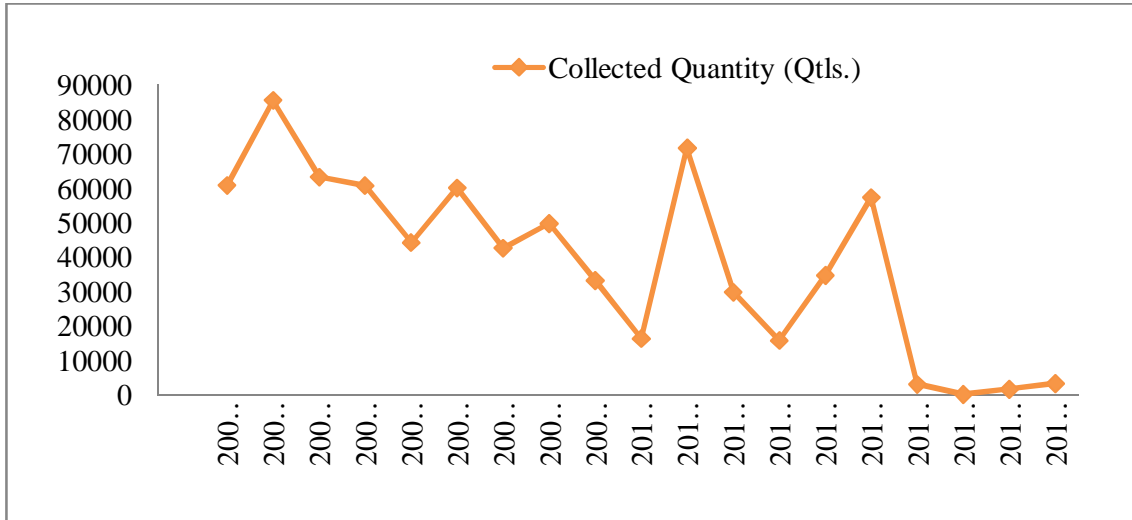


Fig 3: Collection Quantity of Harra Seeds in Different years of Chhattisgarh State.

Source:

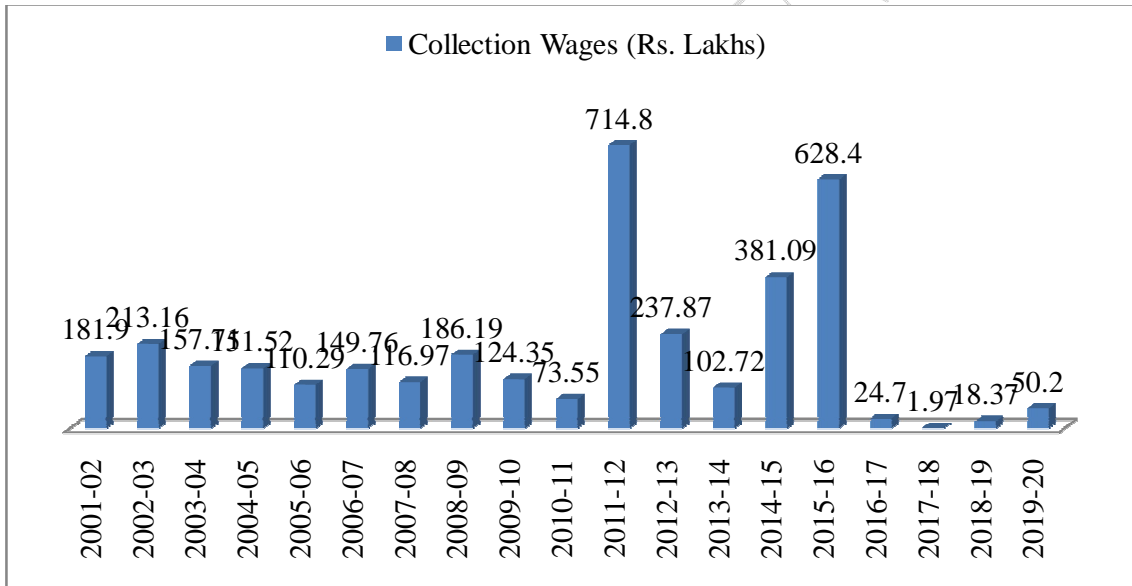


Fig 4: Collection Wages of Harra Seeds in Different Years of Chhattisgarh State.

Source:

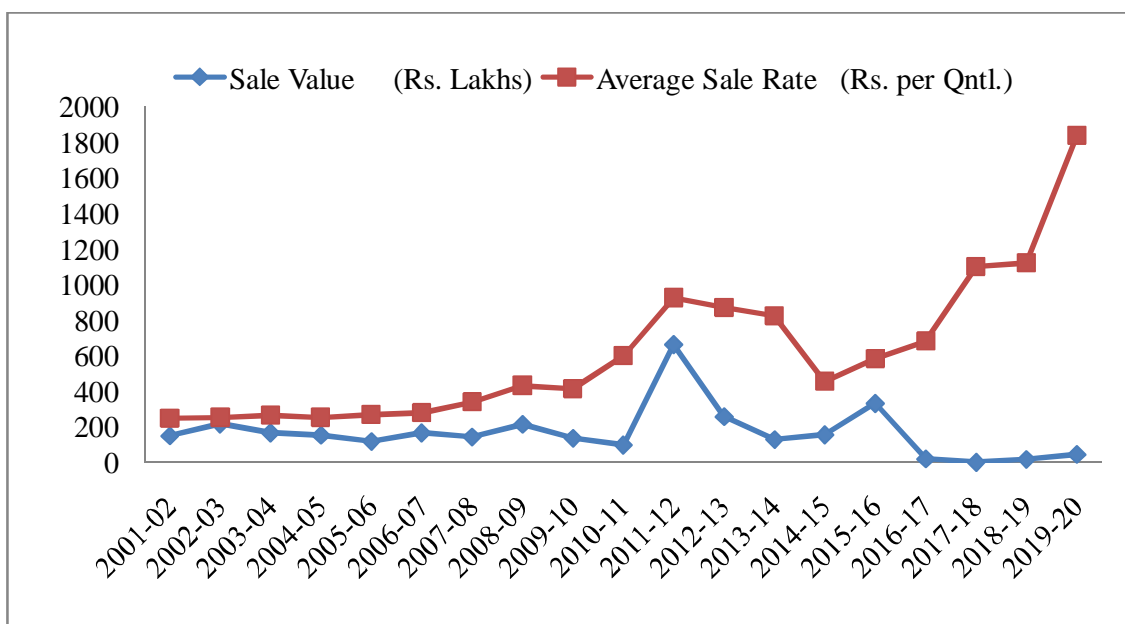


Fig 5: Sale Values and Average Sale Rate of Harra Seeds in Different Years of Chhattisgarh State.

Source:

1.3.Lac

In Chhattisgarh, the abundance of Kusum, Palash, and Ber trees makes Lac cultivation a significant income source for rural communities. Currently, the Lac Development scheme supports 83 Lac cultivation projects across District Unions, involving 22,238 beneficiaries who are managing 66,934 Kusum trees, 473,768 Palash trees, and 5,442 Ber trees. A Lac Training & Extension Centre has been set up in Kanker, where 231 master trainers and Lac cultivators have received training. As one of the leading lac-producing states in India, Chhattisgarh produces approximately 4000 MT of lac annually. The primary lac-producing districts in the state include Jagdalpur, Kanker, Mahasamund, Gariaband, Korea, Sarguja, and Kabeerdham.

Table3: Cultivation Calendar of Lac Tree.

Types of Lac Crop	Host Tree	Pruning	Brood lac Inoculation	Crop Harvesting (After 6 months of Brood lac Inoculation)
Kusumi Lac	Kusum	Jan-Feb. June-July	After 18 months of pruning Approx. 5 to 7 kg per tree	June -July Jan-Feb
Rangini Lac	Palash & Ber	April-May Oct-Nov.	After 6 months of pruning Approx. 0.50 to 1 kg per tree	Oct-Nov. April-May

Table4:Average Annual Income per Host Tree from Lac Cultivation

Host Tree	Annual Income (Rs)
Palash	900 - 1000
Ber	1200 - 1500
Kusum	8000 - 10000

Source:

Note: need more elaboration and explanations on Table 3 and Table 4

1.3. Scheme under lac cultivation In the area central and state government combine work for the following schemes are:

1.3.1. Swarn-Jayanti Gram Swarojgar Yojana (SGSY)

Under the SGSY scheme, which targets beneficiaries living below the poverty line, 26 Lac cultivation and processing microenterprises have been set up across various district unions and divisions. These projects receive financial support from the Central and State Governments in a 75:25 ratio. Lac cultivation is carried out by treating 45,000 Kusum trees and 200,000 Palash trees, benefiting 13,214 individuals. By December 2014, the projects had produced 3,810.26 quintals of Brood Lac and 4,597.93 quintals of Scrap Lac, with a combined market value of approximately Rs 27.13 Crore.

To further support lac cultivation, Lac Facilitation Centres have been established at forest circle headquarters in Jagdalpur, Kanker, Raipur, Durg, Bilaspur, and Sarguja. During the 2020 season, Kusumi Lac and Rangini Lac are being purchased at rates of Rs. 300 per kg and Rs. 220 per kg, respectively, at various collection centers in the district unions and divisions under the Government of India's Minimum Support Price Scheme.

1.4.Tendu leaves

Chhattisgarh is a leading state in India for producing high-quality Tendu (*Diospyros melanoxylon*) leaves, which are used as wrappers for Beedi (a rural cigarette). The state produces around 16.72 lakh standard bags of Tendu leaves annually, accounting for 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 collection season for Tendu leaves in Chhattisgarh runs from the third week of April to the second week of June, beginning earlier

in the southern regions of the state compared to the northern regions.

In 2004, the Chhattisgarh Government made a significant policy shift, deciding to sell green Tendu leaves in advance to buyers rather than selling stored leaves. Under this new system, the collection of leaves and payment of wages to the harvesters are handled by the Primary Co-operative Society. The green leaves are delivered to a designated purchaser at the collection center before harvesting begins. The purchaser is responsible for treating the leaves at the collection center, transporting, and storing them either in their own warehouses or in those of the Forest Department or Federation, which are secured with double locks within the state. The purchaser pays the purchase price in four equal installments, and the leaves are released accordingly. This policy change has led to a substantial portion of the leaves being sold in advance, with higher average sale rates being achieved. Overall, the new Tendu leaf trade policy has yielded positive results.

Tendu Leaves Collection and Trade Practices

The state is organized into 31 District Unions, which are further divided into 916 Primary Co-operative Societies, each of which is subdivided into collection centers.(Fig 6) The Primary Co-operative Society serves as the fundamental unit in the MFP trade. The Managing Director of the District Union oversees the operations of all primary units within their jurisdiction.(Fig 7) These primary units are sold in advance through e-tenders and e-auctions conducted by the MFP Federation in Raipur.(Fig 8)

- The funds for various operations are made available to the District Unions by the state level M.F.P. Federation. The District Unions provide funds for procurement to the Primary Co-operative Societies.
- The leaves collected by gatherers are purchased by the Phad Munshi (Manager of collection centre) of Primary Co-operative Society at every collection centre (called phad) . One employee of Forest or other Govt. Department works as Phad Abhirakshak (in-charge of collection centre) at each collection centre.
- Each family is given a collectors card. The daily collection of the gatherer is entered in the card by Phad Munshi and accordingly the payment of collection charges of leaves is made preferably by transferring the amount in gatherer's bank account or by cheque and the entry of the payment is made in the card.

- The payment of the collection wages to the pluckers is done by the Primary Co-operative Society only.
- Green leaves are handed over at the collection centres to the purchaser appointed in advance of collection.
- The purchaser treats the leaves at collection centres. Transports and stores in his owned godowns or the godowns of Forest Department/Federation in double lock.
- The purchaser makes the payment of the purchase price in four equal installments and accordingly leaves are released from double locked godown.
- The security deposit is 25% of the contract amount, minimum 10% in the form of E.M.D. and balance in the form of Discharged Fixed Deposit Receipt / Bank Guarantee for Advance Sale.
- The security deposit is 10% of the contract amount in the form of E.M.D. for Sale of Departmentally collected Quantity.
- The processing, transport and storage of leaves in the unsold units are done by Primary Co-operative Societies and the District Union.
- The District administration is also involved in the management during the collection.
- The collection rate for Tendupatta is Rs. 5500/- per Standard Bag for the year 2024. One standard bag consists of 1000 bundles, each bundles contains 50 leaves.

Note: need more elaboration and explanations on Fig.6,7,8 and table 5

Table:5Year 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:

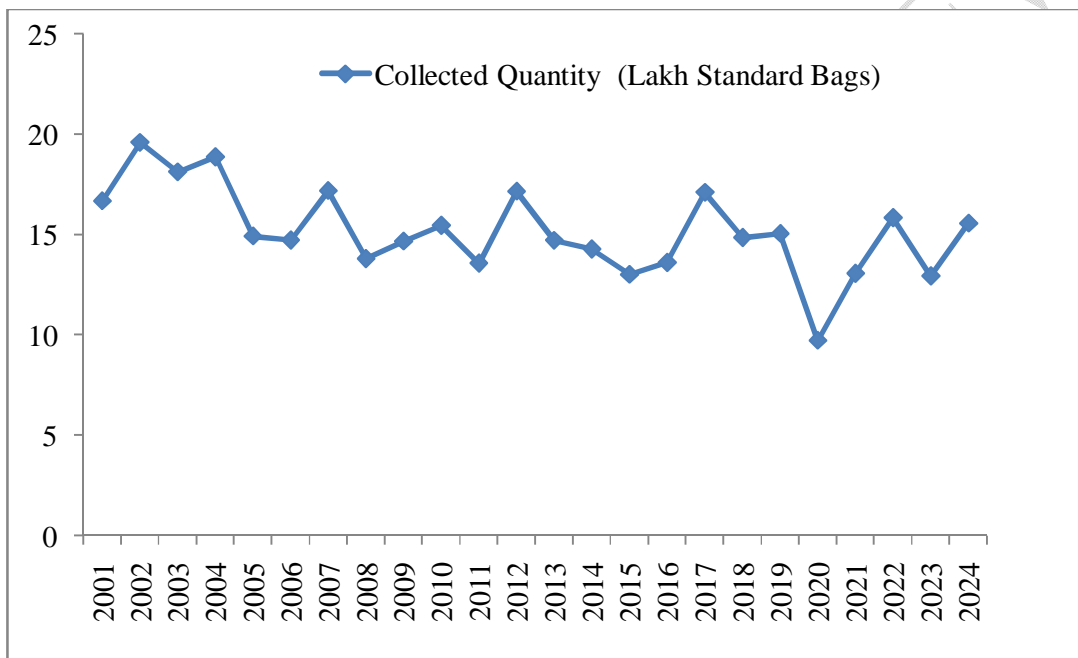


Fig 6: Collection Quantity of Tendu Leaves in Different Years of Chhattisgarh State.

Source:

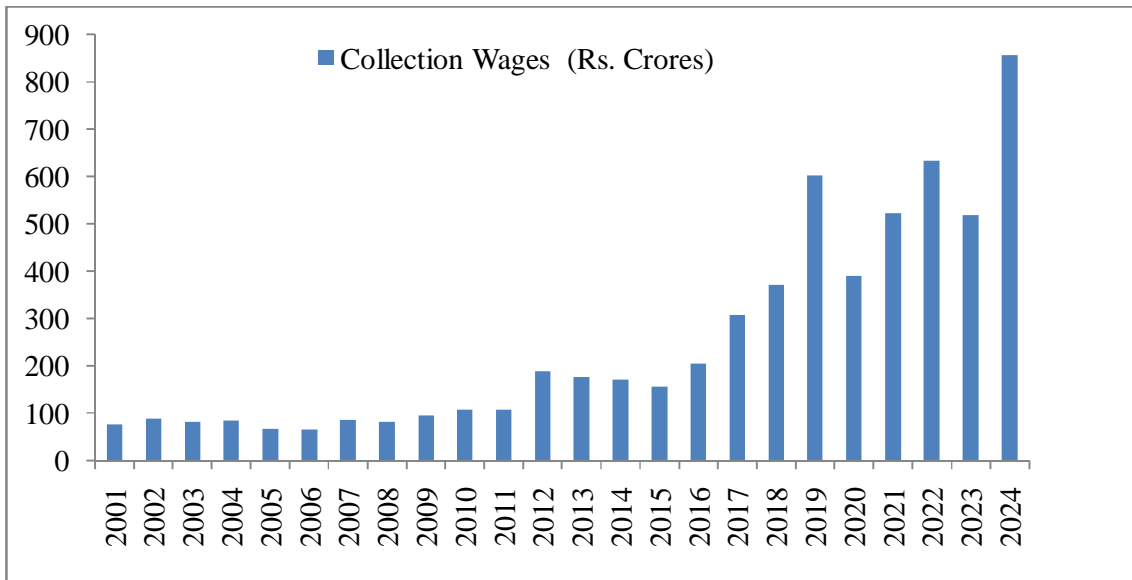


Fig 7: Collection Wages of Tendu Leaves in Different Years of Chhattisgarh State.

Source:

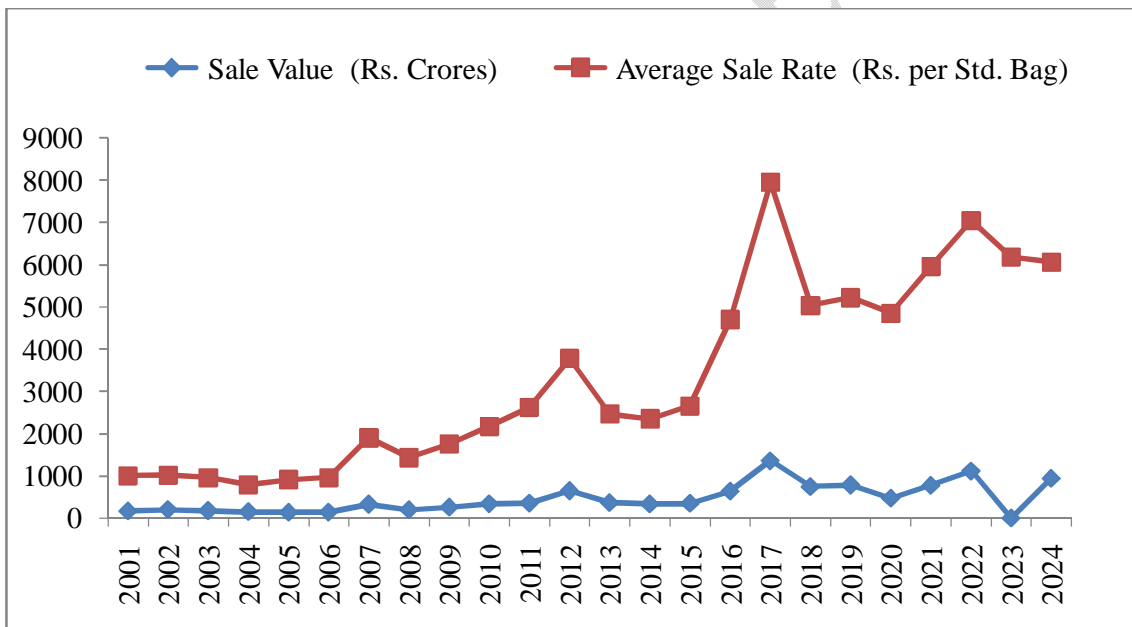


Fig 8: Sale Value and Average Sale Rate of Tendu Leaves in Different Years of Chhattisgarh State.

Source:

GUMS (Category-I and Category-II)

Kullu (*Sterculia urens*) Category-I Gums are classified into Grade-I, Grade-II, and Grade-III based on color, quality, and market value. (Fig 9) Gums from Dhawda (*Anogeisus latifolia*), Babool (*Acacia indica*), and Khair (*Acacia catechu*) fall into Category-II. (Fig 10) The annual production of these gums fluctuates significantly from year to year. (Fig 11)

For the year 2016-17, the collection rates are as follows: Rs. 22,000 per quintal for Grade-I Kullu Gum, Rs. 15,000 per quintal for Grade-II, and Rs. 10,800 per quintal for Grade-III. Dhawda Gum is collected at (Fig 12) Rs. 2,900 per quintal, while Khair and Babool Gums are priced at Rs. 1,740 per quintal. (Fig 13,14)

Note: need more elaboration and explanations on table 6 and fig 9,10,11,12,13,14

Table 6: Year Wise Detail of Collection and Sale of Gums in Chhattisgarh State.

Year	Quantity Collected (Qtls.)	Collection Wages (Rs. Lakhs)	Sale Value (Rs. Lakhs)	Average Sale Rate (Rs. per Qntl.)
Kullu Gum				
2001-02	247.52	12.38	13.17	5322
2002-03	494.60	24.73	24.99	5053
2003-04	1058.60	52.93	54.68	5168
2004-05	1283.07	82.12	85.06	6629
2005-06	676.795	62.70	68.37	10103
2006-07	435.84	58.61	65.43	15013
2007-08	1076.596	149.43	151.53	14500
2008-09	864.190	133.06	140.01	16201
2009-10	1750.135	297.48	313.33	17903
2010-11	389.68	85.73	105.34	27033
2011-12	138.50	37.40	53.79	38837
2012-13	190.89	42.87	47.29	29784
2013-14	18.40	3.73	3.34	24212
2014-15	40.27	5.27	3.50	10100
2015-16	---	---	---	---
2016-17	4.00	0.537	0.064	1599
Dhawda/Khair/Babul Gums				
2001-02	1196.12	27.89	16.11	1749
2002-03	904.23	16.74	17.52	2622
2003-04	403.53	7.60	8.02	2639
2004-05	742.16	12.33	13.34	2704
2005-06	145.00	2.38	2.75	2882
2006-07	141.58	2.89	3.27	2826
2007-08	306.00	5.10	5.90	2893
2008-09	560.00	11.39	12.21	3060
2009-10	619.25	14.40	19.49	3723
2010-11	26.74	0.74	1.78	6644
2011-12	64.50	1.87	3.07	4756
2012-13	45.20	0.96	1.02	3078
2013-14	7.00	0.20	0.23	3302
2014-15	---	---	---	---
2015-16	---	---	---	---
2016-17	27.500	0.798	0.825	3000

Source:

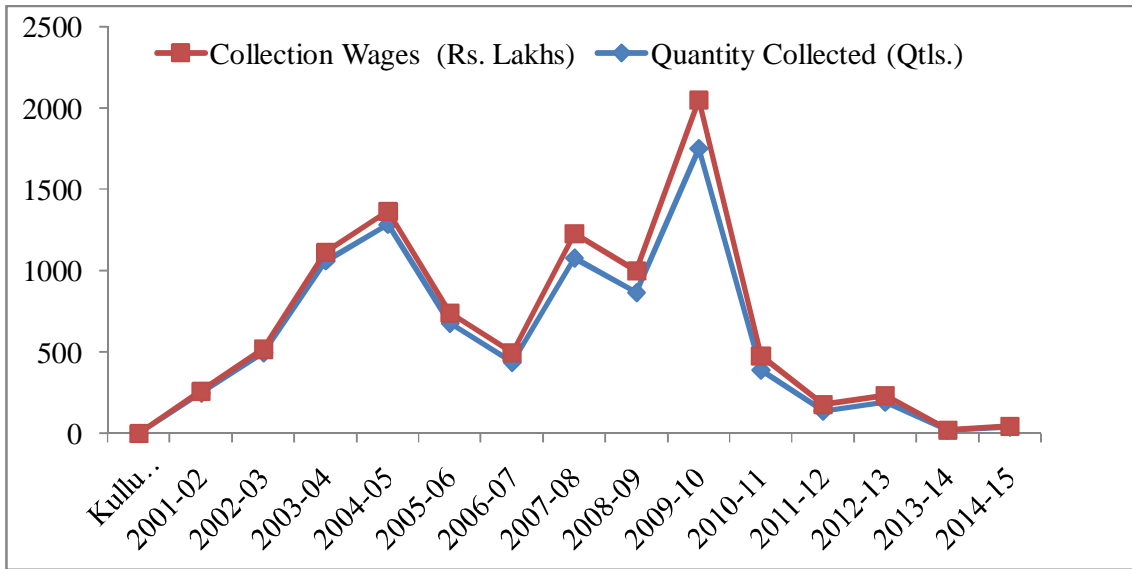


Fig 9: Year Wise Detail of Collection Wages and Quantity Collected of Kullu Gums in Chhattisgarh State.

Source:

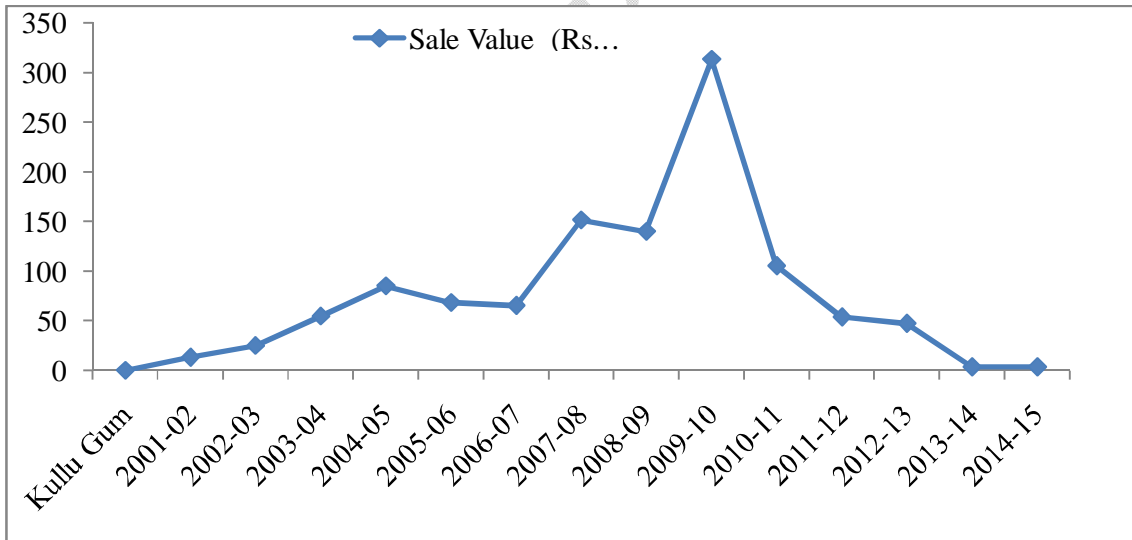


Fig 10: Year Wise Detail of Sale Values of Kullu Gums in Chhattisgarh State.

Source:

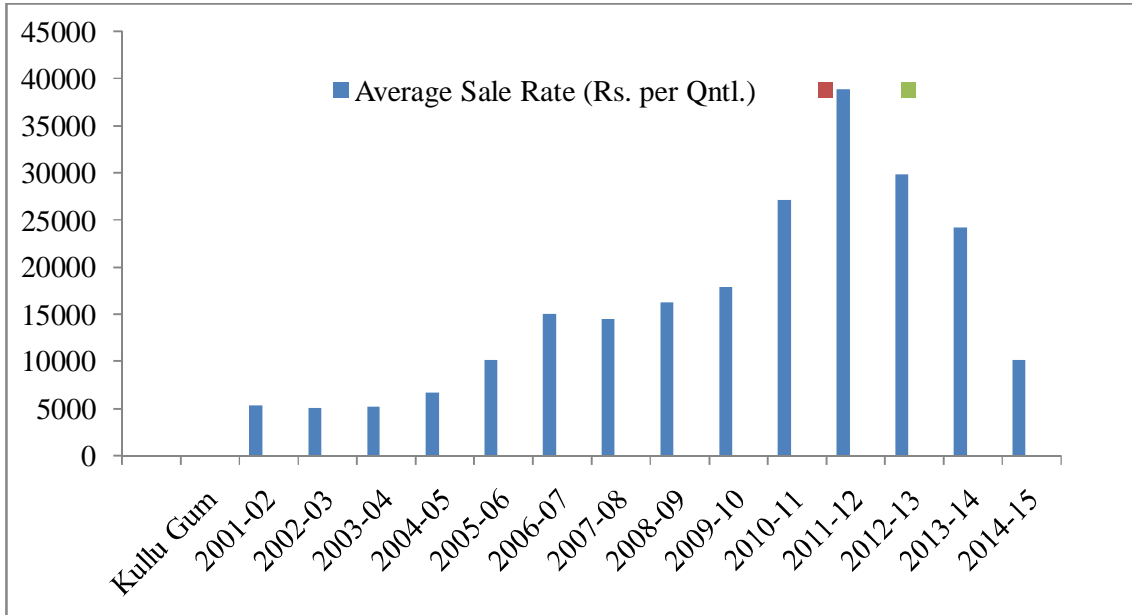


Fig 11: YearWise Detail of Average Sale Rate of Kullu Gums in Chhattisgarh State.

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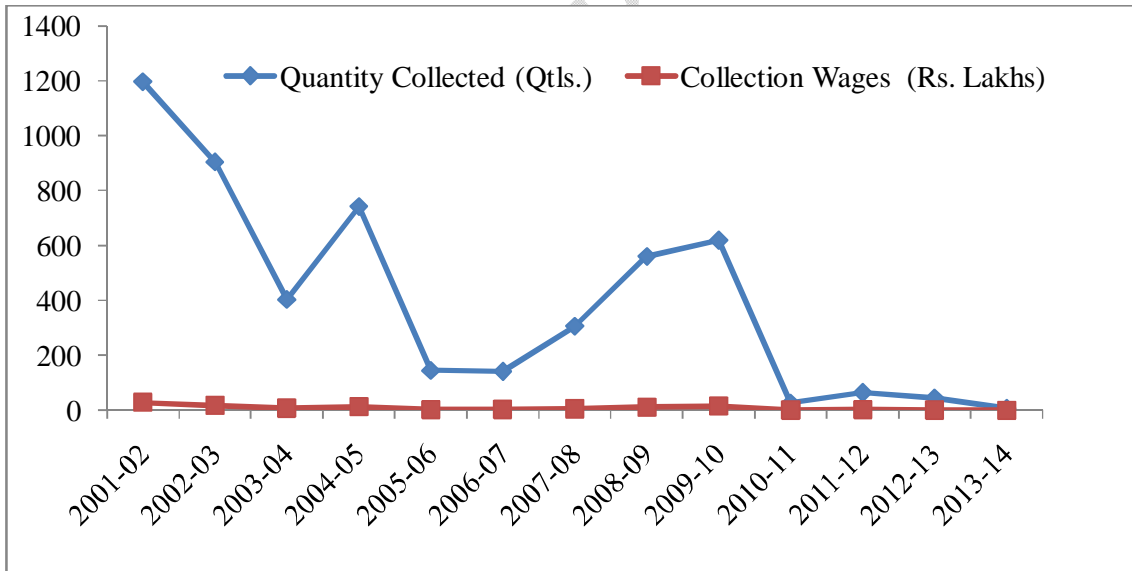


Fig 12: Year Wise Detail of Collection Wages and Quantity Collected of Dhawda Gums in Chhattisgarh State.

Source:

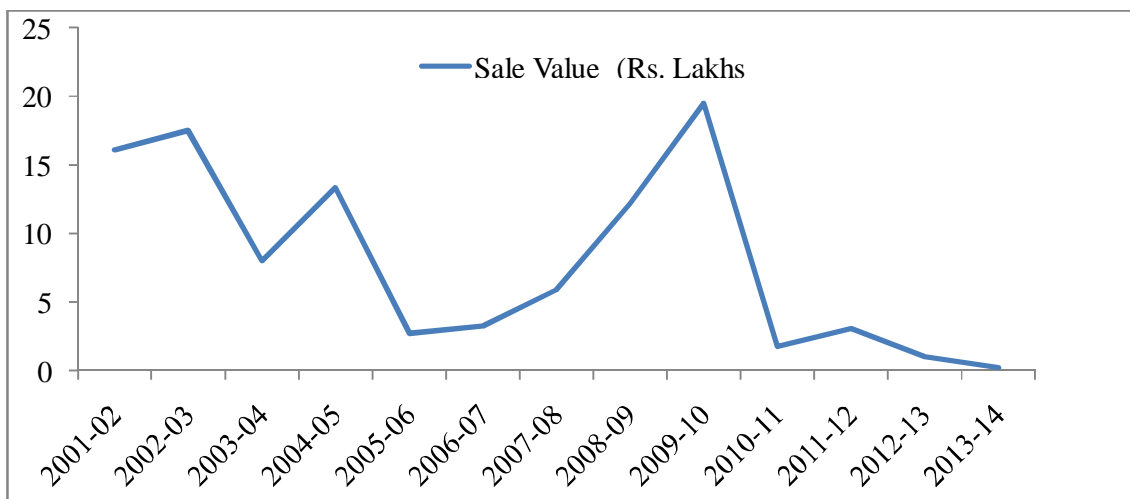


Fig 13: Year Wise Detail of sale values of Dhawda Gums in Chhattisgarh State.

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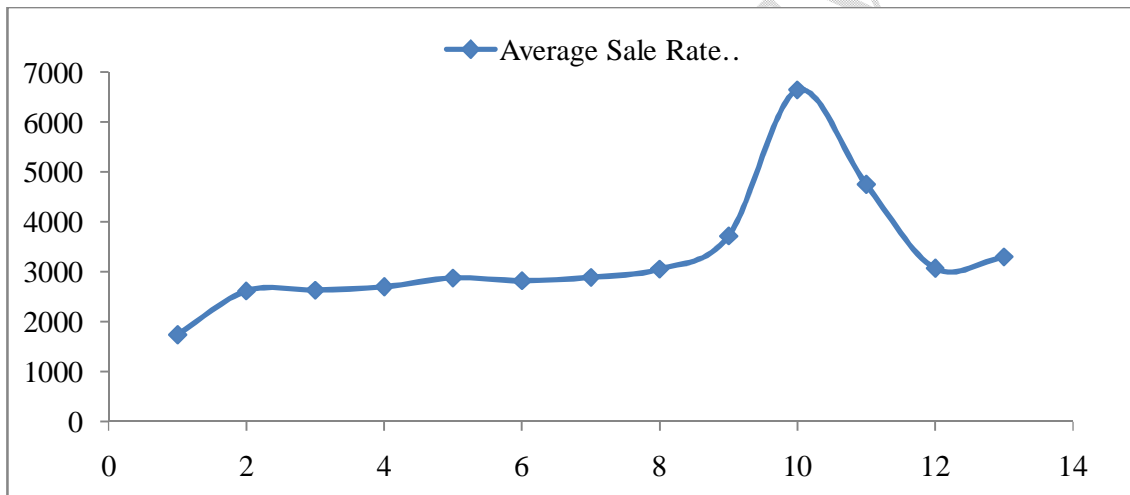


Fig 14: Year wise detail of Average sale Rate of Dhawda Gums in Chhattisgarh State.

Source:

1.5. Leaves based NWFPs

Tendu leaves are highly prized for their use in bidi rolling, making them a valuable economic asset. Tendu plants grow slowly and are relatively easy to collect. Harvesting of semi-mature leaves typically occurs from late April to early May. The Sal tree plays a crucial role in the socio-economic lives of local tribes in the area. Every part of the Sal tree—wood, seeds, leaves, and young shoots—is widely used in daily activities. For example, Sal leaves are occasionally used for serving food. Unlike many other forest products, Sal leaves are collected throughout the year for both personal use and sale. Siari leaves are especially valued for their quality in producing leaf plates, which are mainly used for serving food at

special occasions. However, Siari leaves are predominantly used domestically and are preferred by households over industrial uses.

1.5.1. Flower based NWFP

In the research area, substantial quantities of Mahua flowers were collected. The Mahua tree is highly significant in the socio-economic and cultural life of local communities, with every part of the tree—wood, seeds, leaves, flowers, liquor, and shade—being used regularly by forest-dwelling people. The flowers are mainly used for producing liquor, and many individuals prefer to sell them rather than use them at home.

1.5.2. Fruit based NWFP

Key fruits include tamarind, chironji, harra, baheda, and aonla. The fruit and seeds of the tamarind tree are especially sought after in the market. For collectors, the sale of these fruits is a major source of income.

1.5.3. Seed based NWFP

In the study area, the main non-timber forest products (NTFPs) that include oil seeds are mahua seed, sal, kusum, karanja, kewati, and several others.

1.5.4. Stem based NWFP

Stem-based non-timber forest products (NTFPs) are resources derived from the stems or trunks of plants and trees in forested regions. Examples include bamboo, rattans, gum, and resins.

1.5.5. Root based NWFP

Root-based non-timber forest products (NTFPs) are resources sourced from the roots of plants or trees in forested areas. These products are commonly used for medicinal purposes, dyeing, and various cultural applications.

1.6. Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chain for MFP

The Ministry of Tribal Affairs (MoTA) of the Government of India launched the "*Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chain for MFP*" scheme in 2013-14. The scheme was initiated to ensure fair pricing for MFP gatherers for the minor forest produce they collect. The Ministry of Tribal Affairs (MoTA), with support from the Tribal Co-operative Marketing Development Federation (TRIFED), oversees the scheme's implementation through the State

Government. In Chhattisgarh, the Scheduled Tribes and Scheduled Caste Development Department serves as the Nodal Department, while the Chhattisgarh State Minor Forest Produce (Trading & Development) Co-operative Federation Ltd. acts as the State Procurement Agency (SPA) for the scheme. The MSP for various MFPs is set by MoTA in consultation with experts and implementing agencies. For the collection year 2022-23, MoTA has announced the MSP for the MFPs gathered in Chhattisgarh.

Table7:Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chain for MFP

S. No.	Local Name	Botanical Name	Status	Ntfp Parts Purchased By Government	Msp Indian Govt. 2022-23	Msp Cg 2022-23
1	Malkangani Seed	<i>Celastruspaniculatus</i>	Climber	Seed	10000	10000
2	Bay Budding				9400	9400
3	Kalmegh	<i>Andrographis Paniculata</i>	Herb	Dry Root	3500	3500
4	Aonla Seedless	<i>Emblica Officinalis</i>	Tree	Dry Fruit	5200	5700
5	Rangini Lakh	<i>Kerria Lacca</i>	Insect Extract	Lac	20000	22000
6	Ritha Fruit	<i>Sapindusmukorossi</i>	Tree	Fruit	1400	1400
7	Vanjeera Seed	<i>Vernonia Anthelmintica</i>	Herb	Seed	7000	6300
8	Satawar Root	<i>Asparagus Recimocus</i>	Herb	Root	10700	10700
9	Charota Seed	<i>Cassia Tora</i>	Herb	Seed	1600	1600
10	Honey	<i>Apis dorsata</i>	Insect Extract		2250	2250
11	Nagarmotha	<i>Cyperus scariosus</i>	Herb	Whole Plant	3000	3000
12	Mahul Leaf	<i>Madhucalatifolia</i>	Tree	Leaf	1500	1500
13	Harra	<i>Terminalia Chebula</i>	Tree	Fruit	1500	1500
14	Harrakacharia	<i>Terminalia Chebula</i>	Tree	Crushed Fruit	2500	2500
15	Baheda	<i>Terminalia Bellirica</i>	Tree	Fruit	1700	1700
16	Bahedakacharia	<i>Terminalia Bellirica</i>	Tree	Crushed Fruit	2000	2000
17	Giloy	<i>Tinosporacordifolia</i>	Climber	Stem	4000	4000
18	Kusumi Lac	<i>Kerria Lacca</i>	Insect Extract	Lac	27500	30000
19	Vantulsi	<i>Ocimum tenuiflorum</i>	Herb	Seed	1600	1450

	Seed					
20	Bhilwa	<i>Semicarpus Anacardium</i>	Tree	Fruit	900	975
21	Shika Kai Falli	<i>Senegaliarugata</i>	Tree		5000	5000
22	Imli	<i>Tamrandusindica</i>	Tree	Fruit With Seed	3600	3600
23	Imli Flower	<i>Tamrandusindica</i>	Tree	Flower	6900	6900
24	Imli Seed	<i>Tamrandusindica</i>	Tree	Seed	1100	1100
25	Mahua Flower	<i>Madhucalatifolia</i>	Tree	Flower	3000	3000
26	Mahua Seed	<i>Madhucalatifolia</i>	Tree	Seed	2900	2900
27	Fooljhadu		Grass	Grass	5000	5000
28	Kouch Seed	<i>Mucunapruriens</i>	Climber	Seed	2100	2100
29	Dhawai Flower	<i>Woodfordiafruticosa</i>	Shrub	Flower	3700	3700
30	Chironji Seed	<i>Buchananiaalanzan</i>	Tree	Seed	12600	12600
31	Karanj Seed	<i>Milletriapinnata</i>	Tree	Seed	2200	2400
32	Bael Dry Pulp	<i>Aeglemarmelous</i>	Tree	Pulp	3000	3000
33	Kullu Gum	<i>Sterculia Urens</i>	Tree	Gum	1250	1250
34	Kaju Seed	<i>Anacardium Occidentel</i>	Tree	Seed	9000	9000
35	Sal Seed	<i>Shorearobusta</i>	Tree	Seed	2000	2000
36	Kusum Seed	<i>Schleicheraoleosa</i>	Tree	Seed	2300	2300
37	Neem Seed	<i>Azadirachtaindica</i>	Tree	Seed	2700	2700
38	Jamun Seed	<i>Syziuncuminio</i>	Tree	Seed	4200	4200
39	Malkangini	<i>Celastruspaniculatus</i>	Climber	Unripen Fruit		1700
40	Kalmegh	<i>Andrographis Paniculata</i>	Herb	Wet Plant		550
41	Aonla Fruit	<i>Emblca Officinalis</i>	Tree	Unripen		2800
42	Rangini Lac	<i>Kerria Lacca</i>	Insect Extract	Lac		27500
43	Harra	<i>Terminalia Chebula</i>	Tree	Unripen Fruit		600
44	Harra Ball	<i>Terminalia Chebula</i>	Tree	Fruit		3000
45	Baheda	<i>Terminalia Bellirica</i>	Tree	Unripen Fruit		500
46	Giloy	<i>Tinosporacordifolia</i>	Climber	Wet Plant Stem		550
47	Kusumi Lac	<i>Kerria Lacca</i>	Insect Extract	Lac		55000
48	Mahua Flower	<i>Madhucalatifolia</i>	Tree	Wet Flower		1000
49	Jhadu Kata		Grass	Grass		2500

50	Jhaduchind	<i>Phoenix Acaulis</i>	Grass	Grass		1500
51	Bael Fruit	<i>Aegle Marmelous</i>	Tree	Whole Fruit (Wet)		1000
52	Jamun Fruit	<i>Syzygiumcumini</i>	Tree	Fruit (Wet)		2300
53	Rally Silk	<i>Erythroxyllum Coca</i>	Insect Extract	Silk		420
54	Sawai	<i>Eulaliopsisbinata</i>	Grass	Grass		1500
55	Kodo	<i>Paspalumscrobiculatum</i>	Herb	Grain		3000
56	Kutki	<i>Picrorhizakurrooa</i>	Herb	Grain		3100
57	Ragi	<i>Eleusinecoracana</i>	Herb	Grain		3578
58	Pataalkumhd a	<i>Pueraria Tuberosa</i>	Climber	Rhizome		2000
59	Safedmusli	<i>Chlorophytumborivilianum</i>	Herb	Rhizome		65000
60	Tikhur	<i>Curcuma Angustifolia</i>	Herb	Rhizome(Wet)		1700
61	Ashwagand ha	<i>Withganasomnifera</i>	Herb	Dry Root		18000
62	Koriya Seed	<i>Holarrhenaantidyse nterica</i>	Shrub	Seed		5000
63	Kutaj Bark	<i>Wrightiaantidysente rica</i>	Tree	Bark		1200
64	Palash Flower	<i>Butea Monosperma</i>	Tree	Dry Flower		1150
65	Mango	<i>Mangiferaindica</i>	Tree	Fruit Powder		12000

Source:

1.6. Scope of Non Wood Forest Products (NWFPs)

Non-Wood Forest Products (NWFPs) encompass a wide range of items, including fruits, nuts, berries, mushrooms, medicinal plants, resins, essential oils, and natural dyes. They also include honey, game, handicrafts, and ornamental plants. The primary areas of NWFPs include:

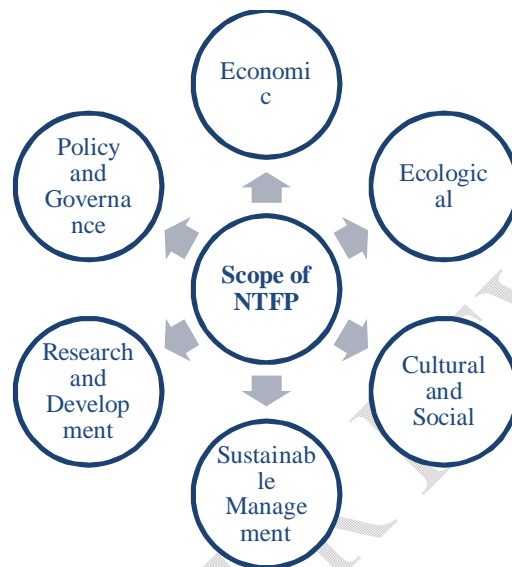


Fig. ##

Source:

- 1.6.1. **Economic:** Non-Wood Forest Products (NWFPs) are economically important, particularly for rural and indigenous communities, where they frequently play a crucial role in livelihoods and income generation. Additionally, NWFPs can hold significant commercial value both nationally and internationally.
- 1.6.2. **Ecological:** Many Non-Wood Forest Products (NWFPs) are vital to forest ecosystems. They can help maintain biodiversity, serve as food sources for wildlife, and contribute to nutrient cycling and soil fertility.
- 1.6.3. **Cultural and Social:** Non-Wood Forest Products (NWFPs) are frequently embedded in cultural practices and traditions. They may hold spiritual or ceremonial importance for indigenous peoples and local communities, forming a key aspect of their cultural heritage.
- 1.6.4. **Sustainable Management:** Given their significance, implementing sustainable management practices for NWFPs is essential. This includes ensuring that harvesting

methods do not exceed the resources' natural ability to regenerate and that ecosystems remain healthy.

1.6.5. **Research and Development:** Research is continually being conducted on the potential applications of NWFPs, such as their pharmaceutical properties, nutritional benefits, and industrial uses (e.g., biofuels). This research frequently aims to improve the value and sustainable use of these products.

1.6.6. **Policy and Governance:** Governments and international organizations frequently implement policies and regulations to oversee the extraction, trade, and conservation of Non-Wood Forest Products (NWFPs), aiming to ensure their sustainable use and fair distribution of benefits.

1.7. Conclusion

The Chhattisgarh, rich in forest resources, plays a vital role in the collection and trade of Non-Wood Forest Products (NWFPs). The state's diverse NWFPs—including medicinal plants, tendu leaves, bamboo, honey, and various nuts and fruits—are central to the local economy and cultural heritage. These products are crucial for the livelihoods of millions of forest-dependent communities in Chhattisgarh, providing supplementary income and supporting rural economies. The state's economy benefits from NWFP trade, contributing to local and state revenue through organized collection and sales. Chhattisgarh's forests boast a variety of NWFPs, reflecting its rich biodiversity, with significant products like tendu leaves for bidi rolling, mahua flowers, and medicinal plants. The types and availability of NWFPs vary by district and forest region, influenced by local ecological conditions. NWFPs are sold in both traditional markets and modern commercial channels, with a growing trend towards formalizing these markets and improving value chains. Prices can fluctuate due to seasonal changes, market demand, and supply issues, though efforts such as Minimum Support Prices (MSP) have helped stabilize them, requiring ongoing attention. The state government has introduced various schemes and regulations to aid in the collection, marketing, and fair pricing of NWFPs, with initiatives like MSP for tendu leaves aiming to provide stability. There is also a focus on sustainable harvesting practices to ensure the long-term availability of NWFP resources while protecting forest ecosystems.

Note: The conclusion must be support the research aim/objectives and the contributions to the study. Also, proposed the several recommendations to the study, industry players and government policy maker.

References

- Ahenkan A, Boon E. (2011), Commercialization of non-timber forest products in Ghana: processing, packaging and marketing. *Food Agri. and Environ.* 2011;8:962-969.
- Ahirwar RK. (2015), Diversity of ethnomedicinal plants in Borid and forest of District Korea, Chhattisgarh, India. *American Journal of Plant Sciences* 2015;6(02):413.
- Anonymous, (2009). Empowering tribal livelihoods through partnership. *Collectives for Integrated Livelihood Initiatives*, April 2009.
- Arnold JEM, Ruiz Perez M. (#####) The role of non-timber forest products in conservation and development. In: E Wollenberg, An Ingles (Eds.): *Incomes from the Forest: Methods for the Development and Conservation of Forest Products for Local Communities*. Bogor, Indonesia
- Babulo, B., B. Muys, F. Nega, E. Tollens, J. Nyssen, J. Deckers and E. Mathijs, (2009). The economic contribution of forest resource use to rural livelihoods in Tigray, Northern Ethiopia. *For. Policy Econ.*, 11: 109-117.
- Bhattacharya, A.K. and Patra, K. (2004). Impact of consumption of non –wood forest products (NWFP) on the nutriture of Pahari Korwa primitive tribal group - A study from Sarguja District of Chhattisgarh. *J. NTFPs*, 11(4) : 254-261.
- Bhuneshwar (2007). Production estimation on some non timber forest products in Chhattisgarh plains. M.sc. (Ag.) Thesis, Department of Agricultural Statistics, Mathematics and Social sciences, I.G.K.V, Raipur (Chhattisgarh), pp. 63.
- Bhuneshwar (2007). Production estimation on some non timber forest products in Chhattisgarh plains. M.sc. (Ag.) Thesis, Department of Agricultural Statistics, Mathematics and Social sciences, I.G.K.V, Raipur (Chhattisgarh), pp. 63.
- Chandel AS, Yadav DK, Jhariya MK. (2017), Economically and Traditionally Important NonTimber Forest Products of Sarguja Division. *Bulletin of Environment, Pharmacology and Life Sciences* 2017;6(5):32-39.
- FAO (2005), *The State of Food Insecurity in the World: Eradicating World Hunger Key to Achieving the Millennium Development Goals*. Rome: FAO; c2005.
- Krishnamoorthy, L., Varadharaj, S., Mani, G. and Adeline Vinila, T.E. (2003), Collecting and marketing of non-timber forest products in Tamil Nadu. *J. NTFPs*, 10 (2): 74-82.
- Krishnamoorthy, L., Varadharaj, S., Mani, G. and Adeline Vinila, T.E. (2003), Collecting and marketing of non-timber forest products in Tamil Nadu. *J. NTFPs*, 10 (2): 74-82.
- M Gopinath Reddy, Prodyut Bhattacharya, Sanjoy Patnaik(2007), *Synthesis Report on*

Non-Timber Forest Products and Forest Governance.

- Malhotra, K.C. and Prodyut Bhattacharya (2010), Forest and Livelihood. Published by CESS, Hyderabad. pp.246.
- Painkra, M., Dutta, J. and Ranga, M.M. (2017), Status Survey of Non Wood Forest Products in Surguja district of Chhattisgarh: India. eJAFE. Vol 5(2): 20-27.
- Paloti, L. and Hiremath, U.S. (2005), Role of NTFPs in economic empowerment of rural womensIndia. Foresters, 131(7): 925-930.
- Paloti, L. and Hiremath, U.S. (2005), Role of NTFPs in economic empowerment of rural womensIndia. Foresters, 131(7): 925-930.
- Pandey, A. K., Tripathi, Y. C., Kumar, A. (2016), Non Timber Forest Products (NTFPs) for Sustained Livelihood: Challenges and Strategies. Research Journal of Forestry. 10(1): 1-7. DOI: 10.3923/rjf.2016.1.7.
- Pandey, A.K., (2009), Sustainable harvesting standards and limits: Medicinal plants in central ity Forestry, USA., pp:4-10.
- Rout SD, Panda SK. (2011), Seasonal availability of Non-Timber Forest Products collected by the tribals in Gandidadha Reserve Forests of district Mayurbhanj, Orissa. Indian 9808970--7Forester 2011;137(8-12):1289-1293.
- Saha, D. and R.C. Sundriyal, (2012), Utilization of non-timber forest products in humid tropics: Implications for management and livelihood. For. Policy Econ., 14: 28-40.
- Shackleton R.T.,Matre, D. C. L.,Wilgen, B. W. V., Richardson D.M. (2015), Use of non-timber forest products from invasive alien Prosopisspecies (mesquite) and native trees in South Africa: implications for management. Vol2:16
- Shiva M. P. & Mathur R. B. (#####), Price Regime Analysis, Marketing and Trade of Minor Forest Produce by C. Sekhar Eds.
- Singh U, Bharti AK. (2015), Ethnobotanical Study of Plants of Raigarh Area, Chhattisgarh, India. International Research Journal of Biological Sciences. 2015;4(6):36-43.
- Sinha MK, Kanungo VK, Naik ML. (2016),Ethnobotany in relation to livelihood security in district Bastar of Chhattisgarh state with special reference to nontimber forest produces.Current Botany. 2016;7:27-33.
- Sinha MK, Kanungo VK, Naik ML. Ethnobotany in relation to livelihood security in district Bastar of Chhattisgarh state with special reference to nontimber forestproduces. Current Botany. 2016;7:27-33. (Replaced)**

Sinha MK, Kanungo VK, Naik ML. Ethnobotany in relation to livelihood security in district Bastar of Chhattisgarh state with special reference to non-timber forest products. *Current Botany* 2016;7:27-33. (Replaced)

Sinha MK, Kanungo VK, Naik ML. Ethnobotany in relation to livelihood security in district Bastar of Chhattisgarh state with special reference to non-timber forest products. *Current Botany* 2016;7:27-33. (Replaced)

TFRI(2011), National Workshop on Non-timber Forest Products Marketing: Issues & Strategies (Background paper). Tropical Forest Research Institute, Jabalpur Vantomme (2003). Forest Products Division, Forestry Department, FAO, Rome.

Vikas, K. (2014), Impact of non-timber forest products (NTFPs) on rural tribes' economy in Peechi Vazhani Wildlife Sanctuary, Western Ghats, Kerala. *International J. Forest Usufructs Management*, 15(2) : 80-100.

Vikas, K. (2014), Impact of non-timber forest products (NTFPs) on rural tribes' economy in Peechi Vazhani Wildlife Sanctuary, Western Ghats, Kerala. *International J. Forest Usufructs Management*, 15(2) : 80-100. (Replaced)

Kumar R. and Ramchandra (2018), Effect of Nitrogen Levels on Growth and Yield of Onion Varieties Under Poplar Based Agroforestry System. *Trends in Biosciences*, 11(3):283-286.

Kumar R. and Ramchandra (2021), Performance of Organic Manures on Growth and Yield of Tomato (*Lycopersicon esculentum* L.) Under Jatropha Based Alley Cropping System. *Indian Forester*, 147(6): 578-583.

Kumar R., Darro H., Bhardwaj A. K. and Chandra K. K. (2022a), Forest Fire and its Influence on Environmental conditions: A Review. *Bull. Env. Pharmacol. Life Sci.*, 10 (12):258-267.

Kumar R., Bhardwaj A.K. and Chandra K.K. (2022b), A Review on Agroforestry Practices for Improving Socioeconomic and Environmental Status. *Indian Forester*, 148(5): 474-478.

Kumar, R., Bhardwaj, A.K. and Chandra K.K. (2023a), Levels of Natural and Anthropogenic Disturbances and Assessment of Their Impact on Plant Community Functional Diversity. *Forestist*, 73(1): 108-116. DOI:10.5152/forestist.2022.22025

Limanpure Y. and Kumar R. (2018), Effect of Different Levels of Inorganic Fertilizers on the Growth and Yield of Barley (*Hordeum vulgare* L.) Under Teak (*Tectona grandis*) Based Agrisilviculture System. *Trends in Biosciences*, 11(6):881-886.

Darro H., Swamy S. L., Kumar R. and Bhardwaj A. K. (2022) , Comparison of Physico-chemical Properties of Soils under different forest types in dry tropical Forest ecosystem in Achanakmar-Amarkantak Biosphere Reserve, India. *Eco. Env. & Cons.* 28 :S163-S169.

Chandra K.K., Bhardwaj A. K. Singh A. and Kumar R. (2021a), Impact of drought on tropical forests and plant mechanisms to mitigate drought stress. *Tropical Dry Forest: Emerging Features and Ecology Perspectives.* (Eds. Chaturvedi RK, Singh R., Bhadouria R.), Nova Science Publisher, New York, USA. ISBN. 978-1-53619-543-9(ebook) pg.367-383.

Chandra K.K., Kumar R. and Baretha G. (2021b), Vandalism: A Review for Potential Solutions. *Tree Benefits in Urban Environment and Incidences of Tree.* (Eds. Bhadouria R., Singh P., Upadhyay S., Tripathi S.), John Wiley & Sons, Inc., Hoboken, NJ, USA. ISBN: 9781119807186.

Note : Please checked the missing of references in the texts. The references must be following the alphabetical orders and the year must be between 2019-2024.

Abbreviations:

NWFPs	: Non-wood forest products
MFP	: Minor Forest Produce
MSP	: Minimum Support Price
SGSY	: Swarn-Jayanti Gram Swarajgar Yojana
MoTA	: Ministry of Tourism and Antiquities
TRIFED	: Tribal Cooperative Marketing Development Federation of India
SPA	: State Procurement Agency
MARKFED	: Marketing Cooperative Federation
MOEF	: Ministry of Environment and Forest
JFM	: Joint Forest Management
SERP	: Society for Elimination of Rural Poverty
TCDC	: Tribal Cooperative Development Corporation
RMD	: Retail Marketing Division
PFPCS	: Primary Forest Produce Cooperative Society
IGP	: Income Generation Programme
CMFPF	: Chattisgarh Minor Forest Produce (Trading & Development) Cooperative Federation
FAO	: Food and Agriculture Organization
ITDA	: Integrated Tribal Development Agency

UNDER PEER REVIEW

Review Form 3

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_125766
Title of the Manuscript:	STATUS OF DIFFERENT NON WOOD FOREST PRODUCTS IN CHHATTISGARH
Type of the Article	Review Article

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