



## AN ECONOMIC ANALYSIS OF CASHEW NUT PROCESSING IN BASTAR DISTRICT OF CHHATTISGARH STATE, INDIA : A CASE STUDY

S. K. Nag\*, A. K. Gauraha, K. N. S. Banafar and M. R. Chandrakar

Department of Agricultural Economics, Indira Gandhi Krishi Vishwavidyalaya, Raipur-492 012 (Chhattisgarh), India.

### Abstract

The study aims to estimate the processing cost of cashew nut in Bastar district and Bastar plateau (C.G. State, India). Cashew nut (*Anacardium occidentale* L.) is a tropical tree crop of much importance. The cashew tree is a low spreading evergreen. The mature tree has a prominent tap root system with extensive network of lateral roots. It starts flowering in 3 to 5 years. Cashew is grown in India, Brazil, Vietnam, Tanzania, Mozambique, Indonesia, Sri Lanka and other tropical Asian countries like Philippines, Thailand and African countries like Kenya and Nigeria. At present, it is grown in more than 28 countries in the world. India occupies first place in terms of area as well as production of cashew nut. In India, cashew is grown in mainly Maharashtra, Goa, Karnataka and Kerala along with the west-coast and Tamil Nadu, Andhra Pradesh, Orissa and West Bengal along the east-coast. In Chhattisgarh, it is being cultivated in Bastar, Dantewada, Kanker, Raigarh, Sarguja and Jashpur district occupying an area of 8000 ha with a production of 3.0 thousand metric tons and productivity of 460 kg/ha (raw nut). The study is based on secondary data. The total processing cost of cashew nut as found observed Rs. 1500 per quintal cutting and pilling contributed around 53.34 per cent processing cost. Other processing cost, which includes boiling (13.33%) packing (13.33) drying fuel and electricity and other contributed 6.67 per cent, respectively.

**Key words :** Cashew nut, processing cost, growth and yield of cashew, sandy and laterite soils, Bastar.

### Introduction

Cashew (*Anacardium occidentale* L.) is a tropical tree crop of much importance. The cashew tree is a low spreading evergreen. The mature tree has a prominent tap root system with extensive network of lateral roots .2 to .5 cms in width having about 3 to 20 gms weight. Cashew is essentially a tropical crop, grows best in the warm, moist and typically tropical climate. The distribution of cashew is restricted to altitudes below 700 m, although it may be found growing at elevation up to 1200 m.

It is best adapted to the coastal regions. Cashew is grown in areas with rainfall ranging from 600 – 4500 mm per annum. Fruit setting in cashew will be good if rains are not abundant during flowering and nuts mature in a dry period.

Cashew is a sun loving tree and does not tolerate excessive shade. It can tolerate temperature of more than 36°C for a shorter period but the most favourable temperature lies between 24°C to 28°C. Cloudy weather during flowering enhances scorching of flowers due to

tea mosquito infestation. Well drained red, sandy and laterite soils are ideal for good growth and yield of cashew. Cashew is grown in India, Brazil, Vietnam, Tanzania, Mozambique, Indonesia, Sri Lanka and other tropical Asian countries like Philippines, Thailand and African countries like Kenya and Nigeria. At present, it is grown in more than 28 countries in the world. India occupies first place in terms of area as well as production of Cashew nut.

India is the largest producer of cashew nut in the world as well as in Asia accounting 39.47 per cent of world cashew production in 2010. It has the largest area harvested under the raw cashew nuts in the world. It is an important plantation crop in wasteland development programme due to its utility in soil conservation and to buildup of balanced ecosystem. The major cashew nut producing states in India are Maharastra, Kerala, Andhra Pradesh, Orissa, Karnataka, Tamil Nadu, Goa and West Bengal. The cashew nut production of major producing States in India from 1990-91 to 2009-10 is shown in table 1.

\*Author for correspondence : E-mail.santosh2675@gmail.com

**Table 1 :** Area, production and productivity of cashew nut in different States of India.

State 1	Year 2009-10				Year 2010-11			
	Area	%	Production	Productivity	Area	%	Production	Productivity
	2	3	4	5	6	7	8	9
Maharashtra	175	18.96	1186	198	181	19.15	1231	208
Andhra Pradesh	183	19.83	544	99	183	19.37	588	107
Orissa	143	15.49	641	84	149	15.77	669	91
Kerala	72	7.80	957	66	78	8.254	947	71
Tamil Nadu	133	14.41	472	60	135	14.29	507	65
Karnataka	118	12.78	461	53	119	12.59	491	57
Goa	55	5.96	473	26	56	5.926	436	24
West Bengal	11	1.19	909	10	11	1.164	1000	11
Others	33	3.58	680	17	33	3.492	576	19
<b>All India</b>	<b>923</b>	<b>100.00</b>	<b>695</b>	<b>613</b>	<b>945</b>	<b>100</b>	<b>720</b>	<b>653</b>

Source: The Directorate of Cashew nut & Cocoa Development, Cochin, Kerala.

**Table 2 :** Cost of cashew nut (Rs./quintal).

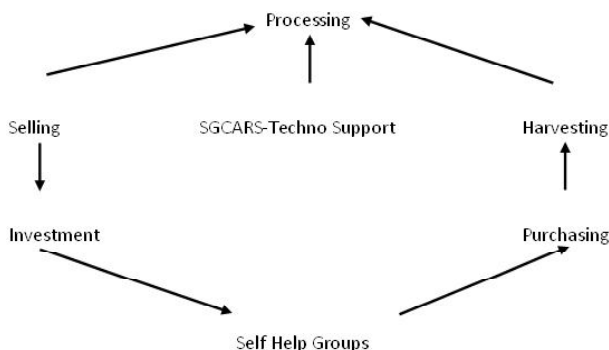
S. no.	Item	Qty. (in kg)	Male	Female	Rate	Amount (in Rs)	in %
<b>A.</b>	<b>Rawmaterial</b>						
1	Nut cost	100	0	0	95	9500	86.36
<b>B.</b>	<b>Processing cost</b>						13.6
1	Fuel /Electric	0	0	0	0	100	6.67
2	Boiling	0	1	1	100	200	13.33
3	Drying	0	0	1	100	100	6.67
4	Cutting	0	0	4	100	400	26.67
5	Pilling	0	0	4	100	400	26.67
6	Packing	0	0	2	100	200	13.33
7	Other	0	0	0	0	100	6.67
	Total Processing cost					1500	100.00
	<b>Total Cost (A + B)</b>	0	0	0	0	11000	

**Objective**

To estimate the processing cost of cashew nut in Bastar district, Bastar plateau and Chhattisgarh State.

**Materials and Methods**

The study was conducted in Bastar Plateau of Chhattisgarh, out of seven districts in Bastar Plateau;



**Fig. 1 :** Mode of work and support.

Bastar district was selected on the basis of larger area under cashew nut plantation in the district. Bastar districts have 7 blocks. Out of seven blocks, three blocks namely Jagdalpur, Bastar and Bakawand blocks was selected purposively on the basis of highest area under cashew nut plantation in the district. The primary data has been collected through well prepared schedule and questionnaire to full fill the requirement of objective of the study. The primary data includes processing cost of cashew nut in Bastar district of Chhattisgarh State.

Area	‘000 Hectare
Production	‘000 MT
Productivity	Kg/ha

**Results and Discussion**

It is seen from the table 1 that there was an increasing trend in the production of cashew nut throughout the study

**Table 3** : Cost and return of cashew nut.

S. no.	Particulars	Qty. (in Kg)	Rate (in Rs.)	Total (in Rs.)
1.	Raw cashew nut	100	95.00	9500.00
2.	Processing cost			1500.00
3.	Total cost			11000.00
4.	Cashew nut			
	(A) Fresh nut	22	750.00	16500.00
	(B) Broken nut	6	500.00	3000.00
	(C) By-product	60	10.00	600.00
5.	Gross income			20100.00
6.	Net income			9100.00
7.	Input : Output ratio			1.83

period. The annual production of cashew nut varied throughout the study and the variation ranged from -16.27 per cent to 14.37 per cent. As per the F.A.O statistics, 21.6 per cent of the world harvested area under cashew nut was in India and the country accounted for 17.3 per cent of the total world cashew nut production during the year 2009-10.

It can be seen from the table 3 that the cost of cashew nut was found Rs. 9500 per quintal and processing cost was Rs. 1500 per quintal. The net income of cashew nut has been found Rs. 9100 per quintal and input-output

ratio was 1:1.83. The recovery per cent was found 22 per cent in terms of fresh nut.

### Conclusion

It can be concluded that the processing of cashew nut may be more beneficial for the farming community as well as SHGs by providing better techniques of processing of cashew nut to avoid the broken nuts in the study area.

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