

Volume 1, 2017

**EMERGENT GLOBAL MARKETING CHALLENGES FOR
KERALA CARDAMOM PRODUCERS VIS-À-VIS ROLE OF THE
SPICE BOARD OF INDIA**

Majo George *	RMIT University, Ho Chi Minh City, Vietnam	majo.george@rmit.edu.vn
Elsa Cherian	Centre for Management Studies, North Eastern Regional Institute of Science and Technology, Itanagar, India	elsacherian13@gmail.com

* Corresponding author

ABSTRACT

Aim/Purpose	This research paper attempts to deeply and rationally probe into the present situation, discussing the expected role of the Spices Board of India, which in 1987 started to function replacing the erstwhile Cardamom Board, where the focus was only on the Cardamom plantation sector and export development.
Background	Cardamom, the “Queen of Spices” is the third most expensive of the spices, next only to saffron and vanilla. The Cardamom Plantation and export development sector is now just one of the many focal points of expected action of promotional endeavors of the Spices Board of India. The cardinal problem is the 1990s market threat from Guatemala, which floods the market with Cardamom with cheaper prices, though it is qualitatively inferior to Indian green Cardamom. The second problem for Indian exports is that the higher cost of production coupled with increasing domestic market demand causes lower quantities for exports. Apart from the functional insufficiency of the Spices Board of India, in the view of the Cardamom farmers and secondary and tertiary market intermediaries, the present auction system, the scattered unorganized farming community at large, and other governmental promotional deficiencies together make the complexity of the present situation confounded.
Methodology	It was decided that conventional research methods, using structured survey methods and questionnaire, were not feasible or realistic as collecting data from a wide range of personnel vary from cardamom farmers to wholesalers to market intermediaries including exporters, extractors of oleo resin from cardamom proved arduous. For this study the methodology used to gather information was

Accepting Editor: Golnaz Rezaei | Received: May17, 2017 | Revised: August 11, 2017 | Accepted: October 26, 2017.

Cite as: George, M., & Cherian, E. (2017). Emergent Global Marketing Challenges for Kerala Cardamom Producers Vis-à-Vis the Role of the Spices Board of India. *International Journal of Community Development & Management Studies*, 1, 39-62, Retrieved from: <http://ijcdms.org/Volume01/v1p039-061George3465.pdf>

(CC BY-NC 4.0) This article is licensed to you under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). When you copy and redistribute this paper in full or in part, you need to provide proper attribution to it to ensure that others can later locate this work (and to ensure that others do not accuse you of plagiarism). You may (and we encourage you to) adapt, remix, transform, and build upon the material for any non-commercial purposes. This license does not permit you to use this material for commercial purposes.

	<p>a mixture of ethnographic and classical statistical sampling methods. The data was mainly collected by interviews as this will help to get an in depth feel of the pulse of all the involved participants. Thus it was felt that a more first-hand personal interactions was really necessary, not to just garner information from quantitative data but also to gauge through the in-person mood and tenor the grievances of all concerned with cardamom industry and to know the expectations of the related parties, especially from the Spices Board of India.</p>
Contribution	<p>This paper attempts to bring into focus the provocations, limitations, and seriousness of the situation of the sector, and to prioritize the steps to be taken to regain the lost glory of the Indian Cardamom.</p>
Findings	<p>The findings and analysis show that the Indian Cardamom Plantation Sector should be aware of the significance and market relevance of the “Organic” method of cultivation of Cardamom. Also there is a need for quality control practices in the sector that enable strict attention to meeting MRL (Maximum Residue Level) as demanded by the importing nations, and attention to the “functional refining factors” and expectations set out by the spices Board of India. All of these are based on the findings which are analyzed, without pre conceived notions and authors’ subjective remarks.</p>
Recommendations for Practitioners	<p>This paper reveals the view and understandings of the practitioners in the Indian Cardamom sector. It subtly suggests a certain course of action and serious recognition of flaws and deficiencies in the system that are obvious and emerges and which are critical and must be addressed. It underlines needs to be addressed; flaws in performance, and articulates the grievances.</p>
Recommendation for Researchers	<p>More work needs to be done to have a clear analysis of the market demand of the cardamom products in order to project periods when demands of cardamom fluctuate the market, both domestically and internationally. In addition, it is important to study the various organic methods, which can be adopted by the farmers to produce high quality cardamom, which can meet the demand of the consumer as well as the standard required by various governments around the globe.</p>
Impact on Society	<p>It reflects clearly, the general and prevalent concern of the Indian farming community and market intermediaries’ vis-à-vis the promotional role they expect the Spices Board of India to play in order to ameliorate the gravity of the bottlenecks being faced by the Indian Cardamom sector.</p>
Future Research	<p>There are many areas to be studied in the Indian Cardamom Industry. This research paper attempts to highlight the unmitigated problems faced by the various strata of farmers, the indispensability of going “Organic”, and the need for the intervention of the Spices Board of India, and other relevant State Agri-Horticultural agencies, marketing Co-operative societies; subsidies and grants to be given by the government to encourage both organic cultivation and value addition using Carbon dioxide extraction of Oleoresins, packing, export market research, etc.</p>
Keywords	<p>Global marketing, producers, spice board, India</p>

INTRODUCTION

The word “cardamom” comes from the same Latin word (cardamom). This is a latinization of the Greek word “karadamomon” which was a compound of the words kardamon and amomon and was probably the name of a type of Indian spice plant. The earliest recorded use of the word is the My-

cenaean Greek ka-da-mi-ja which is written in Linear B syllabic script and appears in the list of flavorings on the “spice tablets” found among palace archives in the House of the Sphinxes in Mycenae. In the New Testament section of the Bible (largely written in Greek) the word “amomon” appears in reference to an aromatic plant (Rev 18:13) and has often been translated as “spice”. The genesis of the word insinuates its exotic nomenclatural roots. The name for it in the Dravidian belt, where it continues to be a predominant cash crop, continues to be ELAIKKAI or its vernacular or regional / dialectical variations. It may be the only instance where the exotic name given to the spice has prevailed over its indigenous name, and becoming more famous all over the world. It also highlights its importance in the ancient international trade and demand abroad. Cardamom is often called the “queen of spices”, because of its exotic flavor and aroma. It is the world’s third most expensive spice measured by weight, and is outstripped in market value only by Saffron and Vanilla. It has a warm sweet penetrating aroma of complex flavors, which is said to add an element of mystery to this ancient spice. People in Ancient Greek, Roman, Egyptian and Arab cultures were equally fond of the spice. The spice trade from the west coast originated as long ago as the 3rd millennium B.C., and continues to dominate the region’s trade until recent times.

Cardamom was cultivated selectively in the southern part of the Indian Peninsula, in the Dravidian belt which originally included Sri Lanka (Ceylon). Trade links to the Middle East date back thousands of years through the ancient sea route to the famous Muzuris harbor, presently known as Kodungal-lur (previously Crangannore) in the Thrissur District in Southern State of Kerala, India. Very little research has been undertaken since the 1980s concerning the various problems involved in the farming and the export marketing of cardamom from Kerala and the decline in market share.

The world export market had been monopolized by India for around three thousand years up until this point in time. But since then the world demand for cardamom of a superior quality, which was produced in Southern India and Kerala, has decreased dramatically. One reason for the decline that can be identified is that cardamom from Guatemala, although of an inferior quality, is being sold at a much cheaper price. There have also been reports that some Guatemalan producers, in order to gain a foothold in the market, had resorted to counterfeit labeling of their product as being produced in India. Attempts at intervention by the Indian government at a national level have hitherto proved insufficient to protect the interests of Indian exporters not only from counterfeit exports, but a loss of market share generally. The difficulty faced by producers has been compounded by the fact that the Cardamom Board in India had ceased to function exclusively on cardamom as a cash crop. It had been assigned a wider focus, and its role has been expanded to include other spices and raw materials for different condiments. It is possible that the government and related trade bodies have neglected the issue and should have carried out more extensive research into the reasons for the continuing decline, including increasing costs of farming, processing and marketing in the domestic market. and less attractive yield prices for exportable cardamom.

BACKGROUND

Cardamom, the “Queen of Spices” is the third most expensive spices, next only to saffron and sometimes Vanilla. It is of Indian origin and enjoyed a monopoly among spices being traded with Middle East, Greece and such ancient countries for some 3 millennia ago. The very genesis of this word Cardamom has Greek and Latin roots, implying its popularity there. But since the late 1980s Indian monopoly in Cardamom exports suffered and setback so sharp and devastating that India has not recover from this event after nearly 3 decades. Coincidentally, academic research essays and serious contemplations as to the causative factors also dwindled drastically along with the then Cardamom Board fading away from the scene of actions at the Indian governmental level.

The Cardamom Plantation and export development sector is now just one of the many focal points of expected action of promotional endeavors of the Spices Board of India.

The cardinal problem is the 1990s market threat from Guatemala, which floods the market with Cardamom with cheaper prices and in abundant quantities, though it is qualitatively inferior to Indian green Cardamom. The second problem for Indian exports is the higher cost of production coupled with increasing domestic market demand causing lesser quantities for exports. Apart from the functional insufficiency of the Spices Board of India, in the view of the Cardamom farmers and secondary and tertiary market intermediaries, the present auction system, the scattered unorganized farming community at large and other governmental promotional deficiencies together make the complexity of the present situation confounded.

PROBLEM STATEMENT

Any research study on marketing constraints and challenges of an agricultural product like Cardamom cannot be accomplished without actually studying deeper into the causative factors and analytically diagnosing the problems experienced at the grass-root level of unorganized small farmers, medium level planters, local market intermediaries, and other unorganized farming communities at large. Incidentally, these were the specific reasons and also difficult circumstances under which special efforts and initiatives to start interaction with the concerned had to be taken to probe into and study afresh the situation in its totality and use such primary and secondary research data to derive inferences and evidences to support the arguments in this research paper.

RESEARCH OBJECTIVES

The primary objective of this study is to analyze the prevalent and evolving trends in international cardamom trade with reference to its weaknesses, considering the challenges the Indian Cardamom industry is facing from Guatemala cardamom which is being marketed as a substitute for the Indian high quality cardamom. Also the study will discover and analyze:

- The ideal or re-definable role of the Spices Board in promoting the export trade of higher quality cardamom of Kerala state, optimizing the export returns, and improving the brand promotion in the light of the Guatemala threat.
- The benefits which can be derived by programmed backward integration possibilities, such as:
 - Scientific Grading to reassert quality for competing in the international market.
 - Certification by the international accreditation agencies on bio-hygiene parameters recommended and notified as acceptable in the developed importing nations.
 - Methods of packing to enhance preservation and post-packing shelf life.
 - Possibilities of organic production and marketing internationally thus to fetch minimum 20% extra price.
- The pros and cons of designing and practical implementation of Indian brand cardamom marketed not just as a commodity, but a quality-added product of the superlative grade.

SIGNIFICANCE OF THE STUDY

This research has highlighted the need to consider technology as one of the tools used by educators and other stakeholders to provide access to quality and higher education to under developed regions in South Africa.

METHODOLOGY

In view of non-feasibility of applying the structured questionnaire to cardamom farmers to study the contemporary status of growers of cardamom, intermediaries, and exporters, a descriptive research

methodology was undertaken using personal interview methods. The data collection focused on different growing techniques and cultivation. The focus became increasingly shifted to exploring those time tested innovative problem solving techniques being adopted for improving quantitative and qualitative cardamom berries in an organic style like using bio-fertilizers, covering insect nets against pest (including tiny frogs) infestation, constructive rationalization of existing exploitative marketing channels, forming small-scale, localized self-managed cardamom growing and marketing co-operatives etc.

Judgmental and snowballing sampling techniques of such derived knowledge were also devised to address the multifarious problems faced by farmers at large, not just during growing but also in the series of crucial post harvesting operations affecting and enhancing ultimate marketability and import acceptance abroad of cardamom, like processing, grading, drying, storage etc.

Extensive travelling in the Southern Indian state of Kerala in general and Idukki, Palakkad, and Wayanad districts in particular was carried out for nearly 17 months. In Idukki district the study was conducted in Kattappana, Kumily, Nedumkandam, Vandanmedu, Udumbanchola, Aanavilasom, Puliyanmala, Vazhavedu, and in Palakkad district Nelliampathy hills and in Wayanad district (Sulthan Batheri, Kalpetta, Thrunelli were covered in particular), as below :

- Total No of primary small and medium farmers interacted with = 217
- Small, medium & organized large scale planters = 54
- Marketing intermediaries, local and in cities = 37
- Exporters, Export Consultants & agencies = 21
- Companies of essential Oil and Oleoresin extraction = 3

In addition, the researchers conducted interview sessions of interactions with accredited officials and Agriculture Extension (Cardamom) officers, District Horticulture Officials of Government of Kerala, Spices Board of India, Cardamom Research Institute, NMPB (National Medicinal Plant Board), APEDA (Agriculture Produce Export development Authority), NHB (National Horticulture Board), spread across Kerala and Tamil Nadu.

METHODOLOGY OF SUPPLEMENT STUDIES

Descriptive research is proposed to be undertaken in a total perspective to study the present status of the cardamom international trade and challenges in marketing coupled with analysis of backward and forward linkages in spices trade at large. In addition, possible channels of spices marketing and exporting that could replace the existing channels and prove to be more successful will be explored.

Both primary and secondary data required for fulfilling the objectives of the study are to be collected and information collated to find out inconsistencies, if any.

Secondary data related to production was taken from the Spices Board, APEDA (Agriculture Produce Export development Agency, Government of India) Institute of Cardamom Research Udumbanchola, Idukki district, and the Kerala Institute of Spices Research, Kozhikkode. Data related to the arrival of the cardamom and the prices has to be taken from various Agricultural co-operative societies or cardamom producers' functional groups, if any are identifiable.

Books, journals, magazines and internet are also proposed to be used as a data sources. Primary data and information is collected through personal interviews of farmers, Traders, government officials. Primary processors are also available from export houses in Kochi, major cardamom export groups and assorted traders of cardamom, past and present including many of the scattered, market intermediaries in the unorganized sector and of varying trade volume and seasonal and non-seasonal exporting patterns, to the extent possible.

QUANTITATIVE RESEARCH

A structured questionnaire was used for the major cardamom export traders, both the contemporary and the veterans of the late 20th century (i.e., 1975 to 2000) to study the chronological evolution and trends identified then, to pinpoint lacunae or lapses on the part of Kerala based export entrepreneurship. This was possible and necessary for those who could not be accessed for personal interviews for various reasons of their consent denied, non-availability, or even their reticence largely.

HYPOTHESES AND INFERENCES

The Kerala export trade can successfully rebound to its erstwhile glorious trading quanta and international market position. It can also forge ahead still further by rationalizing export trade techniques and strategies of marketing it abroad as a branded product, instead of as a commodity, in the context of the Guatemala threat and other threats to fair play in the international cardamom and spices markets.

The marketing possibilities like cardamom oil, oleoresins, and other derivatives can act not essentially as a substitute of non-processed cardamom, but as a complementary product, rather than a by-product, for the former.

The ultimate benefits can be derived from well thought-out backward integration techniques and possibilities such as packing to enhance value in the export markets abroad, possibilities of organic producing methods of cardamom to reinforce international market position of such non-chemical contaminated/ adulterated produces, for which demand is on the increase world-wide and premium prices available.

CURRENT GLOBAL MARKET POSITIONING

Cardamom, the 'queen of spices', with its exotic flavor and aroma is the world's third most expensive spice by weight, outstripped in market value only by Saffron and Vanilla. Its warm sweet penetrating aroma of complex flavors, adds that 'extra pinch of mystery' to this ancient spice. Ancient Greek, Roman, Egyptian and Arab cultures were equally fond of this spice.

India is producing the best quality cardamom that dominates the international markets. In the 1970s, more than 70% of Cardamom cultivated in India, especially in Kerala, was exported whereas presently it has quantitatively dwindled down to around 30%. The causative factors have not been studied institutionally, either at government or university levels. One of the reasons can be the fact that demand in the domestic markets, especially of North India, has been growing to a level of self-sufficiency at a national level. This also means that the domestic demand is more than the drop in foreign demand, and it might be due to the changing preferences by the Indian customer mainly due to the changes in the social, economy, and income distribution. The growing number of upper middle class and middle class families attribute to the increase in domestic demand of Cardamom.

ADVANTAGE OF INDIAN CARDAMOM

While Indian cardamom rules the international market due to its intrinsic qualities, physical and aromatic properties, flavor, lighter weight, oil content, etc., quantitatively speaking, the Central American country, Guatemala, is the largest producer and exporter of cardamom. Thanks to its micro-climatic conditions facilitating throughout-the-year cultivation of cardamom and marginal domestic demand there, thereby triggering cutthroat price competition in the international market.

Indian cardamom is of premium quality as against all other international grades. It is slightly smaller, but more aromatic and far superior in quality parameters than those from other cardamom producing nations such as Guatemala, Tanzania, Sri Lanka, El Salvador, Vietnam, Laos, Cambodia and Papua New Guinea.

There are three distinctive types of cardamom grown in India: Malabar, Mysore and Ceylon. Alleppey green is the major grade of cardamom exported from India (Kumar and Krishnaswamy, 1997). It is considered to be the best grade in the world. India used to be the main producer and exporter of this commodity. However, recently Guatemala has emerged as a major competitor to Indian cardamom in the international spice market. Indian cardamom is offered to the international markets in different grades like ‘Alleppey Green Extra Bold’ (AGEB), ‘Alleppey Green Bold’ (AGB) and ‘Alleppey Green Superior’ (AGS).

Warm humid climate, loamy soil rich in organic matter, distributed rainfall, and special cultivation and processing methods all combine to make Indian cardamom truly unique in aroma, flavor, size, and color. It is one of the most expensive spices by weight, and little is needed to impart the flavor. Cardamom is the best stored in pod form, because once the seeds are exposed or ground, they quickly lose their flavor.

India was the world’s largest exporter of cardamom until 1985 (Baby and Sankaranarayanan, 1985). Now, the country exports less than 10 per cent of the total production. It faces major competition in the world market from Guatemala. Guatemala has a big advantage in export markets because its climate allows for production all the year round. German coffee planters had introduced cardamom to Guatemala when they noticed that the climate and altitude were very similar to the regions where the spice is grown in India. Cardamom, after saffron and vanilla, is the world’s third most expensive spice, largely because of the immensely painstaking work required to extract it.

Guatemalan cardamom competes with Indian cardamom on price front. Guatemala was able to achieve this through area expansion, yield improvement, and reduction in cost of production. The Guatemalan cardamom is also more similar to the Alleppey-Green variety of India, than other varieties. Such advantages have helped Guatemalan exporters to penetrate into the prime markets.

The two major commercial varieties of small cardamom in the world are the Malabar and the Guatemalan. Guatemalan cardamom is grown mainly in the central state of Alta Verapaz and in the southwestern states. Indian cardamom is slightly smaller, but more aromatic. Small cardamom, the queen of spices, is the seed of the perennial plant *Elettaria Cardamomum Maton* that belongs to the Zingiberaceae (ginger) family.

The North American countries and Europe, due to its geographical proximity to Guatemala, has grown accustomed to the flavor profile characteristic of Cardamom from that origin. Last year’s crop failures in Guatemala have had multinational companies as the multinational company of Wrigley’s looking out for alternate origins. They have played a part in shifting global consumer tastes and preference to accept the flavor nuances of the Indian Cardamom.

The Middle East continues to be the major export market for Indian cardamom, especially the Kingdom of Saudi Arabia, where cardamom is used extensively in the preparation of “kahwa” – a drink that is a symbol of hospitality in every home – and is widely used as a flavoring ingredient in whole and ground form. In Asia, it adds a lingering flavor to most cuisines - both modern and traditional. In the Scandinavian countries, it is used in baked products and in confectioneries. In Europe and North America, it is an ingredient in curry powder & some sausage products.

Indian spices are facing extreme competition in the international market. The intensity of competition is likely to increase in future, as a result of the provisions of WTO and globalization. Competition in the international market affects all the categories of spices exporters adversely, irrespective of scale of operation, form of business or experience levels

The crucial role of the market intermediaries of various operational strata is illustrated in Table A1 in the Appendix (“The role of the market Intermediaries of various operational strata”).

At present, the international market challenge is from Guatemala, world’s biggest producer of cardamom. Guatemala sells its product in the global market spuriously labeled as Indian cardamom since the Indian cardamom is of superior quality. This is the latest challenge faced by the sector. Because the

cardamom from India is of superior quality, they use this tactic. But the difference between these commodities is easily identifiable. The Spices Board, lately, is contemplating a campaign to market the Indian made cardamom as a 'Made in India' product to overcome the new Guatemala challenge. The Guatemala cardamom, which has only half the quality of cardamom and earlier fetching only 60% export market price, now fetches \$1-1.5 per kg more than Indian cardamom. The second quality cardamom from Guatemala, on the other hand, is also being imported to India through Mumbai and Tuticorin ports to cope with the increase in domestic demands, especially in the North Indian festival seasons, when the crops that reach the domestic market attain peak dimensions, without, surprisingly, the prices showing an increase.

The Cardamom war appears to be brewing. Producers in the Indian states of Kerala and Tamil Nadu claim that they face unfair competition from illegal imports of the spice from the world's biggest quantity-wise exporter, which is Guatemala, in Central America.

Farmers in the southern states of India are complaining about the smuggling of cheap quality cardamom through the northern Border States. Now the producers have sent missives to the Indian ministries of trade and agriculture through the Spices Board of India, in defense of what they describe as a "heritage crop" of the nation.

Guatemala has an advantage in export markets because its climate allows for production all the year round. Thus, there is an urgent need for unique market positioning of Indian cardamom as a premium or brand product, highlighting its various intrinsic qualities rather than trading it as a commodity. Product traceability and brand image has to be built up for the product. A niche consumer market for Indian Cardamom will help to widen the export market for Indian producers.

This also calls for innovative packaging, multifaceted sales promotional overtures, public relations, marketing campaigns, etc. to highlight the uniqueness of aroma, flavor, and lesser weight of Kerala cardamom. The Indian trade missions abroad should take steps to market the unique Indian cardamom.

On market access, non-tariff barriers coming in the way of access to the markets of industrial countries need to be reviewed. India and other developing countries must become a part of the process, by which sanitary and phytosanitary (sanitation standards of plant and plant-generic products in the market of the importing nations) standards are set. These are often used by developed countries to create trade barriers against developing country exports. India must argue against obligatory, across-the-board tariff reductions.

Developing countries must be allowed to place quantitative restrictions on imports wherever there is clear evidence that imports will erode or destroy the livelihoods of asset-poor groups.

The key challenge in the international market, faced by the cardamom exporters is the market price volatility of more than 60% with high frequency changes, i.e., from Rs 600 to over Rs.1000 per KG in 3 months. Kerala cardamom production is affected by excess or shortage of rains, so production increases or decreases rapidly. The shelf lives of various varieties of cardamom berries are not long, under normal open storage conditions. Moreover, the producers are not economically in a position to afford to wait for the prospects of a revival of prices in the market or price stabilization, which generally are not predictable. Added to that are the price manipulative tactics practiced by many foreign import market intermediaries.

In the international markets, where stringent regulatory norms are set by importing countries, high quality packaging is the need of the hour. The Spices Board India should take measures to support 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 markets abroad. Scientifically devised and qualitative packaging would not only keep the product safe, but also promote sales. Better packaging will reduce risk of contamination and damage during transit. With the continuous assistance from the

Spices Board, the cardamom industry can withstand the test of time, evolving a wide array of products and packaging formats that cater to the needs of the international market.

Green cardamom is one of the most expensive spices by weight, but little is needed to impart flavor. It is best stored in pod form because once the seeds are exposed or ground, they quickly lose their flavor. When Cardamom is stored in an airtight (preferably a vacuum) container at temperatures below the freezing point of water, it can retain its flavor for many years. However, high-quality ground cardamom seed is often more readily (and cheaply) available and is an acceptable substitute. Grinding the pods and seeds together lowers both the quality and the price. For recipes requiring whole cardamom pods, a generally accepted equivalent is 10 pods equals 1½ teaspoons of ground cardamom (Figure 1).



Figure 1: Green cardamom pods (Elettaria Cardamom)

Both Elettaria and Amomum cardamom types feature three-sided pods with a thin, yet tough papery outer cover. Inside, tiny, deep-brown to black, aromatic seeds are arranged in vertical rows with each grain ensheathed again inside a very thin membrane, whereas Amomum Cardamom pods are darker, larger, more or less triangular, prismatic in shape.



Figure 2: Amomum Cardamom

Cardamom exporters are not satisfied with the pricing practices adopted by the market intermediaries. There is considerable degree of exploitation by the intermediaries in the cardamom market. Small and medium scale producers of cardamom are being exploited more than the large-scale producers. Exploitation by market intermediaries differ depending on the experience levels of the cardamom

producers. The least experienced are being exploited more than the rest. In general, marketing societies are more realistically useful and effective to the cardamom exporters in sourcing the commodity.

Table 2A in the Appendix (“Determinants of Market demand and modalities of export pricing”) exhibits the prevalent trend and practice of marketing intermediaries within the state of Kerala based on procurement, pricing factors influencing market, like exportable quality, dimensional grades, packing, etc., which determine to a very large extent the market demand and modalities of export pricing etc.

Continuous price falls during the past have compelled many of the Kerala cardamom growers to shift towards other crops. The scale of operation as well as the experience levels of the producers, small and medium, and obviously the marketing potential of cardamom as an export product influence crop shifting.

The tendency is to sell most of their produces immediately after cropping and the rest later during the season itself. None of them can afford to wait beyond the season expecting better price in future. Here is where the Spices Board can step in, constructively

International Marketing costs of cardamom are very high, correlated with the scale of operation and the small-scale producers incur proportionately more costs than the medium and large-scale producers.

From the point of view of the cardamom exporters, the actual functioning of the Spices Board leaves much to be desired; it is not at all adequate to satisfy the expectations of the exporters even though the institutional intervention, support of auction selling, and support to cardamom growers play a meaningful role for the growth of the cardamom sector. However, a large number of cardamom growers are remaining blissfully unaware of the schemes and programs of the Spices Board of India.

The auction system of marketing cardamom has both advantages and disadvantages. A large number of cardamom growers are dissatisfied over the auction system of marketing of spices and its economic and also fiscal implications.

Securing export orders is the major problem to all the categories of exporters irrespective of scale of operation, form of business, or experience. Corporate exporters are able to secure more orders than partnership firms and sole traders. Further, experienced export houses have a clear advantage over the rest in securing export orders.

Consistent and regular supply of spices in the domestic market cannot, necessarily, be reckoned as a pre-requisite for profitable export deals and all the categories of exporters face difficulties of supply in the domestic market.

Most of the exporters do not get the international price for the spices exported. Risks of contract defaults and settlement problems are very high in the spices export business. Small and medium scale exporters experience the problem more, compared to the large-scale exporters. Spices exporters of different forms of business do not differ in this respect, but the new entrants have more difficulties than the experienced ones.

There are monopolies in the international market that are strong enough to control the global trade and prices of spices. Many of the exporters are experiencing the adverse consequence of such practices.

Speculative practices influence the global spices market considerably. Such practices in the export market have both positive & negative impacts on the export business

Exchange rate fluctuations do not have telltale impacts on majority of the small-scale export businesses. On the other hand, the large-scale exporters do feel such impacts, which could be either positive depending on upward trend of the rupee value and vice versa. Further, the impact of the exchange rate fluctuation is more on experienced exporters than on new entrants.

The attitude of banks towards the spices exporters is not at all favorable, particularly towards the new exporters. However, banks have a positive approach towards the financial needs of corporate exporters, compared to the rest.

Competitive factor is the most dominating and influencing factor in the international spices market. International and domestic competition speculative practices, Governmental policies, and promotional activities constitute the Competitive Factor.

Domestic Factor is the second decisive one in the export market, and it consists of variables like legal restrictions, supply of produces, financial constraints, and demand. Of late, the domestic market demand has increased both quantitatively and geographic spread such as into the semi-urban and villages where there is increased purchasing power and liberalized spending habits, more so from the 1990s.

External Factor is the third prominent one. External Factor consists of variables like exporting costs, exchange rate fluctuations, monopolistic practices and international price.

Indiscriminate use of chemicals results in pesticide residues beyond tolerable limits, leading to rejection of many consignments of spices from India. Trade restrictions on contaminated food or feeds have the greatest effect on countries like India, which currently have limited, or no available means of monitoring aflatoxin levels. The toxins are also carcinogenic (causing cancer) in humans and eating contaminated food often results in liver cancer, amongst other diseases.

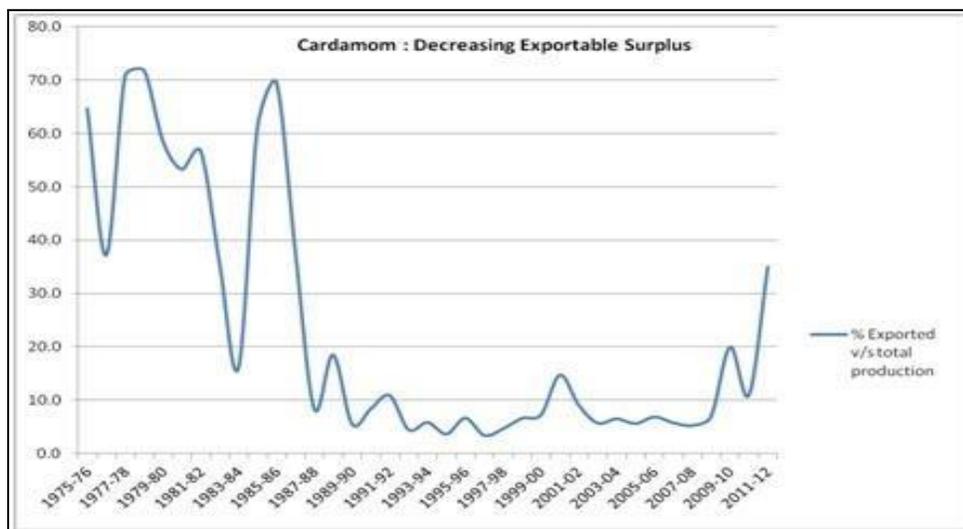


Figure 3. Export of Cardamom v/s total production

Source: <http://www.wsospice.org/innercontent.php?contentid=MTA1>

The bottleneck in enhancing the global market share is the quality of cardamom exported. Like the physical appearance and the size of the pods and the color, the inert quality also matters a lot. The levels of cleanliness and hygiene, pesticide residues, oil content are the economic and quality parameters that require immediate attention. A product that conforms to all these challenges will surely fetch a ready acceptance for this green pod on the market. But failure to adopt positive strategies to a number of these negative factors preserved above has resulted in a decline in the net exportable surplus of Indian Cardamom over the period 1987 -2010 (Figure 3).

With the export for Indian cardamom remaining in decline for more than one and a half decades (Figure 3), the economy had started believing the fact that the global market is lost forever. Nevertheless, to the astonishment of market 'pundits', Indian cardamom exports took a U turn showing an unusual and unprecedented rise. The reasons for this phenomenal rise are to be explored. One cannot just be complacent in explaining it away with the usual reason of a production fall in Guatemala, as differences in the product preferences also might be a factor. However, this change in demand has shown

rays of hope for the Indian cardamom industry. Perhaps the dark days are seemingly over with better prospects for the future. Though low supplies could explain the reason for the positive change in attitude of the importers toward buy from India from the other competitive source of Guatemala, it just cannot be taken at face value.

There seems to be a new trend developing with regard to the use of cardamom. The general liking for Indian cardamom in the Saudi market or a new demand that is happening on account of a new user pattern is a reality. Even the export trade was not able to trace out the new merchandise trade route. But the possibility of re-exports of quality Indian cardamom to a preferred overseas destination could also happen.

It is also important to consider that the flow of Guatemalan cardamom to the other countries as well as to the domestic market in India might be due to two reasons. The Guatemalan cardamom is more affordable to the lower middle and lower income classes of India or that, in general, the indifference curves of middle classes of India are becoming approximately similar to that of Europeans and North Americans. India should find a way to stabilize the supply issue in Indian domestic market and should differentiate the products for different income markets in Europe and North America. The Middle East market still favors India due to the unique taste the Indian cardamom offers.

NEED FOR BACKWARD INTEGRATION

Five years back nobody wanted to put any money to integrate backwards – to make a safe supply chain for food. Today the need in the industry is well felt. Companies in Kerala engage in what they call IPM (Integrated Pest Management) programs to tightly control agricultural inputs, farm practices and thereby producing the quality they desire. There is a buy back arrangement entered into and farmers often face challenges to meet standards for international exports, such as:

- Facilities at the grading and packing centers are also rudimentary and the merchants in this sector do not possess modern equipment for cleaning and grading or for storage of spices.
- Proper drying of spices within 8-12 per cent of moisture is not done after harvesting, resulting in microbial contamination.
- Drying of spices on non-hygienic surfaces creating further contamination from microbes such as fungi, germs, and bacteria including harmful ones like Salmonella, Staphylococcus aureus, Bacillus cereus and Clostridium perfringens, yeast and mould, E-coli, and Coliform.
- Infestation of the cardamom berries by pests, which is also seasonal and location specific, is countered generally by indiscriminate application of chemical pesticides, whose residue lingers on the dried cardamom has to be addressed more realistically.
- The level of awareness of MRL (Maximum Residue Level) that conforms to the US Food & Drug Administration stipulations will have to be improved significantly.

The division between domestic and export market cannot be easily delineated as the market supply situation of cardamom does not strictly depend on the export trade alone or on the volume of supply directly from the growers. A factor crucially determining export supply is the quality parameters and recently the stringent standards fixed by the Food and Safety departments of both India and most of the European and American governments, demand to produce certificates showing the level of *Aflatoxin* (a cancer causing chemical banned in many developed nations), maximum residue level of pesticides and other contaminants as could be seen on the cardamom pods. The needs of the growers are another factor that dictates flow or supply of materials both for the export or domestic (mainly Northern Indian demand, including that of the pan masala manufactures) local demands. Since most of the farmers' incomes are marginal, they need immediate reimbursement of cost of cultivation and for their urgent family needs and cannot afford to wait for the Spices Board of India sponsored auction process. In other words, the farmers approach the local spices merchant with packets of samples

of various types of cardamom grown. The merchant offers a price and the transaction takes place. It may also be noted that these are the same merchants who might have advanced some money as immediate relief to the growers earlier and the farmer becomes obliged to the sales preferentially. Quantitatively speaking, Cardamom is mostly sold at the Spices Board of India conducted auction centers. The Board licenses traders and they participate at the different marketing centers for auction. The auctioneers licensed to conduct auctions in India are:

- Cardamom Processing Marketing Co-operative Society Ltd(CPMCS), Kumily, Kerala
- Cardamom Marketing Corporation, Vandanmedu, Kerala
- Mas Enterprises (Mas), Vandanmedu, Kerala
- Cardamom Planters Association (CPA), Bodinayakanur
- Kerala Cardamom Processing Marketing Company Ltd (KCPML), Spice House, Thekkady, Kerala
- Spices Trading Corporation Ltd, Bodinayakanur
- Indian Cardamom Marketing Corporation, Kumbum
- Joseph Coffee Curing Works, Pattiveeran etc.

The primary and secondary survey results show that:

- Nearly half of the growers (small & large) across the states are for fixation of price and ensuring price stability. This seems particularly important as there have been wide and sometimes volatile fluctuations in Cardamom price in the past few years.
- About 30% of the growers, across all states and categories, are for a pooling system in Cardamom sales (similar to the one prevailing in coffee which is another cash crop grown along with cardamom) but the same needs to be rationalized through a government agency.
- Another demand from the cardamom growers is spot payment at auction and elimination of commission at auction.
- Nearly 38% of the small growers and 50% of the large growers of Karnataka asked for improvement in marketing facilities.
- A small fraction of the growers suggested the need for publicity generated and encouraged by the Spices Board of India for the use of Superior grade of Cardamom, especially in the export market nations like the European Union and the USA where cardamom is used generally as a value addition mostly in the form of its essential oils and oleoresins and not as direct ingredient to curries and other culinary preparations as in the case the in the Arabic world, which were the major consumer countries in the beginning.

INTRINSIC PROBLEMS

Farmers are not made properly aware about the new methods in marketing of cardamom, especially those of the export market such as export pricing, statutory regulations of the importing nations, the export incentives and benefits offered by the government, and the need to interact with the Spices Board of India offices for addressing of their grievances. This is particularly true in the cases of small farmers, also including a major proportion of medium size farmers whereas larger growers are more adept at keeping their fingers on the market pulses and can afford to hoard their produce waiting for a better market price. Marginal farmers tend to sell their produces immediately after drying, without sorting or grading. Some producers store for some period to wait for high price. Some of them are increasingly becoming aware of the need for better techniques of drying, grading as per the color of the pod, the size and other factors such as aroma, weight, etc. Many of the medium and small scale farmers depend on the local traders who give relatively high prices and even cash advances after inspecting the samples of farmers. More often the small and marginal farmers would have borrowed money from the local traders even much before the harvest to meet their very dire finan-

cial needs at some point. Thus the initial flow of the merchandise starts from this level. Marketing channels of the cardamom flows from farmers/growers, to local traders, to wholesalers, and/or finally to the exporters. The quantities of supply depends on many factors associated with these different levels of flow and also other intermediaries in the market, including the governmental and other levels. This scenario cannot be summed up in advance or growers selling behavior cannot be predicted at any point of time. Now farmers are familiar with commodity future market, and some of them venture into or try to engage in future market. Farmers associations are also trying to make more profit through assembling their produce together and operate in large scale. However, the spices industry is confronting a major challenge of declining quantity for exports due to supply shortfalls and quality concerns. This calls for immediate crisis management by revamping the entire supply chain starting from researchers, farmers, exporters, importers, and consumers while ensuring adequate governmental intervention and back-up support. Cardamom displays huge volatility in pricing as it is affected by domestic and international supply demand patterns. While the demand has been rising, the supply is highly volatile. The major importing countries are the Arabian nations and the demand in the Middle East peaks during the Ramadan fasting period. Usually, the crop from India and Guatemala arrives during this period. In addition, the crop is highly susceptible to pests, diseases, and the vagaries of the monsoon.

PRESENT MARKET SITUATION AND SCENARIO

In 2016 there was a supply crunch in the Kerala cardamom market following a price fall that forced the cardamom exporters to go slow on shipments. Following a spell of summer rains, the cardamom prices fell by Rs 200 to around Rs 1100 per kg prompting the growers to hold the stock. As the cost of cultivation, grading and other labor intensive works have increased the overall cost substantially; farmers remain unwilling to sell or produce more. Thus it became difficult to source good quality cardamom as the supply has dropped. Consequently, exporters stand unable to meet the full demand, especially of the quality conscious countries of the western hemisphere. The arrivals to the auction centers have thinned. As presumably the growers must be holding on to the stock with the anticipation that the prices will go up again, the cardamom output had touched a record 25,000 to 30,000 tons in 2015-16. Though prices have dropped, the growers were relieved to have summer showers as it will help boost the prospects of the next crop. But again the difficulties are not likely to be resolved as excess rain and inadequate sunshine particularly in the flowering or even harvesting periods are likely to slow down procurement and consequently the availability of product for the export market dwindle as can be seen in the data below (Krishnakumar, 2017).

According to Kizhakkayil, Thomas, Zachariah, Syamkumar, and Sasikumar (2016), there was a widespread rumor about a critical decrease of available crops for the upcoming year. The rumor suggested a decrease of 12,000 – 18,000 MT from the last year's crop 2015 – 2016 of around 32,000 – 35,000 MT resulting to a diminished gross availability of 20,000 – 22,000 MT availability of 2016 – 2017 crops available in the market. It is a fact that the current crop yield significantly declined by at least 20%. The plants that have been particularly affected due to high temperatures are the ones that incurred more losses. The Cardamom growing belt has also reported lower rainfall than its corresponding period last year by 30%. Approximately 28,000 MT of Cardamom production was achieved from last year crop during 2015 – 2016. During 2015 – 2016 India produced approximately 28,000 Metric Tons of Cardamom and this year 2016 – 2017, the prospected yield is 20,000 – 21,000 MT; with the addition of the assumed carry forward stocks of around 4,000 MT, the total availability of Indian Cardamom would be approximately 24,000 – 25,000 MT. Whereas, the exports of Indian Cardamom from 2015- 2016 are estimated around 5,800 MT and the local consumption is estimated roughly around 14,000 – 15,000 MT. Approximately 2,000 -3,000 MT is imported legally into India and around the same quantity is smuggled into India through neighboring countries' land routes from Nepal and Bangladesh, which is further mixed up with the Indian Cardamom and exported to Middle Eastern countries in premium as India Origin Cardamom. This year in 2017 India would achieve the export target sales of approximately around 4,000 MT due to low consumer demands. Cheaper Guatemalan

cardamom is holding sway in the West Asian market at the expense of the Indian variety, leading to a drastic and unfortunate price fall in the local market which is faced with a glut of oversupply by import and domestic production. Cardamom production has been higher in the current season but export orders have thinned because its prices are not competitive with Guatemalan and other suppliers. Consequently, the market prices, at about INR 550 per kg, are below the cost of production, which has reached INR 811 after the recent wage increase in Kerala. Growers need a price of INR 900 per kg to make at least some profit.

Major Cardamom Exporters are holding approximately around 8,000 Metric Tons of the new 2016 – 2017 crops (4,000 Tons of Green Qualities, 3,000 Tons of Pale Greens and 1,000 Tons Yellow Qualities). The crops are now held at the farm gate levels or stored in warehouses waiting for export. The crops were allegedly bought at an average of US Dollars 7 to 8 Per Kg (sorting, packing, and grading costs included). Most of the Pale Green Qualities have been shipped to South East Asia and the Middle Eastern aggressive buyers. Yellow Qualities and others have been shipped to Europe and the USA at premium prices (Muhammed, 1987). As of now, they have shipped around 5,000 MT as up to April 2017. The lower price in the domestic market will help the exporters to have an upper hand in the global market over India's chief rival Guatemala., cardamom exports from India went up just 5% to 3,795 tonne but saw 14% increase in value compared to the previous Rs 323 Cr. The lower crop estimate in Guatemala in the current year could lead to revival in demand at lower levels. The demand from north India is muted and is expected to pick up only with the start of the festival season. The exports, mostly to the Middle East, have also turned sluggish after Ramdan. "We expect a revival in exports in a couple of weeks. What has hit the price line now is sluggish domestic demand". The contemporary relevance of Organic Method of Farming has to be inculcated into the minds of the unorganized farming community through the offices of the Spices Board and its different promotional stations in Kerala as well as the various governmental departments, including Agricultural extension services

ROLE OF THE SPICES BOARD OF INDIA

The Spices Board undertakes various activities for export development of all spices but also has the mandate to undertake all activities relating to cardamom such as R&D, extension, production, processing, marketing and others. A major issue with Spices Board's mandate relates to the separation of production enhancement from export promotion. There are inherent problems when production enhancement is addressed by different ministries while the Spices Board has the mandate only to promote exports. To the extent that export promotion is invariably linked to production conditions which govern the supply, the disjuncture between production and exports needs to be addressed by the Spices Board of India, a Government of India body. As per the Spices Board Act (1986) the Board has following functions:

- Develop, promote and regulate export of spices;
- Grant certificate for export of spices;
- Undertake programmes and projects for promotion of export of spices;
- Assist and encourage studies and research, for improvement of processing, quality techniques of grading and packaging of spices;
- Strive towards stabilization of prices of spices for export;
- Evolve suitable quality standards and introduce certification of quality through "Quality Marking" of spices for export;
- Control quality of spices for export;
- Give licenses, subject to such terms & conditions prescribed, to the manufacturers of spices for export;
- Provide warehousing facilities abroad for spices;
- Collect statistics with regard to spices for compilation and publication;

- Import with prior approval of the Central Government any spice for sale;
- Advise the Central Government on matters relating to import and export of spices.

Focusing on the promotional measures to be initiated by the Spices Board for cardamom in the wake of substantial deterioration in competitiveness for Indian cardamom in the world market appears imperative. This deterioration has taken place over a period of 15 years. As a result, Indian cardamom has ceased to be an export-oriented crop with 95 per cent of the produce ending up in the domestic market. The relevance, if any, of an elaborate discussion on the role of the Spices Board of India after its reconstitution in 1987 (from the earlier format of the Cardamom Board) in promoting exports in particular should have been addressed to the harried cardamom growers across Kerala for a succinct response, as could be understood from the very many interactions and probing questioning that were brought out. The more realistic scenario could be that the existing intervention of the Spices Board of India to the scattered small, marginal, and medium sized cardamom growers in Kerala and Karnataka (known as the earlier Malabar belt) be more or less confined to the auctioning process where some modicum of rational and healthy competition could be generated by the Board. The Indian cardamom growers had their first disturbing signal after the advent of the infamous Guatemala cardamom aggressive marketing strategy of dumping (literally flooding of the international markets) at lower prices than Indian growers and marketers. The export markets were being adversely affected and exports from India which had monopolized the global market till late 1980s felt threatened. Luckily for India, the somewhat dormant North Indian markets slowly became more alive and demand of cardamom from Indian producers began to strengthen and grow at an appreciable percentage. Spices Board of India is now coming up with few measures to overcome the current scenario.

INFRASTRUCTURE DEVELOPMENT SCHEMES (IDS)

There are many ways the Spices Board of India tries to make the infrastructure better. Some of the prominent steps taken by the Spices Board are adoption of High Tech in Spice Processing, technology and process up-gradation, setting-up/up-gradation of in-house quality control laboratory, quality certification such as ISO 22000, SQF 2000, GMP traceability, FDA registration and validation of check samples and training of laboratory personnel, printing promotional literature/brochures, packaging development and bar coding registration, international trade fairs/meetings.

There are two components under the programme, viz., participation in international fairs /exhibitions and participation in international meetings /seminars that are designed, acting as a catalyst for market expansion. The Spices Board also takes measures for product development and research and under this programme, it is proposed to provide financial assistance to the exporters/research institutions to undertake product research & development (ICRI, 2017).

Major areas of assistance by the Spices Board of India are utilization of the services of national or international research institutes for developing new spice products/applications for establishing traditional and non-traditional values and in-house research programmes by entities with sufficient infrastructure facilities and clinical trials to establish and validate therapeutic properties of spices through reputed third parties and patenting and product registration.

The exports of value-added products are showing an improvement. Cardamom oil and cardamom oleoresins are the major value-added products of cardamom. European Union countries like Germany, the Netherlands and the UK are the major importers of these specifically value-added products from the sub-continent. The Spices Board has been of late taking initiatives in inculcating the farming community at large of the importance of organic cardamom cultivation, modern tested farming methods, preventive disinfestations techniques and high yielding and pest resistant cardamom plants for successive replanting purposes. The Spices Board also is providing guidance on the safer methods of drying of cardamom berries with a better quality, reduction in the MRLs (Maximum Residue Lev-

els of pesticides and other chemicals) so that the grade of the produce can be ensured for export purposes.

India can reclaim the first place in cardamom trade soon, provided the Indian government pays more attention to cardamom cultivation, marketing activities, export promotional activities and minimum support price to farmers.

THE REDEFINABILITY FACTORS ON THE ROLE OF THE SPICES BOARD OF INDIA

It, therefore, emerges that in view of the limitations of production subsidies to achieve international competitiveness, the Spices Board should rationalize its programmes and perspective in export orientation techniques and marketing for the international market in view of the Guatemala threat and also explore possibilities of influencing the export market through appropriate export promotion measures. The Spices Board can address the following issues that create barriers to the international marketing of Indian cardamom:

- Statutory Minimum Support Price (MSP) to field and plantation crops, a measure that is fully WTO (World Trade Organization)-compatible.
- The use of variable tariffs to protect exporters against sharp fluctuations in global prices and import surges.
- Re-imposing quantitative restrictions within the framework of a Livelihood Security Box. Introducing policy measures like crop insurance, imaginative rural credit services, new forms of agricultural extension, providing facilities for marketing, storage and processing, and so on.
- Initiating multi-disciplinary policy research on various forms of domestic support and their feasibility.

The Guatemalan marketing management has negatively impacted the Indian cardamom market resulting in crashing prices for want of export buying. It was very evident that the Indian cardamom prices governed by the pull and push of the strong domestic market cannot match the competitive pricing in the international market. The many attempts to expand the market did not materialize. In reality the very small purchases of premium grades from India by quality conscious traders in Saudi Arabia helped in retaining cardamom as an exported spice for quite some time now. Unprecedented and unexpected, the trade in cardamom faced a perilous situation. The negligible export of cardamom happened for the premier grades only to prestigious buyers. Otherwise the export surplus remained at home and had caused glut in the domestic market pulling down prices. The Spices Board India is supposed to take various steps for the promotion of cardamom. It is conducting various programs on a regular basis among the stakeholders for implementing IPM and GAP in cardamom cultivation, for pre- and post-harvest management, and for quality improvement training. For the Indian small cardamom industry to remain competitive in the global market we must be able to cater to the safety and quality norms and the programs rolled out by the Board as envisaged. The Board also facilitates forward integration of cardamom growers by enabling co-participation in major trade fairs, and thereby providing them a platform to build business relationships with exporters and up-country buyers.

The system of auctioning of cardamom that is in vogue 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 stake due to the tendency of stake holders to boycott auctions even for a minor cause. The reforms that got implemented in streamlining the cardamom trading system are not fully acknowledged or made full use of by a section of stake holders. The setting of Spices Park, doing away with the open public outcry bid system in cardamom, introduction of the electronic cardamom auction centers, especially promotion drives for cardamom to expand domestic market consumption done at the official levels are the organized changes in the industry (World Spice Organisation, 2016). The inputs for cardamom re-plantation, rejuvenation, irrigation and curing house support, etc. have contributed to the rise in production of cardamom also.

RESULTS AND DISCUSSION

The Spices Board of India at Kochi, Kerala, meant “to act as a catalyst of dramatic transition” has not been tangibly successful in the practical realm; its promotional developmental exhortations have not percolated down to the grass-root level of agriculturists, to progressively establish and sustain market linkages to the cardamom growers and exporters, even in the context of growing market potential and opportunities. Cardamom was market positioned only as an agricultural commodity, rather than the Queen of Spices, based on its superior quality parameters of aroma, taste, flavor, and the hitherto unexploited nutritional and medicinal properties of mouth freshening, vitamins, curative values, etc. proven over the centuries far more than a food seasoning factor to the developed West. These have not been projected succinctly. Traditional marketing of cardamom was targeted only for the domestic market demands, especially for the spice using affluent North Indian Mandis (local market places). The export market is earmarked generally for the leftover quantities, mainly because of the delays in realizing the finances from the exports.

There is lack of awareness among the farmers at large about the latest farming and post harvesting modalities of drying, grading. Also there is a need to update the latest technologies and effective marketing strategies, focusing more on the Organic type since there is a huge potential in developed countries. Noticeably, the crucial aspects of drying of the cardamom, within the accepted range of 8 to 12 % in order to avoid moisture related microbial contamination has been ignored (Ministry of Agriculture, 2016). For example, farmers dry on non-hygienic surfaces or sheets, that is not free from residues of pesticides and pungent chemical fertilisers. The USFDA (United States Federal Drug Authority) has prescribed MRL (Maximum Residue Limit) which are internationally reckoned as the permissible limits for traces of such residues. Anything beyond are rejected outright thus acting as invisible trade barriers that Indian products generally cannot overcome. No technology or other means are provided by governmental agencies to monitor levels of AFLATOXIN (a rabid immune debilitating toxic waste dreaded in the West), resulting in outright deportation of all quantities. Government Agricultural Extension endeavors remain non-market oriented (i.e., not focused on the needs of the export market). Crucial and mostly indispensable market information and practical aspects of latest technological developments do not reach out to the cardamom agriculturists and, thus fail to recognize and convince the farmers-exporters to achieve the competitive edge, in the context threat from Guatemala and other countries.

Cardamom growers are not helped to become familiar with procedural gaps in the cultivation, careful processing and designing marketing efforts to suit the particular demands of potential consumers in the West in a more innovative manner, including drawing a road map for sustained development argumentation techniques designed for the Kerala farmers. The tendency is to sell most of their product immediately after cropping and the rest later during the season itself. None of them can afford to wait beyond the season expecting better prices in future. Here is where the Spices Board can step in. Constructively international marketing costs of cardamom are very high, correlated with the scale of operation and the small-scale producers incur proportionately more costs than the medium and large-scale producers. From the point of view of the cardamom exporters, the functioning of the Spices Board is not at all adequate to satisfy the expectations of the exporters even though the institutional intervention and support of auction selling and support to cardamom growers play a meaningful role for the growth of the cardamom sector. But, a large number of cardamom growers are still remaining blissfully unaware of the schemes and programs of the Spices Board. The auction system of marketing cardamom has both advantages and disadvantages. A large number of cardamom growers are dissatisfied over the auction system of marketing of spices and its economic implications. Securing export orders is the major problem to all the categories of exporters irrespective of scale of operation, form of business, or experience. Corporate exporters are able to secure more orders than partnership firms and sole traders. Further, experienced export houses have clear advantage over the rest in securing export orders. Consistent and regular supply of spices in the domestic market cannot, necessarily, be reckoned as a pre-requisite for profitable export deals and all the categories of export-

ers face difficulties of supply when the domestic market demands increase unprecedentedly and export market is sidelined for temporary periods. An increase in domestic consumption can be analyzed as both increase in private household consumption which shows different patterns even in different south Indian states, depending upon the culinary habits of the consumers and also the variations in purchasing power and standard of living. Here the percentage of increase has not been noteworthy, but remain more or less steady. But in the Northern Indian states, until a few decades before cardamom was a rare consumption commodity in their lives but the increase in demand and therefore, of supply to such markets have been on a path of steady increase so much so that it appears that even if the major chunk of the total produce is made available in the North Indian markets, these quantities can be easily sold out there itself. Secondly the demand from the manufacturers of pan masalas also needs cardamom in not so small quantities. Thus the supply internally has been increasing; particularly the North Indian markets and metropolitan and also other major cities which have been exhibiting varied culinary tastes and non-rustic or urban eating habits, as a result of the liberalization of economy and increase in income and consumption rates.

CONCLUSION

In general, the scope for improvement of the export demand of Indian Cardamom potential is huge, provided the Spices Board of India is restructured so that a wing or phalange of official machinery is earmarked exclusively for the development of cardamom as a benevolent cash crop of Kerala, including farmer-friendly concerted and result-oriented marketing strategies. The Spices Board should create new marketing strategies to facilitate new consumer interest in Indian Cardamom. Even though the Spices Board of India has to take care of other Indian Spices, giving the importance and history of Cardamom and the income it brings to the national economy. The Spices Board should give priority to expand the demand of Cardamom in both domestic and international markets by creating awareness in customers and support farmers to produce international quality Cardamom.

REFERENCES

- Baby, J., & Sankaranarayanan, K. C. (1985). *A blue print for export development of Kerala* (Doctoral dissertation, Cochin University of Science and Technology).
- ICRI Indian Cardamom Research Institute (2017). *Spice Station at Bodinayakanur Tamil Nadu, under the Spices Board of India*. Retrieved from: <http://www.indianspices.com/indian-cardamom-research-institute-0>
- Kizhakkayil, J., Thomas, E., Zachariah, T. J., Syamkumar, S., & Sasikumar, B. (2006). *A comparative quality appraisal of exported cardamoms of India, Sri Lanka and Guatemala*.
- Krishnakumar, P. K. (2017). *Cardamom Export Becomes Sluggish on Supply Crunch*. Retrieved from: <https://economictimes.indiatimes.com/news/economy/foreign-trade/cardamom-export-becomes-sluggish-on-supply-crunch/articleshow/58009069.cms>
- Kumar, A., & Krishnaswamy, K. (1997). Selenium content of common Indian cereals, pulses, and spices. *Journal of agricultural and food chemistry*, 45(7), 2565-2568.
- Ministry of Agriculture. National. Project on Organic Farming Ninth Report (2016). *National Programme for Organic Farming, Ministry of Agriculture Government of India*. Retrieved from: <http://www.indiaenvironmentportal.org.in/files/file/national%20project%20on%20organic%20farming.pdf>
- Muhammed, A. S. (1987). India's Cardamom Trade with Middle East Countries'. *MBA Project Report, Calicut University of Calicut*.
- Nair, T. R., & Kutty, M. G. (2004). Cardamom (*Elettaria cardamomum*) in Kerala, India. *Forest Products, Livelihoods and Conservation*, 1, 130-147.
- World Spice Organization (2016), *Reports and News Bulletins from 1991 to 2016(winter editions)*. Retrieved from: http://www.intracen.org/uploadedFiles/intracenorg/Content/Exporters/MarketData_and_Information/

[Market information/Market Insider/Spices/ITC%20Market%20Insider%20Spices%20report%20May%202015%20fn.pdf](#)

APPENDIX

Table A1. The role of the market Intermediaries of various operational strata

Location	Criteria for fixing purchase rates from growers	Whether sorting and grading are carried out	To whom supply-wholesalers or export houses	Whether sells to domestic market or directly to export market
Kumily, Idukki	Prevalent market rate, e-auction rates, weighted average future anticipated rate and based also on the individual customer relations	Yes - most of the time as the receipts from farmers are in such assorted lot	Wholesalers only	Mainly to domestic market
Kumily, Idukki	Prevalent market rate, e-auction rates, weighted average future anticipated rate and based also on the individual customer relations	Yes - shall give a discount if it is duly sorted and graded, size-wise	Mainly to domestic market	Mainly to domestic market
Kumily, Idukki	Prevalent market rate, e-auction rates, weighted average future anticipated rate and based also on the individual customer relations	Yes - most of the time as the receipts from farmers are in such mixed nature, offers discount if the same are correctly sorted out and size wise graded, avoids purchase of inferior grades	Wholesalers only	Mainly to domestic market
Kumily, Idukki	Prevalent market rate, e-auction rates, weighted average future anticipated rate and based also on the individual customer relations	Yes - most of the time as the receipts from farmers are in such mixed nature offers discount if the same are correctly sorted out and size wise graded ...avoids purchase of inferior grades	Mostly wholesalers, preferably in the North Indian market	Mainly to domestic market
Vandanmedu, Idukki	e-auction rate and based on customers' existing relations	Yes - shall give a discount if it is duly sorted and graded, size-wise	Wholesalers only	Mainly to domestic market

Location	Criteria for fixing purchase rates from growers	Whether sorting and grading are carried out	To whom supply-wholesalers or export houses	Whether sells to domestic market or directly to export market
Vandanmedu, Idukki	e-auction rates, weighted average present rate structure and based also on the individual customer relations	Yes - most of the time as the receipts from farmers are in such assorted lot	wholesalers, preferably in the North Indian market and also to exporters and export houses	Mainly to domestic market
Kottayam	Prevalent market rate, e-auction rates, based on the individual customer relations and most importantly on the basis of market intelligence obtained from wholesalers	Assorted and ungraded cardamom lots in poorly packed conditions and also very inferior grades are avoided as premium rates are offered	Wholesalers, exporters, domestic markets in Tamil Nadu, Karnataka, Bombay etc.	Any market
Bodinaykkannoor, Tamil Nadu	Contemporary T,N & Karnataka market rate, e-auction rates, based on the individual customer relations and most importantly on the basis of market intelligence obtained from wholesalers of the domestic markets in North India	Yes - most of the time as the receipts from farmers are in such assorted lot Accepts all kinds and grades but depending on market conditions	To anybody or other trade intermediaries and wholesalers	Any market
Sulthan Bathery, Wayanad	Based on current market rate of Kerala, Tamil Nadu and Karnataka, e-auction rates, based on the individual customer relations and most importantly on the basis of market intelligence obtained from wholesalers in Karnataka and Gujarath	Yes - Accepts all kinds and grades but depending on market conditions	To anybody or other trade intermediaries and wholesalers	Any market

Table 2A. Determinants of Market demand and modalities of export pricing

Operational locations (all within Kerala State)	Whether purchasing directly from farmers or wholesalers or from e-auction outlets	Whether insists on sorted and graded cardamom and whether premium is given for packing, grade and less contamination and pesticide residue levels	To which foreign mar- kets are exporting
Kumily	Direct purchases are relatively rare- most purchases are from e-auction and selected market intermediaries	Accepts even ungraded lots at a discount—premium offered on graded and export packed cardamom	Mainly Saudi Arabia and Gulf Countries – Also caters to selected European Union and USA markets
Kottayam	Wholesalers only	Avoids ungraded lots premium offered on graded and export packed cardamom	Mainly Middle East countries. Also to Singapore, Hong Kong and Japanese markets . Exports to ISA and E.U are relatively lesser. Recently exports to Chile, Surinam and Russian and Scandinavian countries like Denmark, Norway, etc.
Ernakulam	Wholesalers, selected market intermediaries	Does not accept ungraded lots even at a discount —premium offered on graded and export packed cardamom	Any countries from where solid enquiries for exports are obtained

BIOGRAPHIES



Majo George is working as a Lecturer at RMIT International University, Vietnam in School of Business and Management. He had teaching experience in South East Asia for 15 years. He is delivering courses in Management and Accounting and also doing Professional Training for professionals.



Mrs. Elsa Cherian is working at the Centre for Management Studies, North Eastern Regional Institute of Science and Technology, Nirjuli, Itanagar, Arunachal Pradesh as an Assistant Professor with prior experiences at Santhigiri College, Thodupuzha, Kerala as Lecturer. Her specialization is Management.