

# AN ECONOMIC ANALYSIS OF CASHEW VALUE CHAIN IN CUDDALORE DISTRICT OF TAMIL NADU

Mehazabeen Acchukatla<sup>1</sup> & G.Srinivasan<sup>2</sup>

Ph.D Scholar<sup>1</sup> and Assistant professor<sup>2</sup>

Department of Agricultural Economics, Annamalai University.

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**ABSTRACT:** India is the largest producer, processor, exporter and second largest consumer of cashew kernels. Tamil Nadu is one of the largest producer of cashew nut in India. The production and processing of cashew nuts are complex and facing various problems. In the marketing stage also the farmers may face many problems relating to price fluctuation. In this situation, this study was undertaken with the following objectives (i) to analyze economics of cashew value chain in the study area and (ii) to offer policy implications based on the results of the study. The present study was conducted in Cuddalore district of Tamil Nadu purposively. With regard to selection of block, Panruti was selected since, production and marketing wise, it occupied the first position in Cuddalore district. The primary data required for the study was collected through personal interview method with the help of a comprehensive pre-tested interview schedule. The cashew value chain was identified and constructed and the various stages of cashew processing and the details of services were discussed (procurement, boiling, de shelling, borma, peeling, grading and marketing were the different stages of cashew process value chain in the study). The constructed cashew value chain showed that various components like farmer, processor, wholesaler, retailer, local trader, exporter and road side shop retailers, etc., affecting overall industry performance and make it more competitive. This study suggested that, flexible finance and investment in developing new processing technologies with the consideration of small scale processing sector is essential at this juncture.

**Key Words:** Cashew Value Chain, Borma and Small Scale Processing

## Introduction

Cashew nut (*Anacardium occidentale*) a tree native of Eastern Brazil is considered as poor man's crop and rich man's food. India is the largest producer, processor, exporter and second largest consumer of cashew kernels. Tamil Nadu is one of the largest producer of cashew nut in India. The total cultivated area under cashew nut is 92,138 hectares (Year 2011). Ariyalur district has the highest area under cashew nut followed by Cuddalore and Villupuram accounting to the 30,349 hectares, 30,146 hectares and 5,103 hectares respectively (Year 2011). The cashew industries faces a shortage of raw cashew, since the domestic production is insufficient to feed the huge number of cashews processing units in India. The production and processing of cashew nuts are complex and facing various problems. In the marketing stage also the farmers may face many problems relating to price fluctuation. In this situation, this study was undertaken with the following objectives.

- i. To analyze economics of cashew value chain in the study area.
- ii. To offer policy implications based on the results of the study.

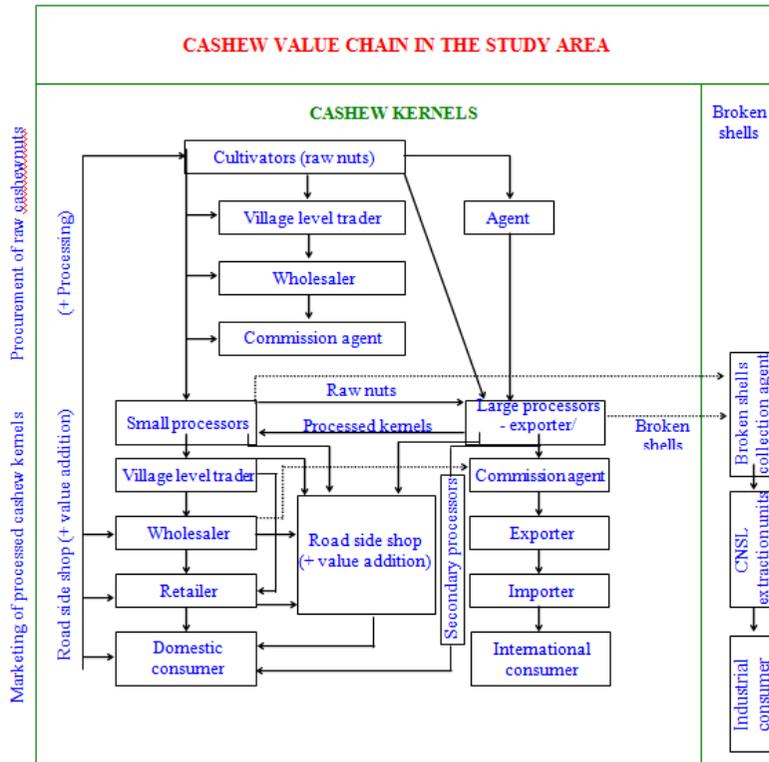
## MATERIALS AND METHODS

The present study was conducted in Cuddalore district of Tamil Nadu purposively. With regard to selection of block, Panruti was selected since, production and marketing wise, it occupied the first position in Cuddalore district. The primary data required for the study was collected through personal interview method with the help of a comprehensive pre-tested interview schedule. The interview schedule for the farmers covered aspects such as general characteristics, production quantity, price, method of sale, transporting, labour management and constraints, etc. The interview schedule for the entrepreneurs covered aspects such as general characteristics, details of processing, activities like procurement, transporting, labour management, value addition, marketing and constraints, etc. The interview schedule for local traders, wholesalers and retailers covered the details on unloading, transportation, marketing cost, marketing margin, value addition and problems encountered at various levels. Secondary data for the study like, general information related to the district were collected from the District Statistical Office of Cuddalore district, Government publications and other published materials. The data collected were tabulated, processed and subjected to statistical analysis to draw meaningful inference. Since the study was limited to a particular area, the utility of findings area also limited general applications.

**Results and Discussion**

**Value Chain Analysis**

The cashew value chain was identified and constructed based on discussion with farmers, processors and market intermediaries (figure 1).



**Fig. 1. Chasew value chain in the study area**

Early in the season, processors buy raw nuts from cultivators through middlemen selected based on their purchase requirements. Locally, raw nuts are available for about three months in a year (March to May) when processors and exporters procure and stock them. Nuts are procured from wholesalers by the processors. Processors also get raw nuts from other districts like Ariyalur, Perambalur, Pudukottai, Nagapattinam, Kanyakumari and Sivaganga. Since, individual processors do not have enough resources to buy a lorry load of raw nuts, usually a group of processors pool their resources and buy the required quantity of raw nuts through middlemen (they are either called as brokers or commission agents locally). These commission agents have established contacts with both processors and wholesalers in different markets and inform about the availability of raw nuts to the processors at different markets. They charge a commission of about Rs. 10 to 20 per bag (80 kgs) from the processors. Local nut production is not sufficient to meet the requirements of the existing processing units. It is estimated that about 30% to 40% of the nuts processed in Panruti are imported, lesser than the national average where over 50% is imported. The export houses are the main channels through which the external procurement of raw cashew happens. Most of the imports are from Cochin, Tuticorin, Mangalore and Visakhapatnam ports. Local export houses usually get imported nuts through import brokers located in Chennai and Kollam. The details of services in the cashew value chain is given in table 1.

**Table .1 Details of Service in Cashew Value Chain**

No.	Type of service	Quantity	Cost/service charge in Rs	Remarks
1	Procurement	80 kg per bag	Local nuts Rs.7700 to 8000/- Imported nuts Rs.6100 to 6500/-	Broker commission Rs.60 to 70/- per Bag
2	Boiler operation	80 kg per bag	Local Rs.40 to 65/- With transport Rs.75 to 80/-	-

3	De-Shelling	3 kg	Unboiled nuts Rs.25/- Boiled nuts Rs.20/-	Agent commission per bag Rs.50 to 100/- De-shelling machine repair charge per machine Rs.150 to 175/-
4	Borma machine	Per kg	1 kg Rs.3.50 to 5.50/- Own machine, EB charge Rs.6000 to 12000/- for two months once	Borma machine, repair charge Rs.100 to 300/-
5	Peeling	Per kg	By hand peeling: Rs.6 to 8.50/- Machine peeling Rs.3 to 6.50/-	-
6	Grading	Per kg Per day one member	Rs.3/- Day wages Rs.250 to 300/-	-
7	Packing	Per tin 10 kgs	Tin cost: Rs.75/- Per tin packing Rs.5/- Or per day Rs.250/-	-
8	Finance	Interest for loan from local money lenders (CUB/KVB/VISTOR finance (jewel loan)	36% to 48% rate of interest 1.25% rate of interest	Jewel loan at SBI panruti:7% Rate of Interest
9	Marketing	Un boiled kernels 1 kg Boiled kernels-1kg	Rs.480 to 530/- Rasi kernels Rs.320-350/- Average kernels Rs.400-410/- Graded kernels Rs.450-480/-	Types of nuts: W240 kernel- Rs.480-500/- W320 kernel- Rs.430-440/- Split kernel-Rs.420/- LW kernel-Rs.410/-

Cashew passes through several stages and actors as it moves from the farm to the consumer. At each step of the way, value is added to the raw nut. Each person or company involved in the value chain must contribute something to increase the value: resources, expertise, and taking risks like providing financing. A farmer cannot make money from cashew without a buyer. Likewise a buyer depends on truckers to get the cashew to the port, and an exporter relies on the shipping company to export the raw nuts abroad. Each person in the cashew value chain should make a fair income based on the inputs and services that they contribute to move the cashew to the market. The roles and risks of various actors in the cashew value chain is given in the table 2.

**Table .2 Roles and Risks of Actors in the Cashew Value Chain**

KEY ACTOR	ROLE	RISKS
Producers (small holders and/ or commercial farmers)	<ul style="list-style-type: none"> <li>Produce high-quality nuts in the right quantities at the right times for the export market or for sale to local processors</li> </ul>	<ul style="list-style-type: none"> <li>Fall in market price</li> <li>Lack of a market</li> <li>Low yield due to disease, pests, theft</li> <li>Drop in quality of nuts</li> <li>Lack of information on determinants of nut quality</li> </ul>
Village Level Traders	<ul style="list-style-type: none"> <li>Buying of small lots from farmers and bulking</li> <li>Temporary storage</li> <li>Pre-financing of nut collection</li> <li>Quality inspection and control (visual inspection and cutting test)</li> <li>Buying of nuts</li> <li>Transport of nuts to collector/ buyer’s store</li> <li>Further drying of nuts</li> <li>Transit storage</li> </ul>	<ul style="list-style-type: none"> <li>Loss of quality during storage</li> <li>Fall in price after purchase</li> <li>Theft/fire</li> <li>Weight loss</li> <li>Weight loss in stock</li> <li>Deterioration of quality</li> <li>Loss as a result of fall in prices</li> </ul>

Wholesalers	<ul style="list-style-type: none"> <li>• Networking information</li> <li>• Creating business links between and among the exporters, stockists, village-level buyers/ shopkeepers</li> <li>• Moving of stocks from one stage to another, depending on where the business deal was made</li> </ul>	<ul style="list-style-type: none"> <li>••Fraud by commissioned agents</li> <li>••Failure in business deal as a result of disagreement in the quality of the delivery</li> <li>••Loss of credibility</li> </ul>
Local Processors	<ul style="list-style-type: none"> <li>• Procure raw nuts for primary transformation</li> <li>• Transform raw nuts into cashew kernels for local consumption or kernel export</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient funds to procure raw nuts for processing</li> <li>• Undeveloped export markets; weak local demand</li> </ul>
Processed Kernel Exporters	<ul style="list-style-type: none"> <li>• Pre-financing of nut collection</li> <li>• Quality inspection and control (nut count and cutting test)</li> <li>• Standardization and repackaging of nuts into 80 kg jute bags</li> <li>• Transit storage</li> <li>• Transportation (to port and maritime)</li> <li>• Contracts processed kernels for sale to international kernel buyers</li> </ul>	<ul style="list-style-type: none"> <li>• Poor quality of processed kernels results in penalties</li> <li>• Time delays in obtaining contracted amounts from local processors result in penalties</li> </ul>

### Conclusion

The various stages of cashew processing and the details of services were discussed (procurement, boiling, de shelling, borma, peeling, grading and marketing were the different stages of cashew process value chain in the study). The constructed cashew value chain showed that various components like farmer, processor, wholesaler, retailer, local trader, exporter and road side shop retailers, etc., affecting overall industry performance and make it more competitive. This study suggested that, flexible finance and investment in developing new processing technologies with the consideration of small scale processing sector is essential at this juncture. It is also suggested that the scope of overseas market can be extended to the small scale processors by giving proper training and infrastructural facilities. Adopting contract farming business model in over all development of this sector may be useful in mitigating price and production of cashew growers and processors that too erratic rainfed situation which will be ultimately beneficial to both the stake holders.

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