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MARKETING OF MINOR FOREST PRODUCE THROUGH VAN DHAN VIKAS KENDRAS (VDVK'S) IN ALLURI SITARAMA RAJU DISTRICT IN ANDHRA PRADESH INDIA-A CASE OF ADDA LEAFS AND TAMARIND

G. Sharon Moses¹, Seedari Ujwala Rani ², P. Pedda Nagi Reddy³, G. Mohan Naidu⁴, M. Ravi Kishore⁵ and B. N. Sandeep Naik⁶

¹Department of Agribusiness Management Institute of Agribusiness Management, S.V. Agricultural College, Tirupati, ANGRAU (517502) India

²Department of Agricultural Economics, Agricultural College, Rajamahendravaram, ANGRAU (533105) India

³Department of Horticulture, S.V. Agricultural College, Tirupati, ANGRAU (517502) India

⁴Department of Statistics and Computer Applications, S.V. Agricultural College, Tirupati, ANGRAU (517502) India

⁵Krishi Vigyan Kendra, Garikapadu, ANGRAU (521175) India

⁶Department of Agronomy, Regional Agricultural Research Station, Chinthapalle, ANGRAU (531111) India

*Corresponding author E-mail: ujwala.aeco@gmail.com

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ABSTRACT

The study was conducted during March to May month of year 2025 at Alluri Sita Rama Raju District to study the marketing of minor forest produce through van dhan vikas kendras. Three VDVKS were selected such as Annavaram, Paderu and FPO-Hukumpeta with each comprising 15 SHGs and 300 beneficiaries. The key MFP products for value addition were Adda leaves (Annavaram and Paderu) and Tamarind (Hukumpeta). VDVKS dealing with Adda leaves operate seasonally (June to October) while tamarind operates year-round. The total marketing cost of Adda leaves (1000 plates) rises from Rs. 120 (Channel I) to Rs. 420 (Channel II) and Rs. 860 (Channel III). Producer's share in the consumer rupee declines from 100% (Channel I) to 69.75% (Channel II) and 46.65% (Channel III), as intermediaries' margins grow. Total marketing cost of De-seeded tamarind increases from Rs. 900 (Channel I) to Rs. 4,150 (Channel III). Consequently, the producer's share in the consumer rupee sharply declines from 100% in direct sales (Channel I) to 74.78% (Channel II) and only 51.12% in the longest supply chain (Channel III). The decline in the producer share is due to increase in the middleman in the market channel.

Keywords : Van Dhan Vikas Kendra, Minor Forest Produce, Tribals, Market channel, Producer share in consumer rupee.

Introduction

Non-Timber forest products (NTFPs) are also known as Minor Forest Produce (MFP) includes all non-timber, plant-based collected from forests, such as fruits, honey, leaves, seeds and medicinal herbs. The tribals residing in dense forest mainly depend on marketing of MFP produce at nearby markets, Girjan Cooperative Corporations, wholesalers and retailers. The tribals sell their produce to consumers by

involving the middle man. The involvement of middle man charges a commission which leads to less producer's price share in Consumer rupee. Therefore, the selection of appropriate marketing channels significantly impacts the income especially tribal farmers. Research has shown that the choice of marketing channels is influenced by various factors, including product characteristics, market accessibility,

infrastructure, and producer demographics (Lund & Marinova, 2014).

Tribal Cooperative Federation of India (TRIFED) helps in implementation of the Van-Dhan Vikash Kendra (VDVK) facilitate retail marketing of finished Minor Forest products with providence of value addition processing machines. VDVK scheme envisages to establish 3000 in the financial year 2019-20 from the list of SHGs groups from Aajevika SHGs, Joint Forest Management Committee (JFMCs), Large Area Multipurpose Cooperative Societies (LAMPS) comprising of majority of tribal members which covering 27 States and 307 predominant tribal districts through 100 percent grant funding from Government of India routed through TRIFED. Further, each of the community owned VDVK unit formed by bringing together 15 to 20 SHGs with each SHG comprising of 15 to 20 members (Moses *et al.*, 2026). Each VDVK will have around 300 members and will undertake procurement, primary value addition, selling of Minor Forest products and value-added Minor Forest products.

Andhra Pradesh stands out in the implementation of the VDVK scheme, with 488 VDVKs sanctioned and 414 operationalised, achieving an impressive implementation rate of 84.84% the second highest in the country and well above the national average of 56.15%. Alluri Sita Rama Raju district in Andhra Pradesh was sanctioned with 16 VDVKs and operational registered with 9 VDVKs across the district which accounts for 56.25 percent. In Paderu Revenue division of ASR district there are three functional VDVKs in Annavaram, Paderu and Hukumpeta. The dominant MFP products marketed by VDVKs in ASR district are De-Seeded Tamarind and Adda leaf. The functional and financial structure of each VDVK, revealing that the nature of the MFP significantly affects profitability and operations. Tamarind's year-round availability and its relatively higher market value allow Hukumpeta to sustain operations with consistent revenue flow. In contrast, Adda leaf VDVKs are subject to seasonal supply fluctuations. Additionally, the equipment cost and processing capacity correlate with the expected volume and type of product being handled. The profit margin, when excluding non-recurring costs, is notably higher demonstrating that once capital investments are made recurring gains can be substantial. The strong role of local merchants reflects their accessibility and trusted relationships

with producers. Overall, traditional networks remain crucial for forest produce marketing.

The studies by Mishra and Shrivastava (2015) observed that a significant share of the consumer price in rural forest-based products is absorbed by intermediaries through marketing costs and margins, leaving producers with a relatively low share. Similarly, Kumar and Meena (2018) emphasized that in the procurement and marketing of Non-Timber Forest Products (NTFPs), intermediaries often dominate price determination and earn higher margins due to their control over logistics and market access. Therefore, the paper tries to present the different market channels involved in marketing of MFP products with changes in prices at each level of Producer (VDVK's) to wholesaler and thereby to retailer and underscoring the need for policy and institutional interventions to enhance producer margins by improving direct market access and reducing intermediary dependence.

Materials and Methods

Alluri Sita Rama Raju district in Andhra Pradesh was purposively selected for this study due to its core implementation zone of the PMVDY with 56.25 percent. Alluri Sita rama Raju District is one of the North Eastern district of Andhra Pradesh having a geographical area of 12253.42 km² and lies between 17° 17' and 18° 21' of the Northern Latitude and 80° 53' to 82° 50' of the Eastern Longitude. It is bounded on the North partly by the Odisha State Partly by Chattisgarh State and partly by Telangana State on the South by Anakapalli, Kakinada and East Godavari Districts on the West covered by Godavari River and East by Vijayanagaram. The district comprises two revenue divisions like Paderu and Rampachodavaram, with 22 mandals. Three mandals such as Paderu, Chintapalli and G. Madugula were selected purposively due to the presence of functional VDVKs and significant tribal SHG activities. A sample of 80 Beneficiaries were purposively selected from the list of tribal women SHG members actively engaged in the collection, processing and marketing of MFP through VDVKs. Primary data was collected using a structured schedule from the sample respondents drawn from three mandals. The secondary data regarding performance and progress of VDVK and SHG linked to VDVKs are collected from Cooperative institutes and state government reports.



Three VDVks-Annaram, Paderu and FPO-Hukumpeta were established in 2023, 2022 and 2022 respectively, with each comprising 15 SHGs and 300 beneficiaries. The key MFP products for value addition

were Adda leaves (Annaram and Paderu) and Tamarind (Hukumpeta). VDVKs dealing with Adda leaves operate seasonally (June to October), while tamarind operates year-round. Equipment investments ranged from Rs. 35,000 to Rs. 45,000, with respective processing capacities of 1000 plates/day for Adda leaves and 180 kg/hr for tamarind. Estimated seasonal profits excluding non-recurring costs were Rs. 36,899 (Annaram), Rs. 93,998 (Paderu) and Rs. 76,145 (Hukumpeta).

Collection and Sales pattern of MFP by VDVK women SHG members

The collection pattern in Table 1 shows that Adda Leaf and Tamarind are collected year-round by SHG members across Annaram, Paderu and Hukumpeta. The average number of hours spent per day in collection ranged from 6.15 to 7.02 hours, with Paderu SHG members spending the highest time (7.02 hours). The distance travelled also varied, with Hukumpeta members covering the longest average distance of 8.57 km per day to collect tamarind, while Paderu had the shortest travel distance (2.53 km) for Adda leaves. All products were collected by plucking from trees, indicating non-destructive harvesting methods. It

reveals the physical intensity and labor contribution of women SHG members in MFP collection. The longer distances and high daily time commitment, particularly in Hukumpeta, indicate the additional burden of tamarind collection despite its higher profitability.

Sales pattern data in Table 2 indicate that VDVK members sold 400 bundles (14,000 plates, Rs. 40,000) of Adda leaf plates (VDVK 1) in 2 years and 1,000 bundles (35,000 plates, Rs. 100,000) of Adda leaf plates (VDVK 2) in 3 years. For VDVK 1, the largest share went to VDVK mart (145 bundles) and village merchants (120 bundles). For VDVK 2, village merchants led with 450 bundles. De-seeded tamarind (VDVK 3) sales totalled 470kg (Rs. 79,900) over 3 years, with wholesalers cum retailers and VDVK mart each handling 150kg and village merchants 120kg. e-platform sales remained modest (55, 120 and 50 units across the three products, respectively) but present in all categories. The frequency of purchase is monthly, indicating a regular and ongoing demand for these processed products from consumers across different sources. The regular monthly purchase frequency reflects the staple and essential nature of these products in consumer markets.

Table 1: Collection pattern of MFP by VDVK women SHG members

VDVK Name	Name of MFP	Period of availability	Plant part	Method of collection	Average number of hours spent on collection/day /person	Distance travelled by women SHG (Km)	Collection Places
Annaram	Adda Leaf	4 months June - October	leaf	Plucking from tree	6.56	4.43	Forest and hilly terrain areas of Lambasingi, Paderu, Dumriguda, Araku Valley, G. Madugla, chinthapalli, G.K. Veedi
Paderu	Adda Leaf	4 months June - October s	leaf	Plucking from tree	7.02	2.53	
Hukumpeta	Tamarind	Around the year	fruit	Plucking from tree	6.15	8.57	GCC office and Hilly terrain areas in the district

Table 2 : Sales pattern of Minor Forest Produce to different channels by VDVK members

	Channel	Adda leaf plates (VDVK 1)				Adda leaf plates (VDVK 2)			De-seeded tamarind (VDVK 3)		Frequency of purchase
		Type of sale	Quantity sold (bundles per 2 years)	Plates sold	Total Price Rs/ bundle	Quantity sold (bundles per 3 years)	Plates sold	Total Price Rs/bundle	Quantity sold (kg per 3 years)	Total Price Rs/ bundle	
1	Village merchants	Direct	120	4200	12000	450	15750	45000	120	20400	Monthly
2	Wholesaler cum Retailer	Direct	80	2800	8000	150	5250	15000	150	25500	
3	VDVK mart	Direct	145	5100	14500	280	9800	28000	150	25500	
4	e-platform	Online	55	1900	5500	120	4200	12000	50	8500	
Total sold (per years)			400	14000	40000	1000	35000	100000	470 kg	79900	

Marketing of Adda leaf plates in ASR district by VDVKS

The marketing cost and margin analysis for Adda leaf plates (per 1,000 plates) reveals that producers receive Rs. 2,857 across all three channels, with producer selling price reaching Rs. 2,977 after accounting for sorting, transportation and loading/unloading as shown in Table 3. Wholesalers incur an additional Rs. 300 in marketing costs, including packing, handling, commission charges and tax, taking the total wholesaler cost to Rs. 3,277. The wholesaler's margin is Rs. 819.25 (25%), resulting in a wholesaler selling price of Rs. 4,096.25. Retailers further incur costs for sorting, packing, handling, transportation, storage, commission and mandi tax, totaling Rs. 440 in marketing costs. The retailer's margin stands at Rs. 1,587.69 (33%), taking the final consumer purchase price to Rs. 6,123.94.

Table 4 shows the net market margin of Adda leaf plates (per 1,000 plates) across three channels. In all channels, the net price received by the producer is Rs. 2,857, with a marketing cost of Rs. 120, resulting in a producer selling price of Rs. 2,977 (Figure 1). For Channel II and III, wholesalers incur Rs. 300 in marketing cost and gain a margin of Rs. 819.25, selling to retailers at Rs. 4,096.25. Retailers in Channel III add

Rs. 440 in marketing cost and earn a margin of Rs. 1,587.69, leading to a final consumer purchase price of Rs. 6,123.94. The total marketing cost rises from Rs. 120 (Channel I) to Rs. 420 (Channel II) and Rs. 860 (Channel III). Producer's share in the consumer rupee declines from 100% (Channel I) to 69.75% (Channel II) and 46.65% (Channel III), as intermediaries' margins grow.

The findings are in par with the observations made by Das and Prakash (2002), who highlighted that the inclusion of multiple intermediaries in the marketing of Minor Forest Produce significantly reduces the producer's share in the consumer rupee. Sravan Kumar's study on the Girijan Co-Operative Corporation in Visakhapatnam revealed that direct procurement and marketing channels ensured better price realization for tribal producers. Similarly, Das and Prakash emphasized that longer marketing chains are less efficient and tend to inflate consumer prices while eroding producers' margins. These studies support the current results, where Adda leaf plate producers benefit most under direct marketing (Channel I), whereas multi-tiered channels result in reduced efficiency and income for the primary collectors.

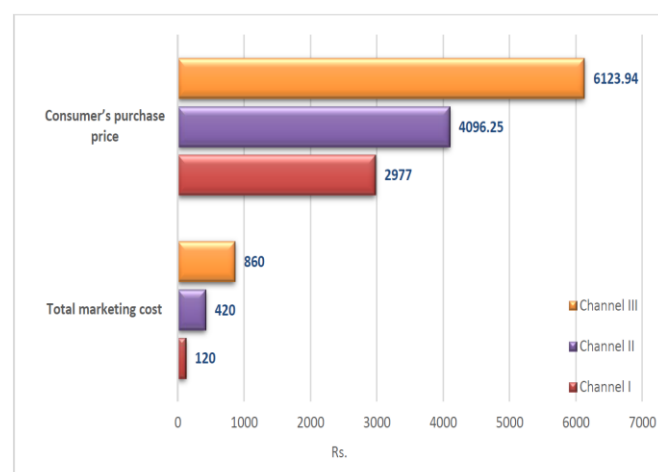
Table 3 : Marketing channels of Adda leaf plates (Rs. per 1000 plates)

S. No	Particulars	Channel I	Channel II	Channel III
1	Net price received by producer (from VDVK SHG members)	2857	2857	2857
2	Sorting	60	60	60
3	Transportation	40	40	40
4	Loading and unloading	20	20	20
	Producer Selling Price	2977	2977	2977
II. Marketing cost incurred by wholesaler				
1	Total Price paid by wholesaler	-	2977	2977
2	Sorting	-	50	50
3	Packing	-	90	90
4	Handling	-	30	30
5	Loading and unloading	-	50	50
6	Commission charges	-	50	50
7	Van Dhan mart Tax	-	30	30
	Total marketing cost incurred by wholesaler	-	300	300
	Total marketing margin incurred by wholesaler	-	819.25 (25% margin)	819.25 (25% margin)
	Wholesaler Selling Price	-	4096.25	4096.25
III. Marketing Cost incurred by retailer				
1	Total price paid by retailer to wholesaler	-	-	4096.25
2	Sorting	-	-	40
3	Packing	-	-	60
4	Handling	-	-	50
5	Loading and unloading	-	-	50
6	Transportation	-	-	100
7	Storage room rent	-	-	80
8	Commission charges	-	-	30

9	Mandi Tax	-	-	30
	Total marketing cost incurred by retailer	-	-	440
	Retailer's marketing margin incurred by retailer	-	-	1587.69 (35%)
	Consumer purchase price	2977	4096.25	6123.94

Table 4: Marketing cost and margin of Adda leaf plates across three channels (Rs. per 1000 Plates)

Particulars (Rs.)	Channel I	Channel II	Channel III
Net price received by producer	2857	2857	2857
Marketing cost incurred by producer	120	120	120
Producer selling price/Wholesaler's purchase price	2977	2977	2977
Marketing cost incurred by wholesaler	-	300	300
Marketing margin incurred by wholesaler	-	819.25	819.25
Wholesaler's selling price	-	4096.25	4096.25
Marketing cost incurred by retailer	-	-	440
Marketing margin incurred by retailer	-	-	1587.69
Retailer's selling price	-	-	6123.94
Total marketing cost	120	420	860
Consumer's purchase price	2977	4096.25	6123.94
Producer's share in consumer rupee (%)	100	69.75	46.65

**Fig. 1:** Marketing cost and consumer's purchase price across different channels for adda leaf plates**Marketing of De-seeded Tamarind in ASR district by VDKs**

The marketing cost and margin structure for de-seeded tamarind (per 100kg) across three distribution channels as shown in Table 5. The producer's net price is Rs. 17,000, with marketing costs (sorting, transport, loading/unloading) totaling Rs. 900, leading to a producer selling price of Rs. 17,900. For Channels II and III, wholesalers incur Rs. 1,250 in marketing costs (including packing, handling, commission), earning a margin of Rs. 4,787.50 (25%) thus, the wholesaler's selling price rises to Rs. 23,937.50. In Channel III, retailers add Rs. 2,000 in marketing costs (sorting, transport, storage, taxes) and their margin is Rs. 9,078.13 (35%), resulting in a final consumer price of Rs. 33,015.63.

Table 5: Marketing channels of de-seeded tamarind (Rs. per quintal or 100 kgs)

S. No	Particulars	Channel I	Channel II	Channel III
1	Producer Net Price (SHG Member/Collector)	17000	17000	17000
2	Sorting	300	300	300
3	Transportation	450	450	450
4	Loading and unloading	150	150	150
	Producer Selling Price	17900	17900	17900
II. Marketing Cost incurred by Wholesaler				
1	Total Price paid by wholesaler	-	17900	17900
2	Sorting	-	200	200
3	Packing	-	300	300
4	Handling	-	150	150
5	Loading and unloading	-	150	150
6	Commission charges	-	300	300
7	Van Dhan mart Tax	-	150	150
	Total	-	1,250	1,250
	Wholesaler margin	-	4787.5 (25% margin)	4787.5 (25% margin)
	Wholesaler Selling Price	-	23937.5	23937.5
III. Marketing Cost incurred by Retailer				
1	Total price paid by retailer	-	-	23937.5

2	Sorting	-	-	200
3	Packing	-	-	300
4	Handling	-	-	150
5	Loading and unloading	-	-	150
6	Transportation	-	-	450
7	Storage room rent	-	-	300
8	Commission charges	-	-	300
9	Mandi Tax	-	-	150
	Total marketing cost incurred by retailer	-	-	2,000
	Retailer margin	-	-	9078.125 (35%)
	Consumer purchase price	17900	23937.5	35015.625

The findings are in par with earlier studies by Mishra and Shrivastava (2015) which emphasized that in the trade of Minor Forest Produce (MFP), especially in rural and tribal markets, producers often receive a significantly lower share of the final consumer price due to the presence of multiple intermediaries. These studies observed that the longer the marketing chain, the higher the margins and marketing costs incurred by intermediaries, resulting in diminished returns for primary collectors.

Marketing cost and margin of de-seeded tamarind

Table 6 analyses market efficiency and net market margins for de-seeded tamarind (per 100kg) across three distribution channels. In each channel, the

producer receives Rs. 17,000, with marketing costs of Rs. 900, resulting in a producer selling price of Rs. 17,900 (as shown in Figure 2). For Channels II and III, wholesalers incur Rs. 1,250 in costs and capture a margin of Rs. 4,787.50, leading to a selling price of Rs. 23,937.50. In Channel III, retailers add Rs. 2,000 in marketing costs and gain a margin of Rs. 9,078.13, resulting in a final consumer price of Rs. 35,015.63. Total marketing cost increases from Rs. 900 (Channel I) to Rs. 4,150 (Channel III). Consequently, the producer's share in the consumer rupee sharply declines from 100% in direct sales (Channel I) to 74.78% (Channel II) and only 51.12% in the longest supply chain (Channel III).

Table 6 : Marketing cost and margin of de-seeded tamarind across three different channels

Particulars (Rs.)	Channel I	Channel II	Channel III
Net price received by producer	17000	17000	17000
Marketing cost incurred by producer	900	900	900
Producer selling price/Wholesaler's purchase price	17900	17900	17900
Marketing cost incurred by wholesaler	-	1,250	1,250
Marketing margin incurred by wholesaler	-	4787.5	4787.5
Wholesaler's selling price	-	23937.5	23937.5
Marketing cost incurred by retailer	-	-	2,000
Marketing margin incurred by retailer	-	-	9078.125
Retailer's selling price	-	-	35015.625
Total marketing cost (Rs.)	900	2150	4150
Consumer's purchase price	17900	23937.5	35015.625
Producer's share in consumer rupee (%)	100	74.78	51.12

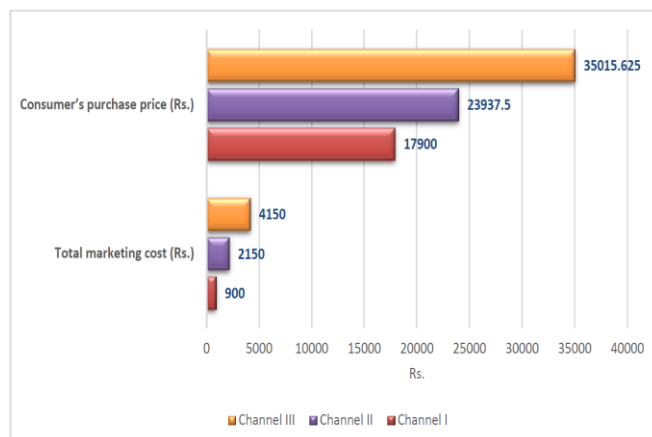


Fig. 2: Marketing cost and consumer's purchase price across different channels for de-seeded tamarind

The findings are in par with earlier research by Das and Prakash (2002), who observed that the efficiency of marketing channels for Minor Forest Produce (MFP) significantly affects the income of tribal collectors. Sravan Kumar's study on the Girijan Co-operative Corporation highlighted how direct procurement models led to better price realization for producers by minimizing intermediary involvement. Similarly, Das and Prakash emphasized that elongated marketing chains with multiple intermediaries erode producer margins and inflate consumer prices, reducing marketing efficiency.

Conclusion

The VDVKs women SHG collects the MFP products from forest throughout the year. Due to availability of only less Vandhan Mart in Paderu, the VDVKs tries to sell the produce to the private middleman which eventually leads to less producer share in consumer rupee. Wholesalers and Vandhan marts are important for tamarind. Online or e-platform sales are significantly lower than traditional channels indicating barriers to digital adoption.

The study also identified some constraints like lack of appropriate processing machines directly affects quality and insufficient storage which

exacerbate post-harvest losses. The mode of collection of MFP from forest is by plucking leaves or fruits without felling trees aligns with environmental conservation principles. However, the lack of mechanized tools increases physical strain and limits the volume collected per day, impacting potential income. These findings reaffirm the necessity for targeted interventions like more establishment of market platforms, microfinance access, training programs and technology upgradation to strengthen VDVK value chain performance.

Plates: Data Collection in Study Area About Marketing of Minor Forest Produce Through VDVKs in Alluri Sitarama Raju District in Andhra Pradesh



Plate 1: Processing of Adda leaf plates in VDVK Annavaram



Plate 2: Processing of Adda leaf plates in VDVK Paderu



Plate 3: Procurement of Adda leaves from the market



Plate 4: Processing of De-seeded tamarind in VDVK Hukumpeta



Plate 5: Visit to Van Dhan Mart, Paderu



Plate 6: VDVK processed items in Van Dhan Mart

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Conflict of interest

The authors declare that they do not have any conflict of interest in this research publication

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