

INTERNATIONAL TRADE AGREEMENTS AND THE FUTURE OF THE SPICE SECTOR WITH SPECIAL REFERENCE TO PEPPER IN SRI LANKA

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ABSTRACT

Spices historically and currently have been an important sub-sector of the economy of Sri Lanka. Paper takes a lead role in the industry. There are several government-sponsored programmes supporting the sector. The sector shows a notable growth during the last two decades. Natural spices, value added spices and organic spices have the future development potentials.

The performance, however, depends on the opportunities available in the world market, which are mainly governed by the international trade agreements. This paper addresses the conditions of various trade agreements and their likely impacts on pursuing the development options of the spices with special reference to pepper.

Major markets for Sri Lankan spices comprises South Asia, Middle East, Europe and US. Indian market is the leader for pepper. Potentials in these markets depend on their tariff structure and the SPS requirements. There will be a notable market access increase once their import tariffs are restructured under the WTO Market Access Agreement. However, most of the SPS requirements are too stringent to comply with, given the current conditions in the sector.

At present the quality of spices is assessed on the basis of standards set by the SLSI. However, the mandatory levels of these quality parameters are lower than the international requirements. Sufficient national enquiry points for spices have not been formally established in the country. SLSI functions as a focal point for the information, but the online linkages with international standard setting organisations are very poor.

Our quality is affected by the presence of mould, high moisture content and aflatoxin attributed mainly to (a) poor weather conditions experienced by many producers with low cost processing technology; (b) poor storage facilities; (c) small scale nature of production units; and (d) early harvesting habits. Poor quality leads to a direct loss of potential export volume to an average of about 5,500 mt per year during 1990-2000, which is 34% of the total exports of spices including pepper. The corresponding total value loss is estimated at Rs 167 million per year amounting to about 6% of the foreign exchange earnings from spices. In order to overcome the problem *internal* and *external* strategies would be proposed. Introducing technology, human resource development, awareness creation, and central collection and processing arrangements are the internal strategies.

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Addressing more transparency and participation in the standard setting processes, and obtaining technical assistance are the external strategies. We have a high potential for promoting organic spices and organic pepper. International markets are more than ever ready to accept proper organic products. However, TBT agreement creates the basis for various constraints for the progress of organic products.

Production constraints, strict quality, certification and accreditation issues, national and regional standards and importing procedures, organic labelling, and stiff competition from other producers are the main obstacles. We should however emphasis on increasing public awareness, promoting conservation farming, selecting proper varieties and promoting IPM to capture the increasing markets for organic spices. Same time the opportunities available from Indo-Lanka Free Trade agreement in terms of increased market access should be tapped.

Paper finally makes recommendations to increase the competitiveness of the industry in line with the *factor conditions*, which addresses the production as well as other factors, the *demand conditions, related or supporting industries* concept which addresses presence of suppliers of similar products with internationally competitive quality and finally, *the structure and nature of rivalry of related firms* where the cost-based competition is replaced with quality and high priced-based internal competition.

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INTRODUCTION

The International Spice Group defines spices as any of the flavoured or aromatic substances of vegetable origin obtained from tropical or other plants, commonly used as condiments or employed for other purposes on account of their fragrance, preservative or medicinal qualities. Among several spices¹ Sri Lanka currently emphasises on cinnamon, pepper, clove, cardamom, nutmeg and betel.

Spices are important commodities both in domestic and overseas market historically as well as currently. Spices including spice-based essential oils contribute about 0.6% to the total Gross Domestic Product (GDP) and about 2% to the total foreign exchange earnings by generating Rs 9,707 million in 2001. Its share in the total agriculture foreign exchange earnings is about 9%.

Government of Sri Lanka, through the Department of Export Agriculture (DEA) provides various types of incentives for cultivation and processing of spices since 1972. The spice sector has progressed substantially during 1980 to 2001: the cultivated extent expanded from 30,240 ha to 54,000 ha and total spice export grew from 10,301 to 19,500 mt, with a foreign exchange earning increase from Rs 510 to about Rs 9,700 million. Pepper is a major contributor in this development.

The paper attempts to highlight the development potentials of the spice sector with special referenc to pepper and the likely impacts of various trade agreements on pursuing such development efforts. The paper is based on a survey of literature on the subject and the secondary information obtained from the database of the Economics Research Unit (ERU) of DEA, Central Bank and the Custom Department.

The database of ERU comprises both secondary and primary data. Several farm level socio-economic surveys, conducted scientifically and representing the whole sector, have provided the primary data. Secondary data on export volumes and values, prices and investment expenditure are sufficiently accurate for the analysis. However, the secondary data on cultivated extents, production and total employment are based on estimates and hence less accurate. Nevertheless, they are useful in assessing the likely impacts.

¹ According to this definition, the spices include, inter alia, pepper, cinnamon and cassia, clove, cardamom, nutmeg, pimento, vanilla, turmeric, spice seed (aniseed, badian, caraway, coriander, cumin, dill, fennel, fenugreek, and juniper), saffron, laurel leaves, and spice herbs. This paper however focuses on a selected number of spices and pepper which are the major commodities in the Sri Lankan spice trade namely pepper, cinnamon and cassia, clove, cardamom, nutmeg and mace.

BREIFING OF THE SPICE SECTOR.

Over 50,000 ha of wet zone land is under spices (see Appendix 1 for the distribution of area under spices and other exports crops in the country), accounting about 6% of the land under all perennial crops. Paper takes about 28,000 ha. These lands are endowed with favourable weather conditions and soils suitable for many other crops. Thus the opportunity value of the lands is considerable. The spices generate employment in cultivation, processing and trading.

There are over 200,000 small-scale growers involved in cultivation and about 50,000 of them depends on spices as their main family income. Pepper takes over 50% of this contribution. Further 60,000 people are involved in various activities connected with the cultivating, processing, trading and shipping of spices. Cultivation and processing are labour intensive and in that women labour takes a prominent place. Sri Lanka and other countries have shown that labour cost is over 50% of the total cost of production (62% in Indian pepper).

Total export volume of spices grew steadily during the last 30-year period from about 10,300 mt to 25,800 mt. Mainly pepper and cinnamon contributed to this growth. Average volume of export for the last ten years was 9,130 mt of cinnamon, 3,611 mt of pepper, 752 mt of nutmeg, 1,296 mt of clove, and 18 mt of cardamom (Appendix 2).

The main reasons for this increasing trend are attractive market prices, government incentives for expansion, and exporters' willingness to accept products even without strict quality standards. India started importing a large percentage of our black pepper amounting to about 80% of total pepper exports in 2000. The quality standards of Indian importers are less stringent than in the west (personal communication with leading exporters). This would also have contributed to a rapid growth of pepper exports.

DEVELOPMENT POTENTIALS FOR PEPPER

Spices including pepper are exported mainly in three forms namely whole spices; ground spices (powdered or fragmented form of the whole spice); and derivative, including essential oils, oleoresins, and other isolates. The essential oils and derived forms contain at least one element of the original spice. Whole spices are frequently ground into a powder and frequently mixed with other spices before used in the importing countries.

Against this background, the industry development should address four options, as listed below all of which are equally important.²

¹ The development strategy for spices is currently being prepared and it is still in the draft form for wider consultation. Some of these issues are common to this strategy too. See "A Competitiveness Strategy for Sri Lanka's Spice Industry, Developed by the Sri Lanka Spice Cluster, The Competitiveness Initiative, A joint project of the United States Agency for International Development (USAID), Nathan Associates Inc., and J.E. Austin Associates, June 2002"

(1) Assured quality natural spices: This focuses on whole spices with assured quality so that the exporters could compete in other international markets to secure the market share. A particular emphasis is placed on the distinctive taste, and aroma of whole spices. Our climate and soil were historically well known for producing exceptionally good spices. Many exporters and also other stakeholders believe that our spices are intrinsically superior to those from other origins. Higher piperine content and greater pungency in pepper is widely quoted as examples. However, the current scenario in the world market is such that only the “intrinsic quality” by itself is inadequate to maintain international competitiveness. This will be discussed more in this report under SPS agreement.

The great potential lies in this option is clearly indicated by the following statement. *“In general, the unit price of Sri Lankan spices exported to the United States is higher than that for almost all other destinations except the Netherlands, which pays similar prices. This strongly suggests that the U.S. market is primarily interested in high-quality spices and that, given Sri Lanka’s low market share in every instance (except cinnamon), exporters would have no difficulty placing additional quantities if they met the quality standards of U.S. customers”³.*

The same report squarely presents the problem too: *“the U.S. market is also very serious about the cleanliness of foods and beverages and the ingredients that go into them. Advances in microbiology now make it possible to trace the origin of any disease found on spices or in foods containing spices. Producers, handlers, and processors in the country of origin are expected to minimize the risk of contamination of spices by salmonella, aflatoxins (especially for nutmeg), and other diseases between the farm and the port^{3/4}and also treat each bag of spices with ethylene oxide before shipment’.* The key to the development therefore is to promote quality improved volume of spices.

(2) Value added produce of the spices: This includes the promotion of essential oils, oleoresins and other products again with assured quality so that niche markets could be tapped. At present the quantity of these products are very small (see Table 1). The fluctuations also show the market potentials. There were surges of pepper and nutmeg oil exports indicating a high market potential if the quality product can be exported.

Table 1: Export Volumes (mt) of Value Added Products of Spices (five year averages)

Value added Product	1970-74	75-79	80-84	85-89	90-94	95-99	2000-01
Clove Oil	0.00	0.12	0.00	0.00	0.11	2.33	1.40
Pepper Oil	0.00	0.43	0.08	0.00	2.94	15.09	1.85
Cardamom Oil	0.00	1.10	0.68	0.33	0.28	0.56	0.50
Nutmeg Oil	0.00	6.80	8.28	13.67	8.93	21.19	9.60
Cinnamon-Leaf Oil	72.60	93.40	102.60	129.82	117.16	129.86	153.95
Cinnamon-Bark Oil	0.90	0.82	1.30	2.41	2.85	3.83	6.05

¹ A Competitiveness Strategy for Sri Lanka’s Spice Industry (op cit.).

(3) Organic Spices: There is a growing demand for organic spices in the world, particularly **in specific niche markets**. The world consumption of organic spices are growing since 1995 by some 30 percent annually, compared to less than two percent for regular spices.² This included in the general organic food, which is growing at about 1-1.5% in the world.³

To procure organic spices, some international traders contract with nearly 5,000 farmers in Indonesia and Guatemala, and also create alliances with others in India, Sri Lanka and Madagascar. Our contacts are very unorganised and also highly individualistic. According to ITC, UNTAD, more than 130 countries produce certified organic foods and 100 of them are in Asia and Africa indicating the potential in the world market. Organic cultivation of spices is nothing new to Sri Lanka. The industry should formalise the production linkages and systematically integrate with the importers to take the advantage of this strong possibility.⁴

(4) Improve the vertical integration of the market with a view to improving consistent quality and quantity of the spice supply: It is has been observed that the supply of spices is erratic both in quantity and quality terms. The vertical integration of the local market including producers will initiate and sustained linkages between exporters and processors, retail and wholesale traders, and producers. There is a possible high transaction cost⁵ in the domestic spice-marketing channel. Any attempt to organise the marketing channel vertically could reduce the transaction cost. This will benefit all the key stakeholders of the industry finally achieving a higher competitiveness of spices in the world market.

¹ René Vossenaar and Sophia Twarog (2002) "Strengthening Developing Countries

¹ Capacities To Take Advantage Of Niche Markets For Organic Agricultural Products: The Experience Of Costa Rica, India And Uganda, Draft paper prepared under the UNCTAD project on Standards and Trade, funded by the International Development Research Centre (IDRC, Canada)

² Mark Harris (2001), *Why Consumers Are Buying Organic Spices, Closing in on the Spice Wars*, E Magazine May 8, 2001

³ The main reason for having such a high demand is very clear. As Harris (2001) says, spices in the field can be contaminated with insects, molds, yeasts, even pathogens, like salmonella or E. coli, the virulent bacteria linked to sources of outbreaks of food-borne illness. To combat these, most conventional food manufacturers in the US sterilize spices with toxic chemicals such as ethylene oxide, a gas that can leave residues on spices that may cause cancer. The chemical has been banned in many European countries and Japan. They have also turned increasingly to irradiation. First approved by the U.S. Food and Drug Administration (FDA) for use on spices in 1983, irradiation exposes spices to up to a million rads of ionizing radiation – the equivalent of one billion chest X-rays (the highest amounts allowed for any food). This process kills contaminants without appreciably altering the appearance and taste of the food. But irradiation changes the chemical composition of a spice, potentially creating toxic and carcinogenic by-products in the food. As such organic spices are preferred.

⁴ India at present exports about 50 mt of different type of organic spices, and there is an increasing trend. Spice Board of India has prepared a document on production of organic spices, including organic concept, principles, basic standards, production guidelines, documentation, inspection and certification. Bio Foods (Pvt.) Ltd. is an example in Sri Lanka which is a devoted (100%) organic Company and a member of the International Federation of Organic Agriculture Movement (IFOAM) and Farmers International

Self Help Network (FISHNET) Germany. These can be formally integrated with the sector for further improvement.

⁵ The transaction cost of the marketing of spices has not been formally computed. However, the number of links within the marketing channels, the week information flow, the absence of reliable information on the quality, lack of proper market incentives and signals for quality produce and non-use of forecasting tools at any marketing point may contribute to a high transaction cost in the spice trade.

Several strategies, programmes and incentive mechanisms have to be adopted to explore these development options. Scope of this paper however is beyond the discussions of such issues. The next section focuses on the likely impacts of international trade agreements in pursuing these development options. Impacts of trade Agreements on the spices sector

With the emphasis on globalisation, a number of trade agreements within the structure of GATT were instituted at the GATT Uruguay round of negotiation. These have the fundamental objectives of (a) achieving a more efficient and equitable world economy focusing on increasing interdependence of nations and sustainable development; (b) promoting dynamism and stability among countries; (c) removing uncertainties among countries; and (d) limiting and regularising barriers restricting access to markets.

Within this frame work it is therefore expected that world trading systems including those in the developing countries, should favour the development of the export sectors. Spice sector in Sri Lanka is no exception. This paper assess the facilitative or inhibitive nature of the following trade agreements:

1. WTO Agreement on Agriculture (AoA)
2. Sanitary and Phytosanitary Measures (SPS)
3. Technical Barriers to Trade (TBT)
4. Indo Lanka Free Trade Agreement (IFTA)
5. Agreement on Agriculture

THE AGREEMENT IN BRIEF

The aim of the agreement is to establish a “fair and equitable market-oriented agriculture trading system”. In doing that GATT expects to minimise (a) use of border measures to control imports, and (b) use of export subsidies and other subsidies that government grants to support the prices of agriculture products and assure a reasonable income to farmers. The following specific areas are relevant to the spice trade, which are covered and disciplined under this agreement.

- **Market Access:** The essence of this agreement is to reduce and discipline tariff and non-tariff barriers to trade. The tariff rates were systematically reduced and bound at a stipulated rate. The non-tariff barriers have been converted to tariff through a tariffication process. The developed countries should reduce the import tariff by 36% in value terms and developing countries should reduce by 24%.¹ The overall average reduction in tariff for agricultural product was 37%. The rates vary with the products: there is higher reduction for tropical products ranging from 37% in the case of “tropical nuts and fruits” to 52% for “spices, flowers and plants”.²

¹ MVIRDC, World Trade Centre (1995), *GATT Agreements: Results of the Uruguay Round*, Bombe

² Spencer Henson and Rupert Loader, (2001), *Barriers to Agricultural Exports from Developing Countries: The Role of Sanitary and Phytosanitary Requirements*, World Development, Vol 29, No. 1, pp 85-102.

The spices are included into the reduction structure in many developed and developing countries. These reductions indicate that the developing countries including us will have increased market access to the developed markets.

➤ *Domestic Support Provision:* Although this is not a direct trade agreement, the international trading is affected by the content of this agreement, thus need a very brief revision. The supports falls into two categories: those that are non-trade distorting and thus not disciplined (Green Policies¹); and those that are trade distorting and thus subject to gradual reduction (Amber Policies). Under the provision the trade distorting subsidies will be subject to 20% reduction.² Sri Lanka, being a developing country, is exempted from any obligation to reduce its subsidies if the total non-product specific domestic subsidy is below 10% of the value of total agricultural production (base period for calculation is 1986-87).³

➤ *Export Subsidy Provision:* According to the provision all practices considered to be direct export subsidies will be disciplined. Developing countries are required to cut export subsidies by 24% in budgetary terms and 14% in tonnage terms. The policies that are considered to be export subsidies include (a) direct subsidies, (b) disposal of government stock below market prices, (c) producer - financed export subsidies, (d) marketing subsidies and (e) subsidies for commodities contingent on there incorporation in exported process product.⁴

EFFECT OF THE MARKETACCESS AGREEMENT FOR FUTURE DEVELOPMENT IN SPICES

The most obvious effect is that the spices will have an increased market access. This will apply to all the development options listed above. The main export markets for spices and their pre-WTO tariff structure are listed in Appendix 3. Markets that take 80% of the total Sri Lankan exports are considered for this presentation. The percentage of the market share is computed taking the total export for the period 1990 to 1999.

The tariff reduction rate and indicative market access increase for each crop is also summarised in Appendix 3. In the case of pepper all the main markets which imports 80% of the total black pepper from Sri Lanka are developing country markets, except USA and UK where 20% is consumed (see Appendix 3: Table 2). USA and UK use pepper mainly for oleoresin production and thus the SPS standards are not very restrictive. The overall access increase will be 18%. However, as there is EU restriction on SPS, UK may also consider imposing high restrictions in time to come.

¹ Green box subsidies are those which have no or at most minimal trade distorting effects on products and do not provide price support to producers. Examples are state expenditure on research, extension, inspection and grading of products, marketing and promotion services, income support, insurance, structural adjustment expenditure and payment under environmental programme.

² MVIRDC (op. cit.).

³ International Trade Centre, UNCTAD/WTO, (1995), *Business Guide to the Uruguay Round*, Commonwealth Secretariat.

⁴ International Trade Centre, UNCTAD/WTO, (op. cit.).

As illustrated above, the Market Access agreement under trade liberalisation will be theoretically favourable for the spice sector including pepper. However, as the paper discusses later, this increased access would be undermined due to various other trade measures, restrictions and inherent structural problems of the country.

This is not specific to Sri Lanka. As UNCTAD (2000) observed⁵ *“financial vulnerability of persistent balance of payment and external indebtedness, high dependence on commodity trade, lack of access to technology and information networks, and distribution channels remains major obstacles for many developing countries to integrate successfully in the multilateral trading systems and benefit from trade liberalisation”*.

In addition to these “external” problems, “internally” the spice sector is not properly organised to reap the benefits of the market access. Thus the advantage of the market access provision cannot be simply accepted in its individual form. Wide variety of technical measures can act either explicitly or implicitly as barriers to trade in a similar manner to high tariffs and quantitative restrictions.⁶ The central theme of this paper is to give more attention to such issues.

EFFECT OF THE DOMESTIC SUPPORT PROVISION UNDER AOA ON FUTURE DEVELOPMENT IN SPICES

There are financial assistance schemes such as cultivation grants implemented by the government (through DEA) to finance farm inputs such as fertiliser and planting material. However, the total value of these internal assistance programmes is well within the permissible level of 10% of the value generated by the spice sector. Therefore the present scheme of assistance in the EAC sector will have no room whatsoever for disciplining under the GATT provision. Other assistance schemes such as research, extension, product development and publicity are within the green box policies.

EFFECT OF THE EXPORT SUBSIDY PROVISION ON FUTURE DEVELOPMENT IN SPICES

There are no assistance programmes in the spice sector falling into this category. However, in the event that the other producer reducing their financial subsidies there will be a decline in the prices in the long run. The inefficient producers, many of our spice producers fall into this category, may not be able to face these lower prices of their counterparts. This applies to all three options namely natural spices, value added products and organic spices, in their development emphasis.

Therefore it is imperative that the production base of EAC has to be improved from the less efficient productivity stage to a more efficient one. The institutional support and a fresh approach to the challenge are urgently required.

SANITARY AND PHYTOSANITARY REQUIREMENTS OF WTO AGREEMENT ON SPS IN BRIEF

The Agreement on the application of Sanitary and Phytosanitary (SPS) measures specifies, according to the agreement, the principles and rules, which member countries including Sri Lanka must use in regulating imported products. The Agreement defines SPS measures as measures taken to protect human, animal or plant life or health from (a) risks arising from the entry, establishment or spread of pests, diseases, disease carrying organisms or disease-causing organisms; (b) risks arising from additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs; (c) diseases carried by animals, plants or products thereof.¹

SPS Agreement requires countries to (a) base their SPS regulations on international standards, guidelines or recommendations (SPS preamble); (b) play a full part in the activities of international organizations, particularly the Codex Alimentarius Commission, International Office Epizootics and International Plant Protection Convention, in order to promote the harmonization of SPS regulations on an international basis (SPS preamble); (c) provide an opportunity to interested parties in other countries to comment on draft standards when they are not based on international standards or the international standards are not considered appropriate (SPS Annex B:5); and (d) accept the SPS measures of exporting countries as equivalent if they achieve the same level of SPS protection or allow importing member countries to adopt inspection, testing and other relevant procedures to assure the equivalence of SPS measures and protection of other exporting countries on similar product (SPS Article 4).² Sri Lanka has agreed to adopt all these by being a member of WTO.

IMPACT OF SPS AGREEMENT ON THE DEVELOPMENT OF THE SPICE SECTOR

The importance of the contents of SPS agreement in the world trading system is growing due to many reasons. The important ones are the growth in trading food products containing various pests and diseases³; increased health consciences among the world consumers⁴; and most importantly to protect national industries, where the tariff protection has been reduced by GATT tariff bindings.¹¹ It is widely discussed and debated that the SPS measures could impede trade in agriculture and undermine the positive impacts of other agreements such as market access.⁵

¹ MVIRDC (op. cit.). ² International Trade Centre, UNCTAD/WTO, (op. cit.).

³ Veena Jha (2002), "Strengthening Developing Countries' Capacity to Respond to Health, Sanitary and Environmental Requirements", A Draft Scoping Paper 2 Presented at Standards and Trade Workshop, Palais des Nations, Geneva, 16-17 May 2002.

⁴ More than 200 known diseases are transmitted through food and causes of them are viruses, bacteria, parasites, toxins, and metals (Bryan, F (2000) *Diseases transmitted by foods*, Atlanta : Centre for Disease Control; 1982. Cited by FAO in *The State of World Fisheries and Aquaculture*, Part 1, 2000, <WWW.fao.org>

⁵ Veena Jha (2002) (op. cit.) ⁶ There are a number of articles and papers supporting this argument. A recent ones are: Henson, S; Brouder A M and Mitullah, W (2000), "Food Safety Requirements and Food Exports from Developing Countries: The Case of Fish Exports from Kenya to the European Union", *American Journal of Agri. Economics*, Vol 82 No. 5, pp 1159-

The general problems involved in SPS measures are lack of timely and accurate information; lack of transparency in standard setting; difficulties of testing and verification procedures and their cost; the simultaneous application of multiple standards and regulations; the perceived lack of scientific data for specific thresholds or limit values; and the uncertainty arising from rapidly changing requirements in overseas markets.

SPS regulations and food standards may also create market access problems on account of differing national standards, lack of transparency and inconsistent application of procedures.¹ All these are external to the agreement per se, but involved with the process restricting trade.

Our spice sector is no exception. All three development potentials addressed in this paper will have to meet the SPS requirements. At present the rejection of exports merely because of lack of complying with SPS measures is not significantly reported in Sri Lanka.

This is mainly because many of our exporters adopt cost-based internal competition rather than high valued quality-based competition giving rise to a situation where a bulk of the natural spices are sold at a lower price with substandard quality. There is a view among some of the spice exporters that “any junk could be exported”.

This is a classical example for adopting cost-based internal competition. This view is harmful in the long run and continuation of low standards may erode the market share in the most potential and high priced markets such as the US and EU. The issue is more devastating for value added products.

There are mounting evidence in the international trading environment to testify the unfavorable effects of the SPS related measures on developing country products.

Just citing a few cases in South Asian region would highlight the importance of the issue:² (a) impact of the high EU standards on fishery products in India and Bangladesh where the EU banned importation from these two countries in August and July 1997 respectively mainly on health reasons. (b) EU had more stringent standards than other countries on aflatoxin for Indian peanuts. (c) Export restriction from the US and EU markets for Indian mango pulp. (d) High standards of the EU, US and Japan in rice exports from India. These are valuable lessons for our spices, although spice trade is somewhat different to the cases listed above.

What are the specific SPS related problems faced by our exporters and producers? They do not have adequate and timely information about the standards and health and sanitary regulations applicable to these products in the target markets.

¹ Ashok Jha, Proceeding of the Conference on “South Asia Workshop on Agriculture, SPS and the Environment: Capturing the Benefits for South Asia”, New Delhi, 11-13 January, 2001. Veena Jha (2002), (op. cit. – paper 1)

² Details are presented in Veena Jha (2002), (op. cit. – paper 2)

The Agreement requires the country to establish national enquiry points (NEP) from which information could be obtained on (a) technical regulations and voluntary standards adopted or proposed to be adopted; (b) conformity assessment procedures adopted or proposed to be adopted; (d) sanitary and phytosanitary regulations adopted or proposed to be adopted; (e) control and inspection procedures, production and quarantine treatment, pesticide tolerance treatment and food additives approval procedures; and (f) risk assessment procedures. Sri Lanka does not at present have adequate number of such points. Sri Lanka Standard Institution (SLSI)¹ functions as a focal point for the information, but the online linkages of SLSI and international standard setting organisations are very poor.

The Director, Department of Animal Health and Production has been appointed as a NEP for animal products. The most appropriate government institution for this purpose in addition to SLSI, in the case of spices and two beverages, is the DEA, which has linkages with growers, traders and exporters. But DEA has no NEP status. Infrastructure facilities, human capacity development, and increased and systematic interactions with all stakeholders of the industry are required at a sustainable cost for DEA to act as a NEP.

There is no government-managed system in Sri Lanka to provide compulsory quality certification for spices (tea is a special case where the Tea Board provides compulsory quality certification). The pre-shipment quality testing process is optional for the exporter. However, the exporter makes arrangements with their international importers on a private basis to provide the information on the quality of the products being traded. The required facilities for quality testing are available at the SLSI and a few other laboratories of private organisations.

The government does not subsidise the cost of quality certification process. Introduction of Hazard Analysis and Critical Control Points (HACCP), which is required to test the critical points in production process for standards is another issue in the spice sector. This is particularly important for value added products. At present this is another limitation and also establishment of such points are very costly.²

CURRENT STATUS OF QUALITY OF SPICES IN SRI LANKA

An assessment of the current status of the quality of spices is obtained from a study conducted by ERU of DEA in 2000 in order to highlight the magnitude of the problem. Quality standards at the traders' including exporters' and farmers' level are reported. Farmers report quality as Grade 1, and 2 and quantity without any grade. The quality parameters of these are based on the SLSI standards.

¹ In the case of food standards, SLSI adheres to the international health and safety standards and guidelines, such as Codex standards. SLSI is a member of the Codex Alimentarius Commission. SLSI has certified about 10 auditors for HACCP.

² The cost of maintaining HACCP programme for Bangladesh frozen shrimp industry is estimated at US \$ 2.4 million per annum to earn US \$ 124.9 million from the industry. [Rahman, M, (2001), EU Ban on Shrimp Imports from Bangladesh: A Case Study on Market Access Problems Faced by the LDCs, paper presented at "Negotiating Agenda for Market Access: Cases of SPS and TBT", 24-25 April, 2001, United Nation, Geneva].

The main emphasis of them is the physical appearance of the product. The moisture contents, presence of foreign material, mouldiness are also included. However, the mandatory levels of these quality parameters are lower than the international requirements.¹⁷ This would lead to a condition where even Grade 1 product would not be meeting SPS requirements.

According to the SPS quality requirements, the most stringent ones for our spices are the presence of mould, high moisture contents and aflatoxin contents. The study mentioned above highlight the difficulties of attaining the required level of standards due to the following reasons: (a) Improper harvesting due to inadequate knowledge of the impact of such harvesting on the final quality of the product. (b) Many producers use unfavourable drying systems. Most of the drying floors do not have bricks or cemented surface.

There is a high possibility of moisture retention and microbial contamination. Nearly 70% of the producers reported that they use sun drying on home yard with no proper surface for drying. Roadside drying is common in many producing areas. (c) About 69% of producers claimed that their drying process is disturbed by occasional rain. (d) Use of mechanical dryers is seldom due to high investment cost and also inadequate scale of operation to optimise the use of the dryer capacity.

Only 5% of the producers use a mechanical dryer. (e) Many producers use unhygienic and improper storage methods. Nearly 64% of the producers reported that they store the products for a period of about one to two months using gunny bags with no proper treatments to prevent mould development or infection from other microbial organisms. In order to eradicate these problems completely, high investment is necessary, which is unaffordable for many small-scale growers.

SLSI standards are mainly focused on the non-SPS characteristics as listed above. Therefore, even the Grade 1 quantity that is produced at the farm gate does not necessarily meet the international quality standards and SPS requirements. Common understanding is however, that if the product meets SLSI standards, then it would meet international SPS requirements too. However, exporters' view is that even the products of Grade 1 quality has to be reprocessed to some extent at the exporter level to meet the current level of SPS requirement. A specific example is the aflatoxin level of Grade 1 products and the requirement under SPS.

The requirement is 3-5 ppb, but in many cases observed level of this is higher even in Grade 1 cardamom and pepper. Reprocessing at the exporters level will reduce the level to some extent, but some proportion of the product will not be within the required rate. In an event of increasing the SPS requirements, a larger proportion of these products will not be able to meet the requirement.

¹ A detailed discussion is presented in Anura Herath, 2001, "Cost of Compliance of Sanitary and Phytosanitary Requirements in Beverages and Spices in Sri Lanka", paper presented at "Negotiating Agenda for Market Access: Cases of SPS and TBT", 24-25 April, 2001, United Nation, Geneva. [available at www.unctad.org/trade-env]

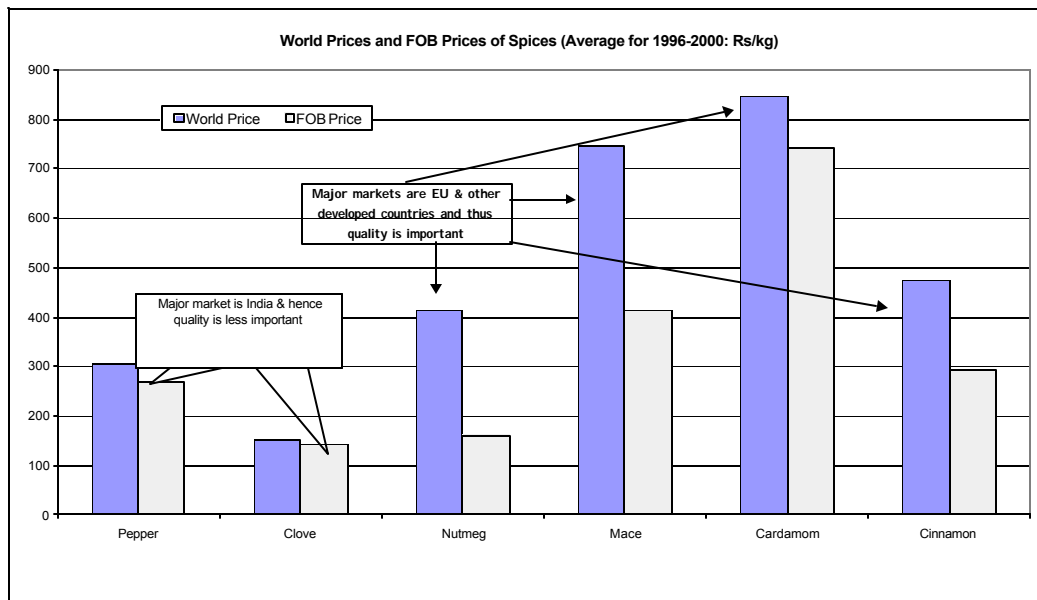
This indicates that a harmonisation process of SLIS standards and SPS requirements is required to bridge the gap. A detailed study would be necessary to investigate what additional quality parameters have to be brought into the system of SLIS to meet the international SPS requirements.

EFFECT OF SPS MEASURES IN LOSS OF OPPORTUNITY

One of the direct effects of lack of compliance with SPS requirements is the loss of foreign exchange earning. Reliable information on the proportion of low quality products of pepper that are not meeting mandatory standards and voluntary standards are lacking in Sri Lanka at present. However, a comparison of the international and FOB prices shows in the following bar chart indicates that our prices are notably low when the products go to the developed country markets. An important reason for this gap is the low quality.

In addition to this, there is a loss of value in the country due to the poor quality and lack of compliance with SPS standards. Based on the available information, an indicative analysis is presented on the loss of value due to lack of compliance. This analysis indicates the type of improvement needed to develop the sector in the future.

The total quantity of exporters, which are not meeting quality standards is estimated in Table 2. The substandard volume is normally reprocessed at an average cost of Rs 15 per kg of unprocessed quantity. This cost of reprocessing is substantial in comparison to the farm-gate cost of production. The indicative volume that is reprocessed and the cost involved are presented in Table 2.



Source: Public Ledger and Custom Returns in the respective years.

Table 2 : Estimated Proportion of Products with Substandard Quality and the Reprocessing Costo.

Product	% of volume (moisture is more than 20%)	% of Semi-dried volume (moisture is more than 15%)	% with mould	Avg volume of Exports: 1990-2000 (mt)	Corresponding Volume that need to be re-processed to meet SPS requirements (mt)	Total Cost of re-processing to meet SPS standards (Rs 1000)
	(a)	(b)	(c)	(d)	$[(a)+(b)+(c)]*(d) = (e)$	(e) * CORP = (f)
Cinnamon	19%	5%	1%	9,130	2,313	34,695
Pepper	12%	6%	2%	3,611	717	10,755
Nutmeg	9%	5%	1%	752	108	1,620
Clove	38%	0%	2%	1,296	515	7,725
Cardamom	38%	0%	2%	18	7	105
Total						54,900

Notes:

- (a) Results obtained from an island wide survey of traders and exporters conducted by ERU in 2000. This means, in the case of cinnamon for instance, that 19% of the volume that comes to the exporters has more than 20% moisture.
- (b) Same as (a), but with more than 15% but less than 20% moisture.
- (c) Percentage of volume at the exporters' level infected with mould.
- (d) Average of the last 11 years.
- (e) Volume with high moisture and mould need to be reprocessed. The export volume is thus multiplied by the addition of (a), (b), and (c) to obtain (e).
- (f) The cost of reprocessing is estimated at Rs 15 per kg of product. This is common to almost all the products as it mainly involves drying and proper storage. Out of Rs 15, Rs 5 is the energy cost of drying and Rs 10 is the labour cost.

The total re-processing cost is Rs 55 million or about 2% of the foreign exchange earning from spices during the same period. Exporters claim that reprocessing would not completely prepare the products to meet SPS requirements. Thus such low quality products even after reprocessing would be exported at a much lower price than the average world market price, thereby lowering the average FOB price of the our market (see above bar chart).

Although there are no cases reported in Sri Lanka that spice export is ban due to lack of SPS requirements, there is a direct loss of potential export volume due to substandard quality. This volume is not included in the analysis of Table 2, which is estimated taking the total production of the country and proportion of the traded volume out of this with substantially high percentage of moisture. Table 2 presented the proportion of volume with high moisture percentage.

Table 3 : Loss of Exportable Volume of Products and the Corresponding Value at the Opportunity Value of Individual Product

Product	% of Wet Volume (moisture is more than 20%)	Total Estimated Production that is traded (mt)	Estimated volume not reaching the export market due to high moisture (mt)	Estimated volume used in the domestic market (mt)	Loss of income at opportunity value of the product (Rs 1000)
	(a)	(b)	(a)*(b) = (c)	(c)*90% = (d)	(d)*OV = (e)
Cinnamon	19%	13,036	2,506	2,255 (25%)	112,750
Pepper	12%	9,969	1,181	1,063 (29%)	42,520
Nutmeg	9%	1,253	110	99 (13%)	1,980
Clove	38%	2,794	1,062	955 (76%)	9,550
Cardamom	38%	73	28	25 (139%)	750
Total		31,456	5,556		167,550

Notes:

- (a) This is obtained from an island wide survey conducted by ERU, DEA, 2000
- (b) Taking the cultivated extent, export volume and the average productivity, ERU estimates the production of EAC every year. This information is obtained from the ERU records. This is the average of the period 1996 to 2000.
- (c) It is observed that the volume with high moisture does not reach the export market. About 90% of this is used for domestic consumption.
- (d) The volume consumed by the domestic trade. Percentages in parenthesis are the % of this volume out of export volume during the same period (1996-2000).
- (e) The volume consumed domestically has an opportunity value, which is the price difference of the retail traders and the exporters. This is Rs/kg 50, for cinnamon, 40 for pepper, 20 for nutmeg, 10 for clove, and 30 for cardamom. The volume traded in the domestic market is multiplied by the opportunity value to obtain the loss of income presented in Rs million.

The estimated loss of exportable volume is about 5,500 mt as presented in Table 3 with details. In comparison to the total export of each product, the values are substantial. The corresponding total value of the products, estimated at the opportunity value, is Rs 167 million per year, which is about 4% of the foreign exchange earnings from spices. The reprocessing cost and the loss of value accounts for about 6% of the total foreign exchange earnings from spices. This is a notable quantity for the sector. In addition, there is a loss of employment and loss of producers' income connected with the loss of exports due to low quality.¹ Even India face the problem of volume loss. The 60% loss of pepper export volume in 2000 in India is partly due to increasing world competition from other countries on quality issues.²

¹ See Herath (2001) (op cit.) for details.

² Govindan A (2000), "Indian Agricultural Situation, Spice Report, 2000: GAIN Report # IN0078

STRATEGIES THAT COULD BE ADOPTED TO MEET THE SPS REQUIREMENTS

The strategies could be of two forms, internal and external. Various improvements that could be achieved by investing in the sector are the internal strategies. External strategies comprises co-ordinating with other developing countries to strengthen the negotiating power to highlight the stringency and unsuitability of some of the SPS measures for developing countries.

Internal Strategies

As a prime internal strategy, it is necessary to introduce technology mostly with mechanisation in processing to upgrade the quality. According to the current status of the industry, the priority technology requirements are improved drying, pulping and grading. There is a government scheme to subsidise the cost of the machinery through a financial grant scheme. This should be expanded.¹ The possibilities should be explored to established solar power technology.

Our financial and human investment in technology generation in the field of processing is grossly inadequate. The Research Division of the DEA and the Ruhuna University undertake research in this area, but at a very limited scale. The annual financial allocation in this field in the DEA' budget is about Rs 300,000 which is grossly inadequate to meet the requirement. Therefore it is an absolute necessity to obtain appropriate technology from other countries to improve the processing system and the quality of products.

The awareness on the quality requirement and the SPS standards, among the growers and lower layers of the trade channel, is grossly inadequate.² It was observed that there is a notable gap of the knowledge among different partners in the trade channel. A well-planned education and awareness programmes should be carried out to meet this need. There are about 50,000 traders involved in the spice industry. Assuming the cost of Rs 500 per head, the total cost of a training programme would be in the range of Rs 25 million. This is about 3% of the annual allocation for training in the DEA budget. The state assistance could be provided to establish central collection and processing points to maintain the homogeneity of quality. The NEP could be linked with these points so that assured quality could be maintained.

External Strategies

The external strategies should address some of the SPS related general problems listed in this paper. We as a developing country cannot single handed meet all the problems.

¹ Under the DEA assistance scheme 230 producers have constructed drying floors, 483 built up processing sheds, 26 have obtained various types of machinery, 9 have purchased dryers, and 26 have established oil distillation units with total assistance of Rs 4.7 million in 1999 and 2000. While this is showing the magnitude of processing investment, in comparison to the number of total producers and processors, this number is very marginal.

² See Herath (2001) (op. cit.) for details.

However, it is important to realise the potential of meeting some of the problems with the participation of other countries so that we can be a partner in the Positive Agenda¹ that is being currently pursued by many other developing countries. We can adopt some of the following strategies in these lines.

Efforts should be taken to force more transparent and participatory preparations of standards applicable for spices in their raw and value added forms (for that matter other products too) particularly for the developed market. Forums such as Codex Alimentarius Commission and others are engaged in the preparation of universal standards. We should ensure that our contacts are up-to-date in standards and our genuine limitations are represented.

Particularly for the value added products, detailed methods of risk assessment and factors taken into account in determining standards should be constantly obtained. The case of being a “standard setter” rather than a “standard taker” for cinnamon should be pushed forward in international negotiations. We being the major supplier of true cinnamon, this would be a potential goal if correct actions at correct international deliberations are taken.

Possibilities should be explored of obtaining technical assistance under the provisions of Article 9 of the SPS agreement. Under this we have the possibility of seeking capacity improvement in human resources, laboratories, technology, dealing with scientific issues such as risk assessment (mainly for value added products), and taking assistance for establishing certification bodies and accreditation institutions.²

AGREEMENT ON TECHNICAL BARRIERS TO TRADE (TBT) AND ITS IMPACTS

Agreement on TBT contains international rules applicable to product standards. This agreement is highly relevant for trading value added products of spices and organic spices. The “technical regulations” are used to cover standards with which compliance is mandatory and “standards” are used to cover voluntary standards. Both terms of the Agreement covers (a) product characteristics, (b) process and production method (PPM) that have an effect on product characteristics, (c) terminology and symbols, (d) packaging and labelling requirements. The rules of the Agreement apply to process and production methods only if these methods have an effect on the quality or other characteristics of the product. Most Favoured Nation (MFN) clause and national treatment principle of WTO agreement apply to TBT.³

¹ UNCTAD began to stress the need for a “positive agenda”. The thrust of the positive agenda initiative was that the developing countries should make an effort to ensure that their interest would be taken up in any future multilateral trade negotiation so as to make them fully responsive to the concerns of developing countries (UNCTAD, 2000, op cite.). As a first step we the developing countries should submit, with the assistance of UNCTAD, detailed technically sound proposals in the preparatory process for the next WTO Ministerial Conference.

² The 4th WTO Ministerial Meeting held on 9-14th November 2001 at Doha, urged the Director General, WTO to identify SPS-related technical assistance needed for developing countries and how best to address them (WT/MIN(01)/DEC/1, 20 November 2001).

³ MVIRDC (op. cit.).

Also the Agreement states that the regulations should not impose unnecessary obstacles to trade. In order to minimise the obstacles, Agreement encourages members to participate actively in the work of International Organisation for Standardisation (ISO). At present spices are not subject to the application of mandatory standards. However, the requirement of mandatory standards would apply for value added and organic product of spices. The products can only be exported if the manufacturer or exporter could obtain a certificate of positive assurance from a recognised institution that the product is in conformity with the standards.

Facilities for such processes are still not conveniently available. Cost of the process is also not competitively affordable. The technical competence of the available conformity assessment body of Sri Lanka in the eyes of potential importers of value added products is also questionable. In order to adopt “*Code of Good Practice*” these standards should fall in line with international standards as a basis for Sri Lankan standards.

Lack of technically qualified personnel in this field is a major problem in providing necessary information. SPS Agreement, which will directly have an impact on spice trade, has more flexibility in comparison to TBT. First, the TBT Agreement requires that product standards should be applied on an MFN basis. The SPS Agreement permits standards to be applied on a discriminatory basis. The rationale for this rule is that, owing to differences in climate, the incidence of pests or diseases, and food safety conditions, it is not always appropriate to impose the same SPS standards on animal and plant products, originating from different countries. This has a distinct advantage for Sri Lanka.

Second, the SPS Agreement provides greater flexibility for countries to deviate from international standards than is permitted under the TBT Agreement. As noted earlier, the TBT Agreement allows a country to deviate from international standards if this is necessitated by “fundamental climatic or geographical factors or fundamental technological problems”.

Its provisions thus make it clear that the adoption of a standard, which is different will have to be justified on scientific or technical grounds. However, our authorities with the participation of the private trading sector should take advantage of this clause, which hitherto has not happened. Third, in determining the appropriate level of SPS protection, the objective of minimizing negative trade effect should be borne in mind.

ORGANIC SPICES AND TBT

Expansion of organic spices is a promising development effort in the spice sector. There are various issues emanating from TBT agreement related to organic spices and therefore a brief description of such issues is warranted in this paper. As mentioned earlier, increased demand for organic food due to the ever increasing consumer concerns on health generate trading opportunities for developing countries.¹

¹ Rene Vossenaar and Veena Jha (2001), “Trading Opportunities for Organic Food Products from Developing Countries”, paper presented at the Workshop in Dar es Salaam, April 2001, UNCTAD

Ethnic cuisine has become an integral part of the way of life of the West including the US and EU. More and more people of the West experiment with spices that were once considered exotic. According to the American Spice Trade Association, 1995 American spice consumption amounted to 3.1 pounds per person, an increase of a pound from the 1976 per capita consumption.¹ Consumers are more discriminating than ever about the taste and quality of what they consume because of the mounting information about healthy living. This has led to the organic spice category growing three times faster than the overall spice category.² Because of the nature of “organic” we have to face many challenges to become an acceptable exporter. These are in addition to the general constraints of quality etc. discussed above.

SPECIFIC CONSTRAINTS FOR ORGANIC SPICES

TBT agreement provides necessary legal and institutional framework to set up stringent constraints in the international markets for organic products. Some of these constraints are briefly listed below. There are production constraints among which lack of technical-know how is crucial. The DEA extension services, mainly based on delivering cultivation grants and advice to use inputs, which are not necessarily organic, do not at present include organic agriculture per se.

Lack of organic production inputs such as organic composting materials, bio-pesticides, and bio-fertilizers is also a limitation. There has been little research in Sri Lanka on varieties and production methods best suited to organic agriculture. However, many spice producers do not in any case use inorganic inputs, the conversion period from “inorganic spices” to “organic spices” in terms of production methods should not take excessively long. Further, according to some Certifiers accredited by the International Federation of Agricultural Movement (IFOAM), a product will not be “organic” just because the production methods do not use chemicals.

They emphasize the needs of growing crops in a sustainable way over the long term and assess, whether there are measures to protect the vegetation and soil, prevent erosion, and also assure that the crops are not being over-harvested. We should have these features in our organic farms. According to the guidelines established by the Organic Foods Production Act of 1990, farmers and processors must also pass yearly inspections conducted by an independent certifying agency, keep detailed records of operations, and maintain a written organic management plan. The strict quality often restricts the trading. Due to the harvesting nature of spices, there is an increased chance that they may contain foreign matter like twigs, leaves, insects, stones and dirt before they are exported.

¹ The International Trade Centre (WTO/UNCTAD) estimates that organic markets in developed countries totalled US\$ 17.5 billion in 2000. The markets for organic products in the United States and the European Union amount to approximately US\$ 8 billion and US\$ 7 billion respectively.

² Barbra Cohn (2001), *Green Spice*, The owner of Boulder Freelance Writers, a firm specializing in writing for the natural products industry, US. Organic foods at GreenMarketplace.com

Once pre-shipment samples are received by frontier importers, they undergo rigorous laboratory testing, and as a result, approximately 50 to 60 percent of these pre-shipment samples in the world are rejected because they do not meet frontier's stringent quality specifications and standards.¹ Spices often have a high micro-organism count, which can result in food spoilage and illness.

Sterilization is necessary to destroy micro-organism growth and their reproduction capability. Although irradiation is approved by the U.S. Food and Drug Administration (FDA) for sterilizing spices, those that are certified organic may not be irradiated. Heat sterilization and the use of carbon dioxide chambers are the preferred methods for processing organic spices. The cost of such operations may be prohibitive if practiced in small scale.²

Certification and accreditation issues play an important role in the organic spice sector. In most cases, importing countries and therefore exporters depend on certification by international certification bodies. Costs of certification vary, but can be significant. Appendix 4 lists the activities of certification process that would attribute to the cost.

We may find it difficult to set up national certification infrastructure. In fact, many other developing countries largely depend on aid agencies and transnational corporations to obtain certification. The other developing countries found that group certification, based on internal control systems, may be a solution.³ IFOAM has provisions for group certification, but this mechanism may not be sufficiently recognized in importing countries.

The multiplicity of national and regional standards and import procedures in developed countries for organic spices may create obstacles to exports. EU Council Regulation No. 2092/91 on organic production and labelling entered into force on 22 July 1991.

The Regulation covers production, processing, labelling and inspection of agricultural products and foodstuffs from organic agricultural production including spices. EU organic products importers must provide sufficient evidence to show (a) the imported product was produced according to organic rules equivalent to EU standards; (b) the imported product was subject to inspection measures equivalent to EU inspection requirements; (c) the inspection measures are permanently and effectively implemented; and (d) the inspection body operates in compliance with ISO/IEC Guide 65.

¹ Barbra Cohn (2001) (op. cit.)

² Non-organic spices might be sterilized with toxic chemicals like ethylene oxide (EtO) or methyl bromide, which is cheaper. EtO is primarily used to make other compounds like ethylene glycol, a chemical in antifreeze and polyester, and to sterilize medical equipment. It's highly combustible and, according to a 1990 public health statement from the Agency for Toxic Substances and Disease Registry, EtO may cause harmful health effects in humans who are in constant contact with it (irritation of eyes, skin and mucous membranes, miscarriage, leukemia, stomach and pancreatic cancer, Hodgkin's disease, problems with brain and nerve functioning). Thus these chemicals are strictly prohibitive in organic spices. Organic foods at GreenMarketplace.com

³ Nimrod, Waniala, (2001) *Production and trading opportunities and constraints for organic agriculture in Uganda*. Study carried out under project INT/98/A61. Mr. Waniala is Director, Private Sector Foundation (PSF), Trade Policy Capacity Building Project, Kampala, Uganda.

Each importer must obtain a separate authorization for each consignment.¹ Over 90 developing countries export in this framework to the EU, including three developing countries. Another important limitation is the process of obtaining organic labelling. Current rules concerning the use of official organic labels are sometimes discriminatory.² For example, the use of official organic labels in the European Union is for some products not open to non-EU producers. We have no experience to comment on this issue. There are other constraints emanating due to the actions of other producers of organic products.

One of the major issues is the increased pressure for providing subsidies to promote organic agriculture in the developed countries. Since these payments promote environmental protection, rather than providing direct production support, they are not subject to challenge under WTO rules.³ This could adversely affect the competitiveness of developing countries' products. Several developed countries provide subsidies to assist farmers during periods of conversion to organic agriculture.

There are also pressures to increase post-conversion subsidies.⁴ Many countries in the Central and Eastern Europe are in a similar position as ours in terms of agricultural practices. Majority of farmers use little or no agro-chemicals. For example, a substantial share of agricultural output in Poland is effectively produced by organic methods.

Their organic producers would be in a strong competitive position vis-à-vis producers from developing countries because of being relatively close to the main consumer markets and also being inside the EU market.⁵ This implies that developing countries might have a marketing risk if they substantially increase the output of organic products including spices to serve the EU market.⁶

WHERE IS THE POTENTIAL FOR ORGANIC SPICES AND WHAT CAN BE DONE?

Notwithstanding all these constraints, we should make all our attempts to capture the organic niche market in the world, particularly in the US and EU. In order to do that, the following specific activities could and should be undertaken.

- Increase public awareness and promote the local demand too for organic spices to increase the range and quantity of organic spices.

¹ Ken Commins and Ong Kung Wai (2002), *Regulation of Imports into Major Markets*. In IFOAM, Reader, February 2002.

² René Vossenaar and Sophia Twarog (2002), *Strengthening Developing Countries' Capacities To Take Advantage Of Niche Markets For Organic Agricultural Products: The Experience Of Costa Rica, India And Uganda*, Draft paper prepared under the UNCTAD project on Standards and Trade, funded by the International Development Research Centre (IDRC, Canada)

³ Luanne Lohr, (?) "*The Importance of the Conservation Security Act to U.S. Competitiveness in Global Organic Markets*." In René Vossenaar and Sophia Twarog (2002) (op. cit.)

⁴ Luanne Lohr, (op. cit.)

⁵ Organic Farming in Netherland, Francesco Melita, <http://www.organic-europe.net/country_reports/netherlands/default.asp>

⁶ India has already faced with this problem. There is no critical mass in production to enable economies of scale for processing, servicing, research and market development (Govindan A, 2000 op.cit.).

- Promote the conservation of agro-biodiversity in the development of organic spices. This includes arranging diverse and suitable cropping patterns, encouraging suitable varieties for organic agriculture and also to suite various niches of the ecological and socio-economic conditions.
- Select and breed spices for pest and disease resistance (important as no chemical is used).
- Promote Integrated Pesticide Management (IPM) and Integrated Nitrogen Fertilizer Management (INM), thereby promoting the use of organic resources;
- Initiate linkages with the services of certain international certifying agencies such as SKAL and IMO.
- Improve trade policy, focusing on trade preferences for organic spices, the use of subsidies, technical assistance and special measures for small producers.

INDO LANKA FREE TRADE AGREEMENT (IFTA) AND ITS IMPACT ON THE SPICES

IFTA was signed in 1998 between India and Sri Lanka, which allowed by the WTO under GATT Article XXIV (24) on preferential trade agreements. IFTA in general is a blessing as it provides India as a preferential trading partner. Such trading partners are useful, particularly in an environment where there are several other such preferential agreements, which are harmful for us.¹ IFTA is a preferential trading agreement² and thus both countries have a considerable autonomy to decide their own tariff policies and rates with respect to the rest of the world.

A full discussion on the impact of IFTA is out of the scope of this paper.³ The direct impact arises from the tariff cuts under the agreement. Reduction of tariff will have a short-run benefits such as better prices for the commodities concerned and also the long-run benefits such as increased investments, technology transfer and resulting human capital spill-over effects. India has reduced the tariff rates for all the spices by 50% and as a result the current rate of tariff is 17% for all the spices. There are no non-tariff barriers from India on any of the spices. This would therefore increase the market access of spices by 50% to India. The impact of this would be:

- Immediate increase in the volume of spice exported to India (see the line chart in Appendix 5).
- It is clear that there is a trade diversion in favour of India. As the Indian market is less particular on the quality and SPS standards, there is a short-run advantage for us to send more volume of “substandard” quality spices to India. However, this would be a disadvantage in the long run if we loose our market share in the high priced markets due to the trade diversion. Hence the trade flow from Sri Lanka to India vis-à-vis other countries should be monitored and excessive diversion should be limited.

¹ Examples are Kenyan tea will be given preferential tariff by Egypt by the Common Market for Eastern and Southern Africa (COMESA) and out tea will be subject to higher tariff.

² Other forms of integrations are free trade areas such as SAFTA, custom unions, common markets, economic unions, and regions with total economic integration such as EU all of which are more integration.

³ Visit the website www.indolankafta.org/publ for a number of articles about the agreement and its impact on both countries.

·Spice import to Sri Lanka from India is also possible under the IFTA on concessional basis. Safeguard measures should be taken if this would be problem. ¹

·Under the Rule of Origin the provision is there for us to value add to our spices even including other components of “spice mix” etc. imported from other countries, even from India. The agreement says that the products that are not wholly produced or obtained within the participating country should have the local content of at least 35% of the FOB value. Under this clause, we can initiate joint ventures to add value to spices and even the organic spice mixtures.

WAY FORWARD AND RECOMMENDATIONS

It is increasingly clear that quality consciousness is the agenda and a reality of the world trading system with very good reasons. Thus the motto of the development of the spice sector in all three options, i.e. natural spices, value added spices and organic spices, is to increase our competitiveness in terms of quality and stable supply of spices. Do we have the necessary conditions in the spice sector to hold competitive advantage in terms of quality? According to the competitiveness theory of Michael E Porter², there are four conditions that make an industry competitive in the international market. These are listed in order to give a focus to the recommendations. First, the *factor conditions*, which addresses the production as well as other factors that a country possess in favour of a particular industry.

The spice industry possesses such factors as intrinsic quality and a suitable climate, and capitalising them is the need of the day. Second, the *demand conditions* where the nature of local demand for a particular product, for instance our demand for best quality spices or organic spices, will influence the competitiveness. We as a nation should also be conscious of the quality and health factors of our food.

Demand for organic food is emerging which is encouraging to stepping into the competitiveness. Third, *related or supporting industries* concept explains the presence of suppliers of similar products, which are internationally competitive will assist the whole industry. There are a few quality spice product and organic product suppliers in the country. Their influence on the industry has to be consolidated. Finally, *the structure and nature of rivalry of related firms* also improve the competitiveness. The cost-based competition in the local spice trade should be translated into quality and high priced-based internal competition to be in line with this condition.

The spice sector has characters to represent all these four factors and thus have the potential for becoming a competitor in the world spice trade. The future of the spice industry is therefore not bleak. In order to strengthen the development endeavour, the following recommendations, which are in line with the above four conditions, are made.

¹ The agreement allows safeguard measures that could be result in provisionally suspending the preferential treatment in the case of causing or threatening to cause a serious injury to the economy or the industry.

² Professor of Business Administration at the Harvard Business School and a leading authority on competitive strategy and international competitiveness. The books referred are: Competitive Advantage: Creating And Sustaining Superior Performance (1985) and The Competitive Advantage of Nations (1998).

Some of them would focus on minimising the negative aspects of issues arising from SPS restriction to the spice sector, while others address cross cutting issues of other trade related agreements. The collective efforts alone in these lines would facilitate the improved vertical integration of the sector.

RECOMMENDATIONS TO INFLUENCE FACTOR CONDITIONS

1. Growers should be made aware of the importance of reducing and controlling cost of production of spices to be competitive in the world market as natural spice producers and also to provide cost effective raw materials for value added products.
2. Improved post harvest and processing technology need to be adopted to take advantages of the market access opportunities. Our advantage would be in producing, “naturally clean” spices rather than “cleaned” spices. This would require major efforts in post harvest technology, training and warehousing.
3. Organic spice production need to be promoted in the way proposed above.
4. Emphasis should be placed on the possibility of exchanging genetic material and plant varieties. We should also introduce a “Sui generis” system of protection of spice genetic material. This requires high level of expertise and may be beyond the resources and technical know-how available to us at present. Thus necessary steps should be taken to carry out collaborative work with other spice producing countries such as India.
5. Along with the increased awareness of SPS aspects, programmes should be developed to improve the capability to detect and eliminate contaminants, to process spices to acceptable standards, and proper packaging etc. Research should focus on such methods. A well formulated strategy including policy, research, information communication, training, extension, and testing facilities is an urgent need to face this challenge.

RECOMMENDATIONS TO INFLUENCE SUPPORTING INDUSTRY CONDITION

6. Sri Lanka should be in the direction of adopting options such as commodity futures for selected spices. Pepper is a promising commodity. International Pepper Community (IPC), of which Sri Lanka is a full member, has already mooted a proposal to set up an International Pepper Futures Exchange (IPFE). FAO has reported that futures and option markets, which were traditionally adopted by the developed countries, have shown a significant growth in developing countries.¹ This would nullify some of the adverse effects of SPS.
7. It is important for Sri Lankan exporters, traders at all levels and growers to know the details of the SPS regulations, mandatory standards and in certain cases voluntary standards in target export markets. The government should establish National Enquiry Points facilitating the flow of timely and reliable information on SPS.

¹ FAO has observed that “the considerable redistribution of price risks internationally and naturally following liberalisation raises questions on the economic and social consequences of exposing agricultural producers to world price volatility, in addition to the often more substantial risks than run from natural factors which affect the year-to-year quantity produced. Exposing farmers and small traders to the full brunt of the world market price volatility is not only detrimental to them, but to the economy as a whole. The alternative to state intervention to protect farmers and small traders from price volatility lies in the use of so called market based risk management instrument (FAO Commodity Review and Outlook, 1994-95).

RECOMMENDATIONS TO INFLUENCE FIRM STRATEGY

8. Article 9 – Technical Assistance under SPS measures states that “Members agree to facilitate the provision of technical assistance to other Members, especially developing country Members, either bilaterally or through the appropriate international organisations. Such assistance may be in the areas of processing technologies, research, infrastructure including establishment of national regulatory bodies, and may take the form of advice, credit, donations, and grants”. The government should take necessary steps to make use of these provisions and expedite the process.

9. The government should take adequate steps, at policy level, to enforce the provisions of the Agreement on TRIPS so that the private sector and even the state sector can invest on research and development in the spice sector to obtain maximum benefits to investment.

10. State assistance should be provided to central collection and processing points to maintain the homogeneity of quality.

11. It is apparent that improvement of quality of export-destined spices is an urgent requirement. As a short-term measure, until the market forces establish the proper quality standards, it is proposed that the SLSI should be given the authority and also the required facilities to carry out pre-shipment quality testing of every consignment of EAC destined for export. The standard practices of quality testing can be adopted by the SLIS and a certificate issued to the effect that a particular consignment is of a particular quality. The quality certification is especially important for bulk exports. The certification should be done prior to export and carried out by the officials of the SLSI as required by the custom authorities.

APPENDICES

Appendix 1: Export Volume and Value of Spices and other EAC from 1990 to 2000

COMMODITY	Details	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
CINNAMON	MT	6,501	7,889	8,238	8,755	9,042	9,852	10,077	9,846	9,401	10,506	10,326
	Mn US \$ mn	14.851	17.953	19.049	20.565	20.326	21.516	24.033	34.313	40.836	44.149	43.576
CIN-LEAF OIL	MT	46	107	119	137	176	199	82	95	145	129	158
	Mn US \$ mn	0.163	0.365	0.405	0.544	0.851	1.704	0.593	0.569	1.025	0.961	1.303
CIN-BARK OIL	MT	1	3	3	5	4	4	3	4	3	4	5
	Mn US \$ mn	0.093	0.440	0.424	0.626	0.580	0.716	0.525	0.771	0.808	1.139	1.215
CLOVE	MT	2,082	521	632	1,162	611	834	1,190	1,720	1,455	2,754	837
	Mn US \$ mn	2.895	0.724	0.693	0.814	0.448	0.761	0.986	1.460	1.517	4.824	2.886
CLOVE STEM	MT	211	516	478	526	239	282	238	735	453	655	0
	Mn US \$ mn	0.026	0.071	0.065	0.084	0.069	0.056	0.071	0.171	0.245	0.356	0.000
CLOVE OIL	MT	0	0	0	0	1	7	0	1	1	2	2
	Mn US \$ mn	0.000	0.000	0.000	0.000	0.008	0.004	0.003	0.008	0.014	0.028	0.089
PEPPER	MT	1,305	2,058	2,144	8,046	3,412	2,396	2,987	3,279	5,493	3,754	4,847
	Mn US \$ mn	1.466	1.738	1.514	5.015	3.856	4.086	4.869	9.840	21.476	16.321	21.045
PEPPER OIL	MT	7	2	0	1	5	3	7	38	24	3	3
	Mn US \$ mn	0.023	0.025	0.004	0.011	0.059	0.034	0.101	0.596	1.480	0.300	0.199
CARDAMOM	MT	33	29	21	14	26	19	6	9	16	17	8
	Mn US \$ mn	0.113	0.086	0.078	0.095	0.135	0.100	0.046	0.084	0.144	0.166	0.075
Cardamom Oil	MT	0	1	0	0	0	0	0	0	1	0	0
	Mn US \$ mn	0.014	0.045	0.025	0.031	0.033	0.046	0.073	0.081	0.113	0.089	0.099
NUTMEG	MT	268	469	748	760	646	741	1,004	656	860	1,041	1,074
	Mn US \$ mn	0.278	0.284	0.530	0.424	0.443	0.623	0.758	0.703	1.306	3.221	3.954
MACE	MT	2	21	67	24	19	14	80	98	39	107	112
	Mn US \$ mn	0.006	0.020	0.060	0.021	0.048	0.041	0.181	0.389	0.239	0.671	0.860
NUTMEG OIL	MT	3	5	12	12	15	10	48	20	19	9	5
	Mn US \$ mn	0.029	0.031	0.086	0.071	0.103	0.089	0.089	0.134	0.430	0.358	0.224

Appendix 2: Area Under Cultivation of Spices and other EAC

District	Coc oa	Coff ee	Cinna mon	Carda mom	Pep per	Clo ve	Nutm eg	Citrone lla	Tota l
Kandy	2,58	2,47	37	2,642	3,04	2,2	1,59		14,5
Nuwara		780		497	371	219	6		1,87
Matale	3,74	1,53	121	1,040	2,53	1,1	85		10,2
Kurunegala	488	1,37	25	225	1,44	424	117		4,09
Badulla	126	1,82	76	26	1,25	406	10		3,72
Moneragala	663	422		4	237				1,32
Kegalle	1,20	1,18	44	538	1,72	1,8	503		7,07
Ratnapura		344	2,526	411	873	728	63	239	5,18
Colombo/G	21	427	383		732	125	36		1,72
Kalutra	20	72	2,399		183	110	6		2,79
Galle		136	9,820	2	235	206	14		10,4
Matara		412	7,768		234	246	26	102	8,78
Hambantota		101	1,710		234	39		3,064	5,14
Total	8,85	11,0	24,909	5,385	13,1	7,7	2,46	3,405	76,9

Appendix 3: Market Access Increase

Appendix 3: Table 1 : Main Export Markets for Cadamom, which Makes 80% of Exports, and Rate of Tariff Reduction and the Increased Market Access

Country	% Volume out of total export volume to each country	Potential reduction rate of tariff under WTO market access agreement	% of Market Access weighted by the % of exports
Germany	2.1%	36%	0.8%
Australia	2.3%	0% (no tariff)	-
Sweden	2.4%	0% (no tariff)	-
Pakistan	2.6%	24%	0.6%
Qutar	2.8%	24%	0.7%
Jordan	2.8%	24%	0.7%
Japan	3.2%	0% (no tariff)	-
India	3.6%	50%	1.8%
U.K.	3.7%	0% (no tariff)	-
South Africa	3.8%	0% (no tariff)	-
U.A.R.	3.8%	0% (no tariff)	-
UAE	5.5%	0% (no tariff)	-
Bangladesh	5.5%	24%	1.3%
Yemen	7.6%	0% (no tariff)	-
Maldives Islands	9.6%	24%	2.3%
Singapore	20.5%	0% (no tariff)	-
Access increase	80%		8.1%

Appendix 3: Table 2 : Main Export Markets for Pepper, which Makes 80% of Exports, and Rate of Tariff Reduction and Market Increase

Country	% Volume out of total export volume to each country	Potential reduction rate of tariff under WTO market access agreement	% of Market Access weighted by the % of exports
Germany FR	2%	0% (no tariff)	-
Egypt	3%	24%	0.6%
Netherlands	3%	0% (no tariff)	-
Turkey	4%	0% (no tariff)	-
United Arab E.	4%	24%	0.9%
Greece	4%	24%	0.9%
Russia	5%	0% (no tariff)	-
U.S.A.	10%	0% (no tariff)	-
U.K.	11%	0% (no tariff)	-
Pakistan	13%	24%	3.2%
India	25%	50%	12.5
Access Increase	80%		18.1%

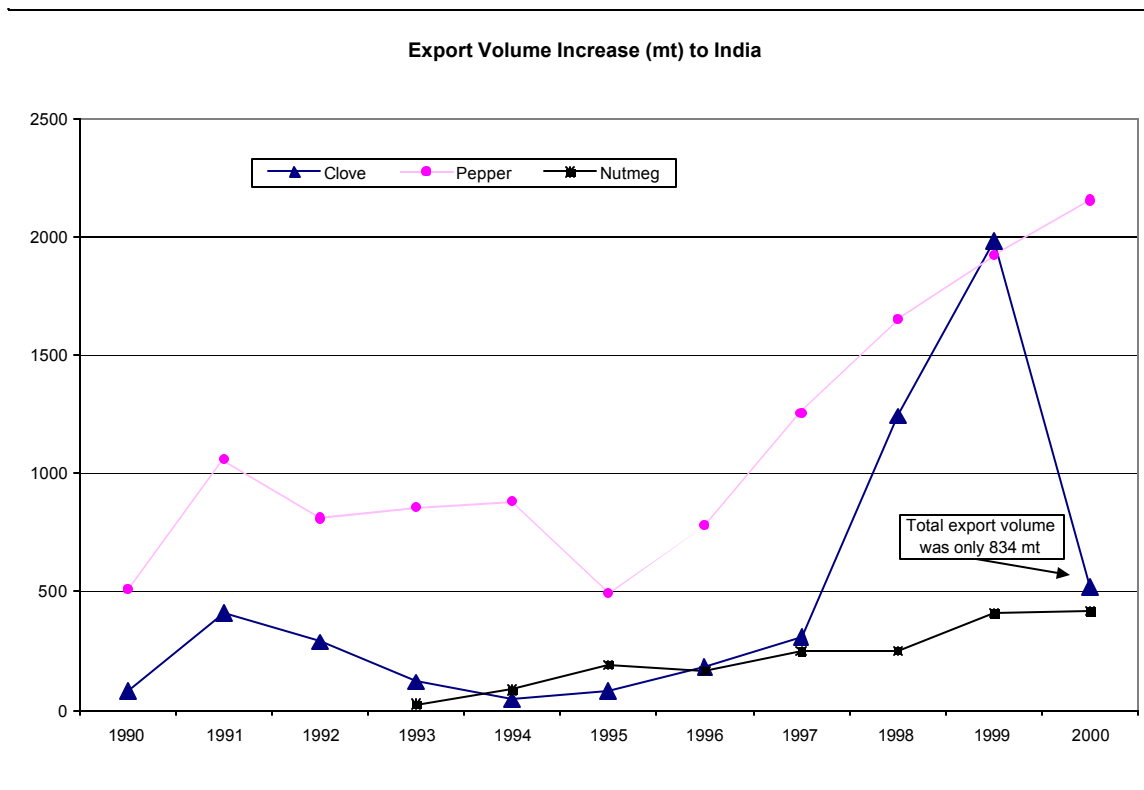
Appendix 3: Table 3 : Main Export Markets for Clove, which Makes 80% of Exports, and Rate of Tariff Reduction and Market Access

Country	% Volume out of total export volume to each country	Potential reduction rate of tariff under WTO market access agreement	% of Market Access weighted by the % of exports
UAE	2%	24%	0.6%
Netherlands	3%	36%	1.0%
Singapore	3%	0% (no tariff)	-
Jordan	4%	24%	0.8%
Syria	6%	24%	1.5%
UK	7%	36%	2.5%
Saudi Arabia	26%	0% (no tariff)	-
India	31%	50%	15.4%
Access Increase	80%		21.8%

Appendix 3: Table 4 : Main Export Markets for Cinnamon, which Makes 80% of Exports, and Rate of Tariff Reduction and Market Access

Country	% Volume out of total export volume to each country	Potential reduction rate of tariff under WTO market access agreement	% of Market Access weighted by the % of exports
Italy	2.3%	0.0% (no tariff)	-
Germany FR	2.6%	0.0% (no tariff)	-
Guatemala	2.6%	24.0%	0.6%
Chile	2.7%	24.0%	0.6%
Ecuador	2.9%	24.0%	0.7%
Spain	3.9%	0.0% (no tariff)	-
Peru	6.4%	24.0%	1.5%
Colombia	6.4%	24.0%	1.5%
USA	10.7%	0.0% (no tariff)	-
Mexico	44.4%	24.0%	10.7%
Access Increase	80%		16%

Appendix 4: Increase in Export Volume to India



Appendix 5: Certification Process and Indication of the Costs in Developing Countries¹

A certification body should:

- Be able to certify to various public and private Standards
- To be accredited ISO guide 65
- To maintain a high quality and a professional work
- Assure to the certified product an access to all markets
- To provide to the applicant the update Standards
- Be willing to cooperate with local staff, train and use domestic inspectors, work with local domestic certification bodies

Certification includes the following cost elements:

- Inspection on site
- Report
- Evaluation of the report
- Decision of certification
- Establishment of certificate
- Follow up – Transaction – Export – Import – Documents

Factors influencing the cost of certification include:

- Inspection fees
- Certification fees
- Travel costs
- Inspection Plan - Frequencies of the Inspection
- Analysis

How can a balance be established between certification cost and credibility of the certification?

- Inspection done by local staff
- Adequate fees - local fees
- Less travel cost
- Provisions for small holder group certification
- Certification based on Internal Control System (ICS)
- Risk assessment. Approach for external control

What can be done to achieve this balance?

- Develop programs to train organic farmers and small holder groups
- Adopt standard and inspection plan to the local situation
- Assure that the farmers to get the right price for their production

¹ Michel Reynaud (ECOCERT) in the CBTF Policy Dialogue on Promoting Production and Trading opportunities for Organic Agricultural Products (Brussels, February 2002).