

The Sri Lanka Tea Industry: Economic Issues and Government Policies

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Abstract

In the slowly growing global tea market Lanka has not performed as well relative to its competitors in recent times as it did in the past. Sri Lanka needs to improve the efficiency of its industry to remain competitive in world tea market.

Improving efficiency and international competitiveness in the Sri Lanka tea industry requires that the high costs of production, associated with low productivity, be reduced. Tea producers have the main responsibility for this. However, for improving efficiency and achieving international competitiveness, it is necessary that government policies for the tea industry are consistent with correction of market failures. This is not the case at present, with government policies for the tea industry directed partly to correcting market failures but more to achieving political goals.

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1.0 Introduction

The tea industry initiated by the British played an important role in the economy of pre and post-independence Sri Lanka. For more than a century, tea has been the biggest provider of employment, export earnings and government revenue. By the independence of Sri Lanka in 1948, tea along with rubber and coconut contributed more than 92 % of total export earnings of the country (Athukorala and Huynh, 1987). The tea sector still continues to occupy an important place in the economy, even though the relative contribution has declined in recent years.

The tea industry of Sri Lanka has not performed well in the competitive global tea market. The country is conceding its market share to emerging producers like Kenya and other African producers. As the global tea industry is very competitive, the slow market growth means each producer faces the challenge of maintaining their position (Ali et al, 1997). Sri Lanka could achieve an efficient industry through market forces alone only if the market were free from imperfections. In the presence of imperfections, commonly called market failures, government intervention may be required to attain economic efficiency. However, in many instances, government intervention rationalized by correcting market failures introduces inefficiencies to the economy. One reason for this is that, even if well intentioned, the government may get it wrong – perhaps because it lacks the information to intervene as required, to correct the market failures. Another reason is that its policies are politically motivated, intended to benefit members of some groups at the expense of others, rather than to address the causes of market failure. The public policies toward an industry can be explained as the government response to political forces for and against industry programs (Anderson, 1978; Gardner, 1987; Stiglitz, 1986).

This paper discusses government policies for the Sri Lanka tea industry within an economic and political framework. Discussion is organized as follows. First, an overview is provided of the tea industry of Sri Lanka. This includes the historical development, the structure of the industry, its role in the economy and the productivity of the resources used in production. Second, an account is provided of government activities in the industry. This gives a picture of regulation and assistance for the industry. Third, the discussion focuses on market failure arguments, in order to explore the economic role of government in the Sri Lanka tea industry. This includes identifying the nature of government policies

that have been employed for correcting market failures. Fourth, an attempt is made to use the alternative political economy approach, and assess the demand for and supply of government programs for the tea industry. Last, a summary and conclusion is provided.

2.0 Tea Industry Overview

The understanding of the prevailing conditions presents necessary grounds for studying an industry. This part of the discussion provides an overview of the Sri Lanka tea industry to give broader understanding of the present economic environment. The development of the tea industry and its role in the economy and important issues related to the progress of the industry is discussed in this section.

2.1 Historical Background

Tea was introduced to Sri Lanka after coffee was destroyed by Coffee Leaf Rust in the 19th century. James Taylor, a Scottish planter, established the first commercial tea plantation in 1867 at Lookandura Estate in Kandy District of Sri Lanka. The great success of tea planting attracted English planters and more plantations were established, replacing existed coffee fields. Subsequently, as the coffee area was not big enough to meet the demand for tea cultivation, the area expanded further into the hill country, finally into the Uva basin and the country soon became a leading tea producer.

The British-initiated tea plantations continued as large plantations under private ownership. Land reform introduced in the 1970s brought large estates under public ownership. A large area of state controlled tea land was distributed among rural people, and the rest was brought under the management of two state corporations. The public ownership was reversed in 1992 when formed regional plantation companies, which were sold to the private ownership.

2.2 Industry Structure

By 1995, the total 192,524 ha were under tea cultivation in low grown (mean sea level to 610m), medium grown (from 610 m to 1220 m) and high grown (above 1220 m) areas of the country (MIP, 1995). Tea is geographically widespread over the entire wet zone and to a lesser degree in the intermediate zone and cultivated in 13 out of 26 administrative district. Tea cultivation was begun as large plantations but with the gradual changes of

the economy, tea planting in small land blocks has become increasingly popular leading to the development of small holder sector in the country. Land redistribution programs implemented by the government after land reform has also caused to increase the number of tea small holders in the country. At present, large plantations and small private estates mainly exist in up and mid country area while small holders are dominant in low country.

The contribution to the total production from different elevation groups has been changed over the time with the changes of tea land area in the respective regions. The contribution to the total production from up country has slightly improved while mid country contribution has come down on last two decades. Low grown production has almost doubled during the time considered. The share of estate sector has gradually come down over the time showing the importance of the small holder sector.

2.3 Role in the Economy

The tea industry played an important role and still continues to occupy an important place in the economy of Sri Lanka even though relative contribution has declined in recent years. Tea utilizes large quantity of resources and provides relatively high return to the country. Tea uses larger area of wet zone arable land available for the agriculture. Sri Lanka produced 280 kg million of black tea in 1998, about 10 percent of total world black tea production. Sri Lanka exports more than 90 percent of its production annually. Foreign export earnings amount Rs 42.5 billion or about 15 percent of total export earnings that comprised 58 percent of agricultural export (Central Bank of Sri Lanka, 1998).

With the changes of the Sri Lanka economy since 1980's, value of industrial export has increased dramatically. Contribution of the tea sector to the GDP was 1.5 percent in 1998. Table 1 provides information about the importance of tea industry in terms of production, export quantity and earnings and contribution to the GDP over time. The value of tea exported from Sri Lanka remains at a higher place compare to the other major producing countries as part of export goes to the market as value added product.

2.4 Production Changes

Sri Lanka was the second largest producer having 20 percent share of the world tea production in 1961(ADB, 1990). The total production of Sri Lanka has increased until 1965 and thereafter tea production has not changed until late 1980s while India, China and Kenya has increased output by many times. However, total production has gradually increased after mid 80s with average 2% annual growth rate reaching 280kg million in 1998. The production increase mainly came from the low grown areas where small holders are prominent. Production from low elevation has increased rapidly reaching 150 kg million level in 1998. High grown area has shown little improvement while mid grown area has decreased the level of production in the same period.

Table 1
Tea Production, Export, and Contribution to the National Economy

Year	Production kg mn	Export kg mn	Export Earnings Rs million	SDR million	Value added as % of GDP
1983	179.3	167.3	8296.0	330	6.0
1984	208.6	204.0	16764.0	605	7.4
1985	214.1	198.0	12002.8	434	6.6
1986	211.3	207.8	9262.8	261	4.6
1987	213.3	201.1	10663.6	280	6.6
1988	226.9	219.8	12298.7	288	6.1
1989	233.2	204.2	13666.9	296	4.6
1990	233.2	216.0	19823.3	364	4.4
1992	179.0	182.0	14893.0	241	2.0
1993	232.0	218.0	19911.0	296	2.4
1994	242.0	230.0	20464.0	296	2.3
1995	246.0	241.0	24638.0	316	2.1
1998	280.0	272.0	50280.0		1.5

Slow growth of the industry output during 1970s and 1980s is mainly attributed to the poor performance of the estate sector. Low yield level of the estate sector is a widely discussed issue in the country. Changes of the entire economy and plantation sector particularly over the last few decades and production changes in the tea industry are related each other.

Recent performances of the production mainly come through the contribution of the small holder sector especially in the low country area. Higher producer prices continued for the low grown tea has attracted many small landowners for tea planting in low country area.

Large plantations also have increased production under the private management. Tea prices for Sri Lanka have been sustained at an attractive level over the time due to the global supply changes and currency depreciation. Industry has responded positively to the price improvement by increasing production continuously over the time.

2.5 Productivity

The productivity of an industry gives an idea about the resources use to produce the output. Producers who use relatively less inputs competes with others and thus productivity is a good indicator of the progress of any producer in the market. Land and labour productivity are two different measures that could be used to understand the tea industry more deeply.

Land Productivity

In the late 1950s Sri Lanka's national tea yield was about the highest in the world (ADB, 1990). During the 1960's too Sri Lanka's productivity remained at an attractive level with world standards. Other producing countries have acquired reasonable increase in their productivity compare to stagnation and slow growth of the production in Sri Lanka. Poor land productivity of Sri Lanka tea is attributed to both old vegetative stock and low agricultural standards.

Land productivity among different tea growing areas and different producer groups are not similar due to many reasons. Low grown area has much higher yield than mid and up elevations. Low grown area experiences longer sunshine hours that enhance the growth of tea flush and thus produce high yields eventually compare to the mid and high grown areas. Low country has higher percentage of VP tea that gives higher yield compare to low VP percentage in mid and high grown area. Up and mid elevation has relatively old tea lands having low yield potential. Mid country where tea planting was commenced about hundred years ago has very old seedling tea on degraded soil. High vacancy rate is another contributory factor for low productivity in mid country tea lands. Therefore land productivity is very low in mid country tea lands.

Labour Productivity

Labour constitutes about 65% of the cost of production in the tree crops industries and thus labour productivity has greater impact on the profitability. Labour productivity

reduces with decreasing yield. Labour productivity of the estate sector in Sri Lanka remained well below the capacity. Low labour productivity of Sri Lanka tea estate is related to less land productivity and inefficient labour use. As plucking absorbs highest number of labour days, labour productivity is the deciding factor of profitability. The plucker intake at the estate sector is less than the small holder sector. This is because the plucking norms were set too low with no relation to varying productivity of different estate. However, as fine plucking is necessary for good quality final product, selective hand plucking has been continuing for long time without any technological advancement to improve labour productivity. Thus it seems to be an important area need to look even now to improve labour productivity that is necessary for improving relative competitiveness of Sri Lanka tea in the world market.

2.6 Cost of Production

Productivity and cost of production (COP) are inter-related. Labour productivity in tea has greater relation with COP as tea production system needs larger quantity of labour. Sri Lanka has highest COP among major tea producing countries. The high cost of production is perhaps one of the most critical issue for future performances as it has two type of impacts on future prospects. First, it makes the industry noncompetitive at the market, as higher COP does not allow producers to bring down the prices to attract buyers in a competitive market. Second, it lowers the profitability for the producers reducing new investment. New investments are important to replace old seedling stock with high yielding colonel tea and produce high quality product at lower cost.

There are differences among COP of different producer groups as well as regions of the country. Estate sector COP remains higher due to the cost involved with various social benefits, higher overheads as well as rigidities in labour market. Number of workers and workdays in the estates are fixed regardless of the output, therefore labour cost does not change with the level of output. Thus improved yield become important to lower the cost of production in the estates. Labour cost varies in smallholdings as they highly depend upon family labour. Further, there is no fixed cost such as holiday payment involved with the labour use in the small holder sector.

2.7 Tea Exports

Low domestic consumption of tea has allowed Sri Lanka to maintain relatively high export share. The average consumption of tea is estimated around 5 % of gross output. However, it is difficult to estimate actual amount, as data is not available on direct factory sale and inventory holdings each year. Growth of the domestic demand will remain at low level if the previous consumption pattern to be existed.

United Kingdom was the largest tea importer from Sri Lanka with declining share over the time. Sri Lanka exported large quantities to U.S.A. Pakistan, Iraq and Australia too until recently. With the emergence of African producers, traditional suppliers like India and Sri Lanka have lost the share in the major traditional markets. Reduced tea imports from Sri Lanka to the United Kingdom is not only the result of reducing tea consumption but also changing trading pattern with the dominant role of multinational firms in tea trade. Sri Lanka has lost its market share in Australia, Canada and Pakistan too during the same period while Middle East countries like Iran, U.A.E. and CIS countries have emerged as major buyers of Sri Lanka tea.

Sri Lanka has increased its share of value added forms of tea export over the time to earn higher income. As a result of value added tea export, Sri Lanka remains as highest export earner from tea compare to Kenya that export almost same amount of tea in last few years. This indicates the importance of value adding process within the country. Progress of Sri Lanka not only as a producer but also as a value added tea product exporter are important to gain higher income to the country from tea industry.

2.8 Tea Prices

Tea prices at the Colombo auctions relatively fluctuate over the time. Changing tea prices have impacts on the economy as it serves as one of the major export earner to the country. Large number of small holders and estate workers depend on tea for their income. Therefore, change of the tea prices has greater impact on the performances of the entire economy and living standard of the people involved with the industry.

Global tea production has increased in larger quantities from 1970s while demand has not improved at the same rate making pressure on the producer prices of tea. Changes of the marketing with the dominance of larger multinationals also have influenced the producer

prices to a certain extent. Nominal price for raw tea produced in India, Indonesia, Kenya and Sri Lanka has improved slightly over the time in United Kingdom, USA and Canada while real prices has come down from 1970's to date. Nominal and real price for final tea also follows the same trend. However, margin between raw and final tea has maintained at constant level (Weerahewa, 1996).

There is a considerably higher margin between the Colombo Auction price and F.O.B. price. Table 2 shows the details about the margins of the exporters and producer prices at the Colombo Auction. It shows that tea exporters enjoy reasonably higher margin compare to the producers. Many people argue that tea auction does not behave competitively since multinational operates through their agents. Thus, tea producers face an imperfect market.

2.9 Summary of the overview

The tea industry initiated by the British still remains as an important part of the Sri Lanka economy. The Industry has undergone series of changes; small holder sector has emerged as a leading group; low grown area has improved the production capacity substantially. Sri Lanka has lost the position it had as major tea producer with the poor performances of the industry. Low land and labour productivity with high cost of production restrict the competitiveness of the industry. Changes of the marketing system have influenced the producer prices of tea. Producer price has come down to maintain constant margin for processors at the presence of large multinationals.

Table 2 :Tea Prices Received by Producers and Exporters Rs per kg

Year	Auction Price	F.O.B. Price	Difference	Percentage
1980	18.36	33.48	15.12	82.20%
1981	18.06	33.54	15.48	85.70
1982	23.43	35.02	11.59	49.46
1983	43.27	52.60	9.33	21.56
1984	62.79	77.21	14.42	22.96
1985	39.01	60.72	21.71	55.65
1986	30.68	44.53	13.85	45.14
1987	39.30	52.97	13.67	34.78
1988	42.77	55.95	13.18	30.81
1989	54.61	66.91	12.30	22.52
1990	70.97	91.82	20.85	29.38
1991	58.27	84.03	25.76	44.21
1992	61.75	81.57	19.82	32.09
1993	68.88	91.04	22.16	32.17
1994	65.12	91.32	26.20	40.23
1995	72.21	101.97	29.76	41.21

Source : Plantation Sector Statistical Pocket Book, Ministry of Plantation Industries (1996)

3.0 Government Policy on Tea Industry

The concerned of the agricultural contribution to the balance of payment under relatively fixed exchange rate regime resulted complex policies on agricultural in many countries (Mauldon, 1975). Edwards (1978) has pointed out that this concern rationalized the diverse government policies on tax and subsidies, public research and extension and government investment in infrastructure development. This is same to Sri Lanka as well. The country relies heavily on agriculture as a primary source of economic surplus. The government of Sri Lanka has followed wide range of policies on agriculture from the independence in 1948. Tea, as the single most important crop next to rice¹, received greater attention of government agricultural policy. This part of the paper discusses various government policies for tea industry.

3.1 Taxes and Subsidies

Like any other agricultural commodity, government taxes tea industry directly and indirectly. Taxation on the tea industry was designed to reallocate gross revenue within the country on the basis of government social priorities. The tax scheme imposed on tea industry was developed prior to the nationalization when the tea lands were predominantly owned by a non-national private sector (ADB, 1990). High level of negative protection or

¹ One of the most striking feature of the agricultural sector of Sri Lanka is that it consist of two distinct

taxation averaging more than 20 percent is reported for tea. Direct and indirect tax rate on tea has remained very high from the independence until 1992. Indirect taxation, which averaged 27 percent from 1953 to 1985, has increased markedly after 1950 reaching 39 percent during 1971 – 1977. Indirect taxation has dropped to 19 percent or less during 1984 and 1985. Sharp increase in direct taxation of tea reaching to 40 percent for the period of 1978 – 1985 was witnessed as a result of complete devaluation that took place in 1978. Total tax rate on tea remained above 50 percent for the period from 1970 to 1985 (Bhalla, 1991 pp212 – 215). World Bank has reported above 50 percent tax rate Sri Lanka tea industry for late 1970's and averaged 35 percent for the decade (World Development Report, 1986 pp 76). Tea export taxes were abolished in 1992 to make Sri Lanka tea more competitive in the global markets (Sri Lanka Tea Board, 1994). Today, the only remaining commodity tax on tea is the tea cess, a levy that producers pay for the government's financing of beneficial activities for the industry; research and development, tea promotion and subsidies.

There are four categories of subsidies that are operating for the tea industry. First, field rehabilitation and development subsidy for long-term upgrading of production facilities such as new planting, replanting, and infilling. Second, factory development subsidy for increasing the efficiency of tea processing and converting from Orthodox to CTC varieties. Third, short-term production subsidy to meet, for example, falls in tea prices or rises in input costs. These include a tea fertilizer subsidy and one for green leaf supply. Fourth, marketing subsidies, in the form of tea promotion grants, import duty rebates, Export Development Board grants, and alike. Resources generated through export levy are not sufficient to meet entire subsidy thus government provides part of the cost of subsidy programs (ADB, 1990).

3.2 Marketing and Pricing

Tea is being sold for years through the Colombo auctions. Tea producers, by law, are supposed to sell their product at the auction through the brokers, as government believes that there could be loss of income at long run in the absence of present system. Tea brokers charge 1 percent charge for their service. High transaction cost of participating for auction is prohibitive for small buyers. Further, few large multinationals control the

parts, rice and non rice, the later being dominated by tea producers (Bhalla, 1991).

market through local agents. Thus, the market is in a virtual monopsony with sellers no longer able to get the most efficient prices (Ali et al, 1997).

As pointed out previously, substantial amount of tax was deducted from tea prices until 1992. Real farm prices of tea, even during the years of high commodity prices in the 1970s, was only two third of the prices of 1950s. However, despite the ever-highest tax rate from 1978 to 1985 during the economic liberalization period, real farm prices of tea also increased (Bhalla, 1991, pp 213).

The price paid for green leaf is critical on the production of small holder sector. The tea small holders do not own green leaf processing capabilities. Thus they depend on estate or bought leaf factories to convert the green leaf into made tea. The earnings of the small holders and their profit margins highly depend on the green leaf price that is the most important production incentive for the small holders. To ensure that small holders are not exploited, government has introduced regulations since 1960' for setting prices for green leaf purchased from small holders. Under this regulation, green leaf processors are legally bound to pay certain percentage from the price realized for tea sold at the auction.

Various methods have been used from early 1960's until 1984 for fixing the price that a factory owner should pay for green leaf. The methods used prior to 1984 has more concerned about the cost of manufacturing than to achieve a fair sharing of proceeds of sale between two parties. The new scheme introduced in 1984 for green leaf price fixing has been revised several times as a response to the demand made by factory owners (ADB, 1990). The share of factory owner has increased at all revisions at the cost of green leaf producers.

Sri Lanka does not allow tea imports to the country. The producer groups oppose any tea imports claiming that low prices will be received for their product at the market. This regulation prevents consumers enjoying wide range of teas and producers using imported inputs for their blends. Further, this regulation has act as a disincentive for the operation of major tea blending firms in the country allowing exports in bulk form.

3.3 Research, Extension and Promotion

Research and development need of the tea industry has identified long ago by setting up a

separate organization for research in 1927. The activities of the Tea Research Institute of Sri Lanka (TRI) are funded by mandatory contribution made by producers of the country. Tea research has provided information and ideas for the progress of the tea industry. The development of clonal tea is the major breakthrough in the tea research that improve the quality and quantity of tea production in Sri Lanka (Weerahewa, 1996, pp 21).

TRI in Sri Lanka conducts research into all aspects of tea production and processing. There are four different objectives of the research program. First, increasing productivity by introducing new agricultural technologies. Second, reducing expenditure and thereby obtaining greater efficiency of production and increased profits. Third, improving existing manufacturing techniques to produce better teas. Fourth, devising new techniques to produce fundamentally new types of teas and tea-based products from inferior grades and waste teas for new markets (Sivapalan, 1983).

The knowledge itself does not help to improve the industry unless producers used. Lack of information on efficient production causes waste of scarce resources in the tea industry. The Sri Lanka government intervenes in the information dissemination process through the extension services provided to the estate and small holder sector. TRI disseminates knowledge gains from research, thereby maximizing the benefits to the industry, through the visits to estates, correspondences, seminars and conferences and regular publications. The Tea Small Holdings' Development Authority of Sri Lanka (TSHDA) provides extension and advisory services for the small holders employing field officers in all small holder areas. Further, National Institute of Plantation Management (NIPM) is set up to meet the human resource development needs of the industry.

Sri Lanka has a long and colorful history of tea promotion, going back over hundred years. Forrest writes that it is the reason that the name "Ceylon Tea" is still preferred to the more up to date "Sri Lanka" on packets of the island's most important product (Forrest, 1985). The overseas expenditure on tea promotion has remained constant level since 1960's in terms of US dollars though the expenditure has increased due to the depreciation of Sri Lanka rupee (ADB, 1990). Sri Lanka invests money on uninationl promotion campaigns and provides financial support to processors who produce brands with total Sri Lanka tea. Participation of international trade fairs and other events are also

used to establish the Sri Lanka among tea processors and consumers. Further, emphasis has been placed on generic tea advertising through tea councils in the United Kingdom, U.S.A., Canada and Australia. These councils are funded by some of the producing countries together with national tea packers in importing countries (Weerahewa, 1996). Sri Lanka and India have initiated program recently with the assistance of Food and Agricultural Organization (FAO) to promote tea as a “Health Product”.

3.4 Labour Policy

Tea industry provides about 11 percent of direct and indirect employment for the work force of the country (Jayasuiya, 1998). Most of the tea estates employ resident labour force specially in mid and high grown area while small holders highly depends on family labour. Government policy on labour has more focussed on wages and income though many other aspects too have been considered.

Plantation workers are paid daily wage consisted of basic minimum wage and various allowances from time to time to protect the workers from rising income. Basic minimum wage was determined by means of negotiations at the Wage Board which consist of government representative, employers and the trade unions of the industry until recently. But in the recent past, wage rates have been fixed by direct government intervention induced by trade unions activities (Sinnathamby, 1993). A law has been passed in 1974 to assure the minimum number of working days since monthly earnings depends on the daily wage as well as the number of days they worked. Estate workers are entitled to receive additional incentive payments in addition to the daily wage and allowances². Further, there are different welfare programs for the estate workers and their families that government or estate bears the cost. For example, free housing and health care are being continuing for long time in the estate sector.

3.5 Structural Changes

Land reform in 1970's and plantation restructuring program ended at privatization in early 1990's are the recent policies effect the structure of the tea industry. Land reform introduced in 1972 and 1975 restrict the land ownership to 20 ha and large amount of land

² There are different incentives currently operates; **Over-kilo** rates are paid for the additional green leaf plucked in addition to the quantity required for a day., **Over Time Payment** for each hour of work in excess

were undertaken under the government ownership. Part of these lands distributed among landless people while majority of land brought under the management of two state organizations; Janatha Estate Development Board (JEDB) and State Plantation Corporation (SPC). These two organizations were subjected to many changes to make the estate management more efficient until 1992 when the plantation restructuring begun. All the actual and potential profit making tea estates are grouped in to 21 regional plantation companies and assign their management to selected private companies at initial stage. Then, ownership of the estate was gradually transferred to the private sector. However, JEDB and SPC continue with the marginal unproductive lands in mid grown area of the country.

Subsequent land distribution after land reform and attractive prices for low grown tea help to develop small holder sector extensively in the country. Land ownership regulation and unavailability of large land blocks did not permit further growth of estate sector. Poor performances of the estate sector with its incapability to expand the production to meet the increased demand further induced small holder expansion. Dynamic nature and the number of small holders received the government attention soon. The many government programs for the tea small holders have been initiated during this period.

4.0 A Framework for the Analysis

Government intervention in production and marketing of agricultural goods is common all over the world. There are, in general, subsidies in developed countries and taxes in developing countries (World Bank, 1986; Bale and Lutz, 1981) though notable exceptions are present (Anderson and Tyers, 1988: pp176). Intervention policies of government in agriculture have been discussed widely in market failure and radical or Marxist economic frameworks. A Market allows efficiency by coordinating individual preferences, but only under certain rigorous conditions about preferences, motivation and technology. If there is any imperfection, a market will not achieve efficiency. These imperfections, commonly known as market failures, create conditions for government intervention in economic activities (Mitchell and Simmons, 1994). But intervention itself is not sufficient to correct failures. Intervention on efficiency grounds may not be appropriate due to the benefits of intervention being lower than the costs. Even with good intentions,

to the normal working day., **Holiday Payment** for works on holidays at higher rate than usual wage.

therefore, a government may not be able to improve on the efficiency created in an imperfect market. If the benefits of intervention do not exceed the associated cost, there is said to be a government failure. Two cases of government failures can be distinguished. First, government intervention where there is no market failure is present, where the cost exceeds the benefits. Second, government can not intervene at a sufficiently low cost that the potential benefits to exceed the costs (Godden, 1997).

The government of Sri Lanka intervenes in the tea industry directly and indirectly to achieve various economic and social objectives. There are two explicitly expressed objectives of government programs for the industry: economic efficiency and equity or fairness. However, not all the government policies are focussed to improve the efficiency of the industry. Thus, any effort to explain government policies for the Sri Lanka tea industry needs to follow both normative and positive approaches of economic analysis. The next part of the paper discusses government programs using those frameworks. The discussion first focuses on the normative approach and then positive approach to policy.

4.1 Normative Approach to the Government Program

The Normative approach to policy analysis developed on the basis that markets fail in allocating and distributing resources. The government thus intervened in the private economy to correct shortcomings. It did this by producing public goods, internalizing external costs and benefits, and correcting information problems. Thus, the government intervention was viewed as rectifying the market imperfection, allowing a Pareto optimal resource allocation to be achieved (McCormick and Tollison, 1981).

As discussed previously, the government has introduced different programs for the Sri Lanka tea industry with the intention of improving the efficiency by addressing market failures. The next part of the paper is focussed on analyzing the government programs in the context of market failure arguments – the normative approach of economic analysis. The discussion is focussed on each perceived failure of the market, and considers how relevant these failures in the tea industry.

4.1.1 Failure of Competition

Competitive behavior of individual participants in the market is a necessary condition for achieving efficiency. Imperfect competition, especially when it leads to monopoly power, is one of the common forms of market failure. Under imperfect competition a smaller quantity of goods is made available at higher prices. Further, competition provides an incentive to seek new methods of doing things, pushing the production possibility frontier outwards. Due to the failure of competition with the existing production and marketing system, the case for government intervention in the tea industry arises at two different levels. First, the Sri Lanka government intervenes in the market due to failures in the domestic market. Second, the government intervenes to meet the challenges in the global tea market, as the economy of the country is much depend on export earnings from tea.

Tea small holders do not own green leaf processing capabilities, and thus they depend on estate or private green leaf processors who buy green leaf for processing. Tea small holders are spread over the entire wet zone, but a limited number of green leaf processing factories are available for any given region due to the scale of the economy of green leaf processing and the high capital requirement. The small holders face imperfect market for the green leaf they produced. Thus, government has taken steps to assure a fair price for small tea landholders.

The green leaf price formula is the one major control that government has imposed on the green leaf processors to assure a fair price for small holders. Under this scheme, a green leaf processor is legally bound to pay a certain percentage from the price realized for tea sold at the auction. Further, in the areas where there is not enough processing facilities for small holder green leaf, government has invested money to establish tea factories.

The proper functioning of the green leaf formula needs supervision that again consumes government resources. As the system assured a fixed share for the small holders and green leaf processor, there is no incentive separately for both parties to maximize individual benefits.

With changes in the global trade pattern, tea passes to consumers as blends from different sources with various characteristics. Leading tea companies have established brand names that bring strong consumer demand rather than selling tea according to the origin.

Multinational companies involved, import tea from different producing countries and make blends according to the market need and sell to earn the highest profit. Thus, the demand for tea produced in Sri Lanka is a derived demand. Many studies have shown that several multinational companies control global tea trade and they operate through their agents in all major tea auctions. For example, a few firms, such as Brooke Bond, Lipton, Twinning, and Lyons Tetley control about 80 percent of international tea trade. Tea producers face virtual monopsony, with competition inadequate to realize an efficient price. Ali et al attributed the high margin between tea auction and export prices – a situation usually not seen in commodity trade – as a result of market power of the buyers at the auction (Ali et al, 1997).

The Sri Lanka government has set rule compelling producers to dispose made tea through the auction system to receive a fair price. However, this does not help to get fair prices as pointed out but introduce additional cost for the producers. Thus, the intended purpose of intervention does not bring the desired result for the industry.

Export Control of Tea

If a country has the ability to influence prices in world markets, free trade will not be efficient (Bhagwati and Ramaswami, 1963). This inefficiency arises since trade decisions are made on the basis of relative prices, rather than relative marginal export revenue or marginal import cost, as is required for efficiency. The, conditions for efficiency could be achieved by restricting export or imports (Corden, 1974, pp 160). Sri Lanka still remains as the leading black tea exporter in the world. Thus, Sri Lanka could use its market power to correct market imperfection and gain economic benefits to the country.

In the presence of market power for an export industry, there are two main policies that can be easily used to improve economic efficiency. One is an export tax – a market measure. The other is export quota – a quantitative measure. However, there are distributional differences between an export tax and an export quota. Producers would prefer an export quota, as it improves the producer price, while a tax increases the government's revenue.

Sri Lanka has not exercised market power as a means of economic gains. However, an export tax was in place until recent as a measure of collecting income for the government. Many authors have argued against the high export tax for tea, attributing to it the deteriorating position of Sri Lanka in the global tea market (World Bank, 1986; Bandara and Coxhead, 1995). The estate and small holders behave as price takers though the country can influence the market. Thus, government intervention is necessary to regulate the market for economic gain. The optimum level of export could be achieved by appropriate tax.

4.1.2 Externalities

If economic activity undertaken by individual imposes costs or benefits on others without compensation – commonly called externality – the market does not allocate resources optimally. The presence of positive or negative externalities provides room for government intervention in economic activities.

Environmental degradation, particularly caused by soil erosion in the uplands, has been considerable and imposed high costs on the national economy (NARESA, 1981). Soil erosion in the hill country of Sri Lanka has caused the loss of a large amount of tea lands, and has also reduced the capacity of the reservoirs and canals that are used to generate hydroelectricity and to irrigate low land in the dry zone (Jayasuriya, 1998). VP tea is considered to cause less soil erosion under good management practices. However, heavy taxation and the uncertainty created by the intended nationalization of the plantation in the 1960s produced a deterioration of management practices, leading to severe land degradation (Central Bank of Sri Lanka, 1995). Most of the tea lands in the upcountry are under old seedling tea with high rate of vacancies allowing high potential soil erosion. Replanting of the old tea land provides the solution for soil erosion. However, the cost associated with the replanting is very high, as pointed out earlier, leaving a high amount of old seedling tea in upcountry estates.

The Sri Lanka government has addressed the environmental degradation problem by introducing microeconomic and macroeconomic policies. The government has identified capital constraints as the major limitation on replanting; thus, the government intervenes to make capital available for replanting. Small holders are provided with subsidies and

low interest loans for the replanting, while estates are provided with low interest loans, with the government guaranteeing repayment. Further, restriction has been imposed to prevent replanting of existing tea lands in the elevation above 5000 feet mean sea level. In the macroeconomic policy settings, government has widely adopted a favorable policy framework for plantation crops to make environmental externalities a minimum. Trade liberalization policies introduced by the government recently provides incentive for minimizing erosion of the agriculture sector in the country (Bandara and Coxhead, 1995).

4.1.3 Public Goods Argument

Public goods differ from private goods in regard to two fundamental properties. Private goods are both rival and excludable, and thus the market can provide them in sufficient quantities. Public goods either will not be supplied at all or will be supplied in insufficient quantities in a market. In some cases, the market can provide such goods and services when the necessary institutional framework is established. Alternatively, the government can supply public goods directly.

Research is a public good in many industries, especially for agriculture and associated industries. As research and development is a necessary requirement for the progress of an industry and for economic growth, governments in many developing countries are involved in the research and development process. The government involves in research since individual producers cannot conduct their own research. Sri Lanka as a developing country needs to utilize available resources optimally since demand for human capital for research and development is very high. Further, prevailing institutional environment too does not provide any incentive for individual research undertakings.

The TRI is involved in a variety of research activities that are identified as important for the industry. However, there is no efficient way of exchanging information between producers and researchers. The present system relies on the representation made from the industry representative at the TRI decision making process. The present system brings further divergences, as the estate sector representation is dominant compared to the small holder at present system. When there is no market mechanism to allocate research funds, resources may be under or over utilized. If the research needs of different groups do not represent, outcome of the research investment would not be optimal for the industry. Weerahewa (1996) has shown that marginal productivity of research in Sri Lanka is

negative, implying an excess research investment. This result could be an outcome of imperfect investment decisions on tea research.

Promotion and advertising investment for the tea industry is another area in which the government has intervened in the recent past. The government believes that the promotion and advertising level is not at the socially desired level due to the public good nature of promotion and advertising. However, it is questionable whether producers should finance promotion and advertising activities without allowing market forces to achieve the desired level.

4.1.4 Information Failure

Models of market competition typically rest upon the assumption of perfect information. It is assumed that consumers and producers are fully aware with required information. Such an assumption is unrealistic, partly because the cost of obtaining such information out weights the expected benefits. Generation of knowledge and dissemination of the information is very important in the process of economic development (The World Bank, 1998). The public good nature of the knowledge causes it to be undersupplied in the absence of government intervention. If the marginal cost of having knowledge for the individual user is higher than the marginal benefits, there is no incentive to obtain new technologies. However, governments with a paternalistic view in relation to producers have initiated many programs for information dissemination.

The government of Sri Lanka provides extension service for the tea industry with the understanding that there is not sufficient information flowing to producers to bring the industry productive. Lack of information on tea production causes sub-optimal resource allocation or waste of resource in the tea industry. Estate and small holders receive advice and technical services required for tea planting from the Tea Research Institute and Advisory and Extension Officers of the Tea Small Holding Development Authority of Sri Lanka (TSHDA). The large number of tea small holders further justifies the government intervention in extension services.

4.1.5 Incomplete Markets

The market does not provide some goods and services adequately, even though the costs of providing that are less than individuals are willing to pay. Insurance and capital markets are the common examples of the incomplete markets that need government intervention to provide the socially desirable level of the commodity (Stiglitz, 1986).

Almost half of the existing tea stock is low yielding seedling tea. Most of the green leaf factories too are equipped with old machinery. Thus, investment in replanting and factory development is important to make the industry more competitive with the changing market. However, there are not enough financial resources available for the investment. Especially, capital availability for small holders is very limited.

Government assistance for replanting and factory development is justified on the industry contribution to the national economy and large number of direct and indirect employment. The replanting subsidy program has been limited to the small holder sector, leaving the estate aside. Thus, the government corrects the market failure while achieving income stabilization of the small holders. The bias policy results inefficient land allocation for tea cultivation. By introducing a complete subsidy for factory development and modernization, government has introduced an incentive to increase green leaf processing capacity. Further, the transaction costs associated with the subsidy administration remain very high while corruption and favoritism is possible if there is not enough transparency in the policy.

4.1.6 Distributional Considerations

The market rewards people in accordance with their contribution to the production of goods and services. A person whose productivity is low will earn little, regardless of whether the low productivity is attributable to lack of effort, lack of skill, or low demand for the skill (Mitchell and Simmons, 1994). Thus, there will be large differences in economic wealth among the members of society, though efficiency is achieved. This inequality provides a justification additional to market failure for government intervention in many economic activities. Relying completely on markets to allocate wealth would not bring a fair result for many reasons. First, real markets are not perfectly competitive in the presence of inadequate information, discrimination, inequality of opportunity, and

monopoly power. Second, rewarding system is not fair based on the individual abilities since people are not equal in their genetic heritage (Okun, 1975).

There are two qualifications to government intervention on equity considerations in the tea industry. First, industry provides earnings for the low-income workers in the estate sector and small holders. Any changes that impact adversely on the industry could bring down the welfare of these groups. Second, the economy of the country depends highly on tea for export earnings. Any reduction in tea prices would worsen the country's term of trade. Any government intervention targeting fair distribution introduces divergences to the economy, leading to sub-optimal resource allocation. Thus intervention to enhance equity is at the cost of efficiency. The level of intervention, therefore, depends on the relative importance government puts in the policy process on the industry, labour, and small holder groups.

4.2 Positive Analysis of Government Program

The previous discussion revealed that market failure appears to justify some government intervention in the Sri Lanka tea industry. However, some policies for the industry are not convincingly explained normatively by correction of market failures. In recent literature, efforts have been made to explain government policies using political decision making principles. The existence of policy intervention, the nature of the policy instruments used, the extent of the redistribution of income, and the pace of policy reform can be explained by models of political economy (MacLaren, 1992). The political economic approach – an alternative to the market failure – considers the political decision making process in an economic framework, analyzing public resource allocation in a political market where individuals behave to maximize their own interests (Swinnen and Zee, 1993). In this approach, government programs are considered as the outcomes of demand of the interested groups for government intervention and the desire of the government to provide assistance to an industry in return for political support.

4.2.1 Demand for and Supply of Government Programs in the Tea Industry

The differences in incentives for various groups to seek assistance or government to provide assistance are seen as the fundamental factors determining which policies are adopted (Stigler, 1971). The government has followed various policies to assist and

regulate different segments of the industry. These differences in government programs within the industry could be the outcome of demand and supply forces for the assistance.

(a) Demand for Government Programs

Owners of the factors of production have the incentive to demand assistance and regulation of an industry. Thus, groups are organized within industries to lobby for assistance. The strength of the lobbying groups is one factor determining the assistance industry receives. The demand for assistance is affected by factors determining both the benefits from a favorable change and the cost of lobbying. The demand for assistance also depends on the lobbying strength of the input suppliers and output using industries. The ultimate policy outcome depends on the relative strength of the lobby groups in all of these associated industries and how important the industry is to the government (Anderson, 1978). The common economic interest and the cost of investing in lobbying are important factors determining the presence of lobby groups. The cost of lobbying is associated with organizing into a group, formulating a common position, preventing free-riding and mitigating opposition. The number of producers, their geographical distribution, the importance of the commodity to each producers' income, and the stability of the industry affect on cost of forming a lobby group (Gardner, 1987).

It is rational for individual members of a lobby group to increase their contribution to the level where their marginal benefits from the government programs won by the group just compensate for the marginal cost they incur. However, the incentive for a rational individual to be involved with lobby group is diminished by the possibility of free riding (Olson, 1965). The opportunity to operate effective lobby groups is strongest when there is a small number of interested members. But according to Chamberlin (1974) the total contribution for lobbying could be still higher from an industry with large number of firms than from an industry with small number of firms. The presence of a positively skewed distribution of output among producers would induce them to organize into lobby groups as the benefits could exceed the associated cost for dominant players. The presence of well-organized groups for reasons, other than or in addition to lobbying could also add more government programs (Anderson, 1978).

There are a number of groups involved with the tea industry in Sri Lanka. At the

production level, estate labours, small holders and green leaf processing factory owners are the major groups involved. Tea brokers and exporters are others in the industry structure. Each of these groups exerts a demand for government programs. The total number of small holders in the country exceeds 200,000 (MPI, 1995). They are spread all over the tea growing areas of the country. The large number and their dispersion have prevented them organizing into a powerful lobby group. An effort has been made to organize small holder groups at a regional level for mutual benefits, but these have not become a powerful lobby group. Thus the lobbying power concentrated in the small holder sector is very limited.

The estate sector labours have organized under several trade unions. The presence of a strong trade union movement in the country for a long time and the ethnic background of the majority of estate workers provide an incentive for the presence of strong trade unions in the estate sector. As trade unions are directly or indirectly linked with political parties, the activities are not only related to seeking rents, but also to reaching political goals. The labour regulation and assistance, i.e. minimum wage, guaranteed work days, are direct results of the trade union activities. These regulations are viewed as major obstacles to improving profitability of the industry.

The Sri Lanka government has supplied many tax exemptions and subsidized loan facilities for the private green leaf processors. In many instances, when tea prices fall, factory owners demand government support to meet their financial difficulties. As the government has fixed a rule to follow for paying green leaf produced by small holders, processors face difficulties at low prices, but receive additional benefits at favorable market prices where small holder groups cannot demand an increased share. The small number of processors in the group allows them to organize effectively. The green leaf formula has been revised several occasions in favor of processors in price slumps, but never changed in favor of small holders in the time of higher prices. The presence of several brokering firms could be the one good explanation of the presence of regulation on disposing of tea through the auction. Similar sorts of explanations could be applied to the export groups that enjoy the benefits of many government programs to facilitate tea marketing. Government intervention can be seen in establishing trade links and reducing

risk associated with volatile markets.

(b) Supply of Government Programs

Some of the government policies cannot be justified on economic efficiency grounds. Presumably, these distortionary programs continue to be supplied partly because the benefits to the government from doing so exceed the cost. Politicians or members of the political parties actively involved in formulating government policies seek support of the voters to be elected or remain in power (Stigler, 1971). The politicians behave rationally to maximize the gain from the political process by supplying policies that drive maximum votes for them. The cost associated for politicians are the loss of support from the losing groups. The budget outlay associated with the government policies is one deciding factor in the decision of government programs. The declining industries with the high political support also receive high government support. If an industry is located in a more marginal electorate, the potential for supplying assistance remains high (Anderson, 1978). The political importance of the industry group in the electoral process too has critical role on the level of government programs.

For example, trade unions of tea industry formed by ethnic minority received attention of major political parties in Sri Lanka thus they received considerable government assistance compare to the others.

The government of Sri Lanka has intervened in many instances to satisfy the groups involved in the tea industry. Most of the policies have been employed to satisfy the mass groups. The policies to control imports of tea to Sri Lanka are viewed as one supplied to the producer groups. This policy is strongly opposed by the tea exporters. Sri Lanka consumers too will benefit from a wider choice of teas if the import control were revised. Since the consumers do not have capacity for lobbying there is no weight for them in deciding the policy. The fertilizer subsidy is another important policy that the government has introduced for the entire agriculture sector. Though it is a cost for the entire economy, and not vital for a commercial crop like tea, the government prefers to provide the subsidy.

The cost associated with the import restriction is borne by tea consumers and exporters,

while the cost of fertilizer subsidy passed to the taxpayers of the country. However, both these policies were implemented in favor of small holders desires, achieving government political goals. Some of the long-term policies the government adopted for the tea industry have been based on income distribution issues. The high tax burden on the industry during the post-independence period has mainly aimed to generate resources for government programs intended to improve the welfare status of the low-income majority. Many authors have shown the long-term consequences of the heavy taxation for the tea industry and the entire economy. The high tax rate is one major factor contributing to reducing competitiveness with other emerging producers (Bandara and Coxhead, 1995; World Bank, 1986).

4.2.2 Resources for Government Programs in the Tea Industry

Government intervention in an industry requires resources, which come mainly from taxpayers of the country. As pointed out earlier, the demand and supply of intervention depend on many factors. If the government can generate resources directly from the industry through a producer levy, and redistribute them within the industry, that brings additional advantages for the government.

The Sri Lanka government generates part of its resources to implement programs for the tea industry from the levy imposed on tea exports. The subsidy schemes for the tea industry are entirely financed by the resources generated by the producer levy. There is no producer involvement or means of reflecting the producer needs in the disbursement resources generated through the export levy. Thus, it depends completely on the government's decision. This situation may create opportunity for politically strong groups to get more benefits through the lobbying process. The disbursement of the levy among the different sub-sectors of the industry depends not only on the demand, but also on the benefits to the government from its policies.

The Sri Lanka government has received assistance from international donor organizations for some welfare and development programs of the tea industry in various forms. For example, the Asian Development Bank has provided loans for estate and small holder development. The government has used these resources to establish many infrastructure projects in the estate and small holder sector as it wishes.

5.0 Summary and Conclusion

This paper aims to discuss the economic issues in and government policies for the Sri Lanka tea industry. The analysis first provided an overview of the tea industry and government programs. The government programs of the industry have been discussed using both normative – market failure – and positive economic approaches.

The tea industry, established in 19th century, remains important to the economy of the country. The industry, initiated as large plantations, has changed with land reform policies of the country. The dominant role of the plantation was reduced in the 1980s and 1990s, when the more dynamic small holder sector responded better to the changing global tea demand pattern. When the industry is compared with its global competitors, productivity, especially on the estates, is low, resulting in very high cost of production. High costs of production have reduced the competitiveness of Sri Lanka in global tea markets. Falling tea prices, also, have had adverse impacts on producer incomes and on the national economy.

Though a free market can in principle achieve an efficient allocation of resources, the presence of market imperfections usually prevents that. Consequently, in most markets, including the market for Sri Lanka tea, there is a prima facie case for governments to intervene to correct market failures. The Sri Lanka government intervenes in the tea industry through several policies. The government programs are intended to correct market failures, and allow a higher level of economic efficiency to be achieved. Further, the government intervenes with the intention of achieving a fairer distribution of wealth among the participants, plantation and small holders, in the industry.

Government intervention in the tea industry cannot be explained solely by a desire to enhance social welfare through addressing market failures. Any government concerned with the level of its political support is open to influence by groups that organize for the purpose of undertaking rent-seeking activities. Consideration of the demand for and supply of intervention within the political market therefore needs to form part of a comprehensive approach to explain government programs in the Sri Lanka tea industry.

The Sri Lanka government programs are mainly focussed on correcting market failures in the industry. Many programs have contributed to this, including research and development policies, replanting and factory modernization to a certain level. However, the interest groups and government have both used the opportunity of intervention to advance their own interest too. This is evident in labour policies like guaranteed work and minimum wages and subsidies and import, export regulations. These policies seem more suited to transferring welfare between groups than increasing economic efficiency.

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