

## CONSEQUENCES OF MARKETING REGULATORY ECOSYSTEM THROUGH CENTRALISED E-AUCTION SYSTEM OF SPICE BOARD ON KERALA CARDAMOM FARMING COMMUNITY

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### **ABSTRACT**

#### **Research Objective**

*To explore and assess the impact by which the centralised e-auction policy of the Spices Board of India has been affecting the cardamom marketing sector, is the key objective of this research along with suggesting some practically feasible methods, that can educate the small scale & medium scale farmers about the E-auction, and make them comfortable with the recently changed policies .*

#### **Background**

*Cardamom is called the “Queen of Spices”, because of its exotic flavour and aroma. Green cardamom of the Western Ghats of Kerala is one of the most expensive spices by weight and little is needed, by way of any value addition to enhance its original organic flavour. The Auction Centres of the Spices Board of India have a crucial role in the marketing of cardamom. Not everything is satisfactory with the cardamom marketing sector, as a large number of cardamom growers are dissatisfied and not comfortable over the auction system of marketing with its economic and its fiscal implications. In this scenario, Government has changed the regulatory system and came up with centralised E Auction centre at Puttadi Idukki District, which made the scene more pathetic.*

#### **Methodology**

*Descriptive research design is adapted in this research to specifically quantify and assess the consequences of the centralized E auction system introduced by spices board of India. Sampling method used is Stratified random sampling method. The population is divided into stratum based on the area of cultivation and sample is selected according to its representation in the population.*

#### **Contribution**

*This paper attempts to bring into focus the peculiar nature of the auction system prevailing in the cardamom sector. To evaluate the functioning of the E- Auction Center and its effect on the lives of ordinary farmers who are generally not patronizing such center and to come up with new programmes to familiarize such farmers with e-auction system.*

#### **Findings**

*The benefits envisaged by the Auction Centres have not effectively reached the small scale farmers who opt for the local purchaser, who in turn may or can use the auction centres. While the recent introduction of ID cards for the interested*

Cardamom growers for the centralised e-auction facility at Puttady, replacing the earlier auction centres, are projected as steps in forward direction, but a large number of farmers are still unfamiliar with the new system of e-auction as they are not internet savvy. This has resulted in the exploitation of such farmers by market intermediaries.

### **Suggestions**

Many growers remain dissatisfied with the E-auction system of marketing of spices and its economic implications. Therefore, there is the need for the Spices Board to open up a continuous process of meaningful dialogues or interactions with the farming community, at large. Spices Board should take initiative to conduct auctions on its own to protect the small growers from the exploitation of private auctioneers.

*There is an imperative need to shift from current practice of sale to marketing of cardamom in attractive consumer packs. Timely delivery of the produce to up-country and foreign markets is inevitable to induce prompt payment.*

**KEYWORDS:** Cardamom, Auction, E- Auction, Marketing, Spice Board, Farmers

## **INTRODUCTION**

This study mainly focuses on the impact of the newly introduced centralised e-auction centre at Puttadi in Idukki district, Kerala, of the Spices Board of India on the marketing scope of the small and unorganised or marginalised cardamom farmers and other trading intermediaries in the state. The actualised contemporary level of marketing involvements of such farmers, in contrast with that of the medium and larger and well established organised sector plantations cannot be discussed in isolation to the erstwhile patronage of the earlier auction centres and already existing problems and challenges faced by the Kerala cardamom farming community. The contemporary situation is detailed in the 'Findings' below.

The changes introduced by the Spices Board of India and their consequences that directly or vicariously affect marketing and also price fixation mechanisms of cardamom as a spice need to be analysed and evaluated by first studying the backdrop and other varied circumstances that provoked the Spices Board of India of the singular e-auction centre with accent of digital interface facility substituting the six earlier auction centres as production nodal centres.

### **Auction Centre**

Auction centres actualise trade and marketing, facilitate the organised buying and selling of tradable assets, both perishable and imperishable. An auction house is a facility or an amenity that arranges auction, including providing a physical or digital platform on appointed time slots or on a continuous basis for interaction between buyers and sellers, directly or through their accredited representatives.

The unique soil and microclimate conditions of the Western Ghats of Kerala like Idukki district has been a blessing for growing this superior quality of cardamom. Mainly because of its exotic taste, flavour and unique aroma, including its medicinal and curative values, green cardamom of Kerala is called the "Queen of Spices". It has a warm sweet penetrating aroma of complex flavours, which is said to add an element of mystery to this ancient spice. One of the most expensive spices by weight, second only to saffron and vanilla, this spice was long sought after for centuries from ancient Greek, Persian and Far Eastern countries.

## **FUNCTIONAL ROLE OF THE SPICES BOARD OF INDIA**

The Spices Board of India is a central government organisation based at Kochi, Kerala, which has been instituted in 1986-87 to foster the farming and marketing development of 52 spices, cardamom being just one of them. This promotional body has also been vested with authority to introduce whichever regulatory mechanisms in the spice marketing eco-system in India as a whole and has been meant “to act as a catalyst of dramatic transition”.

As the apex government of India entity, these measures were not contemplated by taking into confidence the small but unorganised cardamom farming community, which were not directly involved with the Spices Board auction centres, even earlier. It is expected to generally set trends and act as a determinant catalyst for the overall progressive farming and marketing of cardamom.

Presently the Spices Board of India has only a single centralised e-auction digital facility, whereas it had, till recently, six separate auction centres at convenient nodal trade centres in Kerala, Tamil Nadu etc. This almost functionally digital-operated e-auction facility, however could only address some of the inherent and evolved issues, as detailed below

## **THE FOREFEITING RELEVANCE OF E-AUCTION CENTRE**

During this research study, it has become evident that not everything is satisfactory with the cardamom marketing sector, as a large number of small and marginalised farmers, generally unorganised, were expressly dissatisfied and not comfortable over the formalised e-auction system for cardamom marketing with its economic and its fiscal implications, for various reasons.

Its official promotional and developmental exhortations have not percolated sufficiently down to the grass-root level of small and medium cardamom agriculturists, to progressively establish and sustain market linkages to the cardamom growers and exporters, even in the context of growing market potential and opportunities in the global market.

Knowledge Inputs for cardamom replantation, rejuvenation, irrigation and curing methods and expert guidance and advisory support either from the concerned government agencies and also the various farmers’ co-operative societies and other similar measures have also contributed to a rise in production of cardamom. Such increases in the overall supply situation in cardamom could not be effectively matched by newly introduced initiatives of the Spices Board of India.

Lack of marketing know-how regarding even the earlier auction system notwithstanding, cardamom marketing was earlier conducted under APMC Act, through auctions at designated locations. Farmers and traders participating in auction had to be registered under this Act by the Spices Board of India. This had created unfriendly practices such as exclusion of several small farmers from the market, compelling them to sell their produce to middlemen, and formation of trade lobbies to deny fair price to farmers.

In this scenario, Government through the spices Board has changed the regulatory system and came up with centralised E-Auction centre at Puttadi in Idukki District, which has however not addressed the genuine grievances and doubts of the majority of unorganised cardamom farmers at large

## REASONS FOR THE PRESENT PREDICAMENT OF FARMERS

The system of auctioning of cardamom that was originally implemented under the mandate of the Cardamom Licensing and Marketing Rules of 1987 has been a platform for fixing of prices. The very existence of cardamom auctions is now at risk due to the growing unhealthy tendency of stake holders to boycott auctions even for minor reasons.

Reforms envisaged for streamlining the cardamom trading system are not acknowledged or made full use of by many stake holders. The establishment of a Spices Park, over-ruling the outcry of the farming community, which is integral to the demand-supply equation, through a free open public bid system for cardamom trade and commerce could hardly ameliorate the predicament of most of the cardamom farmers.

This was not essentially farmer friendly and easy to operate even with much internet awareness by ordinary, unorganised cardamom farmers. With the introduction of a single but centralised digital cardamom e-auction centre, special promotion drives for cardamom to expand domestic market consumption have all been carried out at official levels to implement organised changes in the industry.

While the recent introduction of Cardamom growers ID card and centralised facility of e-auction were meant to overcome the above e-auction but some farmers are still unfamiliar with the new system of e-auction, which invariably demand some awareness of internet and data receiving and transfer or basics of computer literacy.

The role played by the Auction Centres of the Spices Board of India has not effectively reached the small scale farmers who opt for the local purchasers, who in turn may or can use the auction centres. This is because the time of actual receipt of money to the farmers is delayed more often than the stipulated 45 days, whereas the local purchaser can give out cash on the spot or immediately to the farmers. Besides the digital type functioning or online trading tends to repel many such farmers for reasons best known only to them.

Most of the small and scattered cardamom farmers do not derive the benefits of e-auction and they do not have ready and reliable access to market information. But the medium or large farmers are relatively successful in getting reasonably fair price, as they offer their produce in e-auction. Thus they can ensure market supply.

The wholesalers are not necessarily stationed in locations which are near to farmers and they participate regularly in the twice a day and six working days a week e-auctions of the Spices Board of India. Their participation in these auctions are of just purchasing or sending procurement bids at large in the e-auction web space but also to keep the pulses of the cardamom market.

## POLICY CHANGES OF NEW REGULATORY ECOSYSTEM

With the aim to achieve sustainable improvement of the situation growth for all kind of cardamom farmers the following are the desirable policy decisions to be made

- Spices districts (Wayanad and Idukki and Palakkad in Kerala) - should have Single Window systems for production and marketing and concerted and pro-active R&D efforts.
- Small Farmers' Agri-Business Consortium (SFABC) - Production, value addition, quality maintenance and marketing on cooperative basis (one district in each state)

- Indian spices logo and brand promotion - Maintenance and assurance on quality on quality of Indian spices through standards and specifications.
- Market interventions - To maintain prices of spices specially cardamom from crashing down, unpredictably as well as non-seasonally.
- Special subsidies - Promotion of export by bringing prices at par or at least, not below international cardamom prices.

## **EFFICACY OF PRESENT E-AUCTION SYSTEM**

The auction system of marketing cardamom of the Spices Board of India has both advantages and disadvantages. Many growers remain dissatisfied with the E-auction system of marketing of spices and its economic implications. Therefore, there is the need to open up a continuous process of meaningful dialogue with the farming community, at large by the Board.

The Board shall also consider establishing sales outlets in the lines of state govt. undertaking in the food sector like the M.P.I. (Meat Products of India Ltd). Spices Board should take initiative to conduct auctions on its own to protect the small growers from the exploitation of private auctioneers. There is an imperative need to shift from current practice of sale to marketing of cardamom in attractive consumer packs. Timely delivery of the produce to up-country markets is inevitable to induce prompt payment.

This is also more relevant when an objective analysis of the lacunae and inherent deficiencies in the present system of conventional cultivation and marketing strategies, including the presently convergent singular e-auction centre at Puttady in Idukki district. All these points to the dire need to structurally revamp and re-prioritise our contemporary attitude and policies on cardamom farming and marketing to be necessarily oriented towards the untapped profit margins in the export markets.

## **AGRICULTURAL TRADE POLICY OF INDIA**

Achieving agricultural and industrial self-sufficiency has been stated as the key goal of India since independence. But the thrust on agricultural trade has been relatively limited. However technological developments and macro-economic policy reforms have brought increased liberalization, following the implementation of the Uruguay Round Agreement, which have paved the way for significant structural changes.

A glance into the trade policy regime of India right from the beginning, betrays a clear distinction between agricultural sector and industrial sector. Within the agricultural sector, two distinct strategies for exports have been envisaged. For traditional commodities such as tea, coffee, tobacco and spices that have always been an important source of foreign exchange earnings for the economy, the trade regime is relatively open reflecting the legacy of the colonial rule. The foreign trade flows for the rest of the agricultural commodities have been regarded as a residual both for exports and imports.

Thus, balancing the domestic demand and the export demand is an integral element of the export strategy for majority of agricultural products of India. This strategy has been implemented over the years through either quantitative restrictions or through selective canalization or, sometimes, through a combination of both. The rationale underlying this

trade policy for agriculture has been to maintain the domestic prices at healthy levels are made particularly important for commodities exportable and importable which are either wage goods or inputs to wage goods. Apart from domestic prices, the agricultural trade policy is also strategically influenced by factors like the balance of payments constraints of nations involved, import substitution strategy and terms of trade concerns.

The trade policy for agricultural commodities outlined above resulted in high protection for some commodities and taxation of some others thereby creating uncertainty for exporters and importers. The Process of Economic Reforms initiated during the mid-1990s 1991 and the signing of Uruguay Round of Trade negotiations (1994) has brought about radical changes in trade policy of India, like the removal of quantitative restrictions on imports and exports, the decanalisation of imports and exports and reduction of tariffs on imports and exports. However, commodities of spices like cardamom remained free in terms of exports. On the whole, the trade liberalisation in India (1991) was basically aimed to be restricted to industrial sector with agriculture experiencing a lot of stumbling blocks and within agriculture the cereals group remained largely insulated from world markets.

Liberalization has provided an opportunity to take advantage of rising international prices which were well above the domestic prices. However, after the operationalizing of WTO in the year 1995, international price of agricultural commodities have dropped to very low levels and Indian agricultural goods' prices in domestic market turned higher than international prices. This rendered Indian market attractive for import of several agricultural commodities as WTO is aimed at free and fair trade.

But compared to pre- WTO period the developed countries have increased tariffs and started providing huge domestic subsidies to their farmers under "Green Box", and "Blue Box" classes of the WTO, undermining the very concept of global free trade. The share of Indian agricultural export to total export has been declining.

The competitiveness of India's agricultural export has suffered because of a huge subsidies extended to the farmers by developed nations in order to protect them from international competition. The decline in the share of agricultural exports is an area of concern for Indian policy makers. Restrictive Policies and Biases--An ICRIER and World Bank study found that from 2014-19, India's restrictive trade policies prevented exporters from taking advantage of available export opportunities. When rising global prices in 2008-09 made many Indian products export competitive, rice and wheat exporters were prevented from fully exploiting this trade opportunity because global price trends would seep into domestic markets thus hurt domestic consumers.

## **DOMESTIC POLICIES VERSUS GLOBAL DEMAND**

Minimum Support Price (MSP) offered to farmers as an artificial support of high domestic prices actually acts as a disincentive to exporters, because their market competitiveness becomes compromised. MSP's encouragement of production in place of commercial and horticulture crops affects India's ability to capture export markets. India's farmers also ignore global demand signals and focus on cultivating locally consumed commodities. While Indian cardamom rules the international market due to its intrinsic qualities and physical & aromatic properties, flavour, lighter weight, oil content, etc., quantitatively speaking, the Central American country, Guatemala, is the largest producer and also exporter of cardamom, thanks to its micro-climatic conditions facilitating throughout-the-year cultivation of cardamom and marginal domestic demand there, triggering cut throat price competition in international markets.

The North American countries and Europe, due to its geographical proximity to Guatemala, has grown accustomed to the flavour profile characteristic of Cardamom from that origin. Crop failures at Guatemala; make multinational companies like Wrigley's looking out for alternate origins. They have played a part in shifting global consumer tastes and preference to accept the flavour nuances of our Cardamom.

The Middle East continues to be the major export market, especially the Kingdom of Saudi Arabia, where cardamom is used extensively in the preparation of 'kahwa' - a drink which is a symbol of hospitality in every home, and is also widely used as a flavouring ingredient in whole and ground form. In Asia, it adds a lingering flavour to most cuisines - both modern and traditional. In the Scandinavian countries, it is used in baked products and in confectioneries.

This indicates an urgent need for the market re-positioning of Indian cardamom as a premium or branded product, highlighting its various intrinsic qualities rather than trading it as a commodity. At the same time, product traceability and brand image must be further developed. This would create an elite target consumer-base for Indian cardamom, and would help broaden the export market for Indian producers.

The Cardamom importers mostly act as the wholesalers, and the commodity directly moves from them to the retailers, departmental stores and manufacturers of food products. India exports Cardamom to Saudi Arabia, Japan, Malaysia, UK, Oman, Kuwait, Bahrain, South Africa, Hong Kong, Greece, Qatar, USA, Italy, UAE, Korea (South), France, Canada, Singapore and others. Of the various countries, Saudi Arabia is the largest importer of Indian Cardamom. Guatemala exported around 73 per cent of its production, where as India exported only 5 to 10 per cent of her total production nowadays because of increased internal consumption.

Another daunting commercial challenge faced by Indian Cardamom is that of the retained, huge unsold stock of Guatemalan Cardamom dumped in the Middle East market during Gulf off-seasons, stored roughly. This greatly depresses the prices of fresh Cardamom from India; during the October-December period. Situations like this causes violent fluctuations in prices of Cardamom in both domestic and export trade.

Price fluctuation is the most important determinant among the various problems faced in the marketing of cardamom. The price of cardamom is determined mainly by its size and deep green parrot colour in foreign markets, especially in the colour discerning Middle East countries. The fact that such parrot pale green cardamom can fetch such extra price that ranges from 25 to 45 % is a factor to reckon with.

As an aromatic spice, cardamom is best stored in the pod form, because once the seeds are exposed to air or sunlight or otherwise grinded or powdered, they quickly lose their organic flavour. When Cardamom is stored in an airtight (preferably a vacuum) container at temperatures below the freezing point of water, it can retain its flavour for many years. However, high-quality ground cardamom seed is often more readily available and is an acceptable substitute. Grinding the pods and seeds together lowers its quality and the market price.

## **REGULATORY CONDITONS**

Considering the increasing growth of spices exports from India and also the strict regulatory requirements of importing countries, there is a dire need to consider extending accreditation of private laboratory facilities for effective testing and certifications as to its organic origin and residue levels of retained pesticides or fungicides. It has become imperative in the case of spices exports and any compromises on the accuracy and reliability of results can be detrimental to exports. Spices

Board should necessarily take up this issue.

In the international markets, where stringent regulatory norms are set by importing countries, high quality packaging is one of the most pressing requirements. The Spices Board India can assist exporters to improve their packaging and develop modern packaging for increased shelf life, increased attractiveness and visibility, reduced storage space, customer friendly opening and closing, and overall better presentation of Indian spices in overseas markets.

Among the diverse regulations and standards in international trade, the Agreement on Sanitary and Phyto-sanitary (SPS) measures occupy a particularly important place. The SPS Agreement sets out broad ground rules for the legitimate application of food safety, health and environmental measures, many of which could affect international competitiveness of Indian agro-exports. Export competitiveness could diminish either because of explicit bans or the costs of compliance with the new standards.

According to the SPS requirements, the most challenging ones have been the presence of mould, colourants and Aflatoxins. At present there are no international food standards specific to spices and cardamom, in particular. As a result the regulations in OECD and other key export markets increased scrutiny by buyers and regulators with regard to product quality and case of spices exports, factors like pesticide residues, presence of aflatoxins, Trace metal contaminations, Microbial load etc. have now become the prominent factors, effecting the competitiveness of India.

## **OBJECTIVES OF RESEARCH**

- To find out the opinion of small scale and medium scale Cardamom farmers, who could not gain much headway in promoting their marketing efforts, both domestic and international.
- To assess the responsiveness of cardamom farmers about E-Auction as a substitute for the traditional local selling or distress selling style, where no phyto-sanitary quality assurance parameters are conventionally put in vogue.
- To analyse first-hand, the reason for decline or the non –increase in the no of cardamom farmers opting E Auction despite the familiarisation efforts of the Spices Board of India and other government agencies after the commencement of centralised E Auction centre at Puttady.
- To suggest suitable measures to improve the participation of farmers, in the new system of ‘E- Auction’ put forwarded by the Spices Board of India.
- To explore possibilities of state sponsored campaigns or awareness creation activities in order to make the cardamom farmers aware of the modalities of MRL (Maximum Residue Level) which leads to most of our produce being rejected in the export market.
- To assess whether farmers can cope up with new trade regulations and changing policies of the Govt.

## **RESEARCH QUESTIONS**

- How is the functioning of the Auction Centers of the Spices Board of India likely to affect the lives of ordinary farmers who are generally not patronizing such centres?
- Whether illiterate farmers or those not computer savvy are finding it difficult to cope up with the new system?



- Whether the prevalent financial burden of cultivation forces farmers to refrain from E Auction?
- Whether the farmers are sufficiently made aware of the new trade regulations and changing policies of Govt.?
- Whether Spices Board of India is taking any initiative to increase participation in E Auction?

## **STATEMENT OF THE PROBLEM**

### **Problems with E -Auction**

- The lack of scientific or even rational awareness of E –Auction is the main issue faced by ordinary farmers.
- Most of the medium scale and small scale farmers are not internet savvy; hence they are finding it difficult to cope up with the new move of Spices Board.
- Farmers who stay far from Puttadi (centralised E Auction centre) find it difficult to reach the place.
- Financial burden force the farmers to refrain from E Auction and sell their produce to market intermediaries.
- Farmers generally think that E-Auction is a highly sophisticated task to comply with.
- Problems with international trade policies connected with MRL (Maximum Residue Level)

Remnants or residue lingering on the cardamom pods of chemical pesticides and fungicides and some other inorganic agents on the berries , if any , are closely watched in the US and most European nations and if the same happens to be more than the permissible limits prescribed , they are liable to be rejected outright at the ports of their entries .

### **Problems with Post-Harvest Treatments**

- For most Kerala cardamom farmers, non-removal of chemical residues of chemical fertilizers /pesticides /fungicides lingering on cardamom pods leads to its rejection in the international market due to excess MRL level.
- Non grading of the cardamom based on size and pod colour parameters are not taken due consideration.

## **AIM / PURPOSE**

The foremost aim is to find the consequences of changing policies, legal and regulatory ecosystem in cardamom marketing through introduction of e-auction system by the Spices Board of India in the context of already existing deficiencies and challenges both in the farming and marketing perspective .

- To analyze the reasons for reluctant participation of farmers in E-auction.
- To chart out suggestively some practically feasible methods to significantly improve the participation of all kinds of cardamom farmers in e-Auction.

## **THE NEED FOR THE STUDY**

The following defects and flaws have been inherent or disguised in the cardamom scenario and needs to be identified

- To draw attention to the general lacunae in awareness of the centralised E Auction system introduced by Spices Board of India.

- To make farmers aware of the modalities of MRL (Maximum Residue Level) this leads to most of our produce being rejected in the export market.

## SELECTED REVIEWS OF LITERATURE

Joseph (1985) in his thesis 'Analysis of the marketing and price formation of cardamom in Kerala' studied the economic aspects of cardamom production and marketing by making a detailed analysis of the marketing methods, channels and price formation. The prime objective of the study was to observe the scope of cardamom plantation and its significance in the economy of Kerala, particularly in Idukki district. He describes the process of price formation of cardamom, using various economic parameters. In his opinion the price formation of the cardamom in the international and domestic markets is based on global supply. The peculiar nature of the auction system prevailing for cardamom has also been discussed in detail.

Tharian and Joby (2005) has found that the cardamom producers in India are well educated and occupy the upper financial, social, and political strata of local society. They get financial assistance from various institutions and are well organized. Produce is sold through auction houses registered with the Spices Board, which also controls quality. Workers on cardamom holdings earn more and have steadier employment than those in other agricultural sectors. In cardamom-producing areas, this crop provides a livelihood to the majority of the population. Recently, cardamom yields in India have declined due to forest exploitation and a longer dry season. India has lost its Middle East markets to Guatemala, because the higher-quality Indian cardamom is now more expensive. Prices in the Indian domestic market are higher than those abroad, which led to some Guatemalan cardamom being smuggled to India. Due to high prices of small cardamom (*Elettaria* spp.) cheaper large cardamom (*Amomum* spp.) is making inroads into specific domestic markets of India. The average price difference between the 2 types is reported to be 300%.

Sanat Kumar (1994) studied the importance of infrastructural facilities needed to promote the cardamom market in Sangli. He identified that important infrastructural facilities such as auction shed, storage areas and shops for traders, committee office, scientific grading facilities, rest house, canteen, water, electricity, sanitary arrangements etc. are of basic necessity for successful market regulation.

Dr. Vyas (1999) opined that supplier countries are engaged in fierce competition to capture market share. India's share in global spices trade, especially of cardamom has been on the decline since 1990 owing to high cost of production, lower productivity, quality issues like (MRL) pesticide residue levels and poor trading strategies. Moreover, we never had any marketing strategy to consolidate and expand export market share.

Manish S. Sha (1996) analyzed the importance of market committee and suggested that the existence of market committee is very essential to regulate the sale and purchase of the agricultural commodities with a view to giving a fair deal to the farmers. The small farmers constitute the vast majority who bring their produce to the market for sale and are likely to be exploited by the commission agents because of their poor financial conditions. The jurisdiction of the market committee extends over all parts of the cultivator districts and the agricultural produce such as cardamom is brought to the market for sale through pivotal auctions the Spices Board of India.

## **METHODOLOGY USED**

Descriptive research design is adapted in this research to specifically quantify and assess the various aspects

- Demographic profile of the planters,
- Areas under cultivation,
- Quantity of output,
- Yield per unit of land,
- Cost structure including familial labour costs,
- Cultivation practices
- Harvesting methods and processing techniques,
- Storage methods,
- Pattern of marketing,
- Market price fluctuations,
- loan- credit facilities available,
- Cultivation profile,
- Problems faced in the marketing of cardamom,
- Promotional schemes of Spices Board,
- Opinion on its role
- Expectation from the Board and various other problems encountered by farmers in the production, marketing and export of cardamom.

## **HYPOTHESES FORMULATED**

The hypotheses formulated, towards the culmination of this research attempt, can be delineated in terms of conspicuous and significant differences in many aspects and less significant and inherent differences in the context of general similarities in the following:-

- H0 1:-- There exist discernible differences in cultivation concept for livelihood, post harvesting works carried out, levels of mechanization in irrigation, spraying of disease -preventive chemicals, replanting style, attitude towards Auction centres of Spices Board, interactions with the offices of the government promotional agencies, including the Kerala Government Agricultural & extension Depts.
- H0 2:-- Significant differences exist even amongst the small and medium cardamom farmers, including the marginal cultivators who grow in their own household land holdings of less than a hectare, in a means of agricultural livelihood and progressive attitude towards participation in E Auction and other selling endeavours

- H0 3:-- Inherently significant differences exists between small and medium scale farmers and the plantation estate-level established agriculturists in conceptual framework on cultivation patterns, style, operation of post harvesting activities etc.
- H0 4:-- Nearly significant differences exists between the small and medium scale farmers and the plantation estate- level established agriculturists with the newly increasing breed of strictly organic cardamom cultivators using almost nil chemical pesticides, fungicides, fertilizers etc. but bio-fertilizers and manure so that their products are easily accepted at markets abroad for the prescribed Maximum Residue Level parameters for pesticides and fungicides.
- H0 5:-- There exist discernible differences in cultivation concept for livelihood, post harvesting works carried out, levels of mechanization in irrigation, spraying of disease -preventive chemicals, replanting style, attitude towards Auction centres of Spices Board, interactions with the offices of the government promotional agencies, including the Kerala Government Agricultural & extension Depts.

These hypotheses were tested with the help of the standardized tools identified in the present investigation.

## **SAMPLING METHOD**

Sampling method used is Stratified random sampling method. It is a method of sampling, which involves the division of a population into smaller groups based on the area of cultivation. A random sample from each stratum is taken, in a number proportional to the stratum's size when compared to the population. In the present study, the strata are divided based on the area of cultivation.

- Strata 1: More than 9 acres of cultivation
- Strata 2: 6 to 9 acres of cultivation
- Strata 3: Less than 6 acres of cultivation

The respondents were identified and through prior permission, were personally contacted by visiting their farms.

## **METHOD OF ADMINISTRATION**

A total of 390 planters from three different districts of Kerala (Idukki, Wayanad and Palakkad) were contacted at their farms or house with a request to fill in the questionnaire. They were briefed about the purpose of the research. They were informed to feel free and give their unbiased, genuine and realistic responses. Though the questionnaire was a lengthy one, most of the respondents understood the real purpose of the study and shared their feelings, ideas and opinions.

The collected responses from the planters were scored based on procedure and were tabulated. Then it was subjected to suitable statistical treatment. The outcomes of the results obtained were interpreted, discussed and inferences were drawn, which are presented in the next chapter. It is clear that the alpha value of the scales included in the study is above 0.708 which is considered as reliable value supporting the scale.

The collected data had been processed with the help of appropriate statistical tools. The selection of statistical tools is based on the nature of data and the objectives of the study. The tools used are One-Way Anova, Chi Square, Garrett's Ranking Technique and Correlation.

## **DIMINISHING MARKETING INFLUENCE OF E-AUCTION**

If the newly established e-auction facility of the Spices Board at Puttadi, Idukki District were a universal success among cardamom farmers in Kerala, there would have been noticeable increase in the number of participation of such farmers and volume of spices traded through e-auction.

But on the other hand, there existed noticeable variations between the three regions in terms of the average percentage of profit to the farmers, with the maximum averages profit obtained at around 20% in Idukki district, (topped by Udumbanchola with 25%) which was also the scenario during the period before e-auction .

This also indicated that e-auction facility failed to improve the marketing process to reach out to small and marginal farmers and its diminishing influence. The interplay of other state market intermediaries, thanks to the geographical proximities and traditional trade relations as well as the resultant demand- supply forces, can also be other determinant factors.

## **OTHER FINDINGS & FACTORS OF THE CONTEMPORARY SITUATION**

### **Farming Perspective**

Government / non-governmental organisations could not sufficiently encourage replacement of diseased plants with some compensation. Financial support should be provided to the farmers during lean periods owing to circumstances like natural calamities, pandemic etc.

Marginal farmers needed tangible financial support for installing mechanised dryers, developed indigenously and approved by the Spices Board of India on an individual bases so that labour intensiveness in such post harvesting operations can be reduced and better quality yield may be obtained.

Agriculture and horticulture dept. of government of Kerala as well as the Spices Board of India are not conducting periodic soil testing at the farmer's cultivation sites to ascertain the pH level, existence of essential minerals like potassium, magnesium and other micro nutrients in the soil in which cardamom plants are planted. The top soil conditions such as due to after effects of soil erosion, land-slides, floods etc., which adversely affects the soil health needs to be assured continuously to keep the soil fertile.

Also the farmers are not made aware of the adverse effects of over dose application of fertilizer or deficiency of the same in terms of yield and cost of cultivation as the case may be. It is known that some farmers apply pesticides and fungicides up to 15 times whereas the maximum doses should be limited to only 8 or 9 times. This not only enhances the residue level much above the permitted MRL and therefore make them unfit for export.

Their awareness of Organic farming is limited to the knowledge of using Bio-fertilizers but awareness to address the common insect and fungal threat are not coherently and convincingly disseminated to the farmers nor understood.

The cardamom plantation sector in Kerala as a whole, including the cultivators, traders, auctioneers, the multilevel supply chain of marketing, has undergone significant changes over the past 3 decades, in terms of its varied structural dimensions and the changing international trading environment in which it is to compete fiercely and achieve operational success. Major structural changes included are in ownership structure, organisation structure, size structure and proven market orientation.

## Marketing Perspective

The farmers do not get the desired type of services from e-auction as they get from market intermediaries at a person to person level. The market intermediaries are mostly of the medium and large scale operations, with direct business and trade links to wholesalers and many of the exporters. Thus, they continue to be indispensable to both exporters and farmers, in the market situation of the supply chain.

The levels of dependence of the e-auction initiatives of procuring marketing of produce from farmers are relatively conspicuous, in that the Southern region based at Idukki, where the lion's share of cardamom is traditionally being produced and marketing endeavours carried out like Idukki proper, Kattappana, Vandanmedu, Kumily etc, the market sourcing of customers are, quantitatively speaking, is relatively dependent on the e-auction facilities made available by the Spices Board of India and the erstwhile auction centres .

The cardamom market rate fixation process and, thereby, the factors causing and influencing unpredictably occurring market rate fluctuations, strangely without much conspicuous changes in the prevalent demand-supply situations have been more or less determined by the Spices Board, with the traditionally obtained market intermediaries occupying only a secondary or even tertiary position .

In the central region based in Nelliampathy hills of Palakkad district the dependence on Spices Board e-auction for marketing the cardamom produce harvested locally is relatively poor. This may be because of the influence of the local market intermediaries there.

Farmers do not have access to market information. But the medium or large farmers get reasonably fair price, as they offer their produce in e-auction. Thus they can ensure market supply. Local traders are the intermediaries between the farmers and wholesalers. The major items of costs incurred by them are acquisition, cleaning, sorting, grading, packaging and transferring. A most of the farmers do not grade or sort as a matter of prevalent practices. In turn this results in the margin enjoyed by local traders also being relatively low in view of the absence of graded qualities of cardamom which can always fetch a competitive market price.

The wholesalers are not necessarily stationed in locations which are near to farmers and they participate regularly in twice a day and six working days a week e-auctions of the Spices Board of India. Their participation in these auctions are just purchasing or sending procurement bids at large in the e-auction web space but also to keep their pulses on the cardamom supply market.

While the recent introduction of ID cards for the interested Cardamom growers for the centralised e-auction facility at Puttady, replacing the earlier auction centres, are projected as steps in forward direction, a large number of farmers are still unfamiliar with the new system of e-auction and the fact of the matter is that most of the farmers are not internet savvy. This is evident in the lowering levels of interaction with the Board by small scale and medium scale farmers, who rather opt for direct selling methods to establish and already known local merchandise intermediaries even now.

Lack of marketing know-how regarding 'Auction system' Cardamom marketing conducted under APMC Act was earlier through a process of auctions at designated locations. Farmers and traders used to participate in the procedures and actual processes of auction, even though they have had to go through the formalities of a registration, under this Act by the

Spices Board of India. This created unfriendly practices such as exclusion of several small farmers from the market, also, compelling them to sell their produce to middlemen from whom most small farmers' avail of advances. This also had the unhealthy trends in the trade lobby to deny or at least to procrastinate a fair price to farmers.

Most small farmers tend to sell of their cardamom crop to local procurers and intermediaries with whom they have long standing relationships mostly of a business nature before the advent of Spices Board Auction centres, for prompt payment of moneys even without any grading or packing, resulting into unhealthy marketing interplays, not necessarily beneficial to them.

Earlier the ordinary farmers also used to visit the then well ramified six auction centres of the Spices Board of India, which had been holding sessions 6 days a week. But with the single convergent and centralised e-auction centre at Puttady, the business ambience had undergone drastic changes.

In terms of the nature of organisation, size and structure, the changes involved a shift away from large estates and public limited companies to small holders and new organisational forms like SHGs (Self Help Groups) and worker managed estates and very small scale farmers. Viewed in terms of the trading environment, there has been a marked shift away from export orientation to domestic market oriented production and e-auction centres, carryover of stock for futures etc. in the existing supply chain.

## **FURTHER SUGGESTIONS**

Free market must be established exclusively for cardamom products and subsidies may be introduced for bio-organic plant treatments so that organic fertilizers, pesticides and insecticides can be encouraged, which will go a long way to increase marketability of our products both in the domestic and to a large extent, in the international markets. The e-auction centre at Puttady may have to take initiatives in this direction.

The currently persistent practice of spraying pesticides much more than scientifically prescribed norms should be made to rethink of consistently. Over application of chemical fertilizers and pesticides may perhaps yield temporary or short-term results but the danger to both soil health and environment hazards ought to be taken into cognizance. This practice may have to be reduced phase by phase. It should be used only in regular intervals in order to cure infestations. It should not cross the required level as it is a threat to MRL level in the international market.

Along with the removal of tariff barriers, the non-tariff barriers in the form of standards and the stringent phyto-sanitary conditions imposed by WTO, the MRL (Maximum Residue Level) norms of the USFDA (United States Food & Drug Administration) have become evidently stronger than ever before. These changes have necessitated inevitable innovations and closer post-harvest monitoring of our exportable cardamom as a commodity at different stages of production, post-harvest operations, marketing and trade for enabling the cardamom trade sector to survive in the highly competitive export environment.

Additionally, there is also the need to popularise other techniques of enhancing the parrot green colour of cardamom, which can be organically accomplished so much so that our cardamom can easily fit within the discriminating MRL (Maximum Residue Level) norms prescribed there.

Awareness on export opportunities, MRL acceptable abroad, organic techniques of removal of such residues on cardamom pods, the paradigm shift towards cardamom quality available for export markets is to be encouraged., as large majority of ordinary farmers are not aware of the risks in the trade , especially in the foreign markets of the residue levels of chemical insecticides and fungicides . There is the need to inculcate in the mind set of such farmers that minimal use of chemical pesticides and fungicides would indeed go a long way in improving the standards of quality of the finished or packed cardamom to most consumers, especially of the foreign markets.

### **PARADIGM SHIFT IN MARKETING POLICIES AND PRACTICES**

A concerted attempt to study in depth, converging on the traditional production style and emerging cultivation patterns, geared to prevalent selling practices and auctioning systems. The problems persisting in the industry, especially of growers in Kerala and the promising future and potential for cardamom, if patented for and effectively re-positioned in the export market, is to be reinstated as the criteria.

In the contemporary context of the existing marketing threat to India's export trade in Cardamom and the possibility of increasing production through raising productivity, it is imperative that the industry adopts immediate measures to promote the marketing of Cardamom a patented and branded and superlative aromatic spice.

The strategy for marketing Cardamom in India essentially lies in policies and programmes that will lead to proper control of the entire marketing system. New foreign markets should also be explored. At the same time our traditional markets in the Middle East should be protected. Otherwise the much loved Indian cardamom will become an 'old flame' to the Arabs.

### **SCOPE FOR FUTURE RESEARCH**

The industry is very wide and there are many areas to be studied in detail, including the export market, the use of better and more cost effective methods of farming and prevention of crop pests, how to overcome unexpected weather changes, how to coordinate various organisations and farmers, better preservation, packaging and oil extraction methods, and how advanced technology can be used to update farmers and businesses.

### **SUMMING UP**

To conclude, it becomes all the more pertinent that there is an indispensable need to improve the dealings of small and marginalised farmers to the various interactions of the Spices Board of India, to create awareness of the need for a formalised marketing mechanism of e-auction instead of local or distress selling . Cardamom grading adherence to the phyto sanitary stipulations that ensures the acceptable quality parameters like MRL(Maximum Residue Level) and farmers who are not internet savvy should be educated and familiarised with digital interactions in e-auction as well as other market know how and price fixation intricacies on personal bases in the initial stages. Once if the farmers get familiarised with all these procedures then they will start grading in order to discriminate the cardamom lots and gain good profit.



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