



## STRUGGLE OF CARDAMOM GROWERS: LOCAL LEVEL STUDY IN IDUKKI DISTRICT OF KERALA

Nithin Raj K\* Dr. Anooja Chacko\*\*

\*PG Scholar, Department of Economics, The Zamorin's Guruvayurappan College, Calicut, Kerala.

\*\*Assistant Professor, Department of Economics, The Zamorin's Guruvayurappan College, Calicut, Kerala.

### Abstract

This study mainly attempts to find out the environmental as well as economic problems of Cardamom cultivation based on the empirical evidence from Idukki district of Kerala. The study found that the cardamom cultivation is very sensitive to climatic changes. The distinctive climatic parameters could have played a major role in the production of cardamom cultivation. Frequent and continuous droughts, inadequacy of monsoon, changes in climate etc. result in considerable crop loss. Increasing cost of fertilizers, insufficient irrigational facility and lack of governmental organisation are other pressing problems of cardamom producing sector. Thus the study recommends restoration of ecosystem as well as pro- institutional intervention for the betterment of this sector having huge export potential.

**Key words:** Cardamom.

### I . Introduction

Cardamom is considered as 'Queen of Spices' in the world. It is a sweet, lemony, eucalyptus flavoured spice and it is the world's third most expensive spice after Vanilla and Saffron. Cardamom is grown commercially in plantations under the shade of tall shadow forest trees. It is a labour- intensive crop.

The habitant of small cardamom is the ever green forests in the Western Ghats in South India. It is grown in the areas where the annual rainfall ranges from 1500-4000 mm with a temperature range of 10-35<sup>0</sup> C and the altitude of 600-1200 m above MSL. India is the second largest producer of Cardamom in the world after Guatemala (*Spices Board of India, 2018*). Among the Indian states the major Cardamom growing states are Kerala, Karnataka, and Tamil Nadu (*Spices Board of India-Cochin, 2016*).

The spice like Cardamom producing in Kerala has great demand and receive high price in the world spice market. So they can influence India's spice exports. Moreover Spices are the back bone of the Kerala's exporting sector, and hence enhancement of production as well as rectification of associated problems may help to improve the overall export prospects.

Kerala is the leading producer of Cardamom in the country constituting 76 percent of the total production from 56 percent of the area under Cardamom in the country. It is followed by Karnataka (15 percent) and Tamil Nadu (9 percent) respectively(*Spices Board of India- Cochin, 2016*).The state of Kerala has remarkable share in the Cardamom production with about 39080 hectares of land under cardamom cultivation producing on an average 10222 tonnes of Cardamom annually (*Kerala Agricultural Statistics 2016-17*). The major portion of the cardamom production in Kerala comes from Idukki, Wayanad, Palakkad and other districts of the Kerala.

Among the different districts, Idukki leads both in area (33076 ha) and in production (9286 tonnes) (*Kerala Agricultural Statistics 2016*). Unfortunately, cardamom cultivating in Idukki district is really suffocating due to a variety of problems, generally the production and marketing problems. Any upward trend in the price of cardamom should benefit the producer.

However it is paradoxical to see that the producers of cardamom never receive the benefits of any price hikes but they have to bear all the evils of adverse production and market conditions. This is clear evidence to believe



that there is something wrong with the present production and marketing system. The present study goes deep into the problems of cardamom producing sector in Idukki.

### **Objectives of the Study**

The present study mainly focuses on the production and marketing problems of cardamom famers in Idukki district. The specific objectives of the study are:-

1. To analyse the production problems of cardamom cultivation in Idukki
2. To estimate the marketing problems of cardamom growers in Idukki district.
3. To find out the environmental challenges of cardamom cultivation in Idukki.

### **4. Methodology**

The present study is theoretical as well as empirical in nature. Both secondary and primary data are used for the study. Primary data has been collected using a well-structured interview schedule among the cardamom cultivators. A multistage random sampling is undertaken for selection of sample households. Idukki district having the largest cardamom cultivation is selected at the first stage. Kattappana Municipality and Kamakshi Gram Panchayat of Udumbanchola taluk are the major cardamom growing tracks in Idukki district. A total of 40 Cardamom growers were selected at random from Kattappana and Kamakshi panchayats. The data was also collected from the brokers and other officials in major cardamom trading centres in Kattappana and Vandanmet, related with the process and problems of cardamom auction. The data were collected during the month of December- January 2020. Elite interviews with officials were also conducted to supplement the findings. Statistical tools percentages have been used for analysing the data.

### **II. Review of Literature**

The researcher went through available published works as far as possible to obtain background literature. The findings of the literature review are briefly reproduced below.

Chethan (2011) in his thesis ‘A study on knowledge and adoption of cardamom cultivation practise by farmers’ has made an overall study about the socio-economic and psychological characteristics of cardamom growers. This study analyses the production and marketing problems faced by the cardamom growers and also study the marketing patterns and association between some independent variables and adoption of cardamom growers.

Varghese (2007) in his report ‘Economics of the cardamom cultivation in Kerala’ explored the three important concepts such as cost, return, and relative profitability of cardamom cultivation.

Mathew &Princy( 2017) conducted a study in Idukki district state of Kerala on problems and prospects of cardamom cultivation. Their study reveals that insufficient institutional assistance and awareness are mainly effects the farmer.

Dr. M Shahul Hameed (2014), in his thesis ‘Supply chain analysis of cardamom in Kerala’, made a comprehensive study of the key players in the supply chain of cardamom. He also analyses of the cost of production of cardamom, showed the price margin enjoyed by the each participant in supply chain.

Swami Nathan(1985), in his thesis ‘Trends in the area , production, and export price of cardamom in Kerala, Tamilnadu, Karnataka’, made a comparative study of the trends in area, production, and productivity of cardamom in the three states of Kerala, Tamilnadu, Karnataka with basic objective of projecting the probable future share of these states in the international cardamom market.

### **III. Problems of Cardamom Cultivation in Idukki District**

#### **Economic Problems**

The main problems of Cardamom cultivation is in production and marketing levels. These significantly affect the production and returns of cardamom growers.



### Production Problems

Various types of production side problems are summarised and evaluated in the following section.

#### Production Problems of Cardamom Growers

Production Problems	Frequency	Percentage
Facing Pest and Disease Damage	39	97.5%
Erratic Rainfall	38	95%
Animal Damage	29	72.5%

Source: Primary Data.

The data indicates that 97.5 percentage of the respondents are facing the problems of pest and disease damage such as Chori, Katte, Azhukal and Chenthal, etc. All these cause serious fall in production and productivity of cardamom. It causes a decline in the quality of cardamom. Thus price of the crop also falls because price of cardamom is proportional to its grade in quality. 95 per cent of the farmers are affected by natural hazards like erratic rainfall, drought etc. Being a highly climate sensitive crop, all these affect the overall production of cardamom. Deforestation and the resultant climate maladies aggravate their crises.

72.5 per cent of the growers are facing the problem of animal damage such as the destruction of cardamom plants by wild bear, Monkey, wild pig and wild Hen. Animal damage or wild attack is more severe for small and medium farmers. The large growers of Cardamom are facing less the problem of animal damage because they adopt preventive measures from animal damage. The respondents also face production problems such as poor planting materials, inadequate technical guidance, loss due to soil erosion etc. and sometimes they face the problem of frequent harvesting.

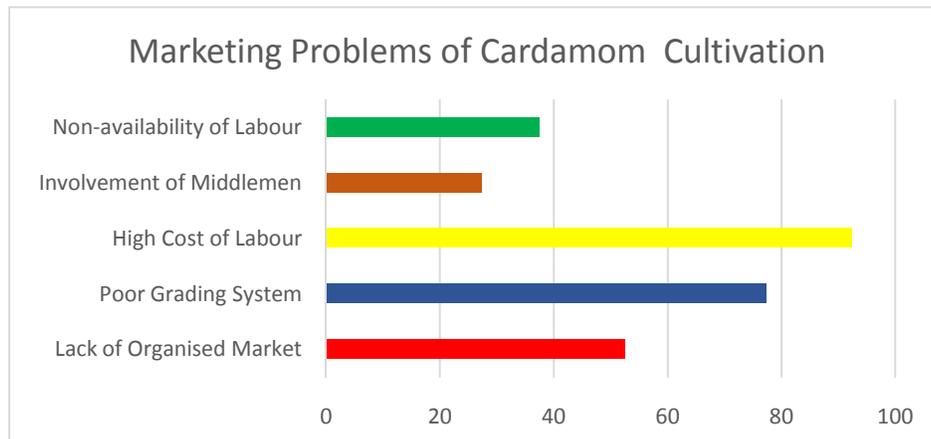
### Marketing Problems

The various marketing problems faced by Cardamom growers are analysed below.

#### Marketing Problems of Cardamom Growers

Problem	Frequency	Percentage
Lack of Organised Market	21	52.5
Poor Grading System	31	77.5
High Cost of Labour	37	92.5
Involvement of Middlemen	11	27.5
Non-availability of Labour	15	37.5

Source: Primary Data





Analysis of data reveals that relatively higher percentage (92.5%) of respondents face high cost of labour, followed by 77.5 per cent expressed the poor grading system, 52.5 per cent of Cardamom growers indicated lack of organised market facilities, 37.5 per cent faced the problem of non-availability of labourers and 27.5 per cent of Cardamom growers expressed the problem of involvement of middlemen.

The problem of lack of organised market and involvement of middlemen are mainly faced by small size farmers of Cardamom. The large size growers of Cardamom are facing the problem non availability of labourers. Most of the large size growers bring women labourers from Tamilnadu for their plantations.

**Insufficient Irrigational Facility**

There is no particular irrigation scheme for the cultivation of cardamom. No financial aids are provided from the Spices Board to up-bring water requirements and to upgrade cardamom cultivation. So they have to depend on the natural facilities in the form of ponds, wells, etc. The following table shows the different irrigation sources used by the cardamom farmers.

**Sources of Irrigation of Cardamom Cultivation**

Water Sources	Frequency	Percentage
Wells	21	52.5%
Ponds/Tank	14	35%
River/Canal	1	2.5%
Bore well	4	10%
Total	40	100%

Source: Primary Data

From this study, it is understood that 100 per cent of growers are using the irrigation facility by different sources. 52.5 per cent of Cardamom growers use the facility of wells, following 35 per cent used pond or tank facility, 2.5 per cent farmers used the irrigation from river or canal and 10 per cent Cardamom growers use the bore well facility for irrigation in Idukki district. Among them small growers are using rainfall and well, while medium and large growers are using facility of wells and ponds.

**Market of Selling Cardamom**

The Cardamom farmers sell their products at different markets. They are classified as follows.

**Distribution of Market of Selling Cardamom**

Market Place	Frequency	Percentage
Local Market	15	37.5%
Whole Salers	19	47.5%
Brokers	6	15%
Total	40	100%

Source: Primary Data

The data reveal that most of the Cardamom growers 47.5% sell their product directly to wholesalers of the area and they get actual price for their cardamom seeds. This will help them to get price without delay. All the large scale cardamom farmers follow this channel. Another 37.5 per cent of the respondents sell cardamom at local retail market. Most of these sales are distress sales- sale immediately after harvest at throw away prices. Urgency for cash compels them to sell cardamom to local traders even at lower prices. 15 per cent farmers sell their product through brokers or agents of the Cardamom market. This reduces the return of the farmers. Small farmers with relatively low amount of cardamom find the service of agents. Local money lenders and small traders act as agents. Sometimes the involvement of agents is not the choice of farmers. Local money lenders



deliberately purchase the cardamom at pre fixed prices as a proxy for interest and principal amount. This contract sale is an unhealthy practice and significantly intensifies the miseries of farmers.

### Source of Information on Price

The Cardamom growers of Idukki district use different source for gathering information about price. They rely on multiple sources- both traditional and modern sources-for the information seeking. All the respondents using different sources to know the market price at the same time. The data is presented in the following table.

**Distribution of Sources of Information on Price**

Source of Information	Frequency	Percentage
Magazine/News Papers	23	57.5%
Internet/Online Sources	35	87.5%
Govt. Officials	9	22.5%
Personally Visit the Market	8	20%
Other Farmers	20	50%

*Source: Primary Data.*

The study reveals that 87.5% of the respondents are using internet or online sources for this purpose. Social media platforms like whatsapp groups of farmers, official websites, face book pages etc. help them to cross check the pricing more authentically. Traditional sources like magazine or newspaper facility are used by 57.5 percent. Those using online facilities also rely on these sources.50 per cent gather information from other farmers. 22.5 per cent of respondents expressed that they seek the information on price from Govt. Officials. 20 per cent farmers personally go to the market for understanding the price of Cardamom. At the present cardamom marketing situation, there are many facilities to know the price of cardamom. The Spices Board of India has introduced an electronic price auctioneer system and the producers can know the daily auction price through their websites. Many farmers follow this system.

### Some other Problems

Instead of all the above noted Economic problems of Cardamom growers in Idukki district, there are many other problems faced by the Cardamom growers. That are analysed below,

#### 1. Cost of Fertilizers

Small and medium growers are not able to bear the increasing cost of fertilizers and plant protection chemicals. Mostly they are using fertilizers such as phosphorous, potash, factomphose, urea, and cobaltousetc. About 86 per cent small and medium growers suffer the high cost of fertilisers. So they are reducing the consumption of fertilizers and insecticides. This will adversely affect the productivity of Cardamom.

#### 2. Unfavourable Weather Conditions

The experience of growers shows that the most important single factor that influence production and productivity of cardamom is climate. The failure of monsoon is highly detrimental to the plant as well as yield. About 90 percent of growers of the studied areas reported that the most important factor that influences production and productivity is climate.

#### 3. Involvement of Middle Men

The involvement of middle men in the time of Cardamom selling is another problem of Cardamom farmers. This problem majorly faced by the small farmers of Cardamom. 11 out of 17 (65%) small farmers are facing this involvement of middlemen. This will affect the return of Cardamom producers.



#### **4. Price Fluctuations**

Stable and remunerative price is a pre-requisite for increasing production and productivity of any commodity. So far as Cardamom is concerned, farmers are uncertain about the price they can earn from the market. Prices are determined in Cardamom auction. There is absolutely no mechanism to regulate price. Almost all growers are facing the fear of price fluctuation.

#### **5. Continuous Crop Failure**

The study reveals that another serious problem faced by small and medium growers is the continuous crop failure. Factors like frequent drought, inadequacy of monsoon, change in the climate, attack of pest and diseases etc. results in considerable crop failure. Absence of crop insurance mechanism add fuel to it,

#### **6. Lack of Government Intervention**

Most of the farmers are small farmers and they are not getting any help from Spices Board and any other Government organisation. They are not aware of the advancements in this domain.

#### **7. Inadequate Research and Organisational Support**

The research support to small growers is inadequate. Majority of them use cardamom plants having genetically inferior, low yielding and less resistant to the varying climatic conditions. The high yielding, high climate resistant and hybrid varieties developed by the research wings are not availing to them. This reduced the productivity of cardamom. It also denies the production of high quality cardamom with significant export potential.

### **IV. Conclusion and Suggestions**

Idukki district is the prime district in Cardamom cultivation. The cardamom farmers of Idukki district face so many problems in this sector. Out of the Production, marketing and other problems, production problems are the major issue of them. The yield and productivity are varying with their cultivating patterns. The return and profit of cultivation is not consistent. It is varying yearly because climate changes. The cardamom cultivation is very sensitive to climatic changes. The distinctive climatic parameters could have played a major role in the production of cardamom cultivation.

It is clear from the study that the failure of monsoon is highly detrimental to the plants as well as yield. Frequent and continuous droughts, inadequacy of monsoon, changes in climate are results in considerable crop loss. The study concludes that most import factor that influence production and productivity is climate. Changes in climate as a result of forest degradation in High ranges cause significant damage to the cardamom cultivation. It reduces the yield and quality of Cardamom capsules. Therefore the cardamom farmers are concerned of the sustainability of its cultivation. The reversal of ecological damages and revival of organic farming practices is highly essential for retaining the glory of cardamom cultivation.

In order to recapture the past glory in production and trade of cardamom, prime concern should be given by the government and other responsible agencies to tackle the issues persisting in the cultivation of Cardamom. Some policy suggestions given by the researcher are listed below.

1. The government, Spices Board and responsible agencies should attempt to introduce new high yield variety of Cardamom through better research programmes.
2. The cardamom cultivation process is fully manual. So the responsible agencies or departments of state governments should make efforts to provide the required new techniques and technical knowledge about improved cultivation practises of cardamom growers.
3. The study reveals that some of the cardamom growers, mostly small growers, face the involvement of middlemen or brokers. So, there should be direct trade with farmers and wholesalers or exporters. That means, there is an open market must be needed for cardamom marketing.



4. The price of fertilizers is increasing. There should be a reasonable price control mechanism or targeted subsidies for the fertilisers.
5. Major portion of the plants are lost due to drought and lack of insufficient irrigation facility. This causes severe irreparable loss to the cultivators. So, crop insurance facility should be arranged to the farmers.
6. The interest rate on farmers' loan is still very high. Access to formal financial institution is also limited. In this context, broadening of cheap credit facility by financial institutions is to be practised. In addition to its institutional subsidies by government should also be promoted.
7. The Government and Spices Board must introduce various schemes through local bodies and they should ensure that majority of the growers are benefited by various schemes.

## **References**

1. Anu Krishana (2014), "Plantation and Regional Development: Case of Cardamom Plantations in Kattappana, Kerala, India", National Research Programme on Plantations Development (NRPPD), Discussion Paper. 32, CDS- Thiruvananthapuram.
2. Chethan M G (2011), "A Study on Knowledge and Adoption of Cardamom Cultivation Practices by the Farmers of Chikmangalor District", MSc Thesis, Department of Agricultural Extension Education, University of Agricultural Science, Dharwad.
3. Dr. Leena Mathew & Princy P James (2017), "Problems and Prospects of Cardamom Cultivation in Idukki District", SSRG- International Journal of Economics and Management Studies, Vol.4, Issue 6, June.
4. Dr. M Shahul Hameed (2014), "Supply Chain Analysis of Cardamom in Kerala", International Journal of Science and Research Publications, Vol.4, Issue 03, March.
5. Majo George, Elsa Cherian (2017), "Emergent Global Marketing Challenges for Kerala Cardamom Producers Vis-à-vis Role of the Spices Board of India", JMSB- International Journal of Community Development & Management Studies, Vol.01.
6. Nija K C (2019) "Problem of Cardamom Cultivation in Idukki district, Kerala", International Journal of Humanities and Social Science Research, Vol.5, January, pp.32-38.
7. P K Varghese (2017), "Economics of Cardamom Cultivation in Kerala", Indian Journal of Agricultural Economics, Vol.62, January-March.