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An economic analysis of production and marketing of tea a case study of Jashpur district of Chhattisgarh

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Abstract
Chhattisgarh has been ranked 17th in the tea producing state of tea production. In Jashpur and Surguja district. There is a favourable environment for tea production process in Jashpur district has been started since 2010. Tea production in Soghra ashram has been completed for 10 years. Tea plantations have been set up in 2010 and it is a part of Chhattisgarh culture or has become a centre of attraction. People come to see tea gardening from far and wide. Present study is based on the production, Marketing and constraints of tea. I have selected on household (Aghor Sograh Ashram) in Jashpur district of Chhattisgarh state for study. Primary data will be collect from personal interview. Cost of cultivation, Return and Internal rate of return method are used in this study. The cost of cultivation has been extracted from the first year to the Tenth year. Maintenance costs are taken from 1 to 3 years. Production starts from the fourth year and return are received only after the fourth years. The cost of cultivation in tea first to tenth year is ₹ 110,307/ha, ₹ 37,347/ha., ₹ 16,169/ha. ₹ 16,460/ha., ₹ 15054/ha., ₹ 14,536/ha., ₹ 14,158/ha., ₹ 13,812/ha., ₹ 13,672/ha., ₹ 13,132/ hectare. The gross return of fourth to tenth years in tea is ₹ 26,640/ha., ₹ 29,304/ha., ₹ 32,220/ha., ₹ 35,442/ha., ₹ 38,988/ha., ₹ 42,894/ha., ₹ 47,178/hectare. The average net return fourth to tenth years are ₹ 10,180/ha., ₹ 14,250/ha., ₹ 17,684/ha., ₹ 21.284/ha., ₹ 25,176/ha., ₹ 29,222/ha. and ₹ 34,046 /hectare. Marketing channel of tea is Producers to consumers and Producers to Retailer to consumers. The main problems here is the cost incurred on the machines. the problem that comes after this is that there is a lack of labours due to the plucking of leafs, which is a very old problems, here there is a lack of knowledge, that is, how to use any chemical or equipment, there is not so much knowledge, they do not get the right price of tea.

Keywords: Tea, production and marketing, Rs. per ha

Introduction
Tea is developed in 16 Indian States, of which Assam, West Bengal, Tamil Nadu and Kerala represent around 96 percent of the all-out tea c reation. About 78% of the nations all out zone under manor is situated in North East India. • The teas beginning from Darjeeling, Assam and Nilgiris are notable for their particular quality worldwide over and tea sends out contribute noteworthy measure of outside trade into the nation. Further the districts which are related with private venture to this industry are Karnataka, Tripura, Uttarakhand, Himachal Pradesh, Arunachal Pradesh, Manipur Sikkim, Nagaland, Meghalaya, Mizoram, Bihar and Orissa. The tea business in India incorporates little and huge cultivators and government manors. Small tea cultivators in India are financially and socially vulnerable as they are generally negligible ranchers. Many of the little ranchers don't have rights over the land they develop. Throughout the previous two decades, Indian tea industry has seen numerous basic changes. Some of the issues looked by the tea business in the ongoing years are emergencies in the tea business, deserting tea bequests, low efficiency, low benefit and low fare. Assam is the main area on the planet that has its own assortment of tea, called Camellia Assamica. Assam tea gives a malty pleasantness and a hearty flavour, rather than the botanical fragrance of good country (for ex. Darjeeling, Taiwanese) teas. Bushra *et al*. (2012) [32] studied was Starting water prerequisite of tea is high. Pruning is the one of significant aspect of the improvement of the tea plant after ranch. By and large tea plants take 3-4 years to develop with a long creation life of 70-100 years. Rajesh *et al.* (2005) [33] studied was Channel structure in rural Ares mainly depends on retailing. Such a concept is the driver of rural distribution structure and thus concept is maintained. This type of structure helps the distribution companies to achieve the target in the rural Ares. These influence the distribution method. Caritas comes or the structure is suitable to solve rural marketing distribution problems.

Chhattisgarh has been ranked 17th in the tea producing state of tea production. In Jashpur and Surguja district. There is a favourable environment for tea production process in Jashpur district has been started since 2010. The work of planting tea plantations in Jashpur area was first done in the first plantation in 2010 by the founder of the Brahmnishthalaya Sogara Ashram, the post of Pujya Pad Guru pad.

Tea production in Soghra ashram has been completed for 10 years. Tea plantations have been set up in 2010 and it is a part of Chhattisgarh culture or has become a centre of attraction. People come to see tea gardening from far and wide. Tea processing is also done in the ashram for which a unit has been set up, this unit is named Aghor tea processing plant in which green tea and black tea are made. The officer administration office has moreover started a tea domain pushed by the Sogara Ashram. In Surguja area, a tea nursery is being delivered by the Margdarshan Sansthan Agriculture College in Ambikapur, Surguja. Sograh Aghor Asram Tea Processing Plant arranged around 18 Km from Jashpur Nagar. Aghoreshwar Bhagwan Ram, started tea ranch test in May 2010 of every a 10 ace. of land inside his Sogra ashram.

Table 1: Production of Tea in India

Particulars	(Production in M.kg.)		
Year	North India	South India	Total
2018-19	1124.03	226.01	1350.04
2019-20	1140.69	220.12	1360.81
2020-21	1050.80	232.23	1283.03
2021-22	1113.04	231.36	1344.40
2022-23	1149.50	225.47	1374.97

Sources: Tea Board of India

The present study has taken up following objective:-

1. To Workout the cost and return of Tea Production in study Area.
2. To Study the Marketing Channel of Tea Production.
3. To Identify the constraints in production and marketing of Tea in the study area.

Materials and Methodology

Detail of study area

Chhattisgarh has 32 districts with there different Regions. I have selected one Farm (Aghor sograh ashram) in Jashpur districts of Chhattisgarh state for my study.

Collection of data

Primary data will be collected from Farm managers, Factory Processors and Secondary data will be collected from Different Government Officer Such as Department of Agriculture, Web Portals and Journals.

Analytical tools

For the estimation the cost of production of tea, the cost and return of tea production was calculated as follow**:**

Estimation of cost and return of Tea plant

The expenditure o cultivation included the cost of inputs used ad also the labour employed in fieldwork:-

1. **Input:** The inputs that were used in the estate were FYM, fertilizer, weedicide Plant protection chemical.
2. **Labour:** The actual expenditure on labour for operations like manual weeding, fertilizer application, application of micronutrients, weedicides and plant protection chemical.
3. **Plucking and Tipping:** The leaves were plucked from bushes in eight days to twenty days depending on the climate of the region. The plucking interval is longer in the season. Daily wages were paid for the plucking and tipping operations.
4. **Irrigation costs:** It includes maintenance cost of Drip and Sprinkler.
5. **Manures:** The cost of farm yard manure was based on the actual price by the growers.
6. **Fertilizers:** The cost of fertilizer was based on the actual price paid by the growers.
7. **Plant protection chemicals:** The cost plant protection chemicals was based on actual price paid by the grower at the time purchase.
8. **Interest on working capital:** This was charged at the rate of 8 per cent per annual.

I. Computation of gross return

The gross return for tea leaf were calculated on per hectare basis as per the following formula:

$$GR = Y \times P$$

Where,
GR = Gross return from the tea leaf production Rs/ha
Y =Yield of tea leaf in q/ha
P = Average price of tea leaf in Rs/ha

II. Computation of net return

The net return from tea leaf production were calculated by using following relationship

$$NR = GR - Costs$$

Where,
NR = Net return from tea leaf production over costs (Rs/ha)
GR = Gross return from tea leaf production (Rs./ha)

Results and Discussion

This chapter deals the results and discussions after analyse the data. Which is represented by objective formed for the study.

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Return of green leaf Tea

After plantation of tea orchard the return from planted tree stared from 4th years. This table the return from 4th to 10th years. The production of 4th, 5th, 6th, 7th, 8th, 9th, 10th year is 14.8, 16.28, 17.9, 19.69, 21.66, 23.83, 26.21 quintal per hectare. And IRR are 10.63% are return.

Table 2: Years wise cost and return of green leaf cultivation

S.N.	Particulars	Years									
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1.	Total cost (Rs./ha)	110,307	37,347	16169	16460	15054	14536	14138	13812	13672	13132
2.	Production (Q/ha.)				14.8	16.28	17.9	19.69	21.66	23.83	26.21
3.	Price of green leaf tea (Rs./Q)				1800	1800	1800	1800	1800	1800	1800
4.	Gross return (Rs./ha.)				26640	29304	32220	35442	38988	42894	47178
5.	Net return (Rs./ha.)				10180	14250	17684	21284	25176	29222	34046
6.	IRR (in %)	10.63%									

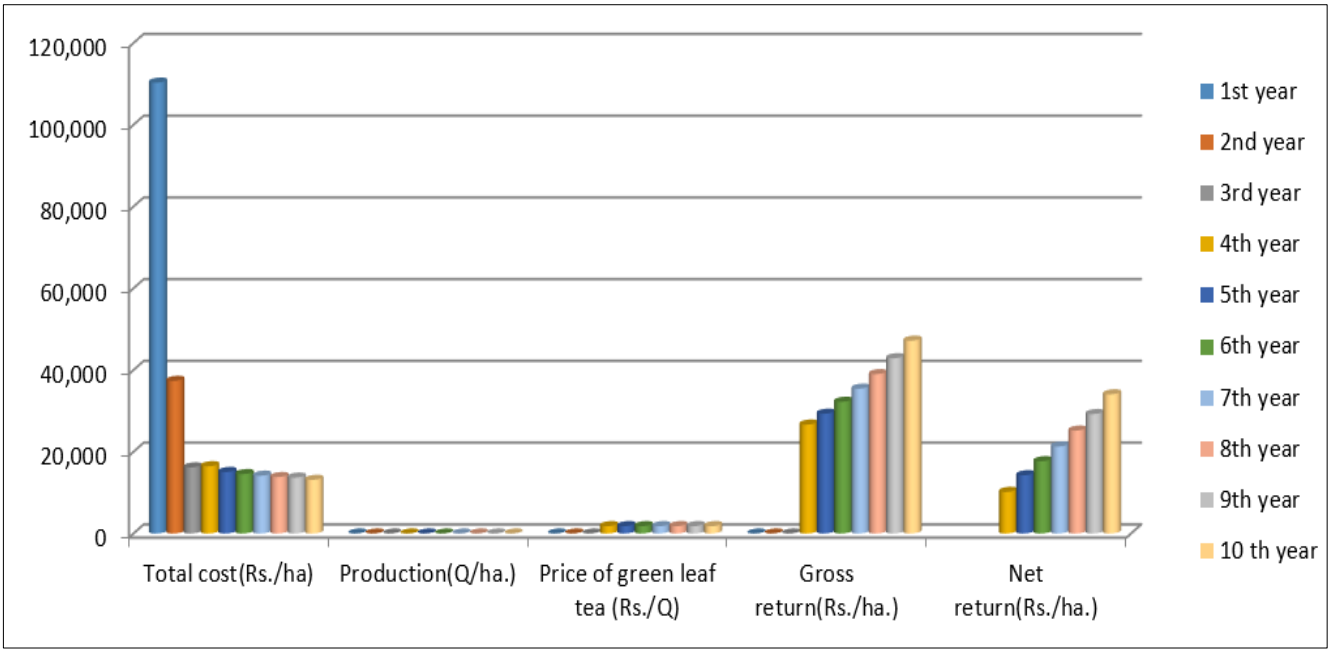

Fig 1: Year wise of cost and returns

Marketing Channels

Tea in Jashpur district region has two channels of marketing channel on the basis of which the made tea producers reach to the consumer as there is also a lot of production of green tea, hence the requirement of tea here is very high. There are two marketing channel which are as follow:-

Channel = I Producer → Consumer
Channel = II Producer → Retailer → Consumer

1. Producer → Customer

This is a channel in which the consumer has purchased the goods directly from the producers. There are no intermediates, retailers, who are wholesalers in this marketing channel, there is a lot of benefit to the consumer as the products here are available at a cheaper rate than the cheap rates available in this marketing channel people do.

2. Producer → Retailer → Consumer

It is a channel that is the most used in the tea market or any market, in which there is an intermediate between the producers and the consumer, which is called the retailer, who buys his product from the retailer at a lower price and then a slightly higher price in the market. This channel helps to make the made tea from the processing unit to the cities and the retailer does all the process. The retailer removes its cost and margin in it, sells it to the consumer, or is the most used marketing channel of tea in Jashpur district.

Constraints of Green leaf production and Marketing

Tea growers have access to all the problems from production to marketing. Tea growers have the highest problem mainly in tea processing. That is, the machines that are used for tea processing. They are very costly. One simple tea growers cannot afford the expenses. The study of the farm shows that the highest cost comes on top of the machines. Tea farm is facing number of problems such as Lack of skilled labour, poor management practice, Low wages for labours, higher cost of Machinery, Lower price, Absence of transportation, Absence of market for selling of made tea.

Conclusion

In this study, the cost of cultivation has been extracted from the first year to the Tenth year. Maintenance costs are taken from 1 to 3 years. Production starts from the fourth year and return are received only after the fourth years.

1. The cost of cultivation in tea first to tenth year is ₹ 110,307/ha., ₹ 37,347/ha., ₹ 16,169/ha., ₹ 16,460/ha., ₹ 15054/ha., ₹ 14,536/ha., ₹ 14,158/ha., ₹ 13,812/ha., ₹ 13,672/ha., ₹ 13,132/ hectare.
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