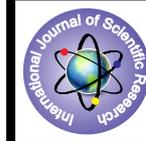


Coconut Cultivation in Tamil Nadu- an Economic Analysis



Commerce

KEYWORDS: Cost & Returns, Coconut and Per Unit Returns (PUR)

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Introduction

A proverb in Philippine "If you could count the stars, then you could count all the ways the coconut tree serves us" It is true in India Coconut industry is contributing more than Rs. 8300 million to the Indian GDP and this industry helps to earning foreign exchange to tune of Rs. 13000 million per annum. The major portion of coconut cultivation is from the four south Indian states, namely Kerala, Tamil Nadu, Andhra Pradesh and Karnataka, which comes up to 90 per cent of total coconut production. This crop has a significant impact on social and cultural impact on the coconut cultivators. Marketability and price established of coconut and it by products determine the economic condition of farmers. Tamil Nadu is one of the most important states in country in terms of coconut production after the state of Kerala. Tamil Nadu is one of the leading coconut producing states in India. Tamil Nadu cultivate coconut around 5365 million nuts from 389900 hectares. Tamil Nadu shows highest coconut productivity among other coconut producing states of India. Almost all the districts producing coconut in Tamil Nadu among those top three districts are Coimbatore, Thanjavur and Dindigul.

Even though productivity and production of coconut products is high in India, an economic condition of the growers is not favorable. It is because of growers' weak bargaining power and poor economic condition and marketing intermediaries are harassing and cheating them in different ways (Deepak M, et al., 2006). Profitability of any agricultural products is not only based on that productivity of the products but also production and marketing cost involved directly and indirectly. Production cost can able to reduce by proper implementation of production technology and proper utilization of resources, which is used for production. Marketing cost can able to reduce by selecting appropriate marketing channels, but due to lack of production and marketing knowledge now a days young grower now hesitating to cultivate agricultural produces. In connection with these problems, a study about the cost and return of coconut cultivation in Tamil Nadu is needed for exhibit many facts relating to cost involved in coconut production and returns involved in coconut marketing in the study area.

Objective of the Study

This study is planned with the following objectives

- To verify the average per hectare cost of production of coconut in the study area;
- To explore productivity of coconut and estimate returns realized by the growers in the study area.
- To compute average per unit returns;
- To resolve input-output ratios involved in the production of coconut

Choices of the Study Area:

Among the top three coconut producing states of India, Tamil Nadu stands first in terms of productivity. Nearly 6000 lakhs nuts producing in Tamil Nadu because of favorable climate condition render for the coconut cultivation. In Tamil Nadu almost all the districts are involving in coconut cultivation among that mainly concentrated in three districts of Coimbatore, Thanjavur and Dindigul. These districts have very good irrigation system and Coimbatore district shows that highest productivity compared with other districts. These are the reason for selecting Coimbatore as study area. Moreover, the study area has been selected on the basis of statistical information which is given in the table 1.

Table 1

Coconut Production in Tamil Nadu and Coimbatore

Particulars		2006-07	2007-08	2008-09	2009-10	2010-11
Area in Hectares	Tamil Nadu	374604	383366	389429	400466	410149
	Coimbatore	104197	107106	110555	79532	80712
Production in lakh Nuts	Tamil Nadu	54299	54385	53620	55471	58942
	Coimbatore	14829	15978	12406	11508	11970
% contribution of Coimbatore	Area	27.82	27.94	28.39	19.86	19.68
	Production	27.31	29.38	23.14	20.75	20.31

Source: Food and Agricultural Organization- Report

From the above Table it is clearly showing that the almost one fifth of coconut production in Tamil Nadu is coming from Coimbatore district alone, at mean time production of nuts is coming down from 15978 lakh nuts to 11970 lakh nuts. Further area under cultivation of coconut in Coimbatore district also coming down from 107106 hectares to 80712 hectares. Unless find out reason behind this drop of coconut production, Coimbatore could not hold first position in terms of production and area under cultivation.

Collection of Data

A pilot study was conducted to develop comprehension of the process and activities involved in coconut cultivation in the study area. Based on the information gathered from farm level, a detailed interview schedule was drafted, pre tested and it used in filed survey among 50 coconut growers those are selected from the study area for collecting data through the personal interview. The main source of secondary data is directorate of agricultural marketing statistics yearbook, books, journals and internet.

Sampling:

Proportionate stratified random sampling technique has been used for selecting Coimbatore district as universe. Coconut growing villages are considering as primary unit and the Coconut growers and market intermediaries are the ultimate unit. Keeping in view, 50 coconut growers were selected by using proportionate stratified random sampling technique.

Analysis and interpretation of Data:

The profitability of any commercial activity depends upon the cost of inputs and the life span of those activities. This is particularly true of agricultural activities, because a decision in respect of changing cropping pattern should be taken quickly taking into account the profitability conditions. Since a Coconut tree which yields for a continuous period ranging from 35 to 40

years, it requires heavy initial investment in terms of establishment cost, the cost of maintenance and the operational cost is high. An attempt has been made in this section to estimate the cost of production incurred by small farmers, medium farmers, and large farmers.

In the coconut cultivation, one of the most important aspects is creation of basic infrastructure. Since it is long-term crop, it involves high initial investment, so that coconut cultivation generally implies that a particular group of farmers. In the study area, cost of establishment of coconut farm for a hectare is Rs. 292426.39 and these establishment cost spread the cost of production per year during the study period presented in the following table. Establishment cost calculated from the time of land preparation to commercial yield time, so that what are the expenditure incurred during that period like labour, irrigation and other expenditure all these expenditure taken in to the consideration. Establishment cost includes (i) Initial Establishment Cost, (ii) Preparatory Cultivation, (iii) Plants, (iv) Planting, (v) Irrigation, (vi) Fertilizer and Manuring, (vii) Care of young Plants, (viii) Labour, (ix) Rental Value of Land and (x) Other Fixed Costs.

The cost of operational and maintenance cost is calculated from the time commercial yield, it include cost of labour, irrigation, fertilizer, plant protection, manure, interest on working capital, watch and ward harvesting and handling charges and repair & upkeep of farm equipments.

While calculating cost of production cost classified as direct and indirect cost direct cost include operational and maintenance cost, indirect cost include annual share of establishment cost, rental value of the land and other fixed cost are taken.

The following table present the cost of production of coconut in a hectare for small, medium and large farmers separately, because cost of production is varying depends upon the level of operation. Therefore, it is worth to calculate the cost of production based on level of land holding size.

Table 2
Average per acre Cost of Production of Coconut

S. No	Particulars	Small Farmers	Medium Farmers	Large farmers
I Direct Cost				
1	Annual Maintenance & Operational Cost	75344.74	76095.88	71046.52
	Total Direct Cost	75344.74	76095.88	71046.52
II Indirect Cost				
1	Annual Share of Establishment Cost	12621.32	12037.46	11374.19
2	Rental Value of Land	13686.27	13686.27	13686.27
3	Other Fixed Cost	2033.98	1350.72	1457.64
	Total Indirect Cost (1 to 3)	28341.57	27074.45	26518.10

Total Cost of Production (I + II)	103686.31	103170	97564.62
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Source: Sample Survey (2012)

The above Table 2, it is clearly showing that in the total cost of production direct cost contribution is high with a value of Rs. 75344.74, Rs. 76095.88 and Rs. 71046.52 for small, medium and large farmers respectively. Indirect cost proportion in the cost of production is Rs. 28341.57, Rs. 27074.45 and Rs. 26518.10 for small, medium and large farmers respectively. Total cost of production in the study area Rs. 103686.31, Rs. 103170.00 and Rs. 97564.62 for small, medium and large farmers respectively. It is clearly showing that the cost of production is not that much deference between small and medium farmers but in between large farmers and other size of farmers, somewhat difference is there in cost of production.

Table 3
Net Returns Received by the Growers

Particulars	Small Farmers	Medium Farmers	Large Farmers
Quantity Sold nuts/Hectare	13716	14241	14831
Average price per Nut	10	10	10
Total Income Rs./ Hectare	137160	142410	148310
Total Costs Rs./ Hectare	103686.31	103170	97564.62
Net Return	33473.69	39240	50745.38
Net Return excluding Land Rent & House hold labour	55159.96	59426.27	70431.65

Source: Sample Survey (2012)

The net return of the farmers depends upon the marketing channel that they are using in the study area. In the study area, average price per nut (including by products) is Rs. 10. Average nuts sold by the farmers are 13716, 14241 and 14831 nuts by small, medium and large farmers. After deducting cost of production, they are getting average net return around Rs. 33473.69, Rs. 39240.00 and Rs. 50745.38 for small, medium and large farmers respectively.

Conclusion

Coconut play a vital role in offering more employment opportunities to the rural people and it is a profitable venture for all categories of farmers in spite of their high initial investment and the fluctuating nature of nut price. Hence, it deserves a planned and continuous attention from the various stakeholders. The present study has brought out the profitability involved in the cultivation and economic aspects of coconut. The suggestions made in the study are of immense use for the policy makers to make appropriate decision for mitigating the problems faced by the coconut growers.

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