

AN ECONOMIC ANALYSIS OF PRODUCTION AND MARKETING OF PALAS TREE (LAC) IN KORBA DISTRICT OF CHHATTISGARH

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Abstract: Lac culture is a cash crop of importance and provides valuable income to resource constrained growers inhabiting tribal-dominated forest and sub-forest regions of Chhattisgarh. The State of Chhattisgarh contributes almost 25 per cent of the total Stick Lac produced in India. Almost one hundred thousand household in the state is involved with the cultivation and procurement of this forest produce. However, the production per tree is almost on the lower end in Chhattisgarh. Jharkhand state ranks 1st followed by Chhattisgarh, Madhya Pradesh, West Bengal and Maharashtra. Lac growers give more important to regular income from cultivation of lac over the years to one-time income from timber or fuel. The study aims to examine the cost, return, Marketing pattern and constraints in Lac production and marketing in the study area. The study is relied on the response collected personally from 75 Lac growers, selected purposely from two villages of Korba district of Chhattisgarh state. It was found that, most of the respondent belonged to schedule tribes; literacy of family members was observed 89.29 per cent in all categories of farmers. Agriculture is observed as the main occupation. The economics of Lac cultivation in average cost for Palas was worked out as Rs.2419.08 per tree. Major expenditure was incurred in Brood Lac (91.46 per cent) followed by Inoculation of Brood Lac (1.90 per cent). The average production per tree of Lac for Palas was observed as 22.13 Kilogram, Average input-output ratio of Lac was observed as 1:2.29 for Palas Lac tree. There were three marketing channels for the marketing of Lac i.e. channel I producer, wholesaler, retailer and primary processor, channel II producer, wholesaler, and primary processor and channel III producer, and primary processor. It was observed that 54.50 per cent of produced has been marketing in I, II, and III respectively.

Keywords: Economic analysis, Production, Tree, Chhattisgarh

INTRODUCTION

The State of Chhattisgarh contributes almost 25 per cent of the total Stick Lac produced in India. The major part of the production happens in the South and then in the eastern and North Eastern part of the state. Almost one hundred thousand household in the state is involved with the cultivation and procurement of this forest produce. However, the production per tree is almost on the lower end in Chhattisgarh. This aspect will be dealt in details towards the end of the study report. The state also has a dedicated programmed towards promotion of Lac with support from the European Union. The Chhattisgarh Minor Forest Products (CGMFPs) federation has dedicated human resources and a programmed to promote Lac cultivation in the state. On the basis of survey in the markets of different lac producing districts and states, the estimated national production of sticklac during 2009-10 was approximately 16,495 tons. Jharkhand state ranks 1st followed by Chhattisgarh, Madhya Pradesh, West Bengal and Maharashtra. These five states contributed around 95 per cent of the national lac production. Contribution of Jharkhand in national lac production was 41.98 per cent followed by Chhattisgarh (30.28 per cent), Madhya Pradesh (14.49 per cent), West Bengal (5.18 per cent) and Maharashtra (3.15 per cent). The Lac industry occupies an important place and plays a very special role in the State economy in particular and in the

national economy in general. Lac growers give more important to regular income from cultivation of lac over the years to one-time income from timber or fuel. Lac culture is a cash crop of importance and provides valuable income to resource constrained growers inhabiting tribal-dominated forest and sub-forest regions of Chhattisgarh. The lac crop is a low input/high value crop and returns from lac cultivation are much higher than other agricultural crops, especially in drought conditions when other major agricultural crops fail.

The present study was undertaken in the Lac growing area of Chhattisgarh, the present study was undertaken in the Lac growing area in two villages of Podi block with following objectives:

Objectives:

1. To estimate the Cost and Returns of Lac production in the study area.
2. To examine the marketing pattern of Lac in the study area.

MATERIAL AND METHOD

The present study was conducted in Korba district of Chhattisgarh. Seventy-five farmers were selected randomly from two villages namely Rawa and Tuman. The primary data were collected for the year 2011-12. Primary data were related to cost and return of Lac crop, and marketing channels etc. were collected from the respondents using well designed questionnaires and schedules. The secondary data

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regarding the area and production of Lac in Korba district and Chhattisgarh state were collected from Agriculture Statistics, Directorate of Agriculture, Directorate of Land Records and Directorate of Forest Government of Chhattisgarh (2010-11). To calculate cost of cultivation, disposable patten and constraints etc. standard method was used.

RESULT AND DISCUSSION

General characteristics of sample households:

The demographic characteristics of the sampled farmers in the study area are described in table 1. The

numbers of house hold is taken on category wise was 33 small, 24 medium and 18 large farmers. The schedule caste, schedule tribes, other backward caste and general category consists 26.67 per cent, 40.00 per cent, 20.00 per cent and 13.33 per cent, respectively of the total households. The literacy of family members was observed (89.29 per cent) in all categories of farmers. The agriculture is observed as the main occupation as about 84.84 per cent, 70.84 per cent and 72.22 per cent in case of small, medium and large farmers were engaged in the activities respectively.

Table 1. Socio-economic characteristics of sampled Households

S.No.	Particulars	Small	Medium	Large	Aggregate
1	Total number of households	33 (100.00)	24 (100.00)	18 (100.00)	75 (100.00)
2	Social group				
	a. General	4 (12.12)	3 (12.51)	3 (16.66)	10 (13.33)
	b. Other backward caste	6 (18.18)	5 (20.83)	4 (22.24)	15 (20.00)
	c. Schedule caste	9 (27.28)	5 (20.83)	6 (33.33)	20 (26.67)
	d. Schedule tribes	14 (42.42)	11 (45.83)	5 (27.77)	30 (40.00)
3	Family Member				
	a. Male	48 (30.57)	34 (30.08)	22 (26.19)	104 (29.38)
	b. Female	43 (27.38)	31 (27.45)	27 (32.15)	101 (28.53)
	c. Children	66 (42.05)	48 (42.47)	35 (41.66)	149 (42.09)
	d. Total family member	157 (100.00)	113 (100.00)	84 (100.00)	354 (100.00)
4	Occupation				
	a. Agriculture	28 (84.84)	17 (70.84)	13 (72.22)	58 (77.33)
	b. Business	0 (0.00)	3 (12.50)	3 (16.66)	7 (9.34)
	c. Service	5 (15.16)	4 (16.66)	2 (11.12)	10 (13.33)
5	Education				
	a. Illiterate	19 (12.10)	14 (12.39)	9 (10.71)	42 (11.86)
	b. Primary school	68 (43.32)	54 (47.77)	37 (44.04)	159 (44.91)
	c. Middle school	47 (29.94)	34 (30.08)	20 (23.80)	101 (28.53)
	d. Higher Secondary school	18 (11.46)	9 (7.98)	13 (15.47)	40 (11.29)
	e. Above higher secondary school	5 (3.18)	2 (1.78)	5 (5.95)	12 (3.38)
	Literacy (%)	(87.90)	(87.61)	(89.29)	(88.14)

Note: Figures in the parentheses indicate the percentages to total number of family Members.

Table 2. Cost of cultivation of lac for Palas tree

S.No.	ITEMS	Lac Growing SHGs Groups							Total	Average per tree (Rs.)
		SHGs-1	SHGs-2	SHGs-3	SHGs-4	SHGs-5	SHGs-6	SHGs-7		
	No. of Trees	150	175	155	135	35	170	75	895	
1.	Labour Used :-									
	a. Inoculation of Brood Lac	7200 (17.47)	8550 (20.75)	5250 (12.74)	4800 (11.65)	2650 (6.43)	6800 (16.50)	5950 (14.44)	41200 (100.00)	46.03 (1.90)
	b. Pruning /training	5600 (17.04)	6300 (19.17)	4200 (12.78)	4000 (12.17)	2250 (6.84)	5600 (17.04)	4900 (14.91)	32850 (100.00)	36.70 (1.51)
	c. Plant protection	1200 (8.20)	1600 (10.94)	1400 (9.57)	3200 (21.88)	1125 (7.69)	4000 (27.35)	2100 (14.35)	14625 (100.00)	16.34 (0.67)
	d. Harvesting	5600 (17.11)	6500 (19.86)	4200 (12.83)	4000 (12.22)	2625 (8.02)	5600 (17.11)	4200 (12.83)	32725 (100.00)	36.56 (1.51)
	e. Other	1000 (30.30)	1000 (30.30)	800 (24.24)	500 (15.15)	0 (0.00)	0 (0.00)	0 (0.00)	3300 (100.00)	3.68 (0.15)
2.	Material Used:-									
	Pesticides & fungicides	2500 (12.98)	3000 (15.58)	2700 (14.02)	2700 (14.02)	1650 (8.57)	4200 (21.81)	2500 (12.98)	19250 (100.00)	21.5 (0.88)
	Brood Lac	325500 (16.43)	367500 (18.55)	315000 (15.90)	283500 (14.31)	174300 (8.80)	357000 (18.02)	157500 (7.95)	1980300 (100.00)	2212.62 (91.46)
	Total	348600 (16.41)	394450 (18.56)	333550 (15.70)	302700 (14.24)	184600 (8.69)	383200 (18.03)	177150 (8.33)	2120950 (100.00)	2373.45 (98.11)
	Miscellaneous	5200 (15.57)	3950 (11.82)	4950 (14.82)	5575 (16.69)	3230 (9.67)	5290 (15.84)	5200 (15.57)	33395 (100.00)	37.31 (1.54)
	Sub-Total	353800 (16.39)	398400 (18.46)	338500 (15.68)	308275 (14.28)	187830 (8.70)	388490 (18.00)	182350 (8.45)	2154345 (100.00)	2410.76 (99.65)
3.	Transportation Cost	1000 (13.42)	1200 (16.10)	1500 (20.13)	1000 (13.42)	800 (10.73)	950 (12.75)	1000 (13.42)	7450 (100.00)	8.32 (0.34)
	Total cost	354800 (16.38)	399600 (18.45)	340000 (15.70)	309275 (14.28)	188630 (8.71)	389440 (17.98)	183350 (8.46)	2161795 (100.00)	2419.08 (100.00)

Note: Figures in parentheses indicate percent to total cost

Table 3. Cost and returns of Lac for Palas tree

B.		RETURNS								
S.No.	ITEMS	Lac Growing SHGs Groups							Total	Average per tree (Rs.)
		SHGs-1	SHGs-2	SHGs-3	SHGs-4	SHGs-5	SHGs-6	SHGs-7		
	No. of Trees	150	175	155	135	35	170	75	895	
	Production (Kg)	3410	3850	3300	2970	770	3825	1688	19813	22.13
	Rs. per Kg	250	250	250	250	250	250	250	250	250
	Gross returns (Rs./tree)	852500	962500	825000	742500	192500	956250	422000	4953250	5534.35
	Net returns (Rs./tree)	497700	562900	485000	433225	3870	566810	238650	2788155	3115.25
	Cost per Kg	104.04	103.79	103.03	104.13	244.97	101.81	108.61	109.10	109.34
	Input-output ratio	1:2.4	1:2.4	1:2.4	1:2.4	1:1.0	1:2.5	1:2.3	1:2.29	1:2.29

Note: Figures in parentheses indicate percent of total input cost

Cost of cultivation of Lac for Palas tree

The average cost cultivation per tree of was found Rs. 2419.08. The main expenditure incurred in Brood Lac 91.46 per cent followed by Inoculation of Brood Lac 1.90 per cent Miscellaneous, Harvesting and Pruning /training. The cost incurred on Brood Lac was found to be Rs. 2212.62 Lac grower farmers at overall respectively. The cost incurred on Inoculation of Brood Lac was Rs. 46.03 per cent grower farmers at overall. The cost incurred on Miscellaneous was Rs. 37.31.

Cost and net returns production value of output and cost of production per Kilogram for Palas tree

The production, value of output per tree and cost of production per Kilogram for Palas tree on the sample farms have been worked out in table 3. Table 3 indicates that the average production per tree of Lac come to 22.13 Kilogram on the sample farms.

The cost of production per kilogram on an average was worked out to Rs. 109.10 for Lac. The average value of output per tree came to Rs. 5534.35.

Measures of farm net margin for Palas tree

The values of net income per tree and Input-output ratio on the Lac grower farmer have been worked out in the table 3. Table 3 clearly indicates that on an average the value of income per tree came to Rs. 3115.25 on the Lac grower farmer. The average

Input-output ratio came to 1:2.29 on the Lac grower farmer.

Marketing channels

There were three marketing channels for the Lac marketing in Katghora market given below:

Channel – I: Producer -Wholesaler - Retailer – Primary Processor.

Channel – II: Producer –Wholesaler – Primary Processor.

Channel – III: Producer – Primary Processor.

Disposable pattern of Lac

The information regarding disposal pattern of the selected Lac growers is depicted in the Table 4.10

the table depicted that at the overall level, total quantity of Lac produced per farm was 357.34 quintals. The total quantity sold in market in channel-I, channel-II and channel-III was 357.46 quintal per self-help groups out of 357.46 quintals overall. The share of channel-I is 54.45 per cent with 194.65 quintal produce per self-help groups overall and channel-II contribute the 28.63 per cent with 102.36 quintals overall quantity and channel-III contribute the 16.87 per cent with 60.33 quintals overall quantity. It is clearly show that the producers are sold their produce in channel-I comparison to channel-II and channel-III.

Table 4. Disposal pattern of Lac (Quintal/tree)

S.No.	Name of SHGs	Production Quintal per SHGs	Total quantity Sold	Channel I	Channel II	Channel III
1	SHGs-1	71.23 (100.00)	71.23 (100.00)	39.02 (54.78)	21.15 (29.69)	11.06 (15.52)
2	SHGs-2	56.52 (100.00)	56.52 (100.00)	27.37 (48.42)	18.23 (32.25)	10.92 (19.32)
3	SHGs-3	45.34 (100.00)	45.34 (100.00)	25.11 (55.38)	12.25 (27.01)	7.98 (17.60)
4	SHGs-4	48.75 (100.00)	48.75 (100.00)	31.18 (63.95)	9.35 (19.17)	8.22 (16.86)
5	SHGs-5	21.42 (100.00)	21.42 (100.00)	12.37 (57.74)	7.00 (32.67)	2.05 (9.57)
6	SHGs-6	75.80 (100.00)	75.80 (100.00)	42.15 (55.60)	19.50 (25.72)	14.15 (18.66)
7	SHGs-7	38.40 (100.00)	38.40 (100.00)	17.45 (45.44)	15.00 (39.06)	5.95 (15.49)
Total		357.34 (100)	357.34 (100)	194.65 (54.50)	102.36 (28.63)	60.33 (16.87)

Note: (i) Figures in parentheses indicate percentage to total production.

(ii) Figures in parentheses indicate percentage to total quantity sold.

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