

# **Present Situation and Prospects of Cinnamon Industry in Sri Lanka**

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Research Report No: 203

January 2017

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**First Published: January 2017**

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**Final lay-out by: Dilanthi Hewavitharana**  
**Typesetting by: Deepthika Rupasinghe**

**ISBN: 978-955-612-220-6**

**Suggested citation:** Wijesinghe, R., Perera, S. and Wijesinghe, P. (2016). Present Situation and Prospects of Cinnamon Industry in Sri Lanka. HARTI Research Report No: 203, Hector Kobbekaduwa Agrarian Research and Training Institute, Colombo, Sri Lanka.

## **FOREWORD**

Cinnamon is the oldest and most significant spice grown in Sri Lanka while being a leading source of foreign exchange earnings. It is exported to over seventy countries having a 90% market share and Ceylon cinnamon has a monopoly in the world cinnamon market. The value and volume of annual cinnamon export has shown a steady growth, however the growth rate of export volume is lower than the export value. With the increasing world market demand for Ceylon cinnamon what is required is to identify key issues of cinnamon production and export in terms of bulk and value added products and the production process.

Benefits of developing the cinnamon industry would be twofold: boosting the income level of producers and increasing the foreign exchange earnings of the country. The cinnamon industry is hindered by poor management of plantations, lack of improvement in productivity, high labour costs and scarcity. In addition, another issue is Sri Lanka's share in the global market in terms of value added products which is comparatively small as compared to the bulk market products.

This study has provided a comprehensive analysis of cinnamon export market of Sri Lanka and consists of useful information on the cinnamon production sector. Further it highlighted key issues related to the cinnamon industry in the country and made recommendations for further improvements of the sector.

I congratulate the research team for successfully completing this research project and hope the findings of this study and recommendations would be helpful for policymakers in making decisions on further developments of the country's cinnamon industry.

**Haputhanthri Dharmasena**  
**Director**

## ACKNOWLEDGEMENTS

We wish to express gratitude to the cinnamon producers and farmers in all the study areas for providing their support and cooperation when collecting field level information. We are also specially thankful to the cinnamon exporters who participated in the key informant interviews for providing valuable information to the study. We would like to convey our gratitude to all the administrative level and field level officers who extended their support to collect primary data and provided other required information for the study both in Galle and Matara districts.

Our gratitude goes to Mr. E M Abhayaratne, Former Director of HARTI for his support in conducting this study. We would like to convey our heartiest thanks to Mr. Haputhanthri Dharmasena, Director, HARTI for the administrative support provided to publish the report. Further, we acknowledge Mr. J K M D Chandrasiri, Additional Director of HARTI for his support in this study. We are also very grateful to Ms. Shamini Kusum Kumara, Head of the Agricultural Resource Management Division for her support and valuable comments provided to improve the research report. We wish to convey our sincere gratitude to the external reviewers, Dr. M A B K Seneviratne, Department of Export Agriculture and Dr. Frank Niranjana, Sri Lanka Council for Agricultural Research Policy for providing valuable comments.

A special note of appreciation is due to Mr. R M M H Bandara and Mr. D S K Ratnaweera, Casual Investigators, Mr. W H P Yasarathna, Data Entry Operator for their service when collecting information and Mr. Amal Dissanayake and Ms. Anjana Hettiarachchi, Statistical Assistants for their dedicated service when collecting and analyzing data. We are also thankful to Ms. Suharshi Perera for English editing of this report and Ms. L A K C Dahanayake, Assistant Registrar (Programme) for providing administrative facilitation throughout the study. The service rendered by Ms. Kaman Karunaratne, Ms. Vijitha Padmini, Ms. Deepthika Rupasinghe and Ms. Olu Kariyawasm of ARM division in type setting of the report is much appreciated. Our sincere thanks are also due to the staff members of ARM division, publication and printing unit for their support. We also thank our colleagues for helping us throughout the study.

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## EXECUTIVE SUMMARY

Although Sri Lanka's cinnamon industry has shown a steady growth in terms of value of exports during the recent years, the annual export volumes of cinnamon remained almost constant indicating a trend of increasing unit price. On the other hand, there has been hardly any improvement in value added sector and the share of the value added products to the total cinnamon exports is very low when compared to the strongly established bulk market. Therefore, this study attempted to examine the long term trend and estimate the growth rate and instability of cinnamon exports with a view to identify the international markets for Ceylon cinnamon and market diversification and identify key issues of the cinnamon production and export sectors. The study was carried out in two selected districts, Galle and Matara to collect primary information on production through a structured questionnaire. In addition, twenty main exporters identified by the Export Development Board (EDB) were also interviewed.

The study findings show that major export items of cinnamon are quills, quillings, retail packs, crushed or ground cinnamon, chips and cinnamon oils. Though cinnamon tablets, cinnamon tea, energy drinks, tooth picks have been introduced in Sri Lanka, these industries are still in its infancy due to competition in world branded cinnamon by-products produced in developed countries. Among these major exporting items more than half export value comes from exports of quills, retail packs and cinnamon oil export respectively. As per the results the share of the cinnamon exports from the export turnover was 60 percent in 2007 marginally reducing in 2012 due to increase in pepper export earnings. Meanwhile cinnamon export volume is increasing by four percent annually with low instability. According to the estimated results of the growth rate analysis the highest growth rate was recorded in exporting cinnamon retail packs.

Although there are about fifty export destinations for Ceylon cinnamon, top three countries are Mexico, USA and Peru where the demand is more than half of the total cinnamon exported. Unnecessary competition with cassia, inadequate supply, awareness of the importance of acquiring the Ceylon cinnamon logo, constraints of enhancing value added industry, lack of skilled peelers, poor quality products, unnecessary competition of local cinnamon exporters were identified as key issues in the cinnamon export sector. When the country's cinnamon production sector is taken into consideration low productivity of cinnamon resulted mainly due to poor maintenance of plantations and not harvesting the crop on time due to shortage of peelers and this situation badly affected the cinnamon export

sector as the country may not be able to cater to the export demand throughout the year. On the other hand, absence of proper processing facilities and unawareness of the quality parameters has caused quality degradation of cinnamon products.

To ensure quality export products market awareness for identifying true value of cinnamon and differentiation of pure cinnamon from cassia is required. At the same time government should facilitate in providing international exposure to exporters in order to identify the buyers' behavior and priority markets and new markets to promote and diversify cinnamon export destinations as well as existing value added products. In addition, it is important to initiate market promotional programmes for these products. Also a mechanism should be introduced by the government to stabilize the cinnamon export prices. Recommendations are increasing the cinnamon production to cater to export demand throughout the year, initiating awareness programmes for producers and collectors regarding maintaining quality, investing more on mechanization and modernization of cinnamon industry and conducting training programmes for cinnamon peelers to motivate younger generation for these activities.

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## **LIST OF ABBREVIATIONS**

CV	Coefficient of Variation
DEA	Department of Export Agriculture
DS	Divisional Secretariat
EDB	Export Development Board
EU	European Union
HS	Harmonized System
USA	United State of America



## CHAPTER ONE

### Introduction

#### 1.1 Background of the Study

Cinnamon, pepper, cardamom, clove and nutmeg are the major spices which have an export significance to Sri Lanka. Among them cinnamon is one of the oldest and most significant spices grown in Sri Lanka. At the same time cinnamon is Sri Lanka's leading spice in terms of foreign exchange earnings and employment generation. Cinnamon exceeds by far other spices in terms of volume traded, value generated and the acreage under cultivation from ancient time to the present, Sri Lanka has been well-known for its spices. In 2012 total value of foreign exchange earnings generated by the cinnamon exports was Rs. 16,655 million, which is about 55% of the total earnings from spice exports (Department of Customs, 2012).

The economic research division of the Department of Export Agriculture (DEA), 2014 reported that the estimated extent of cinnamon cultivation in Sri Lanka is about 31,044ha in 2012 and 31,551ha in 2013. Out of the total extent 22,671ha of cinnamon lands (72%) belong to the Southern Province in 2013. Moreover, Galle district has the highest cultivated land extent in cinnamon in Sri Lanka, which is 11,159ha.

As claimed by the Spice Council, the total number of employment under the spice sector is estimated as 400,000 total household units and about 60 percent of them are employed in the cinnamon industry.

Sri Lanka exports cinnamon to over seventy countries, spreading across almost all continents where major export markets are Mexico, USA, Peru, Colombia, Germany, Spain, Britain and most South American countries. From the global market perspective, of the true cinnamon trade, Sri Lanka holds a dominating position with a 90 percent market share in which Sri Lanka holds a monopoly in Ceylon cinnamon (*Cinnamomum blume*) in the export market and this is the only monopoly the country currently holds.

Although the country's cinnamon industry has shown a steady growth in terms of value of exports during the recent years, the annual export volumes of cinnamon remained almost constant indicating a trend of increasing unit price of cinnamon. Furthermore, statistics indicate that there has been a growing trend of increase in the demand for cinnamon at the international market.

## **1.2 Research Problem**

Despite the crop's significance and being grown in Sri Lanka for centuries, there is little improvement in its value added sector. Although the literature revealed that commercial applications of the cinnamon bark as well as other cinnamon products in value added product segments such as food, perfumery, pharmaceutical and essence industries have been widely known, Sri Lanka has a small share in the global value added cinnamon markets compared to the strongly established bulk market which is the main export market form for cinnamon (contributes to more than 60 percent of the total cinnamon exports). Further, market position of the country's cinnamon is far below the potential of the industry; particularly the product development potentials in oil, oleoresins, gift packs and packaging.

On the other hand, cheap and low quality alternatives have begun to enter the global market leading to increased competition and therefore there is an urgent need for increased investment in research and product development for value addition in cinnamon.

Therefore, it is important to identify the patterns of cinnamon export growth and instability of products and markets in order to identify the reasons as to why Sri Lanka does not take advantage of exporting value added products and to identify key issues of the cinnamon production and export sectors.

## **1.3 Objectives of the Study**

The major objective is;

To examine the long term trend, estimate the growth rate and instability of cinnamon exports with a view to identify the international markets for Ceylon Cinnamon and market diversification and identify key issues of the cinnamon production and export sectors.

More specifically the study would attempt to;

- i. Examine the long term trend of cinnamon export volume and foreign exchange earning behavior
- ii. Estimate the growth rate and instability of cinnamon export
- iii. Identify the international markets for Ceylon Cinnamon and market diversification
- iv. Identify key issues of the cinnamon production and export sectors



## 1.4 Methodology

### 1.4.1 Study Locations

Two districts were selected to collect information from cinnamon growers by considering the secondary data on the cultivated extent of cinnamon. These two districts (i.e. Galle and Matara) collectively account for more than 60 percent of the total land extent under cinnamon where the cultivated extent in Galle district in 2013 was 11,159ha while it was 8,381ha in Matara district.

### 1.4.2 Sample Selection

From the target population (cinnamon growers in Sri Lanka) respondents were selected using the multistage sampling technique. As the first stage, two districts (Galle and Matara) were selected based on the cultivated extent of cinnamon. In the second stage five Divisional Secretariats (DS) from Galle district and six DS divisions from Matara were selected representing at least 70 percent of the total cultivated extent of cinnamon in the district. The total number of respondents in the sample in each district was limited to 100 considering the availability of funds and time period, accordingly 200 cinnamon growers were included in the total sample. Each district sample was selected proportionately to the number of cinnamon growers in each Divisional Secretariat.

**Table 1.1 Study Locations and Sample Size**

District	Divisional Secretariat	Sample Size
Galle	Karandeniya	21
	Ambalangoda	12
	Elpitiya	25
	Balapitiya	23
	Gonapeenuwala	20
Matara	Deiyandara	33
	Ransegoda	19
	Kamburupitiya	12
	Hakmana	14
	Kirinda-Puhulwella	10
	Athuraliya	11
<b>Total Sample</b>		<b>200</b>

Source: Survey Data, 2013, HARTI

### 1.4.3 Data Collection

The study employed three approaches for data collection:

#### a. Sample Survey

Sample Survey was conducted to collect relevant information from the sample farmers through a structured questionnaire designed to achieve the study objectives.

#### b. Key Informant Interviews

Interviews were held to gather information from the cinnamon exporters and top 20 exporters in Sri Lanka were identified using the list obtained from the Export Development Board (EDB) to discuss issues relating to enhancing the cinnamon exports and their views to propose recommendations. A guided questionnaire was used to conduct the interviews.

#### c. Collection of Secondary Information

Data and information pertaining to cinnamon such as production, exports and the extent under cultivation, were gathered through review of secondary sources of information. Further, information was reviewed from published and unpublished sources of information available.

At the same time data were obtained from the Sri Lanka Customs for the period of 1990 to 2012. Disaggregated data at Harmonized System (HS) 0906 were used for the analysis.

Other agricultural export price index was used to calculate the real export value with the base year of 2010 for the period of 1990-2012.

Threshold level ( $\bar{X}$ ) of trade was introduced in order to reduce the economically unimportant levels of exports that distort the analysis.

$\bar{X}$  = Percentage share of total cinnamon export quantity/  
value = 0.5

#### 1.4.4 Data Analysis and Presentation

##### a. Estimation of Growth Rates

Growth rates and instability were computed for the period of 1990 -2012 in respect of following trade categories.

1. Total cinnamon export quantity
2. Total cinnamon export values
3. Growth rates by different cinnamon products export
4. Growth rates for top three regions of importing cinnamon
5. Growth rates for top three cinnamon exporting countries

Export growth rates for the selected export categories are computed by using log linear functions on the time series trade data on export quantity and values.

The equation fitted to analyze the growth rate is semi log exponential form (Gujarati & Porter, 2009).

$$Y_t = Y_0 (1+r)^t \dots\dots\dots (i)$$

Where;  $Y_t$  is real export quantity/values of above export categories in  $t^{\text{th}}$  time period and  $r$  is the compound (i.e. over time) rate of growth of  $Y$ ,  $Y_0$  is intercept and  $t$  = time in years.

Considering the natural logarithm of equation (i) this can be rewritten as:

$$\ln Y_t = \ln Y_0 + t \ln(1+r) \dots\dots\dots (ii)$$

$$\text{If } \beta_1 = \ln Y_0 \dots\dots\dots (iii)$$

$$\beta_2 = \ln (1+r) \dots\dots\dots (iv)$$

Substitute (iii) and (iv) into (ii);

$$\ln Y_t = \beta_1 + \beta_2 t \dots\dots\dots (v)$$

After adding the disturbance term to equation (v);

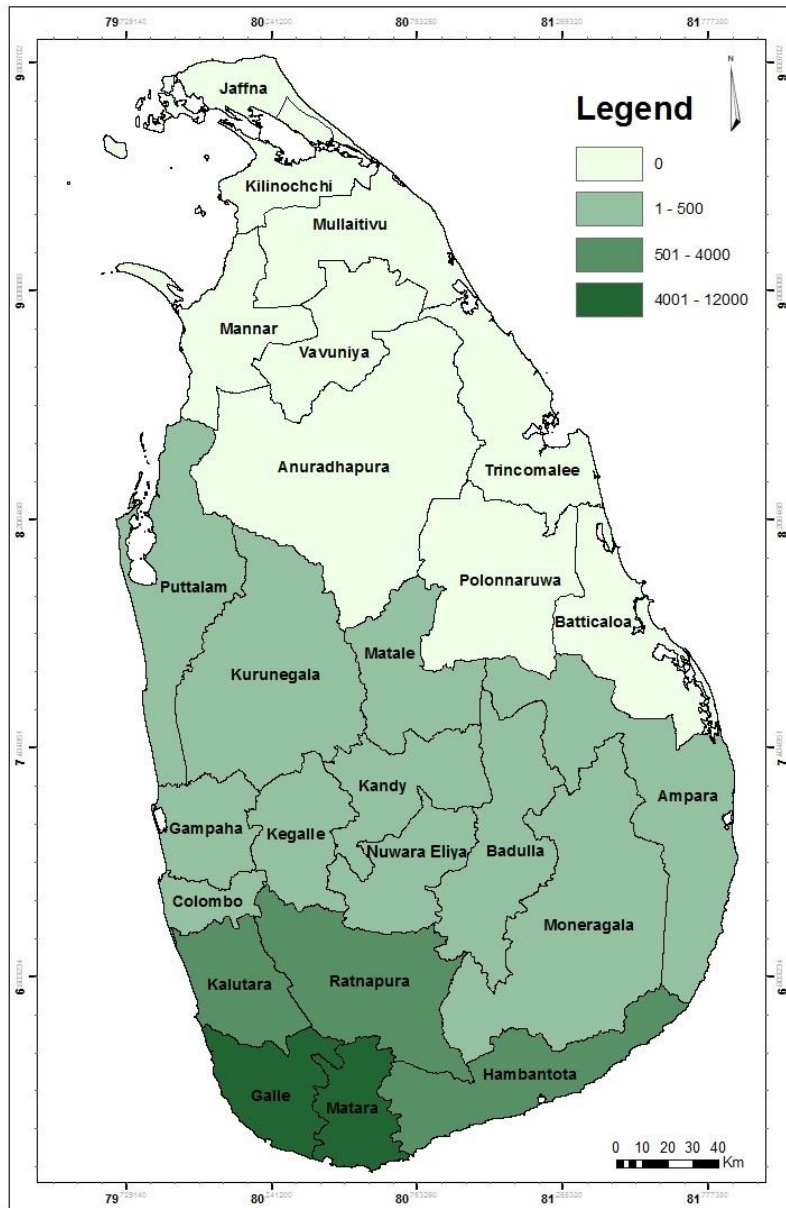
$$\ln Y_t = \beta_1 + \beta_2 t + u_t \dots\dots\dots (vi)$$

$$\text{Compound Growth Rate (CGR) (\%)} = \{ \text{Antilog} (\log \beta_2) - 1 \} * 100$$

##### b. Estimation of Instability

Coefficient of variation (CV) was used to measure the magnitude of instability of export quantity/earnings for the selected export trade groups. In general, the coefficient of variation measures the amount of variation of the response variable using the following index.

- i.  $CV = (\text{Standard deviation}/\text{Mean}) * 100 \dots\dots\dots (vii)$



Source: Illustration based on the data of Department of Census and Statistics, 2015

**Figure 1.1: Cinnamon Growing Areas of Sri Lanka by Cultivated Extent (2014)**

## CHAPTER TWO

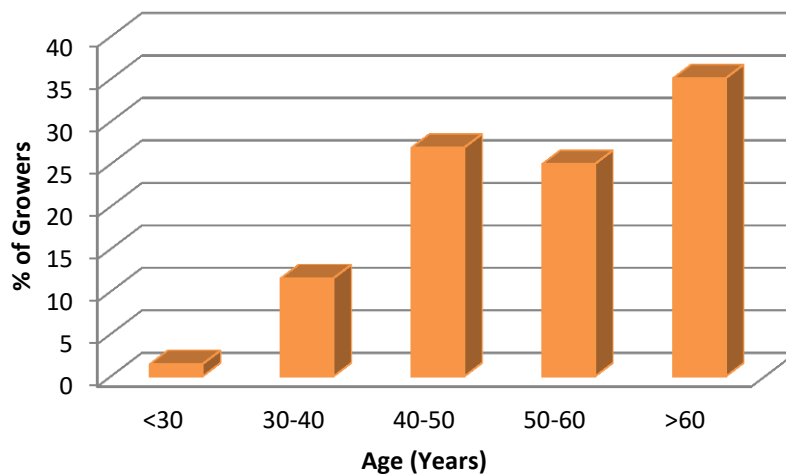
### Current Situation of Cinnamon Production

#### 2.1 Socio-economic Characteristics of Cinnamon Producers

This section briefly discusses socio-economic characteristics, such as the age, educational background, income and land distribution of cinnamon growers in the sample.

##### 2.1.1 Age Distribution and Educational Background of the Sample

Average age of growers in the sample population was 54 years and the findings indicate that, majority of cinnamon growers (about 87%) were older than 40 years and at the same time among them 35 percent were more than 60 years highlighting less involvement of youth in the cinnamon industry (Figure 2.1). Only one percent of the total number of growers were below 30 years and only 12 percent of the total was between 30 – 40 years of age. These findings reveal that cinnamon industry in Sri Lanka is not an attractive venture for the younger generation.



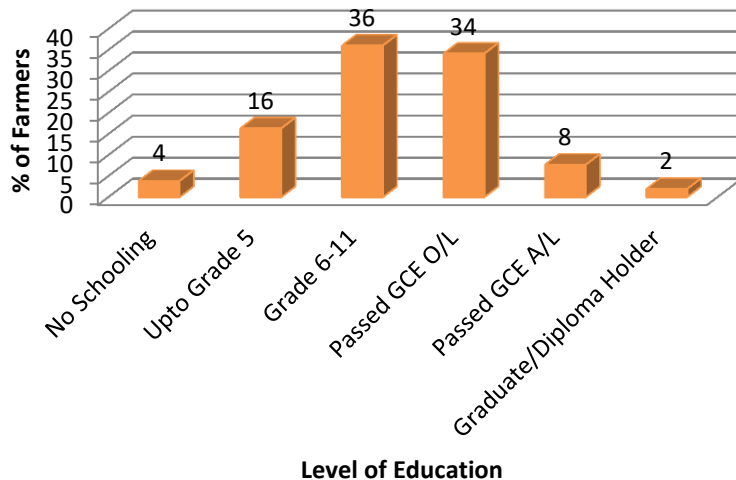
Source: HARTI Survey Data, 2014

**Figure 2.1: Age Distribution of Cinnamon Growers**

### 2.1.2 Educational Background

The educational status of cinnamon growers shows that four percent of the sample had not attended formal education while, 16 percent of the respondent growers had been limited to primary education. About 70 percent had been able to qualify at G.C.E. O/L and followed education up to advanced level and 10 percent of them have qualified at Advanced Level and above (Figure 2.2).

The major difference in the level of education which can be identified across two districts was that in the Matara district where more than 50 percent (65%) from the sample were educated up to grade 6-11 and at the same time the level of education of the majority (53%) in the Galle district were educated above GCE (O/L).

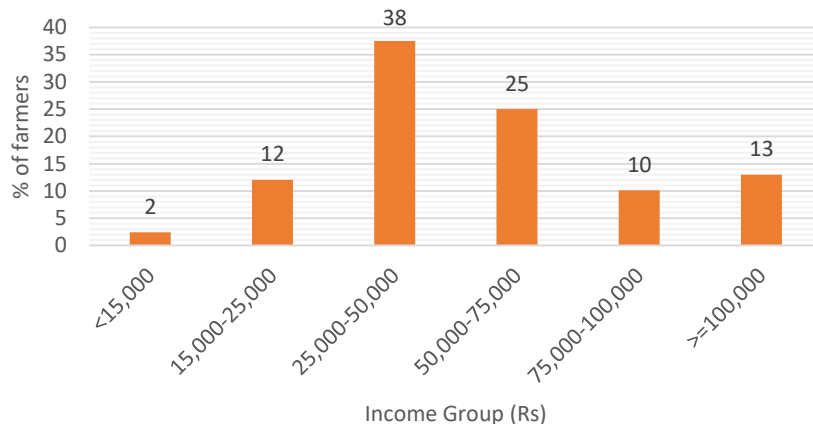


Source: HARTI Survey Data, 2014

**Figure 2.2: Level of Education of Cinnamon Growers**

### 2.1.3 Family Income and Income Earning Sources

According to the survey, 78 percent of the respondents had selected farming as their primary income source. Out of the total sample, only 36 percent of the farmers had engaged in secondary level income earning activities.



Source: HARTI Survey Data, 2014

**Figure 2.3: Monthly Family Incomes of Households**

The Figure 2.3 illustrates the monthly gross income of households. According to that, a larger proportion of households (38%) had received a gross monthly income between Rs.25,000 and Rs.50,000. Only two percent was recorded with a monthly income of less than Rs.15,000. This showed that 86 percent of the households earn more than Rs.25,000 per month indicating satisfactory levels of income.

**Table 2.1: District wise Variation of Monthly Household Income**

Monthly Family Income (Rs.)	% of Families	
	Galle	Matara
<15,000	0	5
15,000-25,000	12	12
25,000-50,000	32	43
50,000-75,000	25	25
75,000-100,000	11	9
>=100,000	20	6
Total	100	100

Source: HARTI Survey Data, 2014

When the family income of the two districts are considered separately data showed that the majority of households have fallen into the Rs.25,000-50,000 category in both districts and a slight deviation could be seen in Galle district as no family was recorded with the income of less than Rs.15,000. At the same time, growers who had received the monthly income of more than Rs.100,000/= were considerably higher in Galle

district (20%). The average monthly income of two districts were Rs.90,580/= and Rs.47,889/= in Galle and Matara districts respectively. The contribution of income received from cinnamon industry to the total family income is illustrated in Table 2.2.

**Table 2.2: Share of Cinnamon Income to the Total Household Income**

<b>% Share of Cinnamon Income</b>	<b>% of Farmers</b>
No contribution	3
< 10	4
10-25	18
25-50	37
50-75	33
75-100	5
100	0

Source: HARTI Survey Data, 2014

The share of income received from cinnamon production to the total family income is 25 percent to 50 percent among the larger proportion of the cinnamon growers (37%). Another 33 percent of the growers received a 50 percent to 75 percent share from the cinnamon industry during last year. Data revealed that no farmer had totally depended on the cinnamon industry as an income earning activity. Most of them were engaging in farming activities other than cinnamon as an alternative income earning activity and on the other hand, some were employed in the government or private sector.

#### **2.1.4 Distribution of Growers According to the Average Land Size**

The total land area under cinnamon owned by an individual grower varied between 0.25-26ac with an average land size of 3.04ac among the total sample. When the average cinnamon land sizes of two districts are separately considered, large deviation from the average land size of the total sample could not be observed. The average land sizes were 3.7 and 2.4 acres in Galle and Matara districts respectively.

As shown in the Table 2.3 more than half of the cinnamon growers from the total sample possessed a total land area between 1-3ac (51% of the total sample) while only 17 percent of farmers possessed more than 5ac of land.



**Table 2.3: Land Distribution Pattern of the Sample**

Land Size	% of Farmers
<1 ac	18
1-3 ac	51
3-5 ac	14
5-8 ac	9
8-10 ac	1
>=10 ac	7
Total	100

Source: HARTI Survey Data, 2014

## 2.2 Cultivation Practices of Cinnamon

Although cinnamon is the most important spice crop of the country and has been grown in Sri Lanka for centuries, there has been hardly any improvement in its productivity in the last few decades mainly due to poor management of plantations. Minimal use of inputs and lack of constant replacement of soil nutrients have contributed to the low fertility. Adoption of productivity improvement programmes such as land and soil conservation, shade management and agronomic practices have been hindered by the prevailing high labour cost.

### 2.2.1 Plant Density

According to the recommendations of the Department of Export Agriculture, plant density of cinnamon should be 9000 plants/ha. As per the results of the sample survey only in 32 percent of the total number of plantations maintained their plant density between 8000–10000 plants/ha. On the other hand, cinnamon farmers paid little attention to replanting and gap filling.

**Table 2.4: Plant Density of Cinnamon in the Sample Plantations**

Plant Density (Plants/ha)	%
<4000	5
4000-6000	16
6000-8000	44
8000-10000	32
10000-12000	1
>12000	2
	100

Source: HARTI Survey Data, 2014

## **2.2.2 Harvesting Pattern of the Sample Plantations**

Though it is recommended to harvest the crop twice a year, only 25 percent of the respondents were aware about that whilst only 16 percent of them practiced it, out of the balance the most (33%) harvested once a year and some were not harvested at all in that particular year which the survey was conducted. The main reason cited by producers for this harvesting difficulty is scarcity of cinnamon peelers. This situation has affected directly on the low productivity of cinnamon in the country.

## **2.3 Cinnamon Processing**

Cinnamon processing or peeling is a traditional method, handed over from one generation to the other through informal learning and this is still implemented mainly in huts where sanitary conditions are very poor. Unavailability of proper processing facilities has led to the quality degradation of cinnamon products. On the other hand, inadequacy of cinnamon peelers is one among the several challenges the Sri Lankan cinnamon industry faces and due to this scarcity, producers had to pay high prices to the cinnamon peelers resulting in high cost of production.

Systems of payment to the peelers differ from one area to another. Majority is paid by a share of the harvest and the percentage of share also differs in areas. In areas in Galle district, this is  $\frac{1}{3}$  of the harvest whilst in areas of Matara district the share is  $\frac{1}{2}$ . According to the discussions held with the growers, they pointed out that the reason for this difference in the payment systems in two districts occurred due to the variation in per unit yield of cinnamon in these districts. As per their point of view the yield is higher in Galle district than Matara district and therefore they were getting a higher income from their cultivation, returning a satisfactory price to peelers from the share of  $\frac{1}{3}$ .

### **2.3.1 Quality of Products**

Inferior quality of farm gate products has been a serious issue in the present context of being quality conscious. As mentioned by many exporters, a large proportion of the cinnamon products leaving the farm gate are of a quality far below the expected level at the high end of the supply chain. Poor quality leads to a direct loss of potential exports and foreign exchange earnings.

Although most of the producers (89 percent of the total sample) were aware about the quality standards of the cinnamon, they have shifted

away from quality consciousness due to several reasons. According to the producers' point of view those reasons were; lack of cinnamon peelers and other labour related problems (46%), high installation cost of processing places (21%), being time consuming (17%) and not receiving a high price for higher quality products (7%).

Many producers do not have proper processing facilities. Many growers process cinnamon as a primary product using traditional methods. Even if farmers produce better quality product there are no attractive and differentiated farm gate prices for those better quality products. The potential for expanding this sector would be high if government and other related institutions pay more attention to these issues. Since farm gate quality does not match any accredited standard quality, a considerable amount of cleaning and processing is carried out throughout the marketing channel, thus increasing the marketing cost.

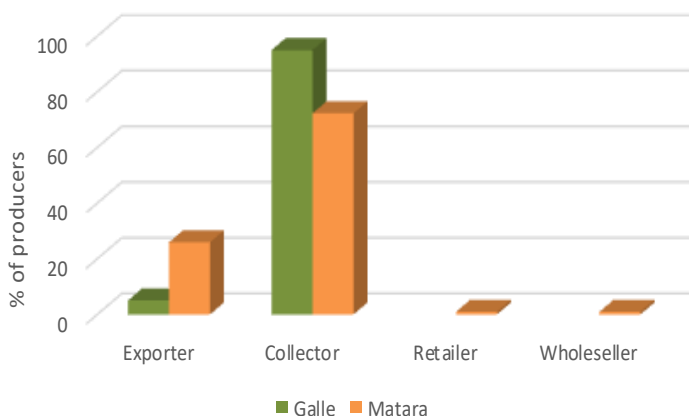
### **2.3.2 Value Added Products of Cinnamon**

Although the potential of using cinnamon in value added industries such as food, pharmaceutical and cosmetic industry has been identified and used worldwide, Sri Lankan value added industry of cinnamon is still in its infant stage. While leaf oil, bark oil, cinnamon powder, cut cinnamon, cinnamon drink and cinnamon tablets are produced in the country as value added products of cinnamon, leaf and bark oils, cut cinnamon and cinnamon powder are the main exportable products.

According to the sample survey only 8 percent of the total sample were engaging in value addition and most popular type among them was cinnamon oils. About 77 percent of the total sample claimed that they have potential to engage in value addition of cinnamon and due to several reasons such as lack of technical knowledge, lack of training, unavailability of equipment and marketing problems they do not engage in the industry.

### **2.4 Marketing of Cinnamon**

The main cinnamon products produced in two selected districts were cinnamon bails, cut cinnamon and cinnamon leaf oil. Other than that, growers in the Matara district have sold their harvest as raw sticks without peeling. In the two districts surveyed, the village level collectors are the most important buyers at the producer level (70 percent of the total sample sold their products to village level collectors). In contrast, a considerable number of farmers (25%) in the Matara district sold the produce directly to an exporter.

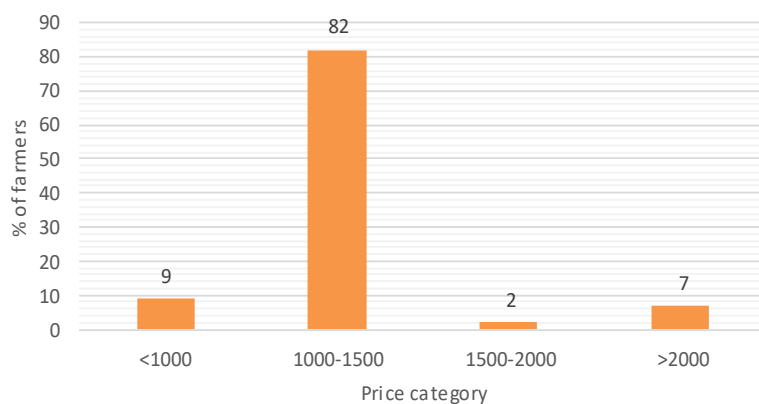


Source: HARTI Survey Data, 2014

**Figure 2.4: Places of Selling Cinnamon Harvest by District**

### 2.4.1 Producer Prices of Cinnamon

As per the survey, selling prices of cinnamon bails varied between Rs. 800/= to Rs. 2200/= per kilogram and the price category recorded in the highest frequency was Rs. 1000/= to Rs. 1500/= per kilogram (82%). According to the results, the average price of cinnamon was Rs. 1264.25/kg.



Source: HARTI Survey Data, 2014

**Figure 2.5: Producer Prices of Cinnamon**

Farmers were inquired about major problems faced in marketing of their products and, price related problems were the main issue of 94 percent of the respondents while only six percent responded problems which were not related to the price of products.

## CHAPTER THREE

### Cinnamon Trade in Sri Lanka: Situation and Prospects

#### 3.1 Introduction

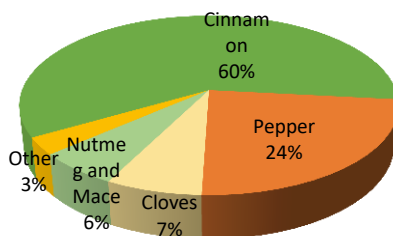
This chapter is focused on the cinnamon export composition and value added cinnamon export sector. Also, long term trend of cinnamon export behavior will be analyzed by using estimated results of growth rates and instability of individual commodity.

#### 3.2 Cinnamon Export Composition

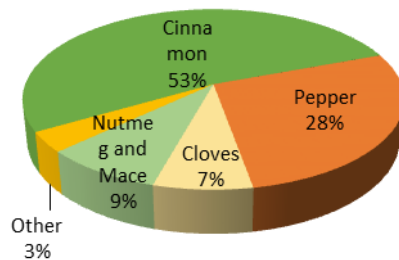
Cinnamon is the utmost valuable commodity in terms of foreign exchange earning being a leading player in the global cinnamon market. Sri Lanka is the major exporter of pure cinnamon, having 85 percent of the world market share. Further, cinnamon plays a major role in the spice export sector in Sri Lanka.

##### 3.2.1 Contribution to the Foreign Exchange Earnings

Figures 3.1 and 3.2 prove that cinnamon is the dominant spice in Sri Lanka in terms of the foreign exchange earnings where it provided more than half of the export earnings of total spice exports.



**Figure3.1: Main Spice Export Composition in terms of Foreign Exchange Earnings in 2007**



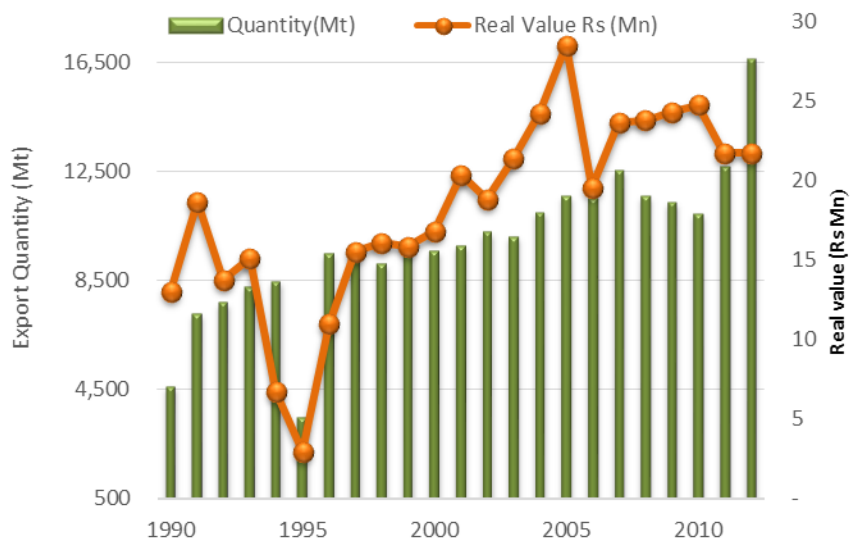
**Figure3.2: Main Spice Export Composition in terms of Foreign Exchange Earnings in 2012**

### 3.3 Long Term Trend in Cinnamon Export

Export agricultural products are highly susceptible to fluctuating with demand and supply shocks and also unpredictable nature of foreign currency. Therefore, future predictability is challenging. Thus, examining the long term trend in export and nature of foreign exchange earnings is very important. In the case of cinnamon export in Sri Lanka, a divergent trend can be observed during the past two decades.

#### 3.3.1 The Historical Trend of Cinnamon Export and Foreign Exchange Earnings

Sri Lanka is producing 16,687MT of cinnamon and exports of around 16,598MT annually (Department of Census and Statistics, 2013). Cinnamon export increased during the last two decades from 4,590MT in 1990 to 16,598MT in 2012 due to a combination of steadily increasing world market demand and production and export promotional programmes carried out by the government.



Source: The Author's estimations based on external trade statistics, Sri Lanka Customs

**Figure 3.3: Cinnamon Export Quantity and Real Value in 1990-2012**

On the other hand, the highest contribution of cinnamon export earnings was recorded in 2005 and the real value of foreign exchange began to increase after 2000 by around 30 percent (Figure 3.3). The succeeding

competition of pure Ceylon cinnamon in the world market is due to the monopolistic situation. This could have greatly influenced in increasing the real value (adjusted for inflation) of export earnings. On the other hand, nominal value of foreign exchange earnings increased by exporting cinnamon from Rs.1,000Mn to Rs.10,000Mn during 1990-2012 (Department of Customs, 2013). The improvement of this trade performance (nominal values) could correspondingly be due to the depreciation of the rupee. During the last three years the rupee depreciated sharply. The depreciation in the currency could have benefited the cinnamon industry in Sri Lanka.

According to the Minister of Industry and Commerce, this cinnamon growth trend will continue to increase in future under the brand name of pure Ceylon cinnamon. Strong private public partnerships and development of scientific research and development will boost the cinnamon industry further (Minister of Industry and Commerce, 2011).

### **3.3.2 Estimated Growth Rates for Cinnamon Export Quantity and Foreign Exchange Earnings**

Growth rates were estimated using compound growth rate equation for the time series of 1990 -2012.

According to the results derived from the estimations, cinnamon export volume is increasing by 4 percent annually with low instability (Table 3.1). The steadily increasing world market demand is the notable factor in increasing the cinnamon consumption around the world. Cinnamon is basically used as a main spice among Asian, American and European countries demanding Sri Lankan pure cinnamon for pharmaceutical and cosmetic industries and bakery products. Further, Sri Lankan cinnamon has a monopolistic competition. In this situation real value of cinnamon prices increases with increases of world demand. According to the Table 3.1 foreign exchange earnings of cinnamon (without adjusted inflation) are increasing by 13 percent annually. However, compared to the increase in export volumes, export earnings are not stable. This is basically due to the exchange rate fluctuations and unstable macroeconomic policies.

**Table 3.1: Growth Rate and Instability of Cinnamon Export Quantity and Foreign Exchange Earnings**

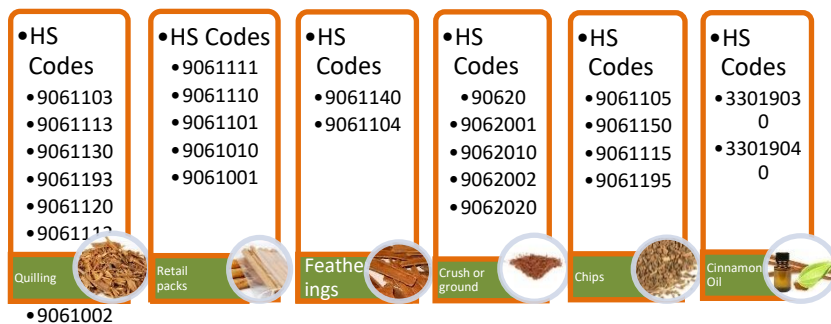
	Growth Rate	Instability
Quantity Export	4	4
	(0.0068)***	
Foreign exchange earnings	13	11
	(0.0085)***	

Note: Figures in parentheses indicated the standard error for their respective coefficients  
 \*\*\* Denote coefficients are significant at 1% level

Source: Based on the author’s estimations

### 3.4 Value Added Cinnamon Exports

Cinnamon is the most significant and high value export item in the spice export basket in Sri Lanka. The export of cinnamon under different HS codes are shown in Figure 3.4 and according to the figure the major export items are quills, cinnamon quilling, retail packs, featherings, crushed or ground, chips and cinnamon oil. These types of products are sent to various countries in the world. In addition to these items, cinnamon tablets, cinnamon tea, cinnamon energy drinks, cinnamon tooth picks have been introduced in Sri Lanka. However, these industries are still in infant stage due to high competition in world branded cinnamon by-products produced in developed countries.



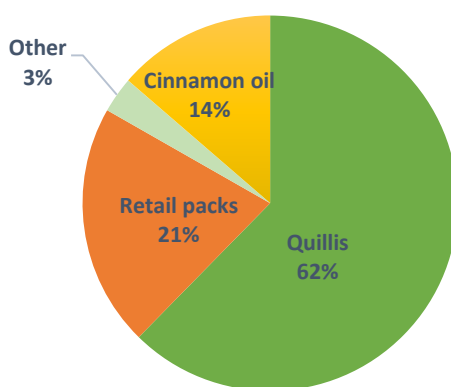
Note: Sri Lanka customs changed HS code in some years during the period of 1990-2012. Therefore, in this data base different HS codes referred to the same export item during the considered period.

Source: External Trade Statistics, Sri Lanka Customs, 2012

**Figure 3.4: The Major Categorization of HS Codes of Cinnamon Exports**



Sri Lanka exports cinnamon basically with minor value addition such as cut and retail packing, cinnamon powder and other forms of cinnamon bails. Therefore, large volumes are exported as raw materials and in intermediate form to the European and American countries. According to the Figure 3.5, cinnamon quilling export is popular among Sri Lankan exporters and more than half of cinnamon export value comes from the quills exports. The second important product is retail packs and its share of the total cinnamon export is around 20 percent and cinnamon oil export is the next valuable and important form of export. Nearly around 14 percent of foreign exchange earnings are received from cinnamon oil exporting. The other category included cinnamon chips, featherings, crushed or ground cinnamon and all the other value added forms of cinnamon products.



Source: The Author's estimations based on external trade statistics

**Figure 3.5: Composition of the Cinnamon Exports in terms of Export Value (1990-2012 average)**

The total share of quills and retail pack export increased during the last two decades and the export share of other forms of cinnamon such as cinnamon chips, featherings and cinnamon powder decreased (Table 3.2). Further, when compared to quills and retail packs exports, the share of other forms of cinnamon is still negligible. This is mainly due to the export demand for high quality top grade cinnamon and quills and retail packs being able to meet these grades. Also, most of cinnamon processing industries in the world use cassia to make cinnamon powder and featherings because pure Ceylon cinnamon is very costly. Further, still the Sri Lankan cinnamon export processing industry is not equipped with advanced machinery to make cinnamon powder. Therefore, buyers demand cinnamon bails from Sri Lanka to make cinnamon powder.

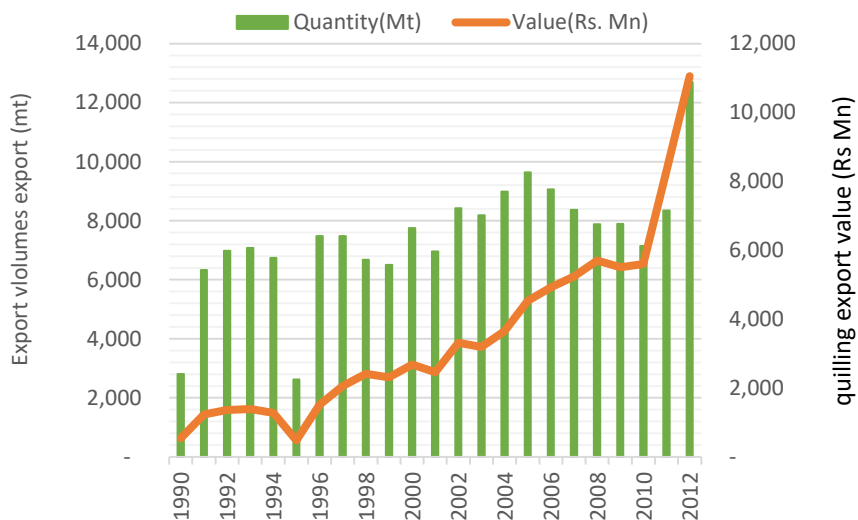
**Table 3.2: Cinnamon Export Share by Product**

Product	Export Share %			
	1990	2000	2010	2012
Quills and quillings	68	82	63	70
Retail packs	19	17	31	27
Crushed or ground	6	8	3	3
Chips	0.4	0.4	0.07	0.2
Feathering	0.05	0.15	0.03	0.02
Other	6	0.2	3	3

Source: The author’s estimations based on external trade statistics, Sri Lanka Customs

### 3.4.1 Cinnamon Quilling Export

Cinnamon quills and quillings are two different forms which are included under this classification. Cinnamon quills refer to the form of full tube of cinnamon. Quills are the form of removed peel from the inner bark of matured cinnamon and dried in the sun, then twisted and combined together in overlays. Small pieces of broken quills are produced as quilling. The sizes may vary in quilling. Quills can be processed as top grades. The length of the quills depends on the demand of the buyer.



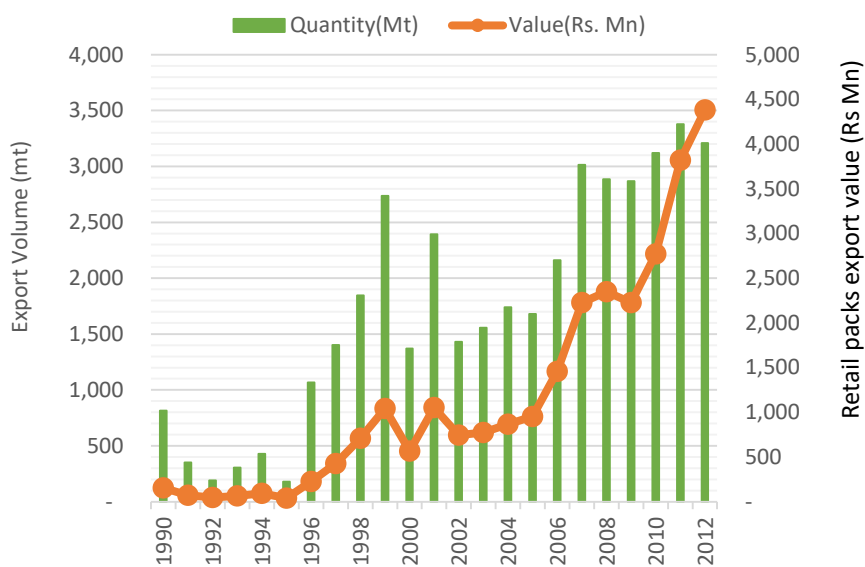
Source: Author’s estimation based on the external trade statistics data, Sri Lankan Customs

**Figure 3.6: Cinnamon Quilling Export Volume and Value during the Period of 1990-2012**

During the last two decades volumes of cinnamon quills increased slightly, however, the values of the quills export increased rapidly (Figure 3.6). This is mainly due to the depreciation of the rupee over the years. Mainly these types of products are exported for value added industry around the world.

### 3.4.2 Retail Packs

Cinnamon retail packs are now popular among exporters. Basically, cinnamon quills cut into unique length and packed in small sacks. These retail packs which are affordable to the consumer have a very good demand because; this type of product is directly consumed by end users. Figure 3.7 illustrated that in the recent past, export values and quantity of retail packs increased drastically. Table 3.2 also shows the increasing share of retail packs during the last two decades. Therefore, it is clear that the retail packs create a very good opportunity to increase the cinnamon export volume as well as gains from increasing foreign exchange earnings.

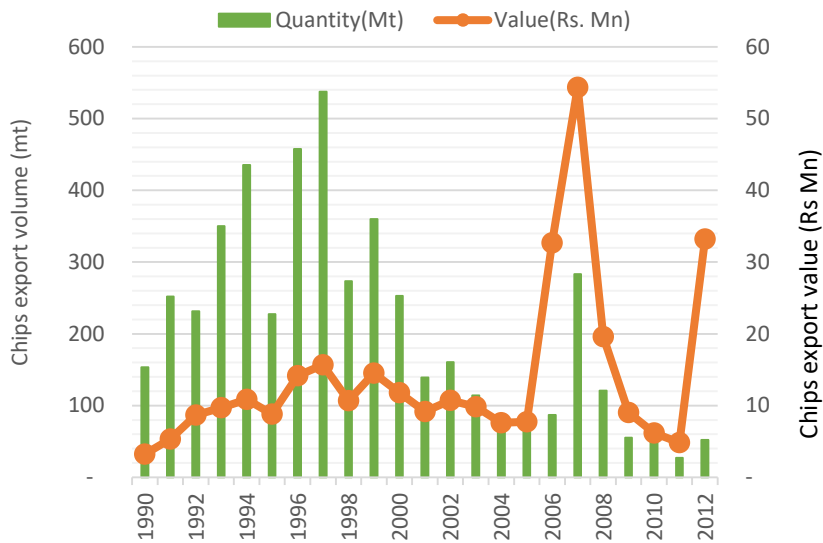


Source: Authors estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 3.7: Cinnamon Retail Packs Export Volume and Value during the Period of 1990-2012**

### 3.4.3 Chips

Cinnamon chips are the form of dried pieces of cinnamon barks and trimmings inclusive of the outer bark, which has been obtained by chipping or scraping. When compared to cinnamon quills, chips export is not popular and its share is around 0.2-0.4 percent from the total cinnamon export value in Sri Lanka (Table 3.2). According to the Figure 3.8 cinnamon chips exports diminished marginally however, the value of this product has risen in 2007 and 2012.



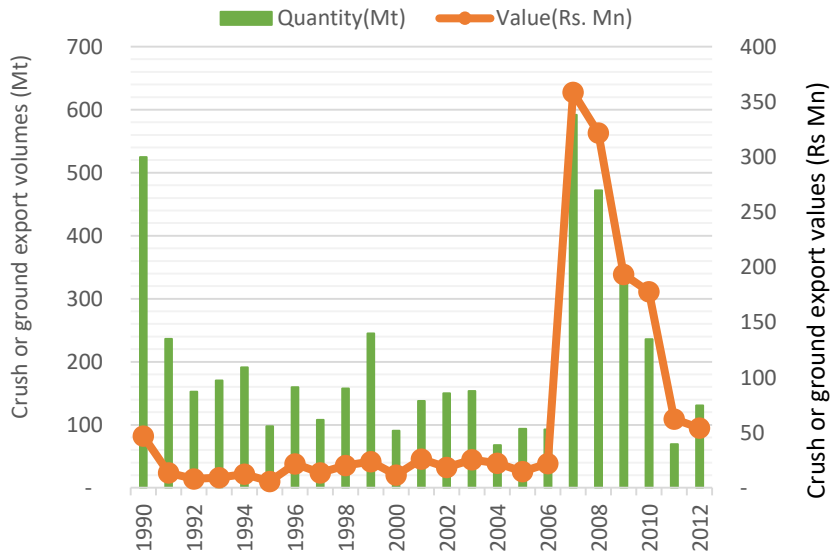
Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 3.8: Cinnamon Chips Export Volume and Value during the Period of 1990-2012**

### 3.4.4 Crushed or Ground Cinnamon

Cinnamon powder is exported under the crushed or ground category. In terms of cinnamon export value, the share of the cinnamon powder is much less compared to quills and retail packs, however, its share is higher than the cinnamon chips and feathering exports (Table 3.2). According to the Figure 3.9, after 2006 cinnamon powder exports have increased rapidly despite a decline in cinnamon chips exports. World market competition of close substitution of cassia would be the reason for the

fluctuating demand of cinnamon powder. Because, unlike pure cinnamon quills and retail packs, crushed cinnamon cannot be differentiated from cassia. Therefore, cassia producers in the world take this advantage to produce more cinnamon powder using cassia variety.

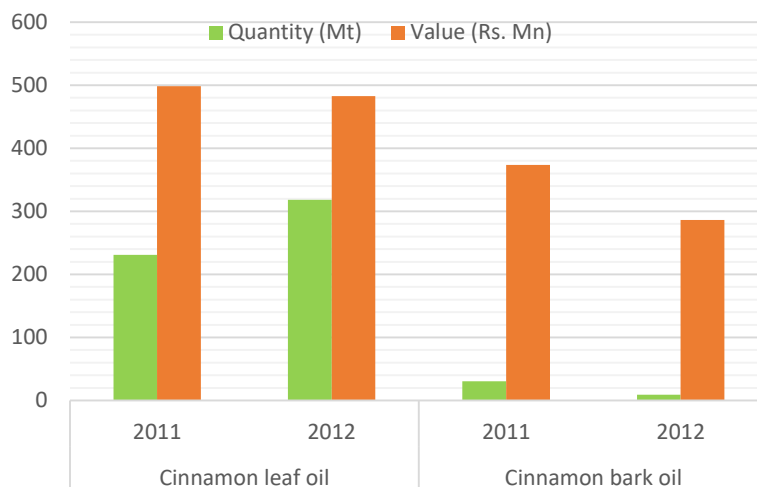


Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 3.9: Crushed or Ground Cinnamon Export Volume and Value during the Period of 1990-2012**

### 3.4.5 Cinnamon Oil

Mainly there are two types of cinnamon oil namely; cinnamon leaf oil and cinnamon bark oil. This item is categorized under essential oil group in the Sri Lanka Customs database. However, cinnamon oil exports were not recorded before 2011.



Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 3.10: Cinnamon Oil Export Volume and Value during the Period of 2011 -2012**

Sri Lanka exports around 14 percent of cinnamon oil in value terms from the total cinnamon export earnings. According to the Figure 3.10 in volume terms, a higher amount of cinnamon leaf oil is exported than that of cinnamon bark oil. However, cinnamon bark oil is more valuable compared to leaf oil. The unit price for cinnamon leaf oil is around 1,500 Rs/kg in 2012 and 2,000 Rs/kg in 2011 and the unit price for bark oil is around 31,112 Rs/kg in 2012 and 12,261 Rs/kg in 2011 (Department of Customs, 2013). The export quantity of cinnamon bark oil dropped from 2011 to 2012 and the prices increased. On the other hand, cinnamon leaf oil export quantity increased and the value decreased from 2011 to 2012. Thus it is clear that there is a high demand for cinnamon oil and especially for bark oil. Also cinnamon oil export is much more profitable than other types of cinnamon exports.

### 3.5 Growth Rates and Instability of Cinnamon Export by Product

According to the estimated results of the growth rate analysis, the highest growth rate was recorded by exporting cinnamon retail packs (Table 3.3). Cinnamon retail packs export volume has increased by 12 percent yearly and foreign exchange earnings are increasing by 22 percent per annum, however, cinnamon quills/quilling has increased only by 3 percent in volume and 12 percent in terms of foreign exchange earnings.

**Table 3.3: Growth Rate and Instability of Cinnamon Export Quantity and Foreign Exchange Earnings by Individual Item (value added)**

Item	Quantity Exported		Foreign Exchange Earnings	
	Growth rate	Instability	Growth	Instability
Quilling	3	4	12	10
	(0.0085)***		(0.009)***	
Retail packs	12	13	22	23
	(0.016)***		(0.176)***	
Chips	-9	16	4	27
	(0.017)***		(0.019)*	
Crushed or ground	-0.7	12	12	34
	(0.019)		(0.27)***	

Note: Figures in parentheses indicated the standard error for their respective coefficients

\*\*\* Denote coefficients are significant at 1% level

\* Denote coefficients are significant at 10% level

Source: This is based on the author's estimations

Table 3.3 further illustrates that cinnamon chips export volume is declining by 9 percent though their values are increasing considerably by 4 percent annually. Specially, export values of cinnamon powder are increasing by 12 percent per annum. However, the growth rate of cinnamon powder export volume is not significant. There is no considerable relationship with cinnamon powder export over time. Coefficient of variations for cinnamon powder and cinnamon chips export values recorded the highest among other types of cinnamon exports, *i.e.* instability of foreign exchange earnings by chips export is 27 percent and cinnamon powder export values is 34 percent. This is much higher compared to the cinnamon quills export and coefficient of variation of foreign exchange earnings from cinnamon quills export is only 10 percent. This is the lowest instability index values recorded according to the estimations. Overall, export prices are not stable and more susceptible to fluctuate over the years compared to the cinnamon export quantity. Therefore, the estimated results show that cinnamon export supply is stable compared to its earnings. This is mainly due to the foreign currency fluctuations. Cinnamon export values show increasing trends over the years indicating exporters' benefit of currency depreciation.





## CHAPTER FOUR

### World Market for Ceylon Cinnamon

#### 4.1 Introduction

This chapter will examine the cinnamon export market situation, market diversification, global cinnamon market competition and world cinnamon consumption. Also estimated results of the growth rates and instability of export markets will be discussed. In addition this chapter discusses the cinnamon trading strategies and issues relating to the cinnamon export sector.

#### 4.2 Priority Markets for Ceylon Cinnamon

There are around 50 export destinations for Sri Lanka cinnamon. However, top three countries demand more than half of the total Sri Lankan cinnamon. According to the Table 4.1, Mexico is the top market for Ceylon cinnamon sharing 45 percent in volume terms and 50 percent in terms of foreign exchange earnings. The USA and Peru take second and third places respectively. All other 47 countries represent around a 39 percent share in terms of volumes export and 33 percent share in terms of foreign exchange earnings (Table 4.1).

**Table 4.1: Sri Lanka's Cinnamon Export Share by Country**

Country	Cinnamon Export Share (%)	
	Export Volume	Foreign Exchange Earning
Mexico	45	50
USA	10	11
Peru	06	6
Others	39	33

Source: The author's estimations based on external trade statistics, Sri Lanka Customs

#### 4.3 Country Performance

Growth rate and instability of cinnamon export quantity and foreign exchange earnings of major cinnamon importing countries are given in Table 4.2.

**Table 4.2: Growth Rate and Instability of Cinnamon Export Quantity and Foreign Exchange Earnings from World Top Three Countries**

Country	Quantity export		Foreign exchange earnings	
	Growth Rate	Instability	Growth Rate	Instability
Mexico	4	8	13	12
	(0.0089)***		(0.011)***	
USA	3	5	13	14
	(0.0089)***		(0.009)***	
Peru	4	12		
	(0.022) <sup>ns</sup>			
Colombia	-	-	13	16
			(0.009)***	

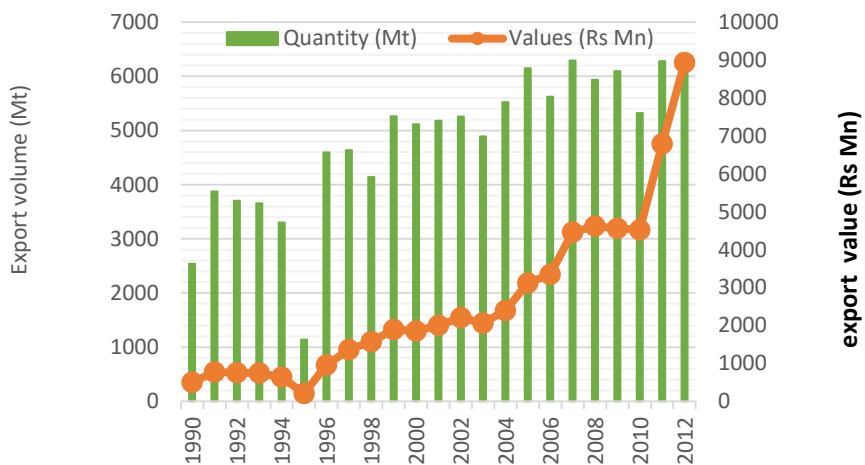
Note: Figures in parentheses indicated the standard error for their respective coefficients  
 \*\*\* Denote coefficients are significant at 1% level

Special note: In terms of quantity export Peru takes third place and with regard to foreign exchange earnings Colombia takes third place

Source: This is based on the author’s estimations

### 4.3.1 Mexico

Sri Lanka’s largest cinnamon export market is Mexico and demand from this country has increased over the years (Figure 4.1). The annual growth rate of Ceylon cinnamon to Mexican market is four percent and foreign exchange earnings increase by 13 percent annually (Table 4.2).



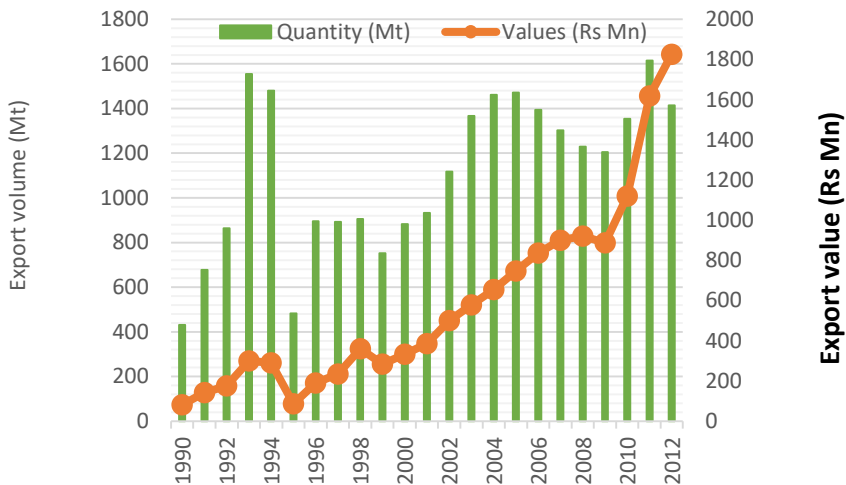
Source: Author’s estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.1: Cinnamon Export to Mexico – Volume and Value during the Period of 1990 -2012**

Hot water flavored with a piece of cinnamon bark is popular among Mexican people. This has made the cinnamon drink popular in Mexico. Mexican market buys around 6,000MT of Ceylon cinnamon every year.

### 4.3.2 USA

The second largest buyer of Ceylon cinnamon is the USA. Foreign exchange earnings by exporting cinnamon to the USA market have also rapidly increased over the last two decades. According to the growth rate estimation cinnamon exports to the USA have increased by three percent annually and similar rates of growth were observed both in Mexican and the USA markets (Table 4.2). Sri Lanka exports around 1,500MT of cinnamon to the USA annually. Fast growing demand for Sri Lankan true cinnamon is basically due to the healthy diet patterns of the USA consumers in recent past.



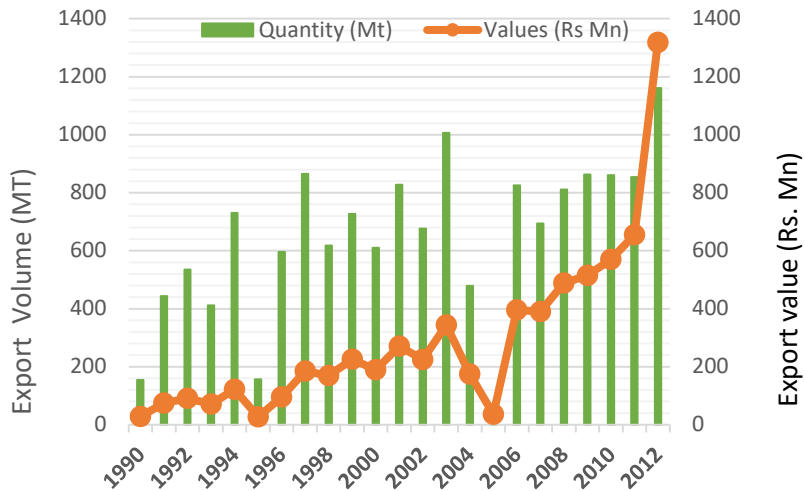
Source: Author’s estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.2: Cinnamon Export to USA – Volume and Value during the Period of 1990 -2012**

### 4.3.3 Peru

The third largest export destination of Sri Lankan cinnamon is Peru, according to the recent external trade statistics. However, in some years Colombia is also placed third in importing cinnamon from Sri Lanka. According to the Figure 4.3, during the past five years, demand for Ceylon cinnamon increased rapidly despite fluctuations over the past twenty years, compared to other top exporting destinations. Table 4.2 explains

that the annual growth rate for cinnamon export to Peru is increasing by four percent, however; coefficient of variation is higher (12%) than the other two top cinnamon exporting countries.



Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.3: Cinnamon Export to Peru - Volume and Value during the Period of 1990 -2012**

#### 4.4 Cinnamon Grading

Commercial level cinnamon is generally sold as quills. The quills are graded according to their length, diameter and roughness. Countries demand according to the grade and each grade is as follows;

1. Alba
2. C5 Special
3. C5
4. C4
5. C3
6. M5
7. M4
8. H1
9. H2
10. H3
11. Super Fine Quillings
12. Quillings No.1
13. Quillings FAQ

The prices are determined mainly by the grade. Accordingly, premium prices are pitched on the Alba grade. Alba is the most expensive and extremely best quality cinnamon product in Sri Lanka. The Alba grade cinnamon is very delicate in texture with very smooth skin. The sticks are very thin like pencils. These are produced in the southern part in Sri Lanka and also these are found in Sabaragamuwa area in small scale (P D Romanis and sons [Online]).

In the processing stage, preparing Alba grades is harder than the other grades. However, according to the Sri Lanka's cinnamon exporters, there is a very good demand from European and other developed markets despite not having an adequate supply of this grade due to rigorous and time consuming processing the product involves.

C5 special grade is the second best quality cinnamon. These also have an excellent taste and the surface is smooth. There is a great demand for this type. These are products of the Southern part of Sri Lanka (P D Romanis and sons [Online]).

C5 is golden yellow in color, thin and sweet in taste. This kind also carries a great demand and also expensive. C4 which is yellow in color has a fair demand. There is a slight difference between C5 and C4. This type of cinnamon is brown in color and the skin is not so smooth. M5 are thin sticks that are rough on the surface. M4 is similar to M5. These are a kind of sorted cinnamon, when preparations are made for the quality cinnamon. H1 is the selected portions of the rough cinnamon. These are general quality cinnamon, and rough on the surface. H2 is the sorted parts of, selections of good quality. These are rough cinnamon and thicker than H1. Quilling number 1 is obtained in the process of preparing cinnamon for cutting and baling purposes. These are larger parts. Quilling number 2 is also obtained from the process cutting and of baling cinnamon and these are small chips (P D Romanis and sons [Online]).

#### **4.5 Export Destinations of Major Cinnamon Products**

**Quills;** There are around 47 export destinations for cinnamon quills exports, however as Figure 4.4 illustrates only three destinations hold more than 90 percent of cinnamon quills export markets. Mexico, the USA and Colombia are dominating this market.

**Retail packs;** Ceylon cinnamon consumer packs are sent to around 40 countries in the world. Yet, again Mexico, the USA and Colombian market

share occupies nearly 80 percent of the total cinnamon export to the world (Figure 4.4).

**Cinnamon chips:** Considerably, there are very few export destinations for cinnamon chips. Around 14 countries demand cinnamon chips from Sri Lanka. According to the Figure 4.4, USA, Netherlands and Australia are the leading countries for cinnamon chip imports from Sri Lanka.

**Cinnamon powder:** There are 22 countries in the world importing cinnamon powder from Sri Lanka. Again the larger share of Ceylon cinnamon powder is held by the USA, Mexico and Australia (Figure 4.4).

Cinnamon Quills	Cinnamon Retail Packs	Cinnamon Chips	Cinnamon Powder
<ul style="list-style-type: none"> <li>• Mexico</li> <li>• USA</li> <li>• Colombia</li> </ul>	<ul style="list-style-type: none"> <li>• Mexico</li> <li>• USA</li> <li>• Colombia</li> </ul>	<ul style="list-style-type: none"> <li>• USA</li> <li>• Netherlands</li> <li>• Australia</li> </ul>	<ul style="list-style-type: none"> <li>• USA</li> <li>• Mexico</li> <li>• Australia</li> </ul>

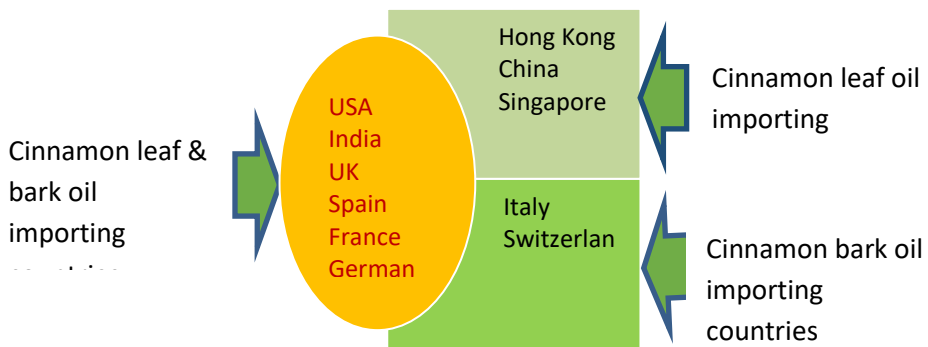
Note: Countries are categorized according to the twenty years average of foreign exchange Earnings

Source: Author’s estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.4: Top Three Export Destinations of Different Products of Cinnamon**

**Cinnamon oil:** Figure 4.5, illustrates the top ten cinnamon oil importing countries. According to the illustration Hong Kong, China and Singapore import cinnamon leaf oil from Sri Lanka and European countries such as Italy and Switzerland import cinnamon bark oil from Sri Lanka. Basically developed countries in Europe such as France, Spain and German, the USA as well as India import both leaf oil and bark oil from Sri Lanka (Figure 4.5).

Even though statistics are available for the Sri Lanka’s cinnamon exporting countries it is very difficult to identify the end users of these products since no statistics are available regarding cinnamon buyers in the world. However, the rest of the world imports Ceylon cinnamon mainly for value added industry and very little amount for direct consumption as well. The world cinnamon consumption will be explained in the latter part of this chapter.

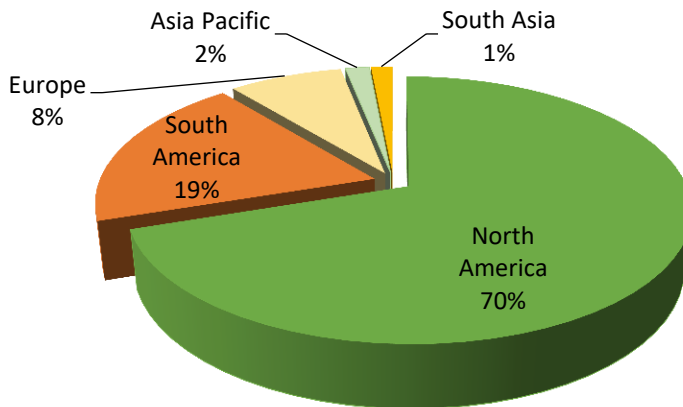


Source: Author’s estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.5: Top Ten Cinnamom Oil Importing Countries from Sri Lanka**

#### 4.6 Regional Distribution

Sri Lankan cinnamon is directed to the main five regions of the world. In foreign exchange earnings, North America is the leading cinnamon consuming region in the World. Around 70 percent of Sri Lankan cinnamon turnover receive from this region (Figure 4.6). The South America, the second largest cinnamon buyers located in this region. From Sri Lankan total cinnamon export value, around 19 percent of total foreign exchange earnings inflow through the South American region (Figure 4.6).



Source: Author’s estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.6: The Major Ceylon Cinnamon Exporting Regions in the World (1990-2012) Average Values**

Europe is the third largest cinnamon consuming region and eight percent of the total cinnamon is floating through the Europe market. Figure 4.6 further explains that the; Asia Pacific region and the South Asian region hold around three percent of the Ceylon cinnamon.

**Table 4.3: Growth Rate and Instability of Cinnamon Export Quantity and Foreign Exchange Earnings from World Top Three Regions**

Region	Quantity Export		Foreign Exchange Earnings	
	Growth Rate	Instability	Growth Rate	Instability
North America	4	4	13	11
	(0.0075)***		(0.0093)***	
South America	4	5	14	14
	(0.0082)***		(0.009)***	
Europe	3	7	9	11
	(0.014)**		(0.008)***	

Note: Figures in parentheses indicated the standard error for their respective coefficients

\*\*\* Denote coefficients are significant at 1% level

\*\*Denote coefficients are significant at 5% level

Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

Cinnamon export to North American and South American markets increases by four percent annually while foreign exchange earnings from these regions increase 11 percent and 14 percent per annum respectively (Table 4.3). Europe also increases their demand for Sri Lanka's cinnamon by three percent per year and instability index shows that their demand does not divert much over the years. However, due to currency depreciation and price fluctuations, foreign exchange earnings were fluctuating throughout the time period (Table 4.3).

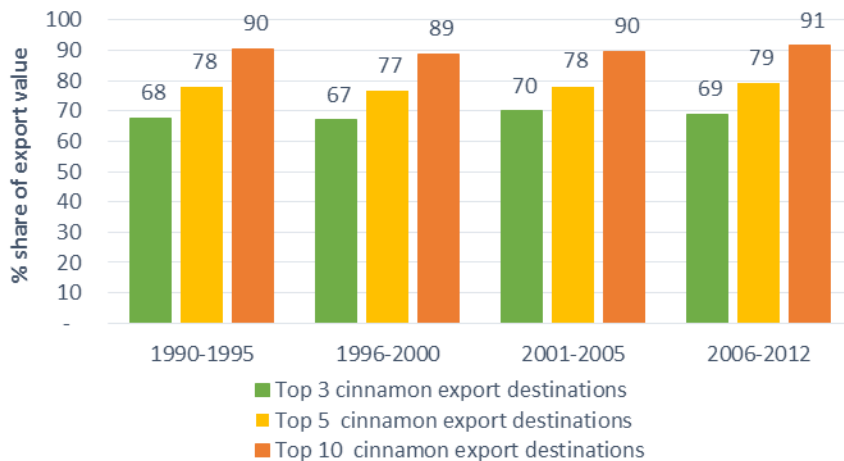
European and Asia Pacific regions can be identified as priority markets for expanding Ceylon cinnamon. The most economically and demographically emerging countries such as India and China would be demand true cinnamon to cater to their value added industry such as pharmaceutical industry, and further high per capita income holding countries in the European region would have the potential to increase their demand for true cinnamon to cater to the demand of high-end consumers for healthy dietary needs.



#### 4.7 Market Concentration/Diversification

When export destinations of a country are concentrated and if there are a few dominant buyers, there can be a serious economic impact on the export sector. This includes short term volatility and instability in export earnings (Samen, 2010) and this can lead to adverse macroeconomic impacts in the long run. Unfavorable and unpredictable characteristics of world demand create shocks on the export supply if a country heavily depends on a few export destinations for a particular export product. Hence, export diversification can improve backward and forward linkages to domestic inputs and services, and expanding opportunities for export in existing or new markets. Reducing dependence upon one or a limited number of geographical destinations or origins can also be a major objective for export diversification (Samen, 2010).

A similar tendency characterized the direction of cinnamon trade flows during the past decades. That is large geographic concentration of cinnamon exports throughout the period (Figure 4.7). Dependence on traditional developed markets for Ceylon cinnamon remained high in the American region. Indeed, the top 10 countries from around 50 export destinations, currently account for 90 percent of the Sri Lanka's total cinnamon (Figure 4.7). Among them top three cinnamon export buyers account for nearly 70 percent of the total cinnamon supply of Sri Lanka. All other cinnamon buyers in the world are sharing only 10 percent.



Source: Author's estimation based on the external trade statistics data, Sri Lanka Customs

**Figure 4.7: Cinnamon Export Market Concentration at 50 Export Destinations during the Period of 1990- 2012**

Therefore, it is clear that Sri Lanka’s cinnamon export markets are heavily tilted towards the American region. However, according to the diversification theory export market concentration negatively affects the export sector stability in a country. Specially, instability in demand will cause the collapse of the export market if there is poor diversification. Thus, in case of cinnamon, identifying new markets or increasing export supply quantity to the existing markets by introducing new products especially, enhancing value added industry is imperative.

#### 4.8 Global Competitiveness for Cinnamon Trade

When considering the world cinnamon trade, Sri Lanka’s position in the world market takes first place. This is not only in respect of the export value but also in terms of quality. Ceylon Cinnamon is a name that is universally accepted as the best in quality for long years. Sri Lanka is the most outstanding cinnamon trader among her competitors globally. As Table 4.4 explains, in value terms Sri Lanka ranks first in the world cinnamon traders’ list. That is mainly due to other rival traders in the world basically producing cassia, a close substitute for cinnamon. However, Pure Ceylon cinnamon has an immense demand for its medicinal value, smell and the taste. With these characteristics, Ceylon cinnamon cannot be compared with cassia. Therefore, Sri Lanka has a monopoly over Ceylon Cinnamon (*Cinnamomum zeylanicum blume*) in the export market.

**Table 4.4: Top Five Cinnamon Exporting Countries in the World**

Cinnamon Exporting Country	Quantity (Mt)	Value (1000 USD)
Sri Lanka	13,485	121219
China	38,029	67,931
Indonesia	45,695	60,798
Vietnam	19,442	25,669
Netherlands	2,809	7,850

Source: <http://faostat.fao.org/>

China, Indonesia, Vietnam mainly produce cassia and export this product to cinnamon consuming countries. In quantity, Indonesia is the largest cassia trader and China is the second largest cassia producer (Table 4.4).

#### 4.9 Cinnamon Consumption in the World

Cinnamon is mainly used as an ingredient for bakery products, energy drinks and flavoured tea. Also cinnamon is an essential food ingredient in most of Asian foods due to its unique aroma and flavor and also in the preservation quality. At present cinnamon is widely used, in the

pharmaceutical preparations and in the cosmetics industry worldwide. Volatile oil of cinnamon is widely used in perfumes, cosmetics and scented exotic gifts. Also, cinnamon is used for spa industry, aromatherapy, soap, cigarettes, confectionary, chocolate industry and beverage industry. Therefore, Sri Lanka's true cinnamon has an expanded market in the world. Basically, cassia is used for producing cinnamon powder. However, in the pharmaceutical industry and cosmetics world pursue true cinnamon which is produced in Sri Lanka. However, these industries in Sri Lanka are still in infant stage. Mainly Sri Lanka produces cinnamon targeting export in raw form. Therefore, cinnamon value added industry should be promoted to develop the export sector.

#### **4.10 Branding and Trademarks for Ceylon Cinnamon**

Brands are created to avoid the commoditization of products and services, which leads to purchasing decisions being made solely on the price alone. The buyer expects to pay a premium for a number of perceived benefits from a brand. Branding allows customers to identify products and services across multiple markets which will guarantee their satisfaction as they provide specific benefits. (Branding-for-international-success,2013). In this sense, branding Ceylon cinnamon is important to highlight the unique characteristics of Sri Lanka's true cinnamon and the global reputation it carries along. Also branding is useful to distinguish the pure cinnamon from cassia in order to gain high market price that true cinnamon fetches. Further, this brand name affirms the quality of the product.

The Export Development Board (EDB) introduced Sri Lanka's true cinnamon to the international markets as "Pure Ceylon Cinnamon" in 2011. This is recognized as a branded product in the international markets. According to the EDB, this brand reflects the unique characteristics of the Ceylon cinnamon.

According to the Ministry of Commerce, EDB has initiated issuing cinnamon exporters international licensing as insisted by global clientele. As a result, the historic assemblage of Lankan exporter firms officially sanctioned to use the internationally accredited 'Pure Ceylon Cinnamon Global Certification'. Further, the Ministry of Commerce indicated that during the last five years, Pure Ceylon Cinnamon exports have shown an upward trend due to surging demand for it in global markets. Also EDB has completed registration of this trademark in the key markets of the USA, EU, Peru and Colombia (Ministry of Industry and Commerce, 2014). This is one of the best marketing strategies to promote Ceylon cinnamon in the potential target markets.



## CHAPTER FIVE

### Issues in Cinnamon Exports

#### 5.1 Introduction

Issues of cinnamon export discussed in this chapter depend on the information provided by the cinnamon exporters. EDB has listed Sri Lanka's cinnamon exporters according to the cinnamon export values. Accordingly, EDB provides 25 top exporters' list. For this study, top 15 cinnamon exporters were interviewed using a guided questionnaire.

#### 5.2 Issues Relating to Cinnamon Export

Major issues in cinnamon exports and suggestions for them are categorized as follows.

##### 5.2.1 Competition with Cassia

There is a huge competition with trading cassia. Cassia is a cheap substitution for true cinnamon and compared to the Ceylon cinnamon, cassia is traded with cheaper prices (1/3 of the price of true cinnamon). Therefore, most of the exporters, specially, exporters new to this business are facing a problem with competition of cheap cassia. Further, according to the exporters' experience, most of the buyers and end consumers are not aware of the true value of pure cinnamon and its health benefits compared to cassia. Ceylon cinnamon is typically more expensive than any of the cassia varieties, and cinnamon is more closely associated with potential health benefits such as regulation of the blood sugar level. True cinnamon differs from cassia on the coumarin content. Coumarins are naturally occurring plant components that can be toxic when used in large amounts. The toxicity tends to affect the liver and nervous system directly. While the level of naturally occurring coumarins in Ceylon cinnamon appears to be very less and lower than the amount that could cause health risks, the level of naturally occurring coumarins in the cassia cinnamons appears to be higher and may pose a risk to some individuals if consumed in substantial amounts on a regular basis.

Therefore, Sri Lanka should have strategies to educate buyers regarding the health benefits of true cinnamon to avoid the unnecessary market competition with cheap cassia.

### **5.2.2 Inadequate Supply**

Exporters cannot cater to the international demand for Ceylon cinnamon as production is not increasing on par with the demand. Therefore, it is important that the cinnamon production should be increased for export demand to sustain throughout the year.

Alba is the best grade for cinnamon that fetches a premium price. Exporters can obtain these prices for Alba grade due to higher demand in international market especially among high-end consumers. However, the production cost of Alba grade is very high due to the rigorous and time consuming processing. Therefore, the local cinnamon peelers are reluctant to produce Alba grades. Also, they are not motivated since the payment does not differ on the grade of the cinnamon that they produce.

Therefore, it is vital to encourage the peelers by providing them an attractive payment for producing higher grades of cinnamon and then all varieties and grades are to be made available to cater to a wider customer base.

### **5.2.3 Awareness of the Importance of Ceylon Cinnamon Logo**

Most of the cinnamon exporters are not aware of the real value of acquiring the Ceylon cinnamon certificate. Therefore, low quality products are circulating in the market. This poses a great threat to the credibility of the quality standards of the Ceylon cinnamon. Thus, exporters should be always encouraged to trade quality products with certifications.

### **5.2.4 Constraints of Enhancing the Value Added Industry**

There are several issues which are contributed to the poor value added sector of cinnamon and among them inadequate technology is the major constraint behind enhancing the value added cinnamon industry in Sri Lanka. Lack of high- tech machines for cinnamon powder and oil extractions are best examples for poor technology, as cinnamon oil is one of the best value additions.

Most of the cinnamon exporters are willing to invest in value addition. However, they have identified that without a popular brand name for value added cinnamon, it is very difficult to capture foreign markets. Therefore, initiating value added industry as a single company is not practical. Thus, exporters suggest close collaboration with cinnamon based

industries such as biscuit company and the confectionary industry, pharmaceutical products, cosmetics.

Also government should provide facilities for exporters to have international exposure in order to identify the buyers' behavior and new markets for the existing value added products especially, items such as cinnamon tablet, cinnamon tea and cinnamon energy drinks.

Further, exporters should identify the importance of market promotional programmes for these value added products.

#### **5.2.5 Issues Related to Peelers**

Lack of skilled peelers in the cinnamon producing areas is one of the major constraints in the cinnamon export sector.

Also, the exporters complain that peelers are not motivated to produce high quality cinnamon grades. This is mainly due to insufficient benefits to peelers as the payment to the peeler does not depend on the quality or grade of the product.

As cinnamon peeling is not a well-recognized occupation in society, young people are reluctant to get engage in peeling activities.

More investment is needed by the government for training and skill development of the peelers.

#### **5.2.6 Poor Quality Products**

According to the EDB, problems are encountered due to quality failures of exported cinnamon in international market and there is a risk of losing international market for Sri Lankan Cinnamon. Poor awareness of farmers and collectors regarding the importance of value of the quality products is a challenge to the cinnamon export industry. It is observed that quality controlling should be followed from the grassroots level. Exporters state that they cannot make much effort with regard to quality when the product reaches them. Lack of skilled peelers is again the main issue and farmers and collectors also do not maintain the quality. Therefore, wastage is high and hygiene is not considered vital in traditional cinnamon processing practices. Therefore, it was suggested that by mechanization and modernization of the production process this can be minimized to some extent.

### **5.2.7 Unnecessary Competition of Local Cinnamon Exporters**

Most of the exporters believe that due to the unnecessary competition among local cinnamon exporters, the world market prices decline. Thus, the exporters highlighted the importance of avoiding undue competition and stabilizing the world market prices. Therefore, certified prices for the pure cinnamon are essential. Hence, as the tea sector, prices should be determined through cinnamon auction.



## CHAPTER SIX

### Findings, Conclusions and Recommendations

#### 6.1 Summary of Findings

- i. Average age of the farmer in the sample population was around 54 years and the findings indicate that, 87% of cinnamon producers were older than 40 years whilst 35% were more than 60 years of age and only 1 percent was below 30 years.
- ii. Farming was the primary income source of 78% of the respondents while only 36% of the farmers had engaged in secondary level income earning activities.
- iii. Results showed that 86% of the farmers earn more than Rs. 25,000 per month indicating satisfactory levels of income. The average monthly income of two districts were Rs.90, 580/= and Rs. 47,889/= in Galle and Matara districts respectively.
- iv. Data revealed that no farmer had totally depended on the Cinnamon industry as income earning activity. A share of income received from cinnamon production to the total family income was between 25% to 50% among 37 percent of the cinnamon producers and this share was 50% to 75% among 33 percent of the farmers.
- v. The average land area under cinnamon owned by an individual farmer was 3.04 acres and more than half of the cinnamon producers from the total sample possessed a total land area between 1-3 ac.
- vi. As per the results of the sample survey only in 32% of the total number of plantations maintained their plant density between 8000 – 10000 plants per hectare.
- vii. Due to scarcity of labour only 16% of the total sample harvested their crop twice a year. This situation has a direct effect on the low productivity of cinnamon in the country.

- viii. Unavailability of proper processing facilities and unawareness of the quality parameters has been the cause for quality degradation of cinnamon products.
- ix. Because of the scarcity of cinnamon peelers, producers had to pay high prices to the cinnamon peelers resulting in high cost of production. Mainly peelers are paid by share of the harvest and in areas of Galle district, this is 1/3 of the harvest whilst in areas of Matara district the share is 1/2.
- x. Although most of the producers (89% of the total sample) were aware about the quality standards of the cinnamon, they have shifted away from quality consciousness due to lack of cinnamon peelers and other labour related problems (46%), high installation cost of processing places (21%), more time consuming (17%) and not receiving high price for higher quality products (7%). This inferior quality leads to a direct loss of potential exports and foreign export earnings.
- xi. As many producers do not have proper processing facilities they process cinnamon as a primary product using traditional methods. Even if farmers produce better quality product there are no attractive and differentiated farm gate prices for those better quality products.
- xii. Only 8% of the total sample were engaging in any form of value addition and most popular types among them was cinnamon oils. About 77% of the total sample claimed that they have potential to engage in value addition of cinnamon and lack of technical knowledge and training, unavailability of equipment and marketing problems act as limiting factors for producers to shift away from those products.
- xiii. In both districts surveyed, the village level collectors are the most important buyers at the producer level (70% of the total sample sold their products to village level collectors). In contrast, the produce was sold directly to an exporter by a considerable number of farmers (25%) in the Matara district.
- xiv. The average selling price of cinnamon was Rs. 1264.25 per one kilogram.

- xv. Results of the study revealed that with regard to the export turnover, the share of the cinnamon export was 60% in 2007; however, its contribution is marginally reduced in 2012 with increase in pepper export earnings.
- xvi. According to the results derived from the estimations, cinnamon export volume is increasing by 4 percent annually with low instability
- xvii. The major export items of cinnamon are quills, quillings, retail packs, crushed or ground, chips and cinnamon oil.
- xviii. Though cinnamon tablets, cinnamon tea, cinnamon energy drinks, cinnamon tooth picks have been introduced in Sri Lanka, these industries are still in infant stage due to high competition in world branded cinnamon by-products manufactured in developed countries.
- xix. More than half of the cinnamon export value comes from the form of quills exports and the second important product is retail packs (20% of the total cinnamon exports). Cinnamon oil export is the next valuable and important form of exports (14%).
- xx. The total share of quills and retail packs exports increased during the last two decades. This is mainly due to the export demand for high quality top grade cinnamon and quills and retail packs are able to meet these grades.
- xxi. Still the Sri Lankan cinnamon export processing industry is not equipped with advanced machinery to produce cinnamon powder. Therefore, buyers demand cinnamon bails from Sri Lanka for making cinnamon powder.
- xxii. According to the estimated results of the growth rate analysis, the highest growth rate is recorded in exporting cinnamon retail packs.
- xxiii. There are around 50 export destinations for the Sri Lanka cinnamon. However, top three countries (Mexico, USA, Peru) demand more than half of the total Sri Lankan cinnamon.
- xxiv. Cinnamon exports to North American and South American markets increase by 4 percent annually while Europe increases their demand for Sri Lanka's cinnamon by 3 percent per year.

xxv. European and Asia Pacific region can be identified as priority markets for expanding the Ceylon cinnamon. The most economic and demographically emerging countries such as India and China demand true cinnamon to cater to the demands of their value added industry such as pharmaceutical industry. Further, high per capita income holding countries in the European region have the potential to increase their demand for true cinnamon to cater to the demand of high end consumers for their healthy dietary needs.

xxvi. Undue competition with cassia, inadequate supply, awareness of the importance of acquiring the Ceylon Cinnamon logo, constraints in enhancing the value added industry, lack of skilled peelers, poor quality products, unnecessary competition of local cinnamon exporters were identified as key issues in the cinnamon export sector.

## **6.2 Conclusion**

Although the export turnover of the Sri Lankan cinnamon industry is significant and the demand in international market is increasing over time, the export performance potential is poor due to several reasons such as; poor management of plantations, scarcity of cinnamon peelers and poor value added sector. Of the exported volume of cinnamon, more than 50% is exported in the form of quills which is used as a raw material and as an intermediate form for various value added products. Pure cinnamon has an immense demand for its medicinal value, smell and the taste in the pharmaceutical and in the cosmetic industry. Therefore, priority should be given to value addition, targeting export and at the same time entry to new markets is vital as Sri Lanka's cinnamon export markets are heavily tilted towards one region.

## **6.3 Recommendations**

Addressing production related issues

- i. Cinnamon production should be increased to cater to the export demand throughout the year to prevent the loss of international markets.
- ii. To ensure the maximum production of plantations, intervention of the government institutions such as Department of Export

Agriculture is important in adopting productivity improvement programmes.

- iii. Investment on mechanization and modernization of cinnamon industry is necessary to maintain quality products as well as a remedy for labour scarcity.
- iv. The acute shortage of cinnamon peelers is affecting the capacity of the industry in terms of both volume and quality. There are several sanitary and phytosanitary problems that can be identified in the cinnamon peeling and production, farm gate quality of cinnamon products does not match any accredited standard quality. This has resulted in increasing the marketing cost and finally economic downturns in cinnamon export. Therefore, it is essential for investment on training and awareness programmes for farmers, collectors and specially for cinnamon peelers.
- v. Investment on improving the value added sector of the cinnamon industry is a timely need as cheap low quality alternatives like cassia have begun to enter the global market and it leads to increased competition. Although the commercial applications of the cinnamon in value added product such as food, perfumery, pharmaceutical and essence industries have been widely known still Sri Lanka has a small share in the global value added market segment.

#### Addressing export market related issues

- i. Banning of importation of cinnamon to avoid re-exports as some exporters mix true cinnamon with low quality cassia which leads to the quality degradation of Sri Lankan products.
- ii. Government should intervene in create export market awareness for identifying the true value of cinnamon and differentiating pure cinnamon from cassia.
- iii. Exporters should be motivated to obtain Ceylon cinnamon certificate to ensure the quality product export.
- iv. Government should facilitate chances and opportunities for exporters to obtain international exposure in order to identify the buyers' behavior and new markets for existing value added products specially items such as cinnamon tablets, cinnamon tea

and cinnamon energy drinks. Further it is important to initiate market promotional programmes for these products.

- v. A mechanism should be introduced to stabilize the cinnamon export prices.
- vi. Identify priority markets and new markets to promote and diversify cinnamon export destinations.

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