A Study On The Satisfaction Level Of Betel Leaf Farmers In Tamil Nadu With Reference To Karur District

**** Dr. N. Kathirvel***

INTRODUCTION

Agriculture, which is considered the backbone of the Indian economy, has taken a back seat due to the apathy of government policies in the last two decades. Meanwhile, nearly 70 percent of the population, depending upon agriculture for their daily livelihood directly or indirectly, is currently undergoing a transformation. With dwindling surpluses from agricultural activities, most of the labourers have now shifted to service sector activities like real estate, working as construction workers, and others (especially the second generation of farming families) who are semiskilled have found solace in the periphery, working for courier companies and the like. Thus, semi and unskilled workers have been forced to take up work in manufacturing (mostly contractual in nature) and service sectors - where wages are minimal and hardly any social security is provided by the company. Yet approximately, some 20 percent of the villagers now depend solely upon agricultural income for their livelihood directly. Farmers' welfare directly depends upon the income generated from agricultural produce. This income would be high or low depending upon the nature of the price discovered in the market for the produce. The farmers often do not participate in determining the price and instead, the middlemen and agents decide upon the price. Globalization is a process in which the entire nation is expected to benefit, including the small farmers as stakeholders. But in India, we see a different picture. Globalization has left the small farming community (and in the case of certain crops, the government) do the hard work. But ,third parties make profit out of the loss imposed upon poor farmers by manipulating the demand-supply conditions. When this threatens the daily livelihoods of the villagers, they search for better sources of income outside agriculture. This leads to sale of land, which ultimately drives the agricultural labour-force out of employment. The other side of the story is that due to the low prices received for their produce, farmers are sometimes compelled to give very low wages to the labourers, which is far less than what they might receive in comparison to the manufacturing sector. This forces the labourers to migrate out of agriculture. This indeed is not bad for an economy, which is in the second stage of reforms and globalization. Reforms would be meaningful in the macro context, only if they provide greater employment opportunities with better wages and working environment. It is an irony that it is not so in the agricultural sector in a nation, which calls Mahatma Gandhi as the *Father Of The Nation*, who always stressed upon *"self sufficient villages"* as the building blocks for making India a strong nation. Today, we have a situation where large-scale migration of productive labour force (in the age group of 16 to 58) from villages to metros is creating unmanageable shanty townships. This has come about due to a combination of misplaced trade and other policies.

REVIEW OF LITERATURE

Raju and Senguttuvan (2003) found that the most destructive pest pseudostem weevil is widely distributed in all banana growing areas. The reason for the spread of this pest is the selection of the suckers from the pest affected places and non-removal of the leaves, trashes and suckers after the harvest of the crop.

Praveena and Selvalakshmi (2004) observed that investment in fertilizers can be reduced by the application of biofertilizers. Biofertilizers do not pollute the soils and ground water with residues. It promotes and enhances the health of the agro ecosystem including biodiversity, biological cycle and biological soil activities. The National Commission on Agriculture defined agricultural marketing as the process which starts with a decision to produce saleable farm commodities and it involves all aspects of market structure or system- both functional, institutional based on technology and academic consideration including pre and post harvest operations, grading, storage, transportation and distribution.

* *Associate Professor,* Department Of Management, Karpagam University, Coimbatore - 641 021. Tamil Nadu.
E-mail : pnk70_samy@yahoo.co.in

B. Bhushan defines agricultural marketing as performance of activities that direct the movement of agricultural commodities - services from the farm-gate to customer.

STATEMENT OF THE PROBLEM

The economic development of a country depends on the development of the core industry in which the majority of its people have been engaged for quite a long time. Indian economy has been largely based on agriculture from time immemorial. The economic aspects of the crop as discussed above evidently prove that betel leaf is one of the most promising commercial crops capable of attracting substantial amount of foreign exchange to the country. Betel leaf, being a highly perishable commodity, is to be marketed within a short span of time. Therefore, systematic package practices in betel leaf production will greatly improve productivity and enable the farmers to gain the maximum benefits. Similarly, a well organized marketing system for betel leaves will give a suitable reward to people actually participating in the system.

❋ **Importance Of The Study :** The leaves are very nutritive and contain substantial amount of vitamins and minerals and therefore, six leaves with a little bit of slaked lime is said to be comparable to about 300ml of cow milk, particularly for the vitamin and mineral nutrition. The leaves also contains the enzymes like diastase and catalase besides a significant amount of all the essential amino acids except lysine, histidine and arginine, which are found only in traces. This study will help to formulate a suitable framework to analyze the various elements of production and marketing of betel leaves. Such a study will ensure proper resource combinations to improve betel leaf production and thereby, increasing the profit.

OBJECTIVES OF THE STUDY

1. To study the problems faced by betel leaf cultivators.

2. To analyze the satisfaction levels of betel leaf cultivators in production, marketing, government advice etc.,

3. To offer suggestions to improve the production and marketing of betel leaves.

AREA OF THE STUDY

Agriculture is a predominant occupation in Karur District, Tamil Nadu and it occupies an important place in the District economy. Most of the labour force is engaged in agriculture and its allied activities. Karur district was selected for the present study, since the betel leaf cultivation occupied an important place in agriculture in this district.

HYPOTHESES

The following hypotheses have been framed in the light of the above objectives.

1. There is no significant relationship among the types of farmers and their satisfaction regarding betel leaf production.

2. There is no significant relationship among the types of farmers and their satisfaction regarding betel leaf marketing.

METHODOLOGY

❋ **Research Design :** The study is a combination of both descriptive and analytical tools.

❋ **Sampling Design :** The present study is empirical and hence, field survey method and personal interview technique were adopted. Multi-stage stratified random sampling has been adopted for the present study with Karur District as the universe, the taluk as the stratum, the village as the primary unit of sampling and the betel leaf farmers as the ultimate unit.

❋ **Collection of Primary Data :** Primary data required for the study were collected from the 500 selected respondents of Karur district in order to analyze the technical efficiency of the farmers.

❋ **Period Of The Study :** The field survey was carried out during the period from April 2009 to August 2009 to collect the primary data.

STATISTICAL TOOLS

❋ **Descriptive Statistics :** The following descriptive statistics were used for the study- Percentages, mean and standard deviation, scaling technique and preliminary analysis of data.

❋ **Measurement Of Variables**

a. Small Farmers : Farmers having land upto 2.50 acres.

b. Medium Farmers : Farmers having land from 2.51 acres to 5.00 acres.

c. Large Farmers : Farmers having land more than 5.00 acres.

ANALYSIS AND INTERPRETATION

❋ **Satisfaction Level Of Farmers From Betel Leaf Cultivation :**

Table 1 : Details Of The Satisfaction Level Of Farmers (Those Who Cultivate Betel Leaves)

		Satisfaction Level						Total	
		Dissatisfied		Neither satisfied nor Dissatisfied		Satisfied			
		No	%	No.	%	No.	%	No.	%
Type Of Farmers	Small farmers	181	56	108	33.4	34	10.5	323	100
	Medium farmers	86	64.7	27	20.3	20	15	133	100
	Large farmers	17	38.6	16	36.4	11	25	44	100
Total		**284**	**56.8**	**151**	**30.2**	**65**	**13**	**500**	**100**

Table 1 is illustrative of the satisfactory level of the farmers who cultivate Betel leaves. Of the small farmers, only 10.5 percent were satisfied, 33.4 percent were neither satisfied nor dissatisfied. The percentage of dissatisfied farmers seems to be very high at a level of 56 percent. Among the medium farmers, 15 percent were satisfied, 20.3 percent were neither satisfied nor dissatisfied. But here also, the percentage of the dissatisfied farmers was very high at a level of 64.7 percent. Among the large farmers, 25 percent were satisfied, 38.6 percent were dissatisfied and 36.4 percent were neither satisfied nor dissatisfied. The percentage of dissatisfied farmers seems to be the highest among the Medium farmers and small farmers.

The chi-square test was applied to find out whether the satisfaction level is influenced by the type of the farmers.

❋ **Null Hypothesis: The satisfaction due to betel leaf cultivation is not influenced by the type of the farmer.**

Table 1a : Satisfaction Derived From Betel Leaf Cultivation

Chi-Square Tests					
	Value	Table	Value	Df	Sig.
Chi-Square	16.845	13.277	4	**	

Source: Primary Data** 1% Significance

The Table 1.a shows that the calculated value is more than the tabulated value and hence, the null hypothesis is rejected. It is concluded that the satisfaction level is influenced by the type of the farmers. Among the satisfied farmers, majority of the farmers belong to large farmers' category. So, it is understood that the satisfaction level increases with the type of the farmer.

From the Table 2, it is inferred that 47.0 percent of the farmers were not satisfied; 49.2 percent of the farmers were neither satisfied nor dissatisfied. Only 3.8 percent of the farmers were satisfied.

Table 2 : Satisfaction Level Derived From Cultivation

Satisfaction Level	No.	Percent
Satisfied	19	3.8
Neither Satisfied Nor dissatisfied	246	49.2
Dissatisfied	235	47.0
Total	**500**	**100.0**

Source: Primary Data

NEW TECHNIQUES FOR CULTIVATION OF BETEL LEAVES

The following Table 3 shows the opinion of the farmers regarding the use of new techniques in the cultivation of betel leaves.

Table 3 : Farmers' Opinion Regarding The Use Of New Techniques

	No.	Percent
No	478	95.6
Yes	22	4.4
Total	**500**	**100.0**

Source: Primary Data

From the Table 3, it can be understood that the majority of the farmers were not interested in using new techniques for betel leaf cultivation (95.6). Only 4.4 percent of the farmers were using new techniques for the cultivation.

GOVERNMENT ADVICE

The researcher also inferred from the data that majority of the cultivators were not satisfied with the advice given by the Government officials. 86.6 percent of the farmers were not satisfied, 7.0 percent of the farmers were neither satisfied not dissatisfied, 4.2 percent of farmers were satisfied, and 2.2 percent of the farmers were not at all satisfied.

LEVEL OF SATISFACTION REGARDING THE MARKETING OF BETEL LEAVES

The Table 4 shows the satisfaction level derived by marketing of betel leaves by the sample farmers. Table 4 gives a description of the satisfaction level of farmers by marketing of betel leaves. Among the small farmers, 323 farmers were taken for the study. Out of which, only 5.6 percent were satisfied, 53.6 percent were dissatisfied and 40.9 percent were neither satisfied nor dissatisfied. Among the 133 medium farmers, 2.3 percent alone were satisfied, 71.4 percent (quite a high percentage) were neither satisfied nor dissatisfied and 26.3 percent expressed dissatisfaction. Among the 44 large farmers, 22.7 percent were satisfied, a high percentage of 47.7 percent were dissatisfied and 29.5 percent were neither satisfied nor dissatisfied. Chi-square Test was applied to find whether there is any relationship between the types of farmers and their satisfaction level regarding the marketing of betel leaves.

Table 4 : Level Of Satisfaction Obtained While Marketing Betel Leaves

		Types of farmers						Total	
		Small farmers		Medium farmers		Large farmers			
		No.	%	No.	%	No.	%	No.	%
Satisfaction level	Satisfied	18	5.6	3	2.3	10	22.7	31	6.2
	Neither Satisfied Nor Dissatisfied	132	40.9	95	71.4	13	29.5	240	48
	Dissatisfied	173	53.6	35	26.3	21	47.7	229	45.8
Total		**323**	**100**	**133**	**100**	**44**	**100**	**500**	**100**

Source: Primary Data

❋ **Null Hypothesis: There is no significant relationship between the satisfactory level of the betel leaf market and the types of farmers.**

Table 5 : Level Of Satisfaction In The Marketing Of Betel Leaf

Chi - Square Tests				
	Value	Table Value	df	Sig.
Chi-Square	59.989	13.277	4	**

Source: Primary Data ** 1 % level of Significance

Table 5 shows that since the calculated value is greater than the tabulated value, **the null hypothesis is rejected i.e., the satisfaction level depends on the type of farmers.**

Garrett's Ranking Technique was used to identify the problems in production and marketing faced by betel leaf growers. The respondents were asked to rank some of the identified factors for switching to other crops like banana. The order of merit was assigned by the Garrett's Ranking Technique. This method was suggested by Garrett for converting the ranks into scores where the number of items ranked differed from respondent to respondent. The percentile position for each rank was found by using the following formula :

$$\text{Percentile position} = \frac{100(R_{ij}-0.5)}{N_j}$$

Where, R_{ij} = **Rank given** i^{th} **factor by** j^{th} **individual,**

N_j = **Number of factors ranked** j^{th} **individual.**

By referring to Garrett's table, the percentile positions estimated were converted into scores. The scores of various respondents were added and the total scores were calculated. The factor with the highest total score was considered to be the most important, followed by second, third and so on.

PROBLEMS FACED IN BETEL LEAF PRODUCTION

The major problems faced by the farmers need to be identified first before making an attempt to solve them. The problems in cultivation of Betel leaves faced by the farmers are grouped under the major headings like Heavy Damage by wind, Severity of pests, Deteriorating soil quality, Severity of Diseases, Heavy weed occurrences, Non-availability of water and environment. To find the major problem in the production of betel leaves, ranking method was followed (see Table 6). The computations are given in Table 6. It could be observed from the Table 6, that the "**non-availability of water"** was the major problem (Rank 1). "**Heavy damage by wind**" was the next important problem (Rank 2) faced by the farmers. The least bothersome problem was **"other factors"** (Rank 9).

ALTERNATIVE METHODS OF IRRIGATION

When water scarcity is the major problem faced while cultivating betel leaves, farmers think of alternative methods. Following are certain alternative methods : Water management techniques, Development of canals, Conjunctive use of surface, Crop diversification, Introducing sprinkler system, Drip irrigation and Reuse of waste waters. To find the best alternative procedure, the ranking method given in Table 7 was again followed. The computations are given in Table 7.

It is observed from the table that **"crop diversification"** (Rank 1) is the best alternative method when the problem of water scarcity arises. The next alternative is "**water management techniques"** (Rank 2). The least preferred method was introducing **"Sprinkler system"** (Rank 7).

ECONOMIC FACTORS LIMITING BETEL LEAF PRODUCTION

The major problems faced by the farmers need to be identified first before making an attempt to solve them. The

Table 6 : Problems Faced By Farmers During Betel Leaf Production

Alternative Methods Of Irrigation	Percentile Score X	Total XF1	Rank
Heavy Damage by Wind	500	28921	II
Severity of Pests	500	28268	III
Deteriorating Soil quality	500	27249	V
Severity of Diseases	500	24948	VI
Deteriorating water quality	500	27681	IV
Heavy occurrences of weeds	500	23171	VII
Non-availability of water	500	36704	I
Environment	500	18708	VIII
Other factors	500	9760	IX

Source: Primary Data

economic factors limiting the production are: Higher fertilizer cost, Higher Labour cost, Non-availability of fertilizers and pesticides, inadequate credit, non availability of High yielding suckers and lack of technical Guidance.

Table 7 : Alternative Methods Of Irrigation

Alternative Methods Of Irrigation	Percentile Score X	Total	Rank
Water Mgmt. Techniques	495	27536	II
Devpt of canal	495	23909	V
Conjuctive use of surface	495	24536	IV
Crop diversification	495	34589	I
Introducing sprinkler system	495	19109	VII
Drip irrigation	495	19353	VI
Reuse of waste waters	495	24868	III

Source : Primary Data

Table 8 : Economic Factors Limiting Betel Leaf Cultivation

Economic Factors Limiting Betel Leaf Production	Percentile Score X	Total XF1	Rank
Higher Fertilizer Cost	500	25685	III
Higher Labor Cost	500	24445	II
Non-availability Of Fertilizers And Pesticides	500	24500	IV
Credit Inadequate	500	37301	I
Non Availability of High Yielding Suckers	500	20816	V
Lack Of Technical Guidance	500	17245	VI

Source: Primary Data

It could be observed from the Table 8, that the economic factors limit the betel leaf production. **Credit inadequacy** was the major problem (Rank 1**)**. **Higher Labour cost** was the next important problem faced by the farmers (Rank 2).

PROBLEMS FACED IN THE MARKETING OF BETEL LEAVES - MULTIPLE RESPONSES

The Table 9 shows problems faced by farmers during the Marketing of Betel Leaves.

Table 9 : Problems Faced During The Marketing of Betel Leaves

	No.	%
Indebtedness to traders	371	74.2
Heavy commission charges	400	80.0
Inadequate finance	89	17.8
Price fluctuations	465	93.0
Absence of grading	467	93.4
High transport cost	375	75.0
Lack of storage facility	467	93.4
No regular payment	316	63.2
Lack of market information	464	92.8
Seasonal glut	471	94.2
Malpractices	10	2.0
Absence of co-operative marketing	5	1.0

Source: Primary Data

From the Table 9, it is observed that price fluctuations, absence of grading, lack of storage facility, lack of market information and seasonal glut are the major problems faced by the majority of (more than 90 %) the farmers. Heavy commission charges are the next major problem. It is found that there is no organized market for betel leaves and hence, all farmers prefer the pre harvest contractors.

FINDINGS

1. Satisfaction Level From Betel Leaf Cultivation : It is understood that the satisfaction level increases with the area under betel leaf cultivation.

2. Satisfaction Level From Cultivation : It is inferred that 47.0 per cent of the farmers are not satisfied, 49.2 per cent of the farmers are neither satisfied nor dissatisfied and only 3.8 per cent of the farmers were satisfied.

3. New Techniques To Cultivate Betel Leaves : Majority of the farmers were not for using new techniques in cultivation (95.6). Only 4.4 per cent of the farmers were using new techniques for cultivation.

4. Government Advice : 86.6 per cent of the farmers were not satisfied, 7.0 per cent of the farmers were neither satisfied not dissatisfied, 4.2 per cent farmers were satisfied 2.2 per cent of the farmers were not at all satisfied with the advice given by the government for Betel Leaf cultivation.

5. Satisfaction Level In The Marketing Of Betel Leaf : This means that when landholdings (type of farmers) increase, the satisfaction level of the farmers also increases.

6. Alternative Methods Of Irrigation : It was observed that **"crop diversification"** (Rank 1) was the best alternative method preferred when the problem of water scarcity arose. The next alternative was "**water management techniques"** (Rank2). The least method preferred was introducing **"Sprinkler system"** (Rank 7).

7. Problems Faced During The Cultivation of Betel Leaves : The "**non-availability of water"** was the major problem (Rank 1). "**Heavy damage by the wind**" was the next important problem (Rank 2) faced by the farmers. The least bothersome problem was **"other factors"** (Rank 9).

8. Economic Constraints Limiting Betel Leaf Production : The economic constraints limit the betel leaf production. **Credit inadequacy** was the major problem (Rank 1**). Higher Labour cost** was the next important problem faced by the farmers (Rank 2).

9. Marketing Problems Faced By Betel Leaf Farmers : Price fluctuations, absence of grading, lack of storage facilities, lack of market information and seasonal glut were the major problems faced by the majority of (more than 90 %) the farmers. Heavy commission charges was the next major problem. It was found that there was no organized market for betel leaves and hence, all farmers preferred the pre harvest contractors.

SUGGESTIONS

1. The size of the farm holdings has a direct effect on the output of betel leaves. Sub-divisions and fragmentation of the farms leading to uneconomic holdings results in lower output. Necessary steps should be taken consolidate the small holdings of the farmers to make the agricultural holdings more economic, so that it will increase the output. The uneconomic holdings may be converted into economic holdings through Co-operative farming.

2. Since the availability of water is insufficient, the purchase of water from fellow farmers is inadequate. As a result, there is a sizable reduction in the output. In order to increase the water resources, the government should come forward to help the farmers by offering subsidies for digging well or bore wells.

3. The Betel leaf cultivation is higher in kulithalai taluk. But they fetch only lower price. If a Co-operative marketing society is established in this taluk, it will be beneficial for betel leaf producers as it undertakes the procurement, processing and other marketing functions for the benefit of the members.

4. The farmers are usually following traditional methods of cultivation . The advanced techniques like soil testing and seed testing are not used by the farmers as they are not aware of them. Therefore, the laboratories for these tests are to be established in every panchayat union of Karur district.

5. The farmers should be encouraged to follow intercrop cultivation, as it not only increases the total income, but also the intercrops are used for natural manure.

6. During the period of non-availability or inadequacy of water, the lands are kept uncultivated. The farmers should be educated to undertake crop diversification.

7. The horticultural department at the taluk level should visit the farms and give their suggestions to the betel leaf farmers to overcome the problems faced by them regarding the availability of hybrid seeds, pest management, water management, use of manures and fertilizers, and increased production.

CONCLUSION

The agricultural growth strategy of the past has intensified the interclass inequalities. The Government can pay attention by providing transport facilities, maintaining good roads and providing subsidiaries for suckers and fertilizers, so that the small and medium farmers may be benefited.

The Government can take necessary steps to release Cauvery water at appropriate period (i.e. during betel leaf cultivation period), which will enable the farmers to get a good yield of betel leaves.

In the areas chosen for the Research, two-third of the population are agriculturalists. Their agricultural lands depend on monsoon rains. The majority of the lands are rain-fed areas. If the monsoon fails, then the farmers will be in trouble. In this situation, the Government should give financial support to farmers, especially to the small and medium farmers.

BIBLIOGRAPHY

1.Government of India, Agricultural Marketing in India, Vol. II, Directorate of Marketing and Inspection, Nagpur, 1976, p.1.

2.Bhushan. B., "Agricultural Marketing in India Structural Weakness and Agenda for Reforms", Kurushetra, Vol.42, November 1994, p.9.

3.Praveena. S. and Selvalakshmi. V., "Recycling betel leaf wastes using Bio-inoculants", Kisan world, February 2004, p.31.

4.www.indianagricultural.org

5. www.tn.gov.in

6.www.icar.org.