

A Study on Production and Marketing Problems Faced by Coconut Farmers in Tiruppur District of Tamil Nadu

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Abstract

Agriculture has been playing a predominant role in the economic development of all developed and developing countries. The green revolution of the 1960's ushered in rapid increases in food crop production such as wheat, rice and other cereals. Efforts were also taken to achieve similar increases in non -food crop production viz., coconut, groundnut, sugarcane, cotton etc. In recent years a large number of national programs for coconut development have been launched in many Asian and Pacific countries, particularly in India because coconut occupies a unique position in commercial agriculture as a fiber, food, oilseed and beverage crop. Coconut plays a significant role in the agrarian economy of India. Apart from the importance of copra and coconut oil which is widely used in the manufacture of soaps, hair oil, cosmetics and other industrial products, its husk is a source of fiber which supports a sizable coir industry. The tender nut supplies coconut water, a popular thirst quencher of health and hygienic value. Virgin coconut oil (VCO), extracted from fresh coconut kernel without any chemical processes is abundant in vitamins, minerals and anti-oxidants, thus making it the 'mother' of all oils.

Coconut is grown in more than 93 countries of the world and Indonesia, Philippines, India are the major producing countries of the world. Coconut is grown in more than 18.95 lakh ha in the country with an estimated 16943 million nuts during 2014-2015 with an average productivity of 8937 nuts per ha. Traditional areas of coconut in India are the states of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Orissa, Goa, West Bengal, Pondicherry, Maharashtra and Islands of Lakshadweep and Andaman and Nicobar. The high oil content of the endosperm of the coconut is widely used in both food and nonfood industries like margarine and soaps. The coconut palm and its products are a major source of livelihood to a sizeable section of rural folk in the tropics and also contribute substantially to the total export earnings. It is unique among horticulture of India because of the diverse uses of coconut products. Therefore, coconut production, productivity and marketing have become an integral part of economic development of a country. In this paper an attempt is being made to study the cultivation and marketing problems of coconut growers in Tiruppur District.

Key words: Coconut , Farmers ,Production problems, Marketing problems.

INTRODUCTION

India is primarily agricultural country and nearly 75 percent of the people are directly engaged in agricultural work or in its allied occupations like agro-industries and this excessive dependence on agriculture is not a good sign of economic development. Nearly 40 percent of the national income of India is derived from agriculture. Thus agricultural sector occupies a pivotal in the economic development of the country. The economic history of many developed countries of the world like U.K,

U.S.A, Japan, Germany etc, demonstrates that agricultural development helped and smoothened the process of industrialized nations of the present day world. In the sphere of international trade and foreign exchange earnings, the place of Indian agriculture is very significant. India exports mostly agricultural products like, jute, tea, oilseed, spices, tobacco and millets. Thus, all sectors of the economy in India depend on agriculture,

both agriculture and industries are interdependent and agricultural development promotes industrial expansion.

The increase in agricultural production and productivity leads to an increase in the production level of industries. In view of the importance of the agricultural sector, the

governments at the centre and at the state have introduced many measures and programmes for strengthening this sector. In order to help the farmers, many agencies have been created and the Co-operative movement is also strongly promoted by the government.

COCONUT AND THEIR PRODUCTS

Coconut, the versatile palm, grown in 93 countries and having historic importance in socio-economics of all the growing countries, supports livelihood security of 80 million people across the globe. The economy of many countries especially the Asian and pacific countries, depend on market integration of coconut and the growth of the coconut based economy of these countries as well as the welfare of the farmers. The unpredictable price stability coupled with the unprecedented price increase often drives the consumers towards cheaper oils resulting in substitution of coconut oil for palm oil. Coconut oil, despite its unique characteristic features has to compete with more than 16 oils in a highly competitive world market. To tackle this situation, attempts have been made to diversify the coconut products and promote their uses. Many of them have succeeded, but the share of coconut oil in trade is still negligible, as both industrial and edible uses have suffered a setback, resulting in the low market flow and thus the industry has been facing a crisis in the recent past. The liberal import of palm oil and substitution of other cheaper vegetable oil have affected even the traditionally dominated markets of Kerala. This situation closely links to the changes encountered in the wake of a liberalised environment. Concerted efforts were therefore made to make a recovery in the price structure of coconut oil, which have yielded positive results showing a highly encouraging revival in price has regained an all time increase which is remunerative to the farming community. It is expected that this hike in price will sustain in the coming year as well, due to the higher demand already created in the country. Experience in strategic market promotion backed by market research has been encouraging in terms of enhanced consumer base. Sustainability of coconut production, which largely depends upon proper marketing, has to be given priority to safeguard the interest of farmers. Identification of new markets, strategic market promotion and expansion of global market are, therefore, needed in the current scenario of emerging challenges.

COCONUT CULTIVATION IN TAMIL NADU

Total Area of the State	1,30,058 Sq. Kms.
Total area of Cultivation	57,22,552 Hectares
Coconut cultivation	3,10,706 Hectares
Annual Production of Coconut	3,160.20 Million Nuts.

Of the total production of coconuts, about 5% is consumed in the tender form for drinking purposes. The rest is utilised as mature nuts for household and religious purposes and for the production of edible copra, milling copra and desiccated coconut. Coconut oil production in the country is nearly 4.5 lakhs tonnes. Of this 40% is consumed for edible purposes, 46% for toiletry uses and 14% for industrial uses. The food processing sector has not paid due attention to diversification and value addition to coconut, coconut products and by products. The coconut processing therefore traditionally remained confined to copra

production, oil extraction, manufacturer of desiccated coconut, coir and coir products. Against this sound background, the present study is made an attempt to focus the various aspects of marketing of coconut and problems confronted by the coconut growers in Tirupur district.

OBJECTIVES OF THE STUDY

The study is carried with the following specific objectives.

- To study the socio-economic profile of coconut farmer.
- To determine the method adopted for cultivation and marketing of coconut by the coconut farmer.
- To analyse the cost and profitability of coconut cultivation by the coconut farmer.
- To examine the problem faced by the coconut farmer.

RESEARCH METHODOLOGY

A scientific approach to the research methodology is very much essential to evaluate the research problem systematically. In the present study an extensive use of both the primary and secondary data is made.

SAMPLE DESIGN

In order to identify the sample respondents the following process are performed. Tirupur district covers 9 taluks out of which 3 major coconut growing taluks have been selected namely, dharapuram, udumalpet and palladam for the collection of primary data. In regard to selection of sample respondents 200 farmers from the taluks have been selected on the basis of convenient sampling technique.

DATA COLLECTION

A structured questionnaire was used for collection of data. The gathered information was then transferred to Master Table to facilitate an analysis of the study.

A. PRIMARY DATA

Primary data were collected through structured questionnaire.

B. SECONDARY DATA

The secondary data was also collected from sources like news papers, books, magazine, journals, published reports and web- site.

TOOLS FOR ANALYSIS

The collected data were classified into suitable tabular forms, for analysis and interpretation. Simple statistical tools like percentage analysis, chi square test and weighted average were used. Weighted average method was used for the analysis of attitude in marketing of coconut.

The formula used for percentage analysis, chi – square test and weighted average method are furnished as follows.

A. PERCENTAGE ANALYSIS

Percentage refers to a special kind of ratio. Percentages are used in making comparison between two or more series of data. Percentages are used to describe relationship, since the percentage reduces everything to a common base and there by allows meaningful comparisons to be made.

$$\text{Percentage analysis} = \frac{\text{No .of respondents}}{\text{Total no. of respondents}} \times 100$$

B. CHI – SQUARE TEST

The chi – square analysis is mainly used to test the interdependence of two factors. In other words the chi – square analysis performed to test the signification of one factor over the other. In this study the demographic factors like age, yearly income, educational qualification, acres used for coconut cultivation and amount spend for a year. Each of the personal factors considered are compared with the study factors and chi – square test was performed.

The entire test carried out with 5% percentage level of significance.

$$\text{Chi – square test } (\chi^2) = \frac{\sum (O - E)^2}{\sum E}$$

$$\text{Degree of freedom} = (R - 1) (C - 1)$$

Where as,

O = Observed frequency

E = Expected frequency

R = Number of rows

C = Number of column

C. WEIGHTED AVERAGE ANALYSIS

The average rank analysis is performed to identify the priority of the different category of the

consumer performance for selection of “the coconut cultivation” based on the consolidated priority of the respondents. The average rank is calculated and the final rank is fixed based on the criterion “lesser the average rank more is the priority on the various aspects relating to personal factors”.

$$\text{Weighted average} = \frac{\text{Total}}{\text{No. of items} \times \text{No. of respondents}} \times 100$$

REVIEW OF LITERATURE

1. Dr. P. SENTHIL KUMAR (2022) “A STUDY ON GROWTH AND PRODUCTION PERFORMANCE OF COCONUT INDUSTRY IN TAMIL NADU” In this paper study the trend and growth of coconut production in Tamil Nadu during the period from 2010-11 to 2019-20. Indonesia is the highest coconut producing country in the world. India accounts for 22.34 per cent of the world's coconut production and is one of the major players in the world's coconut trade. The Karnataka is the highest coconut production 30.83 share of percentage in India level. Coimbatore got the first rank in coconut production in Tamil Nadu level. Status of Tamil Nadu, it is understood that year on year increase of 0.70 per cent when measured in terms of compound rate of 2,966.30 area in hectare in terms of absolute values on the average in area was significant for coconut. But from the coefficient of variation values, it is apparent that the trend and growth in productivity (CV = 16.05) and production (CV = 14.44) is highly inconsistent compared to that of area (CV = 2.21) in coconut. As increase in area was not proportionate to an increase in production, there had been a notable decline (CAGR = - 3.13, t = -2.57, p = < 0.01) and productivity (CAGR = -3.81, t = -3.09, p = < 0.05) during the study period.

2. J C Alouw and S Wulandari (2020) “ Present status and outlook of coconut development in Indonesia” Coconut (*Cocos nucifera* L.) is a socioeconomically important palm in Indonesia, owned mostly by smallholders. Indonesia has the largest coconut palm-growing areas in the world, followed by the Philippines and India. The average national coconut productivity is still lower than the production potency of superior varieties. Technological, political and socio economic issues including senility, pests and diseases, inferior varieties, poor agronomic practices, land conversion affected the low coconut production, while unfavorable supply chain, narrow product line, low product quality, monoculture-planting system might be affected the economic welfare of farmers. About 6.6 million farmers rely their main source of income on coconut and coconut based-products, which are mostly copra and CNO. Producing high value coconut products, establishment of seed farms, replanting of senile palms, pest and disease management, synergy among industries, farmers, and governments as well as research on finding more innovative technologies and technology transfer to solve existing problems are required to ensure the sustainability of coconut sector.

3. Govindasamy R. (2018) “A Study on Production of Coconut in Coimbatore District, Tamilnadu” This study intends to analyse the production aspects of coconut cultivation in Coimbatore district of Tamil Nadu state. Multistage sampling technique was used to select the respondents by selecting district in first stage, blocks in second stage, villages in third stage and farmer respondents in fourth stage. gross returns estimated for one acre of coconut cultivation was Rs. 81907.94 for small farmer, Rs. 76794.40 for medium farmers and Rs. 67395.72 for large farmers and the estimated gross for over all farms was estimated as Rs. 75366.02 in considering the variable costs alone.

4. Raghavi.MD ,SakthiBalaa.etc (2019) Coconut plays an important role in contributing to India's GDP of about 15,000 crore rupees and 72% of world's total production is from India and productivity is also high in India. In India, Tamil Nadu tops the list in the productivity of coconut, but production is high in Karnataka and Kerala tops in the area. In Tamil Nadu, Cuddalore district ranks first in productivity of coconut followed by Krishnagiri and Theni. Production wise, Tiruppur and Thanjavur rank first. Coconut, a versatile crop being used for various uses, but in India, almost 70 % of the coconut is used for the edible purpose.

5. Vijayalakshmi N (2016) Agriculture continues to be the core sector in the rural economy of Karnataka, providing livelihood security for vast majority of the population. In the crop production sub sector. It is principal crops namely coconut that too on account of the large scale area expansion through the shift in cropping pattern. The manufacturing units procure raw materials from coconut farmers. Some local traders supplies raw materials to these manufacturing units and in returns they procure the finish products. Considering the huge production of coconut husk in the region, individual artisans and ITI graduates can be encouraged to set up their one de-timbering and yarn making units with advanced machineries. In recent years, improvements in cultivation practices and breeding have produced coconut trees that can yield more. An attempt is made in this paper to analyse the production and marketing of coconut in Tumkur area.

6. Dr.S.M.Yamuna, Ms.R.Ramya(2016) India is an agricultural country and one third of population depends on the agricultural sector directly or indirectly. Agriculture remains as the main stay of the Indian economy since times immemorial. The coconut crop has a significant impact on social and cultural impact on the coconut cultivators. Marketability and price established for coconut and it by products determines the economic condition of farmers. Tamilnadu holds foremost share in coconut area and production after the state of Kerala. Coconut cultivation is considered to be one of the major livelihoods which support 60 % farmers in the state. The coconut is not only significant in socio cultural needs of our society, but also has gained considerable importance in the national economy as a potential source of rural employment and income generation among the plantation crops. . The increasing trend of coconut production has brought new challenges in terms of finding market for the surplus. There is also a need to respond to the challenges and opportunities, that the global markets offer in the liberalized trade regime.

CHI - SQUARE ANALYSIS

RELATIONSHIP BETWEEN THE TWO VARIABLES AGE TOWARDS THE PROBLEMS OF PRODUCTION

Null Hypothesis (H_0) : No significant relationship between the age group and problems of production

Alternative Hypothesis (H_1) : Significant relationship between the age and problems of production.

(CHI-SQUARE TEST)

Variable	Calculated Value χ^2	Table Value	D.F	Remarks
Age Group	42.645	21.02	6	Significant at 5% level

It is found from the above analysis that calculated chi-square value is greater than the table value at 6 degree of freedom and null hypothesis rejected. So, we conclude that, there is a close significant relationship between the age group and problems of production..

RELATIONSHIP BETWEEN THE TWO VARIABLES GENDER TOWARDS THE PROBLEMS OF PRODUCTION

Null Hypothesis (H_0) : No significant relationship between the gender and problems of production.

Alternative Hypothesis (H_1) : Significant relationship between the gender and problems of production.

(CHI-SQUARE TEST)

Variable	Calculated Value χ^2	Table Value	D.F	Remarks
Gender	15.870	12.592	6	Significant at 5% level

It is found from the above analysis that calculated chi-square value is greater than the table value at 6 degree of freedom and null hypothesis rejected. So, we conclude that, there is a close significant relationship between the gender and problems of production.

WEIGHTED AVERAGE ANALYSIS PROBLEM FACED IN COCONUT CULTIVATION AND MARKETING

S. No	Factors	Weight age Score	Rank
1	Finance	882	IV
2	Market Awareness	1006	II
3	Irrigation	1124	I
4	Diseases	938	III

The above table reveals that among the respondents, irrigation stands first position with the total score of 1124, market awareness stands second position with the total score of 1006,

followed diseases stands third position with the total score of 938, finance stands fourth position with the score of 882. It is found from the analysis that maximum respondents are irrigation problem faced to coconut cultivation and marketing.

FINDINGS

- 77% of the respondents are belongs to Male.
- 38% of the respondents belong to the age group of 26-35 years.
- Majority (68%) of the respondents were married
- 41% of the respondents educational qualification college level.
- 37% of the respondents are farmers.
- 36% of the respondents monthly income is less than Rs 20,000.
- 39% of the respondents are 5-10 years.
- Majority (39%) of the respondents are traditional methods
- Majority (32%) of the Rain fed only
- 34% of the respondents Manual harvesting with basic tools
- 38% of the respondents are to cooperatives or farms group.
- 39% of the respondents are 20001-30000
- Maximum respondents (32%) are irrigation and water management.
- 49% of the respondents are Less than Rs 10 per coconut.
- 36% of the respondents are 20001-30000
- 34% of the respondents are No I am not aware
- Most of the (40%) of the respondents are Yes Organized by the government.
- most of the (36%) of the respondents are High transportation costs
- 85% of the respondents are faced problems in finding labour for coconut farming and harvesting
- 41% of the respondents are Occasionally (some season).
- 42% of the respondents are Frequently (every season) with pests and diseases affect coconut crops
- 48% of the respondents are bud rot
- 40% of the respondents are Lack of water or irrigation facilities.
- Maximum respondents are irrigation problem faced to coconut cultivation and marketing.

CHI- SQUARE TEST

- It is found from the above analysis that calculated chi-square value is greater than the table value at 6 degree of freedom and null hypothesis rejected. So, we conclude that, there is a close significant relationship between the age group and problems of production..
- It is found from the above analysis that calculated chi-square value is greater than the table value at 6 degree of freedom and null hypothesis rejected. So, we conclude that, there is a close significant relationship between the gender and problems of production.

SUGGESTIONS

- ❖ To overcome the financial problems, farmers should come forward to receive agricultural loans and subsidies from commercial and co-operative banks.
- ❖ In coconut markets long term storage fetches better price. The farmers are in need of better storage facility. So it is recommended that co-operative organizations and regulated markets shall come forward to construct their godowns in villages at least in big villages.
- ❖ Major problem of agriculture is labour scarcity, if the government come forward to supply the labours through “100 day’s employment opportunity programme” it will be beneficial to all.
- ❖ Coconut cultivation is a long term process. To overcome problem, government should take necessary steps to innovative new technology.
- ❖ Agriculture is the backbone of our nation. Due to urbanization agricultural lands are converted into industries. So government should come forward to protect the agricultural land.
- ❖ Breeding of high yielding varieties resistant to diseases, tolerance to biotic and abiotic stress should be developed.
- ❖ Thermal station can be established in coconut rich district where the agricultural waste like dry leaves can be used as raw material to generate electricity.

CONCLUSION

The coconut palm is one of the most useful plants in the world. Among the oilseed palm trees, coconut palm hardly needs any emphasis on its multi-utility significance. The economic importance of this tree crop is evident from the fact that it is grown in more than 90 countries across the world. South East Asia is regarded as the origin of coconut. Philippines, Indonesia, India and Sri Lanka account for 80 per cent of the area and production.

The analysis of the marketing practices reveals that there is a good future and golden opportunities for Tirupur district coconut growers. Coconut is one of major plantation crops in Tirupur District whereas Kangeyam started emerging as a major trading centre with the spread of coconut cultivation in Tamil Nadu. But farmers facing lot of problems in production. So further the government should take effort to overcome the labour, expenses, transport, and natural calamities problems. Coconut is a traditional crop grown in India which occupies a distinct position in Indian oil market as well as in the international market. Our country is the world’s largest producer and exporter of coconut. The increase in agricultural production and productivity leads to an increase in the production level of industries. If the above suggestions are duly carried out by the parties concerned, the coconut plantation would go up, giving information to thousands of farmer besides earnings foreign exchange for the country. The researcher concludes that effective marketing should give legitimate share to the growers.

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