

# An Economic Analysis of Collection, Consumption, Selling and Income of NTFPs in Dantewada District of Chhattisgarh

Tadivendra Keshwer Singh<sup>1</sup>, K. N. S. Banafar<sup>2</sup>, A. K. Gouraha<sup>3</sup>

Department of Agri. Economics, Professor of Department of Agri. Economics & Agri. Business Management

E-mail: [tadikanwar\[at\]gmail.com](mailto:tadikanwar[at]gmail.com)

**Abstract:** *The forest of Chhattisgarh govt. is very awareness in NTFPs. Collecting, selling and marketing of Non-Timber Forest Products (NTFPs) is considered as an important means of improving the income generate of the rural people. Both primary and secondary data has been used for study. An average, percentage method and marketable surplus method used or adopted at the time of analysis looking to the quality and quantity of the data. In Dantewada district, an average 75.44kg. NTFPs were consumed by the sampled households from the total quantity collected and rest of the quantity 232.75kg was sold in the market of total collected quantity on an average 308.19 kg by the 70 sampled household. The total income generated from selling by selected NTFPs is 13704.22Rs. They are collected Tendu leaves, Mahua flower, Mahua seed, Tamarind, Harra, Baheda, Kalmegh and Charota.*

**Keywords:** Chhattisgarh Minor Forest Produce Society, CGMFPS, NTFP

## 1. Introduction

Chhattisgarh state is one of the top most forests developing state of India. Non-timber Forest Products (NTFPs) means the produce from various forest species in the type of fruits, seeds, leaves, barks, roots, flowers and grasses etc., including entire plant of medicinal herbs/shrubs and foods. Collecting and selling of Non-Timber Forest Products (NTFPs) is considered as an important means of improving the economic conditions of the rural people. "Shrey R. et al. (2017) survey that on an average 1110.22 kg. of NTFPs were collected and out of those only 5.02 percent was consumed and rest was sold in the market. While average largest collected NTFP was Sal seed 29.31 per cent of collection followed by Mahua flower and Tamarind with 28.89 percent and 13.07 per cent respectively". "Panigrahi, S., et al. (2019) say that women from different tribes in Odisha are mostly involved in NTFPs collection and marketing, generating a income". Dantewada district is one of the most forest developing district of Chhattisgarh state. In the year 2020, the total income generated non-timber forest products was substantial, where Tendu leaves 144 lakh, Chirounjee seed 2.33 lakh, Mahua flower 7.50 lakh, Tamarind 368 lakh, Sal seed 15 lakh, Charota seed 0.88 lakh, Harra 0.53 lakh and Baheda 0.84 lakh under CGMFPEFED (collection expenditure by MSPs).

## 2. Methodology

These objectives deals with concise description of the method used in course of the investigation. The study has been conducted in Dantewada district of Chhattisgarh State. Out of four blocks (Geedam, Dantewada, Kuakonda and Katekalyan), Three blocks have been selected for the present study (Geedam, Dantewada and Kuakonda). Looking to the availability of non-timber forest produce. From selected block, two villages have been randomly selected from each block. In all 70 respondents has been selected randomly for the present study. From six selected villages of the selected blocks. Both primary and secondary data has been used for

study. Suitable statistical method used or adopted at the time of analysis looking to the quality and quantity of the data. For example:

### a) Percentage method

Percentage can be calculated by dividing the giving value by the total value, and then multiplying the result by 100.

$$\% = (\text{Value} / \text{Total value}) \times 100$$

### b) Marketable Surplus

Marketable Surplus is the portion of a harvest that a farmer can sell on the market to earn a profit.

$$MS = P - C$$

Where MS = Marketable surplus

P = Production, C = Consumption

### c) Average

It is the ratio of total sum of all number (b1 + b2 + b3 + ..... + bn) to number of items in the set (p).

$$\text{Average (A)} = (b1 + b2 + b3 + \dots + bn) / p$$

## 3. Result & Discussion

These objectives deal with collection, consumption, selling and income of major NTFPs. The average cropping intensity % in the study area was observed 125.98 percent. The average net cropped area in the study area was observed 2.49 percent.

### 3.1 Economic of collection, consumption, selling, generate income and employment of selected NTFPs in Dantewada district of Chhattisgarh

Table 1 has been showed that the average 308.19kg. NTFPs including all major NTFPs was collected by the selected tribal households. An average 75.44kg NTFPs were consumed by the sampled households from the total quantity collected and rest of the quantity 232.75kg was sold in the market. The income generated by selling out these NTFPs was Rs. 13704.22 an average for Dantewada district. An

average these NTFPs provide 243 days of employment to tribal forest dwellers of the district.

**Table 1:** Economic of collection, consumption, selling, generate income and employment of selected NTFPs in Dantewada district

S. No.	Name of NTFPs	Collection Quantity (kg)	Consumption Quantity (kg)	Selling Quantity (kg)	Price of NTFPs (Rs.)	Income (Rs.)	Employment day	Active hours
1.	Mahua flower	115.60	38.50	77.10	31.67	2441.75	29	7
		(100)	(33.50)	(66.50)		(17.82)		
2.	Tamarind	100.19	20.37	79.82	32.67	2607.56	15	6
		(100)	(20.33)	(79.67)		(19.03)		
3	Mahua seed	26.60	8.95	17.65	23.33	411.77	24	6
		(100)	(33.66)	(66.34)		(3.00)		
4	Tendu leaves	17.63	0	17.63	400	7052	3	6
		(100)	(0)	(100)		(51.57)		
5	Harrat	5.71	1.51	4.20	12.33	51.74	14	4
		(100)	(26.50)	(73.50)		(0.38)		
6	Baheda	5.54	0.58	4.96	11.67	57.87	12	4
		(100)	(10.16)	(89.84)		(0.42)		
7	Charota seed	7.67	0	7.67	22.33	171.20	15	5
		(100)	(0)	(100)		(1.25)		
8	Giloy	24.27	3.03	21.24	38.33	814.00	20	4
		(100)	(12.50)	(87.50)		(5.94)		
9	Kalmegh	5	2.50	2.50	32.66	81.65	111	4
		(100)	(50)	(50)		(0.59)		
	Total	308.19	75.44	232.75	604.99	13704.22	243	46
						100		

**Note:** Figure in parentheses indicates in the percentage of collection, consumption, selling and generate income. (Tendu leaves of 1kg = 100 bundles)

### 3.2 Collection of NTFPs

Table 1 unfold that the average 308.19kg. NTFPs was collected by the selected tribal households. In which Tendu leaves was collected NTFPS with 17.63 per hundred bundle each household followed by Tamarind at 100.19 kg. Giloy at 24.27 kg Mahua seed 26.60 kg, Mahua flower at 115.60kg, Harra at 5.71 kg. and Charota at 7.67 kg. The lowest share in collection is contributed by Kalmegh at 5 followed by Baheda at 5.54 kg to the total quantity of NTFPs collected each household.

### 3.3 Consumption of NTFPs

Table 1 has been revealed that the average 75.44kg. NTFPs were consumed by tribal forest dwellers in Dantewada district. An average consumption of Mahua flower was found highest as compared to other NTFPS being at 38.50 kg (33.50 per cent) followed by Tamarind at 20.37 kg (20.33 per cent), Mahua seed at 8.49 kg (33.33 per cent) and Kalmegh 2.50 kg (50 per cent) of total collection.

### 3.4 Selling of NTFPs

Table 1 revealed that the average out of the total collected NTFPs, 232.75kg was sold in the market. Amongst the NTFPs in the district selling of NTFPs like Tendu leaves (17.63per hundred bundle), Giloy (21.24 kg), Harra (4.20 kg) and Baheda (4.96 kg) were sold at rate of Rs. 400, Rs. 38.33, Rs. 12.33 and Rs. 11.67 respectively followed by Mahua seed 17.65 kg (66.34 percent), Tamarind 79.82 kg (79.67 percent), Mahua flower 77.10 kg (66.50 percent), Charota 7.67 kg (100 percent) and kalmegh 2.50 kg (50 percent) of collection at rate of Rs. 23.33, Rs. 32.67, Rs. 31.67, Rs.22.33, Rs. 32.66 respectively.

### 3.5 Income generated through selling of NTFPs

Table 1 show that the average Rs.13704.22each household were generated income through the selling of NTFPs. Amongst the NTFPs Tendu leaves contributes 51.57 per cent (Rs.7052) followed by Mahua flower (Rs.2441.75), Giloy (Rs. 814.00), Tamarind (Rs.2607.56), Mahua seed (Rs. 411.77), Charota (Rs.171.20) and Harrat (Rs.51.74) at 17.82per cent, 5.94per cent, 19.03per cent, 3.00per cent, 1.25per cent and 0.38per cent respectively.

### 3.6 Employment generated by NTFPs

Table 1 has been showed that the average 308.19kg. NTFPs including all major NTFPs was collected by the selected tribal households. An average 75.44kg. NTFPs were consumed by the selected village households from the total quantity collected and rest of the quantity 232.75kg was sold in the market. The income generated by selling out these NTFPs was Rs. 13704.22an average for Dantewada district. An average these NTFPs provide 243 days of employment to tribal forest dwellers of the district.

## 4. Conclusion

Based on the findings, it can be contributed thatTendu leaves, Mahua flower, Mahua seed, Tamarind, Harrat, charota, kalmegh, giloy and baheda are the non-timber forest products available in the study area which is minor source of food and medicines. The importance of Non-Timber Forest Products (NTFPS) contributing to rural livelihoods and improvement rural poverty is well known in Chhattisgarh. The average cropping intensity observed in the study area was 125.98 percent. An average 308.19kg. each household

of NTFPs were collected and out of those only 75.44kg was consumed and rest was sold in the nearby market of sampled villages in Dantewada district. An average largest collected NTFPs was Tendu leaves 17.63 per hundred bundles of collection followed by Mahua flower and Tamarind with 115.60 kg and 100.19 kg each household respectively. The lowest share of collection was by Kalmegh with only 5 kg each household. An average Rs.13704.22each household were generated through the selling of NTFPs.

## References

- [1] Acharya, G.K. (2013) An Economic Analysis of Collection Primary Processing and Marketing of Non-Timber Forest Products in Bastar District of Chhattisgarh. MSc. (AG) Thesis, Indira Gandhi Krishi Vishwavidyalaya Raipur (C.G.), p. 82-83
- [2] Banafar, K.N.S., P.K. Singh and A.K. Gauraha (2005). Constraints in Production and Marketing of Medical and Aromatic plants in Chhattisgarh, paper presented in national seminar on medicinal and aromatic plants biodiversity conservation cultivation and processing held at Indira Gandhi Agricultural university, Raipur from February 26-27.
- [3] Bansode, S.B., Deorukhakar, A.C., Kumthekar, R.M. and Mahajan, T.S. (2005). Marketing of Medicinal Plant Products in Sindhudurga District of Maharashtra State. *Journal of Non-Timber Forest Products*, vol. 12(3): 127-130
- [4] Belcher B.M. (2005). Forest Product Markets, Forests and Poverty Reduction, *International Forest Review*, Vol. 7(2)
- [5] Churpal D., Gauraha A.K., Pathak H. and Tuteja S.S. 2021 Economically and traditionally important non-timber forest products (NTFPs) of Chhattisgarh, *Journal of Pharmacognosy and phytochemistry: Sp* 10(1): 89-92
- [6] Choudhary, V.K., Lalwani, N.R. and Sharma, S.K. (2004). Biodiversity Conservation in Bastar District of Chhattisgarh state: View an Economic. *Ind. j. Of Tropical Biodiversity*,12: 61-63
- [7] Masoodi H.U.R. (2020). Richness of Non- Timber Forest Products in Himalayan Communities- Diversity Distribution, Use Pattern and Conservation Status, *Journal of Ethnobiology and Ethnomedicine*:
- [8] Mishra M.R. (1996). A study of Value Addition Potential at Primary Collector's Level for Tamarind and Sal Leaves in state of Orissa, *Organizational Training*, No. 376
- [9] Miguel S.D. AND Shackleton C. (2019). Special Issue "Non-Timber Forest Products, Collection of MDPI Journals.
- [10] Muthyalu, M. (2008) Collection and Marketing Practices of Non – Forest Produce (NTFP) An Empirical Analysis *Blue Ocean Res. J.*, 2(1): 121-130
- [11] Ojomah B.C., A.E. Ibe, J.U. Ezenwenyi, O. Chukwu and N.N. Adum (2020). Assessment of Income Generation from Non-Timber Forest Products in Awka North Local Government Area, *Asian Journal of Research in Agriculture and Forestry.*; AJRAF, 5(2): 16-21, 2020; Article no. AJRAF.54660
- [12] Pandey A.K., Tripathi Y.C. and Kumar, A. (2016). Non-Timber Forest Products (NTFPs) for Sustained Livelihood, *Research Journal of Forestry: vol 10 (1): 1-7*
- [13] Panigrahi, S., Mehar, D. and Siri, P. (2019). Reliance and livelihood significance of non-timber forest products available in Odisha: *Journal of Pharmacognosy and Phytochemistry*. 8(1)
- [14] Shrey, R., Choudhary, V.K. and Dhurwey, C. K. (2017). Economic Impact of Non-timber Forest Products on Tribes of Chhattisgarh: *Indian Journal of Economics and Development* 13 (2a):131
- [15] Singh N. and J. Shah (2004). *Managing Tendu Leaf Logistics: An Integrated Approaches*, Blackwell Publishing, 17 :683-699
- [16] Thadani R. (2001). International Non-Timber Forest Product Issue, *Journal of Sustainable Forestry*, Vol 13(3-4): 5-23
- [17] Thapa, A and Singh, K. (2021), Women's Role in Non-timber Forest Product Management: A National Conference on Role of Women in Nation Development, DOI:10.47531/MANTECH.2021. 13.
- [18] Talukdar, R.N., Choudhary, p., Barbhuiya, R.A. and Singh, B. (2021), Importance of Non-Timber Forest Products (NTFPs) in Rural Livelihood: A Study in Patharia Hills Reserve Forest, Northeast India: vol-3