

## **Competitiveness of Sri Lankan Tea and Spices in India's Market: impact of liberalized trade policies**

L.M. Abeywickrama<sup>1</sup> and P.S. Rangji<sup>2</sup>

<sup>1</sup>Department of Agricultural Economics, Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka and Research Scholar, Punjab Agricultural University, Ludhiana, India.

<sup>2</sup>Department of Economics, Punjab Agricultural University, Ludhiana, India

### **Abstract**

*India and Sri Lanka have signed the Uruguay Round Agreement on Agriculture (AoA), the South Asian Preferential Trading Agreement (SAPTA) and Indo-Sri Lanka Free Trade Agreement (ISLFTA) to enhance global, regional and bilateral trade during the last decade. In the above context, the study analyzed trends, potentials and prospects of bilateral trade of tea and spices between India and Sri Lanka. The revealed comparative advantage (RCA), annual compound growth rates (CGR) and constant market share model (CMS) were the analytical tools. The study found only clove, nutmeg and mace were competitive among agricultural exports of Sri Lanka while major agricultural exports (tea and pepper) were not competitive in India's market. If the trade flows are properly regulated, trade of tea and spices between two countries would be complimentary rather than competitive.*

**Key words:** Indo-Sri Lanka Trade, Competitiveness, Tea and Spices, Indo-Sri Lanka Free Trade Agreement, Constant Market Share Model

### **Introduction**

The Uruguay Round Agreement on Agriculture (AoA) signed in 1994 was the major instrument in liberalization of agricultural trade during the last decade. In addition, India and Sri Lanka signed the South Asian Preferential Trading Agreement (SAPTA) in 1993 and Indo-Sri Lanka bilateral Free Trade Agreement (ISLFTA) in 1998 to enhance the regional and bilateral trade. It was argued that the impact of ISLFTA on Indian agricultural exports to Sri Lanka's market would be negligible as almost all agricultural commodities are in the negative list of Sri Lanka (Sarawanathan, 2000). However, India has given 50 percent tariff concessions (35% to 17.5%) for spices, which are produced in Sri Lanka and 15 million kg of annual tea quota with tariff concessions under ISLFTA. Therefore, Sri Lankan tea had an opportunity to enjoy 7.5 percent reduced tariff rate as India increased her tariff rate for other countries from 15 percent to 35 percent. Hence, it was believed that exports of tea and spices to India's market would be increased with the implementation of ISLFTA (Raghunathan, 2002).

On the other hand, onslaughts of globalization and imports of tea from Sri Lanka and other countries with global, regional and bilateral trade agreements, in addition to inherent problems of tea plantations, were blamed for the crisis of tea industry in Kerala State of India (Jacob, 2003). Moreover, as Kerala State and Sri Lanka have more or less the same geographical and climatic regions suited for tea and spices, it was believed that with the tariff concessions given by India for Sri Lanka's exports of tea and spices, those imports from Sri Lanka would invade India's domestic market, threatening employment and income of rural areas of India, especially in Kerala State (Government of Kerala, 2001).

Conversely, during the last decade, India has been losing the crown of the kingdom of export market of spices as new countries are emerging in the arena. In 1996, India was ranked first in the export market of pepper acquiring around twenty percent of total pepper exports of the world. By 2001, India's position shifted below countries such as Vietnam, Indonesia, Brazil, Singapore and Malaysia, as India could supply only 7.2 percent of the total world exports of pepper. In exports of cardamom, cloves, nutmeg and mace, India's contribution was minimal. In case of ginger and garlic, China occupied the biggest share and in nutmeg Guatemala and Indonesia are the key players. The objective of this paper was to analyze the pattern and competitiveness of exports of Sri Lanka's agricultural exports to India with liberalized trade policies under global, regional and bilateral agreements.

## Methodology

The study was based on secondary data obtained from the publications and websites of the Department of Customs, the Department of Statistics and the Central Bank of Sri Lanka, the Director General of Foreign Trade (DGFT), New Delhi, the Food and Agricultural Organization (FAO) trade yearbook and the web site of FAO ([www.fao.org](http://www.fao.org)). In addition, tea producers in the states of Tamilnadu, Kerala and Himachal Pradesh, traders of tea and spices, and relevant officials were interviewed to supplement the secondary information.

Annual compound growth rates (CGR) of volumes, values and prices were calculated using equations;  $\log Y_t = \log \alpha + t \log \beta$  and  $CGR = (\beta - 1) * 100$ .

Where;  $Y_t$  = Commodity (quantity, value or price),  $t$  = Year and  $\alpha$ ,  $\beta$  = Regression coefficients.

The revealed comparative advantage of a particular product of a country was measured by Export Performance Ratio (EPR) (Balassa, 1965).  $EPR = S_{id} / S_{iw}$

Where;

$S_{id}$  = Share of the commodity  $i$  in total exports of the country

$S_{iw}$  = Share of the commodity  $i$  in the total world exports

If the EPR is more than one, the country has a comparative advantage of exporting the commodity and *vice versa*.

Laursen K (1998) suggested Revealed Systematic Comparative Advantage (RSCA) as an alternative measure of comparative advantage.  $RSCA = (EPR_i - 1) / (EPR_i + 1)$

Where;

$EPR_i$  = Export performance ratio of the  $i$  th commodity as calculated above

If,  $RSCA > 0$ , it means comparative advantage over competing countries and *vice versa*.

The Constant Market Share model (CMS) was used to decompose the growth of Sri Lanka's exports to India's market into growth effect, market composition effect and competitive effect (IFPRI, 1990) (Ichikawa, 1997) (Mamata and Chengappa, 1997) based on the assumption that a country's export share in a particular market would remain unchanged over time.

If,

$Q_0, Q_1$  = exports of country A to country B in period 0 (base period) and period 1.

$q_i$  = commodity  $i$  exports of country A to country B

$M$  = percentage increase in country B's total imports from period 0 to period  $t$

$m_i$  = percentage increase in country B's import of commodity  $i$  between period 0 to period  $t$

$$Q_t - Q_0 = M \sum q_{i0} + \sum \{(m_i - M) q_{i0}\} + \sum \{q_{it} - q_{i0} - m_i q_{i0}\} \text{-----(1)}$$

$$\Delta Q = (a) + (b) + (c) \text{----- (2)}$$

Equation (1) and its short form of equation (2) representing the changes of imports of country B from country A from period 0 to period t ( $\Delta Q$ ) consists of three additive components.

The term (a) is the general rise in the country B's total imports or market growth effect of the increased import of a particular commodity or commodity group. The term (b) explains the effect of change of commodity composition of country B's import [ $\sum \{(m_i - M) q_{i0}\}$ ]. The direction of the term (b) depends on  $(m_i - M)$  and the magnitude depends on the value of imports in the initial period. The term (c), the unexplained residual, of equation (1) and (2), is attributed to relative price changes and it could be explained as "competitive effect".

All values of the analysis were converted in to US Dollars to avoid the impact of different rates of inflation of the two countries. To avoid the short-term fluctuations of prices and volumes, and problems of aggregations, averages of the triennium 1997-99 was considered as the base period (before ISLFTA) and average of the triennium 2000-02 was considered as post ISLFTA period for comparison.

## Results and Discussion

Indo-Sri Lanka trade was always asymmetric in favor of India as a result of broad base of production and resources in India compared to Sri Lanka. India's exports to Sri Lanka was more than ten times higher than the value of reverse flow throughout the last decade making a huge trade balance.

The export performance ratios (Table 1) showed declining share of India in the world market for tea and pepper while Sri Lanka maintained its share in the world market for tea and pepper and increased the share of cloves and cinnamon. Negative values of RSCA for cloves and cinnamon imply that India has no comparative advantage for these exports.

**Table 1. Revealed Comparative Advantage (RCA) and average Revealed Symmetric Comparative Advantage (RSCA) for tea and spices in India and Sri Lanka, (1996-2001)**

Year	India				Sri Lanka			
	Tea	Pepper	Cloves	Cinnamon	Tea	Pepper	Cloves	Cinnamon
1996	18.39	32.43	0.35	0.18	286.7	14.21	61.49	299.60
1997	26.31	22.69	0.05	0.19	286.5	17.95	65.84	389.45
1998	25.09	23.44	0.02	0.01	251.8	28.77	266.33	426.24
1999	22.50	22.23	3.91	0.03	265.7	19.58	161.19	503.11
2000	21.67	10.38	0.75	0.70	282.5	24.95	47.61	537.39
2001	18.74	11.14	0.35	1.00	314.2	14.43	87.85	500.73
Average RSCA	0.92	0.90	-0.61	-0.49	0.99	0.89	0.96	0.99

Source: FAO, DGFT

India's average annual pepper imports in 1997-99 triennium was US \$ million 11.1 and it has increased up to US \$ million 16.85 in the triennium of 2000-02 by 51.79 percent. During the same interval, India's pepper imports from Sri Lanka has increased only by 18.91 percent depicting even with duty concessions, Sri Lanka could not maintain the share on India's pepper market. Although, cloves, nutmeg and mace are not major exports of both countries, rates of Sri Lanka's exports to India could exceed the rates of India's total imports of those products after ISLFTA reflecting the competitiveness of those Sri Lanka's exports in India's market.

After implementation of ISLFTA in the year 2000, Sri Lanka could increase the share of import basket of India only for cloves, nutmeg and mace (Table 2). However, due to the magnitude of the value of cloves, Sri Lanka has increased the share of India's import basket of tea and spices up to 30 percent by year 2002. Interestingly, in the year 2001, cloves contributed 31.1 percent of the value of total exports from Sri Lanka to India.

**Table 2. Contribution of Sri Lanka's exports in total imports of tea and spices of India (Percentage of all imports)**

Commodity	1996	1997	1998	1999	2000	2001	2002
Black tea	2.9	13.6	4.4	34.3	16.7	17.3	3.5
Cinnamon	0.1	0.1	0.3	0.12	0.39	0.05	0.02
Cloves	7.1	9.46	7.64	78.5	40.16	61.4	55.3
Pepper	61.1	29.8	60.3	61.3	46.4	28.5	46.1
Nutmeg	40.23	65.2	39.0	77.9	88.6	89.4	86.4
Mace	15.1	19.4	8.5	23.8	24.4	25.5	31.8
Cardamom	0.0	0.0	0.94	0.42	0.0	0.0	0.04
Total	3.94	4.54	12.2	14.88	12.98	30.46	30.15

Large positive market composition effects of tea and pepper showed that India has increased tea and pepper imports in 2000-02 triennium over 1997-99 triennium (Table-3). However, competitive effect of tea and pepper in constant market share analysis showed that, tea and pepper which were predicted as competitive imports from Sri Lanka with duty reductions under ISLFTA were not competitive in India's market. India has imported average quality orthodox tea from Sri Lanka at lower prices (average RS. 52 per kg) after 1998 as compared to high quality tea at higher prices (average Rs. 85 per kg) before 1998. Indonesia and Vietnam are dominating countries of India's import basket of tea. In the year 2002, India has imported around half (47.3%) of total tea imports from Vietnam (28.7) and Indonesia (18.6%) while Sri Lanka contributed only 3.5 percent of total tea imports of India.

**Table 3. Constant market share analysis of Sri Lanka's tea and spices in India's market (Triennium of 2000-2002 as triennium 1997-1999 as base period)**

Commodity	Growth effect	Composition effect	Competitiveness
Tea	50.04	193.8	-143.8
Pepper	117.8	273.2	-290.9
Cloves	3.0	17.7	79.3
Nutmeg	21.3	34.7	44.0
Mace	30.1	-12.5	82.4
Cardamom	22.3	95.1	-217.4
Cinnamon	44.6	-11.5	66.8

Although, market composition effects were small for cloves and nutmeg, clove was the most competitive export commodity from Sri Lanka after tariff concession under ISLFTA. In the year 2001, Sri Lanka has taken the first place of the India's clove imports by supplying 61% of the total imports of India. However, the suppliers of cloves to India, Indonesia, Tanzania and the Republic of Malagasy also maintained their amount of exports to India as India has increased the imports in years 2001 and 2002.

Sri Lanka's nutmeg and mace also became competitive in Indian market with tariff concession under ISLFTA after the year 2000 contributing more than 85 percent of total imports of nutmeg and around one fourth of total imports of mace in India. However, the impact of increased imports of nutmeg and mace from Sri Lanka could be considered as negligible due to two reasons. Firstly, the value of imports of nutmeg and mace was minimal compared to imports of other spices. Secondly, India is not a competitive exporter of nutmeg and mace to the world market. Sri Lanka's share of India's cinnamon demand was negligible as China is the major supplier of cinnamon to India during last five years, providing around 90 percent of the total import demand of cinnamon. Vietnam is also an emerging supplier providing the rest of the demand of India.

Both, India and Sri Lanka started tea cultivation and tea exports during the British colonial period and were continuing and struggling to maintain the positions in the world market after independence. Low cost new competitors in the tea industry such as Kenya, Malawi, Indonesia and Vietnam are increasing their output and the quality at faster rates than the rate of increasing world demand when old players are resting.

India imports high quality orthodox tea from Sri Lanka to blend with low quality fillers collected from India for the domestic market in order to maintain the volume and the quality of exports, although it was reported that some short sighted exporters were re-exporting these poor quality blended tea in Indian names spoiling the image of Indian tea (Boriah, 1999).

Quality teas in India – Nilgiri, Darjeeling, Assam, etc. - still fetch higher prices due to their distinguished superior quality in the world market. However, more than half of the tea industry runs with losses and is trying to increase the quantity rather than quality is on the verge of closure, threatening more than seven lacks of employment. It is possible to repeat the same dilemma in quality tea producing Eastern and North India also due to short sightedness and quantity driven nature of exporters, if unchecked (Boriah, 2000).

Analysis showed that Sri Lanka's tea is not competitive in India with existing low prices in India less than the prices of Sri Lanka. Vietnam, Kenya, Malawi and other new comers are the emerging low cost competitors not only for Indian tea but also for Sri Lankan tea. China will not be a competitor for high quality tea as China fetches low prices for average quality tea. Within the framework of ISLFTA, it is beneficial to both countries, if India can import Sri Lanka's average quality tea only for the domestic requirement under control of authorities and export high quality tea.

India is the biggest producer and consumer for many spices and also was the biggest exporter of many spices until the recent past. However, emerging new exporters are becoming leaders of spices market at present. Vietnam, Indonesia and Brazil emerged as the first three biggest exporters of pepper, China has become the leader of ginger and garlic export market and Guatemala and Indonesia are leading the export market of nutmeg, mace and cardamom. In the export market of coriander, chili powder, cumin seeds and curry powder, India is still playing a lead role though other countries are emerging. The constant market share analysis and trade statistics between India and Sri Lanka already showed that Sri Lanka's major spices, cinnamon and pepper have not made any threat in India's market with the tariff concessions under ISLFTA. Although, Sri Lanka has increased the share of India's import market of cloves, nutmeg and mace, the values were comparatively minute and those were not India's major exports. Sri Lanka is not an exporter or a competitor for India's exports of garlic, chili powder, coriander, cumin, fennel, ginger and turmeric. In this scenario, mutual exports of spices between India and Sri Lanka have become complimentary rather than competitive to each other's market.

## Summary and Conclusions

Tariff concessions given by India under Indo-Sri Lanka Free Trade Agreement (ISLFTA) has increased the Sri Lanka's share of India's import baskets of clove, nutmeg and mace and those products have become competitive exports to India. However, Sri Lanka's major exports – tea, cinnamon and pepper- were not competitive in India's market even with increased imports of tea, pepper, cinnamon and other spices of India after year 2000, as India has imported these products from cheaper sources, mainly China, Vietnam and Indonesia. Mutual trade between India and Sri Lanka of tea and spices will be complimentary rather than competitive, if trade flows, processing and re-exports are properly regulated. It can be concluded that the impact of tariff concession given by India for Sri Lanka's tea and spices under ISLFTA is trivial, as India has increased importing these products from other countries rather than from Sri Lanka in spite of reduction of tariffs. Revision of tariff rates and commodities included in different lists in a scientific basis rather than political and ad-hoc manner, vertical and horizontal integration of trade and processing of tea and spices with proper regulation will improve the competitiveness of both countries.

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