ABSTRACT

Title of dissertation: Globalization, Sustainable Development, and Environmental Problems in the Third World: A Case Study of Sri Lanka

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My research focuses on two related questions. First, do investing countries' policies help or harm the environment of countries in which they choose to invest, and what is the level of the environmental degradation arising from export-driven industries depended upon foreign direct investment? Second, what are the related new dependency patterns in such developing countries as Sri Lanka?

The major threats to the environment have come from the pollution associated with economic activities – agriculture, mining, manufacturing, and transportation. In the Third World, the threats to the environment are significantly greater than in the developing world, simply because of the lack of finances and innovative technology to deal with the increase in productive activity. For many investors, the developing world is a tempting region for their factories, because of cheap labor, access to inexpensive raw materials, lax environmental regulations and other investment friendly incentives offered by the host governments. Although it is a good idea to have trade between developed and developing countries, both the home and host countries must pay close attention to any negative environmental consequences that arise as a result of increase in manufacturing. Goods must be produced using clean technology. Raw materials must be extracted with

consideration for future generations, and industrial waste must be discarded without destruction of the habitability of the planet.

The theoretical perspective that informs this dissertation comes from development theory and dependency theory. Although development and dependency theories are often dismissed as outdated by globalists such as Jagdish Bhagwati, it is my judgment that when economic development in the Third World is discussed, this theoretical framework best fits the capitalistic development process that is occurring in these former colonial nations.

Globalization, Sustainable Development, and Environmental Problems in the Third World: A Case Study of Sri Lanka

By

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DEDICATION

This dissertation is dedicated to my father, Ranjit Aparakkakankanamage and my mother, Christanthy Aparakkakankanamage, who have dedicated their lives to their family.

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Introduction

From the outset, it is essential to understand that trade is important to developing economies to flourish. Increased trade between developing countries and the industrialized North is important to the development of the Third World. In recent years, however, the related expansion of industrial activities in developing countries has raised actual and potential harmful environmental impacts to unprecedented levels and intensity. These trade relationships have resulted in increased environmental damage and patterns of dependency in the South. I intend to address, in this dissertation questions of environmental impact and increasing dependence.

My research focuses on two related questions. First, do investing countries' policies help or harm the environment of countries in which they choose to invest, and what is the level of the environmental degradation arising from export-driven industries depended upon foreign direct investment? Second, what are the related new dependency patterns in such developing countries as Sri Lanka?

Potentially adverse environmental impacts have three broad dimensions: (1) Threats to human life and health; (2) Threats to the natural world – loss of biodiversity, habitats, ecological systems, species, flora, and fauna; (3) Threats to socially, aesthetically, and culturally significant environments, both rural and urban.[1]

The major threats to the environment have come from the pollution associated with economic activities – agriculture, mining, manufacturing, and transportation. In the Third World, the threats to the environment are significantly greater than in the developing world, simply because of the lack of finances and innovative technology to

[1] Faucheux, Sylvie, Martin O'Connor & Jan van der Straaten. (1998) Sustainable Development: Concepts, Rationalities and Strategies. Boston: Kluwer Academic Publishers. (pg.1)

deal with the increase in productive activity. For many investors, the developing world is a tempting region for their factories, because of cheap labor, access to inexpensive raw materials, lax environmental regulations and other investment friendly incentives offered by the host governments. Although it is a good idea to have trade between developed and developing countries, both the home and host countries must pay close attention to any negative environmental consequences that arise as a result of increase in manufacturing. Goods must be produced using clean technology. Raw materials must be extracted with consideration for future generations, and industrial waste must be discarded without destruction of the habitability of the planet.

Theoretical Framework

Not being an 'antiglobalist'[2], I consider economic globalization an inevitable force that could encourage sustainable development methods in the developing world. The Third World economic development spearheaded by the North does not necessarily generate all the good things that the North has promised the South. This position emphasizes the ideas that capitalistic developments in the Third World is in many ways a continuation of colonization, and that the benefits to the Third World are far less than has been argued by scholars such as Jagdish Bhagwati, especially when the environment is concerned. This results from the fact that most of the developing countries are in desperate need of economic growth with the aid of the North; they can thus become vulnerable to lax regulations and other unfavorable conditions that can potentially harm the South.

[2] Bhagwati, Jagdish. "Coping with Antiglobalization: A Trilogy of Discontents". Foreign Affairs : Volume 81 No.1. January / February 2002.

The theoretical perspective that informs this dissertation comes from development theory and dependency theory. Although development and dependency theories are often dismissed as outdated by globalists such as Jagdish Bhagwati, it is my judgment that when economic development in the Third World is discussed, this theoretical framework best fits the capitalistic development process that is occurring in these former colonial nations.

CHAPTER 1
Defining Development

Growth and Development

It's generally agreed by economists that economic growth is the key to the future and that growth is crucial for environmental improvements and sustainable development in the developing countries. But a recent speech that Herman Daly gave to the World Bank, he noted that ecological limits are rapidly converting "economic growth" into "uneconomic growth."[3] Strong economic growth and expanded industrial activity will inevitably result in adverse environmental impacts, such as water and air pollution and solid waste generation, and land contamination. These impacts carry significant economic and social costs, which threaten to undermine future economic growth and sustainable development.

Although economic growth is needed in all countries, it is important to understand the difference between growth and development. Growth simply measures an increase in activity such as increase in Gross National Product (GNP), education spending, health care spending or crime rate. Whereas development is an organic process where we are able to witness the results of growth. For example, if there is an increase in GNP, how has the increased impacted the country and the daily lives of its citizens? If the government spending in education has increase, have the overall SAT scores improved for the students and as a result of the higher scores, is there a higher rate of university entrants? And if there has been an increase in government spending in health care, do more people in rural villages have access to better health care? We tend to focus on economic growth simply as measured by percentage rates total or per-capita GNP. But it

[3] http://www.earthrights.net/docs/daly.html. Accessed 11/03/2004.

is important to understand that higher percentage rates do not necessarily translate into sustainable development. Rather it is the quality of growth that matters. The idea of rising tide lifts all boats that the increase in growth will eventually trickle down to the poor, in reality does not apply to developing countries like Sri Lanka.

Globally, it's been reported, "little of the growth of the past 20 years has improved the quality of human life. Most of the benefits has gone to the very wealthy and the remainder has been offset by the costs of resource depletion, social stress, and environmental health and other problems caused by growth."[4] Further, in the process of growth, nations have typically under-invested in human capital and over exploited natural capital. In my case study, Sri Lanka, although the country has experienced economic growth, the above statement by Korten seems to be the reality. The quality of growth in Sri Lanka and other countries alike is as important as the quantity of growth. It is clear that wrong kind of growth, pursued with the intentions of increased GDP rates often fails to help the poor and destroys the environment. In general, "experience in developing as well as industrial countries shows that it is not merely more growth but also better growth that determines how much welfare improves – and whose welfare."[5] In the case of Sri Lanka, no one can seriously question that in the short and medium term, sustained economic growth is an inevitable ingredient of any sustainable development efforts in Sri Lanka. What is open to debate, however, is the nature and pattern of economic growth that would be compatible with sustainability.

For the purpose of this dissertation, it is important to keep in mind that improving environmental quality and protecting natural resources spurs growth and welfare directly,

[4] "Sustainable development – conventional vs. emerging alternative wisdom" by David C. Korten (internet document)
[5] "Why Quality Matters" by Vinod Thomas. The Economist, October 7, 2000.

especially for a developing country like Sri Lanka. Therefore, any kind of development that occurs in Sri Lanka requires achieving economic growth without environmental degradation, particularly fast temporary growth relying on distorted policies, neglect of environmental externalities, and biased public expenditure allocations. Further, for a developing country like Sri Lanka, corruption undermines growth and retards development more broadly; therefore, the rule of law is also a crucial precursor for sustained development.

Sri Lanka in Perspective

My research focuses on two related questions. First, do investing countries' policies help or harm the environment of countries in which they choose to invest and what is the level of the environmental deterioration arising from export driven markets promoted and owned by foreign direct investment (in this case the foreign investment in Sri Lanka)? Second what are the dependency patterns in the developing countries like Sri Lanka?

When environmental deterioration in the Third World is discussed, there are two different points of view. One perspective is that there is that environmental deterioration in the Third World is caused primarily by local, low technological economic activities and by low per capita incomes, but not by advanced sector / transnational investments in the region. Those who argue that local industry is the enemy suggest that free trade and growth are good for the Third World. Further when a country is wealthy from increased trade, it can afford to clean up the environmental damage from the profits they have already generated. There is the second perspective, which contends that free traders seek

to maximize profits and production without regard to the hidden social and environmental costs that are increasing faster than benefits from production.[6]

My underlying assumption is that the rise in FDI's in developing countries leads to significant environmental harm in Third World countries, especially when such countries have either lax environmental regulations or lack the capabilities to enforce the ones they already have. To test my hypothesis, I have chosen to examine the textile manufacturing industry in Sri Lanka. Sri Lanka is an excellent case study. Since the introduction of trade liberalization, the open trade measures increased its textile production mainly for exports from 282 Rs. Million in 1970 to 7,563 Rs. Million in 1994.[7]

The garment industry is the country's biggest and most important investment success under the present open economic policy. Textiles account for 52% of all exports from Sri Lanka.[8] Metra Sofres reports that Sri Lanka has established alliances with key buyers such as Marks and Spencer and regionally the country has comparative advantages in advanced technologies and a well-coordinated management training system.[9] At the same time, according to the Environmental Resource Management (1994) the textile-manufacturing industry is cited as one of the potential hazardous waste generating sectors.

There is much literature that supports the development of the Third World through economic development. It also tends to support the theory that industrial development in return benefits the ailing environments in the developing world.

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[6] Herman Daly. Scientific American (November 1993): Pp.50-57
[7] Central Bank of Sri Lanka.
[8] Center for Research on Multinational Corporations. January 2001, Report on Conditions for Garment Factory Workers in Sri Lanka.
[9] Asia Invest News. No. 13. www.asia-invest.com/news0500/newsfiles/ten.html. Accessed 12/15/2003

Anderson and Leal suggest that economic growth and environmental quality are not incompatible. Rather higher incomes afford better environmental quality in addition to material goods. The authors continue to agree that it is no accident that less developed countries have more pollution, lower health standards, and more environmental hazards. "The simple fact is that dynamic, growing economies, like dynamic ecosystems, are more resilient in coping with unanticipated environmental problems."[10] Whether this is possible in a country like Sri Lanka with poor policy measures remains to be seen.

In regard to the developing countries, I am questioning such theories as those introduced by Anderson and Leal due to the lacking attention paid to the environment by both the markets and the governments in the Third World. In support of the idea, Copeland and Taylor note that environment is harmed in cases where trade occurs in the presence of market and government failures or externalities.[11] In the case of Sri Lanka and other similar developing countries, there is a high likelihood that market and government failures can be present. Although these failures are interrelated and exacerbated by uncertainty and lack of information, Cole finds it useful to distinguish between them.[12]

Development and the Third World

Whether in a university class setting or in a Non Governmental Organization (NGO) committed to the development of the poverty-stricken Third World, the debate tends to focus almost always on the need to develop the Third World. The type of

[10] Anderson, L. Terry & Donald R. Leal (2001) Free Market Environmentalism. Palgrave: New York. Pp. 168-169.
[11] Copeland, B.R. and Taylor, M.S. (1994) "North – South Trade and the Environment." Quarterly Journal of Economics, 109. Pp. 755-787
[12] Cole, A. Mathew. (2000) *Trade Liberalization, Economic Growth and the Environment*. Elgar: USA. Pp. 23.

development many tend to almost always support is industrial development. The idea of industrial development is somewhat vague when looked at in general terms and needs detailed clarification, on which I will focus my attention in later narrative.

Although industrial development is needed for the growth of the Third World, it is also important to look at the causes of underdevelopment in the Third World. Development specialists and students who live in the Western countries often do not understand exactly what is needed in these impoverished countries where the next meal is not guaranteed. Unlike conditions in the Western world, they cannot simply use a credit card with the thought of paying back later.

The region's economic dependence on the West in the form of international transfer of goods and technologies has been prevalent for many decades. It is crucial to begin with the unequal and uneven nature of the First and the Third World due to the unevenness of the economic conditions between the industrialized and less industrialized countries which naturally lead to very different social conditions. Approximately 81 percent of the world's income is produced in the economically developed countries by fewer than 23 percent of the world's population. More than three – fourths of the world's population, therefore, is producing only 19 percent of total world output, and the Third World, with more than 77 percent of the world's population, subsists on less than 21 percent of the world's income.[13]

The low levels of living conditions in the developing countries are manifested quantitatively and qualitatively in the form of low incomes (poverty), inadequate housing, poor health, limited or no education, high infant mortality, low life and work

[13] Michael P. Todaro. *Economic Development in the Third World*. Longman Inc: New York (1989). Pp.28.

expectancy, and, in many cases, a general sense of malaise and hopelessness.[14] Traditionally per capita incomes between rich and poor countries have been discussed, but, according to Todaro there is a growing gap between rich and poor within individual less developed countries.[15]

Because the unequal economic conditions between the First and Third Worlds have generated the impoverished economic and social standards in the Third World, therefore, it is important to begin with this relationships. The paragraph below explains further the inequalities between the First and Third Worlds:

> In the postwar era, the per capita income of the Third World, as a proportion of that of the First World, remained steady – about 7 percent to 8 percent – but the difference in GNP per capita between First and Third Worlds widened from $2,191 in 1950 to $4,839 in 1975 (in constant dollars). In the mid-1970s, the official multilateral definition of the absolute poverty line was an annual income of $50. At the time, about 650 million people were estimated to be living in relative poverty – with annual incomes between $50 and $75. By 1980, the numbers of the world's absolute poor had increased to 1 billion, according to the calculations for the Brandt Report, *Common Crisis: North, South & Cooperation for World Recovery.*[16]

To discuss the need for development in the Third World, one could spend an eternity writing about what exactly is development in the Third World is, and what is most needed for the people whom we refer to as the "poor" in the other half of the world as it was divided by Truman. To suggest a new paradigm for the postwar era, President Truman divided humanity between "developed" and "underdeveloped" regions.[17] In response to President Truman's proclamation, Mexican scholar Gustavo Esteva commented:

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[14] Ibid. Pp.27.
[15] Ibid. Pp.30.
[16] Philip McMichael. *Development and Social Change: A Global Perspective*. Thousand Oaks, CA: Pine Forge Press, pp. 80. 2000.
[17] Philip McMichael. *Development and Social Change: A Global Perspective*. Thousand Oaks, CA: Pine Forge Press, pp. 23-24. 2000.

> Underdevelopment began, then, on January 20, 1949. On that day, two billion people became underdeveloped. In a real sense, from that time on, they ceased being what they were, in all their diversity, and were transmogrified into an inverted mirror of other's reality:… a mirror that defined their identity… simply in the terms of a homogenizing and narrow minority.[18]

Development, most simply, is improvement in human well – being.[19] The definition of improvement varies across the continents, whether it is the poor South or the wealthy North. But the basic concept is that one can improve one's current life style by acquiring more wealth or education and being in control of one's life rather than expecting external influences to be in control. Although material wants and needs tend to differ from North to South, the basic need in any area of the world is better domestic infrastructure, which will in return affect the general welfare of the people who live there. In the industrial world, the task has been easier to accomplish due to the financial and technological capabilities. But it has been a difficult process in the South, where they lack the financial and technological capabilities and must depend on the wealthier North to help them develop.

The question I posed earlier about development in the Third World asked what is most needed by the people of the region. The answer is: everything. The development that is needed covers everything in daily life. These needs range from proper sanitary facilities to adequate housing. To develop all that is needed for a developing country, economic development must serve as the foundation. For the developing countries to gain the basic economic foundation, the pattern of industrialization followed by the West

[18] Ibid., Pp. 24.
[19] Lawrence E. Harrison. *Underdevelopment is a State of Mind: The Latin American Case*. Cambridge, MA: The Center for International Affairs, Harvard University, pp. 1-9. 1985.

suggests the best path to development. This seems reasonable for the regions because of their internal conditions as well as their historical situation in the global economy.[20]

Although economic development is not by itself synonymous with industrialization alone, industrialization does play a major role in the development of an underdeveloped nation. Many observers are concerned with the development of the industrial sector of ailing economies as a part of the process of economic development, but scholars such as Mountjoy note that industrialization is not a "general panacea" for all the poor countries in the world.[21]

One of the most respected development economists, Jagdish Bhagwati, declares that the process of transforming the underdeveloped countries can be accelerated significantly by adjusting the international framework within which their economies are set and that these adjustments relate to questions of trade, as well as to the international transfer of resources from the advanced to the underdeveloped regions.[22] Bhagwati differentiates flow of resources of three essential types: (1) capital movements; (2) sharing of technical knowledge; and (3) transfer of skilled personnel. In all, he finds all three facets to be equally important to the development of a country. Capital flow to underdeveloped countries consists of official grants and loans and private investments.[23] For the purpose of my research interest, my focus will be on private investment capital flows to the underdeveloped countries for the purpose of industrialization.

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[20] Philip W. Porter & Eric S. Sheppard. *A World of Difference: Society, Nature, Development.* Guilford Press: New York (1998). Pp. 411.
[21] Alan B. Mountjoy. *Industrialization and Under-Developed Countries*. Hutchinson University Library: London (1966). Pp. 18.
[22] Jagdish Bhagwati. *The Economics of Underdeveloped Countries*. McGraw-Hill Book Co.: New York (1966). Pp. 206.
[23] Ibid.

Porter and Sheppard note that the term "industrialization" can be misleading since it can refer to variety of activities such as processing of raw materials, increased use of capital equipment in agriculture, construction activities, and services. The authors continue to note that although all of the activities mentioned are important economic activities, discussion of industrialization refers to the ability of Third World nations to manufacture their own industrial goods for sale at home or abroad (steel, machinery, transportation equipment, chemicals, refrigerators, paper clips, etc.).[24]

Industrialization in the Third World is associated with a promise of increased wealth and prosperity, as well as economic independence for the locals who are desperate for a larger piece of the economic pie. Economic development experienced by the United States, Western Europe, and Japan is a difficult model to follow for most Third World countries because of the lack of technological and financial resources. Along with the reality that First World resources in many ways focused on reindustrializing Europe, Japan, and the United States, the developing nations must focus on internal economic benefits.

For most Third World countries dependence on foreign economic, social, and political forces is substantial. In some cases, it touches almost all facets of life.[25] The task of industrializing the Third World continues to be difficult mainly because of the lack of both financial and technological investment. In the current global economy, it is essential to have the high technology to develop the domestic markets, which would produce the industrial products that could be both used domestically and exported. As

[24] Philip W. Porter & Eric S. Sheppard. *A World of Difference: Society, Nature, Development.* Guilford Press: New York (1998). Pp. 404.
[25] Michael P. Todaro. *Economic Development in the Third World*. Longman Inc: New York (1989). Pp.21.

noted, enormous differences in technological advances have made it impossible for Third World nations to compete with the First World through invention or development of new production methods or products.[26]

Since the technological hegemony of the already industrialized nations is closely related to their economic power, establishing a technologically advanced Third World would help solve many of the problems in the region. For example, it has been noted that the lack of high technology in the developing world reinforces low-wage policies, since being the only way they can compensate for their technological disadvantages. It also induces Third World countries to attract foreign investors in order to benefit from their technological know-how. Furthermore, low wages in turn mean that local firms have little incentive to develop new technologies, which historically have been a response to the pressure of increasing labor costs. It has also been said that investors in low-wage locations tend to rely on older technologies of mass production that require intense unskilled labor, rather than bringing in higher technologies from abroad.[27]

In effect absence of technology in a developing country creates a problem. Therefore, investment in the Third World is a crucial part to the development of the region, a factor that can affect the overall economy of the country. It is also important to note that investment in both the public and private sectors must concentrate on overall long-term development of a country's infrastructure rather than profit-seeking short-term goals.

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[26] Philip W. Porter & Eric S. Sheppard. *A World of Difference: Society, Nature, Development.* Guilford Press: New York (1998). Pp. 412.
[27] Philip W. Porter & Eric S. Sheppard. *A World of Difference: Society, Nature, Development.* Guilford Press: New York (1998). Pp. 412-413.

When industrialization in the Third World is discussed, two perspectives emerge. One is the liberal perspective, consisting of modernization and development theorists who support promoting globalization in the Third World. The radical perspective consists of dependency theorists who support promoting less global interference in the local economies. In relation to degradation of the physical environment of the developing countries with increases in industrialization, the two perspectives rest on two different beliefs.

In both liberal and radical perspectives, modernization and development theorists see foreign investment and aid as critical to the development in the Third World. Some argue that this process leaves the South heavily dependent on the North. Dependency theorists see such investment and aid as means of exploitation. Black sums up by noting;

> "Whereas modernization and development theorists see foreign investment and foreign aid as critical to development in the Third World, dependency theorists see such investment and aid as means of exploitation, that is, of extracting capital from client states. Even where such transfers from the developed states generate economic growth, *dependentistas* would expect it to be a distorted pattern of growth that exacerbates inequalities among classes as well as among regions within client states."[28]

Liberal Perspectives

The liberals who promote globalization assert that environmental deterioration in the Third World is caused primarily by local, low technological economic activities and by low per capita incomes, but not by advanced sector / transnational investments in the region. Those who argue that local industry is the enemy suggest that free trade and growth are good for the Third World. Also when a country is wealthy from increased trade, it can afford to clean up the environmental damage from the profits generated.

[28] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.29.

In support of the liberal perspective, modernization and development theorists see foreign investment and aid as critical to the development of the Third World. The emergence of development theory in the 1950s was designed to deal with the ailing economies of the former colonies of Britain, France, Portugal and other European powers. The purpose was to transform the former colonies, to make them more productive nations as decolonization approached. [29] The rise of the development theory was a traditionally optimistic approach to economic development of the former colonies and, according to Leys, there were three main reasons for this: 1) to provide grounds for immediate action to develop the ex-colonies; 2) to serve as prime stake in the Cold War, and; 3) the birth of the Bretton Woods financial trading system, which permitted national governments to manage their economies to maximize growth and employment.[30]

Regarding the liberal perspective, Black states that those who approach the issue from the discipline of economics chose to define development primarily in terms of economic growth and to measure it through aggregate data on gross national product (GNP) or per capita income.[31] The development theorists of the late 1950s and early 1960s saw that the Third World lacked economic growth and needed economic and social change. Therefore, they accelerated the development process stemming from investment and technological transfers from the industrial states.[32] The idea was that development was needed in the Third World and that it was a responsibility of the West to spread principles of liberalism to explain the economic growth in the South.

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[29] Leys, Colin (1996) *The Rise and Fall of Development Theory*. Indiana University Press: USA. Pp.5.
[30] Ibid. Pp.5-6.
[31] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.24-5.
[32] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.24.

The preoccupation of development theorists is economic development of the Third World; modernization theorists focus much of their attention on such factors as democratic stability, literacy, health, and other basic infrastructure to improve the Third World.

Modernization is defined by Viotti and Kauppi as the social, political, and economic prerequisites for, and consequences of, industrialization and technological development. Viotti and Kauppi also note that "proponents of this perspective point to the growth of scientific technology that allows for greater control over nature, the dramatic improvements in transportation and communication, the rise of mass consumption made possible by industrial revolution, the growth of global ties as a legacy of colonialism, and the extension of European diplomatic and political ideologies throughout the world. National autonomy, the traditional goal of statecraft, has become increasingly difficult as economic activities spill over borders."[33]

Radical Perspective

The radical counter-argument presented by such scholars as Herman Daly argue that: (a) free traders seek to maximize profits and production without regard for hidden social and (b) environmental damages, through environmental costs rise faster than do the benefits of production.[34] Daly view is similar to that of dependency theorists who believe that foreign investment and aid leaves the South heavily dependent on the North.

Dependency theorists, by contrast, view the development and modernization theorists' principles of liberalism to explain economic growth in the Third World as leaving the Third World increasingly dependent on the West and believe that

[33] Viotti, R. Paul and Mark V. Kauppi (1993) *International Relations Theory : Realism, Pluralism, Globalism.* Macmillan Publishing Company: NY. Pp. 240.
[34] Herman Daly. Scientific American (November 1993): Pp.50-57

development is impossible within the world capitalist system. Black states "… whereas development and modernization theorists elaborated what they viewed as the *promises* of diffusion of Western culture, technology, and money, dependency theorists (*dependentistas*) have seen such diffusion as an impediment to development, at least to development defined in terms of inclusiveness and egalitarianism."[35] Black concludes that chronic unemployment, chronic inflation, unpayable debts, denationalization of resources, environmental degradation, and deepening of dependency have resulted from modernization.[36]

The complex roots of dependency theory are somewhat similar to a basic belief among the dependency theorists that development strategies are irrelevant within the world capitalist system. Dependence is defined by Santos as follows:

> "By dependence we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected. The relation of interdependence between two or more economies, and between these and world trade, assumes the form of dependence when some countries (the dominant ones) can expand and can be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or a negative effect on their immediate development."[37]

Although the subject of dependency is discussed less in development studies, concepts of dependence have existed for many centuries. Marx and Engels analyze this as a historically progressive system, which is transmitted from the advanced countries through colonialism, free trade, etc.[38] In discussing the historical forms of dependence

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[35] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.28.
[36] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.20.
[37] Santon, Dos Theotonio (1970). "*The Structure of Dependence*", in Michell A. Seligson and John T Passe-Smith (1998), *Development and Underdevelopment: The Political Economy of Global Inequality*, Colorado: Lynne Rienner Publishers. Pp.252.
[38] Palma, Gabriel. "*Dependency and Development: A Critical Overview*", in Dudley Seers (1981) *Dependency Theory: A Critical Reassessment.* London: Frances Pinter Publishers. Pp. 21.

compared to a more current ones. Santos distinguishes among: (1) colonial dependence, which began at the end of the nineteenth century and was trade export in nature; (2) financial, which was industrial dependence, also known as export economies: (3) technological – industrial dependency, which began in the postwar period and which is based on Multi National Corporations (MNC) investing in internal markets of underdeveloped countries.[39]

Dependency, Globalization, Imperialism, and Colonialism

For my case study, understanding both theories along with concepts of globalization is essential, since Sri Lanka is a country very much in need of industrial development in order to boost the country's economy. But the industrialization process must not leave the country's natural environment exhausted. In this study, I take a step further in discussing the subject of dependency in Sri Lanka and making a comparison with the colonial era of the country with the Portuguese, the Dutch, and the British respectively. Toward the end of the eighteenth century, the Dutch established the foreign trade with the introduction of the plantation economy. Gunawardena views the exploitation of Ceylon's resources through the establishment of plantations as the most significant factor in the development of the country's economy in the twentieth century.[40]

In relation to the colonial pasts of the developing countries, Imber argues that four hundred years of imperialism, colonialism, and now neo-realism have created an unequal world in which poverty, racism and environmental degradation are reinforced by market

[39] Santon, Dos Theotonio (1970). "*The Structure of Dependence*", in Michell A. Seligson and John T Passe-Smith (1998), *Development and Underdevelopment: The Political Economy of Global Inequality*, Colorado: Lynne Rienner Publishers. Pp.253.
[40] Gunawardena, Elaine (1965) *External Trade and the Economic Structure of Ceylon 1900-1955*. The Central Bank of Ceylon. Pp.3.

forces.[41] Imber's explanation leads me to conclude that much of the Third World is underdeveloped because of the centuries of colonialism in the South; the development process has not done as well as predicted. Western investors who are following the same methods of resource extraction as the colonizers in the colonial era have only replaced colonialism with industrial development. In support of my hypothesis, Black concludes that chronic unemployment, chronic inflation, unpayable debts, and denationalization of resources, environmental degradation, and deepening of dependency have accompanied modernization.[42]

According to Black, those approaching the issue from the discipline of economics chose to define development primarily in terms of economic growth and to measure it through aggregate data on gross GNP or per capita income.[43] The development theorists in the late 1950s and early 1960s saw that the Third World lacked economic growth and needed economic and social change. Therefore, it needed accelerated the development by way of investment and technological transfers from the industrial states.[44]

Black notes that development theorists see foreign investment and aid as critical to the development of the Third World, but for mainstream dependency theorists foreign investments leading to liberalized domestic markets is a means of exploitation of the South. Even where such transfers from the developed states generate economic growth, *dependentistas* expect this to be a distorted pattern of growth that exacerbates inequalities

[41] Imber, F. Mark (1994) *Environmental Security and UN Reform.* St. Martin's Press: NY. Pp.7.
[42] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.20.
[43] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.24-5.
[44] Ibid. Pp.24.

among classes as well as among regions within client states.[45] Especially with export-induced industrialization, *dependentistas* view this process as an unequal relationship between those in the center and periphery.

Having introduced several ideas and arguments presented by some of the prominent scholars in the dependency and underdevelopment subject, I would like to discuss further the current dependency topic, which rejects the industrial world's influence in the developing world's economic development. In recent decades, many have argued against closer relations between the North and South where the South depends mainly on the North for its social and economic development. One of the most important and critical ways the relations between the North and the South have increased is through trade. In past decades trade relations between the North and South has been increasing at a staggering level as a result of the introduction of trade liberalizations and reduced tariffs. Investors from the North have realized increasingly the profit benefits of either relocating their manufacturing plants to the South or by purchasing their manufactured goods at a small fraction of the cost.

Some argue that with the realization of increased profits the multinationals are in a "race to the bottom." Others assert that much recent empirical work shows that the evidence for this supposed race to the bottom is practically nonexistent.[46] What is meant by the term is that the MNCs will compromise the social and physical environment of the developing world in order to maximize their profits. Those who argue against

[45] Black, Knippers Jan (1999) *Development in Theory and Practice: Paradigms and Paradoxes.* Westview Press: USA. Pp.29.
[46] Bhagwati, Jagdish. "Coping with Antiglobalization: A Trilogy of Discontents". Foreign Affairs : Volume 81 No.1. January / February 2002.

globalization in the Third World show increasingly that along with increased investments and MNC influence in the Third World, the physical environment is affected negatively.

For many investors, the developing world is a tempting region for their factories, because of cheap labor, access to inexpensive raw materials, lax environmental regulations, and other investment friendly incentives offered by host governments. Although, it is a good idea to have trade between developed and developing countries, both the home and host countries must pay close attention to the negative environmental consequences that arise as a result of increases in manufacturing. Goods must be produced using clean technology. Raw materials must be extracted with considerations for the future generations. Industrial waste must be discarded without destroying the habitability of the planet.

As production and consumption increase around the globe, large and small corporations are eager to be part of the profit sharing process. Another aspect to remember is that as production and consumption increase, along with many players in the market, profit margins for a certain product may not be what it was a short time before. Corporations around the world are seeking ways to increase profits. The most recent trend has been relocating to the developing countries, where greater profits are most feasible. One challenge has become comparing advantages of economic development with advantages of environmental expenditures.

According to Porter and Sheppard, economic growth is limited sooner or later by the speed with which resources can be extracted from the environment; the challenge

how to identify and adapt to these limits in advance.[47] To assess the implications to the developing world, we must look at the effect of development in these countries, both socially and environmentally. The destruction of ecosystems, such as lakes, rivers, forests, and wetlands, presents tremendous impediments to local development.

The market liberalization measures introduced through the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) (now the World Trade Organization (WTO)) along with the North American Free Trade Agreement (NAFTA) have made foreign trade within regions and internationally much easier. Policy reforms are designed to create and control, more competitive domestic market environment through the removal of market interventions and controls. In return, the distortionary impact of both tariff and non–tariff measures on the efficiency with which traded goods are produced has a greater effect in LDCs, where many countries adopted a strategy of import–substituting industrialization behind high protective barriers.[48] These strategies, combined with massive privatization efforts in the Third World, have led to foreign ownership of many Third World conglomerates, making international trade between the developed and developing countries more feasible.

The introduction of WTO and NAFTA have made it possible for an American vehicle to be designed in Japan with a General Electric engine, and assembled in Mexico of parts manufactured in Indonesia, China, or India. Although there are positive aspects to the introduction of these international trade agreements, there are hidden environmental impacts as well. For example, the manufacturing and trade encouraged by

[47] Porter, W. Phillip & Eric S. Sheppard, *A World of Difference: Society, Nature, Development (1998).* The Guilford Press: New York. Pp.93.
[48] Wilson, W. Gary & Dennis R. Sasseville. (1999) *Sustaining Environmental Management Success: Best Business Practices from Industry Leaders.* John Wiley & Sons: USA. Pp.58.

the industrialized world tend to pay attention to only the final product that can be exported. The effluents that are left behind in the South are immeasurable. The theories of globalization imply a need to expand the horizon of international negotiations from the liberalization of strictly border measures to the coordination of various areas of domestic policy that substantially affect the ability of firms to conduct their operations worldwide.[49]

Market liberalization has two arguments, which tend to both favor and have negative effects on the environmental sector. Some would argue that increased trade between North and South actually benefits the South because there is a better use of resources or resource efficiency. The conventional view of many economists is that trade induced by an expansion of economic activity and trade liberalization increases the efficiency of international markets through a freer flow of goods and services, thus permitting a better allocation of resources and thereby providing countries with the financial resources to tackle environmental problems.[50] The alternative position is that the expansion of economic activity concomitant with an increase in trade and trade liberalization implies more use of natural resources and increased levels of pollution.

[49] Garnaut, Ross, Enzo Grilli, & James Riedel. (1995) *Sustaining Export – Oriented Development: Ideas from East Asia.* University Press: Cambridge. Pp. 107.
[50] Kirkpatrick, Colin & Norman Lee. (1997) *Sustainable Development in a Developing World: Integrating Socio-economic Assessment.* Edward Elgar: UK. Pp. 48.

Table 1.1 / NAFTA/WTO

	NAFTA	***WTO***
Participants	***USA, Mexico, Canada***	***More than 120 Countries***
Key Points	- Removes all trade tariffs and most other restrictions on business over the next 15 years. - Side arguments give each country unprecedented rights to investigate the other countries' compliance.	- Cuts overall import duties by about 40%. - Phase out import limits on textiles and clothing. - Scales back farm supports. - Boosts copyright and patent protection.
Results	- Creates a single market larger and more populous than the European Union - In the three months after. NAFTA took effect, US – Mexico trade reached record levels, US trade surplus with Mexico was cut in half.	- Should pump an additional US$235 billion into the global economy by 2005. - Countries world – wide would lose significant customs revenue; the USA expects to loose US$14 billion over the next 5 years.

Source: General Accounting Office, USA; US Trade Representative's Office; GATT officials

In response, Goldsmith notes, "increased trade is seen to be most effective way of increasing economic development. We equate this with progress and which is believed to provide a means of creating a material and technological paradise on Earth that will methodically eliminate all the problems that have confronted us thus far. Unfortunately, economic development itself, by its very nature, increases the environmental impact of our economic activities."[51] What is making the Third World resources and labor more closely linked to the industrial world is a large amount of Foreign Direct Investment (FDI). As illustrated in the chart above by the Overseas Development Institute, FDIs to the developing countries have reached to an unprecedented US$285 bn in 1996.[52]

The flow of FDIs to the developing world has been increasing for many reasons. FDIs are welcomed in the developing world as a way to boost the local economy and to get a jump-start on industrialization. FDIs are either from transnational corporations

[51] Edward Goldsmith, *Global trade and the Environment* in *The Case Against the Global Economy: And for a Turn Toward the Local*. Sierra Club Books: San Francisco. (1996). Pp. 78..
[52] Overseas Development Institute Website. www.odi.org.uk/briefing/3_97.html

(TNC) with offices all around the world or small investments by wealthy Western individuals. The reasons for the FDIs are mainly for profits, which the investors hope to gain from cost reducing geographical expansion, which shifts production plants from higher labor costs areas in the North to lower labor costs in the South. Geographical specialization, which enables the TNCs to capitalize on the different locations around the world, thus, having locational advantages for different types of production.

Economic globalization is a necessary force helps to encourage sustainable development methods in the developing world. Third World economic development suggested and practiced by the North does not necessarily bring "all good" that the North promises to the South. Some assume that capitalistic development in the Third World is a continuation of colonization, and the benefits to the Third World are far less than has been argued by such scholars as Jagdish Bhagwati, especially when the environment is concerned. This is simply because most of the developing countries are in desperate need of economic growth with the aid of the North, which can make them vulnerable to lax regulations that can potentially harm the South.

The Concepts of Globalization as the Overlay

Although there are many definitions of globalization, Held and McGrew define it best by noting that the idea of globalization has almost become a cliché as this "big idea which encompasses everything from global financial markets to the Internet but which promises little substantive insight into the contemporary human condition."[53] The authors further define globalization by stating that "globalization reflects a widespread perception that the world is rapidly being molded into a shared social space by economic

[53] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture*. Stanford University Press: CA. Pp.1.

and technological forces and that development in one region of the world can have profound consequences for the life chances of individuals or communities on the other side of the globe. For many, globalization is also associated with a sense of political fatalism and chronic insecurity in that the sheer scale of contemporary social and economic change appears to outstrip the capacity of national governments or citizens to control or resist that change."[54]

Having defined the basic principles of modernization theory and globalization, one can see the similarities. In looking at modernization theory, which supports overall globalization for the purposes of development, one needs to discuss the potential benefits and costs of globalization according to the liberals. The two phenomena are discussed together because of the similarities between modernization theory and the basic principles of globalization. In many respects, globalization has evolved as a result of modernization. For example, worldwide diffusion of technologies lends substance to the idea of modernization,[55] while globalization also has a technological base.[56]

Held and McGrew note that "the concept of globalization implies, first and foremost, a *stretching* of social, political and economic activities across frontiers such that events, decisions and activities in one region of the world can come to have significance for individuals and communities in distant regions of the globe."[57] The liberals who support the idea that in a global economy, it is not the flow of goods since

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[54] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture*. Stanford University Press: CA. Pp.1.
[55] Moore, E. Wilbert. (1979) *World Modernization: The Limits of Convergence*. Elsevier Press: New York. Pp. 20.
[56] Williamson, John. (1998) *Globalization: The Concept, Causes and Consequences.* Paper presented to the Congress of the Sri Lanka Association for the Advancement of Science in Colombo.
[57] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture*. Stanford University Press: CA. Pp.15.

international trade has been an almost constant feature of most countries, but the flow of capital, people, and information that has been a significant factor of globalization. Moore states that the global process, which we may call modernization, affects every recognizable political entity, independent nations or their dependencies, and probably every tribe, community, or "culture."[58] Time and space are no longer a barrier in making deals anywhere in the world. Along with increased interconnectedness among countries, globalization exacerbates the problem of economic interdependence among countries that do not have political influence on each others economic policies and institutions.[59]

Those who support globalization tend to agree with the perception that along with modernization, global markets will flourish, which, in return, will aid the development of countries throughout the world. The development most liberal's support is the strengthening of global financial capital markets, being mainly the financial markets of industrial countries. To the liberals the defining feature of an industrial nation is its strong financial market, where computer networks permit instantaneous transactions, and market watchers operate on a 24-hour basis. The strong financial markets bring the best technology and other forms of intellectual capital to countries that may not have benefited from them otherwise, or else invest substantial resources in reinventing the wheel for themselves. It may also bring products that would otherwise be unavailable to the countries where the investment occurs, presumably improving the quality, and therefore the value, of world output. And international capital flows can transfer savings

[58] Moore, E. Wilbert. (1979) *World Modernization: The Limits of Convergence*. Elsevier Press: New York. Pp. 19.
[59] Kanter, Rosabeth Moss. "Global Competitiveness Revisited" Washington Quarterly, Spring 1999, Vol. 22 Issue 2, P39, 20p.

from countries where the marginal product of capital is low to those where it is high, which again increases world output.[60]

Kanter notes that in key industries the business strategy has changed from a country–by-country approach to global lines of business. The same products are sold in every part of the world at the same time, manufactured in fewer places, and supported by global procurement.[61] Therefore, "globalization is manifested in the growth of world trade as a proportion of output (the ratio of world imports to gross world product (GWP), has grown from some 7% in 1938 to about 10% in 1970 to over 18% in 1996). It is reflected in the explosion of foreign direct investment (FDI): FDI in developing countries has increased from $2.2 billion in 1970 to $154 billion in 1997. It has resulted also in national capital markets becoming increasingly integrated, to the point where some $1.3 trillion per day crosses the foreign exchange markets of the world, of which less than 2% is directly attributable to trade transactions."[62]

The World Bank and the Three Waves of Globalization

When it comes to promoting global development through globalization, the World Bank has been one of the most respected institutions for many years. In recent decades the World Bank has been involved in the economic development processes of the many developing countries. It has also been one of the most criticized public institutions by those who oppose globalization.

[60] Williamson, John. (1998) *Globalization: The Concept, Causes and Consequences.* Paper presented to the Congress of the Sri Lanka Association for the Advancement of Science in Colombo.
[61] Kanter, Rosabeth Moss. "Global Competitiveness Revisited" Washington Quarterly, Spring 1999, Vol. 22 Issue 2, P39, 20p.
[62] Williamson, John. (1998) *Globalization: The Concept, Causes and Consequences.* Paper presented to the Congress of the Sri Lanka Association for the Advancement of Science in Colombo.

According to the World Bank, there have been three "waves of globalization": the first wave, 1870-1914; the retreat to nationalism, 1914-1945; the second wave, 1945-1980; and the new wave which we are experiencing, which began about 1980. The time line shows that globalization is not a new phenomenon, but rather a continuing process that has been ongoing for the last couple of centuries. The first wave of global integration was triggered by a combination of falling transportation costs, such as the change from sail to steamships, and reductions in tariff barriers. As a result of cheaper transport and the lifting of man-made barriers, the abundance of land and natural resources created huge opportunities to seek profits. During the retreat to nationalism, capital markets and merchandise markets fell because of the economic depression created by the inter-war period. The failure of the retreat to nationalism gave way to the second wave, which reduced the trade barriers that were introduced during the retreat to nationalism. The lifting of barriers between countries expanded the exchange of manufactures.[63]

Since about 1980 there has been unprecedented global economic integration; it has happened through trade, migration, and capital flows. For example, Argentina, Australia, New Zealand, and the United States became among the richest countries in the world by exporting primary commodities while importing people, institutions, and capital.[64] While the mentioned above nations flourished, leaving most of the world behind, the massive retreat from globalization created much of world inequality. As has been noted, by 1950 the world was far less equal than it had been in 1914. Average incomes were, however, substantially lower than had they would have been the previous

[63] World Bank, Pp. 24-28.
[64] World Bank, Pg.25.

trend been maintained: the world rate of growth fell by about a third.[65] As economic historian Angus Maddison summarizes it "between 1913 and 1950 the world economy grew much less than world income, and the degree of inequality between regions increased substantially."[66]

Although the economic boom created inequalities around the world, the World Bank optimists argue that the increase in growth reduced poverty as never before. In support of this thesis the supporters of globalization compose to historical data to more current data. For example, "in the 50 years before 1870, the incidence of poverty had been virtually constant, falling at a rate of just 0.3 percent per year. During the first globalization wave, the rate of decline more than doubled to 0.8 percent,"[67] The authors' emphasis on the second wave of globalization, which increased trade between countries. This was because of the lifting of barriers, which showed that for the first time international specialization within manufacturing became important allowing agglomeration and scale economies to be introduced. The cost saving from agglomeration and scale enabled firms to cluster together producing the same thing and others connected by vertical linkages.[68]

For example, as Sutton describes it: "Two–thirds of manufacturing output consists of intermediate goods, sold by one firm to another. The presence of rich networks of manufacturing firms provides a positive externality to each firm in the system, allowing it to acquire inputs locally, thus reducing the costs of transportation, of coordination, of

[65] World Bank, Pp.27.
[66] Maddison, Angus. (2001) *The World Economy: A Millennial Perspective*. Organization for Economic Co-operation and Development: Paris. Pp.22.
[67] World Bank, Pp.26.
[68] World Bank, Pp.29.

monitoring and of contracting."[69] The World Bank scholars in this report see the second wave of globalization as a force that reduced inequalities among developed countries as a result of the advance of social programs and that globalization was successful in reducing poverty within OECD countries. In the developing countries, on the other hand, the growth levels were significantly lower with poverty continuing to rise as a result. Although the "golden age" of globalization tended to benefit the developed nations, the liberals see this process as one that opened the doors for the developing nations to follow.

For example, some developing countries have succeeded in harnessing their labor abundance to give them a competitive advantage in labor–intensive manufactures and services. For example, "in 1980 only 25 percent of the exports of developing countries were manufactures; by 1998 this had risen to 80 percent."[70]

The manufacturing group allowed the exports of such diverse developing countries as Sri Lanka and China to exceed the world average of 81 percent along with an increases in exports of services. For example, according to the World Bank report, commercial services made up 17 percent of the exports of rich countries but only 9 percent of the exports of developing countries in the early 1980s. However, during the third wave of globalization, the share of services in developed countries increased to only 20 percent; for developing countries the share almost doubled to 17 percent.[71] The developing country economies which were well located or which just created plans to move along with the global market were integral partners in increasing trade among other nations and improving domestic policies that would accommodate the changing market.

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[69] Sutton, J. (2000) "*Rich Trade, Scarce Capabilities: Industrial Development Revisited*." Discussion Paper No. E1/28 (Sept.), London School of Economics and Political Science, London, United Kingdom.
[70] Martin, W. (2001). "*Trade Policies and Developing Countries.*" World Bank: Washington, D.C. Processed. Pp. 32.
[71] World Bank, Pp. 32.

Although economic markets have been the main focus of most studies concerning the impact of globalization, the basic infrastructure of the developing countries that have been involved in the globalization process have been somewhat pushed aside. For example, it is important to note that along with reducing import tariffs significantly, the more globalized nations have significant progress in basic education. For instance, since 1980, the average amount of primary schooling for adults increased from 2.4 years to 3.8 years, thereby reducing inequality and raising health standards, as well as helping to raise productivity levels.[72] The globalists view this as follows: "it is likely that growth and trade reinforced each other, and that the policies of educational expansion, reduced trade barriers, and strategic sectoral reforms reinforced both growth and trade."[73]
Overall, the authors argue that,

> "Since 1980 the global integration of markets in merchandise has enabled those developing countries with reasonable locations, policies, institutions, and infrastructure to harness their abundant labor to give themselves a competitive advantage in some manufactures and services. The initial advantage provided by cheap labor has sometimes triggered a virtuous circle of other benefits from trade. For example, when Bangalore initially broke into the world software market, it did so by harnessing its comparative advantage in cheap, educated labor. As more firms gravitated to the city it began to reap economies of agglomeration. The increased export earnings financed more imports, thereby both intensifying competition and widening choice."[74]

By looking at the above data and information, it is possible to arrive at the conclusion that globalization is a positive force for the developing countries, where economic development is desperately needed. Although there are many positive trends arising as a result of globalization according to a liberal perspective, increased trade tends to be the most important factor. Much of the studies tend to support increased trade that is associated with globalization as a way to improve the ailing economies of the Third

[72] World Bank, Pp. 35.
[73] World Bank, Pp. 36.
[74] World Bank, Pp. 38.

World. As a result of globalization, the flow of trade and finance between major regions in the world economy has increasingly found its way to the developing nations. The increased trade globalization that has arisen with the introduction of trade liberalization and decreased tariffs involves more than simply the exchange of goods and services between different economies. Held and McGrew suggest that existence of trading between any two countries may affect trade relations between other countries.[75]

Along with increased capital flow to the developing countries from high-income countries along with new international mutual funds and pension funds, have enabled the developing nations to create stronger markets. Although some countries receive more than others, globalization has brought FDIs to most of the developing world. It has been noted that FDI brings not only capital, but also advanced technology and access to international markets, which is crucial for the participation in international production networks.[76] Dollar and Kraay find that "FDI has a powerful growth effect, whereas the overall level of investment by itself does not have a significant effect on growth."[77]

Negative Impacts of Globalization: Is the Radical Perspective Correct?

Having introduced the positive aspects of globalization, one must also look at the negative impact of economic growth in developing countries. As with anything, there are negative impacts that arise as a result of increased globalization; it can range from social, and cultural effects to environmental. In this research, the focus is limited to the impacts on the physical environment of developing countries, Sri Lanka, to be precise.

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[75] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture*. Stanford University Press: CA. Pp.150.
[76] World Bank, Pp. 43.
[77] Dollar, D., and A. Kraay. (2001a). "*Growth is Good for the Poor*." Policy Research Working Paper No.2587, World Bank, Washington, D.C.

In respect to the globalization of trade, through there are positive reports, some are negative. Blomstrom et al. found that FDI was a positive factor for middle-income countries but not for the low-income-developing world.[78] It has been suggested that FDIs generally play a positive role in those countries that have already achieved a prior level of development and have the infrastructure and the skill base to sustain growth.[79] Therefore, not all developing countries will attain the financial development that is usually anticipated.

Another negative aspect that has been discussed in recent decades is the impact of globalization on local governments. As global movers have relocated their factories and mass capital to the developing countries, some fear that corporate power may be influencing the state power. Authors such as Ohmae, argue that growth of MNCs and global production networks define a borderless economy in which the power of governments to manage the national economy is eroded.[80] This is a significant issue especially when the governments of the developing countries are involved. This is because most of the times the net worth of large MNCs tends to be larger than the GDPs of those developing countries where MNCs choose to invest. Therefore, the power of the national governments to manage the national economy can be significantly replaced by the large MNCs.

Much literature supports the development of the Third World through similar economic growth. It tends to support the theory that industrial growth in return benefits the ailing environments in the developing world. In respect to the environment,

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[78] Blomstrom, M., Lipsey, R. and Zejan, M. (1992). *What explains developing country growth?*", in W. Baumol et al. (eds), *Convergence of Productivity*, Oxford: Oxford University Press.
[79] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture*. Stanford University Press: CA. Pp. 280.
[80] Ohmae, K. (1990). The Borderless World, London: Collins.

Anderson and Leal suggest that economic growth and environmental quality are not incompatible; rather, higher incomes afford more environmental quality in addition to material goods. The authors' continue to agree that it is no accident that less developed countries have more pollution, lower health standards, and more environmental problems. "The simple fact is that dynamic, growing economies, like dynamic ecosystems, are more resilient in coping with unanticipated environmental problems."[81]

Towards Sustainable Development

Having discussed both the liberal and radical perspectives of globalization and development, the contemporary debate shifts more to the idea of sustainable development that has been appearing in the development arena in the past few decades. Although the idea of sustainable development is not a new concept when one looks at the ancient civilizations around the world, where sustainability of the environment was almost a required method for human survival. Scholars and practitioners alike have found a new meaning for the term in recent decades.

Any forms of development methods around the world are increasingly questioned about the sustainability of the kind of development. "Sustainable development" was defined in the Bruntland Commission's report on our common future as "development, which meets the needs of the present without compromising the ability of future generations to meet their own needs".[82] The Bruntland Commission sees sustainable development as depending on human ability:

[81] Anderson, L. Terry & Donald R. Leal (2001) Free Market Environmentalism. Palgrave: New York. Pp. 168-169.
[82] Philip W. Porter & Eric S. Sheppard. *A World of Difference: Society, Nature, Development.* Guilford Press: New York (1998). Pp.93.

> Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits – not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be both managed and improved to make way for a new era of economic growth.[83]

The definition by the Bruntland Commission does not reach a majority of the development projects in the South, where in most instances, economic gains are involved. As noted by Phantumvanit and Panayotou, in Thailand 'the share of hazardous waste generated by factories has increased from 29 per cent in 1979 to 58 per cent in 1989. The trend toward more hazardous waste producing industries is expected to continue during the next 15 to 20 years.'[84] According to the authors, only one area in Thailand has adequate treatment facilities. Although industrialization and structural change is necessary to achieve economic growth in the South, the process of structural change has not reduced the total responsibilities of industry on the environment, and there is growing concern about the environmental implications of high–consumption lifestyles.[85] For example, in France, every one per cent of growth generates 2 per cent of extra waste. In the developing countries in particular, there has been a marked redeployment of traditional industries such as textiles, leather, iron and steel, industrial chemicals and petrochemicals from North to South. Most of these industries pollute heavily.[86]

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[83] The Bruntland Commission Report, 1987. Pg.43.
[84] Phantumvanit, Dhira and Panayotou, Theodore. (1990) Industrialization and Environmental Quality: Paying the Price Thailand Development Research Institute, Bangkok.
[85] Making Development Sustainable: Redefining Institutions, Policy, and Economics (1992) Edited by Johan Holmberg and forwarded by Sir Crispin Tickell International Institute for Environment and Development, Island Press: Washington D.C. Pp. 160.
[86] Making Development Sustainable: Redefining Institutions, Policy, and Economics (1992) Edited by Johan Holmberg and forwarded by Sir Crispin Tickell International Institute for Environment and Development, Island Press: Washington D.C. Pp. 161.

It is essential to realize the importance of trade to developing nations and to understand that it can help less industrialized economies to flourish. But in recent decades, increasing expansion of industrial activities has brought the scale of actual and potential harmful effects to unprecedented levels and intensity. Increased trade between developing countries and the industrialized developed North is an important factor in the development of the Third World. It is this trade relationship that has resulted in increased environmental damage and has been leaving the South very dependent on the North. However, although development theorists see foreign investment and aid as critical to development in the Third World, the process can leave the South very dependent on the North. I intend to address these issues by paying close attention to the (a) environmental cost of industrialization and (b) increased dependency on the North as a result of industrial development.

In the case of Sri Lanka, whether having a liberalized trading system helps the environment depends on whom you ask. Beginning with the classical economists such as Adam Smith and David Ricardo to more recent scholars such as Hudson[87] who argue for trade liberalization, to scholars such as Daly who argue against open trade all present valid and researchable arguments. I think it is difficult to present a generalizations for-or-against the argument when discussing trade and the environment, simply because each country is unique in itself and in its ability to implement environmental regulations. The question is: will trade liberalization force environmental standards downward or will the use of trade restrictions protect the environment of such developing countries as Sri Lanka? Cole states that the impact of environmental regulation on competition is

[87] Hudson, S. (1992) Trade, Environment and the Pursuit of Sustainable Development. In Low, P. (ed.) (1992) International Trade and the Environment. Discussion Paper No. 159. World Bank.

uncertain and empirical studies explain little about whether pollution havens do exist or whether a "race to the bottom" is occurring.[88]

Much of dependency theory has been criticized by Jagdish Bhagwati, Ann Krueger, Deepak Lal, and other scholars who argue that it is not the international economic system that needs to be reformed in order to develop the Third World, that rather, the developing countries need to embrace free markets and laissez-faire economics.[89] In the case of Sri Lanka, my point is that although trade liberalization measures have been introduced to attract foreign investments to the country as development theorists suggest, the international capitalist system that promotes exports will take advantage of the unequal policies as suggested by *dependentistas*, which also includes lax environmental regulations. Therefore, the developing countries that are ex-colonies need to stimulate national economic growth in the international market and trade liberalization which leads to export-led industrialization.

The question is whether Sri Lanka's environment will suffer as a result of the need to cater to the growing export market. Although dependency theorists specifically do not discuss the natural environment of the developing countries in relation to their overall theories, it is likely that the highly unequal international capitalist system of rich country-poor country relationship includes unequal environmental regulations of investing and exporting countries.

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[88] Cole, A. Mathew. (2000) *Trade Liberalization, Economic Growth and the Environment*. Elgar: USA. Pp. 33.

[89] Todaro, P. Michael. *Economic Development in the Third World*. Longman Inc.: New York. (1989) Pp. 83.

CHAPTER 2

The Case Study (Sri Lanka)

Sri Lanka (formerly Ceylon) is an independent island nation, one of the largest islands in the Indian Ocean. It lies approximately 20 miles to the Southeast of the most southern India. The narrow Palk Strait divides Sri Lanka from India. Being 25,332 square miles in size, it is approximately the same size as West Virginia.[90]

Economically, Sri Lank has changed radically. It is no longer a predominately agricultural economy dominated by the estate system. Over the past 3 decades, agriculture as a percentage of GNP has been cut in half, while manufacturing has doubled. In economic policy outlook, it is moving away from too heavy emphasis on the distribution of wealth and what was viewed as an oppressive neocolonial economic system. Sri Lanka has increased the role of markets and the private sector by reducing restrictions on pricing, investment, and external trade and payments. Greater appreciation of modern international economic activity as an instrument for the rise of Sri Lankan prosperity. In infrastructure, favorable changes have tended toward support for the role of "economic hub" of Southern Asia.

Sri Lanka's independence from British colonial rule in 1948 is a major landmark in its social and economic development. After more than 300 years of colonial rule by the Dutch, Portuguese, and British, a range of political, economic, and cultural change was evident. Sri Lanka has been transformed from a plantation economy with over 90 percent of its exports consisting of plantation crops (some 60 percent of tea alone) to an economy whose exports are predominately manufacture goods (over 50 percent in

[90] Embassy of Sri Lanka publication.

garments alone).[91] Karunaratne reports that between 1950 and 1996, the manufacturing sector expanded by 550 percent, and the services sector by 124 percent, while the agricultural sector declined by 42 percent.[92] "Developmentalists say that neo-liberal reforms have supplanted the colonial plantation enclave economy with a new urban manufacturing enclave in the form of Foreign Trade Zones (FTZ) dominated by FDI from TNCs."[93]

In 1977 Sri Lanka made a complete departure from what was until then an inward–looking regime afflicted with severe shortages of foreign exchange and slow economic growth. A new policy package for export – led industrialization was implemented in 1977 under the presidency of J.R Jayawardena. The new policy package recognized the importance of FDI in promoting manufacturing industries in Sri Lanka. The most important single effort at promoting export–led industrialization through FDI was the creation of the Greater Colombo Economic Commission (GCEC) in 1978 with wide – ranging powers to facilitate FDI in fully export–oriented ventures.[94] The GCEC was empowered to approve foreign investments in Export Processing Zones (EPZ), which were to be specifically designed to serve as foci for the development of infrastructure to the standards required by export-oriented firms.

MNCs choose to invest in a country like Sri Lanka for many reasons. These reasons can range from cheap labor to incentives offered by the GCEC. The incentive

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[91] Central Bank of Sri Lanka. Annual Report 1998.
[92] Karunaratne, Neil Dias (2000). "The Export Engine of Growth in Post-Independence Sri Lanka" in Sri Lanka's Development Since Independence: Socio-Economic Perspective and Analysis. New York: Nova Science Publishers, Inc. Pp.173.
[93] Wickramasinghe, J.W. (1994) Economic Consequence of the Policy Shift from Import Substitution to Liberalized Imports: The Case of Sri Lanka (1960-1984). Godage & Brothers: Colombo, Sri Lanka. Pp.xi.
[94] Demetris Papageorgiou, Michael Michaely, & Armeane M. Choksi (eds) *Liberalizing Foreign Trade : Indonesia, Pakistan, and Sri Lanka*. (1989) Basil Blackwell: Mass. Pp. 377.

package offered by the GCEC included: complete foreign ownership facility in investment projects; a tax holiday for up to 10 years with complete tax exemption for remuneration of foreign personnel employed, royalties, and dividends of shareholders during that period; and duty exemption for the importation of equipment, and production materials. Subsequently, GCEC enterprises were provided with unlimited access to foreign–currency credit at interest rates prevailing in world financial markets, under the Foreign Currency Banking Units (FCBUs) scheme introduced in 1979.[95] In addition to these incentives, firms located within EPZs are provided with industrial services–serviced sites, building plants, power, water, and telecommunication services at subsidized rates and assistance with customs clearance procedures. The first investment promotion zone, at Katunayake near the Colombo International Airport (henceforth KEPZ) was opened in June 1978. The success of KEPZ paved the way for setting up a second EPZ in Biyagama (BEPZ) in 1982 and a third in Koggala (KEPZ) in June 1991.[96]

Another factor that makes Sri Lanka a good case study for export led to industrialization, is the role of FDI in the economy. FDI has played a pivotal role in the expansion of manufacturing exports in Sri Lanka since 1977. The share of foreign firms in total exports of manufactures increased from 24 percent in 1977 to almost 80 percent in mid 1990s. Almost 85 percent of the total increment in manufactured exports between 1985 and 1995 originated with foreign firms, compared with 46 percent between 1978 and 1985 (see table 2.1).

[95] Board of Investments of Sri Lanka
[96] Demetris Papageorgiou, Michael Michaely, & Armeane M. Choksi (eds) *Liberalizing Foreign Trade : Indonesia, Pakistan, and Sri Lanka*. (1989) Basil Blackwell: Mass. Pp. 377.

TABLE 2.1
FOREIGN FIRM'S CONTRIBUTION TO MANUFACTURED EXPORTS 1976 - 1995
(3-year averages)

Year	Manufactured Exports		Foreign Firms' Contribution To Manufactured Exports	
	$ U.S. Millions	Share in Total Merchandise Exports (%)	All Foreign Firms (%)	Board of Investment Firms (%)
1975-77	24.8	4.0	23.2	N.A
1978-80	102.7	10.4	30.2	N.A
1981-83	234.9	22.1	43.7	30.6
1984-86	421.2	31.9	47.4	35.5
1987-89	653.5	44.2	58.2	43.5
1990-92	1083.1	56.6	65.8	47.6
1993-95	2282.2	72.2	78.2	49.1

Source:.- *Premachandra Athukorala, "Foreign Direct Investment and Manufacturing for New Exporting Country: The Case of Sri Lanka "* ***World Economy****, vol. 18 (1995).*

TABLE 2.2
Country Composition of Garment Exports from Sri Lanka
(as percentage of total export earnings)

Destination	1980	1987	1998
USA[a]	54.6	64.6	64.2
EU	24.1	22.9	31.4
Middle East	3.8	1.0	n.a.
Japan	0.5	0.3	0.4
Other	17.0	11.2	4.0

Notes: a. Sri Lanka's share of the US market was 0.8%, 1.2%, and 2.7% respectively.
Source: Estimated from data obtained from the Export Development Board and Central Bank of Sri Lanka, Annual Report 1998.

Free Trade and Sri Lanka

Free Trade in Sri Lanka has existed for centuries starting with the Portuguese colonizers in the 1500s to the British colonizers who were forced out of the island in 1948. During this period of colonization by Western powers, there were no formal trade liberalization agreements signed between Sri Lanka and her colonizers, but the basic principle of trade existed. The new sea routes were discovered after 1500. The Portuguese, the Dutch and later the British were interested in both trade and political

control.[97] The vast amount of natural resources, including cinnamon spices, gems, and other goods, attracted the Western powers so as to pay close attention to the island nation.

The extraction of resources and cheap labor in Sri Lanka by the Western colonizers in order to maximize their own profits was a common practice for many centuries. As the Western colonizers extracted much of natural resource base of the country to export back to the West, most of the local Sri Lankan population were tripped of their wealth and were forced to serve the Western demands.

The introduction of tea and rubber plantations to the island by the British also introduced Sri Lanka to the world export market. According to Gunewardena, agricultural exports became the largest single contributor to Ceylon's national income. In 1950 it was estimated that exports accounted for about 40 per cent of the island's income. This resource exploitation on the island not only left the country dependent on foreign trade, but also left an unfavorable balance of trade, which was caused by an inflow of capital to finance, the expansion of coffee plantations at first and, later, investments in tea and rubber.[98]

In recent decades, after gaining independence from the British, the outlook toward free trade and open markets has varied according to the political party in power. With the United National Party (UNP) favoring open markets and the Sri Lanka Freedom Party (SLFP) favoring somewhat a closed market, the island has experienced both aspects of the market. With the UNP's victory in July 1977, led by J.R. Jayawardene, the economy

[97] Elaine Gunewardena, External Trade and the Economic Structure of Ceylon 1900-1955. The Central Bank of Sri Ceylon: Colombo. (1965) Pp.1.
[98] Elaine Gunewardena, *External Trade and the Economic Structure of Ceylon 1900-1955*. The Central Bank of Sri Ceylon: Colombo. (1965) Pp.8.

of Sri Lanka opened its doors wider to free trade and market liberalization.[99] The most notable introduction to the economy during that time was the establishment of FTZs, which were mainly confined to setting up garment manufacturers for the quota-protected US market.[100] These FTZs were embraced by the high percentage of unemployed that was not concerned about the long-term economic and environmental effects arising from FTZs. According to Cuthbertson & Athukorala's summary of liberalization episodes, when comparing wages before and after 1977, the real wages were falling after 1977. Experts state that trade liberalization had disrupted the employment levels, but this is regarded as an inevitable consequence of the adjustment process.[101]

The Export Development Act 40, introduced in 1979, provided for the establishment of the Export Development Board (EDB), whose goal is to promote export among industries. The EDB provides financial assistance to selected export–oriented projects in the forms of equity participation and provision of short–term financing to projects with potential for expansion of exports in the short run.[102] The purpose is to provide the necessary resources for production in order to encourage one to be an independent investor.

Along with Export Development Act 40, the Central Bank introduced a pre-shipment refinancing scheme for nontraditional exports in 1977, which provided refinancing at a concessional rate in respect of loans granted by the commercial banks to

[99] Demetris Papageorgiou, Michael Michaely, & Armeane M. Choksi (eds) *Liberalizing Foreign Trade : Indonesia, Pakistan, and Sri Lanka*. (1989) Basil Blackwell: Mass. Pp. 332.
[100] Ibid. Pp. 333.
[101] Ibid.
[102] Ibid. Pp. 373.

exporters at or below a predetermined concessionary rate.[103] The provisions established in 1979 by the Sri Lanka Export Credit Insurance Corporation (SLECIC), which stated that issuing bank guarantees on both pre-shipment and post-shipment credits and issuing insurance policies to exporters to cover the risk of nonpayment or delayed payment by the buyers, encouraged many buyers as well as exporters to invest in the market.[104] In addition, the five-year tax holiday introduced in 1978 for all export-oriented corporations incorporated on or after November 15, 1978[105] made investment in the island more favorable for foreign investors.

The trade freedom introduced in the early part of the1970s, private investment increased substantially. For example, for the entire period of 1970 to 1977, the total investment was Rs. 17 million; after the early 1970s, between 1978 and 1984, investment amounted to Rs. 5,448 million.[106] In tables 2.3 and 2.4 below of recent import and export statistics shows the level of trade in Sri Lanka, which tends to be rising at a high rate due to the trading freedom the foreign investors have gained over the recent decades.

[103]Demetris Papageorgiou, Michael Michaely, & Armeane M. Choksi (eds) *Liberalizing Foreign Trade : Indonesia, Pakistan, and Sri Lanka*. (1989) Basil Blackwell: Mass. Pp. 376.
[104] Ibid.
[105] Ibid.
[106] Godfrey Gunatilleke, Development and Liberalisation in Sri Lanka: Trends & Prospects. (1993) Marga Institute: Sri Lanka. Pp. 35.

TABLE 2.3
Composition of Exports

Category	US dollars million					Rs. million				
	1999	2000	2001	2002	2003a	1999	2000	2001	2002	2003a
Agricultural exports	947	1,005	932	938	965	66,751	76,271	83,252	89,682	93,069
Tea	621	700	690	660	683	43,728	53,133	61,602	63,105	65,937
Rubber	33	29	24	27	39	2,305	2,179	2,129	2,552	3,718
Coconut	129	121	82	84	93	9,119	9,174	7,348	8,009	8,926
Kernel products	84	77	41	41	48	5,973	5,786	3,639	3,958	4,601
Other	45	45	42	42	45	3,146	3,388	3,709	4,051	4,325
Minor agricultural products	165	155	136	168	150	11,598	11,784	12,174	16,016	14,489
Industrial exports (b)	3,551	4,283	3,710	3,631	3,977	250,516	325,931	331,687	347,657	383,833
Food, beverages & tobacco	86	152	128	123	145	6,093	11,573	11,389	11,799	13,993
Textiles and garments	2,425	2,982	2,543	2,424	2,575	171,068	226,930	227,360	232,027	248,572
Petroleum products	74	98	68	73	65	5,210	7,414	6,053	7,003	6,299
Rubber products	161	196	172	182	231	11,350	14,924	15,417	15,441	22,299
Ceramic products	49	47	42	42	42	3,442	3,558	3,791	4,046	4,064
Leather, travel goods & footwear	201	176	150	84	58	14,140	13,391	13,400	8,045	5,583
Machinery and equipment	201	244	245	266	290	14,155	18,594	21,895	25,509	27,951
Diamonds and jewelry (c)	171	192	185	205	233	12,064	14,546	16,495	19,634	22,506
Other industrial exports	184	197	177	231	338	12,995	15,002	15,887	24,153	32,566
Mineral exports	64	97	86	90	84	4,540	7,352	7,666	8,628	8,069
Gems	61	93	82	86	79	4,326	7,091	7,276	8,173	7,601
Other mineral exports	3	3	4	5	5	214	262	390	455	468
Unclassified (d)	48	137	88	41	108	3,363	10,560	7,767	3,883	10,445
Total exports (b)	4,610	5,522	4,817	4,699	5,133	325,171	420,114	430,372	449,850	495,426

(a) Provisional
(b) Adjusted
(c) Diamond exports reported by the Sri Lanka Customs in 1999 onwards were adjusted for data obtained from the National Gem and Jewelry Authority
(d) Includes re-exports

Sources: Sri Lanka Customs
Ceylon Petroleum Corporation and
Other exporters of petroleum
Central Bank of Sri Lanka
National Gem and Jewelry Authority

TABLE 2.4
End-Use Classification of Imports

Category	US dollars million					Rs. million				
	1999	2000	2001	2002	2003a	1999	2000	2001	2002	2003a
Consumer goods	1,242	1,388	1,235	1,319	1,481	87,505	105,403	110,059	126,181	142,911
Food and drink	661	693	654	696	701	46,562	52,584	58,466	66,540	67,713
Rice	46	4	11	18	8	3,290	288	969	1,732	819
Sugar	106	141	115	132	116	7,448	10,777	10,289	12,634	11,196
Wheat	111	127	110	130	137	7,792	9,625	9,783	12,427	13,255
Other	398	421	419	415	440	28,032	31,894	37,425	39,746	42,443
Other consumer goods	581	696	581	623	779	40,943	52,819	51,593	59,641	75,198
Intermediate goods	3,057	3,789	3,321	3,492	3,811	215,658	287,196	296,522	334,357	367,676
Petroleum	500	901	731	789	838	35,344	68,381	65,190	75,627	80,807
Fertilizer	66	80	67	76	88	4,690	6,059	6,047	7,259	8,457
Chemicals	136	147	142	155	170	9,590	11,152	12,647	14,792	16,363
Textiles & clothing	1,320	1,471	1,320	1,321	1,372	93,105	111,386	117,993	126,438	132,415
Other intermediate goods (b)	1,035	1,190	1,061	1,151	1,344	72,929	90,218	94,644	110,241	129,634
Investment goods	1,565	1,737	1,081	1,170	1,320	110,599	130,889	96,185	112,046	127,363
Machinery & equipment	678	787	610	640	698	47,736	59,538	54,287	61,296	67,330
Transport equipment (c)	523	529	129	151	206	37,191	39,489	11,469	14,449	19,869
Building materials	260	305	249	272	328	18,296	23,087	22,145	26,013	31,677
Other investment goods	105	116	93	108	88	7,376	8,776	8,285	10,288	8,487
Unclassified imports	115	406	337	125	60	8,126	30,802	30,198	11,907	5,799
Total imports (d)	5,980	7,320	5,974	6,105	6,672	421,888	554,290	532,964	584,491	643,749

(a) Provisional
(b) Diamond imports reported by the Sri Lanka Customs in 1999 and 2000 were adjusted for data obtained from major importers.
(c) Includes the value of 3 aircraft each imported by SriLankan Airlines in 1999 and 2000.
(d) Adjusted

Sources: Sri Lanka Customs
Co-operative Wholesale Establishment
Ceylon Petroleum Corporation
Major importers of diamonds
Central Bank of Sri Lanka
Primary Ceylon Ltd.

In recent decades Sri Lanka has become a paradise for exports. In every part of the island there are factories ranging from the size of a few rooms to several stories high with hundreds of thousands of domestic workers. It is hard to analyze the effect of export-oriented growth in the country because most reports tend to favor those whom

they know and not situation of the citizens involved. The factories around the island are somewhat similar to the Mexican *maquiladoras* along the U.S. border, with thousands searching for employment at a few dollars a day. The workers lack any type of insurance, unions, or pension benefits to aid them in case of loss of job. The notion of job security comes with one's physical ability to tolerate difficult working conditions. These conditions are not documented in most of the trade liberalization literature, but they are constant causes of complaints by the poor young women who search for better employment in the country. Despite the social condition of the workforce, the investment in export-related growth has been increasing over the years and will continue in the future if the responsible authorities do not question it.

Although trade has been classified as a method, that increases rapid economic growth, in the case of Sri Lanka, trade has created fluctuating growth. This is due to the fact that as a small economy, Sri Lanka is heavily dependent on international trade that relies on a few primary commodity exports. The competition created by free trade has forced many of the local markets to depend heavily on imports leaving the local industries to go out of business. The imported raw materials, machinery, and spare parts have helped the larger industries to flourish, but the smaller local-sector industries have disappeared. The Central Bank Reviews of the Economy from 1978 to 1981 highlighted the difficulties that domestic industries encountered as a result of trade liberalization and the fact that a large number of industries in large, medium and small categories, that were labor-intensive, had to close down. The Central Bank Review of the Economy for 1979 stated that,

> "Of about 1,300 firms failed in this sector [textile industry] addressed by the Central Bank about 500 firms failed to reply and another 120 firms indicated that they had closed down operations. It appears that these industrial units were unable to compete with superior imports, even under substantial protection. Local market oriented handlooms and garments enjoyed high priority and projection during the previous era of import substitution. It is possible that this type of industrial promotion bred inefficiency and the introduction of a competitive economic atmosphere made many of these units economically non viable."[107]

Although the above findings are rather old, the findings of the Central Bank's Review of the Economy continue to be similar at the present day Sri Lanka. The economic growth achieved by free trade affects the small fraction of the population that is directly involved in policymaking or investing. What the free trade promoters tend to forget in their growth manuals is that the large numbers of unaccounted unemployed, underpaid, those hardly on the poverty line, and those who regularly skip a meal a day to survive. Also, the data in table 2.3 explain the domestic economic instability due to the lack of local market stability.

TABLE 2.5
FOREIGN FIRMS' SHARE OF MANUFACTURING EXPORTS, 1985 AND 1993

Industry	**1985%**	**1993%**
Food, Beverages, Tobacco	1.2	92.9
Textiles, Wearing apparel, and leather	37.2	80.1
Wood and Wood Products	0.5	13.8
Paper and Paper Products	0	9.1
Chemicals, Petroleum, Rubber	3.2	44.1
Fabricated Metal Products and Machinery	16.3	8.4
Other		
Total Manufactured Exports	24.4	71.2

Source: Wignaraja

The foreign corporate influences have grown at alarming levels in the former local markets, and most have disregarded this foreign influence and dependence. The encouraged FDIs have made a major contribution to manufactured exports. Table 2.5

[107] H.N.S. Karunatilake, The Economy of Sri Lanka. (1987) The Center for Demographic and Socio-Economic Studies: Colombo. Pp. 397.

shows the ownership of exporters in Sri Lanka and their rate of growth between 1985 and 1993. Porter & Sheppard states this trend as follow:

> "… foreign capital poses a threat to national identity and autonomy. Excessive foreign ownership is seen as a sign of weakness and dependence, and the very mobility of transnational investment makes it more difficult for national states to regulate the behavior of private investors. Foreign firms may stimulate local business, but they also have the resources to drive local entrepreneurs out of business. This poses a problem for the third world governments attempting to use FDI to jump- start domestic industry."[108]

Another forgotten factor in Sri Lanka's trade equation is the environment. It has been impossible to locate any documented evidence regarding the direct effect of export-related trade and environmental efforts in Sri Lanka. Although, I have not been able to find data to support for my claim that there is a direct link and often the environment is an ignored factor. My discussion on the subject in the following chapters will show that increased industrialization in the country has negatively impacted the physical and natural environment of developing countries, particularly Sri Lanka

If the local economy is not restored and FDIs are decreased in the economy, Sri Lanka will face increase in negative economic and environmental consequences in future decades. The large budget deficits, unsustainable balance of payment deficits, and increasing inflation[109] that is present in the country will not decrease in the near future if the same practices are followed. The piles of waste in the sides streets and polluted rivers and lakes can only get worse as a result of globalization and open frontiers.

Economic Performance

Sri Lanka is a well-known outlier among developing nations. It was one of the first developing countries to understand the importance of investing in human resources and promoting gender equality. As a result, Sri Lanka has achieved human development

[108] Porter, W. Philip & Eric S. Sheppard. (1998) *A World of Difference: Society, Nature, Development*. New York: The Guilford Press. Pp. 459.
[109] Ganesh Wignaraja. Trade Liberalization in Sri Lanka. (1998) St. Martin's Press: NY. Pp.6.

outcomes more consistent with those of high-income countries. According to Weligamage, policy reforms of the post–1977 increased the per capita income of the country.[110] Today Sri Lanka is South Asia's most open economy, and has a relatively well developed capital market infrastructure. Its per capita income is the highest in South Asia.[111]

Although, it remains among middle range of countries according to the UNDP classification based on the Human Development Index (HDI), there is a growing realization that Sri Lanka's development has been well below its potential.[112] In the 1960s, Sri Lanka had the same per capita income as Korea, Malaysia, and Singapore. Thirty years later these three countries have per capita incomes that are several times higher than Sri Lanka's. This growth has brought with it a larger improvement in the social indicators than that achieved in Sri Lanka, to a level now distinctly better than that of Sri Lanka. The income distributions that is more rather than less egalitarian. Several reasons explain this divergence in economic performance. The first and most obvious one is the 17-year-long war. This has taken a heavy social and economic toll on the country's performance. Second, relative to the early 1970s, public institutions and governance have weakened gradually over the years.[113] Third, Sri Lanka has for many years given the public sector a significant role in creating jobs and transferring resources across groups. The size of the public sector has declined slightly over the years, but it continues to dominate the financial sector and utilities, while owning a large number of

[110] Weligamage, Lakshman, D. and Clement A. Tisdell (2000). "Introduction to Sri Lanka's Development Since Independence" in Sri Lanka's Development Since Independence: Socio – Economic Perspectives and Analyses. New York: Nova Science Publishers, Inc. Pp.9.
[111] Ibid. Pp.5.
[112] Ibid. Pp.9.
[113] Ibid. Pp.9.

commercial enterprises.[114] Per capita employment in the public sector is the largest in Asia. With productivity in the public sector typically well below that of the private sector, this has meant foregone opportunities in terms of growth and employment. It is testimony to the private sector's strength that employment in the private sector has increased significantly during the past decade despite these constraints.

Sri Lanka has made significant progress in its macroeconomic situation, as shown by the key economic indicators in table 2.6. Despite prolonged ethnic conflicts, as shown in table 2.6, the GDP grew at an average annual rate above 5 percent. Inflation has been reduced to a non-volatile level, and current account balance stands at a manageable level. Savings and investment performances have also been improving.

[114] Siri Hettige (2000). "Transformation of Sociey" in Sri Lanka's Development Since Independence: Socio – Economic Perspectives and Analyses. New York: Nova Science Publishers, Inc. Pp.26.

TABLE 2.6 Selected Macroeconomic Indicators						
Item	**1980-89 Avg.**	**1990-99 Avg.**	**2000**	**2001**	**2002(a)**	**2003(b)**
GDP (real) growth rate (% change)	4.2	5.1	6.0	-1.5	4.0	5.9
GNP (real) growth rate (% change)	4.0	5.3	5.8	-1.3	4.1	6.4
GDP deflator (% change)	11.8	10.2	6.7	12.4	8.4	5.0
GDP (nominal), per capita, rupees	9,608	37,430	68,102	75,133	83,267	91,434
GDP (nominal), per capita, US dollars	362	669	899	841	870	947
Colombo Consumers' Price Index (% change)	12.8	11.3	6.2	14.2	9.6	6.3
Sri Lanka Consumers' Price Index (% change)	n.a.	n.a.	1.5	12.1	10.2	2.6
All Share Price Index (1985=100)	n.a.	693.2	447.6	621.0	815.1	1,062.1
Unemployment rate, percent	n.a.	12.4	7.6	7.9	8.8	8.4 (c)
Gross domestic investment (% of GDP)	26.2	24.8	28.0	22.0	21.3	22.3
Gross domestic savings (% of GDP)	12.9	15.9	17.4	15.8	14.5	15.7
Foreign savings (d) (% of GDP)	13.3	9.1	10.6	6.2	6.9	6.6
Gross national savings (% of GDP)	n.a.	n.a.	21.5	20.3	19.5	21.3
Balance of payments, current account (% of GDP)	-8.1	-5.1	-6.4	-1.4	-1.4	-0.6
Budget, current account (% of GDP)	0.9	-2.0	-3.4	-4.9	-4.4	-3.3
Budget, overall balance (% of GDP)	-14.0	-9.3	-9.9	-10.8	-8.9	-8.0
Import coverage of foreign assets, months						
Total foreign reserves (months of imports)	3.4	5.7	3.5	4.5	4.9	5.8
Gross official reserves (months of imports)	1.8	3.8	1.7	2.7	3.3	4.2
Exchange rate (Rs/US$), (% change) (e)	-9.1	-5.7	-9.9	-11.3	-3.7	-0.01
Real Effective Exchange Rate-24 (1999=100) (% change)	-	-	0.7	0.04	0.5	-3.4
Money supply (M_{2b})	17.9 (g)	16.8 (g)	12.9	13.6	13.4	15.3
Private sector credit (% change)	20.3 (g)	18.2 (g)	11.8	8.9	12.0	16.9

(a) Revised
(b) Provisional
(c) 3rd quarter 2003
(d) Net imports of goods and non-factor services
(e) Changes in end year exchange rate; Negative sign indicates depreciation.
(f) Consolidated money supply including FCBUs
(g) In relation to M_2

Source- Central Bank of Sri Lanka

TABLE 2.7
SECTOR SHARE OF GDP, 1977 - 1999

Item	**1977**	**1987**	**1998**	**1999**
(% of GDP)				
Agriculture	30.7	27.0	21.1	20.7
Industry	28.7	27.4	26.0	25.8
Manufacturing	23.1	16.0	16.5	16.4
Services	40.6	45.6	52.9	53.5
	1977-87	**1988-98**	**1998**	**1999**
(average annual growth %)				
Agriculture	3.5	2.0	2.5	4.5
Industry	5.0	7.1	5.8	4.5
Manufacturing	5.3	8.4	6.3	4.4
Services	6.4	7.1	5.2	4.0

Source: *Central Bank of Sri Lanka, Annual Reports.*

TABLE 2.8
EMPLOYMENT PATTERN, 1981 - 1998

Item	1981	1991	1998
Labor Force (mn)	5.0	5.9	6.6
Unemployment rate (%)	17.9	14.7	9.5
Male (%)	13.3	9.9	6.6
Female (%)	31.0	23.4	14.6
Employment Share (%)			
Total	100.0	100.0	100.0
Agriculture	45.2	42.5	38.1
Industry	14.1	20.7	21.6
Manufacturing	10.1	15.0	15.3
Services	40.7	36.9	40.3

Source: *Department of Census and Statistics*

Among developing countries, Sri Lanka had an impressive record of human development even before launching the liberalization and globalization process due to the comprehensive welfare programs adopted by successive governments since independence. It has been noted that the achievements of Sri Lanka in terms of social indicators were relatively high by developing-country standards even before

independence in 1948.[115] For example, the crude death rate, the infant mortality rate, and the maternal mortality rate had gone down to 19, 17, and 1 respectively by the mid – 1990s.[116] The literacy rate for men and women increased to 90 and 84 percent respectively for the whole population at the beginning of the 1990s.[117] For 1996-97 it was 91.8 percent for the whole population.[118]

In keeping with its long tradition of addressing social equality concerns, Sri Lanka has always put efforts to reduce poverty at the top of the government's agenda. It was one of the first developing countries to understand the multi-dimensional nature of poverty and has strongly emphasized policies aimed at promoting free health and education as early as the 1930s. A large state investment in such social programs was an early effort at universal suffrage and female empowerment; Sri Lanka's impressive achievements in social development have had positive impacts on even the poorest. Since the 1980s, the government has also added large programs of income support in the form of food stamps and other transfers, maintaining policies that set Sri Lanka apart from the rest of South Asia and the developing world. In addition to its strong social indicators, Sri Lanka has virtually eliminated starvation and destitution.

The extent of poverty is generally estimated by using a poverty line, which is defined in terms of a cut-off per capita, income required to meet the basic needs, mainly the minimum caloric intake. However, there is no officially designated poverty line,

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[115] These rates for 1945 were 21.9, 140 and 16.5 respectively and for 1948, 13.2, 92 and 8.3. The Central Bank Annual Report (1998). Pp. 58.
[116] Weligamage, Lakshman, D. and Clement A. Tisdell (2000). "Introduction to Sri Lanka's Development Since Independence" in Sri Lanka's Development Since Independence: Socio – Economic Perspectives and Analyses. New York: Nova Science Publishers, Inc. Pp.5.
[117] Alailima, P.J. (1997) "Social Policy in Sri Lanka", in W.D. Lakshman (ed.) Dilemmas of Development: Fifty Years of Economic Change in Sri Lanka, Colombo: Sri Lanka Association of Economists, Pp. 138.
[118] Colombage, S.S. (1998) "Socio-Economic Developments in Sri Lanka: Major Findings of the Consumer Finances and Socio-Economic Survey 1996/97", Seminar Paper, mimeo.

which is applicable across the total population. This is a major problem in obtaining information on changes in poverty status in the country.[119] Depending on the definition, the cut-off point and the methodologies used, different estimates of poverty have been derived for Sri Lanka in various studies. Using a reference poverty line of Rs.471.20 (monthly per person at 1990-91 prices), the share of population living below the poverty line is estimated to have declined from 27 percent in 1985/86 to 22 percent in 1990/91.[120]

More recent studies show that the share has further declined to around 21 percent in 1995/96.[121] For 1996/97, the Central Bank estimated the lower poverty line at Rs.860.00 per person per month and the higher poverty line at Rs.1, 302.00 per person per month. According to the Central Bank's lower poverty line, 3.3 million out of 17.5 million people (excluding the population of the north-eastern province) were classified as poor in 1996/97.[122] Despite the commendable long-term trend in poverty reduction from the mid-1980s to mid-1990s, however, a large part of the population remains vulnerable to income fluctuations.[123] Income poverty in Sri Lanka is primarily a rural phenomenon, with approximately 85 percent of poor households located in rural areas; the total rural population is around 75 percent. As in most developing countries, poverty levels are particularly high among seasonal laborers employed in agriculture, mining, construction, and the informal sector.[124] In order to avoid these situations, since the early 1980s there

[119] Dutt Gaurav and Dilini Gunawardena (1997) Some Aspects of Poverty in Sri Lanka: 1985-1990. The World Bank. Washington, D.C.
[120] Department of Census and Statistics, 1993.
[121] Kelegama, Saman (2001). Poverty Situation and Policy in Sri Lanka. "The Paper Presented at the Asia and Pacific Forum on Poverty: February 5-9" Asian Development Bank, Manila.
[122] Central Bank, Annual Report (2000). Central Bank of Sri Lanka, Colombo.
[123] (World Bank, 2000).
[124] (World Bank, 2000).

has been a rapid migration to the oil-rich Middle Eastern countries by unskilled and semi-skilled workers.[125]

Foreign Direct Investment

Sri Lanka needs to grow at a much faster rate to generate more employment so as to absorb the unemployed labor force and to reduce the poverty levels. There have been several constraints on growth in the recent years. A major constraint is the inadequacy of savings and investments. At present Sri Lanka maintains a GDI around 24 percent of GDP.[126] This is insufficient to sustain a higher annual growth rate, say over 8 percent.[127] Such a steady growth path would require an investment/GDP ratio of over 30 percent.[128] That would raise the investment-savings gap to more than 10 percent of GDP, given the present savings/GDP ratio of around 20 percent.[129] Therefore, the domestic savings - investment gap needs to be filled by FDI and foreign borrowing. Excessive foreign borrowings can have adverse repercussions on the balance of payments. As a source of financing the external resource gap, FDI has several advantages over debt-creating sources. The main advantages are the following:

i. Equity financing does not require the repayment of principal as in the case of debt financing and hence, the long-run debt service commitments of the country should be below what it would have been under borrowings. This advantage has prompted some highly indebted countries to agree to swap their foreign debt for equity even at a loss.

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[125] Siri Hettige (2000). "Transformation of Sociey" in Sri Lanka's Development Since Independence: Socio – Economic Perspectives and Analyses. New York: Nova Science Publishers, Inc. Pp.27.
[126] Kelegama, Saman (1999). Open Economic Policy and Its Impact on Domestic Liberalization in Sri Lanka. Annual Session of the Sri Lankan Association of Economists. ARTI, Colombo. December 14, 1991.
[127] Ibid.
[128] Ibid.
[129] The Central Bank Annual Report (1999).

ii. Dividend payments on direct foreign investments are optional and would take place only if the enterprises have made profits during the year. In the case of debt financing, borrowers have no option but to continue with payment of interest unless the interest payments are capitalized in negotiations. An added advantage of direct foreign investment is that any undistributed profits are retained in the country, augmenting the country's flow of savings.

iii. Equity financing is tied directly to particular enterprises, which are considered rather useful on a number of grounds after a thorough evaluation. Hence, its importance on the country's output is immediate. Furthermore, if the project were in the export sector, consequent export growth would make the debt service payments fairly manageable.

iv. Direct foreign investment would usually result in a transfer of technology in a costless manner, as the improved managerial and engineering technology would flow to the local firms automatically. In the case of debt financing, desired technology would have to be acquired at a cost.

FDI flows have played an important role in the economic growth of Sri Lanka by bridging the gap between domestic savings and investment, and providing the impetus for economic growth. For this purpose, the government actively promoted FDI. Since the late 1970s, in pursuance of this policy, GCEC was established by an Act of Parliament on January 31, 1978, with the principal objective of encouraging and regulating foreign investment inflows in export-oriented activities, principally within designated EPZs in Sri Lanka.

Earlier, the FDI in Sri Lanka came under the purview of two regulatory authorities - the GCEC and the Foreign Investment Advisory Committee (FIAC), a non-statutory agency established in the late 1960s under the Ministry of Finance. The three key distinctions between GCEC and FIAC projects were these:

(a) GCEC projects were entirely foreign-owned or joint ventures in which the entire working capital and entire foreign costs of fixed assets were foreign-financed, while FIAC projects were joint ventures with a local majority holding;

(b) GCEC projects were at least 90 percent export-oriented; FIAC projects were not; and

(c) While the GCEC was able to provide infrastructure support services to projects within its Export Processing Zones, such facilities were not available foe FIAC projects.

With a view to unifying and simplifying procedures for investors, the FIAC was brought under the authority of the GCEC in 1990. The GCEC was renamed the Board of Investment (BOI) in effect from 1991. However, specialized activities such as banking, financial institutions, trading services in the Colombo Stock Exchange, insurance, air transportation, coastal shipping, production and distribution of energy and power; large-scale mechanized mining of gems, branches of liaison offices of companies incorporated outside Sri Lanka. Lotteries were regulated by special legal enactments, and remained outside the purview of BOI.

Investors are free to invest in any sector of the economy. However, foreign investment is not permitted in a very few activities, namely, money lending, pawn

brokering, retail trade with an investment of less than 1 million US dollars, personal services other than for exports or tourism and coastal fishing.[130] Moreover, a few specialized and security related activities, such as manufacturing of arms and ammunition, poisons and hazardous materials, currency, coins, and security documents, require a special license from the relevant authorities.[131] There is no restriction on the size of investment or source of funds. Investments can be made for the manufacture of products for export or for the domestic market.

Foreign investment in local firms where the current foreign equity component is less than 40 percent is automatically approved, with the exception of the few items given above, which remain excluded.[132] Foreign investment in new firms in excess of 40 percent is automatically approved except in the case of a short list of activities.[133] Investments with a foreign equity component are subject to the approval of the BOI. There is no requirement to obtain industrial licenses to set up new companies. Investors are required only to furnish basic information on proposed business activities to the Registrar of Companies for statistical purposes.

Trends in FDI
Pre-1977 Period:

Sri Lanka does not maintain records of FDI stocks and flows. The only data available for the analysis of overall trends in FDI are outflow and inflow data compiled as part of the Central Bank's balance of payments recording system and data on

[130] Sri Lanka: Investment Policy and Reforms. BOI. June, 1996.
[131] Ibid.
[132]Board of Investment, 1998).
[133] Ibid.

declared capital of contracted projects maintained by the foreign investment approval agencies (FIAC and GCEC up to 1992 and BOI since then).

As a consequence of a deteriorating balance of payments situation, Sri Lanka moved toward a regime of import substitution and import restrictions in the 1950s.[134] These restrictions naturally resulted in the entry of several major multi-national enterprises into manufacturing ventures, in order to undertake the domestic production of goods. During the period from 1960 to 1976, wide-ranging incentives were formulated to attract private foreign capital in both export-oriented and import-substitution industries. An analysis of direct investment inflows during the pre-1977 period indicates clearly that the overall economic policy framework prevailing during the period, characterized by schemes of licensing and quotas, nationalization, restrictions on capital outflows, etc. acted as a disincentive to FDI, no matter how attractive the incentive schemes were. In fact, the total net foreign capital inflow for the period 1960 to 1976 was negative (see table 2.9).

TABLE 2.9
NET FOREIGN DIRECT INVESTMENT FLOWS
1960 - 1977

(US dollars Million)

YEAR	FDI	YEAR	FDI
1960	0.6	1969	-1.8
1961	-1.3	1970	-0.3
1962	-0.4	1971	0.3
1963	1.0	1972	0.3
1964	-0.2	1973	0.5
1965	0.0	1974	1.4
1966	-2.9	1975	-0.1
1967	-1.0	1976	0.0
1968	-2.0	1977	-1.0

Source: Central Bank of Sri Lanka, Economic Progress of Independent Sri Lanka, 1998.

[134] Snodgross, Donald R. (1996) Ceylon: An Export Economy in Transition. Richard D. Irwin, Illinoise.

The Post - 1977 Period

The response by foreign investors to the economic policy reforms that took place in 1977 was remarkable. During the four-year period from 1979 to 1982, the average net inflows of FDI was US $51 million per annum - approximately 1.2 percent of GDP.[135] In an international comparison for the 1980s, Sri Lanka's performance record in attracting FDI appears impressive. The share of global FDI going to developing countries declined from about 17 percent in the early 1990s, and many developing countries, particularly those belonging to the IMF country grouping of "low income countries" experienced a decline, even in absolute terms. In the late 1980s, FDI amounted to well under 1 per cent of GDI in all but seven low-income countries.[136]

The most significant government-led initiatives impacting on FDI inflows during the post - 1977 period included the following:

(a) Implementation of policies to promote export-oriented industrialization within the framework of a liberalized trade regime.

(b) Setting up of a GCEC in 1978 with wide-ranging powers to grant eligible enterprises with fiscal incentives and to establish and operate export-processing zones.

(c) Relaxing of investment entry, foreign ownership, and exchange control restrictions on eligible enterprises.

(d) The signing of investment protection and double-tax relief agreements with major capital-exporting countries in 1978.

(e) Ratification of Article 157 of the New Constitution of Sri Lanka, which protects investments against expropriation and nationalization.

[135] Central Bank, 1998.
[136] Ibid.

These measures were implemented more than 10 years before substantive measures were taken toward economic liberalization in South Asia and several years before East Asian countries such as Malaysia and Thailand, played host to the 'first wave' of large-scale direct investments from Japan which began seeking cheaper off-shore manufacturing bases to remain competitive against a rapidly appreciating Yen. Since 1991, the annual value of FDI inflows to Sri Lanka has surpassed the previous record level achieved in 1982 (US $63.6 million).[137] This upsurge in FDI inflows is sometimes interpreted as an outcome of the 'second wave' of liberalization reforms, initiated in 1989. This view is, however, not consistent with facts relating to the investment climate in the country and the nature of recent policy reforms. As noted, the general investment climate in the country still remains less impressive than in the 1980s. Moreover, while second wave reforms were mostly aimed at narrowing the gap in incentives between firms approved under the free trade zone GCEC status and non-GCEC firms rather than giving more incentives to the former, the bulk of the newly approved projects are of the former type. A more plausible explanation of the recent surge in FDI seems to lie in the dramatic changes in the pattern of internationalization of production in the Asia - Pacific region. Relocation of labor-intensive production activities from rapidly growing East Asian NICs to labor-surplus countries in the region through FDIs have become the major determinant of FDI flows in the region since the mid-1980s. Reflecting these general trends, investors from Taiwan and Korea figure prominently in recent FDI participation in Sri Lankan manufacturing production in the Asia-Pacific region. Relocation of labor-

[137] Central Bank, 1998.

intensive production activities from rapidly growing East Asian NICs to labor-surplus countries in the region through production in the Asia - Pacific region.

TABLE 2.10
TRENDS IN FOREIGN DIRECT INVESTMENT
1978 - 1998

(US dollars Million)

YEAR	FDI	YEAR	FDI
1978	1.5	1989	17.9
1979	47.0	1990	42.0
1980	42.9	1991	63.0
1981	50.2	1992	121.0
1982	63.6	1993	187.0
1983	37.5	1994	158.0
1984	32.6	1995	16.0
1985	24.4	1996	86.0
1986	28.2	1997	129.0
1987	58.2	1998	137.0
1988	43.0	1999	177.0

Source: Central Bank of Sri Lanka, Annual Reports

Relocation of labor-intensive production activities from rapidly growing East Asian NICs to labor-surplus countries in the region through FDI have become the major determinant of FDI flows in the region since the mid-1980s. Reflecting these general trends, investors from Taiwan and Korea figure prominently in FDI participation in Sri Lankan manufacturing. Indeed, if the new opportunities generated by the process of internationalization of production in the region are used as a yardstick, there is nothing spectacular in Sri Lanka's recent performance in courting FDI.

Despite the initial success of impressive increases in FDI inflows, Sri Lanka fell far short of attracting its fair share of foreign capital in the 1980s and 1990s. This fact can be supported by analyzing net FDI inflows into Sri Lanka over the last 20 years in relation to total FDI inflows to developing countries. Consider the following:

(a) Between 1979 and 1997, FDI inflows have ranged from a maximum of 2.02 percent of GDP (1993) to a minimum of 0.06 percent of GDP (1978) with the average for the period remaining at 1.0 percent of GDP.[138]

(b) Although gains in FDI inflows have been made in absolute terms, Sri Lanka's share of global FDI flows to developing countries declined from 0.28 percent during the 1982-87 period to around 0.14 percent from 1992 to 1997. Therefore, during the 1990s, half has reduced the relative share of FDI in percentage terms attracted by Sri Lanka[139] (see table 2.10).

Issues Affecting Historic Trends in FDI

Annual FDI Trends depicted in table 3.10 show dramatic fluctuations from year to year. For example, in 1989 and 1995 FDI inflows declined by around 60 percent and 80 percent respectively over the previous year. In contrast, in 1992 and 1997, FDI inflows grew by 60 percent and 50 percent respectively over the previous year. The reasons underpinning such rapid fluctuations in FDI inflows to Sri Lanka, in an environment of steady increases in global inflows to developing countries, can be identified as follows:

a) Perceptions of policy instability and uncertainty: For example, in 1982, priority was given to implementing many large public investment projects that resulted in a significantly high budget deficit and inflation, causing a crowding-out effect on private investment in the subsequent years. Moreover, uncertainties relating to the economic policies of the new People's Alliance Government and increased

[138] Central Bank, 1998.
[139] Ibid.

incidents of industrial unrest largely contributed to the dramatic decrease in FDI in 1995.[140]

b) Physical and political risks associated with the outbreak of civil strife and the targeting of economic infrastructure by the LTTE: The outbreak of ethnic violence in July 1983 resulted in a 45 percent annual decline in FDI over the previous year (see Table 2.9). Similarly, 1989 witnessed the lowest level of FDI ($18 million) attracted in a given year during the post-1977 period, primarily on account of the insurrection in the Southern region of Sri Lanka

c) Economic risks associated with macroeconomic imbalances and under-expenditure in infrastructure caused by exigencies of defense spending: Public investment on physical infrastructure as a percentage of GDP has gradually declined from around 7 percent in 1982-85 to around 3.5 percent in 1993-1996 (see table 2.10). A manifestation of such under-expenditure has been shortages of thermal electricity-generating capacity resulting in "brown - outs" during periods of drought (e.g. March - May, 1996). Acute power shortages experienced during the first three-quarters of 1996 had an adverse effect on the overall economic performance, particularly on private investment.[141]

A comparison with other Asian Countries such as Malaysia, Thailand, and Indonesia, which have consistently attracted 4-6 percent of GDP in FDI, suggests that the significant decline in the share of global FDI flows attracted by Sri Lanka was a "home-

[140] Wijesinghe, Thilan (1998). The Impact of Foreign Direct Investment on Industrialization. Paper Presented for Seminar on 50 Years of Independent Sri Lanka: Economic Development 1948-98 and Prospects. Central Bank of Sri Lanka, March 23-24, 1998.
[141] Central Bank Annual Report, March 1996.

made" phenomenon.[142] As shown in table 2.10, during periods of relative economic and political stability and policy consistency, FDI inflows have responded strongly: as for example, the periods from 1979 to 1982, 1991 to 1993 and 1997. The historic data also suggest that the overall stability of the fundamentals impacting on foreign investment is more important in attracting FDI than the availability of investment incentives.

Pattern and Sectoral Composition of FDI

There are no published data on sectoral breakdown or country sources of FDI. These aspects can be studied only by compiling data from FDI-approved records of relevant government bodies. As shown in table 2.11, including the enterprises outside EPZs, the BOI had approved 1,953 projects during the period 1978-96. Of these, 1,531 projects had been approved during the 1992-96 period, showing a significant increase in approvals in the recent past. The total potential capital investment in these projects stood at Rs. 631, 588 million, of which Rs. 522,037 million or 83 percent was foreign investment. As shown in table 2.11, of the total approved projects up to the end of 1996, agreements had been signed regarding 1,277 projects. Of these, 1,031 project agreements were signed in 1992-96, displaying a similar trend to approvals. The total envisaged investment of these contracted projects amounted to Rs. 161,967 million, of which the foreign investment component was nearly 55 per cent.[143]

[142] The World Bank, 1991.
[143] Central Bank Annual Report, 1998.

Table 2.11
INVESTMENT AND NUMBER OF ENTERPRISES OF BOI
(Accumulated figures for the period 1978-1996)

Categories	Number	Foreign Investment Rs. Million	Total Investment Rs. Million
1. Approved Investment	1,953	522,037	631,788
2. Investment in Agreements	1,277	89,133	161,967
3. Realized Investment	710	60,957	91,622

Source: Board of Investment of Sri Lanka

As at the end of 1996, the realized investment in BOI industries was Rs. 91,622 million, of which the foreign component was nearly 67 percent. Nearly 16 percent of this was invested in the apparel industry; while 60 percent went into the service sectors, including infrastructure projects such as telecommunication, and power generation. There were 756 commercially operated projects, including the projects under the 200 Garment Factory Programme. Of these, 92 enterprises were in the Katunayake EPZ, 45 in the Biyagama EPZ, 11 in the Koggala EPZ, and 619 outside the EPZs.[144] Among the commercially operated enterprises, the textile, wearing apparel and leather products category represented the highest number of enterprises, followed by the service sectors such as hotels and communications. In recent years, there has been a tendency to move away from the apparel industry to more diversified sectors such as infrastructure development, rubber-based industries, and electronics industries.

[144] Central Bank Annual Report, 1998.

TABLE 2.12
REALISED INVESMENTS IN BOI ENTERPRISES

Categories	Number of Enterprises		Foreign Investment (Rs. Mn.)		Total Investment (Rs. Mn.)	
	2002	**2003©**	**2002**	**2003 ©**	**2002**	**2003©**
1. Food, beverage and tobacco products	143	148	8,732	9,773	14,679	15,774
2. Textile, wearing apparel and leather products	480	500	25,438	26,806	39,977	40,110
3. Wood and wood products	22	24	2,751	3,680	3,161	3,916
4. Paper and paper products	23	25	567	498	1,577	1,638
5. Chemical, petroleum and plastic products	129	138	11,040	15,058	16,011	19,640
6. Non-metallic mineral products	64	66	3,574	5,217	6,763	12,487
7. Fabricated metal products, machinery and transport equipment	67	75	5,562	6,389	7,230	8,088
8. Manufactured products not elsewhere specified	156	166	6,212	6,763	9,389	9,907
9. Services	559	624	101,019	112,598	142,684	165,921
Total	**1,643**	**1,766**	**164,895**	**186,782**	**241,471**	**277,841**

(a) Cumulative as at end year
(b) Projects approved under Section 17 of the Board of Investment Act
(c) Provisional

As shown in table 2.12, the realized investment of the BOI industries increased by 1.15 percent in 2003, from Rs. 241,471 million in 2002 to Rs. 277,841 million in 2003. Among the approved projects in 2000, 480 projects were in textile, apparel and leather category, 143 in the food, beverage and tobacco category and 129 in the chemical, petroleum, rubber and plastic product category; the balance was in various other categories including services.

Sri Lanka's ability to attract foreign direct investment into resource-based manufacturing is generally limited, given the very nature of the domestic resource endowment. However, it is believed that the country's achievement in this sphere still remains well short of potential. Most of Sri Lanka's known industrial mineral resources,

such as phosphate, limestone, quartz, and mica, continue to remain unexploited, and few minerals under commercial extraction (i.e., graphite, mineral sand) are exported mostly in raw or semi-finished forms. A systematic analysis of opportunities available for and constraints involved in attracting foreign investment into these potential areas of production is yet to be undertaken.

In the area of standardized consumer goods, textile and garments sectors have been the major area of attraction to foreign investors. There were two reasons for this: quota restrictions imposed by major consuming countries on garment imports from 'traditional' developing country producers. It generated a potential market for newcomers, and the comparative advantage of Sri Lanka in the production of garments in the face of increases in the cost of labor in other major garment-producing countries in Asia. The importance of getting-round-the-quota motive for the upsurge in FDI in this sector is clearly evident from the predominance of Hong Kong firms in the garment sector. Since the mid-1970s, the strictest have been the US quotas against Hong Kong, the major developing country garments exporter.[145] While quota restriction was an important factor on the 'demand side' of the market for investment sites, 1977 policy reforms were instrumental on the 'supply side' for Sri Lanka to attract these investors.[146] Apart from garments and textiles, other product lines with FDI participation are leather goods, footwear, toys, plastic products, and diamond-cutting and jewelry. The relative importance of these product categories, in terms of both the number of firms involved and the export share, has shown a modest increase over the years.

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[145] Vidanapathirana, Upananda (1998). "Industrial Development Since Independence: Policies and Challenges" in A.D.V. de S. Indraratne (ed) Fifty Years of Sri Lanka's Independence: A Socio Economic Review. Sri Lanka Institute of Social and Economic Studies, Colombo. Pp. 159-62.
[146] Ibid.

Sri Lanka's aggressive overseas investment promotion campaign, like that of many other newly industrialized countries, has placed heavy emphasis on attracting assembly producers in high-tech industries. The BOI has even taken steps as far-reaching the abolition of the International Labor Organization (ILO) convention of banning night-work for women specifically to accommodate the requirements of prospective investors in this sphere. The outcome has, however, been rather poor. Sri Lanka has not been successful in attracting any of the major electronic multinationals to set up assembly operations. The usual explanation has this lackluster outcome is that the timing of Sri Lanka's policy initiative was out of line with basic developments in the world economy.[147]

According to this view, the relocation of labor-intensive assembly operations in low-cost countries had lost its momentum by the late 1970s because of the slowing down of the post-war growth dynamism and the move toward assembly automation in developed countries. The lack of skilled labor and potential joint-venture partners are sometimes identified as another reason for Sri Lanka's relatively poor performance in attracting FDI in assembly-type operations. It is also important to note that the favorable investment climate generated by the 1977 policy reforms in Sri Lanka was rather short-lived. Foreign firms involved in vertically integrated assembly industries, unlike those involved in light consumer goods industries usually have a long-term perspective about political stability and other elements in the investment climate. In particular electronics is generally thought of as a mobile industry with a high degree of sensitivity to the risk of production disruption.

[147] Athukorala, Premachandra. "Foreign Direct Investment and Manufacturing for Export" in W.D. Lakshman (ed) Dilemmas of Development: Fifty Years of Economic Change in Sri Lanka. Sri Lanka Association of Economicsts, Colombo.

Sources of FDI

Table 2.13 presents data on the sources of foreign direct investment in Sri Lanka. With foreign investment of nearly Rs. 8,385 million, South Korea has emerged as the largest investor in Sri Lanka. Korean investments, representing a diversity of business interests, have been channeled into such activities as the manufacture of textiles, footwear, soft toys, porcelain ware, rubber products, and the construction of offices and apartment complexes.

Table 2.13
ORIGIN OF INVESTMENT BY COUNTRY MAJOR INVESTORS
(Cumulative as at end-June 1996)

Country	No.of Projects	Realized Investments (Rs. Mn)	
		Foreign	Total
1. Korea and Collaborations	76	8385	8969
2. Singapore and Collaborations	22	6860	7529
3. Japan and Collaborations	44	6032	7445
4. Sri Lanka	185	1439	7155
5. Hong Kong and Collaborations	50	2845	4077
6. Australia and Collaborations	20	3578	4048
7. Germany and Collaborations	31	1591	2526
8. Sweden and Collaborations	9	796	1231
9. USA and Collaborations	23	671	1042
10. B.V. Island and Collaborations	3	889	930
11. Belgium and Collaborations	13	374	855
12. UK and Collaborations	19	399	843
13. Indonesia and Collaborations	2	610	612
14. Netherlands and Collaborations	14	234	513
15. India and Collaborations	10	300	345

Source: Board of Investment of Sri Lanka

The second largest investor in terms of foreign investment is Singapore with Rs. 6860 million, followed by Japan with Rs. 6032 million and Australia with Rs. 3578 million. In terms of the number of enterprises, Sri Lanka investors form the largest

number with 185 enterprises, followed by South Korea with 76 enterprises and Hong Kong with 50 enterprises. A total of 100 countries had invested under the BOI Law in the country by the end of 1996.

The second half of 1997 saw the emergence of a severe economic crisis in a number of East Asian economies. The precise magnitude of the impact of the East Asian crisis, and its time frame is hard to predict. The world economic outlook, however, implies a reduced growth rate for Sri Lanka. Globally, the risk premium for investing in developing countries has increased and a concurrent decline in private foreign capital inflows to emerging economies can be expected. In the case of Sri Lanka, the dominant sources of FDI have been East Asia. South Korea (30 percent), Hong Kong (12 percent), Japan (12 percent) and increasingly newly industrializing economies such as Malaysia. The prospects for raising additional sources of foreign capital significantly in the near future looks less than promising. Moreover, many local entrepreneurs seem to make use of joint venture operations with foreign investors as a means of acquiring production and marketing skills required for the successful operation of their own (independent) production units. What the above suggests is that, to a significant extent, the spillover effects of the presence of foreign firms have contributed to the export success of the local firms.

TABLE 2.14
FOREIGN FIRM'S CONTRIBUTION TO MANUFACTURED EXPORTS 1976 - 1995
(3-year averages)

Year	Manufactured Exports		Foreign Firms' Contribution To Manufactured Exports	
	$ U.S. Millions	Share in Total Merchandise Exports (%)	All Foreign Firms (%)	Board of Investment Firms (%)
1975-77	24.8	4.0	23.2	N.A
1978-80	102.7	10.4	30.2	N.A
1981-83	234.9	22.1	43.7	30.6
1984-86	421.2	31.9	47.4	35.5
1987-89	653.5	44.2	58.2	43.5
1990-92	1083.1	56.6	65.8	47.6
1993-95	2282.2	72.2	78.2	49.1

Source:.- Premachandra Athukorala, "Foreign Direct Investment and Manufacturing for New Exporting Country: The Case of Sri Lanka " **World Economy**, vol. 18 (1995).

There is considerable statistical evidence to establish that FDI has played an important role in the expansion of manufactured exports from Sri Lanka, thus contributing to the overall diversification of Sri Lanka's economy and industrial base. For example, as noted in table 2.14, companies with foreign equity participation (either fully-foreign-owned or joint ventures) accounted for nearly 25 percent of total exports in 1977. This increased to approximately 66 percent in 1993 and subsequently declined to around 57 percent in 1997 as a consequence of strong export growth by 100 percent of the locally owned companies within the last few years.[148]

[148] Wijesinghe, Thilan (1998). "The Impact of Foreign Direct Investment on Industrialization." Paper Presented for Seminar on 50 Years of Sri Lanka's Independence: A Socio Economic Review. Sri Lanka Institute of Social and Economic Studies. Colombo.

TABLE 2.15
EXPORTS AFFECTED BY PROJECTS APPROVED UNDER SECTION 17 OF THE BOI LAW CLASSIFIED BY SECTOR AND OWNERSHIP, 1997

Sector	Ownership						Total Value (Rs.Mn.)
	Foreign-Owned		Joint Ventures		Locally Owned		
	Value (Rs.Mn.)	%	Value (Rs.Mn.)	%	Value (Rs.Mn.)	%	
Food, Beverage and Tobacco	1903.8	33.7	1245.0	22.0	2503.7	44.3	5652.5
Textile, Wearing, Apparel & Leather Product	22535.2	23.0	33505.8	34.2	41992.4	42.8	98033.5
Wood & Wood Products	148.2	37.5	168.2	42.5	79.2	20.0	395.6
Paper, Paper Products, Printing and Publishing	806.9	70.5	300.0	26.3	36.9	3.2	1143.8
Chemicals, Petroleum, Coal, Rubber & Plastic	9857.8	57.1	6611.0	38.3	789.9	4.6	17258.7
Non-Metallic, Mineral Products	4268.6	65.7	1867.4	28.8	360.2	5.5	6496.2
Fabricated Metal, Machinery & Transport Equipment	709.1	43.4	678.8	41.5	246.6	15.1	1634.6
Other Manufactured Products (N.E.S)	9588.7	63.2	5066.5	33.3	528.4	3.5	15183.6
Services (Including Horticulture)	1914.1	21.5	4117.6	46.1	2887.6	32.4	8919.2
Total	**51732.4**	**33.4**	**53560.4**	**34.7**	**49425.0**	**31.9**	**154717.8**

Source: *Board of Investment.*

From the data presented in table 2.15, the following important observations are noted:

(a) Companies with foreign equity participation accounted for 68 percent of the total exports by BOI companies and, based on provisional estimates, 54 percent of the total industrial exports covering all (BOI and non-BOI) enterprises.

(b) Fully foreign-owned companies account for 33 percent of total exports by BOI approved companies and 26 percent of total industrial exports.

(c) On a sectoral basis, fully locally owned BOI companies account for a significant share of exports only in the food, beverage, tobacco, textiles, and weaving apparel category. Overall, fully locally owned BOI approved companies accounted for 31 percent of exports by the BOI sector.

(d) In sectors dependent on advanced technology- i.e., paper and paper products, chemicals, rubber, plastic, and mineral products, and other manufactured products which include electronics -foreign-owned BOI-approved companies account for a dominant 60 percent of total exports on average for each sector.

It is also important to note that the presence of foreign-owned and joint-venture projects have generated a favorable "spill-over" effect on export performance by locally owned enterprises. This trend is especially evident in the apparel sector. In the early stages of economic liberalization, the surge of FDI in the garment industry was a consequence of quota restrictions imposed by industrialized countries on garment imports from certain countries under the Multi-Fibre Agreement.[149] This is evident from the predominance of Hong Kong in Sri Lanka's export-oriented garment industry. Subsequently, many international buying groups which had established market links with foreign firms set up purchasing operations in Sri Lanka and began to play an important role in linking locally owned production units with international markets.

Sri Lanka's heavy reliance on FDI for export expansion is in sharp contrast to the early experiences of NICs in East Asia, in particular, those of Taiwan, Korea, and Hong Kong. The spectacular export take-off of these countries in the 1960s through labor-intensive exports were predominantly based on the initiatives of the indigenous firms.[150] This contrast does not, however, warrant the inference that Sri Lanka could have achieved export expansion through indigenous entrepreneurial capabilities under a restrictive policy toward FDI. The important role played by foreign firms in export expansion is not a phenomenon peculiar to Sri Lanka. The available evidence of "second-

[149] People's Bank, 1989

[150] Premachandra Athukoral and Sisira Jayasuriya (1994). Macroeconomic Policies, Crises and Growth in Sri Lanka, 1969-90. The World Bank, Washington D.C.

tier" exporting countries generally points to a close association between the degree of foreign presence (as measured by the share of foreign firms in total manufactured exports) and export growth.[151] This close relationship can be explained in terms of at least two important recent developments in the process of internationalization of production.

First, from the early 1970s on, successful exporting firms in NIC began to play an important role in labor-intensive export industries in second-tier exporting countries. Secondly, assembly activities in global industries, which are predominantly undertaken by setting up overseas production plants through arms-length arrangements, have become increasingly important as an avenue for developing countries to participate in international production.

Impact of Foreign Investment on Labor Earnings

The liberalization policy in Sri Lanka has been associated with a considerable expansion in employment. However, its impact on real wages is less clear, as Sri Lanka lacks comprehensive, time-series data on real wage movements that are disaggregated by sector and by gender. However, piecing together the available evidence indicates that at least in the manufacturing sector. Sri Lankan workers have not experienced any significant increase in real wages. For example, Athukorala shows that in terms of real earnings per employee, real manufacturing wages in Sri Lanka either remained stagnant or recorded a mild decline during the period 1980-93.[152] During this period, Sri Lankan

[151] Athukorala Premachandra and Sarath Rajapathirana (2000). "Liberalization and Industrial Transformation: Lessons from the Sri Lankan Experience." Economic Development and Cultural Change, Vol. 48, No.3.

[152] Athukorala Premachandra (1997). Study on the Labor Productivity in the Manufacturing Sector in Sri Lanka. Employment Policy Planning Unit, Department of National Planning. Ministry of Finance and Planning. Colombo. Pp. 67.

real wages recorded the second lowest rate of real wage growth (1.36) after Bangladesh (-0.73), among a group of Asian countries. He adds that apart from slow real wage growth, 'the level of manufacturing wages in Sri Lanka has been remarkably law by international standards'.[153] The real wages in manufacturing has hardly increased, despite the fact that considerable gains in productivity have been achieved. The evidence seems to suggest that although policy liberalization has been associated with expanding employment opportunities, particularly for women, real wage trends across manufacturing have risen only marginally, and labor's share in value added has declined. The nominal wages of different skill categories in the BOI enterprises are shown in table 2.16.

[153] Athukorala Premachandra (1997). Study on the Labor Productivity in the Manufacturing Sector in Sri Lanka. Employment Policy Planning Unit, Department of National Planning. Ministry of Finance and Planning. Colombo. Pp. 67.

TABLE 2.16
NOMINAL WAGES AND SALARIES OF BOI EMPLOYEES

Category	Wages SL Rs. per Month
Directors	Negotiable
Engineers	20,000~50,000
Accountants	20,000~50,000
Senior Managers	20,000~50,000
Middle Managers	10,000~25,000
Junior Managers	7,500~12,000
Minor Staff (office)	2,500~4,500
Supervisors	5,000~7,000
Skilled Plant Operators	3,500~5,500
Skilled Workers	3,500~5,500
Semi Skilled Workers	3,300~4,500
Unskilled Workers	3,100~4,100
Trainees (up to 6 months) minimum salary	3,000

Source: BOI, Industrial Factor Costs (1997).

Unemployment in Sri Lanka: Levels and Trends

Out of Sri Lanka's current population of 19.04 million, over 13 million are of working age. Around 7 million of that population is in the labor force. The latest estimates classify 6.14 million (i.e., 90.8 percent of the total) as gainfully employed and 0.62 million (9.2 percent) as being in involuntary unemployment.[154] The relatively high level of unemployment, which has shown a downward trend in recent years, has been one of the cumulative impacts of Sri Lanka's rapid population growth, the spread of the

[154] Quarterly Report of the Sri Lanka Labour Force Survey, 4th Quarter, 1999.

formal education system and the relatively slow rate of economic growth. The creation of gainful employment to the backlog of unemployed persons as well as to new entrants to the country's labor force has been a major socio-economic problem with strong political ramifications, requiring urgent policy action. This has remained a major challenge to policy makers in Sri Lanka for over three decades.

In the absence of time-series data generated by regular and consistent surveys of employment of Sri Lanka until 1990, it is not possible to make a systematic and comprehensive analysis of the problem of unemployment and its trends over a long period of time. However, for the period after 1990, a consistent set of data is available from the Quarterly Reports of the Sri Lanka Labour Force Survey (see table 2.17) summarizes the available estimates of unemployment in Sri Lanka from 1963 to 1999.

Unemployment in Sri Lanka reached its peak in the mid-1970s; the recorded unemployment rate was 24.0 percent in 1973 and in absolute figures, total unemployment had exceeded one million during this period. In the years after the economic policy reforms of 1977, the overall trend has been downward (see table 2.17). Besides the numerical magnitude of total unemployment, its characteristics in terms of its structure and composition have to be fully understood for formulation of policy. The most disturbing feature of the unemployment problem in Sri Lanka has been its concentration among the young age groups.

The Labor Force Survey for the 4th Quarter, 1999 reported that the highest unemployment rate of 27.2 percent was in the age group 15-19 years. Even a more serious aspect of the problem is the high rate of unemployment among educated youth. Of unemployed persons, more than 60 percent have attained educational qualifications

equivalent to G.C.E. (O/L) or above. In the reported unemployment figures for the 4th quarter 1999, females outnumber males. Of the unemployed population of 621,032 or 54 percent (338,401) were females as compared with 46 percent (282,630) of males. Although the overall unemployment rate has been on the decline since the early 1980s, the sex differential has persisted up to the present.

TABLE 2.17
ESTIMATES OF UNEMPLOYMENT
1963 - 1999

Year	Source	Unemployed Population.	Unemployment as a % of Labour Force
1963	Survey of Consumer Finances (CB)	457,700	13.8
1973	Survey of Consumer Finances (CB)	1,073,000	24.0
1981	Census of Population (DCS)	895,143	17.9
1985/86	Labour Force and Socio-Economic Survey (DCS)	786,170	13.2
1990	Quarterly Labour Force Surveys (DCS)	953,795	15.9
1991	do	861,680	14.7
1992	do	845,957	14.6
1993	do	830,910	13.8
1994	do	797,591	13.1
1995	do	749,021	12.3
1996	do	704,604	11.3
1997	do	658,279	10.5
1998(4Q)	do	584,480	8.8
1999(4Q)	do	621,031	9.2

CB:Central Bank of Sri Lanka
DCS:Department of Census and Statistics
Source: Department of Census of Sri Lanka; Central Bank of Sri Lanka.

Unemployment and Lack of Skills: The Concept of Mismatch

The term "mismatch" is applied to a situation in which both the employment opportunities and the labor supply are available. The job seekers, however, are either not willing to be absorbed into the available occupations or do not possess the aptitudes and

skills required for them. In the Sri Lankan labor market, the total imbalance between the growth of employment and the expansion of the workforce is by far the predominant cause of unemployment. It is difficult to decide on the importance to be assigned to structural mismatches. The supply of skilled and trained manpower will no doubt by itself contribute to the employment of job seekers. However, vocational training as a means of reducing unemployment will have limited value in conditions of high general unemployment. The absorption of trainees will eventually depend on the pace at which new jobs are created. There is no clear evidence that the lack of appropriately skilled manpower is a major deterrent to the creation of employment in the organized sector.

Most firms will train the workforce they need. On the other hand, the lack of entrepreneurial manpower at the small-scale level is probably the main deterrent to the creation of employment in the self-employed sector and in small-scale enterprises. Many sectors of the economy contain the potential for self-employment and small-scale enterprise. The realization of this potential needs a workforce that can seek, identify, and use these income-earning opportunities. But neither the knowledge, information and aptitudes acquired through the present educational and training systems nor the prevailing infrastructure which provide access to resources are of much help to new entrants to the work force who seek self-employment or seek to be small-scale entrepreneurs

The Impact of FDI on Elimination of Unemployment

There has been a remarkable increase in the number of employment opportunities generated by FDI projects. The direct local employment provided by BOI enterprises increased from 261 in 1978 to 327,059 in 1999 (see table 2.19). Of total employment, 216,700, or 66 percent, were employed in the textile, and wearing apparel and leather

products category. The number of persons employed in services was 21,922 or 7 percent of the total employed. Local employment (i.e., total employment net of expatriates) in BOI firms recorded a tenfold increase, from 10,538 to 104,220 between 1980 and 1992 (see table 2.19). Over 95 percent of these jobs were in the manufacturing sector, and the contribution of foreign firms is about 87 percent. There are no time series data on employment in non-GCEC foreign firms. According to periodic sample surveys, conducted by the Foreign Investment Advisory Committee (FIAC), total employment in non-GCEC projects approved after 1977 increased from about 2,500 in 1978 to about 50,000 by 1988.[155]

TABLE 2.19
EMPLOYMENT IN BOI ENTERPRISES
1978 - 1999

YEAR	EMPLOYMENT	YEAR	EMPLOYMENT
1978	261	1989	61,429
1979	5,876	1990	71,358
1980	10,538	1991	85,457
1981	19,727	1992	104,220
1982	24,926	1993	179,878
1983	28,705	1994	205,660
1984	32,725	1995	233,374
1985	35,786	1996	241,970
1986	45,047	1997	258,185
1987	47,473	1998	294,381
1988	54,626	1999	327,059

. Source: Central Bank of Sri Lanka, Annual Reports; Board of Investment of Sri Lanka

[155] Central Bank, 1989.

TABLE 2.20 Employment and Export Earnings of BOI Enterprises				
Categories	**Employment (End Dec.)**		**Gross Export Earnings (Rs. mn) (fob)**	
	2002	**2002(a)**	**2002**	**2002(a)**
1. Food, beverages and tobacco products	14,448	13,485	13,609	15,381
2. Textile, wearing apparel and leather products	280,234	301,309	192,096	207,051
3. Wood and wood products	1,950	2, 024	756	1,385
4. Paper and paper products	2,065	2,135	1,266	1,822
5. Chemical, petroleum, rubber and plastic products	31,716	27,696	28,621	33,282
6. Non-metallic mineral products	13,547	10,166	8,997	9,126
7. Fabricated metal products, machinery, and transport equipment	5,793	6,740	9,809	17,199
8. Manufactured products not elsewhere specified	32,443	30,448	18,983	21,786
9. Services (b)	34,560	37,047	24,618	29,593
Total	416,756	431,050	298,755	336,605

(a) Provisional **Source: Board of Investments of Sri Lanka**
(b) Excluding SriLankan Airlines

The three EPZs alone have provided 86,182 employment opportunities; enterprises outside the EPZs have provided 155,788. It is also estimated that one job in the EPZs may create another two indirect jobs, so that actual employment created by EPZs could be as high as 258,546. The direct employment in the BOI enterprises in 1996 accounted for 4.4 percent of the total employment of the country and 31.2 percent of the total employment in the manufacturing sector. Employment in the garment industry, which is largely labor-intensive, predominates, with 53 percent of total employment. Miscellaneous manufacture of items, such as porcelain figurines, security printing, etc. accounts for 8.6 percent of total employment.

Gender-wise, nearly 80 percent of EPZ and licensed enterprise workers are female; only 20 percent are males. Although it was found that male workers were few in number, they accounted for a very high percentage of technical jobs in both the executive grades (more than 80 percent) and non-executive grades (85 percent). Even at supervisory level, technical jobs are male dominated - nearly 60 percent as opposed to 30

percent males in a non-technical supervisory capacity. The level of skills of the labor force in EPZs is relatively low and it is estimated that over 70 percent of labor belongs to the semi-skilled, unskilled, or trainee categories.[156]

Some have expressed dissatisfaction with the rate of labor absorption in the Sri Lankan manufacturing sector during the post-reform era. This view is formulated when the experience of Sri Lanka is compared with the high labor absorption of countries like South Korea. The comparison itself is not wholly appropriate. Three additional factors account for Sri Lanka's low rate. First, Sri Lanka had much lower GDP growth rates compared to countries like South Korea, even after the 1977 liberalization. This slower growth cannot be ascribed to the industrial policy.

Second, after the initial burst of liberalization, key prices continued to be distorted during most of the ensuing years. These price distortions, which constrained industrial adjustment in the post-reform era, included the appreciated exchange rate following the expenditure expansions associated with public sector investment and a tariff policy that resulted in under-pricing of capital goods. Third, and possibly most important, the continuing ethnic conflict and the civil disturbances during 1986-89 prevented the manufacturing sector from fully exploiting the opportunities for employment expansion in the liberalized economy. For example, despite impressive reform in foreign investment policy, Sri Lanka lost its foothold in the electronics industry when two giant multinationals pulled out because of the onset of political instability and policy uncertainty.

[156] Institute of Policy Studies, 1999.

Negative Effects of Globalization on the Local Economy

Sri Lanka has been participating increasingly in the globalization process through various policy measures, including relaxation of foreign trade and exchange controls, reduction of tariffs, encouragement of labor mobility, and promotion of foreign investment. Promotion of export-led growth and market liberalization are the key instruments deployed to link developing country economies to world markets. However, there are inherent contradictions in this process, which are particularly detrimental to the interests of producers in developing countries. The opening up of developing country economies to world markets demands removal of subsidies, protection, and price distortions of various kinds to allow market forces to work freely. This marks for greater allocative efficiency. The primary contradiction in the concept of globalization is that the market itself is not free and efficient. For instance, over the past two decades, there have been violations of the free trade principle in both production and trade, as demonstrated in the intensification of agricultural protection, and in growing restrictions on some categories of international trade. The contradictions and disadvantages to the small producers can be summarized as follows:

First, market competition is unequal. Producers from developing countries have to compete with large-scale, established and subsidized producers. The implementation of the Uruguay Round has not resulted in the expected increase in market access for exports of countries of the South Asian Association Regional Countries (SAARC) region as a whole. This can mainly be attributed to the presence of ‘dirty traffication’ practices, the occurrence of tariff escalation and the use of a range of non-tariff barriers by developed countries. Studies have indicated that tariff escalation, in particular, is high.

For example, in the case of rubber products to the EU, Japan, and USA. This has discouraged the exports of processed goods from Sri Lanka.[157]

Second, trade between developed and developing countries is unequal. Inequality is seen in access to markets, to information on capital and commodity markets, and to technology. Such unequal trade limits comparative advantage. Globalization through liberalization opens up markets but those who can exploit the open markets are those countries which have the goods and services in demand on tap, and they are the developed and the newly industrialized countries which have advanced agriculture and industry, in most cases developed and operated by TNCs or their affiliates. Sri Lanka, without modernized agriculture or industry, lacks the goods and services needed to seize new trading opportunities. Sri Lanka has been ignored by the TNCs and has attracted little foreign investment to develop agricultural and industrial exports needed to derive benefits from globalization. A study reveals that 60 percent of the manufacturing firms operating under the BOI in Sri Lanka use intermediate technologies; only 20 percent use advanced technology.[158] Thus, though a few newly industrialized developing countries in East Asia and Latin America have benefited from globalization, the majority has been marginalized.

Third, with globalization, Sri Lanka has become increasingly dependent on the growth and stability of markets in the developed world. The global economic downturn means that access to export markets will continue to be constrained. For example, if North America and Europe, which absorb 30 and 15 percent of Sri Lanka's total exports, grow slowly, they will no longer provide strong sources of demand for Sri Lanka's

[157] Institute of Policy Studies Report, 2000.
[158] Perera, Praanna (1999). "Globalization and Sri Lanka" Economic Review. People Bank. Volume 25, No. 5/6/7.

exports. The export-led growth in Sri Lanka has suffered a setback from the economic recession caused by the East Asian financial crisis. The country's exports have fallen in value partly because of reduced external demand arising out of the recession and partly because of the increased competition from South East Asian countries with depreciated currencies. The most seriously affected are the garment exports, which contributed to high export growth in recent years.[159]

Sri Lanka's principal export markets are the USA and Japan. Any economic fluctuations in these countries directly impact the demand for Sri Lanka's exports such as garment. For example, the recession in Japan has already reduced the demand for Sri Lanka's exports such as gems.[160] The integration of financial markets, by liberalizing exchange restrictions, has transmitted, the Asian financial crisis to other countries and regions through the contagion effect. Sri Lanka was also affected, but not much, by the limited role foreign funds play in the stock exchange and commercial lending. Portfolio investment of foreigners, which had risen by Rs.356 million in 1996 and Rs.749 million in 1997 reversed in 1999 and was withdrawn to the extent of Rs.1521 million.[161] This appears to have been the main reason for the sharp drop in the All Share Price Index of the Colombo Stock Exchange from 782 in April 1999 to 563 in December 1999.

The contradictions in the globalization process are obvious. While the producers are increasingly protected in the developed world, the developing countries are subject to cuts in their protection measures. Small producers from the developing countries are expected to compete in an increasingly unstable world economic climate. In Sri Lanka, import liberalization by means of reducing the maximum import tariffs from as high as

[159] Central Bank Annual Report, 2000.
[160] Kelegama, J.B. (2000). "Globalization", Economic Review (People's Bank). Volume 26, No. 1&2.
[161] Ibid.

500 percent to 35 percent from 1978 to 1997 and elimination of import restrictions except on a very few items undermined domestic industries such as handloom textiles, fabricated metal products, chemicals, bicycle tires, printing paper and dairy products. A country, which exported tea machinery to Indonesia and Kenya, has now become a tea machinery importer from India.[162]

While Sri Lanka's economy has traditionally been an agricultural, the contribution of the agricultural sector to GDP has been declining. The growth rate of the agricultural sector during the 1990s has been languishing at 2.5 percent per annum. With the liberalization of the economy in 1977, the traditional agricultural sector has been subject to major reforms in the 1990s, with emphasis on a greater role for the market forces. Agricultural incomes have declined by 14 percent in real terms between 1987 and 1997; this has resulted in agriculture's becoming the lowest income-occupation group.[163] The average yield of most agricultural crops have been decreasing or stagnant during the past 10 years, due to high costs of inputs, soil infertility, and limited access to technology. In contrast, imports of agricultural commodities have been increasing significantly during the last decade, which has helped to depress prices in the local market.

Any package of market-oriented policies, in the absence of deliberate and intelligent intervention toward an alternative result, will undoubtedly lead to a worsening of the conditions of inequality in terms of income distribution and regional development. The official data themselves, from various surveys of the Central Bank and the Department of Census and Statistics, speak eloquently of the worsening of relative

[162] Kelegama, J.B. (2000). "Globalization", Economic Review (People's Bank). Volume 26, No. 1&2.
[163] Institute of Policy Studies, (2000).

income inequalities under the post-1977 strategy, making the rich relatively richer. In addition, there is evidence collected officially to show a growing incidence of malnutrition among certain vulnerable groups of the society such as the children. The general presumption behind the government policy seemingly was that the acceleration of economic growth would rectify the ills of income disparities and poverty. The path of development adopted has come to depend on a trickle-down approach to these social problems. According to consumption poverty estimates for 1995/96, the extents of poverty in urban, rural, and estate sectors are 5%, 27% and 25% respectively, using the lower poverty range of 25%, 41% and 45%, respectively, using the higher poverty range.[164] Rural poverty is also reflected in inequitable access to economic infrastructure. Less than 30% of all rural areas have access to electricity, and less than 15% of all rural populations have access to telecommunication facilities or a sub-post office. The share of income received by the lowest docile of income group was 1.3% as against 37.63% for the highest docile of income group in 1996/97.[165]

The natural tendency of freely operating market forces to lead to concentration and inequality, operated even more strongly within the dependent, underdeveloped capitalist formation in Sri Lanka. The free-market strategy failed dismally, to produce sustainable balance of payments, as a result of the sluggishness in export growth. Dependence on foreign aid, instead of being a temporary factor, has become an indispensable and built-in feature of the 'open' economy. In addition to problems like the growing external debt, high debt-service ratio, deepening external dependence and so on,

[164]Ministry of Finance, 2000.
[165] Central Bank Annual Report, 2000.

the continuing availability of 'foreign aid' in unprecedented magnitudes appears to have worked toward exacerbating the egalitarian tendencies of the free-market strategy.

Almost invariably the costs of foreign-aided projects were overestimated, and the tasks carried out with those funds probably performed below specifications. The 'savings' achieved thus could go into the hands of those in influential positions, politically and/or administratively and their friends and supporters who were chosen to carry out the tasks related to the projects concerned. Politics and the pattern of political affiliations have thus become a non-market mechanism within the so-called free-market strategy, which aggravated the already strong tendency toward greater inequality.

Market forces have a natural tendency to lead to a locational concentration of economic activities around metropolitan areas or regional growth centers. Generally, these tendencies operate with positively adverse results on outlaying areas, as human and material resources are pushed out of them into the growth centers. These are what economists call the backwash effects of the operation of market forces. No doubt, the development of the centers could, depending on the quality of that development, also help the peripheral areas through what are known as the spread effects of the expansion of these growth centers. Often the net result of the operation of these two types of effects are likely to be to the disadvantage of outlying areas in the absence of meaningful intervention. The open economy in Sri Lanka since 1977 had certain characteristics, which sharpened the backwash effects on outlying regions and weakened the spread effects. The adverse effects of liberalization on the overall manufacturing sector contributed exacerbating regional disparities in economic development. Two-thirds of all manufacturing enterprises generating more than 80 percent of manufacturing output, have

been located in just two districts of the country's 26 districts, i.e., Colombo and Gampaha.[166]

[166] Central Bank Annual Report, 1999.

CHATPER 4
Sri Lanka Before and After Trade Liberalization

The economy of Sri Lanka has taken many turns since attaining independence from the British in 1948. According to Athukorala, in the first decade after independence the country continued with a liberal trade regime. This was until facing balance-of-payments problems induced a policy shift toward protectionist import substitution style. By the mid 1970s, at that time the Sri Lankan economy had become one of the most inward-oriented and regulated outside the group of centrally planned economies. Stringent trade and exchange controls and pervasive state intervention in all areas of economic activity characterized it. In 1977, Sri Lanka responded to the dismal economic outcome of this policy stance by a sharp change in policy direction and embarked on an extensive liberalization process, thereby becoming the first country in the South Asian region to do this.[167]

The differences in economic performance in the pre-and-post liberalization periods were closely related to the differences in domestic policies followed by the political parties in power. A coalition of parties, which were socialist-oriented, held power during the periods 1956-65 and 1970-1977. During 1948-1956, 1965-1970, and continued from 1977 onwards it followed the main right-wing party, which favored private enterprise and relatively liberal economic policies. The slow periods of growth during socialist rule, 1950s, 1960s and 1970s coincided with policies, which veered

[167] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development*. London. UK: Routledge Press, pp. 19-20. 1998.

toward state enterprise. It relied heavily on state intervention and regulation and reduced the role of the private sector.[168]

Pre-Liberalization 1960-1977
Negative and Positive Impacts of Liberalization Policies

This period inherited deep-rooted structural weaknesses of the economy from the colonial period. The post-liberalization period helped to change familiar colonial patterns, which depended almost entirely on imports for almost the entire range of manufactured products; Sri Lanka's main trading partners in the early 1950s were the United Kingdom and other countries of the British Commonwealth.[169] Almost all domestic demands for food requirements, including rice, which is the main staple food of the country, to manufactured consumer goods such as textiles and transportation equipment. According to Gunatileke, "a system of Commonwealth preferences was in operation during this period."[170] It was as though the British continued to have an invisible hand in the economy of Sri Lanka.

If the country were to escape the colonial roots and its dependent economic system, a more open economy needed to be in place under which Sri Lanka would import only what it needed and export the excess. Most importantly, Sri Lanka would reduce its export dependence on the three major primary commodities (tea, rubber, and coconut), which accounted for more than 90% of exports. The widening of the country's market system included U.S.A., Japan, Western Europe, the Socialist countries of Eastern Europe, and China. As a result "…the expansion and diversification of markets, the

[168] Godfrey Gunatileke. *Development and Liberalisation in Sri Lanka: Trends & Prospects.* Colombo. Sri Lanka: Marga Institute, pp. 2. 1993.
[169] Godfrey Gunatileke. *Development and Liberalisation in Sri Lanka: Trends & Prospects.* Colombo. Sri Lanka: Marga Institute, pp. 85. 1993.
[170] Ibid. Pp. 83.

country was able to establish trade links with a large number of countries. This process by itself can strengthen and increase the country's capacity to market its products as it diversifies its export sector and seeks markets for a wide range of new products."[171]

The pre-liberalization era of Sri Lanka was one that was filled with economic and social roller coasters. Progressively stringent government controls for nearly two decades after independence from Britain had imposed high costs on the economy. Lal reports that income growth averaged only 2.8 percent a year in the 1960-77 period, with only a few interludes of higher growth (during the 1965-70 period), 20 percent of the labor force was unemployed by 1977, food shortages, a stagnant manufacturing sector, and inflation rates in the 15-20 percent range existed.[172]

With the election in 1977, the UNP, led by J.R. Jayawardena, who was for a pro Western orientation, won a majority of the seats. As UNP welcomed more Western powers and extensive reform of exchange rate and trade policies, Western powers and international organizations responded with an unprecedented flow of international aid.[173] The promotion of foreign investment, particularly in export-oriented manufacturing turned out to be a pivotal element in the new political policy:

> "The new administration initiated significant economic policy reforms soon after entering office. Quantitative restrictions on import trade were largely replaced by tariffs under an open general licensing system. These tariffs usually provided lower levels of nominal protection for domestic import-substitution industries. A number of measures to encourage direct foreign investment, including general tax incentives and establishment of an export processing zone, were implemented. Most price controls were removed. Universal food subsidies were replaced by a food stamp scheme whose beneficiaries were to be those who earned the least income. As it turned out, however, the scheme actually covered more than half of the population."[174]

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[171] Godfrey Gunatileke. *Development and Liberalisation in Sri Lanka: Trends & Prospects.* Colombo. Sri Lanka: Marga Institute, pp. 85. 1993.
[172] Lal, Deepak and Sarath Rajapathirana. *Impediments to Trade Liberalization in Sri Lanka.* London. England: Trade Policy Research Centre, pp. 24. 1989.
[173] Athukorala, Prema-Chandra and Sisira Jayasuriya. Macroeconomic Policies, Crises, and Growth in Sri Lanka, 1969-1990. The World Bank, Washington, D.C., pp.20. 1994.
[174] Ibid. Pp.21.

Many factors helped to mobilize public support for the subsequent liberalization of controls undertaken by the UNP government in 1977;[175]

- Liberalization was perceived to benefit all groups, as compared with the concentration of the benefits, under the earlier regime, on those who could earn rents from the controls.
- The newly elected government's political mandate included a clear and strong commitment to reform.
- There were immediate tangible benefits to consumers from liberalization measures – for example, the sweeping changes in quotas immediately increased the availability of consumer goods.
- The removal of restrictions on foreign employment led to a steady flow of workers' remittances, while foreign capital inflows supported the liberalization measures by providing an adequate cushion of foreign reserves.
- Trade union opposition was firmly handled. The rout of the union-supported political parties in the 1977 elections (especially the Marxist group) had sent a powerful message to the unions that the new government was fully in control of the political situation.

The post-1977 economic reforms in Sri Lanka undoubtedly succeeded in giving a decisively new direction to the economy and moving it from a state-regulated system to a more liberal open market-driven regime. By this time, the structure of Sri Lanka's trade, particularly its export trade, began to change significantly. It defined the main policy

[175]Lal, Deepak and Sarath Rajapathirana. *Impediments to Trade Liberalization in Sri Lanka.* London. England: Trade Policy Research Centre, pp. 25-26. 1989.

objectives in regard to the critical macroeconomic adjustments that were needed – the exchange rate, the reduction of government transfers and subsidies, the shift from administered prices to market prices, the key role of the private sector in investment and economic enterprise, the prime importance of an internationally competitive export sector for future development and employment creation, the package of incentives for attracting direct foreign investment.[176]

Features of the Liberalization Package[177]

- The devaluation of the rupee by 46.2 percent against the United States dollar and the unification of the exchange rate at the higher rate that applied under the dual rate. Subsequently a floating rate was adopted.
- Abolition of the system of pervasive exchange control and quantitative restrictions and their replacement with tariffs.
- Removal of price controls except for a few 'essential' consumer goods. The procurement price was raised by 21 percent, and a food stamp program aimed at the low-income segments of the population replaced the system of indiscriminate food subsidies.
- Adoption of measures to attract foreign private investment, including changes in regulations governing the repatriation of profits and foreign investment licensing.
- The raising of domestic interest rates

[176] Godfrey Gunatileke. *Development and Liberalisation in Sri Lanka: Trends & Prospects.* Colombo. Sri Lanka: Marga Institute, 1993.
[177] Lal, Deepak and Sarath Rajapathirana. *Impediments to Trade Liberalization in Sri Lanka.* London. England: Trade Policy Research Centre, pp. 26. 1989.

A package of market-oriented policies has been implemented in an uninterrupted manner for a period of over two decades with the assistance and guidance of what, and subject to the monitoring, of international financial institutions such as the IMF and the World Bank. The key words in it are the following: "liberalization and de-regulation", "elimination of price distortions", "privatization", and "globalization". Throughout the last two decades, the country's macro economic policy has come gradually closer to the now well-known prototype of the structural Adjustment Policy (SAP) package of the IMF and the World Bank. All along, there was the need to moderate the impact market-oriented policy on weaker sections of the population in order to keep them satisfied. For this purpose, safety net programs such as Janasaviya and Samurdhi were implemented.

Economic Growth and Change in Production Structure

It is widely believed that the economy's performance in terms of production growth within the market economy framework has been better than within the framework of the preceding control regime, although over time there were vicissitudes in the rate of growth. In the pre-liberalization period of 1970-77, the GDP grew by only about 3 percent annually. With the opening up of the economy, the GDP grew faster in the post-1977 period and the average annual growth rate has remained around 5 percent during the last two decades. The impetus to growth came mainly from the sectors of manufacturing, services, and construction.[178]

The globalization process in recent years has led to further expansion in these sectors. The growth in the manufacturing sector has been due mainly to an outcome of faster growth in the output of factory industries (i.e., garments, electrical appliances,

[178] S.S. Colombage "The Continuing Process of Globalization in Sri Lanka" in Times, A forum for liberal policy in South Asia. Volume vii / number 3. 1999. Pg. 33.

leather products, diamonds and jewelry, and food and beverages). Since foreign investment has a crucial role to play under this strategy, the government has granted a wide range of incentives by relaxing most rules pertaining to foreign investment. Investment promotion zones that were set up in different locations helped to boost industrial exports. In the services sector, faster growth rates were observed in energy, transport, communications, port services, trade, and financial services. Construction activities also grew at a faster rate. The adjustment program stimulated high rates of economic growth, employment, and exports, although consistent in a sustainable fashion.

Along with growth of the economy, there have also been some structural changes. While services activities, as a whole, remained the dominant contributor to domestic product, the share of manufacturing in value-added products increased along with a decline in the share of the agricultural sector. While agriculture; share in GDP declined from 29.1 percent in 1977 to 23.6 percent in 1987 to 17.8 percent in 1997, manufacturing; share increased from 15.5 percent in 1977 to 16.2 percent in 1987 to 21.5 percent in 1997.[179] In terms of value-added, the relatively low technology sectors of food, beverages, tobacco, and textiles, wearing apparel and leather products, remained the dominant sub-sectors in manufacturing. Changes that took place in the commodity composition of exports during this period were significant. Agricultural exports (81 percent of total exports in 1977 as against 18 percent in 2000) lost significantly to industrial (14 percent in 1977 as against 78 percent in 2000) exports. Textiles and wearing apparel continued to be the leading industrial export, but there were indications that other, less traditional sectors like rubber, non-metallic mineral, and fabricated metal

[179] Saman Kelegama (1999), Economic Development in Sri Lanka during the 50 years of Independence: What Went Wrong? Milestones to Independence (1999), A Publication of the People's Bank to Commemorate the Golden Jubilee of National Independence, People's Bank, Colombo Sri Lanka.

products and diamonds were beginning to gain in relative insignificance among industrial exports.

With the combination of diversification of exports, export development plan, the policy frameworks for export promotion, diversification of trading partners and the share of trade with Asia, Sri Lanka's economy was said to be heading toward that of Singapore and Taiwan in the early 1990s. Some were even hopeful in naming Sri Lanka as one of the future Asian Tigers.

Employment Generation

During the initial phase of the structural adjustment program, the unemployment rate showed a gradual decline. The rate of unemployment declined to about 13 percent in the early 1980s, from a high rate of about 25 percent of labor force in the mid-1970s. In the initial phase, most of the new employment opportunities emanated from the booming construction sector, which received impetus from the heavy infrastructure investments in the public sector. The textile and garment and the services sectors provided additional impetus to this initial spurt of employment growth. After the mid-1980s, with cutbacks in the state's involvement in infrastructure investments and the failure of private investment to fully compensate for this decline in public investment due to unsettled political conditions and consequent uncertainties in the business climate, unemployment increased, rising to about 18 percent at the end of 1980s.

The second phase of the structural adjustment program commenced at the end of the 1980s, unemployment came down to around 14 percent in 1994 and 11.3 percent in 1996 and 7.7 percent in 2000.[180] Reflecting the faster growth in manufacturing and service activities in the post liberalization period, increasing employment opportunities

[180] Central Bank, Annual Report (2000), Central Bank of Sri Lanka, Colombo.

were available in these sectors. Direct employment opportunities created in the industrial sector by the BOI amounted to 241,970 by the end of 1996, of which 64 percent was on account of the textile and garment sector.[181] Non-metallic mineral products, chemical products and food, beverages and tobacco categories accounted for 7 percent, 6 percent, and 2 percent respectively. The author states that the majority of the industrial work force falls within the category of unskilled or semi-skilled workers, and a significant feature of employment creation in the BOI industrial activities has been the large numberof women who account for more than 75 percent of total employment.[182]

TABLE 3.1
EMPLOYMENT IN MANUFACTURING

Year	Total employment	Public-sector employment*	
1979	160,816		
1980	161,844		
1981	151,549	67,021	(44.3)
1983	202,100		
1984	212,332	70,250	(33.0)
1985	210,465		
1986	217,146		
1987	212,223		
1988	219,278	72,563	(33.1)
1989	243,705		
1990	281,114		
1993	356,950	58,030	(16.3)

NOTE:
* The share of SOEs in total manufacturing employment is indicated in brackets.
SOURCES: Annual survey on Manufacturing Industries (for 1978 through 1981), Annual Survey of Industries (for 1983 through 1990), and 1993: data tapes of Annual Survey of Industries- 1994, all conducted by Department of Census and Statistics.

[181] Upananda Vidanapathirana "Industrial Development Since Independence: Policies and Challenges" in "Fifty Years of Sri Lanka's Independence: A Socio Economic Review" by A.D.V. de S. Indraratna (Ed.) Sri Lanka Institute of Social and Economic Studies (SLISES) Colombo, Sri Lanka 1998. Pg. 163.
[182] Ibid.

As a result, the share of employment in these two sectors rose from 52 percent in 1981/82 to 62 percent in 1996/97, while the share in agriculture declined from 48 percent to 38 percent. Greater labor absorption in non-agricultural activities helped to ease the unemployment problem to a some extent.[183]

The decline in unemployment rate is predominant in the rural and urban sectors where there was a faster growth of economic activities in the post-liberalization period. Nevertheless, an unfavorable feature is the high rate of unemployment among the educated youth. In the age group of 14-18 years, the unemployment rate is as high as 36 percent; in the age19-25 groups, it is 30 percent.[184]

The globalization process has fostered increasing labor mobility between countries. Lal notes that in addition to an increase in domestic employment opportunities, the foreign demand for Sri Lankan labor – particularly semi-skilled workers also rose.[185] A large number of Sri Lankans, estimated to be around 700,000, mainly those belonging to the lower income groups, have benefited from this development. Also, the removal of restrictions on employment abroad led to substantial increases in foreign employment, especially in the Middle East.[186] Income transfers made by these persons working abroad, largely in the Middle Eastern countries, have become a major source of income for their families. The inflow of worker remittances in 1998 was nearly 1 billion US dollars.[187]

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[183] S.S. Colombage "The Continuing Process of Globalization in Sri Lanka" in Times, A forum for liberal policy in South Asia. Volume vii / number 3. 1999. Pg. 33
[184] Ibid.
[185] Lal, Deepak and Sarath Rajapathirana. *Impediments to Trade Liberalization in Sri Lanka.* London. England: Trade Policy Research Centre, pp. 32. 1989.
[186] *Socio-economic Survey 1973* and *Socio-economic Survey 1980* (Colombo: Central Bank of Ceylon, 1974 abd 1981).
[187] S.S. Colombage "The Continuing Process of Globalization in Sri Lanka" in Times, A forum for liberal policy in South Asia. Volume vii / number 3. 1999. Pg. 33.

The majority of workers seeking employment in Middle Eastern countries are women. The female dominance in temporary migration for overseas employment increased dramatically, from about 55 percent of the total outflow in 1988 to about 80 percent in 1995. Migration of women for employment in West Asia can be seen as a positive trend in women's strategies in overcoming poverty. It has to be noted that over the past two decades, women from poor households have exhibited remarkable courage in embarking on employment overseas for periods of between 1 to 3 years. This phenomenon has to be seen in light of the fact that many of these migrant women face difficulties during the course of employment abroad, which ranges from separation from family to non-payment of wages and physical or sexual abuse.

Impact on Rural Industries

Evidence suggests that small and rural industries have been adversely affected by the liberalization policy. This informal sector combined factory-based small-scale and the rural-cum-informal sector contributes significantly to the manufacturing and employment generation. However, most small industries failed to take advantage of the opportunities opened up by the liberalization act.[188] The Inter Development Bank (IDB) (1980) indicated that many of the difficulties faced by small firms stemmed mainly from the fact that they were small and being small, they were either unable to take advantage of the liberalization or were harmed by it, as larger firms gained a competitive edge over

[188] Osmani, S. (1987), " The Impact of Economic Liberalization on Small and Rural Industries in Sri Lanka," in Islam, R. (ed), *Rural Industrialization and Employment in Asia*, ILO, ARTEP, New Delhi.

them by virtue of the sheer size.[189] In addition, the Ministry of Finance and Planning found many of these industries "…to be severely under-protected".[190]

Perhaps the most affected and most important industry in the rural sector was handloom. In the pre-1977 era, handloom was fostered by means of deliberate policies of intervention and protection. Starting with such policies around the mid-1950s, the industry developed into a dominant one within a short life span. By 1971, the workforce was around 70,000. By 1977 there were about 111,000 looms in the country.[191] Before 1977, the need for textiles in Sri Lanka was estimated to be around 168 million meters, out of which 20 million meters were imported, leaving the vast unmet demand to be satisfied by domestic industry including handloom. Also, cotton yarn was supplied to the weavers at a subsidized price through the Weaving Suppliers' Corporation.[192]

All this changed after liberalization. With import liberalization, textile imports increased sharply from 20 million meters to an average of 96 million meters a year.[193] At the same time the subsidy for cotton yarn was abolished, and the yarn registered a sharp increase. Also, in order to ensure full play of market forces, the power looms were allowed to compete freely with handlooms. All these factors, and most notably the last, immediately threatened the viability of a large segment of this sector. By 1980, the

[189]Saman Kelegama. "Liberalization and Industrialization: The Sri Lanka Experience in the 1980s" Research Studies Industrialization Series No. 2 Institute of Policy Studies Colombo Sri Lanka 1995 pp. 19.
[190] Ministry of Finance and Planning (1986), "Public Investment, 1986-91", Colombo, Sri Lanka. Pp. 103.
[191] Saman Kelegama. "Liberalization and Industrialization: The Sri Lanka Experience in the 1980s" Research Studies Industrialization Series No. 2 Institute of Policy Studies Colombo Sri Lanka 1995 pp. 19.
[192] Osmani, S.R. (1986), The Impact of Economic Liberalization on the Small Scale and Rural Industries of Sri Lanka, International Labour Organization, New Delhi.
[193] Ministry of Industries and Scientific Affairs, 1986

number was reduced to 81,000 looms and by 1986 was further reduced to only 15,000 looms in the country.[194]

Import liberalization also undermined several domestic industries, such as electrical appliances, fabricated metal products, chemicals, bicycle tires, spectacle frames, printing paper and dairy products. The unrestricted import of electrical appliances, such as refrigerators, has led to the closure of one local refrigerator maker. The importation of wooden and cane furniture has adversely affected the sale of high-class local furniture. Bathroom fittings, water facets, and sanitary hardware are hardly produced locally now, on account of cheap importations. Coconutoil mills are being closed on account of the free import of palm oil whose tariff has been reduced from 35 percent to 5 percent. Several small-scale manufacturers have found it more profitable to import and sell goods than to manufacture them locally

Domestic Food Crop Production

The bulk of the farming community in Sri Lanka consists of persons cultivating small plots of land–often less than an acre in size. Most of them are engaged in the cultivation of paddy and other food crops. This community of small farmers faced a variety of complex problems on account of the implementation of the liberalization program. With the gradual completion of the accelerated Mahaweli project, a vast amounts of new land was brought under cultivation. Conditions of farmers in those areas, as a result, became comparatively favorable. But in the rest of the country, small-farm agriculture was adversely affected by market-oriented policies and the relatively little

[194] Saman Kelegama. "Liberalization and Industrialization: The Sri Lanka Experience in the 1980s" Research Studies Industrialization Series No. 2 Institute of Policy Studies Colombo Sri Lanka 1995 pp. 19.

concern shown by the government toward them. In relation to tea, rubber, coconut and spices, subsidy schemes were in place to assist programs of rehabilitation, replanting, new planting, and so on. Toward the end of the 1980s, however, restrictions came to be placed on these subsidy schemes as well. The fertilizer subsidy was removed by 1990. Fertilizer consumption went down since then, with adverse effects on agricultural yields. Another important development was that liberalized importation has become a significant factor determining domestic supply of agricultural crops. As can be seen from some recent controversies about crops like chili, onions, and potatoes, show importation prices would often determine the upper level of the domestic prices of agricultural products.

This policy of bringing domestic prices closer world prices has had the objective, among others, of introducing competition into domestic agriculture and improving its productivity. To achieve this objective effectively, intelligent and careful manipulation of policy in several areas like foreign trade, exchange rate, and agriculture was necessary. It is doubtful whether the policy of bringing domestic prices closer to world prices has been implemented with that degree of care and within a holistic approach. Importation of agricultural products has been liberalized without creating the necessary conditions to accelerate agricultural investments locally and without taking steps to reduce institutional rigidities of the domestic agriculture sector so that it could respond effectively to price signals. The stated goal of agricultural growth through liberalization of agricultural products has turned out to be more wishful thinking than realistic objective.[195]

[195] Lakshman W.D. (1996) Socio Economic Impact of Structural Adjustment Policies in Sri Lanka, Centre for Development Studies, Discussion Paper, Edith Cowan University, Australia.

Inflation

Trade liberalization, combined with the policy of expanding public finance, contributed to high rates of domestic inflation during 1978-82. As a result of interest-rate controls, real interest rates turned negative, stimulating capital outflows. Deregulation of lending rates after 1982 allowed the banking system to maintain positive real interest rates in the face of high and volatile price inflation. After 1984, the rate of inflation began declining. But after 1988, the rate of inflation rose again to relatively high levels and remained high until 1992, when it began to show some signs of coming down.[196]

In the past two decades since liberalization reforms began in Sri Lanka, inflation has been moderate (10-30 percent) but sustained, and thereby exerted a high cost from the economy.[197] In Sri Lanka, importation costs, weather-related supply factors, and excessive liquidity growth have been the main causes of inflation. Depreciation of the exchange rate has been a major contributory factor to the rising cost of importation in Sri Lanka throughout the period.

Though moderate, sustained inflation has exerted a number of negative impacts on the Sri Lanka economy. First, inflation has created and perpetuated a vicious cycle of currency depreciation, wage and price inflation, and currency depreciation. This has not only increased domestic costs, which have offset temporary gains in competitiveness, but also resulted in permanent and uneven inflationary expectations. Second, uncertain inflationary expectations have, in turn, acted as a brake on domestic resource mobilization by discouraging savings and making ex-post returns on financial instruments riskier. It also raised ex-ante lending rates, which have discouraged domestic

[196] Lakshman W.D. (1996) Socio Economic Impact of Structural Adjustment Policies in Sri Lanka, Centre for Development Studies, Discussion Paper, Edith Cowan University, Australia.
[197] IMF, 1999.

investment. Third, inflation has increased income inequality by exerting a disproportionate adverse effect on people with fixed-incomes, including pensioners, welfare recipients, and the poor.[198]

Growth of the Export Sector Since Liberalization

Since the introduction of export-oriented plantation agriculture under the British, the Sri Lankan economy has been gradually transformed from a self-sufficient economy to one dependent on the rest of the world. However, the dominant colonial economic structure had hardly changed by 1977, i.e., after three decades of attaining political independence in 1948. Therefore, when the strategy of exportation promotion was adopted in 1977, the Sri Lankan economy was still dependent on its traditional exportation crops; such products as tea, rubber and coconut which for almost four-fifth of exportation earnings.

"These three accounted for 96 percent of the value of all exports in 1948, tea contributing 63 percent, coconut products 18 percent and rubber 15 percent. Minor exports such as cinnamon oil, citronella oil, cocoa, areca nut, cardamom, and plumbago (graphite) contributed 4 percent; none of them was equal to even one percent of total exports. All the country's exportation thus was food, beverages and raw materials. There was hardly any exportation of manufactures. Exportation played a crucial role in the economy, accounting for 37 percent of the gross national product and 27 percent of government revenue in 1948."[199]

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[198] International Monetary Fund, (1999) Sri Lanka: Recent Economic and Policy Developments, IMF, Washington, D.C.

[199] J.B. Kelegama "Sri Lanka's International Trade" in "Fifty Years of Sri Lanka's Independence: A Socio Economic Review " by A.D.V. de S. Indraratna (Ed.) Sri Lanka Institute of Social and Economic Studies (SLISES) Colombo, Sri Lanka 1998. Pg. 170..

The economic reforms of 1977 were enacted to liberalizing and simplifying the exchange and trade system. This reform package included a series of policy measures such as (a) relaxation of import and export controls, (b) dismantling of price controls, (c) commitment to remove government subsidies, (d) interest rate reforms, and (e) encouragement of foreign investments. These policies have been intensified over the last two decades so as to further facilitate foreign trade flows, capital movement, labor mobility, and private-sector activities. To underscore the significance of export promotion and foreign investment let us note that, for the entire period of 1970 to 1977 the total investment was in the region of 17 million dollars, whereas in the period of 1978-1984, it amounted to Rs. 5,448 million.[200]

The indicators of export promotion as presented in table 4.2 reflect a quite optimistic picture of the performance. Perhaps the most significant achievement in terms of export promotion is this: Since 1977 there has been a change in the composition of the export structure, which was dominated by agriculture to one dominated by manufacture. Sri Lanka's exports are classified into three major categories: agricultural exports, industrial exports, and mineral exports. Agricultural exports consist of tea, rubber and coconut products and several minor export crops, such as cinnamon, cloves, cashew nuts, pepper, and vegetables. Industrial exports include textiles and ready-made garments, re-exports of petroleum products, leather, rubber and ceramics, processed diamonds, electronics and mechanical appliances, and activated carbon. Mineral exports of Sri Lanka comprise of gems, natural graphite and limonite.

[200] Godfrey Gunatileke. *Development and Liberalisation in Sri Lanka: Trends & Prospects.* Colombo. Sri Lanka: Marga Institute, pp. 35. 1993.

The export structure of the country has changed markedly with the diversification of exports since the introduction of economic liberalization policies in late 1977. Industrial exports have expanded significantly since the early 1980s and as a result, the share of plantation agricultural commodities in total exports has declined from 74 percent in 1977 to 21 percent in 1999 (see table 3.2). Industrial exports continued to be the major contributor to export earnings with their share increasing from 14 percent in 1977 to 49 percent in 1987. This ratio has remained around 75 percent for the past 5 years. Within industrial exports, textiles and garments became Sri Lanka's largest single item of export in 1986. In total exports, its share rose from 28 percent in 1986 to 53 percent in 1999. The sectors that have shown a significantly improved performance in the last decade are rubber-based products, various spare parts including electronics, leather products such as footwear and travel goods, diamonds, jewelry, petroleum products, canned food, fruits and fish products, ceramics, handicrafts and chemical products. Exports of mineral products, dominated by gems, also witnessed an improvement after 1977.

TABLE 3.2
COMPOSITION OF EXPORTS, 1960-1999

Item	1960	1970	1977	1985	1995	1999
Total Exports (US Dollar Million)	384.7	341.6	748.2	1311	3807	4600
Agricultural Products	348.2	313.2	593.4	689	829	947
Tea, Rubber and Coconut	348.2	302.4	555.6	640	695	783
Other Agricultural Products	n.a	10.8	37.8	49	134	165
Industrial Products	n.a	7.0	106.1	517	2870	3543
Textile and Garments	n.a	1.0	16.0	288	1853	2425
Petroleum Products	n.a	3.0	67.0	140	85	74
Other Industrial Products	n.a	3.0	22.8	89	932	1044
Mineral Products	n.a	3.0	35.7	31	87	64
Unclassified	36.5	18.4	13.0	73	21	46
Total Exports(percentage Share)						
Agricultural Products	90.5	91.7	79.3	52.5	21.8	20.6
Tea, Rubber and Coconut	90.5	88.5	74.3	48.8	18.2	17.0
Other Agricultural Products	n.a	3.2	5.1	3.7	3.5	3.6
Industrial Products	n.a	2.0	14.2	39.4	75.4	77.0
Textile and Garments	n.a	0.3	2.1	22.0	48.7	52.7
Petroleum Products	n.a	0.9	9.0	10.7	2.2	1.6
Other Industrial Products	n.a	0.9	3.0	6.8	24.5	22.7
Mineral Products	n.a	0.9	4.8	2.4	2.3	1.4
Unclassified	9.5	5.4	1.7	5.6	0.5	1.0

Source : Central Bank of Sri Lanka, Economic progress of independent Sri Lanka, 1998; Annual Report, 1999.

Table 3.3
PATTERn OF SRI LANKA'S EXPORTS BY COMMODITY

Commodity	Volume M.T.		Value Rs. Million		Value as %	
	1948	1996	1948	1996	1948	1996
Agricultural Exports	-	-	923	53,206	98.6	23.5
1. Tea	134,240	244,109	590	34,067	63.1	15.0
2. Rubber	93,334	72,100	142	5,753	15.1	2.5
3. **Coconut Products**	-	-	166	6,091	17.8	2.7
Coconut Oil	76,952	2,813	84	143		
Copra	55,314	7,843	42	327		
Desiccated Coconut	11,987	60,797	25	3,998		
Poonac	8,533	-	2	-		
Fresh Coconuts	-	-	2	223		
Coir Fibre	33,219	-	8	1,160		
Coir Yarn	2,590	-	2	241		
4. **Minor Ag. Exports**			25	7,295	2.7	3.2
Cocoa	2,337	43	7	2	0.7	-
Cinnamon	1,921	10,077	5	1,923	0.5	0.8
Arecanut	5,079	3,109	4	134	0.5	-
Citronella Oil	711	304	3	184	0.4	-
Kapok	1,015	-	2	-	0.2	-
Papain	60	-	1	-	0.1	-
Cardamon	102	6	1	4	0.1	-
Tobacco	470	3,229	2	2,346	0.1	1.0

Vegetables	-	6,734	-	253	-	0.1
Fruits	-	5,810	-	293	-	0.1
Coffee	-	692	-	54	-	-
Pepper	-	2,967	-	390	-	0.2
Cloves	-	1,429	-	85	-	-
Nutmeg & Mace	-	1,084	-	75	-	-
Sesame Seed	-	2	-	-	-	-
Other Oil Seeds	-	127	-	7	-	
Betel Leaves	-	2,580	-	74	-	-
Cashew Nuts	-	334	-	104		
Other		16,030	-	1,369	-	0.6
5. Gems	-	-	-	4,771	-	2.1
6. Graphite (Plumbago)	14,171		7	151	0.7	-
7. Skins	711		1	-	0.1	
Industrial Exports			4	166,543	0.4	73.4
10. Garments	-			93,814	-	41.8
11. Textiles	-		3	2,863	0.3	1.3
12. Petroleum Products	-		-	5,740	-	2.5
13. Diamonds	-		-	8,673	-	3.8
14. Leather, Rubber, Wood	-		-	22,875	-	10.1
15. Fish & Food Preps	-		-	5,272		2.3
16. Machinery	-		-	8,572		3.8
17. Others	-	-	3	2,280	0.3	1.0
Total			936	226,801	100.0	100.0

1. Statistical Abstract of Ceylon 1952 (Department of Census & Statistics)
2. Central Bank Annual Report 1996
3. External Trade Statistics, Sri Lanka 1996 (Sri Lanka Customs)

The garment industry expanded rapidly and soon became one of the largest foreign-exchange earners, also creating a substantial volume of new employment. Textile and garments exports continued to be the leading sub-category of industrial exports, contributing 68 percent to total industrial exports in 1999. The balance, 32 percent of industrial exports, consisted of machinery and equipment (6 percent), rubber-based products (5 percent), travel goods and diamonds (4 percent each), petroleum products and footwear (2 percent each), crustaceans and mollusks and ceramic products (1 percent each), and other industrial products (7 percent). Tea continued to be the

leading sector under agricultural exports with a share of 65 percent in 1999. Tea exports accounted for 13 percent in total exports in 1999.[201]

Along with the change in export structure, the value of exports as a percentage of GDP has shown a remarkable improvement. The value of total export earnings, which remained below 20 percent of GDP in 1977, had increased to 32.6 percent of GDP by 1995, as shown in table 3.4. This increase in exports can be attributed to industrial exports, which have increased from 2.7 percent of GDP in 1977 to 24.6 percent by 1995. Clearly, the indicators of export expansion show that the economy has responded to the export drive during the past two decades.

TABLE 3.4
VALUE OF EXPORTS AS A PERCENTAGE OF GDP
1973 - 1996

Year	Agricultural Exports	Industrial Exports	Total Exports
1973	11.9	1.1	15.6
1977	15.2	2.7	19.1
1980	17.5	9.3	28.3
1985	12.8	9.6	24.4
1990	9.9	9.9	27.3
1995	7.1	7.1	32.6
1996	7.6	7.6	32.6
1999	6.0	6.0	29.2

Source: Central Bank Annual Reports.

[201] The Central Bank, 1999.

TABLE 3.5
COMPOSITION AND GROWTH OF MANUFACTURED EXPORTS, 1971-1993
(PERCENTAGES)

	1970	1977	1980	1985	1990	1995	Growth (%) 1977-95#
Food beverages and tobacco	9.4	3.2	0.2	0.6	0.1	0.6	1.4
Textile, clothing and footwear	51.7	48.2	76.9	77.8	69.7	68.4	20.7*
Fabrics	-	0.6	0.3	1.2	0.3	2.5	24.3*
Clothing	42.2	45.0	76.5	73.9	64.7	63.7	20.2*
Footwear	6.4	1.0	0.1	1.3	1.1	3.2	31.4*
Wood products	5.6	2.3	0.3	0.8	1.3	1.7	22.1*
Rubber goods	-	0.7	0.1	1.5	3.1	5.3	37.4*
Non-metallic-minerals	0.2	8.4	5.4	7.1	11.8	9.8	26.6*
Ceramics	0.2	8.4	5.4	4.1	2.0	4.2	13.7*
Diamond	-	0.0	0.0	3.0	9.8	7.8	25.4*
Total manufactures (Million SDR)	100 (3)	100 (29)	100 (110)	100 (378)	100 (656)	100 (1419)	18.8*

NOTE:
- Zero or negligible.
\# Annual compound growth estimated by fitting a logarithmic trend equation to export value in SDR.
* Denotes statistical significance at the 1 percent level.

SOURCE: Compiled from Central Bank, Review of the Economy and Annual Report (various issues).

The Role of Foreign Direct Investment in Export Promotion

Athukorala notes, " …the relative attractiveness of a given country for FDI depends on both its comparative advantage in international production and the general investment climate."[202] At the present stage of economic development, Sri Lanka's comparative advantage in the international market for investment sites lies mainly in assembly activities in vertically integrated industries and light manufactured goods (categories 2 and 3, see table 3.6).[203]

[202] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development* London. England. Routledge Press, pp. 119. 198.
[203] Ibid.

TABLE 3.6[204]
A TYPOLOGY OF EXPORT-ORIENTED FDI IN NEW EXPORTING COUNTRIES

	Product Category	Product Characteristics		Role of FDI
		Technology	Factor intensity	
1	Resource-based manufacturing – local processing of primary products previously exported in raw state	Diffused	Mostly capital intensive	Of selective importance
2	Light standardized consumer goods – clothing, shoes, sporting goods	Well diffused	Labor-intensive	Important
3	Component production and assembly within vertically integrated production systems: semi conductor assembly, parts of electrical machinery, motor vehicle parts etc.	Mostly internal to MNEs	Labor-intensive	Extremely important
4	Differentiated final goods: ships, motor vehicles, radios, television sets, computers	Diffused	Capital and skill intensive	Of little importance

SOURCES: Based on Helleiner (1973 and 1988), de la Torre (1977), Grunwald and Flamm (1985), Guisinger (1985), Ranis and Schive (1985), Wells (1986a)

As with any other developing country, for Sri Lanka, industrialization is seen today as the main means of restructuring an economy. During the 1950s and 1960s, import substitution was seen as the main tool for promoting industrialization. With the passage of time, import-substitution industrialization proved to be a failure in many countries. Thus, in the early seventies, there was a notable shift of emphasis away from import-substitution industrialization to export-led industrialization. Unlike import-substitution regimes, which were administered by quantitative controls characterized by widespread dispersion of unpredictability, export-promoting regimes relied on price incentives that were more predictable. Export-promoting industries were seen as stimulating greater productivity growth because of increased foreign competition, access to new technology and methods of production, and benefits of economies of scale.

[204] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development* London. England. Routledge Press, pp. 119. 1998.

Import-substitution industries producing for a narrow domestic market could not match these advantages. Thus it was argued that superior economic performance could be achieved by following an export-led industrialization strategy.

Sri Lanka provides a good case study of export-led industrialization. In 1977, Sri Lanka made a complete departure from that was until then an inward-looking regime afflicted with severe foreign-exchange shortages and slow economic growth. A new policy package for export-led industrialization was implemented in 1977 (Athukorala and Jayasuriya, 1994). The new policy package recognized the importance of foreign direct investment (FDI) in promoting manufacturing industries in Sri Lanka. The most important single effort at promoting export-led industrialization through FDI was the setting up of the GCEC in 1978 with wide-ranging powers to facilitate FDI in fully export-oriented ventures.

The GCEC was empowered to approve foreign investments in EPZs, which were to be specifically designed to serve as foci for the development of infrastructure to the standards required by export-oriented firms. The incentive package offered by the GCEC included: complete foreign ownership in investment projects; a tax holiday for up to 10 years, with complete tax exemption for remuneration of foreign personnel employed, royalties, and dividends of shareholders during that period; and duty exemption for the importation of equipment, construction material and production inputs.[205]

Subsequently, GCEC enterprises were provided with unlimited access to foreign-currency credit at interest rates prevailing in world financial markets, under the Foreign

[205] Athukorala, Prema-Chandra and Sisira Jayasuriya. Macroeconomic Policies, Crises, and Growth in Sri Lanka, 1969-1990. The World Bank, Washington, D.C., pp.22. 1994.

Currency Banking Units (FCBUs) scheme introduced in 1979.[206] In addition to these incentives, firms located within EPZs were provided with industrial services - serviced sites, building plants, power, water, and telecommunication services at subsidized rates and assistance with customs clearance procedures. The first investment promotion zone, at Katunayake near the Colombo international airport (henceforth KEPZ) was opened in June 1978. The success of KEPZ paved the way for setting up a second EPZ in Biyagama (BEPZ) in 1982 and a third in Koggala (KEPZ) in June 1991.

Export Processing Zones

Much of the manufacturing operations are established in EPZs, which were created to attract investments to Sri Lanka during the liberalization period in the latter part of 1970s. F.A. Rabbani best describes the conventional reasons for establishing and operating EPZs:[207]

(a) Increasing foreign exchange earnings by exporting new products and finding new markets, improving the quality of exportable items and marketing technologies, and providing a shop window, thereby establishing a reputation for the goods of the home country as a whole;

(b) Providing jobs, mainly for the educated unemployed and supplementing the incomes of their families, thereby raising their standards of living;

(c) Upgrading the skills of local manpower in production management and work techniques;

[206] Central Bank, 1998.

[207] Rabbani, F.A. (1985) Economic and Social Impacts of Export Processing Zones in Asia (Tokyo, Asian Productivity Organization).Referenced in "Export Processing Zones in Sri Lanka: Economic Impact and Social Issues" by Janaki Abeywardene, Romayne de Alwis, Asoka Jayasena, Swarna Jayaweera and Thana Sanmugam Centre for Women's Research. Colombo, Sri Lanka. Working Paper No. 69 Prepared for The International Labour Organization (1994)

(d) Creating linkages with the hinterland by stimulating the inflow of local raw materials, equipment, components and packing materials and giving an impetus to subcontracting, thus encouraging the growth of support industries and ancillary services;

(e) Transmitting new technology by training local people in the zone enterprises by foreign experts or by sending them abroad and obtaining technological cooperation with those enterprises in the tariff area for the supply of equipment and components needed by the zone enterprises; and

(f) Developing the underdeveloped regions of the country concerned.

FDI has played a pivotal role in the expansion of manufacturing exports in Sri Lanka since 1977. During 1967-77, a total of 82 foreign manufacturing firms were established in Sri Lanka. Of these, only 13 were export-oriented ventures (garments, 9; gem-cutting, 2; ceramic-ware, 1; wall tiles, 1). In contrast, during 1978-95, the Board of Investment (BOI) (under the special incentive scheme for export-oriented firms) to set up 1,136 firms, fully export-oriented foreign firms of which 835 had foreign capital participation. Of these contracted 'foreign projects' by the end of 1995368 were in commercial operation, 104 under construction and twenty, waiting production.[208] The share of foreign firms in total exports of manufactures increased from 24 percent in 1977 to almost 80 percent in the mid-1990s (see table 3.8). Almost 85 percent of the total increment in manufactured exports between 1985 and 1995 originated in foreign firms, compared with 46 percent between 1978 and 1985.

[208] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development* London. England. Routledge Press, pp. 125. 1998.

As seen in table 3.7, there has been a remarkable foreign investor response to the 1977 policy reform. The balance-of -payments data show that total net capital inflow increased from US$ 0.2 million in 1970-77 to US$ 41 million in 1978-83, recorded a modest decline (to US$35 million) during turbulent years of 1984-89, and then increased to US$129 million during 1990-94.

TABLE 3.7
EXPORT-ORIENTED FDI IN SRI LANKA
SRI LANKA: NET FDI FLOWS, 1970-1996[209]

Year	*Millions of US$*	*As a Percentage of*	
		NFRI	*PFCF*
1970	-0.3	-0.6	-0.2
1971	0.3	0.4	0.3
1972	0.4	1.6	0.1
1973	0.5	1.1	0.2
1974	1.3	0.8	0.5
1975	0.1	-	-
1976	0.2	-	-
1977	1.2	-1.4	0.3
1978	1.5	0.7	0.6
1979	46.9	1.4	10.6
1980	43.0	6.0	7.8
1981	49.3	6.9	8.6
1982	63.6	7.2	9.1
1983	37.8	4.9	5.4
1984	32.6	2.9	4.5
1985	24.8	3.4	3.8
1986	29.2	3.9	4.0
1987	58.2	8.7	8.2
1988	46.6	6.2	5.7
1989	17.6	2.3	2.3
1990	42.5	6.3	2.9
1991	100.0	14.4	5.6
1992	119.2	12.0	9.4
1993	183.8	16.8	2,4
1994	158.2	10.2	1.8
1995	16.2	1.1	1.7
1996	86.3	6.0	0.8
Summary*			
1970-77	0.2	0.2	0.1
1978-82	40.9	4.4	7.3
1983-89	35.3	4.6	4.8
1990-92	87.2	10.9	6.0

Source: Compiled from Central Bank, Annual Report (various issues)
Notes
- Insignificant (less than 0.05 per cent) * Annual averages
NFRI = Net foreign resource inflow (= sign-reversed balance of the goods and services accounts in the balance payments)
PFCF = Private fixed capital formation

[209] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development* London. England. Routledge Press, pp. 124. 1998.

A new investment policy statement, announced in 1990, introduced several important changes in the foreign investment policy framework in line with the increased outward orientation of the economy. The new policies included: abolition of various restrictions on the ownership structure of joint venture projects outside EPZs, providing free-trade-zone status to export-oriented foreign ventures in all parts of the country (in addition to in the area demarcated by the original GCEC Act), and the setting up of a new BOI in order to facilitate and speed up investment approval within a unified policy framework applicable to both import-substituting and export-oriented investors.[210]

Apart from the direct contribution captured in these data, there is evidence that the presence of foreign firms generates significant positive spillover affects on the export success of local export-producing firms. Following the entry of foreign firms into clothing and other light consumer goods industries in Sri Lanka, many international buying groups that had long established market links with these firms also set up buying offices in the country. These buying offices have subsequently begun to play a crucial role in linking local firms with highly competitive international markets for these products. Moreover, many local entrepreneurs seem to make use of joint venture operations with foreign investors as a means of acquiring production and marketing skills required for the successful operation of their own (independent) production units. What the above suggests is that, to a significant extent, the spillover effects of the presence of foreign firms have contributed to the export success of the local firms.

[210] Prema-chandra Athukorala. *Trade Policy Issues in Asian Development* London. England. Routledge Press, pp. 123. 1998.

TABLE 3.8
REALIZED FOREIGN INVESTMENT AND EXPORT EARNINGS
IN BOI ENTERPRISES (1993 –1999)

Categories	No. of Enterprises		Foreign Investment (Rs. Million.)		Gross Export Earnings (Rs. Million.)	
	1993	1999	1993	1999	1993	1999
Food, Beverage and Tobacco	16	147	197	5475	2838	8274
Textiles, Wearing apparel and leather products	82	417	5529	18248	56890	127007
Wood and Wood Products	3	25	109	578	145	344
Paper and paper products	3	21	81	489	155	941
Chemicals, petroleum, rubber and plastic products	23	100	3503	7930	4114	21956
Non-metallic mineral products	24	63	709	4081	3410	7886
Fabricated metal products, machinery and transport equipment	9	38	1557	4703	297	1829
Manufactured products not elsewhere specified	64	158	2687	5105	7012	18966
Services	56	430	7789	70363	1879	13002
Total	280	1399	22161	116972	76740	200205

Source: Central Bank of Sri Lanka, Annual Reports.

TABLE 3.9[211]
DISTRIBUTION OF INVESTMENT IN EPZS IN SRI LANKA BY COUNTRY OF ORIGIN
(Investment – 1992 (Rs. Min.) cumulative – as of 30.06.92)

Country	No. of projects	Foreign	Local	Total
1. Australia	3	2,219,877	15,047	2,234,924
2. Belgium	3	6,663	0,000	6,663
3. Belgium-India-Sri Lanka	1	11,797	0,000	11,797
4. Belgium-Sri Lanka	2	65,528	10,632	76,160
5. Canada-Netherlands	1	8,879	0,000	8,879
6. Denmark	1	17,352	0,000	17,352
7. France-Sri Lanka	1	1,000	3,000	4,000
8. Germany	5	393,468	0,000	393,468
9. Germany-Sri Lanka	3	312,119	2,491	314,610
10.Hong Kong	15	388,409	44,926	433,335
11.Hong Kong-Japan-Sri Lanka	1	5,96	1,600	7,560
12.Hong Kong-Korea-Sri Lanka	1	1,500	19,500	21,000
13.Hong Kong-Norway-Sri Lanka	1	35,889	0,000	35,889
14.Hong Kong-Sri Lanka	7	806,883	1,008,744	1,815,627
15.Hong Kong-UK-Sri Lanka	1	16,568	31,753	48,321
16.India-Sri Lanka	3	218,382	6,015	224,397
17.Ireland-Germany-Australia-New Zealand	1	9,743	0,020	9,763
18.Italy-Sri Lanka	1	3,924	9,069	12,993
19.Japan	10	186,776	15,438	202,214
20.Japan-Sri Lanka	8	113,838	21,748	135,586
21.Japan-Taiwan	1	23,043	0,000	23,043
22.Korea	26	1,688,924	27,992	1,716,916
23.Korea-Hong Kong	1	13,843	0,007	13,850
24.Korea-Sri Lanka	8	264,000	181,474	446,074
25.Luxembourg	1	15,000	0,000	15,000
26.Luxembourg-Sri Lanka	1	6,000	4,000	10,000
27.Malaysia-Sri Lanka	2	13,860	7,717	21,577
28.Netherlands	5	21,905	0,001	21,906
29.Netherlands-Germany-Sri Lanka	2	95,184	1,875	97,059
30.Netherlands-India-Channel Island-Sri Lanka	1	23,758	1,118	24,876
31.Netherlands-Sri Lanka	3	27,045	34,233	61,278
32.Norway	1	53,186	0,000	53,196
33.Norway-Sri Lanka	1	0,250	0,250	0,500
34.Pakistan	2	0,000	2,500	2,500
35.Pakistan-Saudi Arabia	4	112,993	0,000	112,993
36.Singapore	6	1,497,500	54,218	1,551,718
37.Singapore-Indonesia	1	6,600	0,000	8,600
38.Singapore-Sri Lanka	2	312,953	46,200	359,153
39.Sri Lanka	20	1,982,813	9,033,820	11,016,633
40.Sweden	3	233,467	0,000	233,467
41.Sweden-Luxembourg-UK	1	10,858	0,000	10,858
42.Sweden-Netherlands-Sri Lanka	1	32,154	117,772	149,926

[211] International Labor Office. "Export Processing Zones in Sri Lanka: Economic Impact and Social Issues" by Janaki Aberywardena, Romayne de Alwis, Asoka Jayasena, Swarna Jayaweera and Thana Sanmugam. Centre for Women's Research, Sri Lanka. Working Paper #69.

43.Sweden-Sri Lanka	1	5,204	0,200	5,404
44.Switzerland	4	132,765	0,000	132,765
45.Switzerland-Hong Kong-Sri Lanka	1	145,171	214,829	360,000
46.Switzerland-Italy-Sri Lanka	1	48,252	0,166	48,418
47.Switzerland-Sri Lanka	3	29,456	31,084	60,540
48.Taiwan	4	92,635	0,000	92,635
49.Taiwan-Hong Kong	1	7,500	2,500	10,000
50.Taiwan-Sri Lanka	1	18,073	0,000	18,073
51.Thailand-Australia-Hong Kong	1	21,156	4,644	25,800
52.Thailand-Sri Lanka	1	25,600	38,400	64,000
53.UK	4	49,378	70,000	119,378
54.UK-Germany	1	4,117	0,000	4,117
55.UK-Hong Kong-Germany-Sri Lanka	1	0,189	9,811	10,000
56.UK-Norway-Sri Lanka	1	11,323	2,728	14,051
57.UK-Sri Lanka	1	138,666	93,907	232,573
58.United States	1	0,000	1,100	1,100
59.United States-Germany	1	10,641	4,000	14,641
60.United States-Hong Kong	1	76,024	0,000	76,024
61.United States-India	1	3,622	9,000	12,622
62.United States-Sri Lanka	3	93,143	12,650	105,793
63.USSR-Sri Lanka	1	2,354	0,000	2,354
Total	202	12,177,760	11,198,179	23,375,939

SOURCE: BOI 1992 primary data.

TABLE 3.10
EXPORT MARKETS[212]

	Value of Exports (Rs.M.)		Value as %	
	1948	**1996**	**1948**	**1996**
Industrial Countries		165,669		73.0
Europe		69,092		30.5
1. United Kingdom	301	21,477	32.2	9.5
2. Belgium	6	12,119	0.7	5.3
3. France	7	5,983	0.8	2.6
4. Germany	13	13,229	1.4	5.8
5. Holland	23	6,833	2.4	3.0
6. Italy	18	3,220	1.9	1.4
7. Others	-	6,231	-	2.7
Others		96,577	-	42.6
8. USA	165	77,148	17.7	34.0
9. Canada	40	2,516	4.3	1.1
10.Australia	85	2,360	9.0	1.0
11.New Zealand	22	381	2.3	0.2
12.Japan	1	14,172	0.1	6.2
Developing Countries		49,217		21.7
Asia		19,273		8.5

[212] Saman Kelegama (1999), Economic Development in Sri Lanka during the 50 years of Independence: What Went Wrong? Milestones to Independence (1999), A Publication of the People's Bank to Commemorate the Golden Jubilee of National Independence, People's Bank, Colombo Sri Lanka.

13.India	20	2,370	2.1	1.0
14.Pakistan	18	2,041	1.9	0.9
15.Bangladesh	-	637	-	0.3
16.Maldives	-	903	-	0.4
17.Malaysia	6	1,491	0.6	0.7
18.Indonesia	1	305	0.1	0.1
19.Thailand	-	1,168	-	0.5
20.Burma	-	-	-	-
21.Singapore	-	3,303	-	1.4
22.Hong Kong	-	3,504	-	1.5
23.China	-	635	-	0.3
24.Taiwan	-	440	-	0.2
25.Korea South	-	1,937	-	0.9
26.**Others**	-	539	-	0.2
Middle East	-	16,818	-	7.4
27.Iran	5	1,995	0.5	0.9
28.Iraq	-	-	0.9	
29.Jordan	-	2,016	-	0.9
30.Saudi Arabia	-	1,787	-	0.8
31.Syria	-	3,030	-	1.3
32.United Arab Emirates	-	3,082	-	1.4
33.Egypt	59	1,428	6.3	0.6
34.Libya	-	1,062	-	0.5
35.Tunis	4	-	0.4	-
36.Others	-	2,423	-	1.1
Developing Europe	-	7,695		3.4
37.**Turkey**	-	4,734		2.1
38.Others	-	2,961		1.3
Africa	-	2,064		0.9
39.South Africa	44	858	4.6	0.4
40.Others	-	1,206	-	0.5
Latin America		3,367		1.5
41.Argentina	9	259	1.0	0.1
42.Mexico	3	1,075	0.3	0.5
43.Others	-	2,033	-	0.9
Eastern Europe		7,151	-	3.2
44.C.I.S. (former USSR)	-	6,983	-	3.1
45.Eastern Europe		168	-	0.1
46.Others	85	4,764	9.0	0.1
Total	936	226,801	100.0	100.0

Export-oriented FDI in Sri Lanka is heavily concentrated in standard light consumer goods industries, such as garments, footwear, sporting goods, and the cutting and polishing of diamonds. In 1995, this product category accounted for almost 80

percent of total FDI-related exports, with garments alone accounting for 42 percent. The balance consisted of resource-based manufacturing, such as rubber goods, ceramics, coconut fiber products, and gem cutting (11 percent), and component production and assembly in electrical and electronic industries (9 percent).

Sri Lanka's foreign investment promotion campaign has placed a heavy emphasis on courting assembly producers in-high technology industries. Despite the country's intrinsic comparative advantage in these activities (in particular, its abundant supply of low-costs and trainable labor), these attempts have largely failed because of unfavorable developments in the investment climate. Foreign firms involved in these industries, unlike those in the light consumer goods industries, usually view country risk and other elements in the incentive structure from a long-term perspective. In particular, electronics assembly is a very mobile activity that is sensitive to production disruption. Two major U.S. electronics multinationals-Motorola and Harris Corporation- had, in fact, finalized plans to establish plants in Sri Lanka by the time the political climate began to deteriorate in the early 1980s.[213] Both multinationals subsequently shifted these projects to Malaysia. In the site selection process of the electronic multinationals, there is something akin to herd psychology, particularly if the first comer is a major player in the industry. A major firm's early decision to invest in a particular country, therefore, leads to a "big reward for the winner of a locational tournament". Considering this, the departure of Motorola and Harris Corporation was a major blow to Sri Lanka's attempt to establish a foothold in the electronics industry.

[213] Saman Kelegama (1999), Economic Development in Sri Lanka during the 50 years of Independence: What Went Wrong? Milestones to Independence (1999), A Publication of the People's Bank to Commemorate the Golden Jubilee of National Independence, People's Bank, Colombo Sri Lanka.

Textile and Garment Industry

Since the liberalization of Sri Lanka's economy, the textile and garment industry has emerged as the mainstay of the Sri Lankan industrial sector. The bulk of investment in EPZs went to the manufacturing sector – particularly the textile, garment, and leather industries. Kelegama and Foley find that the industry has shown remarkable growth (an average of 38 percent in nominal dollar terms between 1977 and 1995); by 198, garments accounted for the largest share of all commodity exports (27 percent). By 1992 it was the largest net foreign-exchange earner of the nation (US$0.4 billion), and in 1995 garment exports exceeded US$ 1.5 billion, nearly half of the value of all commodity exports.[214]

> "…textile and garment sector has been the major area of attraction for both foreign and local capital. However, for the former this degree of concentration is much higher than that of the latter. As table 7 indicates, more than 50 percent (33 out of 65) of the GCEC projects are in this sector. This supports the view that "getting round the quota" motive (the desire to utilize Sri Lanka's export quotas in foreign markets as a way out of stringent quota restrictions which the investors face in their home countries) was a major factor behind the recent upsurge in direct investment flows to Sri Lanka."[215]

It is important to note that although 1977 liberalization policies created an environment conducive to export-led industrialization, the garment industry played a minor role in the industrialization process. A key factor in the growth of the garment industry was the Multi Fibre Arrangement (MFA), a system of voluntary export restraints based on allocated quotas. The quota system constraints the supply of garments in well established garment-exporting countries, mainly to markets in the USA and the European Union (EU). As the quotas were filled in nearby manufacturing countries, Sri Lanka "in

[214] Saman Kelegama and Fritz Foley, "Policy Issues on Promoting Backward Linkages from the Garment Industry in Sri Lanka" Research Studies Industrialization Series No. 5. Institute of Policy Studies. Colombo, Sri Lanka. Pp. 1.
[215] Premachandra Athukorala. "The Impact of 1977 Policy Reforms on Domestic Industry" *Upanathi* Vol. 1 No: 1 January 1986.

fact stood to gain more than they have lost by the imposition of quota restrictions."[216] Basically "when the garment manufacturers from East Asian NICs had filled the export quotas of their own countries in the early 1980s, they pursued investment projects in Sri Lanka as a means of 'quota hopping'."[217]

Vidanapathirana states that the main factors that contributed to the rapid growth of the apparel industry were: establishment of new firms with foreign capital / market collaborations and expansion of existing manufacturing units by the import of new and additional machinery and equipment. The number of firms exporting garments rose from 16 to 34 during the 1973-76 period and the output of the textile and apparel sector recorded the highest export orientation, with exports accounting for over 85 percent of total production in that category. The author further reports that this sector's share has increased to nearly 2/3 of total manufacturing exports by 1996. A total of 845 garment factories were in operation by the end of 1996, of which 436 received the BOI incentives.[218]

[216] Sri Lanka: State of the Economy 2000. Institute of Policy Studies. Colombo, Sri Lanka. Pp. 43.
[217] Saman Kelegama and Fritz Foley, "Policy Issues on Promoting Backward Linkages from the Garment Industry in Sri Lanka" Research Studies Industrialization Series No. 5. Institute of Policy Studies. Colombo, Sri Lanka. Pp. 3.
[218] Upananda Vidanapathirana "Industrial Development Since Independence: Policies and Challenges" in "Fifty Years of Sri Lanka's Independence: A Socio Economic Review" by A.D.V. de S. Indraratna (Ed.) Sri Lanka Institute of Social and Economic Studies (SLISES) Colombo, Sri Lanka 1998. Pg. 160-161.

Chapter 4
Environmental Impact of Trade Liberalization

The economic liberalization process in the post-1977 period of Sri Lanka has brought about changes in production and consumption patterns, which have environmental implications. During this period, Sri Lanka has shown a slow but steady shift from its agricultural base to industry. The share of agriculture in the GDP, which was around 28 percent by 1980, declined to 20 percent in 2000. On the other hand, the share of manufacturing in the GDP rose from 15 percent in the 1980s to about 20 percent in the late 1990s.[219]

At first, the immediate problems of industrial pollution may not appear to be serious due to the low levels of industrialization in the country. However, in localities where industries are present, harm to the environment is sometimes quite serious and warrants urgent attention. The link between trade liberalization and environment in terms of resource depletion of particular industries is best understood on two counts: (1) on the basis of the product and its characteristics and; (2) on the basis of species or habitat that is threatened by the traded product. This helps to identify whether damage is at the source (source of raw material) or if it is at the sink (point of waste disposal). Raw and semi-processed products typically generate environmental damage at the point of extraction and are localized to the habitat (see table 4.1). On the other hand, environmental problems related to final products are much more difficult to identify and are often problems of sink-based pollution or waste. International evidence suggests that source-based damage tends to outweigh sink-based damage. In the latter instance, damage is more difficult to spot given that a final product is consumed over a wide geographic area.

[219] Department of Census and Statistics, 1998.

TABLE 4.1
POTENTIAL ENVIRONMENTAL IMPACT OF EXPORT-RELATED INDUSTRIES: 1996

Industry	Product Stage	Environmental Impact	Affected Domain	
			Source (H/S)	Sink (H/S)
Tea	Raw Processing Final Good	Plantations – land degradation		H
Rubber	Raw Processing Final Good	Plantations-land degradation waste pollutes water/soil	H	 H/S
Coconut	Raw Processing	 waste pollutes water/soil		 H/S
Other export	Raw Processing Final Good	plantations-land degradation	H	
Fisheries Products	Raw Processing Final Good	farms- watevr pollution waste pollutes water/soil	H/S	 H/S
Gems and Jewelry	Raw Processing Final Good	mining- land degradation	H/S	
Textiles and Garments	Raw Processing Final Good	chemicals and scrap material pollutes water/land		H/S
Light Manufactures	Raw Processing Final Good	chemicals, waste pollutes water/land		 H/S H/S
Petroleum Products	Raw Processing Final Good	 chemicals pollute water/land/air consumption pollutes air		 H/S S

Source: Institute of Policy Studies, Database.
Note: Habitat and S = Species, Source = where raw material originates, Sink = where Waste is disposed.

Industrial development that has taken place so far in the country has been mainly of small and medium scales. The urban sector is dominated by small and medium-sized manufacturing industries, including tanneries, textiles, garments, food processing, paints, varnishes, cosmetics and other chemical products, glass, asbestos products, etc. Industries in the rural area are small, cottage-scale units, using traditional technology. They include foundries, handlooms, handicrafts, bricks and tiles, and agro-based

industries like rubber processing, rice milling, coir and coconut processing, and essential oil extraction. Cement, paper, steel, petroleum refining, sugar, ceramics, and textiles represent large manufacturing industries. They are few in number and are for the most part established outside the main urban areas. Most of the significant export-related industries to emerge in post-reform Sri Lanka such as garments, cause relatively marginal environmental damage as they are low-value-added industries, with less developed back ward linkages (textile, plastic manufacturing, etc.).

In a survey on industrial pollution carried out for the Central Environmental Authority (CEA) in 1989, of the 7610 industries surveyed, 4606 were categorized as polluters and 3014 as non-polluters. Of the polluting industries, 291 had high pollution potential; 1900, a medium pollution potential; and 2415, a low pollution potential. As to the actual pollution, there were 115 industries in the manufacturing sector causing significant levels of pollution, and the research indicates that the number was around 200. It was estimated that these industries are responsible for nearly 70 percent of all the pollution of industrial origin.[220]

With the expansion of the manufacturing sector, damage to the environment, particularly in the urban areas, has increased significantly. The number of applications received by the CEA annually, from 1990 for environmental clearance to set up polluting industries in the country has shown a significant increase. [221] The number of applications peaked to 834 in 1995 before dropping to 397 in 1996. By the end of 1997, the CEA had granted Environmental Protection Licenses (EPL) to 931 medium-polluting and 590

[220] Sri Lanka National Report to the United Nations Conference on Environment and Development (1991) Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka
[221] Department of Census and Statistics, 1998.

high-polluting industries.[222] This does not, however, cover the industries, that are set up under the BOI. Types of pollution generated by various industrial sectors have been estimated and are shown in table 4.1.

TABLE 4.2
PROFILE OF INDUSTRIAL SECTOR

Item	Textiles	Desiccated Coconut	Rubber Processing	Food & Beverage	Tanning	Metal Finishing	Paints & Chemicals
No. of medium and High Polluting Establishments	41	53	229	47	15	76	33
Total Waste Water Volume M^3/Day	7,100	1,200	4,840	4,111	1,614	6,692	928
BOD kg/Day	4,970	4,200	9,670	6,166	3,229		
COD kg/Day	11,360	7,200	29,040	12,333	8,070		
Total Toxic Metals* Kg/Day	na	na	Na	na	161	669	92.8
Location	Colombo & Gampaha Districts	In rural areas within the coconut triangle	South Western parts of the country	Greater Colombo and Kalutara	Colombo and Gampaha Districts	Widely distributed among 4 sub areas of Colombo	50% in Ratmalana the rest mainly in Ekala and North Colombo

*Based on assumed average concentration of 100 mg/l
na: Not available
Source: Department of Census and Statistics, Statistical Compendium on Environment Statistics, Sri Lanka: 1998

Although there is much discussion regarding environmental conditions in Sri Lanka, integration of environmental concerns into industrial policy is currently limited. It's been said that the only one promising exception is the Government of Sri Lanka (GOSL's) recent adoption of a policy for siting high-polluting industries on industrial estates.

Industrial siting policy – In 1994 the Cabinet adopted a policy requiring that all new industries that are classified as high polluters (as defined by CEA) be located on

[222] Department of Census and Statistics, 1998.

industrial estates. In addition, all new industries classified by CEA as "high-polluting" must be located on industrial estates if they generate large quantities of solid and liquid waste. The Ministry of Industrial Development (M/ID) is implementing this policy and recently initiated a program to foster development of industrial estates throughout the country with the assistance of the USAID mission's Natural Resources and Environmental Policy Project (NAREPP). M/ID has assessed a number of possible sites and is developing industrial estate citing and development policies and practices.[223]

Industries Under BOI and Environmental Norms

BOI in Sri Lanka has established three EPZs: Katunayake, Biyagama and Koggala. As part of infrastructure facilities in these zones, potable water conforming to World Health Organization (WHO) standards and a common wastewater treatment plant where the effluents from individual factories set up by the developers are treated to meet the specified standards are available. Provisions have also been made for the removal of solid wastes arising from the operations at the factories. Effective 1 July 1990, all BOI enterprises should obtain EPLs from the BOI prior to commencing commercial operations.

Textile and Garment Industry: Environmental Concerns

"The apparel industry, the largest of Sri Lanka's industries, registered 8% growth in output in 1999, despite a further decline in export prices by 9% in the face of growing competition. It contributed 63% to industrial sector growth in 1999."[224] Having said that, ILO has noted that the textile and clothing industry is a high-polluting industry and that the processes involved pollute air. Wet processing mills have to deal with large

[223] Information gathered from [223] United States – Asia Environmental Partnership (US-AEP) website.
[224] M.S.N. Perera. "Safety and Risk Management in Process Industries" Presentation at Regional and International Programmes, 2000. Published by Industrial Technology Institute, 2001.

amounts of wastewater contaminated with dyes and chemicals, which have to be treated before being discharged into the environment. Although many assume that the textile and garment industry's contribution to overall industrial pollution in Sri Lanka is lower than some of the other industries, it has been noted that out of the 300 high-polluting industries in Sri Lanka, nearly 60% are textile-and-garment-washing plants which cause mainly water pollution.[225] It has been noted in many documents that due to the high growth in the textile manufacturing sector, which caters to an export-oriented market, it has a high potential for pollution.[226]

In the case of Sri Lanka, although there is a an environmental authority that has enacted laws relating to the discharge of polluted wastewater into the environment, the textile industry has continuously ignored the regulations, and in some cases the CEA has obtained court orders to shut down textile factories.[227] "In the textile and garment trade, major companies in Europe and North America have suffered damage to their brand reputation through exposure of unacceptable practices in their supply chains. As a result, major buyers are now implementing a range of measures to ensure that their suppliers meet increasingly rigorous social and environmental standards."[228] For example, the EU has set out guidelines on the use of resources and chemicals in the textile and clothing industry.

In a staff appraisal completed by the World Bank in 1995, "Colombo Environmental Improvement Project", it is clearly stated that in the Ratmalana and

[225] National Views on Air Pollution, www.rrcap.unep.org
[226] Sri Lanka National Report to the United Nations Conference on Environment and Development, 1991. Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka.
[227] www.ilo.org/public/english/dialogue/sector/papers/tclabor/tclabor5.htm
[228] "Linking Export Success with Social and Environmental Performance: Sustainable Productivity Improvements for Export Success (SPIES)" in Commonwealth Scientist. Issue No. 9. September 2000.

Ekala/Ja-Ela area, which is a large area of mixed land use within the Colombo Municipal Authority (CMA), garment manufacturing and textile processing dominates. And about 50 percent of the total wastewater generated in the area is from seven large-scale and 13 smaller-scale factories which include: dyeing of cloth and yarn, finishing operations for fabric / clothing, industrial washing plants and manufacture of footwear.[229]

TABLE 4.3: INDUSTRIAL EFFLUENT GENERATION[230] (in mg/l)

	BOD	**COD**	**Total Suspended Solids**	**Total Dissolved Solids**	**Oils and Greases**	**Sulfides and Sulfates**	**Heavy Metals**
Textiles	High 574	High 1270	High 120	High 2050	Some high 23	Some high 200	Some high expected
Metals	Low 24	High 40	Moderate 3575	High 10	Low 25	Low 25	Some high Expected
Chemicals	Low 199	Low 562	High 100	High 1725	Low 2	Low 25	NA*
Food/Bev	High 441	High 665	High 100	Moderate 700	Moderate 10	Low 30	NA
Maintenance	Low 6	High 1161	High 520	High 2075	Low 1000	Low 70	NA
Printing	High 300	High 672	Low 75	Moderate 210	Low 15	Low 25	High expected NA
Plastics/Other	Low 15	Low 80	Low 40	High 1500	Low 4	High 600	NA

- Not Available

It is fair to conclude that as the FDIs have increased in Sri Lanka, particularly in the garment / textile-manufacturing sector, the environmental conditions in and around the EPZs deteriorated. I will further discuss the conditions of two of the largest EPZs in the country: Katunayake EPZ, which is dominated by wastes from garment

[229] The World Bank. "Sri Lanka: Colombo Environmental Improvement Project" Report No. 12878-CE. June 2, 1995.
[230] World Bank Staff Appraisal Report: Sri Lanka Colombo Environmental Improvement Project. June 1995.

manufacturers and Biyagama EPZ, which has a wider range of industries and at the same time has a high concentration of garment manufacturing factories.

TABLE 4.4: COMPOSITION OF SOLID WASTES ARISING AT KATUNAYAKE EPZ[231]

Component	Weight per day (tones)	% age
Fabric off-cuta	12.0	60
Rubber and rubber-based items (synthetics)	3.0	15
Paper and cardboard	1.6	8
Putrescible waste (canteen wastes, etc.)	1.4	7
TOTAL	**18**	**100**

Source: Board of Investment of the Government of Sri Lanka.

TABLE 4.5: COMPOSITION OF SOLID WASTES ARISING AT BIYAGAMA EPZ[232]

Component	Weight per day (tones)	% age
Waste rubber	1.5	13.8
Polythene bags	<0.1	<0.1
Paper/Cardboard	<0.1	2.8
Wood	<0.1	0.2
Food Wastes	1.5	13.5
Pile clothing	5.5	52.3
Sponge/Nylon/Plastic	1.1	10.0
Leather off-cuts	<0.1	0.1
Cotton/Polyster	0.2	2.0
Cotton wastes	0.1	0.7
Cashew husk	<0.1	4.3
Tobacco stump	0.5	0.2
Ink	<0.1	0.2
TOTAL	**10.5**	**100**

Source: Derived from data supplied by the Board of Investment of the Government of Sri Lanka.

As shown in table 4.4, much of the waste generated at Katunayake emanates from garment factories and consists of cloth remnants. A report by Environmental Resource Management suggests that the collection of waste is accomplished in a very primitive manner by bullock carts, and the disposal site consists of an open dump. The report

[231] Ministry of Home Affairs and Provincial Council; and the Western Provincial Council. Government of Sri Lanka. "Environmental Assessment of a Landfill Site at Galudupita Marsh, Welisara" April 1994. Environmental Resource Management, London, UK. Pp. 20.
[232] Ibid.

further explains that the 'primitive patch' type incineration units were not equipped with emission control technology.

> "…Because of the lack of capacity of the incineration units compared with the amount of waste produced, most of the material dumped in an area adjacent to the units. This has in turn been set alight and fires are burning right across the area, enveloping the entire area in pails of acrid smoke. From discussions with some of the personnel at the site, it appears extremely likely that the fires have spread underground and are burning on the materials that have been dumped there since Katunayake first started operating as an export processing zone. If this is the case, the fires could burn for some considerable time, causing both a pollution and health and safety hazard."[233]

The report comments that the factories in the Katunayake pay a monthly fee of Rs.12,500.00 to a local contractor to haul away the waste. Later the contractors charge scavengers Rs.15.00 per 4 hours to scavenge for small pieces of cloth, which they make into patchwork for garments and other items. What is evident is that for the owners of these factories, once the waste is hauled out of the gates of the EPZ's, the waste problem ultimately becomes the problem of the garbage collector.

In the case of the Biyagama EPZ (table 4.5), while there are considerable amounts of material remnants from the garment factories, the waste produced is somewhat different in composition from that produced in Katunayake. There are sizable amounts of other wastes and wastes, is strewn over a much larger area without fires.[234] And it is noted that there are fewer scavengers in the extremely unsightly area.

[233] Ministry of Home Affairs and Provincial Council; and the Western Provincial Council. Government of Sri Lanka. "Environmental Assessment of a Landfill Site at Galudupita Marsh, Welisara" April 1994. Environmental Resource Management, London, UK. Pp. 28.
[234] Ibid. Pp. 29.

Do Firms Locate to Countries Like Sri Lanka Due to Lax Environmental Regulations?

There is no concrete evidence, which suggests that textile/garment manufacturing firms locate to Sri Lanka because of lax environmental regulations. To begin with, the environmental regulations of Sri Lanka do not suggest that they are less strict than those of other nations or that the government promotes dirty industries. As noted earlier in of this chapter, when it comes to protecting the environment of the country, there are strict regulations in place and the environmental standards are set according to those of the WHO rules and regulations. But one must keep in mind that the pressures of delivering high economic growth rates and securing FDI, many in some instances are tempted themselves to accept environmentally risky activities. When assistance in needed in environmental affairs, developing countries often lack the resources and technical expertise in inspection, monitoring, enforcement and prosecution needed to implement appropriate environmental regulations.[235]

Some studies suggest that, especially when it comes to large-scale projects, some host countries are willing to lower environmental standards as a method of attracting FDI, or are reluctant to raise them[236] and that the number of other factors is more important for FDI locational decisions.

Jagdish Bhagwati, suggests that corporations do not rush to pollute rivers and air simply because they are afraid of gaining a bad reputation. Bhagwati further argues that it is economically productive for the corporations to choose environmentally friendly

[235] World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 290.
[236] WWF, 1999 & Zarsky, 1997 in World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 307.

technology; therefore, multinationals do not seek profits by searching for most likely locations to exploit workers and nations.[237]

It is further noted that,

> "Environmental protection is increasingly being reinforced by sound business considerations. Investors always seek to reduce their credit risk, which is now increasingly a function of the corporate capacity to manage environmental risk. In addition, firms are finding that environmental protection and competitiveness are not mutually exclusive. It is possible to be eco-efficient that is to reduce both negative environmental impact and costs of production simultaneously. For example, between 1975 and 1996, 3M reduced its waste related to the environment by 1.4 billion pounds and saved over $750 million (Schmidheiny et al., 1997). Similarly, between 1992 and 1998, SC Johnson reduced its waste output by 420 million pounds and, by so doing, reduced its costs by $125 million (WBCSD, 1999)."[238]

In support of the theory that multinationals do not seek pollution havens, Eskeland and Harrison state that there is no evidence that investors in developing countries flee from environmental costs at home, and evidence indicates that foreign-owned plants in developing countries are less polluting than comparable plants in investing countries.[239] In addition, in large natural-resource projects, for instance, environmental impact assessment studies have become common standard procedure, often financed by the corporations themselves. Moreover, FDI insurance agencies of home countries sometimes require environmental assessment studies before they extend insurance, and Multilateral Investment Guarantee Agency (MIGA) requires, before it issues a guarantee, that an environmental assessment be undertaken.[240]

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[237] Jagdish Bhagwati. "Coping with Antiglobalization: A Trilogy of Discontents" Foreign Affairs. Vol. 81. No.1. Pg.4.
[238] World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 290.
[239] Gunnar S. Eskeland and Ann E. Harrison. "Moving to Greener Pastures? Multinationals and the Pollution Haven Hypothesis." January 1997.
[240] World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 307.

Much evidence suggests that MNCs are responsible in protecting the environments of the host countries. In most cases corporations themselves are familiar with the need for environmental assessment in project planning, design and implementation. Much of the evidence in Sri Lanka draws a different conclusion. The reason for this is that in most cases, the host government is relied on as an effective governing body to protect their environment rather than being an advertising agent for acquiring more FDIs to the country. In support, it has been noted that "host country governments once relied heavily on screening as a mechanism to review the contribution of FDI to their economies. This mechanism, however, is no longer as effective as it once was. In general, governments are moving away from screening and toward providing incentives for entry".[241]

Although it is suggested that MNCs do not flock to developing countries because of lax environmental regulations and other benefits that they might not have in their home countries. I am inclined not to completely agree with this hypothesis in the case of Sri Lanka. The reasons for this are, through the literature relating to environmental problems in Sri Lanka, it is suggested that the environmental conditions of the country are worsening and that much of the problem concentrated in the areas where increased industrialization has taken place. As has been stated throughout this and previous chapters, much of the industrialization have been supported by increased FDIs in the manufacturing sector, particularly in the textile/garment sector. And the fundamental profit-seeking motives of private firms have not decreased due to the public interest in protecting the environment. Instead of screening FDIs, most developing countries are

[241] World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 307.

offering incentives for investments. And, in most cases, relaxation of environmental regulations tends to be one of the incentives.

> "Colombo and its hinterland, spanning the districts Colombo and Gampaha, is the most developed region in the country, accounting for nearly 80 percent of he industrialization. In a survey on industrial pollution carried out for the Central Environmental Authority (CEA) in 1989, of the 7610 industries surveyed, 4606 were categorized as polluting and 3014 as non-polluting. Of the polluting industries, 291 had a high pollution potential; 1900, a medium pollution potential; and 2415, a low pollution potential. Hence, of the 7610 industries surveyed, only 6 percent had a high pollution potential. As to actual pollution potential, there were 115 industries in the manufacturing sector causing significant levels of pollution, and information gathered since then indicates that the number is around 200. It was estimated that these industries are responsible for nearly 70 percent of all the pollution of industrial origin." [242]

Apart from the evidence introduced in the above citation, the surrounding areas of Colombo, Gampaha and other industrial areas do not seem to be tightly regulated. For example, one can drive by the factories in the areas and clearly see their waste piled outside of the gates or the nearby canals and rivers with black tar-like substance covering the waters. The run down environmentally degraded areas of the country are clear examples of increased industrialization in the country. Whether small or large, the investors tend to take advantage of a lack of stricter controls on waste discharge. In the National Report to the United Nations Conference on Environment and Development, the Ministry of Environment and Parliamentary Affairs reported that wastes from polluting industries undergo little or no treatment before discharge and in the existing waste-treatment plants, operation and maintenance is poor, and some are grossly over-designed.

When it comes to sound environmental obligations to the host developing country by the TNCs, there are wide ranges of approaches to the environmental concerns. One is the decentralized strategy; in which some parent firms leave all environmental issues to

[242] Sri Lanka National Report to the United Nations Conference on Environment and Development, 1991. Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka. Pg. 85.

be addressed by their foreign affiliates and the affiliates have the commitment to the environmental laws defined by national law. "If the host country does not have strict environmental legislation in place, affiliates can either choose the least-cost strategy or, alternatively, behave pro-actively in a more environmentally responsible manner. Where legislation is more stringent, they comply accordingly. Affiliates are aware that they have a legal responsibility for environmental control, and pursue it within the framework of the laws and regulations of the host country."[243]

The second strategy is to centralize environmental decisions for a TNC system as a whole. This would guarantee similar environmental control in all countries and would also ensure that the activities of an affiliate in one host country do not have an adverse effect on the reputation of other affiliates of the parent firm.

In reviewing the above two strategies noted above, what I have been able to find is that factories in the industrial zones in Sri Lanka tend to follow the first strategy, where a local contractor is given the responsibility to haul away the waste at a nominal fee. In both the Katunayake and Biyagama industrial zones, where much of the industrialization is concentrated, a study by the Environmental Resource Management finds that local contractors are paid a monthly fee to dispose of the waste produced in the factories. Although the second strategy to centralize environmental decisions is appealing, I believe that for countries like Sri Lanka it is not cost-effective for those who are interested in investing in the country. To put it simply, why would an investor want to invest in environmentally friendly waste-disposal methods, when a local contractor can take over the responsibility at a fraction of the cost?

[243] World Development Report, 1999. Foreign Direct Investment and the Challenge of Development. "Protecting the Environment" Pp. 292.

Background of General Environmental Conditions of Sri Lanka

Sri Lanka was a party to the Rio declaration, which came out of the deliberations of the Earth Summit held in Rio de Janeiro, Brazil, in 1992. Since then, it is now realized that development must go hand in hand with conservation in order to achieve development that is both socially and environmentally sustainable. It has become more important to ensure that no development takes place that will destroy the basis of that development and endanger the quality and continuity of other parts of the environment.[244]

US-AEP Country Assessment report states that "…it is generally conceded that coastal and inland water pollution, vehicular air pollution, and solid waste conditions have deteriorated throughout most of Sri Lanka. Neither the government nor the research and academic community are carrying out a systematic approach to identify and monitor environmental trends. The U.S. Agency for Environmental Protection (EPA) supported a comprehensive baseline study of environmental conditions for the United States Agency for International Development (USAID) and the GOSL in 1991, but that effort has not been updated. Water quality analyses are conducted on selected water bodies, but these studies have not yielded sufficient data to characterize discernible trends in water quality conditions."[245]

Much of the industry is heavily concentrated in greater Colombo (Colombo and Gampaha districts), which includes more than 40 percent of the country's private sector and more than 60 percent of the public sector establishments;[246] therefore, preliminary investigation of the area requires further discussion in this section. In general, this

[244] K.D. Arulpragasam "The Environment" in "Fifty Years of Sri Lanka's Independence: A Socio Economic Review" by A.D.V. de S. Indraratna (Ed.) Sri Lanka Institute of Social and Economic Studies (SLISES) Colombo, Sri Lanka 1998. Pg. 526.
[245] United States – Asia Environmental Partnership (US-AEP) website.
[246] Ibid.

section is based primarily on materials from one report.[247] Therefore, the assumption should be that material is based on the initial source unless stated otherwise.

According to the Infrastructure Planning in Sri Lanka, 58 percent of Sri Lanka's urban population is centered in the CMA. Environmental Management Strategy for the Colombo Urban Area done for the Metropolitan Environmental Improvement Program (MEIP). The MEIP is a United Nations Development Program (UNDP) funded and World Bank executed program with the objective to incorporate environmental perspectives in the developing strategies of the urban/industrial sector in Asian countries. The MEIP is currently implemented in 5 Asian cities. The Colombo Environmental Improvement Program (CEIP) is carrying out some of the projects suggested by the MEIP, which are described in the relevant subsections. The MEIP itself is still involved in researching and studying the issues involved and has not yet moved toward significantly implementing the program of its own. Air pollution, industrial pollution, and surface water pollution are at the top of the MEIP agenda.

Air Pollution

Apart from localities where a few industries such as cement, petroleum refinery, and quarries are located, air pollution from industrial emission is relatively small. However, an increase in the volume of transportation of goods, as a result of expansion in trade activity after the economic liberalization, can also cause environmental damage by air pollution. The consumption of large quantities of fuel in transportation-especially fossil fuels –is responsible for more than one-eighth of world oil consumption. Increased

[247] Amal Sanderatne "The Urban Sector Preliminary Investigation in Sri Lanka" Prepared for the Intermediated Technology Development Group. July 1998.

volumes of trade industrial activities can, as a result, contribute substantially to energy related environmental damage such as carbon dioxide emissions and air pollution.

The transport sector in Sri Lanka accounts for nearly 15 per cent of total energy consumption in the country. Of total fuel consumption, nearly 95 per cent of diesel and 100 per cent of petrol is consumed by the transport sector. Import tariff liberalization also resulted in a significant increase in the volume of automobile vehicles in the country. Between 1986 and 1996 alone, the number of registered vehicles increased from 320,000 to more than 860,000. Of these, over 50 per cent are registered in the CMA and an additional 10 per cent commute daily by cars to the city from the outlying areas. The concentration of rapidly increasing numbers of vehicles undoubtedly had an adverse affect on air pollution. In fact, there is some evidence to suggest that the transport sector accounts for the largest share of emission of petroleum combustion in the city of Colombo.

The main emission sources are from traffic especially from buses and motor vehicles. In 1994, at the time of the MEIP report, emissions from stationary sources such as industries and thermal power plants were of minor concern. Air pollution caused by industrial emissions has in general been limited to the immediate surroundings of industries. Some complaints have been registered regarding the emission solvents (especially from textile mills) and of dust (mainly from sawmills, paddy mills, and charcoal makers). A significant increase in emission of air pollutants from industries is generally not expected.

A number of air quality monitoring programs have been executed as a result of growing emission air pollution concerns. The National Building Research Organization

(NBRO) monitoring program has two phases. Phase 1 of the program involved monitoring the quality of 52 different locations, of which 8 are indicated an unsatisfactory air quality; many of these locations were found to be in densely populated areas with narrow and frequently congested streets. Phase 2 of the program, the area of low air quality, will be monitored further in cooperation with the CEA, with the results used to develop a database for air quality and for the formulation of a national air quality criterion.

The Ceylon Institute for Scientific and Industrial Research (CISIR) has performed a survey of a number of major traffic junctions in Colombo, where they studied the correlation between different levels of concentrations of pollutants and traffic intensity. The CEA Monitoring Programs are monitoring air quality in 6 different locations.

Industrial Pollution

Mubarak notes that in the Western province approximately 46 percent of the industries classified as high-polluting industries have installed some type of pollution control devices and that industries that were established after 1990 routinely install pollution control systems to treat their effluent before discharge. The author notes that the problem lies with those industries, that came into operation before environmental laws were enacted.[248]. In order not to repeat the same information, the two main components of industrial pollution; air and water pollution from industries are discussed separately.

[248] Azeez M. Mubarak "Tannery Industries in Sri Lanka: Review of Status" Presentations at Regional and International Programmes – 1998. Published by Industrial Technology Institute, 1999. Colombo, Sri Lanka.

Water Pollution from Industries

Pollution of the water bodies and uncontrolled dumping of solid waste are considered some of the major causes of pollution in the CMA. It has been noted that water quality is the most serious pollution issue in Sri Lanka. US-AEP indicates that reliable quality data are limited. A detailed study of the Kelani Ganga, the country's second largest river and the major source of potable water for greater Colombo, indicated that major portions are seriously contaminated with oxygen-consuming pollutants and to a lesser extent with heavy metals. The greatest point source is municipal sewage.

Industrial wastewater management represents a major component of the wastewater and sanitation sector in greater Colombo. The amount of wastewater sent to septic tanks is only a small fraction of the total water usage. In most industries, just the toilets are connected to septic tanks; Hand-washing water and other wastewater is usually discharged to roadside drains.

The lakes and canals of Colombo have become unsightly garbage dumps and a source of noxious smells, repositories of human feces and the effluents of some industries situated on their banks. The surface water pollution is chemical, physical and bacteriological.

Coconut processing industries along the St. Sabastian canal, metal and textile industries along Baseline road and food processing factories in Narahenpita are the major polluters of the canal waters. Food processing factories in Slave Island pollute Beira Lake.

In addition it has been reported that there are more than 5,000 outlets, many of which contain sewage and wastewater discharging into the Beira Lake. In Dehiwala

Mount Lavinia area, textile, asbestos and rubber-based industries are reported to pollute the Bolgoda Lake. To the north of Colombo, industries have been located near the canals or river possibly so that they can serve as a convenient dumping ground for effluents. The only water body relatively free of pollution is the Diyawanna Oya, although the buildup of industries in the Kotte-Rajagiriya area is already endangering its health.

Although comprehensive data on the extent of water pollution in Sri Lanka are scarce, there are a number of reports on selected water bodies.[249] Data on total effluent discharge show that the quantity of industrial wastes discharged is minor when compared to the total domestic discharge.[250] In the Greater Colombo area, it is estimated that major polluting industry contributes less than 5 percent of total pollution. This rises to 15 percent in terms of COD volume (Environmental Resource Management, 1994). However, water pollution appears to be the predominant form of environmental damage from industry in Sri Lanka. The liquid waste from many polluting industries undergoes little or no treatment before discharge. There are a few exceptions however, notably a few medium and large operations, which could afford treatment, and the two, export-processing zones at Katunayake and Biyagama where wastewater is centrally treated.

The Colombo and Gampaha districts are the most developed regions in the country, accounting for nearly 80 per cent of the industrialization. Two major industrial areas are the Ratmalana- Moratuwa area located south of Colombo, and the Ekala-Jaela area located in the Gampaha district, about 20 km north of Colombo. Other industrial areas such as Biyagama, Homagama, Oruwala, and Kalutara are relatively small.[251]

[249] Institute of Policy Studies, 1998.
[250] World Bank, 1995.
[251] Department of Census and Statistics, 1998.

According to a recent study, there are more than 225 industries located within the boundaries of the Ratmalana-Moratuwa area. The textile and garment trade, pharmaceutical (formulation and packaging), and asbestos roofing sheet manufacture constitute the major proportion of the industries. It has been noted that Ratmalana is an excellent example of industrial pollution. It is a rundown and environmentally degraded urban township. Large industries situated nearby have been responsible for the deterioration of the rural environment. The wastes from these industries, mainly liquid, have contaminated water bodies, paddy fields and other arable land.[252]

There are also a small number of metal finishing industries, timber processing facilities, and lead storage-battery manufacturing units within this zone. Two major transportation-related maintenance facilities are located in this area. These service facilities have large areas, which are significantly contaminated with liquid wastes including fuel, lubricating oils, brake oils, hydraulic oils, transmission fluids, and battery hydraulic oils, transmission fluids, and battery acid. There is no treatment for most of the industrial wastes produced in this area, and most of them are discharged to the surface drainage system. Private contractors generally collect industrial solid wastes, but the final disposal site of these wastes is not known.

The wastes from these industries, mainly liquid, have contaminated considerably the water bodies in the area. The aquatic life of the Lunawa lagoon has been seriously affected due to the continued discharge of wastewater into its tributaries. The lagoon, which supported a significant fisheries industry a decade age, is totally devoid of aquatic

[252] Sri Lanka National Report to the United Nations Conference on Environment and Development (1991) Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka

life today. There has been a very significant setting of industrial waste sludge, and the Lunawa lagoon is reported to the covered by 2.5-3.0 m of sludge.

Copper chrome arsenate from timber processing, lead from storage-battery production, zinc and other heavy metals from galvanizing and other metal finishing industries are being generated in these areas and may pose a threat to the soil condition in the area. Table 4.6 presents average BOD and CODS concentrations, and heavy metal sources for untreated Sri Lankan industrial effluent.

TABLE 4.6
TYPICAL INPUT WASTEWATER IN SRI LANKA

INDUSTRY	HEAVY METALS	BOD (mg per litre)	COD (mg per litre)
Textile Processing	-	700	1600
Tannery	Chromium	2000	5000
Rubber (Crepe)	-	2000	6000
Concentrated Latex	-	-	25000
Metal Preparation and Finishing	Cadmium Chromium Nickel	-	-
Chemical Formulation and Repackaging including Agro-chemicals and Paints	Lead Zinc Titanium		

Source: Environmental Resources Management, 1994.

The Ekala-Jaela industrial area is the major industrial estate in the Gampha district. A total of about 140 industries are located within this area, of which about 50 per cent are of a high-polluting nature. The major wastes-generating industries have been identified as textile dyeing and bleaching, food processing, asbestos, aluminum extrusion products, leather tanning, metal finishing, agro–produce and mineral products. A majority of them discharge untreated wastes into the outside drain. Some of the potential toxic metal wastes generated in this area are chromium waste from tanneries and heavy metal wastes from alkaline battery manufacturing facilities. These hazardous wastes are either

dumped within the site or transported outside for reuse or dumped in marshy areas by contractors.

At least 40.000 tonnes of hazardous wastes, both liquid and solid, are being generated in the country, according to a recent study by the Department of Census and Statistics (1998). This comprises at least 10,000 tons of inorganic wastes; 45,000 tons of organic wastes and 14,000 tonnes of oil waste from motor vehicles. This amount could rise to 90,000 tonnes with a moderate rate of industrial growth of 7.5 percent per year or 240,000 tonnes per annum at 15 percent growth by the year 2010. Hazardous wastes generating industries are listed in table 5.7. At present, most of the hazardous wastes are either dumped within the site or collected by private contractors, but the final destination of the wastes is not known.

TABLE 4.7 **POTENTIAL HAZARDOUS WASTE GENERATING SECTORS**
Petroleum and petroleum products
Transportation sector
Ports
Textile, Tanning
Pesticides & Fertilizers
Synthetics, Rubber & Plastics
Paints, Varnish, dyes, Cosmetics,
Others
Machinery and Equipment
Minerals
Asbestos
Batteries
Electrical and electronics
Wood preserving
Metal Finishing

Legislation

Environmental concerns and industrial pollution are a relatively new phenomenon to Sri Lanka. The CEA was established in 1981, subsequent to the enactment of the National Environmental Act No. 47. In 1980, at its inception, the authority functioned mainly as a coordinating and policy-making body without regulatory powers to control industrial pollution. Subsequently, an Amendment was enacted to the NEA in 1988, which gave wider powers to the authority.[253]

"Sri Lanka's Constitution mandates the individual duty to 'protect nature and conserve its riches'; by an array of environmental laws establishing a strong framework for natural resources and environmental management. The legal framework has, however, required at the central level strong and effective administrative skills and enforcement resources, which have broken down in recent years. Disenchantment with this centralized approach has contributed to liberalization policies. Where resources, whether water, forest, or other elements are under pressure, much emphasis has been placed on policy declarations, plans, and attractive incentives that may foster environmental protection."[254]

The NEA No. 47 of 1998 is the first comprehensive legislation on environment in Sri Lanka, to control and regulate the discharge of toxic contaminants into the environment. The NEA made the CEA as a policy making and coordinating body. This Act was amended later in 1998, amendments Act No 56, to transform the CEA into an enforcement and implementing agency. The Act stipulates regulatory controls in the form

[253] " Implementation of Industrial Pollution Control Programs in SriLanka" by Ramani Ellepola. Pg. 547.
[254] United States – Asia Environmental Partnership (US-AEP) website.

of an EPL system for discharge of pollutants for existing industries or prior approval for the existence of prescribed industrial ventures.

More recently, new regulations have been developed covering such areas as environmental impact assessment (EIA), categorization of industries into those that do not require EPLs (Category A, non-or low-polluting), those that require environmental clearance and EPLs but no EIAs (category B, polluting) and those that require EIAs (category C). Further regulations covering the control of pollution from existing industries, control of hazardous wastes and the establishment of incentives and penalty systems are in the pipeline.

Regulations for the management of hazardous wastes were been gazetted in 1996, and these regulations control the collection, storage, transport, and disposal of hazardous wastes within Sri Lanka. A national definition on hazardous wastes has also been formulated; It identifies hazardous wastes as "those materials, substances and waste that have toxic, corrosive, radioactive, chemically reactive, flammable or explosive characteristics...".[255]

To control contaminants arising from air pollution, ambient air quality regulations were promulgated in 1994, specifying maximum permissible levels for SPM, CO, SO_2, NO_x and Pb. Emission standards for industrial units and power plants have also been formulated by the Ministry of Environment (MoE) to further curtail the toxic emissions in Sri Lanka.

The industrial pollution management strategy, that is being adopted by the GOSL government of Sri Lanka, includes short-term actions for immediate implementation and

[255] Department of Census and Statistics, 1998.

a phased-out approach to implement longer-term actions. One of the more important actions of the industrial pollution management strategy is to actively promote source management and control. It is anticipated that between 20 and 40 percent of pollution can be eliminated by reduction of waste and emissions at the source.

Key Ministries for Industrial and Environmental Matters[256]

- *Ministry of Transportation, Environment, and Women's Affairs (M/TEWA)*. In conjunction with the Ministry of Policy, Planning, and Implementation, M/TEWA is principally responsible for environmental policy. The ministry was established in 1990. Efforts to strengthen the environmental component of this ministry and its predecessor have been undertaken by USAID and a number of other donor agencies with steady, albeit limited, success.
- *The National Environmental Act established the Central Environmental Authority (CEA), placed within M/TEWA* in 1980 to be responsible for implementing environmental programs and standards. CAE's effectiveness was hampered by its lack of regulatory authority until 1988 amendments to the National Environmental Act gave it legal authority to issue and enforce the environmental protection-licensing scheme as well as oversee EIAs conducted by project approving agencies. Given its broad duties, CEA lacks sufficient staff and financial resources to meet demands for increased industrial pollution control or to engage other agencies in environmental enforcements.
- *The Ministry of Finance, Planning, Ethnic Affairs, and National Integration* is the central economic planning ministry of Sri Lanka. Among its responsibilities, the

[256] United States – Asia Environmental Partnership (US-AEP) website.

ministry guides the annual Public Investment Program, which is a mandatory planning document appraising all public investments planned for the next 5 years.

- *The National Planning Department* is responsible for preparing the Public Investment Program and appraises the economic and financial viability of all projects submitted to the Cabinet for approval. It has established an informal environmental working group to review the environmental impacts of projects as needed. The National Water Council falls under this department and is the focus of an Asian Development Bank project to develop a strengthened legal and institutional framework for water resource management.
- *The Urban Development Authority* (UDA) has wide powers to acquire, develop, and dispose of lands and properties and to exercise stringent controls on urban development activities. UDA has established industrial estates in various regions of the country by acquiring land for development and selecting industries via a committee comprising of representatives from the Ministry of Industrial Development, Board of Investment, provincial councils, and the Industrial Development Board.
- *The Board of Infrastructure Investment*, which recently replaced the Secretariat for Infrastructure Development and Investment, has a leading role in infrastructure-financing policies in Sri Lanka and is the counterpart institution for USAID 's Promotion of Private Infrastructure Project. In 1993 the secretariat development guidelines for build-own-operate/ build-own-transfer (BOO/BOT) projects to be used by prospective investors and state agencies promoting private financial packages from infrastructure projects.

- *The Board of Investment* (BOI) of Sri Lanka is responsible for promoting, approving, and assisting foreign investment. It's empowered to grant a wide range of incentives to projects in selected sectors. Renamed and expanded in 1992, BOI 's objectives are to broaden the economic base of the country and generate economic development, in addition to promoting foreign investment. BOI is also responsible for planning and overseeing industrial development in three export promotion zones and three industrial estates, including environmental oversight and EIA compliance. BOI also has environmental jurisdiction over industries it approves for location outside export promotion zones and industrial estates and has the authority to issue environmental protection licenses to these industries.
- *The Ministry of Industrial Development* (M/ID) has major responsibility for tracking and promoting industrial development, facilitating private sector growth, providing industrial infrastructure, assisting domestic industry in financing investments, and strengthening regional industrial development strategies. M/ID had the lead responsibility for implementing Sri Lanka's new industrial estate citing program (see section (4) for polluting industries, a key component of its national industrialization policy.
- *The Industrial Development Board* is responsible for promoting and developing small- and medium- sized industries and established some of the nation's first industrial estates prior to the creation of UDA. These estates are equipped with basic facilities such as water supply, roads, drainage, waste disposal, electricity, and telecommunications.

- *Regional Industry Service Committees* (RTSCs) serve as regional extensions of M/ID in planning and promoting industrial expansion at the local level and providing technical assistance to local industries. Efforts are being made to strengthen the committees' ability to develop industrial estates programs effectively in each region. The committees have recently formed committees that include the Industrial Development Board, UDA, and CEA in establishing regional industrial policies, particularly with respect to industrial estates.
- *The Fiscal Incentives Committee* oversees implementation of Sri Lanka's fiscal incentives policies to encourage investment in advanced technologies. These incentives apply to (a) technologies that provide new products and services and process raw materials locally that are currently imported in processed form, and/or (b) utilize local resources to produce public utilities and infrastructure services. Of particular interest to the U.S. Asia-Environmental Partnership (US-AEP), the committee provides duty and turnover tax waivers for the import of advanced environmental technologies.
- *Ministry of Housing, Construction, and Public Utilities.* Within this ministry the National Water Supply and Drainage Board is the principal agency for developing urban and rural water supply and urban sewerage schemes. It is responsible for removing water from the Kelani Ganga for supplying the Colombo Metropolitan Area and has lead responsibility for monitoring and maintaining sewerage systems in the cities of Colombo and Kataragama.

Ramani Ellepola took from the article, "Implementation of Industrial Pollution Control Programs in Sri Lanka", the following two sections on environmental standards in Sri Lanka and programs to help industry to comply with environmental norms.

Environmental Standards in Sri Lanka

At present, several environmental standards have been developed and are being enforced by the CEA through the EPL procedure and the environmental impact assessment (EIA) Process. The available environmental standards are discussed briefly below.

Industrial Effluent Standards

The following standards are now being enforced on industries, that discharge wastewater:

a) General standards for discharge of effluents into inland surface waters.
b) Tolerance limits for industrial effluents discharged on land for irrigation purposes.
c) Tolerance limits for industrial and domestic effluents discharged into inland surface waters.
d) Tolerance limits for effluents from textile industry discharges into inland surface waters.
e) Tolerance limits for effluents from the tannery industry.

National Environmental (Ambient Air Quality) Standards

Ambient air quality standards were established in Sri Lanka after consideration of the WHO-recommended standards for ambient air quality as well as the existing air quality in the country. The air was studied through several air-quality monitoring programs.

A common allegation, particularly by industrialists, is that Sri Lanka has set a very stringent ambient air quality standard. The air quality standards set up by the CEA are in fact more stringent than those recommended by WHO. However, there is a specific reason for adopting such a standard. Air Quality Monitoring carried out by the

CEA in the CMA, such as Suspended Particulate Matter (SPM), and other important parameters, such as carbon monoxide, sulphur dioxide, and oxides of nitrogen were well within the WHO-recommended levels.

In fact, the measured concentrations were below the levels stipulated by WHO. Taking this fact into consideration, the Ambient Air Quality Standards were made more stringent than the WHO-recommended threshold levels, with the primary aim of maintaining the air quality levels at the present levels. Furthermore, the air quality standards are not regulatory standards and as such are not imposed on industry.

National Noise Control Standards

The CEA receives many complaints from the public every day. Most of these complaints are concerned with noise. It was therefore, considered necessary to publish noise-level standards with respect to noise arising from industrial and other activities, such as construction. The noise-control standards came into effect in 1996. These standards were imposed effective immediate on new industries. Existing industries were granted a grace period of one-and-a-half years.

Air Emission Standards for Air-Polluting Industries

With a view to controlling emissions of such harmful pollutants as sulphur dioxide, particulates, and oxides of nitrogen from major air-polluting industries, such as thermal power-generating plants, refineries, cement plants, acid-manufacturing plants, and steel mills, air-emission standards were developed in 1996.

These standards have not yet been published and are therefore not effective. Once they are published, they will apply to new industries effective immediate by and industrialists who are already in operation will be allowed a grace period to meet emission standards.

Programs to Help Industry Comply with Environmental Norms

In Sri Lanka, mixes of regulatory and incentives-based strategies were adopted to control pollution arising from industries. There are many programs that were initiated recently with a view to providing assistance to industry. Special emphasis has been placed on control of pollution from the so-called "existing" industries. These are older industries that were set up several years or decades ago, before the present environmental regulations were in force. Some of these programs are described briefly below.

Pollution Control and Abatement Fund (PCAF)

A 'Pollution Control and Abatement Fund' (PCAF) has been set up to provide interest-free loans as well as free technical assistance to industries that have been established in the past and that now have pollution problems.

Under this scheme, industries are able to obtain funding on a concessionary basis for installation of waste treatment systems and for implementation of other pollution-minimization measures. The funds are being disbursed through the major development banks. This is a boon to industries; in particular to small-and-medium-scale industries that may lack the finances required for implementation of pollution-control measures.

Common Waste Treatment Systems

To assist older industries in special areas with a high concentration of industries, where the necessary space for installation of treatment systems is not feasible, the government, with World Bank assistance, will set up common waste-treatment systems for joint waste treatment. Industries in such areas will be expected to join the common waste treatment system or to install waste treatment systems on their own. Two areas with a high concentration of industries have been identified, one to the North of Colombo and the other to the south of Colombo, where such treatment systems are to be installed

in the near future. After treatment, the wastewater from these two systems will be piped into the ocean.

Demonstration Waste-Treatment Systems

There are several industrial sectors where pollution control technology is not yet available in the country. To help similar industries set up their own treatment systems with confidence, the government has built demonstration waste-treatment systems.

Cleaner Technology / Waste Minimizing Project

Another program that is being implemented to assist industries is a demonstration waste-minimizing project in selected industrial sectors. A United Nations Industrial Development Organization (UNIDO) assisted waste minimization project is being implemented by the CEA covering three selected industrial sectors. These are the distillery, textile and metal finishing industrial sectors. Selected industries in these three industrial sectors have been shown ways to reduce waste-generation quantities through the simple changes in process also included as raw materials, as well as good housekeeping practices. Demonstration waste-minimization projects such as these help industries to meet required environmental standards while reducing discharges treatment costs.

Future Siting of Industry

To avoid problems arising from inappropriate siting of industry, the government has made a policy decision that in the future, all wastes-generating high industry should be located in industrial estates with treatment facilities. But not enough such estates are now available. The Ministry of Industries is in the process of identifying and developing several industrial estates countrywide, to meet to this need. The plan is to develop these industrial estates on a build-own-and-operate or build-own-and-transfer basis. In addition, several industrial estates are being developed by the private sector.

Relocation of Selected Industrial Sectors

Other ongoing programs are the relocation of industries that have similar processes, to a central location to facilitate sharing costs of waste treatment and disposal. One example is the relocation of tanneries in and around Colombo to a suitable location outside Colombo. The main reason for relocating of these tanneries was that these tanneries, which were established several decades ago, were operating in highly residential areas, which had developed in and around these industries.

Operation of these tanneries was a major nuisance to the nearby residents. In addition, although these tanneries, many of which are involved in chrome tanning, generate substantial quantities of wastewater that often contains chromium. There is not enough space in most of these locations. The relocation of the tanneries has given an opportunity to the industry to share the cost of waste treatment in addition to minimizing pollution / nuisance problems by moving out of the populated areas.

Management of Hazardous Industrial Waste

Although the quantities of hazardous waste arising from industrial operations in Sri Lanka are not substantial at present time, the problem is expected to become serious with increases in industrialization. A few selected industrial sectors are already facing problems in relation to disposal of hazardous waste. With a growing number of industries installing treatment systems for treatment of their wastewater, serious difficulties in disposing of sludge from such waste treatment systems has arisen.

A survey carried out recently in Sri Lanka, has found that a total of 40,000 MT of hazardous waste is being generated within the country annually; of this, almost fifty percent consists of waste oil. Proper disposal of this waste poses a serious problem, because no high-temperature incinerator or properly designated landfill site has been

created in the country. The government is identifying a suitable site for development as a suitable site. Although regulations governing management of hazardous waste came into effect in 1996, implementation of the regulations therefore is being delayed.

Controls on the Import and Use of Toxic Chemicals

Chemicals classified as pesticides, fertilizers, or pharmaceuticals are fairly well regulated in Sri Lanka; legislation is already in place. All pesticides, fertilizers, and pharmaceuticals go through a registration process where such aspects as toxicity and environmental effects are looked into both carefully and efficiently.

Nevertheless, the use of toxic chemicals in industry is a fairly serious problem because extremely toxic/hazardous chemicals are sometimes imported for use in industry. At present there is no registration or permit scheme in place for control of industrial chemicals.

A complete inventory of the chemicals in use within the country has been compiled by the CEA. Relevant data on nearly a thousand chemicals is now available from the Authority in a computerized database. Chemical and trade names, acute and chronic toxicity data, environmental effects, disposal methods, and the legal status of these chemicals are here available. In addition, such international databases as the Geneva based International Register of Potentially Toxic Chemicals (IRPTC) have been made available to the CEA. The CEA has identified several highly hazardous chemicals, which are now being imported into Sri Lanka without any restrictions at all. It has been proposed to establish in a suitable control system, for import and use of these chemicals in the near future.

TABLE 4.8: CONVENTIONS RATIFIED OR SIGNED CONCERNING ENVIRONMENT				
Name of Convention	**Objective**	**Date of Adoption/ Date of Entry in to Force/ Date of Signature by Sri Lanka**	**Date Ratification/ Acceptance (At) Accession (Ac)/ Succession**	**Focal Point**
Convention on Wetland of International Importance Especially as Waterfowl Habitat (1971)-Ramsar	To stem the progressive encroachment on and loss of wetlands now and in the future, recognizing the fundamental ecological functions of wetlands and their economic, cultural, scientific and recreational value.	02.02.1971/ 21.12.1975/ ?	15.06.1990 (Ac)	Department of Wildlife
Convention concerning the protection of the World Cultural ad Natural Heritage (1972)	To establish an effective system of collective protection of the cultural and natural heritage of outstanding universal value organized on a permanent basis and in accordance with modern scientific methods.	16.11.1972/ 17.12.1975/ ?	06.06.1980 (At)	Forest Department & Cultural Department
Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)-CITES	To protect certain endangered species from over-exploitation by means of a system of import/ export permits	03.03.1973/ 01.07.1975. ?	04.05.1979 (Ac)	Wild Life Department
Convention on the conservation of Migratory species of Wild Animals (CMS 1979)	To Protect those species of wild animals that migrate across or outside national boundaries	23.06.1979/ 01.11.1983/ 23.06.1979	06.06.1990	Wild Life Department
United Nations Convention on the Law of the Sea	To set up a comprehensive new legal regime for the sea and oceans and, as far as environmental provisions are concerned, to establish material rules concerning environmental standards as well as enforcement provisions dealing with pollution of the marine environment.	10.12.1982/ 16.11.1994/ 10.12.1982	19.07.1994	Marine Pollution Prevention Authority
Vienna Convention for the Protection of the Ozone Layer (1985)	To protect human health and the environment against adverse effects resulting from modification of the Ozone Layer	22.03.1985/ 22.09.1988/ ?	15.12.1989 (AC)	MFE
Montreal Protocol on Substances that Deplete the Ozone Layer (1987)	To protect the Ozone Layer by taking precautionary measures to control global emissions of substances that deplete it.	16.09.1987/ 01.01.1989/ ?	15.12.1989 (AC)	MFE
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (((91989)	To set up obligations for State Parties with a view to (a) reducing transboundary movements of wastes subject to the Basel Convention to a minimum consistent with the environmentally sound and efficient management of such wastes. (b) minimizing the amount and toxicity of hazardous wastes generated and ensuring their environmentally sound management (including disposal and recovery options) as close as possible to the source of generation; (c) assisting developing countries in environmentally sound management of the hazardous	22.03.1989/ 05.05.1992/ ?	28.08.1992 (AC)	MFE

	and other wastes they generate.			
Convention on Biological Diversity (1992)	To conserve biological diversity, promote the sustainable use of its components, and encourage equitable sharing of the benefits arising out of the utilization of genetic resources. Such equitable sharing includes appropriate access to genetic resources, as well as appropriate transfer of technology, taking into account existing rights over such resources and such technology.	09.05.1992/ 21.03.1994/ 10.06.1992	23.03.1994	ME & MR
United Nations Framework Convention on Climate Change (1992)	To regulate levels of greenhouse gas concentration in the Atmosphere, so as to avoid the occurrence of Climate Change on a level that would impede sustainable economic development, or comprise initiatives in food production.	09.05.1992/ 21.03.1994/ 10.06.1992	23.11.1993	ME & MR
United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/ or Desertification, particularly in Africa (1994)	-----	17.06.1994/ 26.06.1996/ ?	09.12.1998 (Ac)	ME & MR
Agreement relating to the implementation of Part XI of the United Nations of the United Nations Convention on the Law of the Sea of 10 December 1982.	To provide for revised modalities of the implementation of Part XI of the United Nations Convention on the Law of the Sea of December 1982, in particular the International Seabed Authority.	28.07.1994/ 28.07.1996/ 29.07.1994	28.07.1995	Ministry of Fisheries and Ocean Resources
Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks	To ensure long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the United Nations Convention on the Law of the Sea of 10 December 1982.	04.08.1995/ ?/ 09.10.1996	24.10.1996	Ministry of Foreign Affairs
Amendment to the Montreal Protocol on substances that deplete the Ozone Layer	The strengthen the control procedures under the Montreal Protocol on Substances that Deplete the Ozone Layer (1987) to extend the coverage of the Protocol to new substances.	25.11.1992/ 14.06.1994/ ?	07.07.1997 (Ac)	Ministry of Environment and Natural Resources
Montreal Amendment to the Montreal Protocol on substances that deplete the Ozone Layer		?/?/?	20.08.1999 (Ac)	Ministry of Environment and Natural Resources
Convention on early notification of a nuclear accident	To provide relevant information about nuclear accidents as early as possible in order that transboundary radiological consequences can be minimized	26.09.1986/ 27.10.1986/ ?	11.01.1991 (Ac)	
Agreement on the Network of Aquaculture Centers in Asia and the Pacific	To assist the member Status in their efforts to expand aquaculture development	08.01.1988/ 11.01.1990/ ?	05.01.1989	Ministry of Fisheries and Ocean Resources
Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical	To develop, production, stockpiling and use of chemicals weapons, to destruct	?/ 29.04.1997/	10.08.1994	

Weapons and on their destruction	the existing chemical weapons and related facilities.	14.01.1993		
Agreement for the establishment of the Indian Ocean Tuna Commission	To establish the Indian Ocean Tuna Commission with a view to ensuring the conservation and optimum utilization of tuna and tuna like species ((Stock)	Nov. 1993/ Not entered into force as at Dec. 1996/ ?	13.06.1994 (Ac)	Ministry of Fisheries and Ocean Resources
International Plant Protection Convention	To maintain and increase international cooperation in controlling pests and diseases of plants and plant products, and in preventing their introduction and spread across national boundaries.	06.12.1951/ 03.04.1952/ ?	12.02.1952	Ministry of Agriculture
International Convention for the Preservation of Pollution of the Sea by Oil (as amended)	To take action to prevail pollution of the sea by oil discharged from ships	12.05.1954 (1962 Amendments, 11.04.1962, 1969 Amendments, 21.10.1969)/ 26.05.1954 (1962 Amendments, 28.06.1967 (art.XIV) 18.05.1967 (others), 1969 amendments, 20.01.1978)/ 30.11.1983		Marine Pollution Prevention Authority
Plant Protection Agreement for Asia and Pacific Region * (as amended)	To prevent the introduction into and spread within the regional of destructive.	27.02.1956/ 02.07.1956/ ?	27.02.1956	Ministry of Agriculture
Convention on the Continental Shelf	To define and delimit the rights of States to explore and exploit the natural resources of the continental shelf	29.04.1958/ 10.06.1964/ 30.10.1958		Ministry of Foreign Affairs
Convention on Fishing and Conservation of the living resources of the high seas	Through international cooperation, to solve the problems involved in the conservation of the living resources of the high seas, considering that through the development of modern techniques some of these resources are in danger of being over-exploited	29.04.1958/ 20.03.1966/ 31.10.1958		Ministry of Fisheries and Ocean Resources
Convention on the High Seas	To codify the rules of international law relating to the high seas	29.04.1958/ 30.09.1962/ 30.10.1958		Ministry of Fisheries and Ocean Resources
Convention concerning the protection of workers against ionizing radiations	To protect workers, as regards their health and safety, against ionizing radiations.	22.06.1960/ 17.06.1962/ ?	08.06.1986	Ministry of Fisheries and Ocean Resources
Treaty banning nuclear weapon tests in the atmosphere, in outer space and under water.	To obtain an agreement on general and complete disarmament under strict international control in accordance with the objectives of the United Nations; to put an end to the armament race and eliminate incentives to the production and testing of all kinds of weapons, including nuclear weapons.	05.08.1963/ 10.10.1963/ 22.08.1963	13.02.1964	
Treaty on principles governing the activities of states in the exploration and use if outer space including the moon and other celestial bodies.	To establish an international legal regime for the exploration and use of outer space.	27.01.1967/ 10.10.1967/ 10.03.1967	18.11.1986	
International Convention on Civil Liability for Oil pollution	To ensure that adequate compensation is available to	29.11.1969/	12.04.1983 (Ac)	Marine

Damage (as amended)	persons who suffer damage caused by pollution resulting from the escape or discharge of oil from ships. To standardize international rules and procedures for determining questions of liability and adequate compensation in such areas.	19.06.1975/ ?		Pollution Prevention Authority
International convention Relating to intervention on the high seas in cases of oil pollution casualties	To enable countries to take action on the high seas in cases of a maritime casualty resulting in danger of oil pollution of sea and coastlines; to establish that such action would not affect the principle of freedom of the high seas.	29.11.1969/ 06.05.1975/ ?	12.04.1983 (Ac)	Marine Pollution Prevention Authority
Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction	To prohibit the development biological weapons and eliminate them as a step towards general disarmament for the sake of all man kind.	?/?/ 14.01.1993	10.08.1994	
Convention on the prohibition of military of any other hostile use of environmental modification techniques	To prohibit the military or other hostile use of such techniques in order to consolidate world peace and trust among nations.	10.12.1976/ 05.10.1978/ 08.06.1977	25.04.1978	
The International Convention for the Prevention of Pollution from the ships (MARPOL)-1973	To preserve the marine environment by achieving the complete elimination of international pollution by oil and other harmful substances and the minimization of accidental discharge of such substances.	11.02.1973/ Not in force/ --	24.06.1977 (Ac)	Marine Pollution Prevention Authority
Biosafety Protocol		24.05.2000/ ?/?		Ministry of Forestry and Environment

Chapter 5 - Conclusion

As discussed earlier in this paper, the social, economic and environmental background of Sri Lanka, much of the attention has been directed on the environmental problems of the country. Although the national and local governments of Sri Lanka have introduced various large-and-small-scale programs to reduce environmental degradation, the results vary. The results are either not transparent or not exist at all. In all, many programs geared toward decreasing environmental problems seem to look good only in it's reporting. In addition, it is difficult to study to link between economic growth and the environment in Sri Lanka. This is a great deal more difficult for lack of statistical data.

As we look into the future of Sri Lanka, it has to be realized early on that environmental conditions have to be reflected from the early stages of decision-making processes. The "grow now, clean up later" approach to development has imposed heavy costs, costs that could be avoided by adoption of policies and programs soon to prevent serious environmental damage[257]in the future.

Where Does Sri Lanka Need Help? Institutional Building

To convert the sustainable environmental model from theory to practice in Sri Lanka, strong environmental institutions must be in place. Although Sri Lanka has been known in country reports and others to have strong environmental institutions, they must be strengthened. The idea of good institutions, where they come from, the shape they take, and how they need to evolve to support strong long-term environmental sustainability is important to Sri Lanka. Overall governance in Sri Lanka is ranked high

[257] Making Sustainable Commitments: An Environment Strategy for the World Bank. The World Bank. Pg. 7.

as compared to other countries in the rest of the region. The country is democratic, with frequent elections and high participation in the political process.

It has been stated that Sri Lanka has suffered from a gradual erosion of institutional capacity and economic governance in the public sector. Poor performance has been caused by a gradual weakening of public sector institutions and governance, especially characterized by increased politicization, a bloated bureaucracy, insufficient decentralization, and weak financial controls and public accountability.[258] Although these facts may not seem important in environmental institutional building, they are key aspects. The following sections on three keys institutional weaknesses in public sector management relates on directly to environmental institutional building, because many of the environmental institutions are managed publicly.

Reducing the size and number of institutions in the public sector – Sri Lanka's public sector is large and costly and suffers from low effectiveness and efficiency, with 12 percent of its labor force was employed in government in 1999 (17 percent if the semi-government sector is included). Public sector employees have the lowest level of education, with average pay almost double that of their counterparts in the non-public sector. Policy makers and professionals are insufficiently compensated, which makes it difficult to attract and retain skilled expertise in the public sector. Furthermore, there has been a proliferation of government institutions over the past 20 years. The number of ministries increased from 33 to 46 between 1980 and 1985, reduced to 28 in 1990, and is now 35. In addition, there are 40 provincial ministries with 150 statutory boards and

[258] Making Sustainable Commitments: An Environment Strategy for the World Bank. The World Bank. Pg. 20.

public corporations employing 170,000 people (compared with about 10 such organizations in Singapore).[259]

The government has taken few steps to address these problems. These include: (i) the establishment of a Department of Management Services (DMS) to manage the cadre of official positions in the public sector, conduct institutional reviews, and review public sector salaries and incentives; (ii) establishment of the National Administrative Reform Council (NARC) to provide political leadership and commitment for administrative reforms; and (iii) some retrenchment in public corporations.

Although these initial efforts by the government seem to go toward a positive path, the tasks appear impossible because the powers of appointments, transfer, dismissal, and disciplinary control of all state officers have been transferred from the Public Services Commission (PSC) to the Cabinet Ministers.

Improving financial controls and public accountability – The weakening of financial controls and of the public and administrative sector is due primarily to the inadequate Parliamentary oversight and poor institutional structures and watchdog bodies. It has been noted that, "Sri Lankan institutions have not evolved much since the British colonial period, and the capacity and effectiveness of these institutions have deteriorated for lack of modernization and a reform of the accountability process."[260] The two Parliamentary committees (Committee on Public Accounts and Committee on Public Enterprises) that have ultimate control over public finances are largely ineffective; no serious consideration is given to their recommendations. Moreover, public sector procurement is extremely slow, requiring numerous stages and required steps, which result in excessive

[259] "Sri Lanka: Recapturing Missed Opportunities" June 16, 2000. Poverty Reduction and Economic Management South Asia Region. Pg. 21. The World Bank, Washington, D.C.
[260] Ibid. Pg. 24.

delays in obtaining final approval. The result of the weak system is the country's reduced capacity for aid absorption and increased inefficiency in project implementation

To address the problem, the government has been taking the first steps to create broad alliances with key stakeholders, including parliamentarians, civil organizations, and the private sector. The GOSL also initiated a process recently to develop a strategy for strengthening and improving the effectiveness / capacity of critical financial accountability institutions, such as the Auditor General's Department (AGD).[261]

More effective decentralization – Sri Lanka has developed a highly complex and fragmented administrative system, with confusion and ambiguity exists regarding roles and responsibilities of both elected and administrative arms of government. The administrative structure has been duplicated at the provincial levels, making it more difficult to escape the system. Since much of the decentralization effort in the past has focused on the ethnic conflict, several new initiatives have been taken by the government to improve the functions of existing decentralized administration.

These include: (i) a Provincial Specific Development Grant (PSDG), introduced in early 2000 to replace the previous Medium Term Investment Program (MTIP) and make sure that capital expenditures are transferred directly from the center to the provinces; (ii) initiation of a joint effort between the National Planning Department of the Ministry of Finance and the Finance Commission to monitor implementation of capital investment projects at the provincial level; (iii) preparation of a technical study to propose new criteria for grant awards to provinces by the Finance Commission; and (iv)

[261] "Sri Lanka: Recapturing Missed Opportunities" June 16, 2000. Poverty Reduction and Economic Management South Asia Region. Pg. 24-5. The World Bank, Washington, D.C.

establishment of a Commission on Local Government Reform to provide recommendations for strengthening the third tier of government.[262]

As good institutions can be acquired and sustained, the World Bank maintains a key role in the process. The Bank, with its long track record of aiding environmental policy, could be an ideal candidate for planning and coordinating nationally and restructuring and strengthening local environmental ministries by establishing and implementing staff development plans, enhancing the Industrial Licensing and Inspection Program, developing environmental codes of practice of small industries, and strengthening the environmental information system.

Specific investment loans for the main purpose of institutional building have been helpful in the past. For example, in the mid-1990s, the Bank focused on such projects as Sri Lanka – Environmental Action to focus on the institutional component. The 4-year support for sustaining government capacity in the fields of environmental planning and management concentrated on strengthening and streamlining existing environmental institutions, such as the Ministry of Transport, Environment, and Women Affairs (MTEWA) and the CEA at the national level, providing critical funds for priority environmental investments.

A positive environmental effect of the project, was the institutional strengthening activities, by upgrading the institutional capabilities of the national, provincial, and divisional level authorities so that they can deal with environmental protection and natural resource conservation in an integrated and planned manner. Institutional strengthening included training, technical assistance, staff, equipment, and incremental

[262] "Sri Lanka: Recapturing Missed Opportunities" June 16, 2000. Poverty Reduction and Economic Management South Asia Region. Pg. 25-26. The World Bank, Washington, D.C.

funds. It also included establishment of a Policy Planning Unit (PPU) within the Environmental Division (ED) of MTEWA and joint ED/CEA premises.[263]

As an added component to the proposed project above, the Bank has planned a Community Environmental Initiatives Facility (CEIF), which will be established to finance well-planned environmental activities at the grass-roots level within the priority NEAP/PIP. It aims at involving communities through participatory methods in implementing demonstration activities, providing facilities to train local communities in participatory work in the field of environment and conservation. CEIF will provide a mechanism for pooling resources to which other donors could also contribute and serve as a vehicle for private sector and participation by Non Governmental Organizations (NGO), and for decentralizing environmental activities.[264]

It has been realized that most national environmental strategies and action plans identify institutional weaknesses as a major factor contributing to poor environmental management, with the unclear definition of institutional responsibilities and weak implementation as the culprits. The government institutions did not effectively perform vital components of the project such as policy formulation, program implementation, enforcement, and monitoring. The institutions included the MFP, MTEWA, National Environmental Steering Committee (NESC), Secretaries' Committee for Environment and Development (SCED), CEA, and provincial and local institutions.

A recent World Bank report placed further emphazes on the need for well-trained environmental staff in the ministries. The shortage of adequate staff resources is

[263]Staff Appraisal Report. Sri Lanka Environmental Action I (Project ID No: LK-PA-10513) World Bank, Washington, D.C.
[264] Ibid.

exacerbated by a high rate of staff turnover and difficulty in filling vacancies with well-trained and experienced staff due to the relatively low salary scale for technical staff.[265]

Having discussed issues pertaining to environmental management sector in Sri Lanka, apart from strengthening the institutional structure of the country, local community involvement in environmental matters must also be increased, along with private sector participation in environmental management. The World Bank report noted, "While GOSL stated policy to encourage private-public partnerships in addressing environmental concerns, the actual mechanism and significant benefits of such partnerships are still to be demonstrated."[266] The private sector's participation is an important component of environmental management; they have much invested in industries that might be labeled "dirty industries" such as tanning, chemical manufacturing, textile dyeing and plastics.

Although no ideal blueprint for environmental institutions, the establishment of formal, high-level agencies for setting policies and ensuring enforcement should significantly improve environmental management. Strengthening national and subnational institutions and technical capabilities for environmental management is of critical importance; community and NGO participation can play an important role in support of public environmental institutions.[267]

In relation to institutional capacity building, the World Bank's environmentally related projects have emphasized, "strengthening the institutional and policy framework for environmental management leading to cost-effective and fiscally sustainable increases

[265] Staff Appraisal Report. Sri Lanka Environmental Action I (Project ID No: LK-PA-10513) World Bank, Washington, D.C. Pg. 5.
[266] Ibid. Pg. 9.
[267] Ibid. Pg. 11.

in selective areas of environmental policy making and enforcement. This belong in the private sector, while promoting the contracting of environmental services currently undertaken by the public sector."[268]

2020 Vision

The discussion of the physical environment of Sri Lanka has been an important factor in this paper. Paving the way to sum up the issues discussed in detail in the previous sections, I propose a visionary development plan for Sri Lanka, "Sri Lanka 2020". The following discussion does not propose to repeat assessments and suggestions introduced previously. Instead, it seeks to focus on progression toward the future in its totality and to attempt to understand what Sri Lanka and should do to protect its fragile environment.

As the role of production has increased and Sri Lanka has already proven to be a successful partner in global trade, the country can further develop the trade component by being an active player in global and regional trade agreements. What is crucial in this regard is integrating components of environmental protection into trade. The reason is, increasingly, that factories are engaged in discharging waste products thus violating the environmental regulations of the country. The CEA also noted that the factories are engaging in these illegal waste-disposal activities at night and they are in the process of taking stringent legal action against persons who operate industries violating the environmental regulations.[269] Many of the factories in the country are involved in manufacturing directly or indirectly, for foreign trade; therefore, as stated by the CEA, a strict system must be imposed and enforced. To enforce such system, the current

[268] Staff Appraisal Report. Sri Lanka Environmental Action I (Project ID No: LK-PA-10513) World Bank, Washington, D.C. Pg. 10.
[269] Sri Lanka News. www.colombopage.com. Accessed October 30,2003.

inadequacy of public awareness concerning issues related to environmental degradation must be corrected.

Although many of the environmental acts do not focus on clean technology as a requirement for production, environmentally sound technologies in polluting industries would help to decrease much of the environmental problems in the country. For example, they would aid in: (i) cleaning up the domestic production processes to comply with domestic environmental regulations, (ii) producing tradable products and using processes that comply with international environmental regulations or consumer preferences in the major markets, and (iii) preserving globe-wide regulations, to avoid the threat of trade sanctions.[270]

To guarantee use of such technologies, a system must be in place to impose on the exports of developing countries the requirements environmentally sound technologies. When such standards are set domestically, the main actors who are generally involved in the standard-setting process are central and local governments, as well as industry and citizen groups. The roles of such parties are not the same. Evidence suggests that standards are more likely to be adopted when they are proposed by industry than by government, or when they have the endorsements of the industrial sector. With exceptions, bureaucrats alone may often not have the technical competence to develop standards and may need to rely on industry's knowledge.[271]

[270] Untitled document
[271] Untitled document

In relation to importing environmentally sound technologies to Sri Lanka, there are two categories of transfers:

- Purchase and licensing
- Foreign direct investment

The transfer through licensing and purchase does not look promising for a developing country such as Sri Lanka, simply because of the high cost of license and in cases where enterprises are not capable of assessing their needs with exactitude: they may end up by not knowing exactly what they are buying. In such cases, adaptation of licensed or purchased technology because use, thus, compounding already incurred costs.[272] Apart from the direct costs of acquiring environmentally sound technologies, there are several indirect costs associated with their operation. These arise from the additional skills, infrastructure facilities and management practices or some combination that are required to operate these technologies efficiently. Firms in developed countries are also subject to these costs, but they tend to be relatively higher in developing countries, such as Sri Lanka.

In looking at the future prospects for Sri Lanka, FDI is the only viable way to acquire environmentally sound technologies. As noted in the World Bank report, weak environmental regulations in host countries (mainly, developing countries) are among the reasons mentioned by investors in the developed countries for not transferring these technologies to developing countries.[273] This task can be accomplished in Sri Lanka

[272] Untitled document
[273] Staff Appraisal Report. Sri Lanka Environmental Action I (Project ID No: LK-PA-10513) World Bank, Washington, D.C. Pg. 10.

through building and strengthening institutions with the help of development organizations, such as the World Bank.

Having introduced a possible avenue for Sri Lanka to obtain environmentally sound technologies to reduce environmental degradation, innovation programs like that of Indonesia's national pollution control agency, BAPEDAL's, Program for Pollution Control, Evaluation, and Rating (PROPER) could be the key to environmental success in Sri Lanka. Briefly explained BAPEDAL, faced with rapidly increasing environmental problems from growing industrialization, found that its limited monitoring and enforcement capacity meant that it often had to settle for voluntary agreements, out-of-court settlements, and other ad hoc approaches. Due to the ineffectiveness of these arrangements, in 1993, the organization developed PROPER, with the help of the World Bank team in Jakarta. The new program was designed to receive pollution data from factories, analyze and rate their environmental performance, and disseminate the ratings to the public.

The program emphasizes the role of social capital, the body of informal relationships and institutions that strengthen developing communities: "A well designed public enforcement audit can increase the transparency and accountability of public institutions. It can also induce improvements by private agents whose poor performance would otherwise require costly enforcement activity or litigation."[274]

[274] The Development Economics Vice Presidency of the World Bank. "Creating Incentives to Control Pollution" DEC Notes No. 31. July 1997.

> "This new approach to regulation in Indonesia is showing that local communities, the media, and market forces can be powerful allies in the struggle against industrial pollution. PROPER's ratings are designed to award good performance and to call public attention to polluters who are not in compliance with the regulations. Armed with this information, local communities can negotiate better environmental arrangements with neighboring factories, firms with good performance can advertise their status and earn market rewards, investors can accurately assess environmental liabilities, and regulators can focus their limited resources to the worst performers. Transparency is also increased because the environmental agency is subject to public scrutiny."[275]

In coming years, a program similar to Indonesia's PROPER has a sizable chance to succeed in Sri Lanka, mainly because of its heavy involvement in foreign markets. Rather than a system where the polluters are fined, it would be more effective to have a system where outsiders are able to see the damage a factory might cause. Due to the inconsistencies in government agencies and their inability to follow up with fines, the negative reputation a factory might gain from non-compliance will ultimately affects profits. In a culture where most fines or taxes are either not paid or prolonged for years, a negative reputation may able to encourage those who pollute to comply with environmental regulations. Traditionally, Sri Lanka has a deep-rooted value system when it comes to a negative reputation, and most tries to avoid it at all costs.

Whether or not markets react to the release of new information regarding the environmental performance of firms remains ultimately an empirical issue. In support of this approach, Muoghalu et al. (1990) examine the effects of environmental enforcement measures related to the American Resource Conservation and Recovery Act (RCRA) and the Superfund Acts on firms' financial value. The study results indicate that stockholders suffer on average a statistically significant loss of 1.2 percent in market value at the filing

[275] The Development Economics Vice Presidency of the World Bank. "Creating Incentives to Control Pollution" DEC Notes No. 31. July 1997.

of lawsuits, with no significant abnormal returns from the disposition of the suit. The study further notes that, given the small penalties typically imposed by courts and regulators, the results confirm the hypothesis that losses of market value, if any, are likely to be significantly larger than the traditional penalties.[276]

Concluding Remarks

When environmental degradation in the Third World is discussed, two relevant hypotheses evolve. One is that there is a widespread belief that environmental deterioration in the Third World is caused primarily by local, low technological economic activities and by low per capita incomes, but not by advanced sector / transnational investments in the region. Those who argue that local industry is the enemy suggest that free trade and growth are good for the Third World and when a country is wealthy from increased trade, it can afford to clean up the environmental damage from the profits generated. According to the second the second hypothesis, a counter argument presented by scholars, for example, Herman Daly, who argues that (a) free traders seek to maximize profits and production without regard for consideration that present hidden social and (b) environmental costs and growth increases environmental costs faster than benefits from production.[277]

Of the various hypotheses, I do not agree that there is a possibility of "green globalization"[278] Especially in the case of Sri Lanka; it appears to be impossibility. Although I had initially planned on visiting textile factories in Sri Lanka for my field

[276] Stated in "Can Capital Markets Create Incentives for Pollution Control" by Paul Lanoie, Benoit Laplante, Maite Roy. The World Bank PRD Working Paper #1753. April 1997
[277] Herman Daly. Scientific American (November 1993): Pp.50-57
[278] Roddick, Anita (2000) *Localization: A Global Manifesto.* Earthscan Publications Ltd: UK. Pp. 218.

research, I have been unable to travel out of the United States, and have therefore had to limit my research to a desk review of the existing literature.

My underlying assumption is that in Sri Lanka, the rise in FDI's in developing countries leads to an increase in environmental damages in Third World countries, especially when such countries either have lax environmental regulations or lack the capabilities to enforce the ones they already have. The initial purpose of my research interest was to examine whether flows of private capital investment to underdeveloped countries for the purposes of industrialization can either affect the country's economic and environment, negatively or positively. I specifically focused on the environmental factor. Naturally, investment in the developing world is crucial in the development of the region. It can positively affect the overall economy of a country. It is also important to note that the investment in the public and private sectors must concentrate on overall long-term development of a country's infrastructure rather than seek short-term profits.

Globalization is a positive force for developing countries, where economic development is desperately needed. Although there are many positive trends arising as a result of globalization, according to a liberal perspective, increased trade tends to be the most important factor. Globalization has brought FDIs to most of the developing world. It has been noted that FDIs bring not only capital, but also advanced technology and access to international markets. This is crucial to the participation in international production networks.[279] Dollar and Kray find that "FDI has a powerful growth effect,

[279] World Bank, Pp. 43.

whereas the overall level of investments by itself does not have a significant effect on growth."[280]

In respect to the globalization of trade, despite some reports, some positive, some negative, Blomstrom et al. found that FDI was a positive factor for middle-income countries but not for the low income-developing world.[281] It has been suggested that FDI generally plays a positive role in those countries that have already achieved a prior level of development and have the infrastructure and the skill base to sustain growth;[282] that, therefore, not all developing countries will attain the financial development that is usually expected. Anderson and Leal agree that it is no accident that less-developed countries are affected by more pollution, lower health standards, and more environmental hazards. "The simple fact is that dynamic, growing economies, like dynamic ecosystems, are more resilient in coping with unanticipated environmental problems."[283]

In seeking a conclusion, it is important to discuss a few of Marx's ideas. Scholars such as Marx emphasized the need for capitalism in order to develop the backward regions; he distinguished between the subjective motivations for this expansion and its objective historical results. In another words, Marx noted that only capitalism can bring the economic and technological innovations to a backward nation, but it should not suffer from exploitation and that capitalism should not be taken for granted. Marx stressed the idea in *Das Capital (1877):*

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[280] Dollar, D., and A. Kraay. (2001a). "*Growth is Good for the Poor*." Policy Research Working Paper No. 2587, World Bank, Washington, D.C.
[281] Blomstrom, M., Lipsey, R. and Zejan, M (1992). "*What explains developing country growth?"*, in W. Baumol et al. (eds), *Convergence of Productivity,* Oxford: Oxford University Press.
[282] Held, David & Anthony McGrew (1999) *Global Transformations: Politics, Economics, and Culture.* Stanford University Press: CA. Pp. 280.
[283] Anderson, L. Terry & Donald R. Leal (2001) Free Market Environmentalism. Palgrave: New York. Pp. 168-169.

> "The central element behind the need of the advanced capitalist economies to expand is the need to develop an effective means of countering the tendency for the rate of profit to fall; such expansion makes it possible to expand the scale of production, to lower the costs of raw materials and of the products needed to maintain and reproduce the labour force at home (making it possible to keep wages low), and thus to increase the surplus by helping to preserve the low organic composition of capital. Furthermore, for a period the capitalist in an advanced country to gain a higher rate of profits by selling 'in competition with commodity producers in other countries with lesser facilities for production…in the same way that a manufacturer exploits a new invention before it has become general'"[284]

My assumption is that in the case of Sri Lanka, viewed in hindsight, FDIs have built larger factories and created opportunities for the labor force. The new industrialization has left the country with many other social and environmental problems that are not immediately apparent. Especially in the case of export-led industrialization, as noted by dependency theorists, this process has created an unequal relationship between those in the center and those on the periphery. In past decades, trade relations between the North and Sri Lanka has been increasing at a staggering level, due to the introduction of trade liberalizations and reduced tariffs. The investors from the North have increasingly realized the profit benefits of either relocating their manufacturing plants to Sri Lanka or purchasing their manufactured goods at a small fraction of the cost.

The capitalistic development that the country has been experiencing has left the local markets increasingly dependent on the industrialized nations and their imported knowledge and technologies. Although trade has been classified as a method,that increases rapid economic growth, trade has created fluctuating growth in Sri Lanka. This is due to the fact that as a small economy, Sri Lanka is heavily dependent on international trade relying on a few primary commodity exports. The competition created by free trade has forced many of the local markets to depend heavily on imports, leaving the local

[284] Marx, K. (1894), *El Capital*, Vol. III, Mexico, F.C.E. 1946.

industries to go out of business. The imported raw materials, machinery, and spare parts have helped the larger industries to flourish, but the smaller local-sector industries have disappeared. The Central Bank Reviews of the Economy from 1978 to 1981 highlighted the difficulties that domestic industries had to encounter as a result of liberalization and the fact that a large number of industries of large, medium, and small, which were labor-intensive, had to close down.

Although the Central Bank report cited here shows data from over 20 years ago, a similar story still exists in Sri Lanka. Small-scale producers complain of a market they cannot either enter or compete against. The main reasons are that the larger foreign-owned factories produce on a mass scale at lower prices and are able to sell in the global market at wholesale prices. What has become even more devastating for the local industries is that a few decades ago, because of their inability to compete with the larger industries, catered mainly to the local population. In recent years, they have also been handicapped because the larger, foreign firms have found local buyers who would purchase the irregularly sized garments that are not appropriate for the foreign markets. Those garments have found a welcoming place in the street markets and shops of Sri Lanka. The locals seem to prefer export-quality garments with small imperfections to the locally manufactured clothing. Basically what has happened is that the foreign owned factories, which not only have control of the export market, but have gained control of the local market as well, have driven out the smaller local industries.

Furthermore, the gains of the local producers are usually limited to the elite of the country, who enjoy higher profits through employing low-paid locals and low-cost local

resources. In reference to the above explanation of the influence of the industrial nations in the developing world, Palma affirms:

> "… advanced nations will form alliances with pre-capitalistic domestic elites (who will also be adversely affected by the transformations of capitalist development), intended to inhibit such transformations. In this way the advanced nations would have easy access to domestic resources and thus be able to maintain traditional modes of surplus extraction. Within this context the possibilities of economic growth in dependent countries would be extremely limited; the surplus they generated would be expropriated in large part by foreign capital, and otherwise squandered on luxury consumption by traditional elites. Furthermore, not only would resources destined for investment thereby be drastically reduced, but so would their internal multiplying effect, as capital goods would have to be purchased abroad. This process would necessarily lead to economic stagnation, and the only way out would be political."[285]

The scenario above by Palma is what is common in Sri Lanka. As with many developing countries, the only ones who benefit from capitalistic growth usually tend to be the foreign investors and the local elite.

In summary, I consider economic globalization a necessary force in order to encourage sustainable development methods in the developing world. Third World economic development as suggested and practiced by the North does not necessarily bring "all good" that the North promises the South. My assumption is that capitalistic development in the Third World is a continuation of colonization, and the benefit to the Third World is far less than what has been argued by such scholars as Jagdish Bhagwati, especially where the environment is concerned. This is simply because most of the developing countries like Sri Lanka are in desperate need of economic growth with the aid of the North, which can make them vulnerable to lax regulations that can potentially harm the South.

[285] Palma, Gabriel. "*Dependency and Development: A Critical Overview*", in Dudley Seers (1981) *Dependency Theory: A Critical Reassessment.* London: Frances Pinter Publishers. Pp. 43-44.

Environmental degradation is visible in many parts of the country, where canals and rivers near the factories are polluted with industrial waste. In the capital city of Colombo, it is virtually impossible to walk in many industrial parts of the city without feeling nauseated. It has been noted that Ratmalana is an excellent example of industrial pollution, a rundown and environmentally degraded urban township near Colombo. Large industries situated in nearby areas have been responsible for deterioration of the environment. Wastes from industries, mainly liquid, indeed have polluted water bodies, paddy fields and other arable land.[286]

The canals and lakes of the city are polluted from industrial waste, along with household waste caused by increased population in the city. Thousands of villagers come to the capital and nearby industrial areas, in search of employment in the factories, and unable to able to afford proper housing. Therefore, they tend to rent rooms in shantytowns where there are no adequate sanitary facilities. The common thing for the new factory workers is to share the rooms with many others, to cook their meals on the same premises in wood-burning stoves, and to dispose their garbage and other human waste in the nearby canals. In distant villages, where pristine lakes and lagoons have existed for centuries, industrial wastes from newly built garment factories have been discharged into clear blue waters. The locals complain of increased health problems among children and the unbearable stench, but are compelled to tolerate them because of the employment opportunities the factories create for the younger, unemployed population.

[286] Sri Lanka National Report to the United Nations Conference on Environment and Development (1991) Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka.

I think it is difficult to present a general argument, for or against, when discussing trade and the environment simply because each country is unique in its ability to implement environmental regulations. The question is: will trade liberalization force environmental standards downward, or will the use of trade restrictions protect the environment of Sri Lanka? Will Sri Lanka's environment suffer as a result of the need to cater to the growing export market? Although dependency theorists specifically do not discuss the natural environment of the developing countries in relation to their overall theories, it is likely that the highly unequal international capitalist system of rich-country poor-country relationship includes unequal environmental regulations of investor and exporting countries.

The data indicate that in the case of Sri Lanka, trade liberalizations do force environmental standards downward, along with the ability of local governments to address the negative environmental conditions that arise as a result of increased industrialization. In a survey of industrial pollution carried out for the Central Environmental Authority (CEA) in 1998, of the 7,610 industries surveyed, 4,606 were categorized as polluting and 3014 as non-polluting. Of the polluting industries, 291 had high pollution potential; 1,900, a medium pollution potential; and 2,415, a low pollution potential. As to actual pollution, there were 115 industries in the manufacturing sector causing significant levels of pollution, and the research indicates that the number is around 200. It was estimated that these industries are responsible for nearly 70 percent of all the pollution of industrial origin.[287]

[287] Sri Lanka National Report to the United Nations Conference on Environment and Development (1991) Published by the Ministry of Environment and Parliamentary Affairs, Sri Lanka

With the expansion of the manufacturing sector, pollution of the environment, particularly in urban areas, has increased significantly. The number of applications received by the CEA annually, from 1990 for environmental clearance to set up polluting industries in the country has shown a significant increase.[288] The number of applications peaked to 834 in 1995 before dropping to 397 in 1996. By the end of 1997, the CEA had granted EPL, to 931 medium-polluting and 590 high-polluting industries. This does not, however, cover the industries, that are set up under the BOI. Types of pollution generated by various industrial sectors have been estimated and are shown in table 5.1.

Having noted the above, it is clear that since the introduction of trade liberalizations and increased trade in Sri Lanka, the environment of the country has degraded over time, and in my opinion, will continue to do so at a higher rate in the future as locals as well as foreign investors seek to maximize their profits.

Many developing county governments believe that the health and well-being of their people would be better served by an intensive drive for economic growth rather than make efforts to protect the environment. It is argued that for these countries the environment / development issues may still be an either-or choice rather than an effort to achieve complementary goals. Increasingly it is becoming evident to both the industrial and the developing countries alike that sustainable developments and preserving the environment are interrelated.

In the case of Sri Lanka, the process of transition would be greatly determined by the extent to which the citizens could play a prominent role. Such ability would, in turn, depend on the extent and depth of awareness of the citizenry regarding the potential,

[288] Department of Census and Statistics, 1998.

constraints, and exploitable opportunities of the process. By its very nature, it must be progressively structured if it is to achieve the desired results.

To have a true sense of development through FDIs and other means of foreign and national involvement in development, the citizens of the country must be made aware of the long-term impact of increased industrialization, especially on the country's environment, since "there can be no trade and no economic development on a dead planet."[289]

Earlier, in this chapter, I have introduced the possibility that through trade, Sri Lanka would be able to import clean production technologies that would decrease the environmental damage. Although is a possibility, having seen the world market for cheap goods from developing countries, due to the higher costs associated with clean technologies, this would not be able to sustain itself long-term. In the case of Sri Lanka, in terms of day-to-day workings of industry and services, moving from today's polluting activities to cleaner production methods and less use of materials will also require financial inducements.[290] In support of this assumption, Roddick notes that;

> A nation transferring to more environmental production processes would have had to borrow and/or invest in improvements (e.g., clean production or the shift to organic agriculture). This would be reflected in the price of the goods or service they are providing, but they would not be able to prevent competition from cheaper imports from areas not having such stringent environmental regulations. Worse, such rules allied to the constant demands of international competitiveness can erode already existing laws and prevent the introduction of more stringent ones, for fear of losing potential foreign investors or companies.[291]

[289] Goldsmith, Edward "Global Trade and the Environment" in The Case Against the Global Economy: and for a Turn Toward the Local. Edited by Jerry Mander and Edward Goldsmith. Sierra Club Books: San Francisco. 1996 Pp. 91.
[290] Roddick, Anita (2000) *Localization: A Global Manifesto.* Earthscan Publications Ltd: UK. Pp. 228.
[291] Ibid. Pp. 218 – 219.

To conclude, I will reintroduce a few points that I have discussed at the beginning and throughout the paper. One must remember that the current economic model places growth and profits above all other considerations, and this is based on unsustainable rates of resource use. Having said this, under free-trade rules, the higher the unit profit the greater the likely pressure to increase resource use and product output. As Roddick notes, the companies involved will demand the minimal imposition of profit-limiting environmental constraints, on both the use of raw material and its further processing.[292] In short, environmentally, conditions would worsen.

In addition, trade liberalization invariably means reducing expenditures on domestic social and environmental improvements in favor of allocating resources to produce the cheapest and the greatest volume of exports. This maximizes the profits for the wealthy companies and individuals, which control such trade as well as taking the market from competitors. In most cases it is the poor of exporting countries and their environment, which suffer.[293] Sri Lanka is no exception to the rule.

[292] Roddick, Anita (2000) *Localization: A Global Manifesto.* Earthscan Publications Ltd: UK. Pp. 233.
[293] Roddick, Anita (2000) *Localization: A Global Manifesto.* Earthscan Publications Ltd: UK. Pp. 233.

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