

**NRPPD Discussion Paper**

**8**

**TRADE ASPECT OF PLANTATION  
SECTOR OF INDIA**

**B.H. Nagoor**

October 2010



# **TRADE ASPECT OF PLANTATION SECTOR OF INDIA**

**B.H. Nagoor**

October 2010

## **ABSTRACT**

The central objective of the present study is to analyze the present status of trade in four major plantation commodities (Black Pepper, Tea, Coffee and Cardamom) and identify the issues for further research. Due to growing domestic demand and emergence of new low cost producers like Vietnam on the one hand and emergence of European countries in exporting value added products in the international market on the other, India is losing export competitiveness in the international market. However, India has the opportunity in exporting value added pepper, tea and coffee in the international market, especially in European market. ASEAN countries are source of low priced pepper, tea and coffee. There is high possibility that Vietnam may increase its exports to India. Is it a concern for India's plantation economy? Can India re-export by importing low priced pepper, tea and coffee from ASEAN? The paper makes the case for enabling policy interventions specific to commodities and thereby the development of infrastructure which would encourage value addition and re-exports.

## **1. Introduction**

Though plantation products are not a major item in India's export basket, it is the source of livelihood for millions of small and marginal farmers and provides employment for millions of plantation workers (Joseph 2009). During 2008-09, the export share of major plantation commodities in India's total export was 1.7 per cent. Plantation crops are mainly grown in Kerala, part of Karnataka, Tamil Nadu, West Bengal and North Eastern states of India. Plantation sector has played an important role in the socio-economic development of these regions and provided employment for millions of people. With the growing economic integration among the countries of the world in recent years, like any other sector of the Indian economy, the plantation sector of India is also exposed to heightened international competition. In an open economy, competitiveness of a product is not only important from export point of view, it is equally important to survive in the domestic market as well, as there is always threat of entry of cheaper products from the international market into domestic market. In such a scenario, where does an India's plantation product stand in the global market? Hence, it is important to analyze the competitiveness of a product in the international market comparing with major suppliers of the world.

Along with the price competitiveness of a product in the international market, there is also need to analyze the supply side factors like trend in production, productivity, domestic demand among major suppliers and consumers of a product at domestic and global level (Nagoor and Kumar 2010). Due to growing economic integration among the countries of the world through multilateral and regional trade agreements, the direction of trade is also changing. There is need to analyze the changing direction of trade in different commodities. Former USSR was major trading partner of India earlier. With changed economic relations of India and Russian Federation in a liberal trade regime, India lost the market of Russian Federation for its most of traditional products including plantation products (Nagoor 2008). With establishment of Common market of Eastern and Southern Africa (COMESA) in 1993 India lost Egypt to Kenya for its tea market (Nagoor 2009). Egypt and Kenya are members of COMESA. In such a changed scenario, how the plantation products of India are able to find new markets. There are apprehensions that the Free Trade Agreements between Association of South East Asian Nations (ASEAN) and India will affect Indian plantation sector adversely, as ASEAN are source of low priced plantation products. Producers are concerned about the entry of cheaper products from such trading partners. Are there any advantages of import of such low priced products? Can India make value addition for such low priced imported products and re-export as European countries are doing? Where is market for value added plantation products? Thus there is a need to assess impact of FTA through dynamic approach rather simple static analysis (Joseph 2009).

In this backdrop, the present study makes an attempt to study the trade aspects like international competitiveness, direction of trade and trade facilitation issues by analyzing the trend in export, import, demand, prices and other relevant factors. The study also looked into some of the supply side aspects like production and productivity. Selected plantation commodities like black pepper, tea, coffee, and cardamom.

## 1.1 Sources of data, research design and methodology

The study is based on secondary data. The international data on production, yield, area under cultivation, export, and import for pepper, tea and coffee of major producing, and exporting countries of the world are sourced from FAO. For data on trade direction and variety wise export of pepper, tea and coffee, we collected from UNCOMTRADE. Domestic price and international price are sourced from various commodity boards of India. In case of cardamom, data on production, yield, and area under cultivation, domestic price, export, and import of India are sourced from Spice Board of India. International data on major cardamom exporting countries and India's cardamom trade direction sourced from UN COMTRADE For comparison with domestic price, the dollar value of export unit value and import unit value converted into Indian rupee by multiplying the respective year India's annual average exchange rate. The various years' annual average exchange rates are taken from Reserve Bank of India.

In order to measure the competitiveness of a product in the global market, Revealed Comparative Advantage (RCA)<sup>1</sup> and Asia –Pacific Research and Training Network on Trade (ARTNeT) competitiveness

---

1 Balasa (1965) was the first to coin the term 'Revealed comparative Advantage'. His measures contained only export data and the relative export share measure of RCA is defined as  $RCA_{am}^{iw} = (X_s^i / X_s^m) / (X_s^a / X_s^w)$  Where  $X_s$  refers to export supply,  $i$  to the home country,  $W$  to the world and  $a$  to any particular commodity and  $m$  to all commodities. This measure is based on the assumption that commodity pattern of exports reflects relative costs as well as differences in non-price factors and that comparative Advantage can be expected to determine the structure of exports. An index value greater than unity indicates an economy's international competitiveness in that commodity while a lower value would place a country at a relatively disadvantage position with respect to export of a particular commodity.

index<sup>2</sup> are used. We also make use of Export unit value (EUV)<sup>3</sup>, Import unit value (IUV)<sup>4</sup>, domestic and international prices for measuring price competitiveness. We also looked at trade potentiality of a product in the international market. Along with comparing India's unit price of selected exportable plantation products with other major exporting countries' unit price of exportable plantation products, the trend in domestic production, productivity, domestic demand, export, import, domestic price of India, are analyzed for trade potentiality of a selected product. For certain data, we have calculated annual average of total.

Since each commodity has diverse characteristics, analysis of all products together for entire study does not give clear picture; commodity wise analysis is made in the following sections. After detailed analysis of each product, comparison is made with each product at the end.

The study is divided into seven sections. Sections 2, 3, 4 and 5, deal with trade aspect of –Pepper, Tea, Coffee and Cardamom. In these sections, trade aspects of a product is viewed in terms of export

---

2 According to Asia –Pacific Research and Training Network on Trade (ARTNeT), “Competitiveness in trade is broadly defined as the capacity of an industry to increase its share in international markets at the expense of its rivals. The competitiveness index is an indirect measure of international market power, evaluated through a country's share of world markets in selected export categories”. It defines “the index as the share of total exports of a given product from the region under study in total world exports of the same product”. It takes a value between 0 and 100 per cent, with higher values indicating greater market power of the country in question.

3 Export unit value represents the price at which commodity is exported.

In our study we have calculated EUV by taking ratio between export value and quantity ( $EUV = \text{Export Value} / \text{Export Quantity}$ ). In certain cases, the world export unit value is considered as international price.

4 Import unit value represents the price at which country imports from foreign countries, which includes transportation and insurance costs but excludes tariffs. In our study we have calculated IUV by taking ratio between import value and quantity. ( $IUV = \text{Import Value} / \text{Import Quantity}$ ).



orientation of the product and role of domestic market, export competitiveness in the global market and trade direction. Issues relating to trade facilitation are dealt in Section- 6 and Section-7 is the conclusion. In the subsequent section, analysis is made for each selected product separately.

## **2. Black Pepper**

From the available secondary data, we mainly focused on change in export orientation of black pepper and role of domestic market and export competitiveness of Indian black pepper in the global market. As in the case of other commodities, in case of black pepper also, we looked at trade potentiality of black pepper considering both advantages and disadvantages. In the analysis, we inter change used pepper instead of black pepper.

### **2.1 Export orientation of pepper and role of domestic market**

During 1960s, with 25 per cent share in world production and 20 per cent share in world export, India was the major producer and exporter of pepper in the world. During the period 2001 to 2008, India's share in world production and export has come down to 17 per cent and 8 per cent respectively (Table-1). Though production increased by nearly three times i.e. from annual average 25.54 thousand tonnes during 1961-1970 to annual average 70.89 thousand tonnes during 2001 - 2008, it was unable to meet the growing domestic demand. The domestic consumption of pepper has increased from an annual average of 4.84 thousand tonnes during 1961-1970 to annual average of 60.50 thousand tonnes during 2001-2007. However, during 2007, domestic consumption of pepper was 34.84 thousand tones. Year 2007 seems to be an exceptional year as domestic consumption of pepper was very low compared to previous years. With increase in domestic consumption, and inability of additional domestic production to meet growing demand, the share of pepper export from domestic production has come down from 82.16 per cent during 1961-70 to 35.31 per cent during 2001-07. India's pepper which was more export oriented during the earlier period, has become

more domestic oriented. And, imports registered 9.90 per cent growth per annum during 2001-07. India's pepper import share in world import, which was less than one per cent until 1990, increased to 1.21 per cent during 1991-2000 and to 5.32 per cent during 2001-07. In absolute terms, India's pepper import has increased from annual average of less than one thousand tonnes until 1990 to annual average of 14.47 thousand tonnes during 2001-07. With increasing domestic demand for pepper, Indian export unit value of pepper has increased (Table-2), leading to decline in export competitiveness.

In recent years, India allowed duty free import for value addition and re-export. However, pepper producers raised the concern for duty free import for value addition and re-export; as such imports depress domestic prices, if rules of origin are weak. In 2009-10 India's estimated pepper imports jumped 63 per cent to 17,500 tonnes, while exports fell 22 per cent to 19,500 tonnes (Thomson Reuters, 2010). It follows that India's pepper import dependency is continuously increasing and pepper producers dependency on domestic market is also increasing continuously. This raises important questions. i) The impact of import on domestic prices ii) Is imported product competes with domestically produced product?

India imports pepper mostly from Indonesia (35%), Sri Lanka (33%) and Vietnam (30%) (Table-11). These countries are source for low priced pepper (Table- 2) and especially Vietnam expanding its pepper export, production, area under pepper cultivation and productivity rapidly (Table-3,14,15 and 16 ). With further reduction in tariffs under India- ASEAN FTA, India's pepper import from Vietnam would increase. Here question comes, does cheaper pepper import from Vietnam affect the India's domestic price of pepper. Can India make value addition to such low priced pepper product and re-export? India has given concession to these countries under FTA and special concession is given to Indian export oriented businesses for processing, value addition and re-exports. This raises the

role of duty free pepper imports for re-export. There is need to investigate the impact of duty free pepper imports on domestic prices and the share of duty free imported pepper in re-exports of pepper. Due to lack of secondary data, the present study is not in a position to assess the impact of duty free pepper imports on domestic prices and re-exports.

Pepper is not a homogeneous product. Since there are many varieties, trade analysis of pepper according to varieties is required. Though, variety wise pepper trade data is available in UNCOMTARDE, there are limitations for domestic comparison, as domestic pepper is classified differently. In Indian domestic market, pepper is classified as black pepper and white pepper, where as UNCOMTRADE classifies as Pepper (Piper), crushed or ground Capsicum, Pimenta (HS 904). HS 904 is aggregate pepper, which includes all varieties such as pepper of the genus piper, whole (HS 90411), pepper of the genus piper, crushed or ground (90412) and capsicum or pimenta dried, crushed or ground (HS 90420). However, capsicum or pimenta dried, crushed or ground (HS 90420) variety is not included in the Indian black pepper basket. For the present study, we have taken pepper of the genus piper, whole (HS 90411), pepper of the genus piper, crushed or ground (90412), as these two together constitute black pepper.

The variety wise Indian pepper export shows that (Table- 4), the percentage share of export of pepper of the genus piper, whole (HS 90411) has comedown in recent years. On the other hand the percentage share of pepper of the genus piper, crushed or ground (90412) has increased. During 1991, the percentage share of pepper of the genus piper, whole (HS 90411) in Indian total pepper export was 99.94 per cent. During 2009, it has come down to 62.84 per cent. In the case of pepper of the genus piper, crushed or ground (90412), until 1996 its share was less than one per cent and it has increased to 37.16 per cent during 2009. The emergence of Vietnam as a major pepper exporter of the world in pepper of the genus piper, whole (HS 90411) variety segment

(Table-5) in recent years might have reduced the percentage share of India pepper of the genus piper, whole (HS 90411) in its overall pepper exports. During 2001-2007, Vietnam exported 89.61 thousand tones of pepper to the world, representing 29.39 per cent of world pepper export. Majority of Vietnam pepper export (91 per cent during 2009) consists of pepper of the genus piper, whole (HS 90411). Variety wise Indian pepper imports shows that, during 2009, 97.66 per cent of Indian pepper import consists of pepper of the genus piper, whole (HS 90411) (Table-4). It follows that pepper import from Vietnam competes with India's pepper of the genus piper, whole (HS 90411) variety segment. Under India –ASEAN FTA, India has kept pepper of the genus piper, whole (HS 90411) variety segment in special product category. Under the agreement, special product category comes under tariff reduction commitment. Where as pepper of the genus piper, crushed or ground (90412) kept under exclusion list.

## **2.2 Export competitiveness of Indian black pepper in the global market**

Looking at the Revealed Comparative Advantage (RCA) of Indian pepper (Table-1.a), it shows that the commodity has international competitiveness to export, as RCA index value is greater than one from the year 2001 to 2007. India's domestic price of pepper is lower than international price of pepper (Table-6). This indicates, India has price advantage to export in the international market. The analysis of data from 2001 to 2007, shows that India is in an advantageous position in exporting pepper. However, compared to other countries such as Vietnam, Indian pepper has lesser export competitiveness in the international market. In Table -2, export unit value of major pepper exporting countries of the world is shown. Export unit value shows the price at which commodity is being exported. Table-2 reveals that, except for the year 2007, Vietnam pepper export unit value is lowest compared to other major pepper exporting countries of the world. This shows Vietnam pepper is cheapest in the world compared to other major pepper exporting countries of the world. We also compared Vietnam pepper

export unit value with India's domestic pepper price during 2005, 2006 and 2007. Except for the year 2007, during 2005 and 2006, the export unit value of pepper of Vietnam, compared to India's domestic pepper price, is lower by 6.6 per cent and 26.57 per cent respectively (Table-6). This causes concern for India's pepper economy. It is important to note that India has signed FTA with ASEAN members; Vietnam is a member of ASEAN. There is high possibility that Vietnam may increase its low priced pepper export to India. There is need of study to assess the impact of India-ASEAN FTA on Indian pepper economy. Looking at recent trend in India's pepper production, domestic demand, import and availability of low priced pepper in the international market, there may be further increase in import of pepper in Indian market.

Asia-Pacific Research and Training Network on Trade (ARTNeT) competitiveness index is captured in Table -1. Over the years, India's percentage share in world pepper exports has come down from 23.40 per cent during 1961-70 to 13.42 per cent during 1991-2000 and further declined to 8.39 per cent during 2001-07. Vietnam, which was exporting 1.38 per cent of world pepper exports during 1981-1990, increased its share to 24.17 per cent during 2001-07 (Table - 3). The other pepper exporting countries, Netherland, Germany, Sri Lanka and USA together exporting less than one per cent of world pepper exports during 1961-70, increased their percentage share to 12.46 per cent during 2001-07. It follows that, India has been loosing its pepper export competitiveness to these countries. Netherland, Germany, and USA do not produce pepper, however together those countries exported 10.34 per cent of world pepper export during 2001-07 (Table-3). These countries mainly import low priced pepper from Indonesia, Vietnam, Brazil and India, which are major pepper producing countries of the world. As evident from Tables- 2 and 8, Netherland, Germany, and USA are able to make value addition to imported pepper and export to other countries, including major pepper producing countries of the world. It follows that there is more scope for value added pepper export in the international market. It is also evident

from Table –2 that, the export unit value of pepper of Netherland, Germany, and USA is quite high compared to other major pepper exporting countries of the world.

From UNCOMTRADE data, variety wise pepper export competitiveness of India is shown in Table-8. This is done through taking export unit value (EUV) of all varieties of pepper under HS trade classification. Comparison is made with other major pepper exporting countries of the world. It reveals that Indian pepper export unit value (EUV), including all varieties (HS 90411 and HS 90412), is much lower than any other major pepper exporting countries of the world. Here question comes, why India's pepper export has been declining. Along with price of exportable commodity, availability of domestic supply, domestic demand and domestic price of exportable product are also important. This is captured in Tables- 1 and 9. From Table-1 and Table-9, we find that with continuous increase in domestic demand; the domestic pepper price has increased. The annual average price of domestic pepper has increased from Rs 76.36 per k.g during 2003 to Rs 131.21 per k.g during 2009. The domestic price of pepper is higher than Indian export unit value (EUV) of pepper. Even variety wise also, except export unit value (EUV) of Pepper of the genus piper, whole (HS 90411) during the year 2003, 2004, 2005 and 2006, compared to other variety shown in Table-9, the domestic price of pepper (Black pepper, MG-1) is at a higher side. This shows domestic market is more attractive than the international market for India's pepper. However, there are two limitations for such analysis. Firstly, the pepper classification under UNCOMTRADE and Indian domestic pepper (Black pepper, MG-1) are not identical. However, such analysis gives some rough idea, as domestic and international price data are not available for comparison of identical varieties. Secondly, there is large data variation in FAO trade data and UNCOMTRADE data. From FAO trade data, export unit value of pepper (piper spp) is calculated in Table-2. Table – 2, indicates that except during 2007, Vietnam export unit value (EUV) was lower than Indian

export unit value. This shows that Vietnam pepper is more competitive of Indian pepper. However, according to UNCOMTRADE data (Table-8) Vietnam export unit value (EUV) of pepper was much higher than Indian export unit value (EUV). Even for all varieties (HS 90411 and HS 90412), Vietnam export unit value (EUV) is much higher than that of Indian export unit value (EUV) for HS classification.

### **2.3 Indian Pepper Trade Direction**

During 1991, former USSR (47.2%) and USA (20.7 %) were the major destination for India's pepper exports (Table-10). Around 68 per cent of India's pepper was exported to these countries. In recent years, India's pepper export is scattered. India lost former USSR market and share of USA has increased to 44.4 per cent during 2009. It is evident from USA pepper import direction that (Table-12), India is facing competition from Vietnam and Indonesia. During 1996, 31.38 per cent of USA pepper import demand was met by India and it came down to 18.16 per cent during 2006 and further declined to 16 per cent during 2009. Since 2001, Vietnam share in USA pepper import has been increasing. Vietnam increased its share from 4.57 per cent during 2001 to 12.06 per cent during 2006 and further increased to 13.59 per cent during 2009 in USA total import of pepper. As Vietnam increased its share in USA pepper import, India's share in USA pepper import has come down. It is to be noted that USA is the major pepper importer of the world. During 2001-07, USA imported 22.42 per cent of the total world pepper import (Table-13). In the case of import, India's more than 98 per cent of import demand is met by Indonesia, Sri Lanka and Vietnam and in absolute terms also it has been increasing (Table-11).

It follows from the above discussion that due to domestic demand pressure for pepper, emergence of Vietnam as a major producer and exporter of pepper in the international market and emergence of Netherland, Germany, and USA in exporting value added pepper in the international market, India is loosing its pepper export competitiveness

in the international market. India has opportunity in exporting value added pepper in the international market, especially in European market. There is a need to equip pepper producers for making use of this opportunity in the international market. There is a need to investigate the impact of duty free pepper imports on domestic prices and the share of duty free imported pepper in re-export of pepper. There is high possibility that Vietnam may increase its low priced pepper export to India and therefore it is important to assess the impact of India-ASEAN FTA on Indian pepper economy.

### **3. Tea**

The analysis of the trade aspects of tea is presented in this section. The advantages and concerns for Indian tea in a liberal trade environment are specified. As in the case of other commodities, the analysis covers the trade potentiality of tea, considering both advantages and disadvantages, and also an assessment of the impact of India-ASEAN FTA on Indian tea trade.

#### **3.1 Export orientation of tea and role of domestic market**

India has been a major tea producer and exporter for a long period. During 1961-70, India's share in world production was 33.70 per cent and in export, it was 30.47 per cent. During 1961-70, Indian tea was more export oriented with a share of export in domestic tea production being around 54 per cent. Though, production has increased from annual average of 376 thousand tonnes during 1961-70 to annual average of 884 thousand tonnes during 2001-07, domestic consumption increased from an annual average of 174 thousand tonnes during 1961-70 to annual average of 726 thousand tonnes during 2001-07. As a result, tea export has come down from annual average of 202 thousand tonnes during 1961-70 to annual average of 180 thousand tonnes during 2001-07. India's share in world tea export has come down to annual average of 12.25 per cent during 2001-07 and its export intensity come down to 21 per cent during 2001-07 from about 54 per cent in the first period



(Table-1). Indian tea, which was more export oriented earlier, has become more domestic oriented. On the other hand, since 1992, India's tea import is on the increase. Indian tea imports increased from 1.37 thousand tonnes during 1992 to 19.59 thousand tones during 2007. During 2004, India's tea import was as high as 31 thousand tones. It is important to notice that, India imports low priced tea from Vietnam (Table-18). Since 2000, India is imposing 100 per cent tariff (MFN tariff) on tea. There is apprehension that low priced imported tea will affect domestic tea prices, thereby affecting the tea producers. It is evident from Table – 18 that Indian domestic price of tea is much higher than that of Indian import unit value of tea from Vietnam, which represents the price at which country imports from foreign countries, including transportation cost, insurance cost etc, but excluding tariffs.

Tea is not a homogeneous product. Black tea and Green tea are main varieties, produced and traded around the world. India basically produces and exports black tea. Of the total tea imports to India black tea constitute a major part. During 2009, 96.11 per cent of imported tea was black tea (Table-19). Most of India's tea import demand is met by Nepal, Kenya, Vietnam, Indonesia and Sri Lanka (Table-11). These are low priced tea exporting countries. India has FTA with Vietnam, Indonesia and Sri Lanka. India has given preferential market access to Nepal under Generalized System of Preference (GSP). And, India imposes zero tariffs on tea imports, which is used for re-export. Under ASEAN- India FTA, India kept most of the black tea under special products. Applied MFN tariff rates on special products will be brought down in a phased manner. In the case of most of the black tea, it will be brought down from 100 per cent to 50 per cent by 2019. Reduction of tariffs in case of most of the black tea under FTA will make Vietnam tea relatively cheaper.

The demand for tea is primarily determined by the income elasticity of demand, as it is price inelastic and found to be low income elastic for developed countries and high income elastic for developing countries (Bhattacharya 2004; Dindsa 1981; Nayyar 1976). Since 1991,

India's per capita income has increased by many folds, leading to an increase in the domestic demand for tea. It is evident from Table-1 that, India's domestic consumption of tea has increased over the years. Looking at the increasing domestic demand for tea in India, the low growth rate in tea production, decline in yield, stagnation in the area cultivated, and availability of low priced tea in the international market, it can be stated that India would import tea in large quantities. If protection is not given, there may be import surge of tea in the Indian market. This is a concern for India's tea economy.

Another important development in the international tea market is that Vietnam has been increasing its tea exports in the world and it is expanding production rapidly (Tables 3, 14, 15 and 16). As indicated in Table -2 and 18 Vietnam is a source for low priced tea. India's domestic price of tea is much higher than Vietnam tea. Compared to Vietnam tea price, during 2006 and 2008, India's domestic price of tea was higher by 47 per cent and 32 per cent respectively (Table-18). This is a major concern for Indian tea economy. Vietnam being a member of ASEAN may increase its low priced tea export to India. A detailed study to assess the impact of India-ASEAN FTA on Indian tea economy would provide more relevant details.

According to the Ministry of Commerce (2002), Govt of India, the import of plantation commodities of tea, coffee and rubber, the import of the commodities for re-export has not affected the domestic industry for the following reasons. "In the case of tea, M/s. Hindustan Lever Ltd., which is also a 100% Export Oriented Unit (EOU) is the only multinational company importing tea into India for the purpose of re-export after making some value addition. No tea imported by the company is sold in the domestic market. Import of tea for re-export has been allowed in order to increase the price competitiveness of Indian tea in the international market and also to cater to the requirements of international buyers which will help in boosting the Indian tea export. The imported teas have also to conform to the quality parameters as prescribed

under the Prevention of Food Adulteration Act (PFA)". This shows that duty free tea imports for re-exports may not affect the Indian tea sector. Due to lack of secondary data, the present study could not assess the impact of duty free tea imports on domestic prices and re-exports.

### **3.2 Export competitiveness of Indian tea in global market**

The Revealed Comparative Advantage (RCA) of Indian tea (Table-1.a) shows that tea has international competitiveness to export, as RCA index value is greater than one during 2001 to 2007. India's domestic price of tea is lower than that of international price of tea (Table-20). Even in dollar terms, Indian domestic price of tea is lower than that of major international tea market such as Sri Lanka tea at Colombo Auction price and African tea at Mombassa Auction (Table-21). This indicates that India has price advantage to export in the international market. From the analysis of data from 2001 to 2007, it can be noticed that India is in an advantageous position in exporting tea to the world. However, compared to export unit value (EUV) of other major tea exporting countries such as China, Indonesia, Kenya and Vietnam, Indian tea during 2001-07, has lesser export competitiveness in the international market (Table-2). Export unit value which represents the price at which commodity is being exported reveals that, among major tea exporting countries of the world, Vietnam and Argentina low priced tea producers in the world as their export unit value is lower compared to that of other major exporting countries of the world.

As in the case of pepper, the Asia –Pacific Research and Training Network on Trade (ARTNeT) competitiveness index was obtained for tea also. The competitiveness index is reported in Table – 1. It indicates that over the years, India's share in world tea exports came down from 33.50 per cent during 1961-70 to 15.40 per cent during 1991-2000 and further declined to 11.47 per cent during 2001-07. It follows that over the years, India is losing its tea export competitiveness to other tea exporting countries. Kenya, which was exporting 3.7 per cent of world tea exports during 1961-

1970, increased its share to 16.3 per cent during 2001-07. China and Vietnam also have significantly increased their tea export (Table-3).

The other tea exporting countries, U.K, Germany, Belgium and France, together exporting five per cent of world tea exports during 1961-70, have increased their share to 13.60 per cent during 2001-07. India is loosing its tea export competitiveness to these countries. Interestingly, U.K, Germany, Belgium and France do not produce tea (Table-14), however together exported 13.60 per cent of world tea export during 2001-07. U.K and Germany, mainly import tea from Kenya, China, India, Indonesia, and Sri Lanka, where as France and Belgium import tea from China, U.K, and Germany. In Europe, large value addition for tea takes place. U.K, Germany, Belgium and France are able to make value addition to imported tea and export to other countries. These countries mainly export to other European countries. It follows that there is more scope for value added tea export in the international market. It is also evident from Table -2, that the export unit values of tea from U.K, Germany, Belgium and France are higher than the other major tea exporting countries of the world.

Black tea and Green tea are two varieties, which are mainly traded in the world. Using UNCOMTRADE data, variety wise tea export competitiveness of India is obtained by taking export unit value (EUV) of all varieties of tea under HS trade classification (Table- 22). Comparison with other major tea exporting countries of the world indicates that in the international market, Indian black tea mainly competes with Kenya, Sri Lanka, Vietnam, Indonesia and Argentina (Table-30). Export of black tea from Germany, U.K, Belgium and France, is branded and qualitatively higher than tea from India, Kenya, Sri Lanka, Vietnam, Indonesia and Argentina tea. Except Sri Lanka, Indian export unit value of black tea is higher compared to its main competing countries Kenya, Vietnam, Indonesia and Argentina. It follows that India is loosing its tea competitiveness mainly to Kenya, Vietnam and Indonesia.

### 3.3 Changing Direction of Trade

Former USSR, U.K, Iran, Egypt and Germany were the major markets for Indian tea. During 1991, these countries together imported around 78 per cent of India's tea export but it has come down to 39 per cent during 2009 (Table-24). This has made it necessary for India to search for new market for tea. Earlier Indian tea export was more concentrated towards major tea importing countries of the world. In recent years, tea export has been scattered among many countries. With the emergence of Kenya and Vietnam as major tea exporters of the world and increase in value added tea exports from U.K, Germany, France and Belgium, India lost its traditional tea markets. For instance, during 1991, India was exporting 48.07 per cent of tea exports to former USSR (Table-24). Though, tea import of Russian Federation has increased since 1991, during 2009 India's tea export to Russian federation has come down to 16.79 per cent of the total tea exports. During 1997, India met 58.80 per cent of Russian federation tea import demand. It has come down to 22.63 per cent during 2009. India is loosing its Russian market to Sri Lanka, Kenya, China, Indonesia and Vietnam. These countries together met 73 per cent of the imports to Russian federation during 2009 compared to 32 per cent during 1997 (Table-25). India lost its market in Egypt for tea to Kenya (Table-26). United Kingdom, USA, Pakistan and Japan are other major tea importing countries of the world. India's tea export share in these countries' import is low (Tables-27, 28 and 29). Kenya has captured U.K and Pakistan market, during 2009, Kenya met 54.34 per cent of U.K import demand; where as share of India is only 14.1 per cent. In the case of Pakistan, Kenya met 63.05 per cent of Pakistan import demand; where as share of India is only 3.69 per cent.

It follows from the above discussion that due to domestic demand pressure for tea, emergence of Kenya and Vietnam as a major producers and exporter of tea in the international market and increase in value added tea export from U.K, Germany, France and Belgium, India lost its traditional tea markets. India is loosing its tea export competitiveness

in the international market. India has opportunity to manufacture value added and branded tea and export in the international market, especially in European market. There is high possibility that Vietnam may increase its low priced tea export to India. A more of detailed study to assess the impact of India-ASEAN FTA on Indian tea economy may throw more light on this issue.

#### **4. Coffee**

An analysis of the trade aspects coffee was carried out using available secondary data, with special reference to the advantages and concerns for Indian coffee in a liberal trade regime. As in the case of other commodities, trade potentiality of coffee was assessed in relation to India's advantages and disadvantages.

##### **4.1 Export orientation of coffee and role of domestic market**

India is neither major producer nor an exporter of coffee in the world. India has been producing only around 4 per cent of world output of coffee and exporting around 4.5 per cent of world coffee extract (Table -1). Though, most of domestically produced coffee is consumed within the country, in recent years, Indian coffee is becoming more trade oriented. Until 1990, not much coffee was traded since, 99 per cent of produced coffee was consumed domestically. However, during 2007, the share of coffee export (including re-export) in domestic production has increased to 10 per cent. Demand for coffee is income elastic and with increase in per capita income in India since 1991, the domestic demand for coffee has increased. During 2001-07, domestic consumption for coffee has increased by 9.38 per cent per annum. With increase in domestic demand and inability of domestic production to meet the growing demand, imports registered 53.89 per cent growth per annum during 2001-07. Until 1990, India had no coffee import. Since 1991, India's coffee import has been increasing continuously. India's coffee import share in world import, which was less than one per cent until 2000, had increased to 3.86 per cent during 2007. There is a need to

examine whether growing India's coffee import is concern for coffee economy of India or not. India's import unit value of coffee is much higher than the export unit value of coffee (Table -31). It is evident that India is importing expensive coffee. It also indicates that there is a growing market for value added quality coffee within the country – a potential to be exploited.

Arabica and Robusta are two varieties of coffee mainly produced and traded in the world. During 1950s, the production shares of Arabica and Robusta in India were 82.10 per cent and 17.90 per cent respectively. By 2009-10, the share of production of Arabica and Robusta has changed to 32.67 per cent and 67.33 per cent respectively (Table-32). In India's coffee export basket, the export share of Instant coffee and Robusta parchment is increasing. During 2009, around 80 per cent of Indian coffee export was Instant coffee, Robusta parchment and Robusta cherry (Table-33). In the international market Robusta group coffee is cheaper than that of Arabica group (Table-34). During 2006 and 2007, international Robusta group coffee price was lower than that of Indian domestic price of coffee (Table-35). It follows that, if international prices are not attractive and lower than domestic market price, the exporters will look for domestic market and, imports will increase. Another worry in international coffee market is that international prices are highly fluctuating. During 2000-2004, international coffee prices were very low (Table-34). Further international coffee prices were highly fluctuating during 1998-2009, with a high C.V value of 37.09. Indian coffee growers badly affected by the lower international coffee prices.

Another important development in the international coffee market is that, Vietnam has become second largest producer of coffee in the world and it is expanding its coffee export, production, area under coffee cultivation and productivity rapidly (Table- 3, 14, 15 and 16). Vietnam is a source of lower priced coffee. During 2007, Vietnam's exports unit value was US \$ 198 per quintal, which was much lower than the corresponding to Indian export unit value of \$ 439 per quintal. Vietnam

is a member of ASEAN. There is high possibility that Vietnam may increase its low priced Coffee export to India. Here again is a need to assess the impact of India-ASEAN FTA on Indian coffee economy’.

The study also analyzed the possible impact of duty free coffee imports, which is used for value added re- exports. India’s re-exports of coffee consists only instant coffee (Table-36) and re-export of instant coffee is increasing. Indian re-export of instant coffee increased from Rs 25.21 thousand lakh during 2006 to 38 thousand lakh during 2009. The share of re- exported instant coffee in India’s total instant coffee export is 56 per cent and in India’s total coffee export, it is 20 per cent. A detailed study is required to assess the impact of duty free coffee import for re-exports on India’s domestic price of coffee and competitiveness of its coffee export, even though the Ministry of Commerce (2002), Govt of India, observed that “In the case of plantation commodities tea, coffee and rubber, the import of the commodities for re-export has not affected”.

Variety wise export of coffee from India shows that since 1999, more than 99 per cent of exported coffee consists of Coffee, not roasted, not decaffeinated (HS 90111) (Table-38). Further, 99 per cent of India’s coffee import consist of same variety i.e, Coffee, not roasted and not decaffeinated (90111) (Table-39). It shows that imported coffee competes with domestically produced and exported coffee. However, in India’s total coffee export, 20 per cent is re-exported coffee.

#### **4.2 Export competitiveness of Indian coffee in global market**

Looking at the Revealed Comparative Advantage (RCA) of Indian coffee exports (Table-1.a), it shows that coffee has international competitiveness to export, as RCA index value is greater than one from the year 2001 to 2007. India’s export unit value (EUV) is less than that of export unit value of other major coffee exporting countries of the world (Table-2) which indicates that India has price advantage to export in the international market. Analysis of data from 2001 to 2007, indicates that India is in advantageous position in exporting coffee.



Asia–Pacific Research and Training Network on Trade (ARTNeT) competitiveness index, indicates that, over the years India's percentage share in world coffee exports has increased from less than one per cent until 1980s to 4.34 per cent during 2001-07. It follows that over the years India has increased its coffee export competitiveness.

It is also interesting to note that Germany does not produce coffee, but in terms of value it is number one exporting country in the world (Table-3). It seems that value addition is most important in coffee exports. Looking at the export unit value of major coffee exporting countries (Table-2), the export unit values in Germany, U.K, Spain, France, Netherland, and Switzerland are much higher than the Indian coffee export unit value indicating their higher position in the coffee value chain. Though, Indian coffee is cheaper in the international market, it is unable to compete with other major exporting countries to capture export market. What emerges from this analysis is that in coffee exports quality and value addition matters. India has to look for a strategy to export more value added coffee. It is also interesting to note that major coffee exporters of the world do not produce coffee and most of their export demand is met through import of coffee from other countries like Brazil and India. The possibility of accessing technology from these countries through FDI may also be explored through further research.

### **4.3 Coffee Trade Direction of India**

This section presents an analysis of the changing direction of trade in coffee. The analysis also covers the coffee trade direction of major coffee exporting and importing countries of the world. Former USSR, Germany, Czechoslovakia, and Italy were major market for Indian coffee. During 1991, these countries together imported around 66 per cent of India's coffee export which has come down to 52 per cent during 2009 (Table-40). During 1991, Russian Federation was importing 37.69 per cent of India's total coffee exports. By 2009, India has completely lost the market of Russian Federation. While during 1996, India met

29.33 per cent of Russian Federation coffee import demand, it had come down to 12.44 per cent during 2001 and further down to 6.4 per cent during 2006. During 2009, Russian Federation coffee import from India is negligible (Table-41). This has made it necessary for India to search for new market for coffee export. During 1991, India was exporting 9.23 per cent of its coffee to Italy, and by 2009, it had been increased to 33.69 per cent. India lost its Russian Federation market to Brazil and Vietnam. The loss of Russian Federation is substituted by Italy for Indian coffee in the international market. India also lost Czechoslovakia and USA coffee market. India lost Czechoslovakia market to Poland and Germany (Table-42).

The data on import of coffee by India indicates that bulk of its coffee import demands is met by Vietnam and Indonesia. During 2009, 86 per cent of India's import demand was met by Vietnam and Indonesia (Table-11). This is concern for Indian coffee, as Vietnam and Indonesia are source for low priced coffee in the world. At present India imposes 100 per cent tariff on imported coffee. Under India ASEAN FTA, India has kept coffee, not roasted, not decaffeinated (HS 90111) in special product category. Special product category comes under tariff reduction commitment. Tariffs on HS 90111 will be reduced in a phased manner. This is concern for India, as 99 per cent of India's coffee import consist of coffee, not roasted and not decaffeinated (90111) (Table-39)

It follows from above the discussion that increased income since 1991 has created a domestic demand pressure for coffee resulting in increased coffee imports there was also increased re-export of instant coffee. In this context it is relevant to assess the impact of duty free import of coffee for re- export on domestic price of coffee and export competitiveness, especially related to instant coffee. It seems that, India is mainly competing with Brazil and Vietnam in the international market. India's coffee import from Vietnam and Indonesia has increased and it is necessary to analyze this dependence, India heavily depends in the interests of domestic coffee sector. It is also worth considering the possibility of re-export by importing low priced coffee from Vietnam

and Indonesia. It appears that the strategy of import liberalization as envisaged in the ASEAN India FTA, without building adequate capacity for value addition and export not only has the threat of foregoing the opportunities for generating employment and additional export earning but has the effect of heightened import competition for the domestic growers. This proposition, however, needs more detailed enquiries to reach a definite conclusion.

## **5. Cardamom**

There are two varieties of cardamom – small and large. In the context of limitations of data, the analysis is confined to a few years in the recent past.

### **5.1 Cardamom (small)**

In case of cardamom small, India increased its export from 0.86 thousand tones during 2002 to 1.98 thousand tones during 2006. As indicated in Table -45, we find that area under cultivation under cardamom (small) has almost remained stagnant during 2002-06. Though, production has declined during this period, with decline in domestic consumption, share of export in production has increased. Import of cardamom (small) has also declined during this period. Looking at the domestic price of India Cardamom (small graded and ungraded) and India Import Unit Value (IUV) of Cardamom, it can be noted that domestic prices of Indian Cardamom (small graded and ungraded) are much higher than the Indian Import Unit Value (IUV) of Cardamom (Table-43 and 44).

### **5.2 Cardamom (large)**

In case of cardamom large, with stagnant area under cultivation and decline in yield, the production has declined from 53 thousands tonnes during 2002 to 43 thousands tonnes during 2006. This has made it necessary to increase in import at the rate of 8.20 per cent per annum

during 2002-06 (Table-1). A detailed study is required to assess the impact of trade on cardamom economy of India, especially, the impact of India-ASEAN FTA on cardamom economy of India.

### **5.3 Indian cardamom export competitiveness**

Among the major cardamom exporting countries of the world such as Guatemala, India and Indonesia, the cardamom export unit value of Indonesia is the lowest since 2001. This indicates, the Indonesia is source for low priced cardamom export in the world. From Table -46, it can be observed that the cardamom export unit value of India has been increasing continuously since 1996 from US \$ 2.93 during 1996 to US \$8.09 during 2009.

### **5.4 Cardamom Trade Direction of India**

Historically, former USSR was the traditional market for Indian cardamom. In recent years, India lost Russian federation market and Saudi Arabia has emerged as the major export market for Indian Cardamom. During 2009, India exported 47.75 per cent of cardamom export to Saudi Arabia. The other major countries importing cardamom from India are U.A.E and Pakistan (Table-47). Most of India's cardamom import demand is met by Nepal. During 2009, India's 92.58 per cent of cardamom import demand has been met by Nepal (Table-48). Nepal, not being a major producer, this has to be seen as export of other producing countries through Nepal, a major concern for the Indian growers for long time. Nepal, not being a major producer, this has to be seen as export of other producing countries through Nepal, a major concern for the Indian growers for long time.

## **6. Trade facilitation – macro level policy considerations**

Concerns related to trade facilitation of plantation commodities (tea and coffee) could be located at different levels; in the value chain framework and the macro-open economy policy framework. Indian tea has a huge domestic market whereas coffee is an export intensive

commodity. Tea and coffee have longer value chains and thereby invite higher transaction costs, and on the other hand, more values added. So, for exports to become competitive and earn higher unit value, transaction costs must be reduced. Electronic commerce and paperless trading have the potential to reduce transaction costs to a large extent. In the open economy context, the free trade agreements with ASEAN and the European Union (EU), invited lot of concerns on tariff reductions. In the context of ASEAN India FTA, trade facilitation concerns assume more importance from the point of view of both commodity trade and the likely gains from a liberalized trading regime. In the case of EU FTA, more focus should be on non-tariff measures. Though the skepticism on the FTA is apparently legitimate and is simplistic to attribute the price fall of farm commodities to the increase in imports as a result of tariff reduction under FTA, trade statistics and recent empirical studies do not support this proposition. On the other hand, the already existing duty free import regime is seen as an opportunity. Imports also assume equal importance and the arrival of duty free raw materials for further processing and value addition enables more employment generation, higher income for stakeholders, and forward movement in the value chain. In the context of re-exports, quality and quantity are more important parameters and an enabling policy regime is a prerequisite. As tariffs do not account for a substantial influence on the course of trade and price of many farm commodities, the attention has to turn towards the enabling policy regime specific to commodities and thereby the development of infrastructure which would encourage value addition and re-exports.

India's export markets for tea and coffee are limited. Due to export price advantage, Thailand, Vietnam and Indonesia may increase their tea exports to India. Relevant data also show that possibility to enhance India's tea export in ASEAN countries is very weak. In the case of coffee, India's contribution is around 4 percent of the world exports. However, it is not just the tariffs that matters, but there should be proper consideration of factors such as cost of production, productivity,

domestic consumption and market pressures, non-tariff barriers, etc. In the case of coffee exports, Vietnam contributed only one percent of world exports in 1990, but now that figure stands at around 15 percent, making it the second largest exporter. The government policy support on high input cultivation helped raise small holder productivity which is among the highest in the world. More lessons could be learned from international commodity experiences.

Another serious challenge in the case of commodity trade is information asymmetry. In the plantation sector, the challenge is to estimate the stock of commodities which would give right signal for the requirements of exports in the case of surplus or imports in case they fall short. However, often, the stock projections become controversial or far from the realistic scenario. A major reason could be information asymmetry wherein the traders and stockiest do not disclose the true stock due to a variety of reasons. As a result, stocks are miscalculated due to information problem and which in turn gives wrong indications on the status of production-consumption-trade in plantation based products.

It is only recently that trade policy has become gender sensitive. Sensitiveness of trade policy with regard to plantation crops is to be more meticulously examined. In this area, though trade can have positive impact on women, this was not the case with regard to plantation commodities, particularly tea and coffee. Liberalized trade regime had a particularly negative outcome in the tea and coffee sectors as far as women workforce is concerned. Thus, though sectors such as handicrafts, textiles and fishery experienced positive gender effects of trade liberalization, the experiences of tea and coffee sectors were negative in terms of gender impact.

At the level of the WTO, there are greater concerns on the Agreement on Sanitary and Phyto Sanitary (SPS) standards, Trade Facilitation and Rules of Origin. Though tea and coffee are relatively

free from food safety issues which come under SPS, there are some overlapping issues between SPS and provisions of trade facilitation. For instance, the real issue may not be linked to non-compliance with food safety regulation but linked to lack of access to timely information on food safety regulations. This is also an area where elaborate studies are required.

There could be questions on rules of origin, especially in the ASEAN India FTA context. Of course, there are many lower cost producers and exporters of tea and coffee in ASEAN. Apart from this, Chinese beverages can come via ASEAN through the deficient rules of origin. India Sri Lanka FTA adds further to the complex scenario. If such practices encourage (apart from the duty free regime, quality is again a determinant) value addition and re-exports, these possibilities should be looked into. However, more macro work is needed in this area and it also depends on reliable statistics on re-exports. There could be certain infirmities with regard to trade policy, as reflected in the doing business database indicators, which would affect plantation commodities as well. So, macro level trade policy reforms will have a stronger positive impact on plantation commodities as well.

When it comes to the issue of ease of trading across borders, India does not give a promising picture. As far as data on Doing Business say about South Asia, trade transaction costs are relatively on the higher side when compared to similar countries in other regions. Doing Business indicators reflect a country's regulatory regime and especially identifies those factors which enhance business activities and those which constrain them. Table -49 the major such indicators for South Asian countries.

As indicated in Table- 49 there are no perfect correlations between the overall Doing Business rank and the specific trade facilitating indicator values. It also indicates the heterogeneity of South Asian economies in terms of the costs they incur on various heads. Plantation sector generally faces a mixture of food safety and logistic challenges

and the costs are on the higher side. Policy reforms which would streamline trade procedures are to go along with South Asian integration. This is important for two reasons. First, its win-win potential in terms of overall gains from trade. Secondly, the producers are capable of moving forward in the value chains and move further in terms of integration into the export markets. So far international initiatives at facilitating trade, especially that of the United Nations Conference on Trade and Development (UNCTAD) have changed the way many countries processed customs declaration data. Now regional trade agreements take up and accentuate this task, and further developments are expected in India as well.

Thus, export propensity should therefore increase as trade costs fall. Second, less productive firms at the fringes of the export market will find that it becomes profitable to start exporting. Lower export costs can therefore facilitate entry of small and medium enterprises (SMEs) into export markets, thereby expanding the number of people and firms that are in direct contact with the world market. Third, lower trade costs tend to promote the reallocation of resources from low-productivity to high-productivity firms. The overall effect will be to increase the economy's level of productivity, which may have important implications for future growth prospects. However, the degree to which these factors affect Indian plantation sector in the wake of the FTAs requires much detailed inquiries.

## **7. Conclusions**

It follows from the discussion above that, due to growing domestic demand and emergence of new low cost producers like Vietnam on the one hand and emergence of European countries in exporting value added products in the international market, India is losing export competitiveness in the international market. Over the years, India's dependency on import and domestic market of pepper, tea and coffee has been increasing. These products are increasingly becoming domestic



oriented. India's trade integration with ASEAN created concern for these products. In case of pepper and coffee, there is high concern, as Vietnam pepper and coffee competes with domestically produced pepper and coffee and India's import dependency on Vietnam for these products is high and it is on rise. In the international market also India is competing with Vietnam. In case of tea India is competing with Kenya also. And, in case of coffee, India is competing with Brazil. Can India make value addition for such low priced imported products from Vietnam and re-export as European countries are doing? India has the opportunity in exporting value added pepper, tea and coffee in the international market, especially in European market. In the initial stage, support by the government is very important to push Indian exporters in global value added supply chain. The value addition in supply chain is important for the sustainability of the plantation sector of India. Since, small and marginal farmers contribute major part of production of plantation sector in India, and such farmers are not well equipped to make value addition to their produced products, and cater the market for value added products. Though, this sector is potential for private investment especially value addition in supply chain, the private sector investment is not taking place in a big way. In this respect, state initiation is important. So that Indian value added plantation products such as Pepper, Tea, Coffee and Cardamom can access the European and other developed countries market. The plantation products of India are constrained by logistic problems there by experiencing higher transaction cost affecting the export competitiveness. Government need to intervene in a large scale to address such issues. So that Indian plantation sector can become globally competitive.

## Acknowledgement

This study was undertaken for the National Research Programme on Plantation Development in Centre for Development Studies, Thiruvananthapuram. . The author is thankful to Centre for Development Studies for providing financial support and without that it would not been possible to complete this study. The author is grateful to Professor K.J.Joseph, Professor and Ministry of Commerce Chair, Centre for Development Studies, Thiruvananthapuram for his encouragement. The author takes the opportunity to thank Research Advisory Committee of the Research Programme on Plantation Development for their useful comments on earlier draft. The author is thankful to Dr Nalin Kumar for the discussion on issues relating trade facilitation. The author is also grateful to Karnataka University, Dharwad for encouragement to undertake this study.

***B.H.Nagoor** is presently working as Assistant Professor in the Department of Economics, Karnatak University, Dharwad. He has obtained M.A (Economics) and Ph.D from University of Pune,Pune. His areas of interest in international economics are agri business, commodity trade and issues relating to multilateral and bilateral trade.*

## References

- B. Bhattacharya (2004): “Agricultural Exports”, *New Delhi : Academic Foundation*.
- Coffee Board of India (2010): “Coffee data” various years. Viewed on July 12, 2010. Available at (<http://www.indiacoffee.org/indiacoffee.php?page=CoffeeData>)
- Dindsa, K.S (1981): “India’s Export Performance – Some Policy Implications”, New Delhi: Intellectual Publishing House.
- FAO (2010): FAO Stat, various years. Viewed on 8<sup>th</sup> July, 2010 Available at ([www.fao.org](http://www.fao.org) <http://www.fao.org/corp/statistics/en/>)
- Ministry of Commerce, GOI (2002): Viewed on 6<sup>th</sup> February, 2010 Available at [http://commerce.nic.in/Press\\_Release/pressrelease\\_detail.asp?id=953](http://commerce.nic.in/Press_Release/pressrelease_detail.asp?id=953).
- Joseph K.J (2009): “ASEAN-India Pact and Plantation: Realities and Mythes” *Economic and Political Weekly*, October 31, Vol XLIV No 44.
- Nagoor B.H.(2008): “WTO and India’s Agricultural Exports” Unpublished Ph.D thesis, Department of Economics, University of Pune, Pune.
- Nagoor, B.H. (2009): “Performance of India’s Tea Exports: A Comparative Study of Major Tea Exporting Countries of the World”, *IGIDR Proceedings/Project Reports Series PP-062-21* (<http://www.igidr.ac.in/pdf/publication/PP-062-21.pdf>)
- Nagoor B.H. and Nalin Kumar (2010): “ Assessing the Impact of the ASEAN India FTA on the Tea Industry” *Economic and Political Weekly*, October 30, 2010, Vol.XLV, No. 44.
- Nayyar, Deepak (1976): “India’s Export and Export Policies in the 1960s”, *London: Cambridge University Press*.

Spices Board of India (2010): “Statistics” various years, Viewed on July 14,2010. Available at (<http://www.indianspices.com/php/contentManagement.php?CatID=43&chrtype=P>).

Reserve Bank of India (2010): “Hand Book of Statistics on Indian Economy 2008-09” Viewed on 15 July, 2010, Available at ([http://dbie.rbi.org.in/InfoViewApp/listing/main.do?\\_appKind=InfoView&service=%2FInfoViewApp%2Fcommon%2FappService.do](http://dbie.rbi.org.in/InfoViewApp/listing/main.do?_appKind=InfoView&service=%2FInfoViewApp%2Fcommon%2FappService.do)).

Tea Board of India (2010): “Tea Statistics” various years, Viewed on July 12, 2010 Available at ([http://www.teaboard.gov.in/inner2.asp?param\\_link\\_id=410](http://www.teaboard.gov.in/inner2.asp?param_link_id=410)) Tea Board of India.

United Nations Statistics Division (2010): “Commodity Trade Statistics Database” various years. Viewed July 13, 2010. Available at (<http://comtrade.un.org/db/>)

**Table 1: Area, yield, production, export and import of Black Pepper, Tea, Coffee and Cardamom in India**

<b>Pepper</b>								
Year	Area	Yield	Production	Export	Import	Domestic consumption	Share of export in production	
Avg 1961-1970	112.25(61.83)	228.8	25.54 (25.57)	20.97 (20.77)	0.28 (0.30)	4.84	82.31	
Avg 1991-2000	192.74(51.02)	296.2	57.23 (22.23)	32.21 (13.87)	2.64 (1.21)	27.67	56.82	
Avg 2001-08*	232.86(43.75)	303.7	70.89 (17.23)	25.13 (8.24)	14.47 (5.32)	60.50	35.16	
2007	246.00(44.93)	280.4	69.00(16.29)	47.46(15.63)	13.30(4.79)	34.84	68.8	
CAGR 2001-2008	2.52	0.10	2.63	15.47	(9.90)	-1.67		
<b>Tea</b>								
Avg 1961-1970	345(23.4)	1090	376(33.70)	202(30.47)	-	174	54	
Avg 1991-2000	442(19.1)	1749	773(28.24)	175(13.94)	2.80	600.54	23	
Avg 2001-07	52(20.1)	1694	884(25.86)	180(12.25)	19.6	726.04	21	
2007	558(19.9)	1701	949(24.42)	193(11.05)	19.59	775.3	20	
<b>Coffee</b>								
Avg 1961-1970	120.6 (1.26)	505.54	61.24 (1.46)	0.11(0.37)	0	61.13	0.17	
Avg 1991-2000	271.64(2.66)	774.97	211.30(3 .37)	9.91(3.91)	1.68(0.64)	203.06	4.45	
2007	343.00(3.28)	839.60	288.00(3.67)	29.02(4.53)	26.54 (3.86)	285.52	10.1	
CAGR 2001-2007	.91	-2.34	-1.24	6.90	53.89	9.38		

Cardamom (Large)									
2002	30.01		177	53.00	1.05	4.37	56.32	1.97	
2006	30.04		143	43.03	1.00	5.95	47.98	2.32	
CAGR2001-2006	0.02		-5.73	-5.71	-28.08	8.20	-4.59		

Source: For Pepper, Tea and Coffee estimation based on F.A.O statistics

(<http://www.fao.org/crop/statistics/en/>) For cardamom estimation based on Spice Board of India

(<http://www.indianspices.com/>)

Note: i) Production, exports and imports are in 000 tonnes. Yield is in kg per hectare. Area is in 000 hectares

ii) Figure in brackets shows percentage share in the world

iii) Domestic consumption= Production –Export+ Import

iv) \* Imports and Exports data are available up to 2007 only.

v) CAGR- Compound annual growth rate vi) Avg- Annual average

**Table 1.a: Revealed Comparative Advantage (RCA) of pepper, tea and coffee in India.**

Year	Pepper	Tea	Coffee
2001	11	18.00	6.47
2005	6.69	10.43	3.31
2007	11.81	10.92	2.77

Source: Estimation based on FAO Statistics

**Table 2: Export unit value of pepper, tea and coffee of major exporting countries (US \$ per quintal)**

Pepper Country/ Year	Tea Country/ Year				Coffee Country/ Year					
	2001	2004	2007	2007	2001	2004	2007	2007		
Vietnam	160	135	327	207	207	216	243	722	873	1026
Indonesia	188	172	345	142	142	161	212	318	373	605
India	212	174	271	100	100	118	151	586	707	1015
Brazil	145	368	732	232	232	245	286	501	607	919
Singapore	205	199	417	216	216	163	187	668	786	1070
Malaysia	193	160	361	115	115	93	115	1079	991	1332
Netherlands	380	234	408	85	85	116	165	660	1059	1282
Germany	372	290	451	1596	1596	1813	1651	646	651	982
Sri Lanka	276	190	328	72	72	60	74	310	397	680
USA	311	270	417	63	63	87	73	255	218	297
World	194	173	342	418	418	609	719	377	341	439
				621	621	908	1213	458	490	684
				676	676	810	861			
				966	966	1347	1696			
				93	93	102	102			
				195	195	201	240			

Source: Estimation based on FAO statistics



**Table 3: Major pepper, tea and coffee exporting countries of the world (Annual average in US 000 dollars)**

Pepper	Tea			Coffee				
	Avg 1961-1970	Avg 2001-2007	Country	Avg 1961-1970	Avg 2001-2007	Country	Avg 1961-1970	Avg 2001-2007
Vietnam	0 (0)	151.81(24)	India	233.7 (33)	379.2 (11)	Germany	8.07 (11)	555.65(19)
Indonesia	11.55 (16)	86.71 (13)	China	41.0 (6)	461.2 (14)	Brazil	13.72 (18)	315.75(11)
India	16.70 (23)	52.69 (8)	Indonesia	16.9(2)	114 (3)	U.K	5.26 (7)	164.10 (6)
Brazil	5.05 (7)	71.67 (11)	Sri Lanka	220.2 (32)	655.6 (20)	Spain	0.77 (1)	146.38 (5)
Singapore	20.08 (28)	51.49 (8)	Kenya	25.7 (4)	545.9 (16)	France	3.47 (5)	132.25 (5)
Malaysia	12.50 (18)	39.83 (6)	Viet Nam	2.4 (.3)	93.4 (3)	Netherlands	8.44 (11)	112.46 (4)
Netherlands	0.01 (.02)	26.96 (4)	Turkey	1.0 (.1)	5.7 (.2)	Switzerland	2.50 (3)	93.98 (3)
Germany	0.11 (.15)	24.73 (4)	Argentina	6.4 (.9)	44.2 (1)	Colombia	0.09 (.1)	111.33 (4)
Sri Lanka	0.31 (.43)	13.41 (2)	Germany	0.5 (.1)	123.8 (4)	Poland	0.00 )	81.26 (3)
U.S.A	0.22 (.31)	13.12 (2)	UK	30.7 (4)	240.4 (7)	Singapore	0.20 (.3)	115.20 (4)
World	71.36	627.99	Belgium		52.2 (2)	India	0.44 (0.6)	91.91 (3)
			France	0.1	39.6 (1)	World	75.64	2860.87
			Malawi	11.1 (2)	42.9 (1)			
			World	696.4	3334.1			

Source: Estimation based on FAO Statistics

Note: i) Figures in brackets shows percentage share in the world export

ii) Figures in brackets are rounded off

**Table 4: Black pepper export and import\* of India (According to HS classification)(Percentage share in value)**

Year	Pepper of the genus piper, whole (90411)	Pepper of the genus piper, crushed or ground (90412)
1991	99.94 (100)	0.06
1996	99.54 (100)	0.46
2001	89.77 (99.91)	10.23 (0.09)
2006	77.01 (100)	22.99
2009	62.84 (97.66)	37.16 (2.34)

Source: Estimation based on UNCOMTRADE data

Note: \* Figures in the bracket show import share

**Table 5: Vietnam black pepper export (According to HS classification) (Percentage share in value and quantity)**

Year	Pepper of the genus piper, whole (90411)		Pepper of the genus piper, crushed or ground (90412)	
	Value	Qty	Value	Qty
2000	99.84	99.89	0.16	0.11
2003	99.22	99.46	0.47	0.24
2006	97.92	98.43	2.08	1.57
2008	90.99	92.97	9.01	7.02

Source: Estimation based on UNCOMTRADE data

**Table 6: Domestic price of Indian pepper and Vietnam export unit value (EUV) of pepper (Price in Rs per kg)**

Year	India domestic pepper price	Export unit value of Vietnam	Price difference*	World export unit value	Price difference**
2005	65.16	60.86	-6.60	74.97	15.06
2006	88.22	73.43	-26.57	97.01	9.96
2007	122.16	135.02	35.02	141.21	15.59

Source: i) India domestic pepper price is taken from Spice Board of India Statistics

ii) Export unit value of Vietnam pepper is estimated from FAO statistics database

Note - i)\* Price difference — (Ratio of Export Unit Value (EUV) of pepper of Vietnam to domestic price of Indian tea \*100)-100

ii)\*\* Price difference — (Ratio of Export Unit Value (EUV) of pepper of world to domestic price of Indian tea \*100)-100

**Table 7: Domestic price of Indian pepper and import unit value (IUV) of pepper (Price in Rs per kg)**

Year	India domestic pepper price	India IUV of pepper	Price difference
2005	65.16	61.30	-5.93
2006	88.22	85.23	-3.40
2007	122.16	137.92	12.90

- Note: i) India domestic pepper price is taken from Spice Board of India Statistics
- ii) India IUV— India Import Unit Value represents the unit price at which India imports from respective countries.
- iii) The dollar Import Unit Value converted into Indian rupees by multiplying respective year Indian exchange rate
- iv) Price difference — (Ratio of India Import Unit Value (IUV) of Pepper to Domestic price of Indian pepper \*100)-100

**Table 8: Export unit value (EUV) of major pepper exporting countries of the world during the year 2009 (US \$ per quintal)**

Country	Pepper of the genus piper, whole (90411)	Pepper of the genus piper, crushed or ground (90412)
Viet Nam	352.70	457.66
Indonesia	276.61	339.50
India	251.63	229.73
Brazil	255.65	472.37
Singapore	315.97	438.68
Malaysia	307.97	588.72
Netherlands	500.82	499.90
Germany	390.08	541.70
Srilanka	410.55	504.22
USA	302.51	341.31

Source: Estimation based on UNCOMTRADE data. According to HS classification

**Table 9: Indian domestic price of pepper VS India export unit value (EUV) of pepper Rs /k.g**

Year	India Domestic Black Pepper (MG-1) price	EUVPepper of the genus piper, whole (HS90411)	EUVPepper of the genus piper, or crushed or ground(HS90412)
2003	76.36	92.23(20.78)	65.21(-14.60)
2004	70.52	87.91(24.66)	64.35(-8.75)
2005	65.84	82.03(24.59)	56.45(-14.26)
2006	88.22	97.01(9.96)	74.35(-15.73)
2007	133.26	108.60(-18.51)	92.08(-30.90)
2008	129.30	131.14(1.42)	110.73(-14.36)
2009	131.21	121.86(-7.13)	111.22(-15.23)

Source: Estimation based on UNCOMTRADE data, HS classification

- Note: i) India domestic pepper price is taken from Spice Board of India Statistics
- ii) The dollar Value UNCOMTRADE, HS classification converted into Indian rupees by multiplying respective years Indian exchange rate.
- iii) Figures in the bracket shows the price difference
- iv) Price difference — (Ratio of EUV of pepper to Indian domestic price of Pepper \*100)-100

**Table 10: India black pepper export direction {Pepper of the genus piper, whole (90411) and Pepper of the genus piper, crushed or ground (90412)}**

Country	1991		2001		2006		2009	
	Percentage share	Country	Percentage share	Country	Percentage share	Country	Percentage share	Country
Fmr USSR	47.2	USA	48.3	USA	41.9	USA	44.4	USA
USA	20.7	Canada	7.8	Germany	7.1	Germany	5.2	Germany
Canada	5.1	Italy	5.2	UK	6.6	Sweden	2.3	Sweden
Italy	4.9	UK	5.2	Russian Federation	5.4	Canada	4.3	Canada
Poland	2.7	Netherlands	4.8	Italy	5.4	Australia	5.1	Australia
Germany	2.6	Japan	4.0	Australia	4.2	France	1.6	France
Romania	2.4	Germany	3.1	Canada	3.4	Italy	3.3	Italy
Czechoslovakia	2.3	Saudi Arabia	2.0	Belgium	2.3	Belgium	2.6	Belgium
Japan	2.1	UAE	1.8	Japan	2.3	UK	8.2	UK
Belgium	1.7	France	1.5	Netherlands	2.3	Japan	2.5	Japan
World	100	World	100	World	100	World	100	World

Source: Estimation based on UNCOMTRADE data, HS classification

**Table 11: India black pepper, tea and coffee import direction according HS classification**

Pepper			Tea						Coffee								
2001			2009			2001			2009			2001			2009		
Country	% share		Country	% share		Country	% share		Country	% share		Country	% share		Country	% share	
Vietnam	36.6		Indonesia	34.9		Indonesia	52.20		Nepal	29.17		Indonesia	48.82		Vietnam	61.54	
Sri Lanka	29.0		Sri Lanka	33.3		Kenya	22.79		Kenya	17.56		Germany	22.94		Indonesia	24.72	
Indonesia	26.1		Vietnam	29.9		Vietnam	9.87		Vietnam	17.45		Vietnam	15.66		Uganda	11.06	
Singapore	5.4		USA	0.5		Sri Lanka	5.37		Indonesia	9.79		Thailand	7.14		Côte d'Ivoire	0.90	
Areas, nes	0.7		China	0.2		Nepal	5.01		Iran	7.63		Italy	3.99		Italy	0.74	
Germany	0.5					Iran	0.78		Sri Lanka	6.35		Singapore	0.59		Colombia	0.47	
Malaysia	0.4					South Africa	0.72		China	2.80		Hong Kong	0.56		Brazil	0.30	
South Africa	0.4					Areas, nes	0.69		Argentina	2.59		Netherlands	0.22		USA	0.06	
Madagascar	0.4																
World	100		World	100		World	100		World	100		World			World	100	

Source: Estimation based on UN COM TRADE data

**Table 12 : USA pepper import trade direction**

1996		2001		2006		2009	
Country	Percentage share	Country	Percentage share	Country	Percentage share	Country	Percentage Share
World	100	World	100	World	100	World	100
India	31.38	Indonesia	26.27	India	14.53	Indonesia	18.28
Indonesia	28.33	India	18.16	Peru	13.42	India	15.96
Mexico	7.36	Brazil	12.90	Vietnam	12.06	Vietnam	13.53
Brazil	6.38	Mexico	9.61	Indonesia	11.55	China	11.23
Chile	5.75	China	8.58	Brazil	10.88	Peru	10.90
Spain	5.41	Vietnam	4.57	China	10.63	Mexico	8.47
China	2.76	Chile	4.39	Mexico	9.16	Brazil	7.94
Malaysia	1.84	Spain	3.47	Chile	3.81	Spain	6.49
Morocco	1.34	Malaysia	3.43	Spain	3.32	Chile	1.23
Germany	1.33	Rep. of Korea	1.24	Germany	2.07	Germany	0.91

Source: Estimation based on UNCOMTRADE data.



**Table 13: Major pepper, tea and coffee importing countries (Annual average in US 000 dollars)**

Pepper			Tea			Coffee		
Country	Avg 1961-1970	Avg 2001-2007	Country/ Year	Avg 1961-70	Avg 2001-07	Country	Avg 1961-1970	Avg 2001-2007
U.S.A	15.41 (22)	134.19 (21)	UK	285.9 (38)	292.7 (9)	Russian federation		292.05(10)
Germany	5.06 (7)	59.18 (10)	USA	57.2 (8)	214.0 (7)	Germany	3.43 (5)	225.12(8)
Netherlands	0.64 (1)	30.94 (5)	Pakistan	41.6 (6)	194.5 (6)	U.S.A	16.50(23)	208.21(7)
Singapore	14.28 (20)	29.89 (5)	Russian Fed	NA	295.8(9)	U.K	6.02 (8)	159.87(6)
India	0.13 (2)	26.35 (4)	Japan	6.9 (9)	183.3 (6)	Ukraine		93.97(3)
Japan	1.23 (2)	26.81 (4)	Egypt	25.7 (3)	50.5 (2)	France	3.49(5)	155.30(5)
U.K	2.94 (4)	19.90 (3)	UAE	1.3 (2)	135.1 (4)	Poland	0.00	115.09(4)
France	3.20 (4)	24.21 (4)	Saudi Arabia	5.1 (7)	126.2 (4)	Japan	11.82(16)	113.71(4)
Canada	1.42 (2)	15.73 (3)	Iran	10.7 (1.4)	33.1 (1)	Czech republic		80.73(3)
Belgium- Luxembourg	0.53 (7)	13.79 (2)	Germany	13.6 (2)	121.3 (4)	Australia	1.10 (2)	73.86(3)
World	71.60	598.61	Poland	7.6 (1)	57.7 (2)	World	72.50	2838.98
			France	4.4 (6)	102.2 (3)			
			Canada	21.9 (3)	101.2 (3)			
			Syrialic	3.8 (5)	56.1 (2)			
			Morocco	13.7 (2)	75.0 (2.3)			
			Netherlands	15.5 (2)	67.4 (2.1)			
			World	745.6	3214.2			

Source: Estimation based on F.A.O statistics

Note: i) Figures in brackets shows percentage share in the world import ii) Figures in the brackets are rounded off

**Table 14: Production of pepper, tea and coffee in major producing countries of the world (Annual average in 000 tonnes)**

Pepper			Tea			Coffee		
Country	Avg 1961-1970	Avg 2001-2008	Country	Avg 1961-1970	Avg 2001-2008	Country	Avg 1961-1970	Avg 2001-2008
Vietnam	0.46 (.5)	77.69 (19)	India	376.17 (34)	874.05 (25)	Brazil	1.52 (36)	2.33 (30)
Brazil	9.26 (9)	68.24 (17)	China	124.66 (11)	946.61 (26)	Vietnam	0.01 (.2)	0.86 (11)
Indonesia	31.81 (32)	85.38 (21)	Indonesia	74.63 (7)	161.49 (5)	Colombia	0.48 (11)	0.69 (9)
India	25.54 (26)	70.89 (17)	Sri Lanka	218.5 (20)	308.51 (9)	Indonesia	0.14 (3)	0.66 (9)
China	1.36 (1)	22.94 (6)	Kenya	24.23 (2)	319.30 (9)	Ethiopia	0.15 (4)	0.23 (3)
Sri Lanka	2.76 (3)	18.80 (5)	Vietnam	10.58 (1)	127.0 (4)	India	0.06 (1)	0.28 (4)
Malaysia	21.41 (21)	22.04 (5)	Turkey	18.70 (2)	294.90 (8)	Mexico	0.17 (4)	0.29 (4)
Thailand	1.67 (2)	10.88 (3)	Japan	83.63 (8)	92.70 (3)	Guatemala	0.11 (3)	0.24 (3)
Mexico	0.35 (4)	5.55 (1)	Argentina	15.22 (1)	71.73 (2)	Peru	0.05 (1)	0.22 (3)
Madagascar	2.24 (2)	3.76 (1)	Iran	14.49 (1)	57.17 (2)	Honduras	0.03 (.7)	0.20 (3)
World	99.88	411.48	World	1119.7	3593.7	World	4.25	7.68

Source: Estimation based on FAO statistics. Note: Fig in bracket shows % share in world production

**Table 15: Yield (kg/Ha) of pepper, tea and coffee in major producing countries of the world**

Pepper					Tea					Coffee				
Country/ Year	2001	2004	2007	2008	Country/ Year	2001	2004	2007	2008	Country/ Year	2001	2004	2007	2008
Vietnam	1598	1445	1845	1966	India	1681	1688	1701	1699	Brazil	779	1041	993	1259
Brazil	2418	2470	2367	2363	China	797	865	1006	1035	Vietnam	1868	1683	1798	1989
Indonesia	684	699	656	678	Indonesia	1413	1473	1359	1411	Colombia	931	874	949	940
India	299	314	280	280	Srilanka	1562	1448	1435	1497	Indonesia	433	463	698	699
China	1424	1467	1577	1637	Kenya	2370	2375	2477	2193	Ethiopia	912	600	795	672
Srilanka	600	592	635	671	Vietnam	946	989	1300	1353	India	938	826	840	766
Malaysia	2123	1481	1543	1817	Turkey	1864	2632	2713	14510	Mexico	405	411	348	352
Thailand	2507	4150	3738	2841	Japan	1697	2051	1952	1952	Guatemala	1010	899	1029	1040
Mexico	1442	1684	1832	1832	Argentina	1901	1920	1900	1900	Peru	716	784	697	697
Madagascar	399	1120	578	578	Iran	1626	1279	1765	1765	Honduras	949	783	948	948
World	741	765	774	783	Malawi	1957	2679	2421	2421	World	690	720	751	847
					World	1272	1311	1371	1688					

Source: Estimation based on F.A.O. Statistics

**Table 16: Area harvested of pepper, tea and coffee in major producing countries of the world (Annual average in 000 Hectares)**

Pepper			Tea			Coffee		
Country	Avg 1961-1970	Avg 2001-2008	Country	Avg 1961-1970	Avg 2001-2008	Country	Avg 1961-1970	Avg 2001-2008
Vietnam	0.34 (2)	45.18 (9)	India	345 (23)	516 (20)	Brazil	3378.59 (35)	2323.59 (22)
Brazil	4.35 (2)	27.88 (5)	China	402 (27)	1040 (39)	Vietnam	21.72 (.2)	491.49 (5)
Indonesia	31.30 (17)	124.56 (23)	Indonesia	97 (7)	117 (4)	Colombia	816.9 (9)	753.83 (7)
India	112.25 (62)	232.86 (44)	Srilanka	240 (16)	209 (8)	Indonesia	244.6 (3)	1225.86 (12)
China	5.45 (3)	15.05 (3)	Kenya	27 (2)	140 (5)	Ethiopia	586.2 (6)	297.97 (3)
Srilanka	5.52 (3)	30.57 (6)	Vietnam	24 (2)	111 (4)	India	120.6 (1)	291.28 (3)
Malaysia	6.64 (4)	13.30 (2)	Turkey	21 (1)	76 (3)	Mexico	340.58 (4)	753.62 (7)
Thailand	1.10 (.6)	2.90 (.6)	Japan	49 (3)	48 (2)	Guatemala	234.36 (2)	248.5 (2)
Mexico	0.23 (.1)	3.62 (.7)	Argentina	21 (1)	38 (1)	Peru	103.82 (1)	302.47 (3)
Madagascar	10.40 (6)	6.88 (1.3)	Iran	24 (2)	33 (1)	Honduras	89.20 (1)	226.79 (2)
World	181.54	532.31	Malawi	13 (1)	19 (1)	World	9591.83	10389.15
			World	1478	2642			

Source: Estimation based on F.A.O statistics

Note: i) Figure in brackets shows percentage share in the world area harvested.

ii) Figures in the brackets are rounded off

**Table 17: Import unit value of pepper (US \$ per quintal)**

Year	USA	Germany	Netherlands	Singapore	India	Japan	UK	France	Canada	World
2001	260	241	206	336	199	299	291	263	283	244
2002	166	191	178	283	164	244	247	211	220	185
2003	188	227	218	172	147	282	278	252	249	195
2004	173	193	207	152	142	267	278	241	222	185
2005	164	206	187	177	139	266	286	226	228	182
2006	192	233	213	226	188	307	301	243	270	211
2007	326	358	341	364	334	478	476	388	374	340

Source: Estimation based on FAO Statistics

**Table 18: Domestic price of Indian tea and Indian import unit value (IUV) of Tea from Vietnam (Price in Rs per quintal)**

Year	All India domestic tea price	India IUV of tea from Vietnam	Price difference
2004	6454	3490	-46
2006	6601	3507	-47
2008	8699	5908	-32

Source: i) All India domestic tea price is taken from Tea Board of India Statistics

ii) India Import Unit Value (IUV) of Tea from Vietnam is estimated from UN COMTRADE Database

Note: a) India IUV— India Import Unit Value represents the unit price at which India imports from respective countries.

b) The dollar Import Unit Value converted into Indian rupees by multiplying respective year Indian exchange rate

c) Price difference — (Ratio of India Import Unit Value (IUV) of Tea from Vietnam to domestic price of Indian tea \*100)-100

**Table 19: India's tea import according to HS classification (figures show percentage share in value)**

Year	Tea (902)	Tea, green (90210+90220)	Tea, black (90230+90240)
1992	100.00	11.73	88.27
1995	100.00	6.75	93.25
1998	100.00	1.71	98.29
2001	100.00	1.98	98.02
2004	100.00	2.55	97.45
2007	100.00	5.19	94.81
2008	100.00	10.59	89.41
2009	100.00	3.89	96.11

Source: Estimation based on UN COM TRADE data

**Table 20: Domestic and international prices of tea (Rs per kg)**

Year	India Domestic prices	International prices (Tea Kenya Mombassa prices)
1995	47.99	57.15
2000	61.71	111.50
2004	64.54	89.88
2005	58.05	95.44
2006	66.01	109.56
2007	67.27	87.51
2008	86.99	117.03
2009	105.6	151.80

Source: India domestic price – Tea board of India

International prices (Tea Kenya Mombassa prices)— UNCTAD TRADE data

Note: The international price in dollar value converted into Indian rupees by multiplying respective year Indian exchange rate

**Table 21: Trend in tea prices in major producing and exporting market of the world (US dollar per K.G)**

Year	Indian tea at Indian Auction	Srilanka tea at Colombo Auction	African tea at Mombassa Auction
2000	1.37	1.75	2.02
2003	1.2	1.54	1.54
2004	1.42	1.78	1.55
2005	1.32	1.84	1.47
2006	1.46	1.9	1.93
2007	1.62	2.51	1.66
2008(p)	1.99	2.83	2.18

Source: India domestic price – Tea board of India  
(p)- Provisional

**Table 22: India's Tea export unit value (US \$ Per k.g) according to HS classification**

Year	Tea (902)	Tea, green (90210+90220)	Tea, black (90230+90240)
1991	2.26	1.000	2.26
1994	2.03	1.000	2.02
1997	2.59	1.000	2.61
2000	2.05	0.999	2.05
2003	1.90	0.999	1.89
2006	2.31	1.000	2.31
2009	2.80	1.000	2.79

Source: Estimation based on UN COM TRADE data

**Table 23: Export unit value of major tea exporting countries of the world during 2009(US dollar per K.G)**

Country	Green tea	Black tea
India	1.0	2.26
China	2.36	2.23
Indonesia	2.69	1.75
Sri Lanka	7.50	3.91
Kenya	3.24	2.39
Vietnam	1.47	1.37
Argentina	8.29	1.03
Germany	9.35	6.76
United Kingdom	20.26	9.21
Belgium	6.83	10.69
France	13.85	13.55

Source: Estimation based on UN COM TRADE data

Note: For Vietnam, Kenya, Sri Lanka it is year 2008



**Table 24: India's tea export direction according to HS classification (902) (In value)**

1991			1996			2001			2006			2009		
Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	
World	100	World	100	World	100	World	100	World	100	World	100	World	100	
Fmr USSR	48.07	Russian Federation	26.33	Russian Federation	25.61	Russian Federation	14.88	Russian Federation	14.88	Russian Federation	16.79	Russian Federation	16.79	
United Kingdom	11.33	United Kingdom	14.37	United Arab Emirates	12.96	United Kingdom	12.95	United Arab Emirates	12.95	United Arab Emirates	11.67	United Arab Emirates	11.67	
Iran	8.84	United Arab Emirates	11.87	United Kingdom	9.41	United Arab Emirates	9.73	United Kingdom	9.73	United Kingdom	11.10	United Kingdom	11.10	
Germany	4.86	Germany	6.28	Poland	7.32	USA	5.68	USA	5.68	USA	6.94	USA	6.94	
United Arab Emirates	3.90	Poland	5.41	Kazakhstan	6.89	Germany	5.27	Germany	5.27	Iran	6.50	Iran	6.50	
Poland	3.84	Saudi Arabia	4.12	Iraq	5.80	Iran	5.20	Iran	5.20	Iraq	4.86	Iraq	4.86	
Egypt	3.04	USA	3.36	Germany	5.50	Pakistan	4.53	Pakistan	4.53	Australia	4.57	Australia	4.57	
Saudi Arabia	2.33	Egypt	2.93	Iran	4.26	Australia	4.31	Australia	4.31	Kazakhstan	4.49	Kazakhstan	4.49	
Netherlands	2.05	Japan	2.67	USA	4.23	Iraq	3.85	Iraq	3.85	Germany	3.99	Germany	3.99	
Liberia	1.94	Iran	2.54	Japan	4.01	Cambodia	3.84	Cambodia	3.84	Saudi Arabia	3.53	Saudi Arabia	3.53	

Source: Estimation based on UN COM TRADE data

**Table 25: Russian Federation tea import direction, (Percentage share in total import)**

Countries	1997	Countries	2001	Countries	2006	Countries	2009
India	58.80	India	46.85	Sri Lanka	50.88	Sri Lanka	42.98
Sri Lanka	24.90	Sri Lanka	36.20	India	17.75	India	22.63
China	3.72	China	4.73	Kenya	7.28	Kenya	8.11
Indonesia	3.21	Indonesia	4.08	Indonesia	5.94	China	7.28
Georgia	2.67	Vietnam	2.17	China	5.80	Indonesia	7.24
Finland	1.29	Georgia	1.48	United Arab Emirates	3.36	Vietnam	5.52
Germany	1.10	Kenya	1.14	Vietnam	2.89	Germany	1.63
United Kingdom	1.04	Germany	0.63	Poland	1.40	United Arab Emirates	1.23
Bangladesh	0.74	United Kingdom	0.52	Germany	1.20	Azerbaijan	0.92
Argentina	0.62	Malawi	0.42	United Kingdom	0.92	Papua New Guinea	0.59
World	100	World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data

**Table 26: Egypt tea import direction, (Percentage share in total import)**

Countries	1994	Countries	1996	Countries	2001	Countries	2006	Countries	2008
Kenya	55.39	Kenya	71.38	Kenya	93.83	Sri Lanka	22.57	Kenya	85.36
Sri Lanka	21.32	Sri Lanka	12.57	Sri Lanka	3.29	Mauritania	18.07	India	9.55
Free Zones	6.98	India	6.34	Mozambique	1.69	Liberia	11.78	Sri Lanka	1.60
India	4.45	United Kingdom	5.17	Indonesia	0.40	Other Asia, nes	9.89	Indonesia	1.11
Indonesia	4.35	Free Zones	1.94	Thailand	0.26	United Arab Emirates	9.20	China	0.75
United Kingdom	2.27	Indonesia	1.66	India	0.18	India	7.77	Uganda	0.47
China	1.22	Viet Nam	0.48	China	0.16	Indonesia	6.08	Malawi	0.26
Uganda	0.96	Italy	0.17	United Kingdom	0.14	Kenya	5.45	United Kingdom	0.18
Vietnam	0.75	Mozambique	0.12	Malawi	0.04	Rep. of Korea	2.48	Zimbabwe	0.10
Areas, nes	0.65	Pakistan	0.08	Morocco	0.01	Zambia	2.03	United Arab Emirates	0.09
World	100	World	100.00	World	100.00	World	100.00	World	100.00

Source: Estimation based on UN COM TRADE data

**Table 27: UK tea import direction, (Percentage share in total import)**

Countries	1996	Countries	2001	Countries	2006	Countries	2009
Kenya	47.70	Kenya	43.69	Kenya	44.76	Kenya	54.34
India	17.42	India	17.07	India	18.22	India	14.10
Sri Lanka	5.72	South Africa	8.10	Indonesia	6.83	Indonesia	5.83
Indonesia	5.55	Indonesia	5.87	China	5.74	China	5.66
So. African Customs Union	4.32	Malawi	4.80	Malawi	3.19	Sri Lanka	2.64
China	4.07	Sri Lanka	4.62	Sri Lanka	3.16	United Rep. of Tanzania	2.45
Netherlands	2.03	China	3.24	United Rep. of Tanzania	3.09	South Africa	2.29
Malawi	1.58	Zimbabwe	2.37	Germany	2.54	Malawi	1.66
Burundi	1.16	USA	1.81	South Africa	2.03	Germany	1.60
United Rep. of Tanzania	1.14	Germany	1.64	Zimbabwe	1.35	Rwanda	1.45
World	100	World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data

**Table 28: USA tea import direction, (Percentage Share in total import)**

Countries	1996	Countries	2001	Countries	2006	Countries	2009
China	20.48	Argentina	21.43	China	18.93	China	16.81
Argentina	15.96	China	13.15	Argentina	13.86	Argentina	16.00
Germany	15.72	Germany	9.05	Germany	12.94	India	12.59
Indonesia	10.14	India	8.78	India	11.42	Germany	9.74
Sri Lanka	8.06	Malawi	7.92	United Kingdom	8.23	Canada	9.15
India	6.21	Kenya	7.54	Sri Lanka	7.86	Japan	6.75
Kenya	4.74	Sri Lanka	7.15	Japan	4.99	United Kingdom	5.99
Malawi	3.33	United Kingdom	5.26	Canada	3.74	Sri Lanka	5.52
United Kingdom	2.85	Indonesia	4.73	Indonesia	3.44	Indonesia	3.67
Brazil	1.91	Canada	2.29	Kenya	1.87	Vietnam	1.82
World	100	World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data

**Table 29: Pakistan tea import direction, (Percentage share in total import)**

Countries	2003	Countries	2006	Countries	2009
Kenya	70.67	Kenya	62.21	Kenya	63.05
Bangladesh	6.20	India	8.23	Rwanda	6.83
Indonesia	4.53	Indonesia	6.70	Malawi	3.96
India	3.49	Sri Lanka	3.66	India	3.69
Sri Lanka	3.21	Rwanda	3.59	Indonesia	3.39
United Kingdom	2.64	Vietnam	2.62	Uganda	3.32
Vietnam	2.36	Bangladesh	2.45	Burundi	3.07
United Rep. of Tanzania	2.00	Burundi	2.32	Vietnam	2.89
Malawi	0.66	United Rep. of Tanzania	1.83	China	2.35
Rwanda	0.60	Uganda	1.55	Sri Lanka	2.16
World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data.

**Table 30: Tea export composition (Tea Green and Tea Black) of major tea exporting countries of the world (HS Classification) (Percentage share of Green and Black tea export in total tea export)**

Year	India		China		Indonesia		Sri Lanka		Kenya		Vietnam		Germany		U.K	
	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black	Tea green	Tea black
1991	1.70	98.30	60.22	39.78	2.33	97.67	0.06	99.94	0.00	100	No	No	1.02	98.98	No	No
1996	1.48	98.52	43.22	56.78	4.42	95.58	0.42	99.58	0.08	99.92	No	No	2.30	97.70	0.39	99.6
2001	0.46	99.54	69.97	30.03	6.73	93.27	0.71	99.29	0.02	99.98	10.30	89.70	14.78	85.22	8.54	91.4
2006	4.04	95.96	76.73	23.27	18.26	81.74	2.22	97.78	0.60	99.40	39.23	60.77	23.56	76.44	15.72	4.3
2009	2.99	97.01	78.61	21.39	17.32	82.68	2.40	97.60	0.13	99.87	38.19	61.81	28.82	71.18	16.59	83.4

Source: Estimation based on UN COM TRADE data.

Note: China 1992, Sri Lanka 1994, Kenya 1992 1998 2001 2006 2008, Vietnam 1998, 2008

**Table 31: Export unit value of coffee extracts (per quintal)**

Year	India export unit value in US Dollars	World export unit value in US Dollars	India export unit value in Rupees	World export unit value in Rupees	India Import unit value in US Dollars	World import unit value in US Dollars	India import unit value in Rupees	World import unit value in Rupees
2001	377	458	17789.01	21611.05	342.63	430.54	16167.23	20315.25
2002	333	438	16183.57	21286.49	452.94	415.32	22012.62	20184.29
2003	389	479	18120.32	22312.68	632.48	448.44	29461.99	20889.09
2004	341	490	15452.93	22205.09	378.34	460.26	17145.09	20857.17
2005	443	532	19536.3	23461.2	575.63	481.96	25385.29	21254.49
2006	412	596	18676.99	27018.17	563.00	541.23	25522	24535.32
2007	439	684	18127.45	28244.14	540.50	646.20	22318.72	26683.31

Source: Estimation based on FAO Statistics (<http://www.fao.org/crop/statistics/en/>)



**Table 32: Coffee area, production and productivity in India**

Year	Area (in 000 hectares)			Production (in 000 MT)			Productivity (kg/ha)		
	Arabica	Robusta	Total	Arabica	Robusta	Total	Arabica	Robusta	Total
1950 -51	67.6(73.08)	24.9(26.92)	92.5(100)	15.5(82.10)	3.4(17.90)	18.9(100)	229	136	204
1960-61	70.6(58.72)	49.7(41.28)	120.3(100)	39.5(57.98)	28.6(42.02)	68.2(100)	559	577	567
1970-71	80.4(59.38)	55.0(40.62)	135.5(100)	58.3(52.93)	51.9(47.07)	110.2(100)	725	943	814
1980-81	98.0(51.56)	92.1(48.44)	190.1(100)	61.3(51.63)	57.4(48.37)	118.6(100)	625	623	624
1990-91	108.5(48.55)	115.0(51.45)	223.5(100)	78.3(46.14)	91.4(53.86)	169.7(100)	722	795	759
2000-01	146.5(46.67)	167.4(53.33)	313.9(100)	104.4(34.66)	196.8(65.34)	301.2(100)	713	1175	959
2005-06	151.5(44.40)	189.8( 55.60)	341.4(100)	94.0(34.31)	180.0(65.69)	274.0(100)	620	948	803
2009-10	156.4(44.63)	194.1(55.37)	350.5(100)	94.6(32.67)	195.0(67.33)	289.6(100)	605	1005	826

Source: Estimation based on Coffee Board of India

Note: Figure in brackets shows percentage share in total

**Table 33: Coffee exports of India (in Rs in 000 Lakh)**

Year	Plant	Ar.Chy	Rob.Pmt	Rob.Chy	Instant	Roasted	Ground	Total
2006	50.24(26.02)	10.37(5.37)	18.48(9.57)	66.99(34.69)	46.66(24.17)	0.22(0.11)	0.13(0.07)	193.10(100)
2007	34.32(17.99)	11.14(5.84)	17.43(9.13)	65.30(34.22)	62.08(32.54)	0.14(0.07)	0.38(0.20)	190.78(100)
2008	49.47(20.94)	11.89(5.03)	21.29(9.01)	86.52(36.63)	66.61(28.20)	0.21(0.09)	0.22(0.09)	236.20(100)
2009	28.79(14.97)	12.00(6.24)	16.99(8.83)	66.32(34.48)	67.71(35.20)	0.28(0.14)	0.26(0.14)	192.34(100)

Source: Estimation based on Coffee Board of India

Note: Figure in brackets shows percentage share in total

**Table -34 International coffee prices in US dollar per k.g**

Year	Arabica	Robusta	Composite indicator price	Arabica RS per kg	Robusta Rs per kg	Composite indicator price rs Per kg
1992	1.40	0.96	1.17	36.27	24.88	30.42
1993	1.54	1.18	1.36	48.47	37.01	42.63
1994	3.25	2.63	2.96	102.06	82.46	92.80
1995	3.29	2.79	3.05	106.53	90.44	98.73
1996	2.63	1.81	2.25	93.02	64.15	79.55
1997	4.07	1.77	2.95	147.81	64.39	107.00
1998	2.91	1.85	2.40	120.04	76.16	98.91
1999	2.23	1.49	1.89	96.18	64.07	81.20
2000	1.87	0.93	1.41	84.13	41.64	63.52
2001	1.36	0.60	1.00	64.30	28.34	47.34
2002	1.33	0.68	1.05	64.61	32.96	51.04
2003	1.41	0.84	1.14	65.67	39.34	53.20
2004	1.76	0.82	1.37	79.86	37.15	61.96
2005	2.51	1.17	1.97	110.89	51.78	86.71
2006	2.51	1.55	2.11	113.64	70.09	95.49
2007	2.70	1.90	2.37	111.65	78.59	97.82
2008	3.04	2.34	2.73	132.14	101.56	118.70
2009	3.12	1.70	2.54			
CV	35.41	45.14	37.09			

Source : Coffee Board of India

Note: i) (Annual averages, US cents per lb) converted into dollar per kg

ii) The international price in dollar value converted into Indian rupees by multiplying respective year Indian exchange rate

**Table 35: Coffee prices in India (Auction Prices Secured in ICTA (Bangalore) Auctions for Major Grades of Clean Coffee (Rs /50kg)**

Year	Plnt. 'A'	Arb.chy. 'AB'	Rob.Pmt. 'AB'	Rob.Chy. 'AB'
2006	5492	4349	3454	3151
2007	5635	4756	4414	3789
2008	6563	5677	6042	4843
2009	8766	5343	6603	4058

Source: Coffee Board of India

**Table 36: Re-exports of coffee from India (in Rs 000 Lakh)**

Year	Plant	Ar.Chy	Rob.Pmt	Rob.Chy	Instant	Roasted	Ground	Total
2006	0	0	0	0	25.21	0.00	0.00	25.21
2007	0	0	0	0	14.87	0.00	0.00	14.87
2008	0	0	0	0	23.15	0.00	0.00	23.15
2009	0	0	0	0	38.00	0.03	0.02	38.05

Source: Coffee Board of India

**Table 37: Coffee exports of India ( in Rs in 000 Lakh)**

Year	Plant	Ar.Chy	Rob.Pmt	Rob.Chy	Instant	Roasted	Ground	Total
2006	50.24 (26.02)	10.37 (5.37)	18.48 (9.57)	66.99 (34.69)	46.66 (24.17)	0.22 (0.11)	0.13 (0.07)	193.10 (100)
2007	34.32 (17.99)	11.14 (5.84)	17.43 (9.13)	65.30 (34.22)	62.08 (32.54)	0.14 (0.07)	0.38 (0.20)	190.78 (100)
2008	49.47 (20.94)	11.89 (5.03)	21.29 (9.01)	86.52 (36.63)	66.61 (28.20)	0.21 (0.09)	0.22 (0.09)	236.20 (100)
2009	28.79 (14.97)	12.00 (6.24)	16.99 (8.83)	66.32 (34.48)	67.71 (35.20)	0.28 (0.14)	0.26 (0.14)	192.34 (100)

Source: Coffee Board of India

Note: Figures in bracket show percentage share in total

**Table 38: India's coffee export according to HS classification (figure shows percentage share in value)**

Year	Coffee, coffee husks and skins and coffee substitutes(901)	Coffee, not roasted, not decaffeinated (90111)	Coffee, not roasted, decaffeinated (90112)	Coffee, roasted, not decaffeinated (90121)	Coffee, roasted, decaffeinated (90122)	Coffee husks and skins(90130)	Coffee substitutes containing coffee (90140)
1991	100	89.00		4.03	3.44	0.17	3.36
1996	100	95.21	0.92	0.39	1.61		1.87
2001	100	98.01	0.97	0.29	0.15		0.58
2006	100	99.63	No	0.29	0.01		0.06
2009	100	99.14	0.01	0.51	0.07		0.27

Source: Estimation based on UN COM TRADE data

Note: Coffee husks and skins (90130) Data available up to 1991 only.

**Table 39: India's coffee import according to HS Classification (figure shows percentage share in value**

Year	Coffee, coffee husks and skins and coffee substitutes(901)	Coffee, not roasted, not decaffeinated (90111)	Coffee, not roasted, decaffeinated (90112)	Coffee, roasted, not decaffeinated (90121)	Coffee, roasted, decaffeinated (90122)	Coffee husks and skins(90130)	Coffee substitutes containing coffee (90140)
1991	100	100.0					
1996	100	80.8	14.57	0.16			4.47
2001	100	47.2		3.67	0.74		48.36
2006	100	99.2		0.56	0.05		0.14
2009	100	99.1		0.69	0.00		0.22

Source: Estimation based on UN COM TRADE data

Note: Coffee husks and skins (90130) Data not available

**Table 40: India's coffee export direction according to HS classification (901)**

Country	1991			1996			2001			2006			2009		
	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share	Country	%Share
World	100	World	100	World	100	World	100	World	100	World	100	World	100	World	100
FmrUSSR	37.69	Italy	16.11	Italy	19.89	Italy	19.89	Italy	31.03	Italy	31.03	Italy	33.69	Italy	33.69
Germany	9.54	Germany	15.72	Germany	17.29	Germany	17.29	Germany	15.55	Germany	15.55	Germany	8.24	Germany	8.24
Czechoslovakia	9.53	Russian Federation	4.18	Belgium	7.10	Belgium	7.10	Belgium	8.03	Belgium	8.03	Belgium	6.78	Belgium	6.78
Italy	9.23	USA	9.49	USA	7.01	Spain	7.01	Spain	5.18	Spain	5.18	Spain	4.61	Spain	4.61
USA	7.31	Japan	6.14	Spain	5.77	Japan	5.77	Japan	3.43	Jordan	3.43	Jordan	4.31	Jordan	4.31
FmrYugoslavia	4.65	Belarus	4.43	Switzerland	4.63	Slovenia	4.63	Slovenia	3.12	Kuwait	3.12	Kuwait	3.29	Kuwait	3.29
Saudi Arabia	2.20	Belgium-Luxembourg	2.93	Russian Federation	4.25	Greece	4.25	Greece	2.58	Greece	2.58	Greece	3.12	Greece	3.12
Poland	2.16	Spain	2.83	United Arab Emirates	2.75	Kuwait	2.75	Kuwait	2.35	Switzerland	2.35	Switzerland	2.82	Switzerland	2.82
Japan	1.55	Netherlands	2.79	Slovenia	2.47	Russian Federation	2.47	Russian Federation	2.27	Croatia	2.27	Croatia	2.49	Croatia	2.49
Rep. of Korea	1.55	Poland	2.56	Netherlands	2.43	France	2.43	France	2.05	Slovenia	2.05	Slovenia	2.44	Slovenia	2.44

Source: Estimation based on UN COM TRADE data



**Table 41: Russian Federation coffee import direction according to HS classification (901)**

Country	1996		2001		2006		2009	
	%Share	Country	%Share	Country	%Share	Country	%Share	Country
India	29.23	VietNam	26.34	Vietnam	24.30	Brazil	21.44	Brazil
Brazil	12.52	Indonesia	16.67	Brazil	13.95	Vietnam	15.01	Vietnam
Singapore	9.62	India	12.44	Italy	13.74	Indonesia	12.82	Indonesia
Germany	7.67	Italy	7.29	India	6.40	Italy	11.96	Italy
Finland	4.76	Brazil	5.19	Colombia	5.93	Finland	5.17	Finland
Switzerland	4.57	Côte d'Ivoire	4.14	Finland	5.56	Colombia	3.74	Colombia
Netherlands	3.26	Finland	3.12	France	3.13	Switzerland	3.73	Switzerland
Poland	3.06	France	2.61	Indonesia	2.68	United Rep. of Tanzania	2.77	United Rep. of Tanzania
Israel	2.75	Germany	2.37	Ethiopia	2.33	Germany	2.15	Germany
USA	2.61	Uganda	1.99	Germany	2.21	Uganda	2.11	Uganda
World	100	World	100	World	100	World	100	World

Source: Estimation based on UN COM TRADE data.

**Table 42: Czech Republic coffee import direction according to HS classification (901)**

Country	1996		2001		2006		2009	
	%Share	Country	%Share	Country	%Share	Country	%Share	Country
India	27.49	Vietnam	24.19	Austria	21.18	Poland	22.44	
Uganda	10.97	Brazil	11.59	Germany	19.49	Germany	14.20	
Honduras	7.90	Austria	10.90	Poland	12.66	Brazil	8.77	
Colombia	6.36	Germany	6.92	Brazil	7.71	Austria	8.61	
Brazil	5.24	Colombia	5.10	Vietnam	7.50	Slovakia	7.20	
Germany	4.15	India	4.63	Italy	5.06	Italy	7.03	
Peru	3.72	Italy	4.30	Colombia	4.15	United Kingdom	5.77	
Madagascar	3.63	Poland	3.98	Slovakia	3.66	Vietnam	4.01	
El Salvador	3.48	Honduras	3.91	Peru	2.73	Indonesia	3.49	
Nicaragua	3.38	Indonesia	3.40	Honduras	2.53	Hungary	3.02	
World	100	World	100	World	100	World	100	

Source: Estimation based on UN COM TRADE data.

**Table 43: Domestic price of India cardamom (small ungraded) and India Import Unit Value (IUV) of cardamom (Price in Rs per kg)**

Year	Domestic price of cardamom (small)	India (IUV) of cardamom	Price Difference
2004	231.02	111.85	-51.58
2005	231.88	98.95	-57.33
2006	290.24	91.36	-68.52
2007	457.57	99.20	-78.32
2008	539.22	171.61	-68.17

Source: Estimation based on Spice Board of India Statistics

Note: a) India IUV— India Import Unit Value represents the unit price at which India imports from the world.

b) The dollar Import Unit Value converted into Indian rupees by multiplying respective year Indian exchange rate

c) Price difference — (Ratio of India Import Unit Value (IUV) of cardamom to Domestic price of Indian cardamom (small ungraded) \*100)-100

**Table 44: Domestic price of India cardamom (small graded) and India Import Unit Value (IUV) of Cardamom (Price in Rs per kg)**

Year	Domestic price of cardamom (small)	India (IUV) of cardamom	Price Difference
2004	302	111.85	-62.96
2005	331.5	98.95	-70.15
2006	393.63	91.36	-76.79
2007	562.52	99.20	-82.37
2008	644.06	171.61	-73.35

Source: Spice Board of India Statistics

Note: a) India IUV— India Import Unit Value represents the unit price at which India imports from the world.

b) The dollar Import Unit Value converted into Indian rupees by multiplying respective year Indian exchange rate

c) Price difference — (Ratio of India Import Unit Value (IUV) of cardamom to Domestic price of Indian cardamom (small graded) \*100)-100

**Table 45: Production, export, import and area under cultivation of Cardamom (small) in India**

Year	Area	Production	Yield	Export	Import	Domestic consumption	Share of export in production
2002	73.13	11.92	163	0.86	0.35	11.41	7.24
2003	73.24	11.58	158	0.65	0.44	11.37	5.61
2004	73.73	11.42	155	0.50	0.62	11.54	4.38
2005	73.80	12.54	170	0.75	0.88	12.67	5.98
2006	73.23	11.24	153	1.98	0.18	9.44	17.58
CAGR 2002-2006	0.10	-0.39	-0.49	19.72	-6.27	-2.66	

Source: Estimation based on Spice Board of India Statistics

Note: i) Production, exports and imports are in 000 tonnes. Yield is in kg per hectare. Area is in 000 Hectares.  
 ii) Domestic consumption= Production –Export+ Import

**Table 46: Major cardamom exporting countries export unit value according to HS 1992 classification (In US \$ per k.g.)**

Year	India	Guatemala	Indonesia
1996	2.93	1.83	3.47
2001	6.45	6.38	1.76
2006	4.08	2.68	1.31
2009	8.09	12.83	1.21

Source: Estimation based on UN COM TRADE data

**Table 47: India's Cardamom export direction according to HS 1992 classification (90830)**

1991		1996		2001		2006		2009	
Country	%share	Country	% share	Country	%share	Country	%share	Country	%share
FmrUSSR	35.47	Pakistan	37.33	Saudi Arabia	27.23	Saudi Arabia	40.87	Saudi Arabia	47.75
Japan	17.83	Japan	29.57	Japan	15.87	Pakistan	22.03	UAE	12.74
Pakistan	17.79	UAE	14.48	Pakistan	14.97	Japan	5.98	Pakistan	12.38
Saudi Arabia	14.25	UK	4.65	UAE	14.43	UAE	5.52	Kuwait	2.98
UAE	5.77	Afghanistan	3.89	Kuwait	6.53	UK	4.79	UAE	2.88
USA	2.01	USA	2.04	Afghanistan	1.68	USA	3.35	USA	2.66
UK	1.82	Iran	1.37	Sweden	1.65	Malaysia	2.21	Japan	2.39
Singapore	1.02	Malaysia	1.15	Greece	1.62	Nepal	2.10	Australia	2.31
Malaysia	0.86	So. African	0.93	UK	1.61	South Africa	1.44	Malaysia	1.47
Kuwait	0.48	Greece	0.90	USA	1.20	Kuwait	1.36	Qatar	1.45
World	100	World	100	World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data

**Table 48: India's Cardamom import direction according to HS 1992 classification (90830)**

2001		2006		2009	
Country	%share	Country	%share	Country	%share
Nepal	87.46	Nepal	67.27	Nepal	92.58
Singapore	3.79	Guatemala	29.23	Guatemala	6.78
Pakistan	3.05	UAE	1.15	Areas, nes	0.49
Guatemala	1.54	Bhutan	1.02	Singapore	0.10
Bhutan	1.36	Singapore	0.89	Sri Lanka	0.06
USA	0.95	China	0.42	U.K	0.00
World	100	World	100	World	100

Source: Estimation based on UN COM TRADE data

**Table 49: Doing Business indicators Ranks out of 183 economies 2008-2010**

South Asian countries	Doing Business Rank 2008/2010	Trading across borders	Documents to export (Number)	Time to export (Days)	Cost to export (US\$/container**)	Documents to import (Number)	Time to import (Days)	Cost to import (US\$/container**)
Bangladesh	107/119	112/107	7/6	28/25	844/970	9/8	32/29	1148/1375
Bhutan	119/126	149/153	8/8	38/38	1150/1210	11/11	38/38	2080/2140
India	120/133	79/94	8/8	18/17	820/945	9/9	21/20	910/960
Maldives	60/87	110/126	8/8	21/21	1200/1348	9/9	20/20	1200/1348
Nepal	111/123	151/161	9/9	43/41	1600/1764	10/10	35/35	1725/1825
Pakistan	76/85	94/78	9/9	24/22	515/611	8/8	19/18	1336/680
Sri Lanka	101/105	60/65	8/8	21/21	810/715	6/6	21/20	844/745

(First Number corresponds to 2008 and second one to 2010)

\* 20 feet container valued at US \$ 20000.

Source: Doing Business 2008 and 2010, The World Bank and International Finance Corporation