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Health Fruits Of Banana Cultivation In Podammalpuram Village, Thoothukudi District- An Economic Analysis

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ABSTRACT

The Cultivation of health fruits of banana provides employment from the period of planting to marketing. There is a steady demand for fruits and leaves in markets. Banana growers are assured of income from banana cultivation from the 90th day of planting the daughter suckers produce leaves. Further the planting period and the harvesting period can be adjusted to get improved prices for the products and steady income through out the year. The study area of the village is solely depended on agriculture so a survey has been undertaken to study the process of cultivation of banana and the sale of the product to the agricultural marketing. However the present study would be appropriate to take up the study of profit and loss analysis of banana cultivation in this village concerned and make the research work a worthwhile and a relevant one. The study reveals that living conditions of the agricultural family is satisfactory in this village. Small size of landholding is one of the reason for low level of agricultural output and also reduces the profit of the farmer because of the cultivation cost is more. So that the banana cultivation is more profitable than other crops.

Keywords: Banana cultivation, income, cost, out-put, price, standard of living, market, cropping pattern.

1.1 Introduction

Banana is nature's wonder fruit. It is the most nutritious of all fruits. Banana is an integral part of our culture in India and an important part of happy and healthy life. More and more people are eating bananas for health and convenience. 100 grams banana contains 89 calories, 358 mg potassium, and 22.8 grams carbohydrates and protein. It has 14% of one's daily recommended dose of vitamin C. Health fruits of banana is cultivation through out the year. The cultivation of banana provides employment from the period of planting to marketing. There is a steady demand for agricultural labourers in banana cultivation. There is a steady demand for fruits and leaves in markets.

Banana growers are assured of income from banana cultivation from the 90th day of planting the daughter suckers produce leavers. Further the planting period and the harvesting period can be adjusted to get improved prices for the products and steady income throughout the year.

1.2 Statement of the Problem

At present the development of agriculture does not merely depend up on increasing the agricultural produce and productivity, but also up on the promotion of a better and well organized marketing by which the agricultural goods are moved from the field of farmer to the places of ultimate consumers.

Indian economy is an Agrarian Economy more than 80 per cent of the total population depend on agriculture as their main occupation. The reasons for taking up a study of the Agricultural marketing in Podammalpuram Village, Thoothukudi District are summed up below.

The selected Village of podammalpuram with more than 80 per cent of the total population depends on agriculture and lots of marketing business go on in the Village. The village is solely depended on agriculture, so a survey has been undertaken to study the process of cultivation of banana and the trend the agricultural marketing. However the present study would be appropriate to take up the study of profit and loss analysis of banana cultivation in this Village concerned and make the research work a Worth while and a relevant one.

1.3 Objectives of the study

1. To analyze the cost of cultivation of Banana.
2. To estimate the profit and loss of banana cultivation.
3. To analyse production and marketing of banana.
4. To suggest some remedial measures for the problems faced by the banana cultivators and to make some policies for the betterment of banana cultivators in general.

1.4 Distribution of Land

The study area Podammalpuram Village is located in Thoothukudi District. The Village farmers are mainly depending upon agricultural work. They are working in plantain field. The study area is also determined by the nature and ownership of land holdings.

Table: 1 Pattern of Distribution of Land

Type of Land	Vistheeram in Hectares	Percentage
Punjai	625.92	70.80
Nanjai	93.76	10.60
Purampokku	164.50	18.60
Total	**884.18**	**100.00**

Sources: Village Administrative Office

The above table 1 shows that the dominance of nanjai land over punjai land. The percentage of nanjai land is 10.60 which is lower than the punjai land 70.80 percentage. The nanjai land is being covered by canal irrigation where as punjai land is being covered by seasonal rainfull and well. There is no significant income in case of purampokku and punjai lands.

1.5 Methodology

The present study aims at analysing the Banana Cultivation at Podammalpuram in Thoothukudi District. The study depends up on both primary and secondary data. Primary data were collected from 60 farmers at Podammalpuram. The secondary data were collected from Village Panchayat office records.

1.6 Importance of the Study

Banana is cultivated through out the year. The cultivation of Banana provides employment from the period of planting marketing. There is a steady demand for agricultural labours in banana cultivation. There is a steady demand for fruits and leaves in markets. So that, it is needed a study about analyse the profit and loss of Banana Cultivation of the farmers in this Village.

1.7 Review

Kathirvel and Chandrasekaran, (2008), in their study concluded that, the banana cultivation is higher in Karur district. But they fetch only lower price. If a co-operative marketing society is established in this district, it will be beneficial for banana producers as it undertakes the procurement, processing and other marketing functions for the benefit of the members.

Bonder etal.,(2015), the study analysed that the per hectare cost ie., Cost-C was the highest in small size group, followed by medium size group and lowest large size group while at overall level it was Rs.2,276.00. In case of small size group of banana cultivators, the net return at cost C were the lowest on account of higher per hectare cost of cultivation than the other two size group. The output-input ratio which indicates the profitability of investment was observed to be 2.07 at cost-C at the overall level. At the cost-C the output-input ratio was greater than unity indicating that the cultivation of banana was profitable when both direct and indirect costs were taken into account. Among the size group, the B:C ratio at cost C was the highest in large size group (2.12)

compared to small (2.01) and medium (2.08) size group due to the lower per qu. Cost of cultivation as compared to other two groups. This indicates that the cultivation of banana was more profitable in large size group than small and medium size group.

Arputharaj and Kesavan Nair, (1986), concluded that on an average, an amount of Rs.36,252 per hectare had been incurred towards cost of cultivation of plantain. The highest item of expenditure was human labour forming about 23 percentage of the total cultivation expenses. The average output per hectare was 14,991 kg of plantain bunches, valued at Rs.56,205. The benefit cost ratios at cost A1, A2, B and C worked out to 2.16, 1.84 and 1.64 respectively.

1.8 Analysis

1. Size of Land Holding

The size of the family and their land holding is one of the determining factors of the marketable surplus. Small farmer coupled with large size of the family, lower will be the economic conditions. In order to maintain their standard of living at a bear minimum level, he is in a position to dispose all their surplus agricultural products without any consideration of price level.

Table: 2 Pattern of Land Ownership

Size of land holding in Acres	No. of Respondents	Percentage
1-2 Small farmer	21	35.00
2-5 Medium farmer	13	21.66
Above 5 Large farmer	26	43.44
Total	**60**	**100.00**

Source: Field survey

The table 2 shows that, the pattern of land ownership of the agricultural households are classified in to three categories. They are small farmer, medium farmer and large farmer. Out of the 60 respondents 21 respondents are coming under small farmers, and 13 respondents are coming under medium farmer and 26 respondents are coming under large farmers. This data reveals that majority of the large farmers are having more than 5 acres of land

2. Income of the Households

An income particular helps us to know the living condition of the banana cultivators. Income is one of the important determining factors of a marketable surplus. Rich farmers do not need financial assistance from other agencies, because of his sound financial position. He does not sell out all the agricultural produce at once. It reduces the marketable surplus. He is waiting to sell out their products for higher prices.

Table: 3 Income of the Household

Income Group(in Rs.)	No. of Respondents	Percentage
Below 50,000	7	11.66
50,000 – 1,00,000	11	18.34
1,00,000 – 1,50,000	11	18.34
1,50,000 – 2,00,000	13	21.66
Above 2,00,000	18	30.00
Total	**60**	**100.00**

Source: Field survey

The above table 3 shows that out of 60 samples seven respondents annual income is below Rs. 50,000 which constitutes 11.66 per cent. 11 respondents are having income between Rs. 50,000-1,00,000, which constitutes 18.34 per cent. 18 respondents are having income between above Rs 2,00,000 which constitute 30 per cent. This shows that most of the farmers come under this income classification and also their income level is satisfactory.

3. Production and Marketing

Cropping Pattern

Cropping pattern can be made more rational through appropriate changes in economic motives of higher production. The total productions for the farmers in the study area are givenin the Table.4

Table: 4 Cropping Pattern

Verities	No. of Respondents	Area (in acres)	Production (in Rs.)	Percentage to Total Production
Kassali	20(33.34)	28	12,09,050	17.97
Rasthali	15 (25.00)	14.5	15,07,000	22.40
Nadu	35(58.34)	28	18,83,000	27.98
Malayathan	15(25.00)	17	21,30,000	31.65
Total	**60**	**87.5**	**67,29,250**	**100.00**

Source: Field survey

Note: Data in bracket represent percentage to total no. of 60 samples enquired

Average production per acre is Rs.76,905

The table 4 gives the details of the production pattern of the banana. Production is more in malayathan banana compared to other verities like kassali, rasthali and nadu but the area cultivation is only 17 acres. All the respondents are cultivating more than two verities. Majority of the respondents i.e. 58 per cent are cultivating nadu variety. But the production efficiency is very low compared to malayathan verity. 20 respondents are cultivating kassali item it constitute 33.34 per cent. The rasthali verity is cultivated by limited respondent's i.e 25 per cent because in this area the demand for this verity is low. The researcher concluded that in this area the malayathan verity is more profitable compared to other verities followed by nadu verity. The average production per acre is Rs.76,905.

4. Cost of Cultivation

A large number of varieties of banana are grown in India such as Cavandish, Pome, Poovan, Nendran. Rasthali, and others. Robusta and Moris banana belong to Cavendish varity. In the study area Kassali, Rasthali, Nadu and Malayathan varieties are cultivated. The cost of cultivation and average cost per acre is listed in the following Table 5.

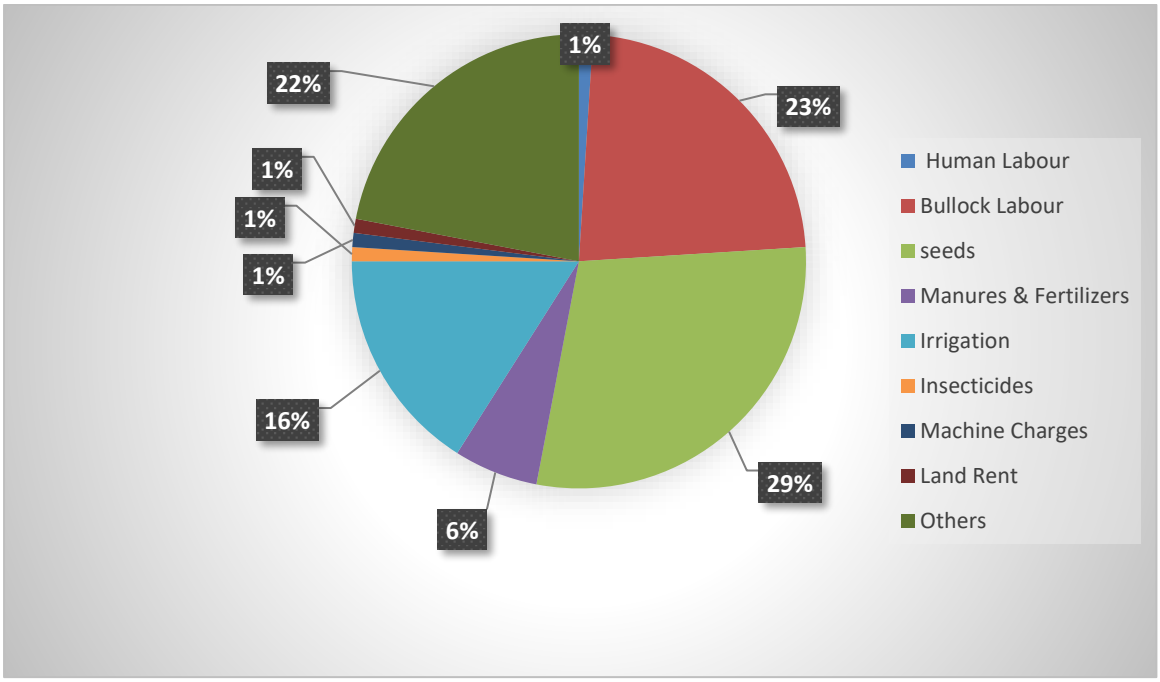
Table: 5 Cost of Cultivation of Banana

SI. No.	Items	Total Cost (in Rs.)	Average per Acre (in Rs.)	Percentage to Total Cost
1.	Hired Human Labour 1.1 Casual 1.2 Attached 1.3 Family	6,33,200	7,236.57	23.46
2.	Bullock Labour 2.1 Hired 2.2 Owned	7,87,460	8,999.54	29.17
3.	Seeds	1,50,500	1,720.00	5.58
4.	Manures and fertilizers	4,34,652	4,967.45	16.10
5.	Irrigation charges	20,255	231.49	0.75
6.	Insecticides/Fungicides	19,118	218.49	0.71
7.	Machines Charges 7.1 Hired 7.2 Owned	27,930	319.20	1.03
8.	Rental value of Owned Land	6,03,500	6,897.14	22.36
9.	Other incidental Charges	22,575	258.00	0.84
	Total	**26,99,190**	**30,847.89**	**100.00**

Source: Field survey

Table 5 reveals that, the total expenditure of 87.5 acre is Rs.26,99,190 and the average cost of cultivation per acre is Rs.30,847.89. The major expenditure on banana cultivation is bullock labour it constitute 29.17 per cent and followed by hired human labour it constitute 23.46 per cent. Rental value for owned land is another major cost of cultivation it constitutes 22.36 per cent to the total expenditure. Irrigation changes and feticides are the meagre percentage of cost of cultivation.

Figure: 1 Cost of Cultivation of Banana



5. Economic Returns

For a long time, marketing conditions in India were primitive and farmers were exploited by traders and middlemen. The farmers feel that they are not in a position to get competitive prices for their output as the price is fixed by commission agents and retailers. They cannot fix sale price over and above their cost price. They face the problems of unsatisfactory prices, market expenses etc. The economic retunes of the banana cultivation is explained through Table 6.

Table: 6 Economic Returns (per acre)

Total Production	Total Cost of Cultivation	Gross Profit
Rs. 76,905.00	Rs.30,847.89	Rs.46,057.11

Source: Field survey

Table 6 explains that, the total production is Rs.76,905. And the total cost of cultivation is Rs.30,847.89 and the gross profit is Rs.46,057.11. In banana cultivation is more profitable than other crops. But the farmers are highly exploited by traders, brokers and middlemen. The percentage of gross profit is Rs.59.

6. Mode of sales

When the produce is brought for sale to the market each individual produce is allowed a lot number. Some sales are based on the verbal

understanding between buyers and sellers with mentioning the rate as it is understood that the buyer will pay the prevailing rate. This method is followed when cultivators borrow from the traders or where his residence is far away from the market.

A cultivator, who has to borrow heavily for a growing crop, often mortages it in advance. So that the sale of produce, which is hardly more than a mere formality takes almost in his fields as soon as the crop is harvested. In all other cases where crop is not formally mortaged it has to be disposed of almost immediately after harvest in order to pay off the debt. The following table shows the mode of sales.

Table: 7 Mode of Sales

Mode of Sales	No. of Respondents	Percentage
Village trader	9	15.00
Daily market	34	56.66
Mandies	17	28.34
Total	**60**	**100.00**

Source: Field survey

The table 7 shows the mode of sales of the cultivators. Out of 60 respondents 34 respondents sell their agricultural surpluses through daily market which constitute 56.66 per cen. 9 respondents sell their surplus village traders which constitute 15 per cent, and 17 respondents sell their agricultural surpluses through mandies which constitute 28.34 per cent. The researcher has come to know that most of the cultivators would like to sell their produce to the daily market because they have borrowed more money from them.

1.9 Findings and Suggestions

Findings

1. The study reports that among the members in the family, 24 per cent of the members come under the age group between 15-30 years. 32 per cent of the members belong to the age group above 45 years.
2. The study reveals that, out of the 60 respondents 21 respondents are coming under small farmers, and13 respondents are coming under medium farmer and26 respondents are coming under large farmers. This data reveals that majority of the large farmers are having more than 5 acres of land.
3. The study discloses that 18 respondents are having income between above 2,00,000Rs, which constitutes 30 per cent. This shows that most of the agricultural producers come under this classification. Majority of the respondents are living in a satisfactory level of their economic condition.
4. The analysis of the data shows that out of 60 samples respondents, 46 respondents save their money in post office with Rs.2,20,200, which accounts for 76.66 per cent. 14 respondents save their money in bank, which accounts for 23.34 per cent. Hence in this study area post office plays an important role for saving.
5. It is observed that 36 respondents borrowed money from bank, which constitute 60 per cent. 15 respondents borrowed money from SHG, which constitutes 25 per cent. 9 respondents borrowed money from money lenders, which constitute 15 per cent. Majority of the respondents are getting crop loan from bank.
6. With regard to cost of cultivation it has been found that the average cost of cultivation per acre is Rs.30,847.89.
7. With regard to cropping pattern it was found that out of different varieties of banana like Malayathan, Nadu, Rasthali and Kasali cultivated in different percentage of areas. Malayathan had been cultivated in large area (31.65%) and Kasali in a smaller area(17.92%).
8. The study shows that in this area the malayathan verity is more profitable compared to other verities followed by nadu verity. The average production per acre is Rs.76,905.
9. The analysis of the data shows that the major expenditure on banana cultivation is bullock labour it constitute 29.17 per cent and followed by hired human labour it constitute 23.46 per cent. Rental value for owned land is another major cost of cultivation it constitutes 22.36 per cent to the total expenditure. Irrigation changes and feticides are the meager percentage of cost of cultivation.
10. It is reported that in banana cultivation is more profitable than other crops. But the

farmers are highly exploited by traders, brokers and middlemen.

11. The study discloses that most of the cultivators would like to sale their produce to the daily market because of they have borrowed more money from them.

Suggestions

1. The banana cultivation is higher in this study area. But they fetch only lower price. If a co-operative marketing society is established in this area, it will be benefited for banana producers as it undertake the procurement, processing and other marketing functions for the benefit of the members.
2. The sources and availability of finance for agricultural operations are inadequate in this area. Therefore, the nationalized functions for the benefit of the members.
3. The sources and availability of finance for agricultural operations are inadequate in this area. Therefore, the nationalized banks should come forward to provide finance to the agriculturist.
4. The government should provide proper facilities for storing their products.
5. The government should provide market information to the farmer, whole-sale price, arrivals of banana bunches and important markets may be announced in specified timings through the radio/ television on the same day.
6. The government should arrange adequate and cheap means of transport facilities in this area.

Conclusion

The study reveals that living conditions of the agricultural family is satisfactory in this Village. Small size of land holding is one of the reason for low level of agricultural output and also reduces the profit of the farmer because of the cultivation cost is more. This study further reveals that most of the farmers are having income between above Rs. 2,00,000, which constitutes 30%. So the researcher came to a conclusion that majority of the farmers are living in a satisfactory level of their economic condition in this village. Further feel that they are not in a position to get competitive prices for their output as the price is fixed by commission agents and retailers. They can not fix sale price over and above their cost price and also the farmers face the problems of unsatisfactory prices, market expenses etc. Further this study reveals that, the total production of banana is Rs.76,905 and the total cost of Cultivation of banana is Rs.30,847 and the gross profit is Rs.46,057. The percentage of gross profit is Rs.59. So that, the banana cultivation is more profitable than other crops. But the farmers are highly exploited by traders, brokers and middleman.

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