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Sri Lanka's Social and Economic Development and Agrarian Policies

Selected Writings of Nimal Sanderatne

**Presented at the Felicitation Ceremony of
Deshabandu Dr. Nimal Sanderatne
at
the 10th Sri Lanka Economic Research Conference**

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Foreword

It is indeed a greater honour for me to introduce this compendium of selected scholarly papers of Deshabandhu Dr. Nimal Sanderatne, a maestro of the Sri Lankan economics profession and a prominent public figure in the country. During a flourishing professional career of over five decades, he has served the country in several high-profile positions, including Director of Economic Research and Deputy Governor at the Central Bank, and Chairmen of the Bank of Ceylon, the Merchant Bank of Sri Lanka and the National Development Bank. In retirement, he has been busier than ever in teaching Development Economics in postgraduate programs in the Postgraduate Institute of Agriculture at the University of Peradeniya, and writing a regular weekly column on contemporary economic issues to the Sunday Times. As a highly respected columnist in the country, he contributes to public policy debates while remaining rock-solid as an independent thinker without swaying by the lure of political patronage.

As an applied economist, Dr Sanderatne is a strong adherent to the dictum (*a la* Albert Hirschman) that ‘the term *economics* is meaningless when applied to ends and not to means’. He eschews engagement in ‘orthodox-heterodox’, ‘rationale-empirical’, or ‘neoliberal- structural’ dichotomy of economic thinking, and eclectically embraces both conflicts and synergies among alternative schools of thoughts in search of what works and what does not work given the socio-political and the structural peculates of the Sri Lankan economy. He is sceptical of the universal policy prescriptions often made by visiting economists, while advocating a collective enterprise of development policy making with active engagement of local experts. I vividly remember the devastating comments Dr. Sanderatne made, at the conference held in Colombo to launch the World Bank’s *Sri Lanka Development Policy Review – 2004*, on some recommendation made in that report relating to agrarian reforms that had overlooked relevant analyses by local experts.

Dr. Sanderatne is the quintessential applied economist who consider economics not as a narrow field of enquiry but as a branch of social

science. He is also a gifted essayist and creative writer. His publications include over hundred scholarly papers and books in economics, four compendiums of short stories, and numerous newspaper columns.

This volume, compiled by the members of the Department of Agricultural Economics and Business Management, Faculty of Agriculture, University of Peradeniya, presents a selection of twelve essays in the field of economics. The essays are organised into four sections to reflect Dr. Sanderatne's ability to move across frontiers of knowledge: Economic development, social development, population and development, agrarian reforms, agricultural policies and food security. These papers are high-quality works of applied economics that skilfully combine theory, country knowledge and practice to analyse economic issues and make policy recommendations. The relaxed and clear literary exposition is the hallmark of Dr. Sanderatne's writings.

Sri Lanka is currently in a serious economic crisis and the depth of which is still remains unknown. An economic crisis is widely considered a blessing in disguise: it compels the nation to analyse policy failures from historical perspectives and thus formulate policies to charter the economy on a new path to self-sustained prosperity. It would be hard to imagine a better time than now to revisit and learn from the contributions made by Dr. Sanderatne based on his scholarship and high-profile professional career spanning over five decades.

Premachandra Athukorala, FASSA
Emeritus Professor of Economics
Australian National University

Felicitations Address

It is a great pleasure and an enormous privilege for me to be present here at the felicitation of Dr. Nimal Sanderatne, a role model for myself and many other economists who worked over the years on the rural economy of Sri Lanka and other economy-wide issues.

Let me share with you how I came to know of Dr. Nimal Sanderatne as it may strike a chord with many others here. As a final-year undergraduate specializing in economics, I was struggling to put together a dissertation on the Land Reform and Plantation Industry of Sri Lanka. This was in 1976. By the way, I entered University of Peradeniya in 1973 – 50 years ago. Before the availability of personal computers and the internet, undertaking a literature survey was a grueling task. To my good fortune, I came across a paper written by Dr. Nimal Sanderatne on “Sri Lanka’s New Land Reform” published in *South Asian Review* in 1972. This paper and the references therein made my task much easier and eventually a great pleasure.

When I embarked on my professional career as an economist at the Mahaweli Development Board in 1979, I was amongst engineers and there was none to guide me in my work. I had to rely solely on my reading habit to find my way. Again, Nimal Sanderatne came to my rescue. Not in person, but via his numerous writings. A couple of them are included in the felicitation volume but there were many more.

I met him for the first time in 1987, a full decade after I had “discovered” him via his writings when I was introduced to him by Professor Sisira Jayasuriya of Australian National University, La Trobe and Monash on the sidelines of a seminar on Agriculture held in Colombo. Dr. Sanderatne was then the Chairman of the Bank of Ceylon. I was dumbstruck by his friendliness and humility and having time to speak to a young Ph.D. in spite of the high position he held and his academic credentials.

It is these qualities as a caring human being, apart from his scholarship, which made his research and writings so relevant, engaging and appealing. In my humble opinion, mere technical mastery however exalted it is, cannot reach a wide and appreciating audience in the absence of such human qualities. This perhaps is even more relevant to social scientists including economists than to pure scientists.

The above sequence of Dr. Sanderatne influencing my work through his writings was repeated once more when I moved to the Ministry of Plantation Industries in 1989 as the Director of planning. Two of those papers, one on the plantation industry and the other on sustainable development appear in the felicitation volume. Again, there were other papers by him.

A solid background to understand the most critical issues facing Sri Lanka at this juncture is given in the first two papers of the volume addressing structural change and economic transitions. But all the other papers in the volume underline unfinished business in the development journey of Sri Lanka in agriculture, quality of life, environment, and so on.

Dr. Sanderatne in his usual masterful fashion, explores and describes the transformation of a feudal economy into a dual economy - with an advanced plantation economy along with the backward peasant economy in the mid-nineteenth century; which was followed by a revival of peasant agriculture in the mid-twentieth century; and thereafter the emerging dominance of industries and services over agriculture in the latter part of the twentieth century. Ironically, as Dr. Sanderatne notes, the much talked of instability of a commodity export-oriented economy gets replaced eventually by the instability of a heavily import-dependent economy, in this sequence of transformations. Is it necessary to elaborate on this observation noted with concern more than two decades ago by Dr. Sanderatne? We are experiencing daily shortages of electricity, gas, milk powder, kerosene, fertilizer, agro-chemicals, etc., etc.?

In the back of these transformations, the economy of Sri Lanka was plodding on with chronic fiscal deficits and current account deficits. The government was living beyond its means and getting heavily indebted domestically and overseas. This could be sustained via concessional borrowings as long as Sri Lanka remained a low-income country. But by the turn of the century, we become a lower middle-income country and had to increasingly rely on international financial markets. The nation had experienced balance of payment crises over and over again during the post-independent era. IMF had to come in sixteen times. Yet we don't seem to have learned our lessons! In the last decade and a half or so, the economy became increasingly inward looking with an anti-export bias. Is it surprising that eventually a crippling "Dollar" crisis manifested due to a massive pile up of foreign debt?

In his weekly column on economic imperatives in Sunday Times, he has explained this and possible solutions to a wider readership in plain English repeatedly. We can see a wide spectrum of thoughts on the remedies to the current crisis. They range from unspecified "home-grown solutions" to the well-known "Washington Consensus" and its recent manifestations. With regard to the immediate issue of foreign debt, again there is a whole range of remedies proposed. To default, to restructure, to rely on the hand outs of friendly nations, to sell the family silver – may I say gold instead? And so on.

It is not the time nor the place for me to prescribe solutions. Dr. Sanderatne's views on these matters are clearly articulated in the successive issues of his weekly column. My only plea is that we economists must speak up following the lifelong example of Dr. Sanderatne without fear or favour, to help the nation to get the act together – and sooner we do so the better. We don't have to take political positions; but we need to be professional. We will have different views and they can be explored, investigated and debated in a scholarly manner. That, in my view, will be a fitting felicitation for a great human being, a scholar and an economist.

This collection of selected works of Nimal Sanderatne is an essential reading for anyone interested in understanding the economic trajectory of Sri Lanka from the mid-19th Century to the late 20th Century. Nimal Sanderatne has the rare ability of presenting complex phenomena in simple and elegant prose. Hence the book is an easy and engaging read for serious scholarship as well as for the general readership.

Dr. Anura Ekanayake

Past Chairman, Ceylon Chamber of Commerce

Preface

Dr. Nimal Sandaratne is a prolific writer. He has authored and co-authored hundreds of articles which have been published in foreign and Sri Lankan academic journals, scientific reports, books, anthologies, and newspapers. He was a regular contributor to the Central Bank economics journal, *Staff Studies*, and the *Sri Lanka Journal of Agricultural Economics*. In addition to his academic and research articles, he has contributed to popular journals such as the *People's Bank Economic Review*, the *Christian Worker*, and the *Achiever*, and he is best known for his regular *Sunday Times* column, *Economic Imperatives*, covering a myriad of subject areas such as economic growth, agricultural development, food security, demography, education, health, and social development.

The volume on 'Sri Lanka's Economic and Social Development and Agrarian Policies: Selected Writings of Nimal Sandaratne' presents twelve articles previously published by the author covering economic, social and agriculture development, mostly focusing on the first fifty years after the independence of Sri Lanka. The articles were drawn from different books, journals and reports. The volume comprises seven sub-sections: economic development, social development, population and development, food security, agrarian reforms, rural finance, and environment. The first three sub-sections illustrate the perspectives of Dr. Sandaratne on the economic and social transformation undergone in the Sri Lankan economy during the nineteenth and twentieth centuries. The second four sub-sections present his perspectives on various issues related to agrarian reform.

The first chapter was drawn from a lecture presented at the Golden Jubilee National Lecture Series organized by The Ministry of Cultural and Religious Affairs and the Ministry of Foreign Affairs, delivered on May 20, 1999, at the BMICH. Dr. Sandaratne explains how the economy of Sri Lanka transformed with the emergence of plantation crops in the mid-1800s, the re-emergence of food crops in the mid-1900s, and the demographic transition that occurred during the mid-1990s to 2000. He parallels the changes that happened in the international economies with the

transformation in the local economy, which was considered as highly trade-dependent in late 1990s. At the memorial lecture delivered in honour of the late Professor H.A. de S. Gunasekera at the University of Peradeniya, which is chapter two of the volume, Dr. Sandaratne emphasized economic growth particularly during the second half of the twentieth century, in describing the economic transformation. He convincingly explained how economic growth rates increased during times of high foreign investments and how they were lowered during external shocks and internal disruptions. He argued that alternating economic policies were a significant factor in retarding the country's economic growth. He clearly illustrates the associations of periods of economic liberalization, freer trade, lesser controls and lesser state management with higher economic growth rates.

In the third chapter, he discusses connections among political commitment, economic sustainability and social development. He argues that the initial political commitment was effective owing to the availability of an extractive surplus in the economy. However, with the deterioration in economic conditions, due particularly to the fall in international prices and the increasing cost of the welfare package as the population increased, severe strains in continuing the social development agenda in Sri Lanka was resulted. He cites the claim on retarding economic growth due to the excessive spending on the social sector, but he was inconclusive on the causality. He argues that Sri Lanka's social development policy in the 20th century was based on a traditional set of values committed to welfarism, a prestigious place for learning, and a traditional system of medicine. Moreover, he states that those were further strengthened by socialist ideologies and by over six decades of intense competitive democratic politics. He concludes this chapter suggesting the possibility of improving basic literacy and education while achieving low mortality figures by giving priority to these areas. However he concedes the difficulty of providing better quality health and education with low per capita incomes.

Quality of life can be measured through a multitude of tools. In chapter four, Dr. Sanderatne focuses on global transformation and how it affected

the quality of life of Sri Lanka. This chapter was drawn from an article published in the Sri Lanka Journal of Social Sciences in 1996. He indicates that the retardation of the progress of some of the measurements of quality of life since the integration of the Sri Lankan economy with the global economy in the late 1970s was not necessarily attributable to the globalisation and economic reforms alone. He states that the shift in economic policies, including the change in emphasis on the welfare and direct interventions, and the impacts of the new economic policies have had their effect on these indicators. He also states that there has been increased access to several other material goods and services though he is not conclusive of their effects on quality of life.

Sri Lanka was one of the first developing countries to reach the third stage of demographic transition. Dr. Sandaratne nicely elaborates how demographic changes brought about environmental changes in Sri Lanka, citing examples from forestry, coastal zone, etc., in chapter five of the volume which was drawn from the Sri Lankan Journal of Agricultural Economics. He describes how foreign projects, including Mahaweli Development Project, led to the over-extraction of resources. He concludes the chapter by highlighting the claim that environmental lobbies may be a stumbling block to development projects in Sri Lanka. He suggests that creative thinking and innovative approaches are needed to ensure a balance between environmental concerns and developmental needs.

The sixth chapter in the volume provides Dr. Sandaratne's perspectives on an ageing population's economic and social consequences. It was drawn from an article published in the journal of the Sri Lanka Association of Economists. This chapter presents the population projections for the country and the likely demographic changes that are expected to materialize. The chapter discusses the problems of an ageing population and outlines means of improving the quality of life.

The seventh chapter is on "Tenancy in Ceylon's Paddy Lands: the 1958 Reforms," which is based on his article published in the South Asian Review in 1972. In this chapter, Dr. Sandaratne first provides an account

of the different tenure systems that prevailed during the colonial era. He then draws the discussion towards the Paddy Lands Act of 1958 and elaborates on its features and shortcomings. His description encompasses the areas of rural indebtedness and land consolidation. Dr. Sanderatne contends that land reforms in the rice economy should be conceived within a broader framework of readjustments within the entire agricultural sector. He firmly proposes the need for a comprehensive policy on redistribution of land.

The eighth chapter on Eight Decades of Land Policies in Sri Lanka: Motivations, Objectives and Outcomes is based on his article published in the Sri Lankan Journal of Agricultural Economics in 2016. In this chapter, Dr. Sanderatne explains the evolution of land policies in Sri Lanka from the time of independence to 2015. He asserts that these policies were driven mainly by political, ideological, economic, and security considerations that were controversial and contentious.

In many Asian and African countries, plantations were established as entities that could serve the Western agenda of colonial exploitation. As such, they have grown into enclaves divorced from the mainstream life of the country and deprived of social and economic development. They are highly differentiated from traditional peasant agriculture in terms of economic and social organization. In the chapter nine, Dr. Sanderatne reviews the plantation economy of Sri Lanka by drawing attention to its present status of declining economic significance based on his study at the Central Bank of Sri Lanka. He emphasizes that there are several challenges posed by the plantation sector of Sri Lanka, but those challenges should be considered as new economic opportunities.

The tenth chapter on crop insurance for peasant agriculture is based on his article published in the Review of Agricultural Economics in 1969. The green revolution that is still dependent on external inputs was introduced to Sri Lanka during this period. The risk of crop failure could be a serious disincentive to the adoption of the green revolution package as its input costs gobble up a substantial proportion of the farmer's income. In this

chapter, the author first explained the general issues of agricultural insurance while emphasizing that its implementation in the peasant agricultural context is crucial. He then extended his discussion to propose better approaches to crop insurance. He further pointed out that a crop insurance programme could be effectively dovetailed and integrated into marketing and credit programmes.

Informal credit had played a more important role than institutional credit in the realm of financing in rural areas, especially for farming activities. In chapter eleven, Dr. Sanderatne after analyzing the rural economy of the mid-70's, described the strengths and weaknesses of the rural informal credit markets in Sri Lanka. Dr. Sanderatne has attempted to convey the reality that informal lending consisted of a wide range of credit sources and repayment arrangements, and that these practices have not been fully captured by field surveys, with the result they are not properly understood.

Food security has been one of the pet topics of Dr. Sanderatne and chapter seven was extracted from the last three chapters of the book on Food and Nutrition Security of Sri Lanka co-authored by Dr. Sanderatne. He is of the view that being a food deficit country, the emerging global situation of food shortages and rising prices could have adverse impacts on national and household food security. In this context, Dr. Sanderatne discusses the global food situation and the implications for Sri Lanka, then makes some valuable proposals related to agricultural policies. He distinguishes food security from food self-sufficiency and states that food self-sufficiency is an unrealistic and unattainable objective. He argues that the problem of food insecurity is not an agricultural problem, presents it as a problem of economic development, and suggests that sustained high economic growth, a robust economy, sound public finances and a healthy balance of payments are the best means of achieving food security. Economic growth diversified economic activities that provide better employment and income-generating opportunities are prescribed to ensure that a high proportion of the population is food secure.

The strength of the volume is due to its ability to present complex economic phenomena that led to economic performances prevailed at the

dawn of twenty first century based on the analysis of official economic statistics of Sri Lanka. It is a ‘pleasure reading book’ for non-specialists and non-experts who do not have formal economic background. It is a ‘supplementary reading’ for undergraduate and postgraduate students who are following courses in Development Economics, International Development, Agrarian Development and Development Policy in Sri Lankan and foreign universities.

The volume is a tribute to Dr. Nimal Sandaratne for his tremendous contributions made to improve the economic literacy of the Sri Lankan population. The members of the Department of Agricultural Economics and Business Management of the Faculty of Agriculture, University of Peradeniya compiled the volume to mark the 10th anniversary of the Sri Lanka Forum of University Economists (SLFUE) which pioneers the efforts in improving the quality of economics education of the country. The members fondly acknowledge the lively discussions and educational engagements they had with Dr. Nimal Sandaratne since his retirement from the government service in late 1990s.

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January 27, 2022

Economic Development

1

THE ECONOMICS TRANSITIONS OF THE NINETEENTH AND TWENTIETH CENTURIES

1. Overview

Sri Lanka went through the profoundest economic transitions in the nineteenth and twentieth centuries. The introduction of the plantation crops in the mid-nineteenth century transformed a peasant agricultural economy into an export-import economy, with a dualistic agricultural structure. The re-emergence of food crops, structural changes in the economy, and the country passing through all three phases of the demographic transition were three of the most significant transitions of the twentieth century.

These economic transitions in Sri Lanka were not isolated changes in an Island economy. They were part of the transitions in the international economy: impacts of economic and technological changes which were occurring in Europe. The economic changes were also influenced by political and ideological changes in Europe. A proper understanding and appreciation of the changes in Sri Lanka can only be made in relation to these international changes. The nineteenth and twentieth centuries were an era in which international, technological, and economic changes, had the profoundest international impacts as never before in history. In the words of the eminent economic historian, William Ashworth (1959):

One point that needs to be made about the history of the nineteenth and twentieth centuries, in particular, is the importance of taking much of it beyond the limitations of a national framework.....in this period so many of the usual and common

The Eighth Lecture in the Golden Jubilee National Lecture Series organised by The Ministry of Cultural and Religious Affairs and the Ministry of Foreign Affairs delivered on May 20, 1999 at the BMICH.

place as well as the most revolutionary happenings in every country have been intimately bound up with foreign events and international relations (Ashworth 1959, p.8).

The truth of this observation is perhaps no more evident than the economic history of this island, which at the turn of the nineteenth century passed into the hands of the British after four centuries of Portuguese and Dutch rule as a part of the peace agreement signed between the Dutch and the British in 1766.

In the mid-nineteenth century, a predominantly subsistence peasant agricultural economy with peripheral trade in agricultural produce was transformed into one with dualistic agriculture: dominant plantation agriculture co-existing with weak peasant agriculture. Consequently, the economy was transformed into an export-import economy based on a few agricultural exports and a wide range of imports, including food. With plantation agriculture and economic activity concentrated in the wet zone, the demographic duality of a high population density in the wet zone and a sparse population in the dry zone, which had emerged over several centuries, were reinforced. The expansion of the plantation also brought about a hitherto unprecedented migration of population from Southern India. By the end of the nineteenth century, a mercantilist system had taken root in the country.

From the early decades of the twentieth century, various degrees of self-government resulted in attempts to alter some of these economic changes of the nineteenth century. Chief among them was the effort to be more self-sufficient in food by restoring the ancient irrigation systems, developing economic and social infrastructure, and populating the dry zone areas of the country. The second wave of economic and social change occurred with the country's strong political commitment to welfarism consisting of three important components: free education, free health, and food subsidies. This was to have the most profound impact on the socio-economic development of the country in the second half of the twentieth century. The social development policies were mainly responsible for the

country passing through all three phases of the demographic transition during the second half of the twentieth century to reach a low population growth due to low fertility.

The last three decades of the twentieth century have also witnessed a structural transformation of the economy. From a predominantly agricultural economy, in which about half of national output was directly from agriculture, it is now one where agriculture accounts for only about 20 percent of Gross Domestic Product (GDP), while industrial output contributes 17 percent of GDP. While the economy remains a highly trade-dependent economy, the character of the trade dependence has changed. Today's trade is no longer based on the export of a few agricultural commodities and the import of main food as at the beginning of this century. The trade dependence is far more diversified with agricultural exports accounting for less than one-fourth of exports, while industrial exports account for more than 75 percent of exports. There is also a greater volume of intermediate and capital imports than consumer imports.

The objective of this paper is to discuss, in my view, are the four most significant economic transactions of the nineteenth and twentieth centuries. These are the development of dualistic agriculture with the introduction of the plantations; the resuscitation of food production and re-emergence of peasant agriculture to GDP and the demographic transition.

2. Development of Plantations

At the turn of the nineteenth century the Island's economy would have displayed most of the characteristics of economies around the world. A large proportion of the population was absorbed in agriculture, producing commodities for their own consumption and also for feudal families who owned large extents of land. The technology was simple and cultivation was carried out with simple tools and draught animals. The indent made in peasant subsistence economy was traded in cinnamon and spices by the traders who had visited the country from early times, the Portuguese (1505-1658) and the Dutch (1658-1796). Yet, such trade did not lead to a change

in the organization of agriculture. Although the country was the only supplier of cinnamon in the international market until the nineteenth century, the supplies were from jungles. Attempts by the Dutch to grow it systematically in large tracts had failed. Dutch attempts to grow coffee on plantations too failed owing to coffee being suited for the hinterland, which was ruled by the Kandyan Kings.

The British control of the entire Island in 1815 signaled the entry of the plantation economy. At first, attempts to encourage large-scale cultivation met with little success owing to transport difficulties and tariff preference for West Indian coffee. Even such incentives as the abolition of the export duty on coffee in 1825 and the waiving of the land tax on coffee plantations for 12 years from 1829, failed to transport the crop from a smallholder crop to a plantation crop. (Jogaratnam 1964, p. 98).

Several international factors changed this situation. In Europe, particularly in Britain, "Rising incomes led also to a demand for a more varied food supply which was partly met by tropical production. Former luxuries such as coffee and cocoa, became articles of mass consumption." (Ashworth 1959, p. 58). In 1835 duties on West Indian and Sri Lankan coffee were equalized. The abolition of slavery was an impetus for large-scale exploitations of lands for coffee cultivation in Sri Lanka. (Corea 1975, p.59).

Large extents of crown land were sold cheaply for coffee plantations and by the middle of the century, about 300,000 acres of land were under coffee cultivation. (Jogaratnam 1964, Vanden Drisen, 1953). Despite the rapid spread of coffee cultivation, the "coffee mania" lasted only a short period. "Coffee was King " only till about 1870 when a leaf blight *Hemileia vastatrix* struck the plant. Within a decade the coffee plantations were in ruin. No such problem was faded by Brazil, which expanded its coffee production to become the main supplier of coffee. (Corea 1975, pp.62-63). "Such a catastrophic fall, however, did not mean the end of the plantation system" (Jogaratnam 1964, p. 99). The wiping out of the coffee plantations resulted in the plantation systems being adapted for other crops. Planters

and investors sought other crops suited for plantations. Tea, and to a lesser extent rubber, replaced coffee cultivation and coconut too was cultivated on a plantation basis. By 1990 there were 405,000 acres of tea. By 1925 rubber cultivation matched the extent of tea cultivated, though the extent in plantations was less as smallholders took to rubber cultivation in a significant way. By the turn of the century coconut cultivation on estates reached around 500,000 acres. The plantation system had come to stay.

The development of plantations had significant impacts on the economy. It ushered in a long period of neglect of food crop production and the village economy. A country, which by all accounts had until the British occupation a food surplus, became an importer of rice (Corea 1975, p. 56). Villagers were denied land they were traditionally entitled to for slash-and-burn (*chena*) cultivation and pasture by the enactment of the Crown Lands Encroachment Ordinance of 1840, which stipulated that land for which there was no legal title or which was under settled cultivation was the property of the crown. The entire thrust of economic policies shifted in focus to the development of the plantation economy and international economic forces moulded the economy and international economic forces moulded the country's agriculture more than ever before.

The development of roads and railways was one of the most significant outgrowths of the plantation systems. "Until 1820 Ceylon did not have a mile of metalled roads outside some of the principal towns." (Corea 1975 p. 58). In response to planters' demands for better roads over 3000 miles of wholly or partially macadamized roads were constructed by 1860. (Mendis 1944, p. 58). This too proved inadequate and the steam engine, which had been invented in England proved a boom to the plantations. In 1867 a railway line was completed between Colombo and Kandy and further, extended to the up-country regions of Nanu Oya (1885) Haputale (1893), and Bandarawela (1894). The railway provided a cheaper method of transport of manufactured tea to Colombo's Port, which was itself completed in 1882.

The introduction and development of the plantations resulted in the largest migration of population into the country. The unwillingness of Sinhalese to leave their villages for wage employment on the estates resulted in large-scale indentured labour being brought from South India.

Between 1840 and 1860 the average annual labour inflow was around 30,000, but by the end of the century, it had increased to around 100,000 (Jogaratnam 1964, p.105). This inflow resulted in an estate population of Indian origin constituting 13 per cent of the total population in 1946.

The development of the plantations was mainly responsible for the breakdown of the isolation of the village economy. (Corea 1975, p. 67). As Jogaratnam has pointed out:

Plantation agriculture is the main factor responsible for the break-up of the feudal organization, contributed in a large measure towards the transition from a feudal to a modern economy. (Jogaratnam 1964, p. 100).

The investment of significant amounts of private foreign capital, the vulnerability to international fluctuations, and an import dependence on food are among the other significant changes wrought by the introduction of plantations. (Corea 1975, pp. 64-70).

The introduction of the plantation system transformed the economy in many different ways and was undoubtedly the most significant transition in the nineteenth century.

3. The Re-emergence of Peasant Agriculture

The re-emergence of domestic agriculture from a position of neglect and little importance to one of economic significance was an important economic transition of the twentieth century. The significance of this transition could be gauged by the fact that in 1950 with a population of 7.5 million the country imported nearly one-half of its requirements of rice. In contrast, in 1998 with a population of nearly 19 million the country

imported only 8 percent of rice requirements. (Central Bank of Sri Lanka 1998). This was owing to a four-fold increase in rice production since 1950.'

A new emphasis on food crop production, especially rice cultivation, was responsible for this re-emergence of domestic agriculture. By about the second decade of the nineteenth century, there were pressures to increase food production in the country. The First World War and concerns of food security, the international depression of the 1930s, which resulted in a dip in prices of export crops, the increased political influence of Sri Lankans, and a wave of critical opinion that the plantations had not benefited the country, were responsible for a new policy thrust to resettle the dry zone and increase rice production in particular. The grant of internal self-government on the basis of universal franchise in 1931 gave a further impetus to this thrust in the policy. Food self-sufficiency became an objective of government policy from the 1930s and continued after independence. This thrust reversed to some extent the demographic duality and the neglect of non-plantation agriculture.

Between 1931 and 1947 only about 24,000 acres of land had been alienated to 3145 allottees for small family farms. The land settlement gained momentum after 1947 when malaria was controlled by the spraying of DDT. Between 1948-1965 nearly 200,000 acres were alienated among 46,149 allottees. Paddy production increased significantly and became the main growth centre from the 1940s till the 1960s. The growth and dynamism of peasant agriculture in the 1950s and 1960s have been very vividly captured by Snodgrass:

It is an intriguing deviation from simple stages-of-economic growth notions that one of Ceylon's most dynamic sectors in the 1950's - in terms of output and productivity and certainly in employment growth - should have been the "primitive" peasant agricultural sector. Yet consider the facts. The gross output of its primary crop, rice or paddy, rose by two and a half times from 1946 to 1960 (though the gross output of its other products rose more

slowly). The value of its contribution to GDP rose by 75 per cent during the 1950s. Value-added per worker (in constant prices) went up by roughly 40 per cent over the same period. It employed, at this much higher level of productivity, about 245,000 more persons than it had in 1946; it thus accounted for about 30 per cent of the total increase in employment over the period. All the data point to a dynamic sector, discovered in a most unlikely place..... (Snodgrass 1964 p. 152)

4. Structural Changes in Economy and Industrial Diversification

In the second half of the twentieth century there was a significant structural change in the economy from a predominantly agricultural one to a more diversified economy. This diversification was very gradual till the last two decades of this century, when it gained momentum. The most notable characteristic of this structural change is the higher contribution of manufacturing and services to Gross Domestic Product (GDP).

By 1998 manufacturing contributed 16.5 percent of GDP, while agriculture's contribution had declined to 21 per cent. The contribution of services had risen from 41 per cent in 1950 to 53 per cent of GDP by 1998 (Central Bank of Sri Lanka 1999). This is in sharp contrast to the structure of the economy in 1951 agriculture's contribution was 41 per cent of GDP.

Apart from the relative contributions, there was a qualitative difference in agriculture, manufacturing, and services. In 1950 plantation crops not only contributed a large share of agricultural output, but most of the manufacturing output consisted of the processing of tea, rubber, and coconut. In fact the processing of these three tree crops accounted for over 60 percent of manufacturing output. Other factory industry was negligible. Similarly, most of the services were ancillary to and supportive of the plantation crops; transport of fertilizer, other inputs, and export produce by road, rail, and ship, and banking and insurance services served export agriculture.

The changes in agricultural policy noted earlier resulted in a different composition of agricultural output, quite apart from its relative decline in importance. Autukorala and Jayasuriya have observed:

By the late 1980's the share of plantation agriculture was only one-third of the average share in the 1950s, while the share of domestic agriculture had come to exceed that of export agriculture (Atukorala and Jayasuriya 1994, p. 30).

In 1950 plantation crops accounted for about 70 per cent of agricultural output, while paddy and other food crops accounted for only 30 per cent of total agricultural output. In contrast, in 1998 plantation crops contributed less than 4 per cent of GDP, while other agricultural crops contributed 13.2 per cent of GDP or 79 per cent of total agricultural output. Paddy output alone contributed 3.4 per cent of GDP compared to tea's contribution of 1.5 per cent (Central Bank 1998).

The increased relative importance of manufacturing, as well as the qualitative changes in industrial output, were gradual till around 1980. In fact, the relative position of manufacturing to national output even declined from 16 per cent in 1950, to 15 per cent in 1960 and increased sharply to 20 per cent by 1978, and 23 per cent by 1997. Although the proportion of manufacturing to GDP declined to 16.5 per cent of GDP in 1998, what was significant is the qualitative change. From tree crop processing and a few industrial products like cement, chemicals, glass, and cottage industries, the country moved into an import substitution strategy from 1970 to 1977. This strategy attempted to manufacture a wide range of consumer items. The post 1977 period of trade liberalization and encouragement of foreign investment led to both the expansion of the industrial sector and its diversification. Factory industry replaced export crop processing in importance and small and cottage industry declined in importance. Factory industry now contributes about 85 per cent of total industrial output, while export crop processing contributes about 10 per cent and small industry about 4 per cent. The factory industry itself has shown considerable diversification. Despite readymade garments holding a dominant position

contributing about 40 per cent of industrial output, a wide range of industrial items are produced for export (Central Bank of Sri Lanka 1998).

These structural changes in the economy are reflected in the country's trade pattern. Agricultural exports dominated the export structure from the beginning of the plantation economy till the 1960s. In the 1950s tea, rubber, and coconut exports accounted for as much as 90 per cent of exports. Even as late as the 1970s agricultural exports accounted for about 80 per cent of exports. A significant diversification of exports occurred in the 1980s. By 1990, agricultural exports had declined to about 35 percent of exports and by 1998 it had declined to 21 per cent. The diversified export structure consists of 77 per cent of industrial exports, which include garments (53 per cent), rubber-based products, leather, ceramics, electronics, motor spare parts, and canned fruits and fish.

The import structure too changed significantly. In 1951, food imports accounted for 45 per cent of total imports, with rice imports alone accounting for 15 per cent of total imports. In contrast, food imports are only about 10 per cent of total imports with rice imports being less than 1 per cent of total imports. The import structure has changed from that of over 50 per cent of imports being consumer items to one of over 50 per cent being intermediate items. Consumer imports have declined to less than 20 per cent of total imports.

Despite these compositional changes in exports and imports, Sri Lanka's trade dependence (imports and exports as a proportion of GDP) has remained high. At the time of independence, the country's trade dependence was 70 per cent. In 1997 trade dependence was marginally less at 68 per cent. Yet the character of the trade dependence had altered significantly. A critical assessment of this structural change in trade is provided by Atukorala and Jayasuriya (1994).

These data seem to suggest that the economy had become less exposed to the vagaries of international economic circumstances.

The reality was quite different. The structural transformation..... had been achieved by placing the economy in a new and more precarious posture of trade dependence. The reduced importance of imports in final goods masked greater dependence on imported intermediate and investment goods. (Atukorala and Jayasuriya 1994, p. 59).

For better or worse, the Sri Lankan economy has made the transition to one with a higher output of manufactures than agriculture and a large services sector. Its trade dependence is more industrial than agricultural. Manufactured goods dominate exports. Raw materials and capital goods for industries account for a larger share of imports than food and other consumer imports. The vulnerability to global economic conditions has perhaps been enhanced rather than reduced.

5. The Demographic Transition

Sri Lanka moved through all three phases of the demographic transition in the twentieth century. Throughout the nineteenth century and the first half of the twentieth century, the country was in the first phase of the demographic transition of a slow population growth owing to high levels of mortality offsetting high rates of fertility. In the mid-twentieth century the country entered the second phase of the demographic transition of a high population growth owing to the reduction of the deaths) and a continuation of traditional high birth rates. In 1950), Lanka entered the third phase of the demographic transition of low population growth owing to a reduction in fertility. The population growth rate is expected to decline progressively till the third decade of the 21st century when the population is projected to stabilize around 23 million.

Until about the mid twentieth century, Sri Lanka's population growth was minimal owing to high death rates offsetting traditional high birth rates. In fact, in certain years such as 1877, 1878, 1885, 1889, and 1919, when epidemics broke out, the death rate was higher than the birth rate and the country's population declined. This demographic situation was primarily

due to the country's health standards being extremely poor. Cholera, dysentery, malaria, tuberculosis, and typhoid were rampant. Prior to 1900, cholera was responsible for a significant number of deaths. Typhoid and dysentery continued to be significant causes of death till sometime later. Malaria was endemic in the dry zone. Apart from deaths caused by malaria, it was a significant factor in debilitating the population. Between 1901 and 1930 the crude death rate ranged between 23 to 30 per thousand.

This situation continued till the 1930s when a significant breakthrough came as a result of the grant of universal franchise and the introduction of the Donoughmore Constitution, which gave the Board of Ministers of the State Council-wide powers in the administration of agriculture, health, education, and other domestic policies. This resulted in their focus on improving health, education, and other amenities in the country.

The number of hospitals increased sharply from 112 in 1930 to 153 in 1945 with hospital beds increasing from about 18,000 to 20,000 during this period. Although the increase in the number of doctors and assistant medical practitioners was not particularly high, the numbers of nurses nearly doubled from 601 in 1930 to 1165 in 1945. There was a dramatic increase in the number of health centres serving expectant mothers and pre-school children. These centres increased from a mere 86 in 1935 to 503 in 1945. The number of births cared for by field midwives or in hospitals and nursing homes accounted for about half the total number of births.

The development of the country's physical infrastructure for health was coupled with an emphasis on the preventive and curative aspects of health. The expansion and improvement of medical facilities and health services were largely responsible for raising the country's health indicators at this stage. By 1939, Sri Lanka's control of infectious diseases had shown remarkable success. Death from all infective and parasitic diseases, excluding tuberculosis, dysentery, and malaria had fallen sharply. Yet, as malaria alone caused 7.8 deaths per thousand per year in 1939, the crude death rate remained high. Consequently, the rate of natural increase in

population rarely exceeded 1.5 per cent per year. The health situation in the 1940s has been assessed by Snodgrass as follows:

In many respects Ceylon has a superb public health record: smallpox, yellow fever, cholera, plague and other infectious diseases which were still scourges elsewhere in the tropics had been brought under control in Ceylon and were unlikely ever to be a major problem again. Malaria thus came to command increasing attention. (Snodgrass 1966: p.86).

In the single year 1946-47, Sri Lanka witnessed what Kingsley Davis has called "an amazing decline in mortality". The crude death rate fell from 20.2 per thousand to 14.3 per thousand, primarily as a result of the spraying of houses with a DDT solution.

While the importance of DDT spraying is indisputable, the spectacular curtailment of the death rate by the reduction in malarial deaths was possible, because over a longer period, health conditions had been improved and malaria remained the main killer disease to be conquered. It was possible to curtail deaths so dramatically in Sri Lanka, unlike in other countries, as non-malarial deaths had been already reduced and the energies of the medical authorities could be concentrated on the single health hazard of malaria (Meegama 1967).

The commitment to improve medical facilities gained further momentum after independence. The relatively good economic conditions permitted the government to expand about 7 per cent of GDP on health, education, housing and food subsidies. About 2.5 per cent of GDP was spent on health. This momentum continued into the mid 'sixties. The total expenditure on health, education, welfare payments and food subsidies increased to 8.1 per cent during 1956-60 and 10.5 per cent of GDP in 1961-65.

Expenditure on health alone constituted 2 per cent of GDP in both these periods. (Jayasundera 1986: p.66). The relatively high expenditure on

health enabled a further expansion of health facilities between 1950 and 1965. The number of hospital beds, doctors, and nurses more than doubled. Despite the population increasing by over two-thirds, the per capita medical facilities improved.

The outcome of these improvements in health infrastructure was that health indicators improved significantly. The crude death rate (CDR) fell from 12.6 in 1950 to 8.6 per thousand in 1960. The infant mortality rate (IMR) declined from 82 to 57 per thousand live births and the maternal mortality rate (MMR) fell from 5.6 to 3.0 per thousand live births during this decade. The expectation of life at birth increased from about 55 years in 1950 to a little over 64 years in 1965. By 1965, the CDR fell to 8.2, IMR to 53, and MMR to 24 per thousand.

These developments resulted in a sharp increase in the rate of population growth. The population grew at an annual average of 2.8 per cent in the 1950s, continued to be high at 2.6 per cent in the 1960s, and declined only slightly to 2.4 per cent in the 1970s. The surge in population in these decades resulted in Sri Lanka's population nearly doubling between 1950 and 1980 from 7.7 million to 14.7 million. Population density increased from 103 persons per sq. kilometre at the time of independence to 232 persons in 1980.

These demographic developments had significant impacts on the economy and society. The rapid increase in population resulted in not only the population density increasing but also the availability of arable land per capita declining sharply. The high population increases resulted in high social expenditures on education, health, and food subsidies, which in turn strained the public finances of the country and had a strong impact on the country's balance of payments, investment capacity, and in the final analysis, the country's economic growth. It created a serious unemployment situation, which generated social tensions and a violent insurgency in 1971, which in turn resulted in a drastic increase in defence expenditure. There is no denying the fact that the surge in population lay

at the foundation of many of our economic, social, and political problems (Sanderatne 1998).

Sri Lanka has now entered the third phase of the demographic transition of low population growth. In the first half of the 1990s population growth averaged only 1.5 per cent per year. In the last three years (1995-1997) the population grew by only 1.3 per cent per year. The fertility rate reached a below replacement level of 2.1 in 1994. The latest projections of population indicate a population growth of about 1 per cent between 2001-2006 and below 1 per cent thereafter. By 2021-26 the population growth rate would be a negligible 0.27 per cent (W. Indralal De Silva 1997). There are new opportunities and challenges posed by the low population growth and the ageing of the population (Sanderatne 1998).

The momentum of Sri Lanka's demographic transition is unprecedented in world history. The ageing process which took around 45 to 145 years in Europe has been telescoped into about 20 years. No country in the world has had an ageing of the population as rapid as the expected ageing of our population. Sri Lanka will be the only poor country in the world to have an elderly population of over 20 per cent in 2020-25. (Ranan-Eliya et al., 1998, p. 1).

6. Summary

In the second half of the nineteenth century a largely peasant agricultural economy was rapidly transformed into a plantation export economy with a high dependence on food imports. The significance of the change was not confined to an introduction of new crops and a new mode of production. It went far beyond that to shifting the centre of gravity of the economy to the plantations.

The rapid development of economic infrastructure to serve the needs of the plantations, the break-up of the feudal economy and village isolation, the introduction of mercantilist capitalism, a change in the population composition by the migration of indentured Indian labour to the plantations

and a continued neglect of the dry zone, which strengthened the demographic duality that had evolved through the previous three or four centuries, were significant features of this transition. The island economy was linked to the international economy as never before. From then on the vagaries of international trade were to have significant repercussions on the economy.

The gradual shift in government responsibility to Sri Lankans from the second decade of the twentieth century resulted in a new focus in economic policy which gained momentum with the grant of internal self-government together with the introduction of universal franchise under the Donoughmore Constitution in 1931. From then on a new set of forces attempted to develop peasant agriculture, especially in the dry zone. The development of the dry zone became a central concern of post-independent governments. The re-awakening of peasant agriculture resulted in spectacular results in the first two decades after independence. Food crop agriculture became the fastest growing sector in the economy. A country which imported about one-half of her requirements of rice to feed a population of 7 million, imported less than 10 per cent of the requirements for a population of nearly 19 million at the end of the century. A more diversified food crop agriculture was meeting a larger share of the food needs of the country at the end of the century. The dry zone population density increased significantly though it remains less populated than the wet zone.

In the last two decades of the twentieth century the structure of the economy changed. There was a transition from an agricultural predominance to a more diversified economy in which manufacturing contributed significantly to national output than agriculture. An export-led industrialization with an increased services sector and a diversified contribution from agriculture characterised the nature of the economy at the end of twentieth century. This transition is generally seen as one which signals the entry into a higher stage of economic development.

The instability of an export-import economy dependent on a few export crops and import of essential consumer items has given way to a new instability based on the harsh competitiveness of international trade, the volatility of international capital movements and global economic conditions.

Sri Lanka went through all three phases of the demographic transition in the comparatively short period of about fifty years in the second half of the twentieth century. The curtailment of mortality in a single year, 1947, by 7 percentage points was unprecedented in the world. It brought the country into the second phase of the demographic transition at a time when hardly any other poor country had entered it. It telescoped the second phase into the relatively short period of about four decades and entered the third phase of slow population growth owing to low fertility at the end of the century. Sri Lanka will once again be a pioneer in demographic development by becoming the first poor country to have an ageing population of over 20 per cent in 2020. The antecedents for this demographic transition lie in the priority placed on social development from 1931 onwards.

As we prepare to enter the twenty first century, we can look back at the nineteenth century as the one in which the Island entered the international economy and faced the first phase of the process of globalization. Have the economic transitions we have gone through in the twentieth century prepared us to face the twenty first century with strength and confidence?

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2

ECONOMIC GROWTH, STRUCTURAL CHANGE, AND ECONOMIC TRANSFORMATIONS IN SRI LANKA IN THE SECOND HALF OF THE TWENTIETH CENTURY

1. Introduction

I deem it a great privilege to be asked to deliver the fourth memorial lecture in honour of the late Professor H.A. de S. Gunasekera. Professor Gunasekera stands out as one of the foremost economists this country has produced. An excellent teacher, whose clarity of thought, logical reasoning, and schematic organization, the precision of expression, and simplicity of presentation are difficult to match. All these attributes made him a teacher par excellence.

I did not have the privilege of being his student, but I did have the opportunity of listening to some of his lectures. This paradox can now be explained without fear of punishment. I used to ‘**Gajay**’¹ at Peradeniya – at Jayatilleke, Marrs and Ramanathan Halls (then a men’s Hall, I must hasten to add). During these spells, my friends insisted that I listen to H.A. de S. I was no doubt a little nervous about this exercise, but the huge number of students who attended his first-year lectures was indeed protection against being caught for thieving this precious commodity. It was no doubt the pleasant experiences of ‘**Gajaying**’ at Peradeniya that have brought me back here in a more respectable capacity.

Two lectures I listened to in the 1950s have had a lasting impact on me. I still remember them very clearly. One of these was a lecture delivered at Royal College, Colombo, by the renowned Cambridge Economist, Joan Robinson. It was a clear, lucid and simple presentation on the “Economic

The Fourth Professor H.A. de S. Gunasekera Memorial Lecture delivered at the University of Peradeniya on November, 23 1999.

¹ A word commonly used to indicate that a person was staying without payment.

Problems of Ceylon”. The contents of this lecture indeed some of the very very words and phrases used by her – have been imprinted in my mind ever since Equally memorable was a lecture delivered by Professor H.A. de S. Gunasekera on the “Economic Problems of Developing Countries”, at the Ceylon Technical College in Colombo. The architecture of both these lectures, their simplicity, and profundity made a permanent impression on me. They have been part of my overt and covert understanding of economic issues.

I have chosen to speak on Sri Lanka’s economic growth, structural change and economic transformations in the second half of this century. Economic development was indeed the foremost interest of Professor Gunasekera. It was no doubt this interest which explains his involvement in politics and his role as Secretary of the Ministry of Planning and Economic Affairs in the seventies. I also think it appropriate for us to reflect on the economic changes which have occurred in the second half of this century, as we are less than 50 days before the end of this century.

I will summarize Sri Lanka’s economic growth experience, attempt to explain the level of attainment and the variations in economic growth during the second half of the century, discuss the most significant economic transformations that have occurred during this period and then reflect on these changes.

2. Economic Growth Experience

In the second half of the twentieth century the Sri Lankan economy grew by an annual average of a little over 4 per cent. This annual average rate of economic growth is not a mean achievement. It has been pointed out that very few economies have maintained such a growth rate over a long period. Yet this growth has been inadequate to raise the country’s per capita incomes to a level of even an upper middle income country. We have just moved into the World Bank category of a “Lower Middle Income Country”. Poverty persists with about one quarter of the population below the poverty line. The distribution of incomes remains unacceptably uneven

with a gini coefficient of 0.48 (Central Bank 1999). Unemployment, though reduced, is high at around 10 per cent of the labour force.

Economic growth during the second half of this century has been uneven. In the 1950's the economy grew by an annual average of 3 per cent, in the 1960's by 4.7 per cent and in the 1970's by 3.9 per cent. Economic growth has been somewhat higher in the last two decades. In the 1980's we achieved an economic growth of 4.3 per cent and in the last decade a still higher growth rate of 5.2 per cent per year (Table 1).

Table 1: Economic Growth by Decades and Semi-Decades

Decade	Semi-Decade	Annual Average GDP Growth
1951 – 59	1951 – 54	3.0
	1955 – 59	3.9
1960 – 69	1960 – 64	4.7
	1965 – 69	4.5
1970 – 79	1970 – 74	3.9
	1975 – 79	2.9
1980 – 89	1980 – 84	4.3
	1985 – 89	5.4
1990 - 99	1990 – 94	3.2
	1995 - 99	5.2
1951 - 1999		4.2

Note: Since GDP estimates commenced in 1950, there is no growth rate for 1950.

Sources: *Central Bank of Sri Lanka Annual Reports* and *Central Bank of Sri Lanka, Economic Progress of Independent Sri Lanka (1998)*.

There were significant differences in economic growth within the five decades (Table 1). For instance, in the first half of the 1950's the economy

grew by 3.9 per cent per year, while in the second half it grew by an annual average of only 2.5 per cent. Similarly, in the first half of the 1970s economic growth fell to 2.9 per cent per year, while a higher growth of 4.9 per cent per year was achieved in 1975 – 79. In the first half of the 1980's, the economic growth rate rose to 5.4 per cent per year, but declined again in the second half of the 1980's to 3.2 per cent per year. In the first half of the 1990's the economy grew by 5.5 per cent, while the growth momentum decreased somewhat to 4.9 per cent in the second half of the 1990's. It was only in the decade of the 1960s that the economic growth rate remained fairly even between the two halves of the decade.

What are the reasons and factors which explain the differences in economic growth during the last half-century?

In conformity with conventional economic theory, the country achieved high rates of economic growth during periods of high investment. Since the domestic savings rate has hovered around 15 – 16 per cent of GDP for most of the period^a, the main increase in investment was from foreign sources. The highest rates of economic growth during the second half of this century was achieved in the 1978 – 82 period, when the economy grew by 6.2 per cent per year. This period of highest economic growth exemplifies this very clearly as foreign investment was highest during this period. Foreign investment was about 7 per cent of GDP during this period, compared to about 4 per cent today.

The periods of very low growth have been due to external shocks, internal disruptions or both. In the late 1970 – 74 period the annual economic growth was only 2.9 per cent. During this period, adverse terms of trade caused by sharp oil price hikes and international food grain shortages, created enormous strains on foreign exchange resources and fiscal operations. The insurgency of 1971 disrupted nearly all economic activities and increased government expenditures on defense from less than 1 per cent of GDP to 4 per cent of GDP in 1972 – 75. In 1971 the

^a The Savings: GDP ratio increased from about 13 per cent in 1950 to 15.3 per cent in 1996, 17.3 per cent in 1997 to 19.1 per cent in 1998 and 19.8 per cent in 1999.

growth rate dropped to as low as 0.2 per cent. A severe drought, coinciding with the escalation of international prices of food, fertilizer and oil, led to severe hardships and constraints on economic growth. While these external and internal shocks had much to do with the poor economic performance, blame must be also placed on inappropriate inward-looking policies and poor economic management.

Again in 1987 – 89 the annual average economic growth was only 2.2 per cent. The insurgency, which disrupted nearly all economic activities, was mainly responsible for this severe dip in economic growth from an annual average of 4.8 per cent in the previous three years to only 2.2 per cent per year in the next three years 1987 – 89. Once again it must be recognized that prior to 1987, there was a slowing down in the economy, partly due to the North East war and partly owing to a slowing down of foreign investment and budgetary difficulties (Atukorala and Jayasuriya 1994).

Several other years of low growth were associated with internal shocks. In 1983 – 84 economic growth slipped to 5 per cent from the average of 6.2 per cent for the 1978 – 82 period. The ethnic conflict in July 1983 impacted on the economy through the disruption of economic activities, fall in tourism and reduced foreign investment. The optimism and business confidence, which characterised the pre 1993 period, also took a severe beating. Similarly, economic growth fell to as low as 3.8 per cent in 1996, when drought conditions not only affected domestic agricultural production but created an energy crisis, which disrupted industrial production. In contrast, periods of high growth did not suffer such external and internal shocks.

The discontinuity of economic policies was an important factor for slow economic growth. Till 1994, the country lacked assurance of continuity in economic policies. Fundamentally different economic regimes alternated giving rise to considerable uncertainty, reversal of economic policies, and an unsatisfactory climate for foreign and domestic investment. In retrospect, there is little doubt that the alternating economic policies were a significant factor in retarding the country's economic growth.

The alternating policy regimes provide useful perspectives on economic growth as differing economic growth rates are associated with different regimes. Periods of economic liberalisation, freer trade, lesser controls and lesser state management achieved higher rates of economic growth than periods of state control of the economy. This can be seen clearly from Table 2.

Table 2: Economic Growth by Regimes

		Per cent Per Annum	
Liberal Regimes		Dirigiste Regimes	
1951 – 1955	4.3	1956 – 1959	1.6
1965 – 1969	4.8	1960 – 1964	4.5
1978 – 1993	4.9	1970 – 1974	2.9
1994 - 1999	5.0	1975 - 1977	3.3

Sources: Central Bank of Sri Lanka Annual Reports and Central Bank of Sri Lanka, Economic Progress of Independent Sri Lanka (1998).

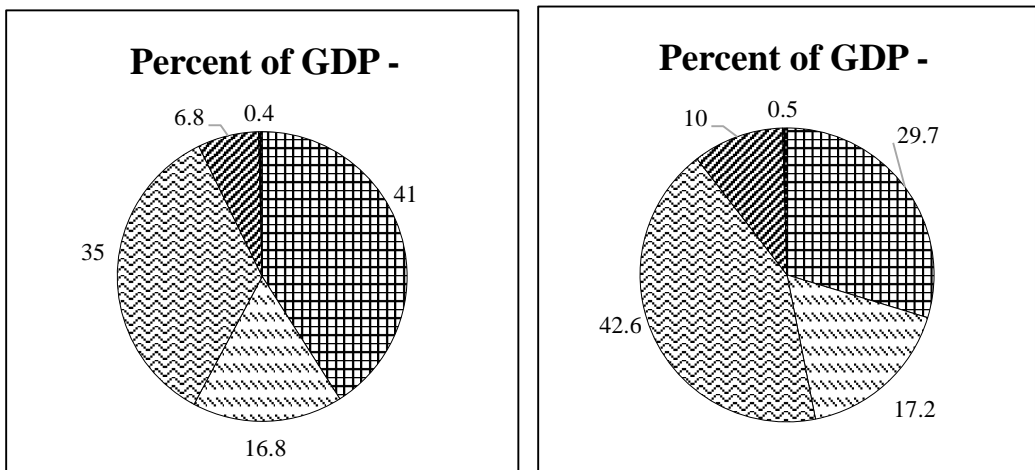
The reasons for the differences in the rates of economic growth during different economic policy regimes are many. Let me mention three of the most pertinent. Small economies like Sri Lanka can attain high rates of growth only if they make use of the opportunities of the larger international market. The narrow resource base, small domestic market, the economies of scale for manufacturing, and the need for the import of capital and technology, make it imperative to adopt out-ward looking economic policies. The second factor is that state ownership, control, and management breeds inefficiencies, which diminish the efficiency of capital. Especially poor capital scarce countries like Sri Lanka cannot afford such inefficiencies. Very few countries have been able to run state enterprises efficiently. A related third factor is that non-competitive economic structures neither provide incentives for improvements in quality nor incentives for improvements in productivity. These developments impair the country's capacity to compete in international markets.

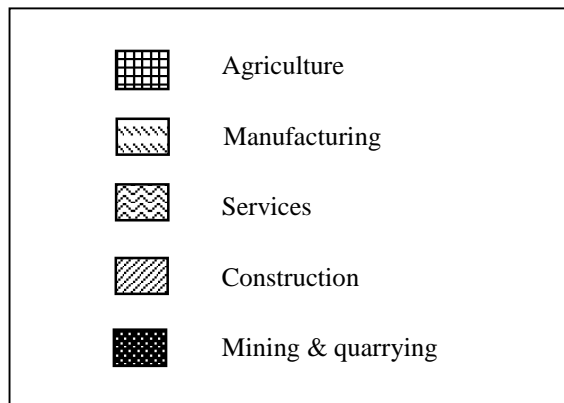
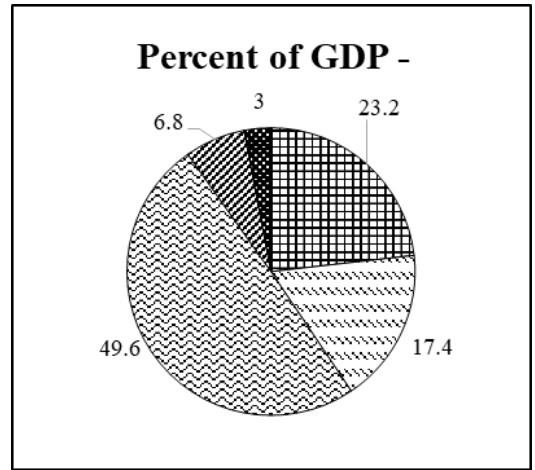
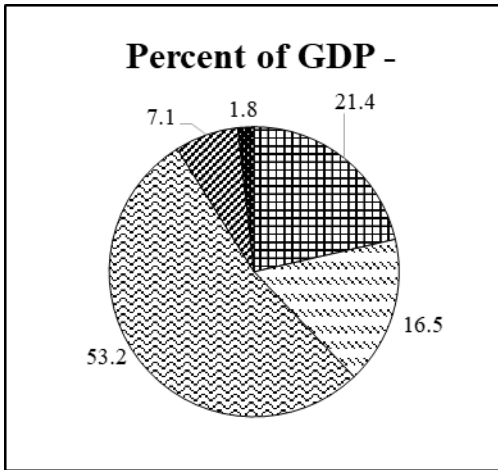
3. Structural Changes in Economy

The second half of the twentieth century witnessed a significant structural change in the economy from a predominantly agricultural one to a more diversified economy. This diversification, which was very gradual till the late 1970s, gained in momentum in the last two decades of the twentieth century. The most notable characteristic of this structural change is the higher contribution of manufacturing to Gross Domestic Product (GDP) than agriculture. By 1999 manufacturing contributed 17.2 per cent of GDP, while agriculture's contribution had declined to 16.9 per cent. Agriculture, forestry, and fishing contributed 21.7 per cent of GDP. This is in sharp contrast to the structure of the economy in 1951, when agriculture's contribution was 41 per cent and manufacturing (mainly the processing of tea, rubber, and coconut) accounted for 16 per cent of GDP. The contribution of services had risen from 41 per cent in 1950 to 55.8 per cent of GDP by 1999 (Central Bank 1998).

The structural changes which the economy has undergone in the second half of the twentieth century are captured in Figure 1.2.1.

Figure 1: Structure of Sri Lankan Economy in Selected Years





Apart from their relative positions, there were qualitative differences in agriculture, manufacturing and services. In 1950 plantation crops not only contributed a large share of agricultural output, but most of the manufacturing output consisted of the processing tea, rubber and coconut. In fact, the processing of these three tree crops accounted for over 60 per cent of manufacturing output. Other factory industry was negligible. Similarly, most of the services were ancillary, to and supportive of the plantation crops: transport of fertilizer, other inputs, and export produce by road, rail and ship and banking and insurance services served mostly export agriculture.

The changes in agricultural policy from just prior to independence resulted in a different composition of agricultural output. In 1950 plantation crops accounted for about 70 per cent of agricultural output, while paddy and other food crops accounted for only 30 per cent of total agricultural output. This changes Atukorala and Jayasuriya observed as:

By the late 1980's the share of plantation agriculture was only one-third of the average share in the 1950's, while the share of domestic agriculture had come to exceed that of export agriculture (Atukorala and Jayasuriya 1994, p.30).

At the end of the century other agricultural food crops contributed 9.7 per cent of GDP or 57 per cent of total agricultural output. Today plantation crops contribute only 3.2 per cent of GDP, while paddy output alone contributes 3.5 per cent of GDP, compared to tea's contribution of 1.4 per cent (Central Bank 1999).

The increased relative importance of manufacturing, as well as the qualitative changes in industrial output, were gradual till around 1980. In fact, the relative position of manufacturing in national output even declined from 16 per cent in 1950 to 15 per cent in 1960 and to around 14 per cent by 1977. Since then it increased sharply to 20 per cent by 1990 and 23 per cent by 1997, and declined to 17.2 per cent in 1999.

The qualitative changes in GDP are as significant as the changes in relative importance. Before 1970 industrial output consisted of tree crop processing and a few industrial products like cement, chemicals, glass and cottage industries. From 1970 to 1977 the country moved into an import substitution industrial strategy. This strategy, which attempted to manufacture a wide range of consumer items, did not have a significant impact on changing the economic structure, even though a wide variety of industrial goods was produced. It was the post 1977 period of trade liberalization and encouragement of foreign investment which led to both the expansion of the industrial sector and its diversification. Factory industry replaced export crop processing in importance. Small and cottage

industry declined. Factory industry now contributes about 85 per cent of industrial output, while export crop processing contributes about 10 per cent and small industry about 4 per cent of total industrial output. Factory industry itself has shown considerable diversification. Despite readymade garments holding a dominant position by contributing over 45 per cent of industrial output, a wide range of industrial items is produced for export (Central Bank 1998).

These structural changes in the economy are reflected in the country's trade pattern (see Table 3 & 4). Agricultural exports dominated the export structure from the beginning of the plantation economy till the 1980s. In 1950, tea, rubber and coconut exports accounted for 94 per cent of exports. A significant diversification of exports occurred in the 1980s, and by 1989 agricultural exports had declined to about 35 per cent of exports. By 1999 it had declined further to 21 per cent. The diversified export structure consists of 77 per cent of industrial exports, which include garments (53 per cent), rubber based products (3.5 per cent), ceramics (1.1 per cent), leather and footwear (4.4 per cent) and machinery and equipment (4.4 per cent) (Table 3).

Table 3: Export Structure 1950, 1977, 1998

	Per Cent of Total Exports		
Export Categories/Items	1950	1977	1999
Agricultural Commodities	93.7	79.3	20.6
of which, Tea, Rubber and Coconut	93.7	74.3	17.0
other agricultural produce		5.1	3.6
Industrial goods	n.a.	14.2	77.0
of which, Textiles and Garments		2.1	52.7
Petroleum		9.0	1.6
other industrial		3.0	22.7
Others (including minerals)	6.3	6.5	2.4

*Sources: Central Bank of Sri Lanka, **Economic Progress of Independent Sri Lanka** (1998) and Central Bank of Sri Lanka, **Annual Report 1999**.*

The import structure too changed significantly. In 1951 food imports accounted for 45 per cent of total imports, with rice imports alone accounting for 15 per cent of total imports. In contrast, food imports were only about 11 per cent of total imports in 1999, with rice imports being less than 1 per cent of total imports. The import structure has changed from over 50 per cent of imports being consumer items, to over 50 per cent being intermediate items. Consumer imports have declined to 21 per cent of total imports (Table 4).

Table 4: Import Structure 1951, 1977, 1998

Import Categories/Items	Per cent of Total Imports		
	1951	1977	1999
Consumer goods	56.6	42.2	20.9
Food	44.6	36.3	12.3
(of which rice)	(15.2)	(15.3)	(0.7)
Other consumer goods	11.9	5.9	9.0
Intermediate goods	17.5	44.1	50.6
Investment goods	25.7	12.4	26.5
Unclassified	0.2	1.3	1.9

*Sources: Central Bank of Sri Lanka, **Economic Progress of Independent Sri Lanka** (1998) and Central Bank of Sri Lanka, **Annual Reports 1998**.*

Despite these compositional changes in exports and imports, Sri Lanka's trade dependence (imports and exports as a proportion of GDP) remains high. In 1950 the country's trade dependence was 70 per cent. It is only marginally less at about 68 per cent today. Yet the character of the trade dependence has altered significantly. The trade dependence is more industrial than agricultural. Manufactured goods dominate exports. Raw materials and capital goods for industries account for a larger share of imports than food and other consumer imports. The vulnerability to global economic conditions has perhaps been enhanced rather than reduced. A critical assessment of this structural change in trade is provided by Atukorala and Jayasuriya (1994).

These data seem to suggest that the economy had become less exposed to the vagaries of international economic circumstances. The reality was quite different. The structural transformation had been achieved by placing the economy in a new and more precarious posture of trade dependence. The reduced importance of imports in final goods masked greater dependence on imported intermediate and investment goods (Atukorala and Jayasuriya 1994, p.59).

4. Economic Transformations

Apart from the structural changes which the Sri Lankan economy underwent in the second half of this century, there have been related and significant transformations in the economy. Two of these are the transformations within the agricultural sector and the demographic transition.

There-emergence of domestic agriculture from a position of neglect and little importance to one of economic significance was an important economic transition of the twentieth century. The significance of this transition could be gauged by the fact that in 1950 with a population of 7.5 million, the country imported nearly one-half of its requirements of rice. In contrast, in 1999 with a population of nearly 19 million, the country imported less than 10 per cent of her rice requirements (Central Bank 1999). This was owing to a four-fold increase in rice production since 1950 and a shift in consumption from rice to wheat flour. Per capita wheat flour consumption increased from about 30 kgs in 1970 to nearly 50 kgs by the end of the century.

A new emphasis on food crop production, especially rice cultivation, was responsible for this re-emergence of domestic agriculture. The genesis of this re-emphasis on peasant agriculture goes back to the third decade of this century. Several factors were responsible for this new thrust, but the most significant was the grant of internal self-government on the basis of universal franchise in 1931. This gave a strong impetus to a movement towards food self-sufficiency, which became an objective of government policy from the 1930s onwards. Land settlement in the dry zone gained in momentum after 1947, when malaria was controlled.

Between 1950 - 1965 nearly 200,000 acres of land were alienated and paddy production increased significantly. In fact the paddy economy became the main growth centre in the 1950s and the 1960s. The growth and dynamism of peasant agriculture in the 1950s and 1960s have been very vividly captured by Snodgrass:

It is an intriguing deviation from simple stages of economic growth notions that one of Ceylon's most dynamic sectors in the 1950s - in terms of output and productivity and certainly in employment growth - should have been the "primitive" peasant agricultural sector. Yet consider the facts. The gross output of its primary crop, rice or paddy, rose by two and a half times from 1946 to 1960 (though the gross output of its other products rose more slowly). The value of its contribution to GDP rose by 75 per cent during the 1950s. Value added per worker (in constant prices) went up by roughly 40 per cent over the same period. It employed, at this much higher level of productivity about 245,000 more persons than it had in 1946; it thus accounted for about 30 per cent of the total increase in employment over the period. All the data point to a dynamic sector, discovered in a most unlikely place (Snodgrass 1964 p.152).

The other significant transformation in agriculture is that the foremost plantation crop - tea – has become a smallholder crop. Smallholdings cultivation of tea has emerged as more significant than estate cultivation. While in 1950 most of the country's tea was produced on large estates and this sector was characterized as the modern and efficient sector in the economy, today about 60 per cent of the country's tea is produced on small holdings. In 1998 smallholdings produced 61 per cent of the country's tea, while estates, which cover 60 per cent of the land area under tea, produced only 30 per cent of total tea production (Central Bank 1998). The productivity on tea smallholdings is twice the productivity on the estates. The smallholder dominance in tea cultivation is an important change in the character of agriculture.

Sri Lanka's demographic transition in the second half of this century stands out as one of the most dramatic developments in the economy. In the mid-twentieth century, the country entered the second phase of the demographic transition of a high population growth owing to the curtailment of the death rate and a continuation of traditional high birth

rates. In the 1990s Sri Lanka entered the third phase of the demographic transition of a low population growth owing to a reduction in fertility.

Until about the mid twentieth century Sri Lanka's population growth was minimal owing to high death rates off-setting traditional high birth rates. In the single year 1946-47, Sri Lanka witnessed, what Kingsley Davis has called, "an amazing decline in mortality". The crude death rate fell from 20.2 per thousand to 14.3 per thousand, primarily as a result of the spraying of houses with a DDT solution. While DDT spraying reduced malarial deaths, the spectacular curtailment of the death rate by the reduction in malarial deaths was possible, because over a longer period, health conditions had been improved and malaria remained the main killer disease to be conquered (Sanderatne 1975).

The commitment to improve medical facilities gained momentum after independence and the relatively good economic conditions permitted the government to expend about 2.5 per cent of GDP on health. Improvements in health infrastructure enabled a decline in mortality and a sharp increase in the rate of population growth resulted. The population grew at an annual average of 2.8 per cent in the 1950s, continued to be high at 2.6 per cent in the 1960s, and declined only slightly to 2.4 per cent in the 1970s. The surge in population in these three decades resulted in Sri Lanka's population nearly doubling between 1950 and 1980, from 7.7 million to 14.7 million.

These demographic developments had significant impacts on the economy and society. Population density increased from 103 persons per sq. kilometer at the time of independence to 232 persons in 1980. The availability of arable land per capita declined sharply. The high population increases resulted in high public expenditures on education, health, and food subsidies, which in turn strained the public finances of the country, had a strong impact on the country's balance of payments, investment capacity, and in the final analysis, the country's economic growth. The rapid increase in the labour force coupled with slow economic growth created a serious unemployment situation, which generated social tensions and a violent insurgency in 1971, which in turn increased defense

expenditure sharply. There is no denying the fact that the surge in population was the underlying reason for many of our economic, social, and political problems (Sanderatne 1998).

Population growth declined to an average of 1.5 per cent in the 1990s. The country has now entered the third phase of a low population growth and is expected to reach zero population growth in the third decade of the 21st century when the population stabilizes at around 23 million.

The momentum of Sri Lanka's demographic transition is unprecedented in world history. Sri Lanka will be the only poor country in the world to have an elderly population of over 20 per cent in 2020-25. The ageing process which took around 45 to 145 years in Europe has been telescoped into about 20 years. No country in the world has had an ageing of the population as rapid as the expected ageing of our population (Ranan-Eliya *et al.*, 1998, p.1).

5. Concluding Reflections

Fifty years is not a long period in a country's history. It is but a very short period in Sri Lanka's long history of over 2500 years. Yet the last half-century has witnessed profound and irreversible changes. For better or worse the country has moved from a pre-dominantly agricultural economy to one in which agriculture and industry vie for importance with each contributing around 20 per cent of GDP. The growth of the industry for export has been the striking development of the last two decades. This process is likely to gain momentum in the early decades of the next century.

Not only has the relative importance of agriculture declined but its composition has changed. The nineteenth century is best remembered for the introduction of the plantations, their pervasive impact on the economy and society, and the neglect of paddy and other food crop agriculture. This process was reversed from around the third decade of the twentieth century. Paddy production became the centre of growth in the 1950's and

1960's. Regrettably, agriculture has lost its dynamism. A host of problems makes it appropriate to speak of a crisis in agriculture. This is no doubt partly due to a mistaken view that agriculture need not be promoted as industry provides better income and employment opportunities. This bias requires to be corrected, as agriculture still has a potential for growth and can contribute significantly to national income as well as employment and income-generating opportunities. In fact the high incidence of poverty makes it imperative for the development of a productive, efficient, diversified, commercial agriculture. The government has an important role to play in enabling this development.

The demographic changes in the second half of this century have had a profound impact on the economy. Paradoxically, the attainments in health and the consequent rapid rise in population, coupled with our social welfare policies, were in large measure responsible for the retardation in our economic growth. The economic growth of 4.2 per cent per year on average over the past half-century was inadequate to absorb the large numbers entering the labour force and created a serious problem of unemployment. It was also responsible for retarding per capita income growth and living standards. The demographic transition to the third phase will confer some advantages and new opportunities. At the same time, it will bring with it new problems of an ageing population (Sanderatne 1998).

The economic changes of the second half of the twentieth century have important socio-cultural impacts, which would in turn influence the economy. These impacts are complex and an understanding of their influences should form an important component of economic policy formulation. Many developments we have witnessed in the second half of the twentieth century are likely to gain momentum and impact more significantly in the coming decades. Increased urbanization, consumerism, higher expectations, the new dependence on industrial exports, and acceleration of globalization, are some of these influences which would bear heavily on future directions of the economy.

It is vitally important to recognize the economic changes that have occurred, the consequent changing values and perspectives of our people, and the changes in the global economic order, in determining the country's economic policies. Very often our thinking is based on the basis of past economic situations without a recognition of the vital changes that have occurred. Consequently, policies and approaches are often neither realistic nor pragmatic.

In the late 1950s, - in the lecture I referred to at the beginning - Joan Robinson, made a profound observation on Sri Lanka, which is as relevant today as 40 years ago. She said, that we were a people who wanted to taste the fruits of development without planting the tree and nurturing the plant. Much of our future economic attainments would depend on whether we change that and develop a work ethic and a discipline conducive to economic development. Much would also depend on whether we can establish law and order in our society, improve the quality of education and skills, strengthen our economic infrastructure and develop a capacity for implementation. Let us not be a society given to discussion and analysis alone, but develop a capacity to implement our policies effectively.

Let us hope that in the new century that is about to dawn, our attitudes and approaches would be different and that we could achieve a higher rate of economic growth and a more substantial economic transformation, which would make us a developed country with a better quality of life for our people. That was the overriding objective which Professor H.A. de S. Gunasekara strove to achieve through his teaching and the development of a body of economists who would contribute towards the country's economic growth and development.

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Social Development

3

POLITICAL COMMITMENT AND ECONOMIC SUSTAINABILITY: EARLY ACHIEVEMENTS AND LATER STRAINS IN SOCIAL DEVELOPMENT

1. Introduction

Sri Lanka's high attainments in social indicators at a relatively low per capita income are often cited as evidence of the possibility of achieving social progress even at the early stages of economic development. Other countries in this league of good social indicators at low levels of per capita income include Barbados, the State of Kerala in India, Costa Rica, Jamaica, Mauritius, and Cuba.

Sri Lanka's early political commitment to social development was due to a number of reasons which are discussed in this paper. But the initial political commitment was effective owing to the availability of an extractive surplus in the economy. The deterioration in economic conditions particularly the fall in international prices, and the increasing cost of the welfare package as the population increased, resulted in serious strains in continuing the social development agenda. Despite these economic difficulties, the broad thrust of social policies continued, but some of the cutbacks in expenditure resulted in a slowing down of the pace and momentum of the initial successes. Some have argued that the excessive spending on the social sector was responsible for retarding economic growth and thereby ultimately impacting on social progress itself. This approach points out that the Sri Lankan experience is not illustrative of social development indicators being high in spite of a low per capita income, but that her low per capita income and a slower rate of economic growth was a consequence of the excessive social expenditure. The Sri Lankan social development experience, as well as its economic growth, are so exceedingly complex as to permit very diverse but

inconclusive interpretations. The paper does not pretend to address itself these various hypotheses but to capture some of the factors which contributed to the initial success and the subsequent strains in social development. In analyzing the reasons for the success of the primary health care programme in particular, micro-level and institutional factors are also discussed. The next section of the paper gives an overview of the social attainments over time and in comparison with other South Asian countries. Section three is an interpretation of the factors responsible for the initial success and the current strains and deficiencies. The central theme of the paper is elaborated in this section. The concluding section focuses on the needed new directions for social policy.

2. Social Attainments

Sri Lanka's contemporary social indicators are considerably better than those of her neighboring South Asian countries. The comparative social indicators in Table 1 demonstrate Sri Lanka's higher attainments compared to those of India, Pakistan, Bangladesh, and Nepal. Sri Lanka's adult literacy rate of 89 per cent compares with 50 per cent for India, 36 per cent for Pakistan and Bangladesh, and 27 per cent for Nepal. Sri Lanka's life expectancy at birth is 71 years, compared to less than 60 years for these four South Asian neighbours. The contrast is much greater for infant mortality (IMR), under 5 years mortality, maternal mortality (MMR), death rates, birth rates, and the total fertility rate. There is no doubt that Sri Lanka's social attainments are of a higher order than those of our neighbours. The only exception is the state of Kerala in India, which has comparable social indicators.

Table 2: Sri Lanka's social indicators - compared to other South Asian countries.

	Sri Lanka	India	Pakistan	Bangladesh	Nepal
Life Expectancy years	71.2	59.7	58.3	52.2	52.7
Infant mortality rate	24.0	89.0	99.0	109.0	100.0
Under 5 mortality rate	19.0	124.0	137.0	127.0	128.0
Maternal mortality rate	80.0	460.0	500.0	600.0	830.0
Crude birth rate	21.0	30.0	42.0	39.0	39.0
Crude death rate	06.0	10.0	11.0	14.0	14.0
Total fertility rate	2.5	3.9	6.2	4.8	5.5
Adult literacy rate	89.1	49.8	36.4	36.6	27.0
Gross enrolment rate	107.0	99.0	42.0	77.0	82.0
Primary completion rate	95.0	62.0	37.0	46.0	-

*Sources: UNDP, Human Development Report 1994
UNICEF, Progress of Nations 1994
The World Bank Atlas 1995*

Even more significant than the current indicators is the fact that Sri Lanka achieved considerable social progress by the 1960s. Life expectancy

reached 64 years in 1963, compared to the current 71 years. The Infant Mortality Rate was 57 per thousand in 1960, much lower than the current rates in other South Asian countries (89-109 per thousand). The maternal mortality rate was 30 per thousand live births in 1960. The progress of key health indicators over time is given in Table 2.

Statistical Tables Table 2: Key health indicators 1960-90

	1960	1965	1970	1975	1980	1985	1990
Life	-	64	66	-	70	-	71
Expectancy		(1963)	(1971)		(1981)		
IMR	57	53	48	45	34	24	19.3
MMR	30	24	15	10	06	05	04

Source: Department of Census and Statistics

Adult literacy was 65.4 per cent by 1953 and 71.6 per cent by 1963. Significantly female literacy was as high as 53.6 per cent in 1953 and 63.2 by 1963 (Table 3). These attainments are higher than those of other South Asian countries today, as can be seen by comparing the indicators in Table 2 and 3 with those in Table 1.

Table 3: Literacy 1953-1981

	1953	1963	1971	1981
Adult literacy rate	65.4	71.6	78.5	87.2
Male	75.3	79.6	85.6	91.1
Female	53.6	63.2	70.9	83.2

Sources: Department of Census and Statistics

While the primary health care policies have been successful in curtailing deaths and the food subsidy programme has ensured minimal nutrition,

these have not been complemented with adequate economic development to improve living standards. The rate of economic growth has been inadequate to provide needed employment opportunities, increase incomes and eradicate poverty. Consequently, about one million persons or 11 per cent of the labour force are estimated to be unemployed; about 25 per cent of the population is estimated to be below the poverty line; more than half the population do not have latrines; a large proportion of households have poor housing conditions and over 40 per cent use unprotected water supplies (UNICEF 1991, Department of Census and Statistics 1988, Gunatilleke 1989). Consequently, although Sri Lanka made considerable progress in reducing mortality and increasing life expectancy, the morbidity pattern discloses a high incidence of diseases associated with poverty, malnutrition and poor living conditions. Gastro-intestinal infections, parasitic and communicable diseases and respiratory illnesses account for the highest incidence of morbidity. While the food intervention programmes appear to have ensured an overall adequate calorie intake, except in the crisis years of the 1970s, yet, about one fourth of the population appears to fall below nutritional requirements (Gunatilleke 1989: 11-15).

While the initial thrust in education enabled impressive gains in literacy and basic education, economic conditions and resource constraints have impeded a better distribution of education and an improvement in the quality of education. Those with a secondary and even tertiary education are considered unemployable as they lack specific skills, good general education, and a knowledge of English. The failure to shift educational facilities from the basic requirement to more sophisticated needs, socio-economic conditions which deter poor children from attending school, and school children requiring supplementary private tuition are among the glaring deficiencies in education.

3. Factors Responsible for Social Attainments

An early political commitment to a welfare policy consisting of subsidized food, free health services and education are undoubtedly the underlying

reason for Sri Lanka's impressive record of social indicators. The early grant of adult franchise in 1931 has been "the most explicitly and directly relevant factor accounting for the commitment of social welfare" (Snodgrass 1966: 194-5). Furthermore, the early grant of universal adult franchise in 1931 and the consequent development of a competitive democratic political system in which political parties tended to woo the voter by promises of better subsidies and improved health and educational services, were undoubtedly responsible for the policies which gave a high priority for social expenditure. This political commitment was sustained and reinforced by the competitive political system. Any curtailment of welfare expenditure could have serious repercussions for an incumbent government, as the political opposition would seize the opportunity to discredit the government.

The significance of the franchise in improving social conditions is illustrated by the health and education experience among estate workers of Indian origin. Prior to 1930 health indicators were better on the estates than in the rural areas owing to the requirement that the estates must provide medical facilities to the immigrant indentured Indian labour. With the expansion of health facilities, rural areas caught up. Soon after independence, with the disenfranchisement of Indian labour in 1949, health facilities on the estates deteriorated and health indicators did not improve in the same manner as in the rest of the country. Government was not interested in improving health facilities on the estates as Indian Tamils did not count at elections. Consequent to their enfranchisement in the 1960s their living conditions have been progressively improved even at a time when their labour productivity declined owing to unfavourable international prices and mismanagement of the estates. Educational facilities remain poor partly due to these reasons but also owing to the lesser demand of the Tamil estate workers for better schooling facilities.

Political commitment has been most conspicuous with respect to the food subsidies, where despite the enormous burden on the public finances, there was a reluctance to curtail this expenditure. When the government attempted to reduce the subsidy in 1953 it led to political turmoil and the

resignation of the Prime Minister. This sealed the fate of food subsidies which became a legacy of subsequent governments for several decades later. Proposals to modify the food subsidy 1962, and 1972 were also dropped owing to opposition within the government itself. The rice subsidy was ultimately removed only in 1979 when the rice ration, which had dominated the political and economic scene for nearly half a century, was substituted with a food stamp scheme. Although this scheme was intended to reduce the food subsidy drastically by targeting it to the poorest sections, in fact, the expenditure increased progressively as the number entitled to the food stamps increased over time and over 40% of the population became entitled to it. Even this seemed politically inadequate and consequently, in 1989 the government promised the extravagant Janasaviya poverty alleviation programme which entitled food stamp holders to Rs. 2,500 per month. However, by phasing the implementation of the programme and not releasing some of the promised funds, the scale of this programme was modified. The People's Alliance government which came into power in 1994 has also committed itself to an extensive welfare package including wheat flour, bread, and other food subsidies as well as the Samurdi programme of income support. This experience with respect to food subsidies is illustrative of the strong political commitment to welfare policies. Welfarism is a cornerstone of the country's political culture and economic policies.

The health and education programmes had a similarly strong commitment but its political sensitivity was much less. This was due to the essential difference between a food subsidy, which is a continuous benefit, and health benefits which are utilized only at times when persons require the particular services. This has enabled governments to curtail health expenditure, at least in real terms through the system of public health care and free medical services have continued. Similarly, the basic principle of free education has continued, but when economic conditions made it difficult to expand and improve educational facilities, there has been a curtailment of such expenditure -both current and capital -without a shift in the basic policy. Consequently, the quality of the educational services has suffered.

The expansion of health services to cover the entire country and its sustainability over the last six decades is a political commitment arising from the expansion of political responsibility and competitive politics. The initial impetus to expanding the health service throughout the country arose from the introduction in 1931 of limited self-government by representatives elected on the basis of universal franchise. The elected representatives became concerned with their voter's health, education, and other basic needs.

The expansion of health facilities to remote areas was also inextricably connected with the country's agricultural development strategy based on land settlement, which was considered essential for food security, provision of employment opportunities, economic growth, and preservation of democracy. The need to improve health conditions in the newly settled areas was part of this programme. This gave primary health care a degree of importance beyond the direct needs of improving health to one which could have an impact on the economy itself.

The extensive network of hospitals and maternal and child health clinics, which enabled easy access to medical facilities, special maternal and child health services with field public health midwives, school medical services and subsidised basic foods and a high rate of literacy, especially female literacy, are among the vital ingredients which contributed to the country's health attainments.

The health care delivery system consisted of a three-tiered network of institutions spanning the entire country. At the primary level are Central Dispensaries, Maternity Homes, and Rural Hospitals. The Central Dispensaries and Rural Hospitals, which provide outpatient services, except for limited inpatient facilities for minor illnesses at Rural Hospitals, are in charge of Registered or Assistant Medical Practitioners. Mid-wives provide maternity services. At the intermediate level, Peripheral Units and District Hospitals that are better equipped and served by Medical Officers provide both in-patient and out-patient services. Provincial and Base Hospitals have specialised units covering a wide range of services (Vidyasagara & De Silva 1985:3).

The early breakthrough in MMR and IMR is directly related to the fact that by 1945 a little less than half the total number of births was cared for by either field mid-wives or in hospitals and nursing homes. The traditional home child delivery system, generally of poor hygiene and incapable of coping with complicated deliveries, was already on its way out.

The key elements which accounted for the decline in these mortality rates were the comprehensive and widespread maternal and child health services at the primary level linked to the intermediate institutional level, the training of the Public Health Midwife (PHM), and the relatively manageable area serving 3000- 5000. A programme of maternal and child health education and nutritional supplements were also important contributory factors for this success.

In Vidyasagara's assessment:

The basic cornerstone of this system rested on the Public Health Midwife who not only provided services at the domiciliary level but also linked the mother and child to the next level of health care namely that provided at health centres and medical institutions. The PHM serves a population within a clearly defined area which comprises the smallest working unit within the health system and is the first point of contact between the health system and the household. Having an intimate knowledge of her area and the families she serves, the PHM, through a systematic scheme of home visits, provides the necessary domiciliary contact and care to mothers and children. This activity is supported by a system of record-keeping that helps her to plan and monitor her activities, as well as report on her performance and the vital events that have occurred in her area, to the Medical Officer of Health. (Ibid. 1985: 3-4).

An important factor bearing on the efficacy of the maternal and childcare services is the 18 months of intensive training of the midwife comprising one year in a school of nursing and six months of work experience in a health unit working within the community. (Ibid: loc.cit). The PHM in

uniform and resident in the local area has had a reputation for a strong commitment to serve the community, which in turn held the PHM in high respect and esteem.

An effective social innovation of the PHC system is the honorary voluntary health worker (VHW) who performs the function of communicating basic health concepts and advice on simple health problems to the family cluster. "Through these links with the health personnel they help to bridge the gap between health personnel and the community". (Vidyasagara 1985a: 3). Typically the VHW is an in and out school job seeker in the early twenties, more likely a female with close links in the village and selected by the people and health staff. As to be expected there is a high turnover of VHWs but their informal training is a community investment in health. The VHW has been a significant influence in enhancing public awareness and hygiene and in building community confidence in new community health practices like immunization.

The primary health care programme was strongly supported by several other measures. A school medical service functioned in over one thousand of the schools as early as the 1940s. Free mid-day meals for school children, free milk in some schools, the food ration scheme, and subsidies on basic food items introduced during the Second World War ensured certain minimum nutrition at a time when widespread poverty, food shortages, and otherwise poor distributional systems would have created severe nutritional deficiencies. The entire Island was served with a network of cooperatives which ensured that at least minimal quantities of essential food were available during the world war period of domestic food shortages and food import disruptions (Gunatilleke 1985). This system of food subsidies continued till 1979 when a food stamps scheme replaced it. Whatever the implications of this subsidy were for the country's public finances there is no doubt that it ensured basic minimum nutrition for the poor.

One of the significant achievements of the public health services has been the immunization of around 90 percent of children from Tuberculosis,

Polio, Diphtheria, and Tetanus. In 1962 the oral Polio Vaccination was introduced and in the next year, BCG vaccination commenced and achieved quick widespread coverage.

The experience of the immunization programme illustrates both the problems and difficulties of implementing such a programme in a poor country, as well as the ingredients for the success of the programme. The initial efforts at immunization were beset with numerous problems such as inadequately trained personnel, breakdowns in the cold chain and the lack of adequate transport, and breakdowns in vaccine supplies. At first, the programme also faced a degree of scepticism and resistance from the people (Vidyasagara 1985a: 5-6).

In order to overcome these problems, an Expanded Programme' of Immunization (EPI) was begun in 1978. Supplies of vaccines were ensured and the immunization facility was made readily available at all medical institutions and Health centres. The ingredients of the success have been described by Viayasagara as follows:

The Expanded Programme also created greater awareness about immunization and increased public acceptance- of immunization offered. Needless to say, the availability of a strong service infrastructure that can operate without interruption and provide a high quality of service is a *sine qua non* towards improving public acceptance. This has been amply demonstrated in the Sri Lanka Programme, where the strengthening of deficiencies regarding equipment, supplies, and vaccine logistics combined with training has contributed in no small measure to enhancing public confidence and acceptance. In addition, the provision of immunization as part of a package of MCH services not only fosters public support and enhances public confidence, but also provides for intensive follow-up at the immunization needs of pregnant mothers, infants, and preschool children. The latter is made possible at the family level through contact with the PHM who is responsible for the health care of all pregnant mothers,

infants, and pre-school children within her area. Through a scheme of routine home visits the PHM is able to register early all pregnant mothers ("Pregnant Mothers' Register") and infants ("Birth and Immunization Register"), thereby ensuring a systematic follow up. This intensive approach has made it possible to achieve a satisfactory coverage of "age appropriate immunization", in keeping with the recommended schedule of immunization. (Vidyasagara 1985: 6).

There has been a deep commitment to the provision of primary, secondary, and tertiary education by the state. One of the fundamental reasons for this is the esteemed value attached to learning by the two main communities, the Sinhalese and Tamils. The most significant reasons for the high literacy and high school enrolment were the scheme of free education, the expansion of schools, the adoption of the mother tongue as the media of instruction, increased school enrolment, and the provision of a mid-day meal for children in schools and free textbooks since 1990.

The main reasons for the achievements in literacy and education have been succinctly summarised by Jayaweera (1991).

In the decades that followed, particularly till the mid-1960s, education participation rates increased and urban-rural and gender disparities declined to an extent that was unique in South Asia. The major policies that contributed to this situation were the allocation of educational expenditure amounting to over 4% of GNP by the 1960s; provision of an island-wide network of schools, increasing in number from 4537 in 1945 to 9494 in 1971 and to 10,209 in 1988, of which around 95% were co-educational schools by 1971; establishment of Central Schools between 1940 and 1947 chiefly in rural locations to extend secondary education facilities to children from the lowest economic strata; provision of an island-wide scheme of scholarships for post-primary education; and the change in the medium of instruction to the mother language in the whole school system by 1959 and in some university courses in the 1960s. (Jayaweera 1991: 14).

The most far-reaching educational policy was the introduction of free education in 1945. Free education for primary, secondary and university education was mainly responsible for the increased enrolment of students and accessibility to education irrespective of the financial conditions of parents. This policy, coupled with a continuous expansion in schools, resulted in primary schools being at reasonable distances from the homes of most children and thereby ensuring at least a primary education. The school system was expanded throughout the country from the 1930s. By 1946 nearly 5000 schools had been established. By 1992 the number had reached 10,000. About 97% of children attend these government schools in addition to which there are private schools, mainly in the cities and towns, catering to the remaining 3% of children.

The free education system was further reinforced by several other policies which enabled poor children to participate in education. A free textbooks scheme has operated for most of the period since the 1950s. A free-mid-day meal operated from the 1950s till 1964 and was again reintroduced in 1990. There is some evidence that school enrolment and school attendance have been greater during periods when a mid-day meal has been provided. In 1991 a free school uniform was also provided. The parental costs for education have been minimal owing to free tuition, the close proximity of schools to most homes, subsidised cost of transport, as well as the provision of free textbooks and the mid-day meal.

An important policy that had an effect on dispersing quality education even to remote areas was the establishment of Central Schools with boarding facilities in many districts. These Central Schools, which were established in rural areas between 1940-47, were purposely located somewhat away from even rural towns. Through a system of scholarships, the brighter students were selected to the Central Schools for their post-primary education. (Jayaweera' 1991: 23-25). By drawing the brighter and cleverer students in rural schools into these schools, which had better facilities, and by providing them with quality education, they were able to enter the universities. Many of those presently holding the highest positions in the

public service have come from rural areas, being beneficiaries of this scheme of education. However, this scheme deteriorated in the 1970s apparently due to a lesser concern with reducing disparities and providing equality of opportunity for children in disadvantaged areas. In place of this scheme, the government introduced a fifth-grade scholarship examination on the basis of which the best students obtain scholarships to enter the bigger National Schools in the country particularly in Colombo. This scheme has had mixed results.

On the one hand, students have no doubt benefited from the better facilities of the national schools and gone on to achieve distinctions in higher education.

On the other hand, research studies have pointed out that many children have found the dislocation from their homes, poor housing and boarding conditions in the vicinity of the school or transport from a long distance to these schools, a traumatic experience, and a high rate of dropouts has been noted.

Another significant element of the educational system which contributed to quality education was the denominational schools, mainly Christian, in various parts of the country. The history of these schools go back to over one hundred years. Until 1961 these schools were operated by religious denominations and provided a good educational environment to children of that particular religion and also to others. These denominational schools were however taken over by the government in 1964 when they became either government schools or continued to operate without government assistance. In 1978 the government once again began to pay the salaries of teachers of these schools and reduced their financial burdens. These denominational schools provided good quality education in many parts of the country.

The high rate of school enrolment in Sri Lanka is not due to compulsory primary education. Although it is generally believed that the country has legislated for compulsory primary education, there is no such legislative

provision. The 1939 Education Ordinance provided for enabling legislation to enforce compulsory attendance at school, but such regulations were not implemented. The high rate of school enrolment is due to the value orientation of most people who recognise education as a very important and valued attribute and most parents have been keen on children receiving an education, except in the case of a few communities like the Moors, who have refrained from sending their girls to school.

However, more recently with an increasing incidence of child employment and child prostitution, the need for legislation for compulsory education has become apparent. Despite the high rate of school enrolment, a residual small proportion of children, with or without the connivance of parents have been lured away into informal employment or vice.

Another factor that has had an important impact on extending education has been the adoption of the mother tongue as the medium of education in schools. This has had two impacts: one is the equalisation of education throughout the country, and the second is, that it has made children more willing and able to participate in the educational system unlike when the school system operated in the English medium. Though this policy has resulted in the quality of the knowledge of English deteriorating there is little doubt that it has been one of the instruments which encouraged the larger participation rate in education at primary, secondary, and tertiary levels.

The educational programme has failed in several ways. One is the enormous disparity that exists in the schools around the country. There are wide differences among districts and within districts, the quality of estate schools is poor and there is a lack of basic facilities in many schools. A large number of schools are one or two-teacher schools. Although general science is compulsory in Grades 6 to 11, only about 5% of schools have science classes at Advanced Level (Grades 12-13). In over half the districts in the country, less than 5% of schools have science facilities. This implies that higher education in science is inaccessible to a very large proportion of students outside the more developed centres (Jayaweera 1991; 15-17).

The lower expenditure on education in the 1970s and early 1980s, a lesser concern for redressing inequalities in educational opportunities, and deteriorating economic conditions of the poor, appeared to have slowed down if not reversed slightly the attainments in literacy and primary education. In 1991, the UNICEF study, *Children and Women in Sri Lanka - A Situation Analysis* pointed out:

“Despite the rapid expansion of educational opportunity in the midcentury and the provision of incentives, universal primary education has yet to be achieved in Sri Lanka, contrary to the expectations of the sixties. The eighties appear to have been a lost decade in this respect as large scale surveys have reported a mild reversal in the earlier positive trends in educational participation and literacy” (UNICEF 1991: 85).

This experience is illustrative of the fact that literacy and educational indicators, like other social indicators, cannot be presumed to be irreversible. Even if the evidence of a reversal of these indicators is scanty, there is little doubt that the march of progress in educational development has been slowed down. The need to fund education adequately as well as to intervene directly in redressing inequalities of opportunities is quite clear.

The poor wages for teachers have resulted in poor quality teachers and the development of an alternate private tuition system in which the government teachers themselves provide tuition at a fee. Owing to these reasons, the present quality of education is questionable. The educational system has failed to upgrade itself to provide the skills needed for an industrialising society. The system of vocational education too has not met with much success owing to the lack of teachers, appropriate facilities, and a perception among parents and children that vocational education is an inferior channel.

The efficacy of each social sector was enhanced by the other welfare policies. Health was improved by food subsidies and free education. Food

subsidies played an important role in ensuring minimal nutritional levels of the poor and this, in turn, contributed significantly to improved health conditions. Similarly improved health conditions would have enhanced educational abilities. The food subsidy and the free mid-day meal contributed to school enrolment and educational attainments. The expansion of primary education and the high rate of literacy improved the awareness for public hygiene, the ability to communicate health instructions, the effectiveness of immunization programmes, the improvement of prenatal conditions, and the widespread use of maternity hospitals and midwives at childbirth. The equality of access to education for most women was another important factor in ensuring the success of health programmes.

The poorer health indicators among the immigrant Indian labour and the Muslims, compared with those of other communities, underscore the significant interdependence between, health, education, and nutrition. Health indicators were impressive not merely because of the policies in the health sector itself, but owing to the complementary policies in food and education. This is illustrated by the experience of the Indian Tamils and Moors. The lower health indicators of estate labour is partly due to the poor educational facilities and lower literacy among them. Moors, comprising 7% of the population, also have poorer indicators owing to their cultural values not encouraging education among females.

Sri Lanka's social development was quite forcefully influenced by cultural factors. Buddhist religious values which emphasized egalitarianism and the responsibility of a ruler for providing basic needs of food, shelter, and medicine may have been significant underlying forces for the political commitment to social development policies. (Abeysekera 1985: 291-92; Bruton 1992: 26). The Buddhist temple was a place of learning from time immemorial and the levels of basic male literacy appear to have been significant even in ancient times. Similarly, Buddhist priests practiced medicine and though this function has been largely transferred to laypeople, the indigenous system of medicine, known as Ayurveda is a part

of the social medicine of the country even today, and a large proportion of the population resort to it for the treatment of very many ailments.

Therefore, Sri Lanka's social development policy in the 20th century was based on a strong underlying traditional set of values committed to welfarism, a prestigious place for learning, and a traditional system of medicine. These were further strengthened by socialist ideologies and by over six decades of intense competitive democratic politics. The high value placed by the Sinhalese and Sri Lankan Tamils on literacy and education and the much lesser gender discriminations among them, compared with the Moors, resulted in a lesser performance in literacy, maternal mortality, infant mortality, and higher birth rates among the Moors. This illustrates that a transformation of cultural values is basic to the efficacy of educational and health programmes, particularly for females.

The efficacy of the health and educational programmes was enhanced by the small size of the country. The compact 62,000 square kilometers makes most places easily accessible. Persons in the remotest areas, if not reached by the public services, could commute to a nearby location where such services are provided. The compact nature of the country undoubtedly enables, particularly the health programmes, to penetrate into the remotest parts of the country. The efficacy of preventive and curative measures, and, in particular, the Malaria eradication programme, can be attributed to this. In the case of Malaria eradication, the disease was epidemic only in the Dry Zone which comprises two-thirds of the country. The ten thousand government schools, which span the country mean that at least primary schools are available at a relatively short distance from most homes. This fact of compactness also perhaps explains the similar achievements recorded in small countries like Jamaica and Mauritius.

Sri Lanka's experience brings out the conflict between political commitment and economic capacity. It is one thing to be committed to providing welfare services and quite another for an economy to have the capacity to provide the needed resources. The structure of the economy which emerged from colonial rule enabled the government to tap resources

from the developed and more productive plantation agriculture to finance the welfare package. The availability of an extractive surplus at an early stage of development enabled the country to expend as much as 8 per cent of GDP on social expenditures in the 1950s. This is particularly so in the initial years when the food subsidy was introduced and health and educational services were provided free. By resorting to a high rate of taxation of the export plantation crops, tea, rubber, and coconut, the government was able to find the resources to finance the welfare programmes. When international prices of plantation crops declined in the late fifties and sixties and the country's balance of payments deteriorated social expenditures became a strain and arguably a constraint on other investments for economic growth. Decreased revenue from export taxes required governments to revise the large expenditure on food subsidies, in particular, and also in health and education. Yet the political context was such that governments were extremely reluctant to curtail these welfare programmes and expenditures. Instead, they continued to resort to high levels of taxation, which in fact jeopardized the plantation industry.

Sri Lanka's experience demonstrates that when surpluses generated in a part of the economy are used to support a social programme of the magnitude Sri Lanka adopted it could result in lower growth subsequently. The resultant economic strains lead to the curtailment of the welfare expenditures ultimately. This explains why Sri Lanka's impressive attainments in several indicators up to the "sixties lost some of the momentum and failed to achieve still better indicators in the 1980s and 1990s. This is particularly pertinent with respect to achieving an improved quality in educational and health services.

The capacity to pursue broad based social development programmes was facilitated by the lesser demands of other large expenditures, particularly defence. In the initial years and till the 'seventies Sri Lanka had a very low defence budget and debt servicing costs. Revenues, which otherwise may have been spent on them were used to enhance the welfare programme. But since the 'seventies these expenditures have grown and made the financing of the welfare programmes ever so difficult. In 1993 debt

servicing absorbed 29 percent of revenue and defence around 12 percent. It is arguable that the vast expenditures on these two items deprive higher resource allocations to health and education.

The slow rate of economic growth and the persistence of poverty and unemployment have created conditions, where despite the improvements in the CBR, IMR, MMR, literacy and school enrolment, high rates of morbidity associated with poverty and poor living conditions persist; the quality of health and educational services leaves much to be desired and regional disparities are conspicuous. Consequently further gains in social indicators are tardy. But whether economic growth could have been better with lesser expenditure on welfare is a moot question. More pertinent is the issue of whether a better-targeted welfare system could have achieved the same measure of social progress, as well as higher rates of economic growth which may have sustained a qualitatively superior educational and health system. These questions of vital significance for social development policies emerge as the issues which must be considered in the evolution of social policy in the next decade.

Overall economic conditions had not only a direct, but an indirect role as well, in social development. When resources were inadequate for the expansion of the educational and health systems, the numbers of professionals and technicians to serve these sectors became inadequate to cope with the growing demands of an increasing population. This was brought about partly by an exodus of doctors and medical personnel who have sought greener pastures when the country's overall economic conditions deteriorated. On the other hand, owing to financial difficulties it was not possible to expand facilities for training an increased number of trained medical personnel. The output of medical personnel from the local institutes has not been able to expand adequately to make up for the loss of such persons through migration. Consequently, notwithstanding the higher health standards achieved by the country, it has one of the lowest doctor to population ratios. In Sri Lanka a doctor serves 7140 persons compared to only 2440 in India and 2940 in Pakistan. The persons per nurse at 1400 has however been the best in South Asia.

At times of difficult economic conditions, there has been no conspicuous change in health policy, but capital and recurrent expenditure on health has been the curtailment of public expenditure. During 1970's, the deteriorating economic conditions resulted in a curtailment of public expenditure. During 1970-77, a government that was strongly committed to welfarism and socialist policies had to limit resources unwillingly owing to the severe financial stringency. This period also coincided with food shortages and consequent deterioration in nutrition standards and the exodus of medical personnel owing to their deteriorating living standards.

The post-1977 government committed to liberalization and open market policies pursued a package of policies that directly and indirectly affected the public health delivery system adversely. Although in the beginning, the per capita expenditure increased, the severe erosion in the value of money, the high cost of drugs, the commitment of large expenditures for capital budgets in health, and the greater emphasis on sophisticated medical equipment, resulted in the deterioration of primary health facilities. The shift in policies to encourage the private practice of government medical personnel as a device of preventing the brain drain has had an adverse effect on services in government hospitals.

Economic performance has influenced social development policies since 1977 by the adoption of the IMF's Structural Adjustment Programme. The slow growth of the economy and the severe balance of payments difficulties made it necessary for the country to embark on a Structural Adjustment Programme in 1977. These policies resulted in conditionalities being imposed by the multilateral agencies to curtail the welfare expenditure in order to divert resources for investment and growth. The impact of the structural adjustment policies since 1977 has not only led to a curtailment of the overall expenditures, but by changing the price structures by the removal of administered pricing and the depreciation of the currency, the price of food, drugs, and medical supplies increased significantly. With their incomes not rising as fast as prices, there has been

an erosion in the ability of the poorer sections of the people to obtain their basic needs (UNICEF 1985).

The general thrust of economic policies since 1977 has also resulted in the well to do sections of the population shifting their demand for health and educational services from the public service to the private sector. The deteriorating quality of public health and education has made the affluent sections of the population to rely more and more on private hospitals, fee-based medical consultants' services, private schools, and private tuition. This shift away from public health and educational services may resolve the problem of the affluent, but to the extent of their opting out of the public health and educational services, an important and influential body of opinion would be less concerned about nature and quality of these services. This could affect the standards of health and educational services available to the bulk of the population.

Although the government continues to be committed, to the provision of, health cares, the general thrust of policies pursued by the government has had an effect of developing the poorer sections of the people of adequate medical facilities. The main impact has been on the quality of services through some of the health indicators that have reflected these conditions.

The health service has also been weakened by the dual system of free medical service and private practice. Alailima (1985) observed that:

"Permitting two systems to function simultaneously within the health service-one with a profit motive and the other with a service objective has led to preferential access and utilization of government facilities by the former. Other categories of health workers in the curative services want the same privilege of private practice and an unofficial system of "fee-levying" came into being whereby patients had to pay individual hospital staff to obtain services which the state was providing free. Pilfering of drugs and consumables also became widespread, leading to recurrent shortages of essential items" (Alailima 1985: 32).

The morale and motivation of health staff outside the curative services and those of paramedical cadres have also been affected by the lure of more lucrative jobs abroad and the cadres of laboratory technicians, radiographers, pharmacists, and midwives remain vacant. As Alailima (1985) pointed out:

"Weaknesses in management and supervision within the health services, aggravated by the exodus of medical and paramedical manpower and the introduction of private practice within the context of a restriction of recurrent expenditure, has led to a deterioration in the quality of the health services. The preventive services have been particularly affected, ironically, at a time when there is increasing publicity on the need for primary health care and growing support for the provision of such services by donors" (Alailima 1985: 32).

Despite impressive achievements in health indicators especially in the 'fourties and 'fifties, the slow growth of the economy in the 'sixties and most of the 'seventies resulted in the unsustainability of the free medical services at levels that would have pushed Sri Lanka's health to even better levels of achievement. The financial stringency, the shift away from welfarism since 1977 the deterioration in morale, and the exodus of medical personnel have resulted in a poor quality of public health services. Both political accountability and administrative accountability, which were good in the mid-sixties, appear to have deteriorated since then.

Since 1973, and particularly since 1981-1982, the highest decile of income receivers received an increased share of incomes, while the lowest decile has decreased their proportion of income. In 1985-1986, the latest year for which data are available, the top most decile obtained 39 percent of incomes, while the bottom 40 percent received only 11 percent. There are indications that these trends, which are consistent with Kuznets curve, have accentuated further (Kelegama 1993).

An interesting parallel paradoxical development in the morbidity pattern is its bi-polar distribution of increased illnesses associated with high incomes

and stress conditions, together with a simultaneous increase in morbidity conditions associated with low incomes and poor nutrition. This bi-polar modality is consistent with recent developments of the income distribution, removal of food subsidies, high cost of basic food, and a continued high rate of unemployment.

This experience provides several insights. The development process based on market forces could bring out a phenomenon of a small proportion of the population with high incomes being subject to a morbidity pattern similar to high-income societies. Yet the gamut of economic policies which generate this development process could leave behind a section of the population whose basic needs are inadequately met. This could result in the persistence of illnesses associated with poverty, malnutrition, and poor hygienic conditions of living. These developments have important policy implications for health policy. There would be a tendency for health expenditures to be directed to higher-cost technologies to meet the needs of the affluent minority and thereby resulting in the lesser availability of funds for the prevention and treatment of the common ailments.

4. Conclusions

While Sri Lanka succeeded in attaining good basic social indicators early, the slow rate of economic did not enable her to achieve better health and educational standards in recent years. Sri Lanka's experience illustrates, on the one hand, the possibility of improving basic literacy and education and achieving low mortality figures with relatively low incomes given a priority for these, and on the other hand, it demonstrates the difficulty of providing better quality health and education with low per capita incomes.

Although social development has a self-sustaining capacity, reversals are not impossible. The initial attainments of Sri Lankan education, in particular, was itself an important factor in inducing subsequent improvements. Literate and educated parents are the best launching pad for a more educated, as well as for a healthier, next generation. While this has happened during most of the country's post-independent period, there is

evidence that there is some slippage in recent years. Having attained a literacy level of 87 percent in 1981, more recent sample survey data disclose literacy rates still below 90 percent. Similarly, there is some evidence that nutritional levels among the poorest have deteriorated. The reasons for these possible retrogressions are the economic difficulties of the poorest sections amidst overall economic growth, the reduction or withdrawal of subsidies, neglect of institutions catering to the poorer sections and in remote areas, and the deterioration in the quality of services, partly due to inadequate funding. Illustrative of these setbacks is the deterioration of the central school systems, inadequate funding, and personnel for small schools, the withdrawal of the food subsidy, rising real costs of basic needs, and inadequate facilities in government hospitals, particularly the shortage of drugs.

A political commitment to social development, the availability of resources for the development of health and education infrastructure throughout the country, and the interaction of the different sectorial programmes account for the initial successes in social indicators. Changed economic conditions and the extensive welfare package have in recent years cast shadows on the sustainability of the attainments. Inadequate economic growth appears to be the biggest stumbling block to Sri Lanka's achievement of still higher health and educational attainments.

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4

GLOBAL TRANSFORMATION AND THE QUALITY OF LIFE

1. Introduction

"Global Transformation" has been defined as "The integration of the national economies to a global system of production, consumption and trade." The background paper of the Association of Asian Social Science Research Councils (AASSREC) Conference on "Local Impact of Global Transformation with Special Reference to Social Development Issues", goes on to say that "this would signify trade and investment liberalization in the immediate period, and domestic structural adjustment as part of a long term adjustment"(AASSREC 1994:1).

Global transformation may therefore be interpreted as being the movement towards liberalized trade, the dismantling of foreign exchange restrictions, the free flow of foreign investments and services, the reliance on private enterprise and private foreign investment. It implies an economic system with a greater reliance on market forces and a departure from central planning and the state control of the commanding heights of the economy.

The concept of global transformation is easily comprehensible to Sri Lankans as these processes have influenced the country's economic and social policies since the economic reforms of 1977. Therefore Sri Lanka has nearly two decades of experience to draw on to assess the impact of these policies on social development and the quality of life.

The concept of the quality of life necessarily conjures a very wide spectrum of issues. It may be said that there is hardly any aspect of economic, social, political, cultural, and other aspects of human life

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which could be excluded in considering the quality of life. Yet, following on the school of thinking of Morris D. Morris, James P. Grant, Florizelle B. Liser, which generated the Physical Quality of Life Index, and the later thinking of Mahbubul Haq. and the Human Development Index, AASSREC has defined the quality of life mainly in terms of attainments in literacy, education, health indicators and life expectancy. To quote the AASSREC background paper:

Education and health status basically determine the quality of life of a population. Education interacts with the quality of life in numerous ways. It enables the population to process information in a better and more efficient manner, to participate in higher forms of cultural activities, trains people to move to better and higher paid jobs, and strengthens their ability to make important decisions concerning the welfare of the family and the society. Similarly, life expectancy and infant mortality are closely related to the access to and efficiency of, the health care system. (AASSREC 1994: 1)

While not disagreeing with this line of thinking, it may be pointed out that these indicators, however important, do not capture fully other components of living which enhance or could enhance the quality of living. The quality of life defined in terms of these indicators relates only to basic needs and basic living conditions. They do not measure the access to numerous other facets of living. This paper would go somewhat beyond this definition to discuss and raise the issues with respect to the impact of the global transformation on other aspects of living too, albeit to a limited extent.

By the time Sri Lanka became integrated with the global transformation, she had attained fairly high levels in health indicators, literacy and basic education. (See Tables 1-3). These improvements in social indicators establish two factors. First, that the achievements in health indicators were in fact based on the country's earlier social policy which gave a high priority for improving health and education. Second, while it may be incorrect to conclude that the global transformation per se affected some

of these indicators adversely; given the already high attainments, it appears that further progress was tardy due to a change in emphasis on social policy largely owing to the new economic policies of globalisation. It is also arguable that economic difficulties had reached a stage when, without the structural adjustment policies of the late 1970s, the country's social development would have been adversely affected by worsening economic conditions. In fact there is some evidence to this effect in the slow social progress and curtailment of social development expenditure (Alailima and Sanderatne 1997).

2. Health Indicators

By 1971, six years before adopting the Structural Adjustment Programme, liberalising trade and adopting market oriented policies, life expectancy at birth had reached 66 years. It increased to 70 in 1980 and is estimated to be 71 years in 1990. By 1975 the infant mortality rate (IMR) had fallen to 15 per thousand live births and continued to decline to reach 19 in 1990. The Maternal Mortality Rate (MMR) had reached 100 per one hundred thousand in 1975 and is currently only 40. (See Table 1).

Table 1: Key Health Indicators

Year	1960	1965	1970	1975	1980	1985	1990
Life Expectancy	-	64	66	-	70	-	71
<i>(Year)</i>		<i>(1963)</i>	<i>(1971)</i>		<i>(1981)</i>		
IMR per 1000	57	53	48	45	34	24	19
MMR per 100,000	300	240	150	100	60	50	40

Source: Dept of Census & Statistics.

These developments indicate that the country had impressive attainments in health prior to the global transformation and that these indicators improved further since then. In as far as these indicators are concerned, it is difficult to draw out any definite conclusions regarding the impact of the global transformation.

It is therefore very pertinent to this discussion to compare these health indicators with regional indicators. Sri Lanka's health indicators compare very favorably with those of other South Asian countries (Table 2). But it is noteworthy that several South East Asian and East Asian countries which had lower attainments in health have caught up with Sri Lanka and in some instances surpassed Sri Lanka's achievements in the last three decades (Table 3) The achievements of these countries are generally attributed directly to their high rates of economic growth, which enabled higher public and private investment in health. Their economic growth is in turn attributed to their more effective "globalisation" of their economic policies.

Table 2: Sri Lanka's Health Indicators- (Compared to other South Asian Countries)

Country	Sri Lanka	India	Pakistan	Banglad -esh	Nepal
Life Expectancy	72	61	62	56	54
Infant Mortality Rate	17	81	89	106	98
Under 5 Mortality Rate	19	119	137	117	118
Maternal Mortality Rate	140	570	340	850	1500

Source: UNDP, Human Development Report 1996.

Note: For comparability, data on Sri Lanka are based on the same international source.

Significant differences in health policy occurred after the global transformation in the post 1977 years. There was a difference in emphasis in public health expenditure. Although the core of health policy interventions continued after 1977, and the total expenditure on health as a percentage of GDP, as well as total government expenditure, did not vary much, capital expenditure on health became more significant than current expenditure.

Table 3: Comparison of Health and Literacy Indicators 1960-1993

Indicator	Life Expectancy		Infant Mortality Rate Per 1000 Live Births		Adult Literacy Rate	
	1960	1993	1960	1993	1970	1993
Sri Lanka	62.0	72.0	71	17	77	90
Malaysia	53.9	70.9	73	13	60	82
Singapore	64.5	74.9	36	6		90
South Korea	53.9	71.3	85	11	88	98
Thailand	52.3	69.2	103	36	79	94

Source: Human Development Report 1996.

Capital expenditure on health grew from 9 percent of the health budget in 1977 to an average of 19 percent during 1978-82. In 1983 it grew sharply to 36 percent. The construction of new hospitals and sophisticated equipment absorbed significant sums of money. The increase in capital expenditure can be attributed to a substantial inflow of foreign aid, the need to rehabilitate infrastructure and a greater willingness by the government to spend on capital projects (Alailima 1985).

After the adoption of structural adjustment policies funds were readily available for new projects and the improvement of existing infrastructure. In 1978 and 1979 the Ministry of Health initiated several new large-scale infrastructure projects and obtained large amounts of equipment for ongoing programmes. Equipment purchases quadrupled between 1979-82. The tendency was to purchase high technology items. Building activities also shifted from provincial and base hospitals in the mid-seventies to teaching hospitals at the end of the decade (Alailima 1985).

After the global transformation foreign aid had an important influence in shaping medical expenditure. Foreign aid favoured large capital projects like new hospitals, and high cost sophisticated technology. This resulted in

a decrease in budgetary finances for the maintenance of existing hospitals, the purchase of drugs and improvement of facilities in the periphery, as domestic finances had to be channeled to meet the local component of the foreign funded projects. The encouragement of private enterprise in medical services also resulted in several new private hospitals catering to the affluent and middle classes. Consequently vocal and influential sections of the population may be less concerned with public hospital facilities. The positive aspects of the expansion of private health care are that sophisticated medical technology is financed by private expenditure and there is an easing on some of the demands on public health expenditure.

The impact of foreign aid on health facilities has been considerable. Two new hospitals costing about Rs 1,300 million and a large amount of equipment and vehicles were obtained as grants. The dependence of the community health services on foreign aid increased from 7% of its total budget in 1976 to 53% in 1979. In 1982, foreign aid came to about one-fifth of total health expenditure and foreign voluntary service organisations' involvement and foreign support for local service organisations also increased (Alailima 1985).

The increase in capital expenditure and the tendency towards purchasing higher cost sophisticated health technology, combined with the reduction of recurrent expenditure contributed to difficulties in maintaining buildings and equipment, supervision and falling service standards. A World Bank Aid Memoire of 1983 observed that *"only about 0.6% of the replacement cost of equipment was budgeted for maintenance and repairs, in contrast to a requirement of at least 4%"*, and went to say that *"Taking past capital expenditure into account, the underfunding of the health services may now be in the region of 20% of existing budget approvals"* (Quoted in Alailima 1985).

The declining purchasing power of doctors' salaries, the relaxation of the 5-year compulsory service requirement for newly graduated doctors and the availability of foreign exchange for travel after the globalisation,

contributed to an exodus of doctors from the country in the late 1970s and early 1980s. To counteract this brain drain doctors were permitted to engage in private practice from 1977 onwards. The privilege of private practice was widely abused throughout the health service and led to a deterioration of morale, discipline, and the quality of service provided by all categories of supporting staff. One positive effect of private practice has been to lure doctors to peripheral units and district hospitals in remote areas (Alailima 1985).

Therefore, globalisation did have a qualitative impact on the health services. Though the basic indicators continued to improve, the access of the poor to quality health services appears to have been adversely affected. On the other hand, the more affluent probably had better health care facilities; drugs and medical accessories as these were freely available to those who could afford them.

3. Literacy and Education

A similar pattern prevails with respect to the attainments in education and literacy. Sri Lanka achieved a relatively high adult literacy rate of 65% as early as 1953. By 1971 the adult literacy rate reached 78%. The trend continued and by 1981 adult literacy reached 87% with male literacy being 91% and female literacy 83%. (Table 4) However, since 1981, although there is a lack of national data, indications are that adult literacy has hovered around 90%. The initial achievements in literacy gave expectations for literacy to reach a near 100% by the 1990s. This has not been achieved. This is partly due to the increased expectancy of life and the older-illiterates surviving.

In comparison, South East Asian and East Asian countries which opened up their economies and experienced rapid economic growth, have made significant strides in literacy (Table 3).

There are also indications of inadequate improvements in the primary enrolment rates and primary completion rates. School dropouts have

remained high. One of the reasons for this is child employment and child prostitution which has increased with tourism, a facet of globalisation.

Besides this, regional disparities in educational facilities: with a very large number of ill equipped schools in the rural and estate areas, have been some of the unsatisfactory features of education. The persistence of wide disparities in education has been discussed in the *Sri Lanka National Report for The World Summit on Social Development* as follows:

The quality of schooling and health care provided by government services is quite uneven and is associated with the size of facility a Ban The public school system caters to about four million students; but the size of the school is associated with better facilities and performance since "good" schools expand in response to pressure from parents to obtain admission for their children, attract the more affluent, and are able to maintain their facilities through parental support. In spite of various regulations on school admissions and a common curricula, the schools have undergone a stratification in which the lowest stratum consists of poor, ill equipped schools located in urban slums, remote villages and areas with a large plantation sector. These schools have relatively high- drop-out rates and the performance levels of their pupils in literacy and numeracy are low.

(Ministry of Health, Highways and Social Services 1995:25)

Table 4: Literacy in Sri Lanka.

Year	1953	1963	1971	1981
Adult	65.4	71.6	78.5	87.2
Literacy rate				
Male	75.3	79.6	85.6	91.1
Female	53.6	63.2	70.9	83.2

Source: *Department of Census and Statistics.*

4. Impact of Global Transformation

The implications of the above trends in health and education are that several aspects of the global transformation have affected social development, if not adversely, at least in terms of retarding progress in social development. These include the increase in prices of basic commodities subsequent to a market oriented approach, the removal of food subsidies and the depreciation of the currency. A shift in policy emphasis also resulted in the curtailment of expenditure on health and education. For instance, Sri Lanka invested about 4% of GDP on education in the 1960s. This proportion declined to around 2% of GDP in the post 1977 period when the globalisation policies were adopted. There also appears to be a lesser emphasis on rural and disadvantaged regions since the 1977 economic reforms and consequently a greater disparity between urban and non-urban facilities in education in particular. The emphasis on economic growth conferring benefits which would enable the population at large to participate in health facilities and educational opportunities was part of the new emphasis in the economic policies since 1977, compared with the earlier policies of more direct intervention to provide health and educational facilities for all. However, it must be recognised that though there was a shift in emphasis, the basic elements of the earlier policies on free education and free health continued, though some of the changes in economic policies did affect the quality of facilities in health and education.

An important manner in which the post 1977 policies affected health is through the impact of these policies on income distribution. Until 1973 there was a trend of improvement in income distribution as disclosed in the Consumer Finances and Socio Economic Surveys of the Central Bank: Since 1978/79 there has been a deterioration in income distribution. In the last survey of 1986/87 income distribution had deteriorated to the extent of the top decile enjoying as much as 39% of incomes. The lowest 40% of income receivers, on the other hand, enjoyed an income of less than 15% of total incomes. (The Central Bank of Sri Lanka 1994). This pattern of income distribution appears consistent with the emerging pattern of

morbidity. The morbidity pattern in Sri Lanka has a bi-polar distribution with a high incidence of diseases associated with low incomes, poor housing and sanitary conditions, as well as a high incidence of illnesses associated with stressful conditions of modern living, unhealthy foods and excessive food consumption.

It may not be unreasonable to conclude that this morbidity pattern is closely associated with the global transformation, which brought about this income distribution pattern as well as modern styles of living. Although the Kuznet curve of income distribution, which indicates a deterioration in income distribution at early stages of rapid economic growth and an improvement in income distribution after a higher level of economic growth is achieved, is now not widely accepted, the Sri Lankan experience appears to confirm this earlier wisdom. Whether there would be an improvement in income distribution in subsequent years with the continuation of the globalisation is an interesting question to pose.

The other related impact of globalisation or structural adjustment policy was on nutrition levels. Prior to the change in economic policies basic food price were kept low through administered pricing and food subsidies. These policies were changed. Economic growth and improvements in income were expected to ensure adequate nutritional levels. The removal of the food subsidy, discontinuance of administered pricing and the devaluation of the currency resulted in sharp rise in prices of basic commodities. Between 1978 and 1985 food price tripled. (Sanderatne 1985) Those who were entitled to food stamps were inadequately compensated. (Alailima & Sanderatne 1982) Between 1978-7 and 1981-82, the lowest quintile consumed less of staple foods like rice, wheat flour, bread, coconut and sugar. (Alailima and Sanderatne 1982) By 1981-82 the consumption of the lowest decile fell to 1181 calories and 49 percent of children in the lowest income quintile was chronically malnourished. With the nutrition intervention programmes for school children by 1993 there was an improvement (Alailima and Sanderatne 1997).

These developments indicate that the initial impacts of globalisation c 02 protect the poor are in place, their quality of life, in a very basic sense, tends deteriorate. Paradoxically, at the very time when such support is needed, the theoretical underpinnings of the system actually militate against such intervention in the name of competition, the free market, investment and growth.

5. Broader Indicators of the Quality of Life

The above discussion has been in terms of a few social indicators related health and education. The impact of globalisation on the quality of life has been much more than could be captured by these basic indicators. The inclusion other indicators could reflect the quality of life in a more comprehensive manner.

In the area of health it could include not merely the mortality rates but also access to health facilities, doctors and nurses per population and the incidence of illnesses and morbidity patterns. In determining the status of health of a country one could also consider social tension indicators such as suicide rates, as well as the qualitative aspects of health care rather than confine it to the quantitative aspects.

The impacts have been on a whole range of economic, social and cultural aspects of living that have affected the lives of a very large proportion of the population and most notably the poorer sections. These impacts relate to higher female participation in the work force, the mobility of labour, the access to television, information technology, international travel and tourism, availability of a wide range of goods, especially imported commodities, consumer durables, changes in the modes of transport and a greater international awareness.

There are indications that some of these broader indicators have deteriorated after globalisation. For instance, suicide rates have increased to 47 per 100,000 - the highest in the world. Mental illnesses are more rampant. An estimated 70,000 persons suffer from Schizophrenia,

depressive and anxiety disorders account for up to one-third of all primary health care visits and around 5-20% of those over 65 years suffer from dementia (National Council for Medical Health 1996). Alcoholism has increased and Sri Lanka's per capita alcoholic consumption rates are among the highest in the world.

Are the deteriorations in these aspects owing to the processes of global transformation? Even though no definite answer could be given to this, there is little doubt that the processes of modernization effected through globalisation has led to social alienation, stress and unhealthy conditions of living, weakening of traditional family cohesiveness and an insatiable consumerism. These developments are no doubt part of the explanation for these adverse developments in society.

More positive aspects are also evident after globalisation. The access to newspapers, magazines, radio and television has increased dramatically since the new economic policies were implemented. There is also no doubt that a number of material indicators such as the quality of clothing, the access to luxuries and semi luxuries, the possession of vehicles etc. have increased. For instance, Sri Lankans did not have television prior to globalisation. Today there is a television set for every 29 persons. Radios, cameras, motor cycles and similar goods are quite common. Whether the access to these material possessions has improved the quality of life is a question which is difficult to answer. This is especially so as several improvements in material wellbeing bring with them some negative aspects as well.

For instance, while the access to television per se may be considered a potential improvement in the quality of life, if the quality of the television programmes is such as to damage social ethics or do not elevate the viewers' thinking, critical awareness and the enjoyment of what may be deemed the higher levels of cultural life, then the quality of life is not necessarily improved. In fact, some of the programmes may damage the moral and social fabric of society, and could be deemed as damaging the quality of life. On the other hand, television holds out the prospect of

access to latest technology and other cultures. It has both an entertainment - cultural value as well as a means of enhancing awareness of the world and access to the latest knowledge. It can be especially valuable in increasing the knowledge and awareness of the young, language learning and broadening of the mind.

Another important impact of globalisation is the large scale migration of workers to Middle Eastern countries. This outflow of labour has significant economic and social ramifications for the country. The foreign exchange remittances have become an important component of the country's savings and investment. For the quality of life it has had both positive and negative impacts. On the positive side, a significant number of persons have improved their standard of living and acquired material assets such as houses, or improved their dwellings, found startup capital for small enterprises and been able to afford consumer durables like vehicles, television, radios, cameras etc. No doubt these acquisitions have improved their quality of life. On the other hand, the migration of workers has resulted in single parent households, break up of marriages, alcoholism and other social evils. Besides this, some of those who have gone on work assignments have faced unnatural death and humiliation. Therefore this aspect of globalisation has had both positive and negative impacts on the quality of life especially for the poorer segments of society.

While a proper assessment of the quality of life requires the consideration of these broader indicators, the evaluation and determination of whether the global transformation, which made possible increased material possessions, has in fact improved the quality of life is difficult to determine in an objective manner. Nevertheless, it is important to point out that a narrow definition in terms of basic health and education indicators has serious limitations in assessing the impact of global transformation on the quality of life.

6. Conclusions

In terms of the definition of the quality of life AASSREC has adopted, which are also the ones which most development studies utilise, Sri Lanka has had impressive improvements prior to the global transformation arising out of the economic reforms of 1977. Since the integration of the Sri Lankan economy with the global economy in the late 1970's there has been a tardy progress of some of these indicators. This slow progress is no doubt partly owing to the strains in economic growth since the 1960s and not necessarily attributable to the globalisation and economic reforms alone. The shift in economic policies, including the change in emphasis on welfare and direct interventions, as well as the impacts of the new economic policies have had their effect on these indicators. Apart from the slower growth of these indicators, there also appears to have been qualitative deteriorations in health and education. On the other hand, there have been increased access to a number of other material goods and services. Whether the access to these material possessions and services have contributed to an improvement or deterioration in the quality of life remains a difficult issue to resolve. Yet, a discussion on the impact of global transformation on the quality of life, if restricted and confined to the basic indicators, is inadequate. Social scientists must look at the impact of the global transformation on the quality of life in terms of much broader indicators. The sooner they grapple with the more difficult issues of determining the impacts on all aspects of social development the more relevant would be their contribution to this discussion.

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Population and Development

5

DEMOGRAPHY, DEVELOPMENT AND THE ENVIRONMENT

1. Introduction

The demographic developments of the past, the demographic situation of the present and the unfolding demographic scenario of the future are the underlying factors bearing on the state of Sri Lanka's environment. Closely related to the demographic developments is the path of economic development of the past and the strategy of development for the future. Paradoxically, under development with its attendant problems of poverty and unemployment affect adversely the environment, as much as the processes of development itself.

This paper illustrates how demographic factors have and will affect the environment both directly as well as indirectly through the imperatives of development. Sustainable development in the Sri Lankan context is indeed hard to achieve given its low natural resource base in relation to its population, the material aspirations of her population and the development needs of the 21st century. Yet the neglect of environmental considerations could leave the future population of the country with a poorer quality of life in terms of an holistic concept of living and ultimate objectives of economic advancement, even if they were to achieve a higher material standard of living.

2. Demographic Changes

The beginnings of the demographic pressures could be traced to the curtailment of the country's death rate. In a single year 1946-47, Sri Lanka cut down her mortality rate from 19.4 per thousand to 14. This "amazing decline of mortality", in the words of Kingsley Davies, was the beginning of the country's demographic transition to a phase of high

population growth (Sanderatne, 1978: 157-170). Consequent to this sharp decline in mortality in the mid-forties population growth reached a peak annual average growth of about 2.8 percent in the 1950s and continued to be high in the 1960s (2.6 percent) and in the 1970s (2.4 percent). Population Growth Decelerated in the 1980s to 1.7 percent and averaged around 1.3 percent per year in the 1990-93 period.

The surge in population in the past decades resulted in Sri Lanka's population nearly doubled between 1950 and 1980 from 7.7 to 14.7 million. Today's population is estimated at 17.6 million. The country has a population density of over 260 persons per square kilometer. The per capita arable land extent is only about 0.30 hectares. When allowance is made for forests and wild reserves at present levels, per capita agricultural land availability is a mere 0.2 hectares. This man: land ratio in the country is a key to understanding the environmental problem.

3. Environmental Considerations

The rapid increase in population resulted in stresses on both renewable and non-renewable resources such as on forest resources and the coral reef. Population pressure has contributed to deforestation by increasing the demand for food, fuel wood and timber. About 25 percent of fuel wood requirements are from high forests, which are also felled for the timber requirements of a rapidly expanding construction industry. These population pressures are mainly responsible for the natural forest cover, estimated at 84 percent of the land area in 1881, declining to 44 percent in the late fifties and about 24 percent in 1991 (Ministry of Environment and Parliamentary Affairs, 1992:75).

The deteriorating Man:Land ratio consequent to the high rates of population increase in the past, necessitated extensive exploitation of land resources. The expansion of rice cultivation under state aided land settlement schemes during the last 40 years, mainly in the dry zone, resulted in large extents of forest land being cleared for cultivation and other uses. The new settlements for dry zone agriculture dependent on irrigation were

served by irrigation systems which used a significant extent of land for surface storage and transmission of water. Between 1956 and 1983 it is estimated that the country lost 38,100 hectares of Dry Zone forests each year.

Despite the progressive increase in domestic rice production, owing to the large population increase, the country continued to import a substantial quantity of rice in the seventies. In 1977, a decision was taken to accelerate the Mahaweli Development Scheme and bring an additional extent of approximately 320,000 acres under irrigation within a short time span of 7 years, to make the country self-sufficient in rice and augment the power supply to meet the rapidly rising demand for energy. With the implementation of the programme, a large extent of forest land was cleared for settlement between 1978 and 1988.

Further, the Mahaweli project, which was by far the largest water resources project to be undertaken, had adverse environmental impacts. Evaluations of the environmental impact of the project indicated possible loss of high quality forest resources, salinization in downstream areas, and massive soil erosion of the catchment area and siltation of the new reservoirs. Some of these environmental impacts appear to have occurred.

4. Land Use and Land Policies

The pressure of population on land has been the foremost factor for converting the traditional system of chena cultivation to an environmentally hazardous one. From time immemorial land has been used for cultivation on a slash and burn basis known as chena cultivation. Farmers used this system to supplement their cultivation of the staple crop rice. Chena cultivation which provided the community with other food crops, was a useful supplement to farmer income and at times of drought, a means of food security as well. When the pressure on land was not as great as it is today, such exploitation of land was both economically and environmentally sustainable. Chena lands used to be cultivated on a cycle of about one in ten years and consequently the farmer reaped the advantage

of cultivating highland crops on lands with good soil conditions requiring less water than the traditional rice crop. However, with the pressures of population, it has not been possible to maintain the long cycle which has been reduced to about three years. Both the inadequate period during which the land remained fallow, as well as the fact that the land is not the property of the farmer resulted in no improvements being done on the land and poor exploitation of land. Increased the intensity of exploitation of chena land has led to soil erosion and depletion of soil fertility. Further, most chena lands abandoned after cultivation don't regain at recover. It is contended that one of the main reasons for the degradation of land under natural forest cover to the level of scrub lands and economically unproductive grass lands is due to chena cultivation.

The spontaneous encroachment on government lands and the continuation of slash and burn or chena cultivation are important factors in deforestation. The 1956 aerial survey indicated that as much as 15% of the land area was under shifting or chena cultivation. Chena cultivation is estimated to cover as much as 1.2 million hectares or 30% of the arable area of the country (ibid: 77).

The recognition that chena cultivation has caused land degradation resulted in the prohibition by law of such cultivation. Yet the practice of chena cultivation continues as it is difficult to implement the laws, particularly as many landless cultivators eke out a living by cultivating small plots of chena lands. Despite the poor exploitation of these lands and the consequential degradation, a significant proportion of subsidiary food crops are grown on chena lands. In many areas chena cultivation has become a settled form of cultivation.

Nearly 500,000 hectares of land are estimated to have been encroached land used for chena cultivation, the magnitude of encroachment can be gauged by the fact that between 1935 to 1988, 240,000 hectares of encroached lands have been regularized. Some estimates place 25% of encroached land to be under chena cultivation. Therefore, the problems of land degradation arising out of the shifting form of cultivation are

applicable to such encroachments. Encroached lands with an uncertainty of tenure result in poor land management and exploitation of the land without concern for the retention of soil fertility. In addition over 55,000 hectares of encroached lands are on road canal and stream reservations, the regularization of all encroachments, except those on reservations, may be an encouragement to further encroachment. There is however, a view that encroachers are good farmers. They maybe more enterprising but their cultivation practices could be environmentally hazardous.

Several other government land alienation policies have also had an adverse impact on land use. With a view to expediting the attainment of self-sufficiency in food, the government alienated large extents of land to private individuals and companies for large scale agricultural exploitation in 1965. At first, land was leased in extents varying from 250 to 3,000 acres to large companies and individuals with proven large financial resources. From 1967, the holdings were limited to 200 acre blocks. Although the government didn't meet any expenses directly, land development was deemed an approved expenditure for tax deductions and other concessions. Between 1965 and 1970, an additional extent of about 20,000 acres for livestock development and 80,000 acres for subsidiary food crops were leased. This scheme was abandoned in 1970. The impact of the large scale leases was minimal on food production but resulted in a significant loss of forest cover in the dry zone. Despite regulations for review of land development biannually, the agreement to develop a fifth of the land area annually, supervisory work by the Ministry of Agriculture and Ministry of Lands and the Government Agents, there was hardly any agricultural development of these lands. Instead, the companies exploited the forest for timber. Consequently, these areas of forest cover were lost.

More recently the government allocated land for private sector investment programmes. In Monaragala district, two large multinational companies were given land. At Pelwatta, a catchment area of a tank was cleared of trees by a sugar company. These recent alienation have resulted in significant extents of forest cover being lost. Most recently tourist hotel was permitted on the Kandalama tank below the spill level.

The increased demand for fuel wood and timber has been an important factor in decreasing the forest cover, "Fuel wood cutting is one of the main causes of deforestation in the mountain region."(ibid:79). The Increased demand for fuel wood is related to the increased cost of petroleum in the 1970s. The requirements of fuel wood have to be curbed to prevent further losses in forests.

Forests have throughout history provided people with useful products but the increase in population has rendered such collection of forest materials excessive. As the UNCED report pointed out: "Up To a point, the collection of material like cane, leaves, fruits, medicinal plants, and the like does not degrade the forest. But with the increase in population the demand for these products increases, depleting resources and making collection non-sustainable"(ibid:79).

Forests should be managed in a manner which ensures their renewability. Agroforestry, community participation in forest protection and alternate economic opportunities for those making a livelihood from forest resources should be explored to meet this problem. The energy policy pricing of the varying sources must be such as to ensure that overexploitation of forest lands for fuel wood is not encouraged. There are some positive moves in these directions. Some States are cultivating their own forest resources and consequently enhancing the forest cover. A policy of ensuring that tea estates, particularly in the high elevation categories, cultivate their own resources of fuel wood by a systematic management of their own forests would certainly alleviate the depletion of forest resources in the natural highlands which are of immense ecological concern.

While the expansion of frontiers of human settlements has been the foremost factor inducing environmental hazards, especially deforestation, land degradation has not been the result of this alone. Whilst deforestation inevitably results in a loss of biodiversity any further degradation is largely determined by the form of land use which replaces the forest and the

effectiveness with which it is managed. Poor cultural practices in many areas of the country has exacerbated the effects of deforestation.

Poor land use on tea estates has resulted in a high degree of soil erosion. Approximately 25% of tea lands in the mid country has been subjected to soil erosion and described as marginal land for tea cultivation. These lands have to be either put into disuse or used for the cultivation of other crops. The causes for the degradation of these lands are several. The deterioration of tea prices in the 1960s coupled with the system of taxation squeezed the mid country tea producers and resulted in inadequate margins to plough back for land improvements (Sanderatne, 1984:142). Consequently, many of the cultural practices required to sustain the soil and increase productivity in the long run were not practiced. Owners of mid-country estates, who were mainly proprietary planters, the adopted strategy of increasing current revenue productivity by decreasing capital costs. In addition to this, the threat of nationalization of tea lands since 1956 resulted in the withholding of improvements and capital investments on these lands. These factors resulted in poor management of tea lands and considerable soil erosion.

The land reforms in 1972 and 1975 also had adverse effects on the utilization of tea lands. Private landowners, whose lands were vested with the government, ended up with small areas (less than 50 acres) and with inadequate resources to invest on the land. The takeover of the estates also demoralized these owners, many of whom lost the better managed parts of their estates and therefore did little to improve the lands retained by them. An even worse effect of the land reform was that lands under tea were handed over to state organizations and institutions which has no capability in managing plantations. The mismanagement of these lands often resulted in a large amount of vacancies in the tea cover, and inadequate recuperative measures for the soil. Well-developed tea lands were handed over in small plots to individuals who did not have capacity to cultivate these. Often these plots were excessively plucked, nomanuring was done, weeding and pest control were not practised. This neglect of mid country tea lands is illustrated by the results of a sample of thirty-six estates in the mid-country

which revealed that about 25 percent of the total area of 22,500 acres had a vacancy rate of 50 percent and the other 75 percent of tea land had vacancy rates of between 20 to 30 percent (FAO, 1978).

In the mid country much of the tea is in a degraded state and does not provide more than 40 percent cover. Consequently, these lands are subject to severe splash erosion. A few areas of the mid-country tea lands are degraded to such an extent that they are no longer suitable for replanting with tea. The exposed roots are indicative of this. The high erosivity of the rainfall calls for high investment on mechanical measures of soil conservation (Marga, 1991:136). Well managed tea could provide good soil protection, while producing a crop of major economic importance but the poor state of the mid and up-country tea plantations could have adverse effects on the hydrologic patterns of the river basin and sound watershed management.

The uncontrolled expansion of tobacco cultivation has also been responsible for soil degradation. Tobacco is cultivated in the drier parts of the hill country, in the North Western, North Central, Eastern and Uva provinces. Unless tobacco is cultivated on the correct land classes and adequate soil conservation measures are taken, tobacco cultivation could cause serious soil erosion. For Instance, it is estimated that the soil loss from tobacco land in the Maha Oya catchment area has been about 400-500 tons per hectare per year (Marga, 1991:136).

While measures to ensure tobacco cultivation on correct soils and under proper cultural practices have been formulated, there have been considerable apse sin their implementation. For instance, land suitable for tobacco cultivation was identified in 1960 and tobacco growers on unsuitable land were advised to shift to lands identified as suitable. However, this procedure was withdrawn and no measures taken to ensure that tobacco cultivation is on soil suitable for it.

Recent developments in tobacco cultivation are exceedingly serious for soil conservation. In the past most of the cultivation of tobacco was done

by small cultivators for a large multi-national company. The company required cultivators to ensure certain cultural practices and technical inputs were provided by this company. This Ensured that tobacco was cultivated on suitable non-erodible lands. Such a condition is extremely important in the hill country areas where the gradient of the slope is critical for soil erosion. Therefore adverse environmental impacts were minimized. In contrast, a new company which entered the field of tobacco cultivation brought in new cultivators of tobacco and began operations without inadequate technical advisory service. They were therefore not able to ensure that cultivators of tobacco followed proper soil conservation methods.

Lands unsuitable for tobacco cultivation have been used with hardly any safeguards to conserve water and soil. Further, the efforts made by government agencies such as the Department of Agriculture, to correct this situation has not been successful. Both the cultivators of tobacco and this company gained benefits in the short run, but the environmental degradation and soil erosion will have adverse results in the long run. This type of cultivation has been most marked in the Hanguranketha and Walapane regions (ibid: 136-138).

Apart from the cultivation of tobacco, the barns for curing tobacco also have certain environmental hazards as they could destroy blue-green algae which play a significant role in the nitrogen fertility of paddy-soils. Many aquatic plants are also disappearing. The contamination of rivers and reservoirs by using irrigation water can be extremely harmful to humans who use such water for drinking (ibid: 137-138).

Since tobacco curing require firewood if such firewood is obtained by unauthorized felling of nearby forests it could create a serious impact on the forest cover, there was a requirement to register barns. But this requirement has not been adhered to. Consequently, there has been a marked increase in the extent of fuel cured tobacco cultivation in the hill country districts of Kandy, Nuwara-Eliya and Badulla. In June 1985, the number of unauthorized barns had increased to 387 (ibid: 138).

Another important reason for land degradation arises out of inadequate exploitation and under-utilization of lands. Aerial surveys have disclosed that up to 1/5 of the land area in some districts is under-utilized and in many districts a considerable extent is ill-managed and neglected.

Since almost all the major rivers originate in the central hills, their upper watersheds need to be adequately protected and conserved not only for the benefit of the central region, but also for the rest of the country in view of their importance for irrigation, flood control and hydropower generation. One of the serious consequences of high rates of soil erosion is the rapid siltation of irrigation and hydropower reservoirs. Although some environmental impact assessments maintained that new Mahaweli reservoirs will not be seriously affected by siltation in the next 50 years in view of their large capacities, more recent estimates indicate that this could prove to be a gross underestimation due to accelerated erosion. It has, for example, been observed that the Polgolla reservoir which became operational only in 1976 has already lost over 44% of its capacity through siltation. Lake Gregory in Nuwara-Eliya and the Kandy Lake have serious problems of siltation (Ministry of Environment and Parliamentary Affairs, 1991:39).

Slope instability and occurrence of slides have assumed serious proportions in most parts of the hill-country and the Wet Zone in recent years. The floods and landslides of 1947 particularly around Kotmale motivated the enactment of the Soil Conservation Act in 1951 which made provision to identify and declaring erodible areas. Landslides took a heavy toll in 1989 particularly in the Kegalle district. The recommendations of the Land Commission of 1985 received scant attention from the bureaucracy and the political authorities. The recommendation to reset up a Watershed Management Authority under the new act of parliament to handle the problems of land degradation was not accepted by the soil conservators who argued that there were already enough laws and institutions to look after this problem (ibid:38).

The clearing of forests catchment areas has resulted in the siltation of dry zone irrigation tanks, both minor and major. The resultant reduction in capacity had led to serious water shortages that have affected crop production in their command areas. The rates of soil erosion in the catchment area and of siltation in irrigation and hydropower reservoirs require to be assessed. There is also the possibility of utilizing reservoir silt for economically productive uses such as brick-making (ibid:39-40).

The traditional method of irrigated paddy cultivation has little negative impact on the environment. However, the intensification of production to meet the needs of the increased population necessitated the introduction of higher-yielding varieties requiring the application of fertilizers and pesticides. These agrochemicals destroy most of the natural aquatic flora and fauna both through eutrophication and toxicity (Marga, 1991: 139-140).

The demographic pressures on food production is of such magnitude that although Sri Lanka achieved an eightfold increase in rice production over a period of 40 years, the country has still not reached self-sufficiency. Despite the remarkable increase in paddy production, the output per person increased at a much slower pace (Abeykoon, 1993:59-60). The expansion in the land area under food crop cultivation has nearly reached its limits. Consequently Increased paddy and food crop production has to be from increased productivity through the application of chemical fertilizers, chemical insecticides, and pesticides which are hazardous to the environment.

The demographic pressures are much greater in the coastal zone than in the country as a whole. At present, the southern coastal zone has a population density of 450 persons per square kilometer, compared to 260 persons in the country as a whole. By the year 2001, the population density on the south coast is expected to rise to about 1000 persons per square kilometer owing to the natural increase and the drift of rural population to the more urbanized coastal areas (Korale, 1992: Coastal, 2001).

In the south western coast the problem of coastal erosion has been aggravated by about 3000 persons being directly engaged in coral mining and nearly 8000 persons being indirectly dependent on this activity (Abeykoon, 1993:61). It has also been estimated that the population growth in the coastal areas would be in excess of the average growth in the country and consequently the environmental stress on coastal resources would be particularly sharp (The Coastal Resources Management Project Sri Lanka, 1993).

The Coastal zone contains a number of critical habitats, such as lagoons, estuaries, mangroves, coral reefs, salt marshes and sand bars, which are affected by population pressure and developmental activities. These critical habitats, which provides shelter to aquatic life and act as a buffer zone in protecting the land from the sea, are highly vulnerable to overexploitation as they are small in extent.

The ability to conserve the non-renewal and slow renewal resources on the coasts of the country is severely threatened by the intense population pressure in the coastal region. The Underdevelopment of the country and a growth inadequate to provide sufficient employment opportunities, render coastal conservation very difficult. The Problem of coral mining is illustrative of the nature of the problem .Although the mining of coral, its transport and its processing into line are all illegal, coral continues to be mined. People dependent for their livelihood on it transgress the law to eke out a living from coral mining, as they do not have alternative avenues of employment. The "remedy" of removing persons engaged in coral mining and giving them alternative employment is also not feasible in a context of chronic unemployment, as others would sooner or later take their place. Similarly, mangroves, which are the breeding ground for a number of aquatic species, are cut for firewood, and in certain areas, filled for other uses, mainly housing. These activities have threatened many marine species on which fisheries feed and thrive. The root causes for the threat mangroves have been the growth in population and their increasing needs (Marga, 1991: 140-142; Ministry of Environment and Parliamentary Affairs, 1992:94-98; de Silva, 1993).

Economic growth has been responsible for increased demand for several coastal resources. Of population growth coupled with underdevelopment have caused severe stress on coastal resources, paradoxically, economic growth, new economic activities and expanded old activities have also added considerable stress on resources. Development Activities which have had a significant impact on coastal resources include the expanding tourist industry, rapid housing development, expansion of infrastructural facilities, industrialization, expansion of urban centres and aquaculture projects. Increased sand and mining reaching critical levels for the coastline, has been brought about by the rapid expansion of the construction industry (de Silva, Ibid).

The tourist industry which expanded considerably in the last two decades, has brought in its wake another set of problems for the coastal zone. Some tourist hotels have been built right on to the beaches and consequently preventive measures for coastal erosion have been made more difficult, if not impossible. Some Hotels by incorporating the beaches have denied fishermen access to the beach is absolutely essential for their livelihood. The disposal of wastewater and sewage from tourist hotels results in sewage pollution in some parts of the coastal zone (ibid:loc.cit).Just as much as demographic pressures were the underlying factor in the environmental problems of the past, population pressures would continue to be the important factor which determines the economic developments of the future. These economic developments would in turn have a serious impact and challenges for the environment.

In the 1990s the country is moving away from the second phase of the demographic transition of high population growth caused by the high birth rates coupled with low death rates, into the third phase of moderate population growth. Although the country's population is likely to stabilize by the middle of the 21st century at less than one and one half times the present population, the impact and effect of the past decades population growth would continue to be felt quite strongly in the next decade.

Considering the fact that the country has an accumulated unemployed estimated at about one million or around 14 percent of the labour force, this together with the additional numbers entering the workforce annually create a problem of enormous magnitude. One way of conceiving the enormity of the problem is that while the annual growth in the labour force is at least 120,000, the highest annual labour absorption in recent years has been around 70,000 and the average labour absorption in the last decade has been less than 40,000 per year. Therefore, the prospect of absorbing the accumulated unemployed and the potential new entrants to the labour force in the next decade require a much higher growth than 5 percent and a structural transformation of the economy.

While agricultural growth is vital for increasing incomes, improving the trade balance and reducing rural poverty, the potential gains from agriculture rest with increased productivity on already cultivated lands rather than extensive cultivation. Consequently the labour absorption capacity of agriculture is limited especially after the remaining settlements in the Mahaweli Scheme. Also the aspirations of most educated youth are for urban and industrial jobs rather than crop cultivation. Therefore the future direction of development would be in rapid industrialization. Extensive industrialization and the inevitable urbanization would bring in their wake new environmental concerns.

Many of the industries that would be introduced could have several environmental implications. Industrial development requires the construction of roads and highways and industrial zones. These would result in some of the agricultural land being destroyed. But more important than this that the industries which would be established would be fiercely competitive with their counterparts in other developing countries and require to be price competitive. Industries would therefore be inclined to adopt the less costly but environmentally hazardous technology rather than the more costly less polluting technology. There would be pressures for shifting industrial technology which is not acceptable in developed countries to Third World countries. Also, where industries produce pollution, if the cost of cleaning up the environment were to be the burden

of the industrialists themselves, as it should be, their costs of production would rise. These advantages of polluting create a situation where industrialists would bring pressure for environmental rules and regulations to remain unimplemented. Already several of our industries are dumping waste and polluting, particularly the waterways, and no action appears to be taken.

The enormous pressures on resolving the problem of unemployment, creates an impatience in the government to hasten the process of industrialization. When environmental impact assessment disclose that particular industries or specific technologies to be used are polluting, there would be a tendency for governments to ignore the environmental effects and permit such industries to operate. Though the rhetoric would be for a pollution-free environment, at the level of implementation of policies, environmental degradation may take a second place to development. In fact, until recently environmental concerns were considered of secondary significance to the imperatives of development. This is illustrated by the fact that while early statements of the government's planning document Public Investment Programme (PIP) said categorically that the problems of poverty and unemployment are far more important than environmental concerns, Public Investment 1993-1997 states very categorically that 'The protection of the environment and the management of natural resources have been identified as major elements in economic development' (Department of National Planning, 1993:45).

While the debate between development and environment appears to have been won by the environmentalists, at the level of implementation, environmental concerns may still continue to be ignored.

Closely related to the issue of industrialization is the rapid urbanization that is likely to occur in Sri Lanka. In the past, Sri Lanka was somewhat of an exception in that the drift of population from rural to urban areas was fairly contained. The land development policies which enabled a shift of population from the densely populated areas to the sparsely populated Dry Zone, the welfare package of subsidized or free food, free education and

health and subsidized transport, enabled this balance between urban and rural areas. Also, the country's economic development succeeded only to a limited degree of industrialization till 1977. For instance manufacturing accounted for only about 7 percent of GDP in the 1960s and this implies that employment opportunities in industries was limited. But the process of economic development since 1977 and the likely process of development as we reach the 21st century with an announced objective of reaching Newly Industrialised Country (NIC) status early in the 21st century imply a greater degree of urbanization as well.

One of the implications of rapid urbanization in the Sri Lankan context is that the country may fail to have adequate regulatory mechanisms to ensure orderly, well managed, and unpolluted urban development. There is an obvious ineffectiveness of urban authorities to manage their regions in the light of rapid expansion in population, new modes of housing and living and waste disposal. While the problem of shanties and slums has been fairly minimal in the past, the drift of population to the cities, the very high land values and inadequate housing facilities, especially for the poor, are likely to generate conditions of unhealthy living and a polluted urban environment.

The environmental debate has gained so much momentum and popular concern that there is some apprehension that environmentalists may be stumbling block to economic development. This concern is particularly so as number of developmental projects appear to be in abeyance or rejected due to objections from environmentalists. There is no doubt that nearly every development project has an adverse environmental effect. The issue, therefore, is one of adopting projects which are less harmful to the environment and in the most environmentally friendly manner of undertaking development activities.

Three areas of development maybe cited to illustrate this. Sri Lanka has come to an almost crisis situation with respect to her energy requirements. There is a crying need to find new sources of energy to support the industrial programme. Therefore, the choice is not one of rejecting all the

possible technologies for producing energy but one of adopting the environmentally least hazardous option. This problem also requires an urgent resolution if the process of development is not to be halted in the next few years due to shortage of energy. The second area is the development of roads and highways which are also an essential support to economic development. The next phase of economic growth with a large industrial base is inconceivable without adequate highways and roads for the transportation of goods. Any system of roads and transport is likely to have adverse environmental impacts. Therefore, the choice once again is not one of having or not having highways, but of designing them in a manner which would have the least adverse impacts. The third instance is one of tourism which appears to generate considerable environmental hostility. In this instance too, the country has little choice in not expanding tourism. It has been well demonstrated that the earnings from tourism would have an important bearing on the country's balance of payments, employment and economic growth. By the turn of the century, the country's tourist arrivals are expected to increase from its current 400,000 to about a million. The environmental challenge is to absorb these tourists in a manner that would have the least impact on the environment. The location of tourist hotels, the techniques by which resources such as water and energy are used to serve tourist needs, and the nature of recreation facilities for them require to be so designed as to have the least detrimental impact on the environment.

The implications of these developments in the next decade are that threats to the environment are likely to be different in the future than in the past, but they are in fact likely to be potentially even more damaging than in the past. But the actual environmental impact would depend on the manner in which the country is able to regulate and tame the environmental impacts so as to reconcile the developmental needs with the reasonable preservation of the environment.

Demographic pressures, unemployment, poverty, and development needs are serious threats to Sri Lanka's environment. In the context of the country's limited resources and economic pressures, the realistic

alternative for the country is balance between growth and environmental preservation Reducing population growth further; adopting a lifestyle which reduces the consumption of non-renewable resources; adopting technological alternatives which are ecologically sound; using development alternatives which are less damaging to the environment, and developing the appropriate regulatory framework are the means through which ecological damage could be contained within manageable proportions. New value orientation and sensitivity to environmental concerns, the education of the community on environmental problems, and their active involvement in protecting the environment is needed to ensure sustainable development. Interdisciplinary knowledge, the generation of data and information to assess environmental issues, creative thinking and innovative approaches are needed to achieve substantial results in ensuring sustainable development in Sri Lanka (Sanderatne, 199:107).

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6

ECONOMIC AND SOCIAL CONSEQUENCES OF AN AGEING POPULATION

1. Introduction

In the next few decades, Sri Lanka would face a number of new socio-economic issues owing to a dramatic reversal in her demographic profile. The slower rate of population increase and the gradual ageing of the population would initially confer certain advantages to the economy and society, but over time pose serious challenges and problems which require timely policy action.

During most of the second half of the twentieth century, the country grappled with the problems of a rapid population growth, a huge surge in the work force, and a high child dependency ratio. The demographic changes resulted in increasing annual costs in education, health and food subsidies, a limited level of both household and government savings, and high rates of unemployment. The high rates of population growth in the 1950s, 1960s, and 1970s had significant impacts on the public finances, the balance of payments, the capacity for investment, and ultimately on economic growth. The most serious and dramatic manifestations of the high rate of population growth were the social tensions the country witnessed since the 1970s.

During the Twenty-First Century the country would be facing a different set of problems associated with the changing age profile of the population. The low population growth will be associated with a fairly rapid ageing of the population after about 2015. The rapidity of the ageing process in Sri Lanka is unprecedented in world history.

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The ageing process, which took 45 to 145 years in Western countries, will be accomplished in about two decades in Sri Lanka. Sri Lanka would be the first low-income country to enter the third phase of the demographic transition and the only poor country to have an elderly population of over 20 per cent in 2020-25 (Ranan-Eliya et al.1998).

The changing demographic scene has certain beneficial impacts and provides opportunities for qualitative improvements in education and health, would entail lesser strain on natural resources, the pressures on employment generation would abate somewhat and social tensions arising from the consequences of high unemployment would be less. The ageing of the population also poses serious challenges requiring a new model of thinking, developing new institutional structures and skills to cope with the disease of old age and caring of the elderly, improving retirement benefits and ensuring the viability of pension schemes. These issues are discussed in terms of opportunities and challenges posed by the demographic transition.

The objective of this article is to discuss the socio-economic issues associated with the country entering the third phase of the demographic transition. The next section outlines the demographic changes that are likely to take place according to the latest population projections. The third section discusses the opportunities policymakers have in improving the quality of life. The fourth section discusses the serious emerging issues of the ageing population and the final section sums up the discussion and gives the conclusions of the paper.

2. The population Projections

During 1991-95, the population growth averaged 1.5 per cent per year, while between 1995-1997, the population grew by only 1.3 per cent per year. Population projections indicated a further decline in population growth, an ageing of the population, a stabilization of the country's population at about 25 per cent higher than today's population in the foreseeable future, and an eventual decline in the population. The latest

projections of population indicate a population growth of about 1 per cent between 2001-2006 and below 1 per cent thereafter. ^bBy 2021-26 the population growth rate would be negligible 0.27 per cent. (Table 1). The total population is expected to stabilize at around 23 million by 2036 and decline somewhat in the subsequent decade (de Silva 1997).

Table 1: Population Increase and Annual Average Rates of Growth During Quinquennial Periods, 1991-96 to 2036-41

Period	Absolute Increase	Rate of Growth (per cent)
1991-1996	1,099,328	1.25
1996-2001	1,071,962	1.15
2001-2006	1,009,383	1.03
2006-2011	919,294	0.89
2011-2016	740,609	0.69
2016-2021	519,625	0.47
2021-2026	304,542	0.27
2026-2031	99,013	0.09
2031-2036	36,154	0.03
2036-2041	-117,241	-0.10

Source: W. Indralal de Silva (1997) Table 7

Several aspects of this population growth scenario require to be highlighted. First: though the rate of increase in population is decelerating, the increase in absolute numbers would be significant for some time. The underlying reason for this is the higher population base than in the past. For instance, the population would increase by about one million between 2001-2006, only slightly less than the increase between 1991-1996. Even when the rate of increase in the population decelerates to less than one half of one percent between 2016-2021, the absolute increase would be over

^b W. Indralal de Silva's Population Projections for Sri Lanka: 1991-2041 has a standard, high and low projections. The standard projection alone is used in this analysis.

one half million or about one half the current absolute increase in population (Table 2).

Second: despite the decline in the population growth rate, the rate of growth in the numbers entering the labour force would be higher than the population growth rate and the numbers entering the labour force each year would be large. Abeykoon (1998) predicts that the total labour force would increase from 8.1 million in 1995 to 10.1 million in 2010 and 11.1 million in 2030 (Abeykoon 1998,p.44). The labour force is likely to increase by over 100,000 persons per year till about 2010. (Table 3). This is due to the increase in the labor force being determined by past increases in birth rates, the likelihood that labor force being determined by past increases in birth rates, the likelihood that labor force participation rates would continue to use, especially owing to increase in the female labour force participation rate and the higher population base on which the projected increases occur. The annual rate of growth of the labour force would dip below 1 per cent only after 2010 (Table 4).

Table 2: Projected Population, 1991 to 2041: Standard Projection (in thousands)

Year	Projection
1991	17,015
1996	18,114
2001	19,185
2006	20,195
2011	21,114
2016	21,855
2021	22,374
2026	22,679
2031	22,778
2036	22,814
2041	22,697

Source: W.Indralal de Silva (1997) Table 6

Table 3: Labour Force Projection, 1995-2030 (Thousands)

Year	Male	Female	Total
1995	5387	2695	8082
2000	5888	3020	8908
2005	6343	3244	9587
2010	6651	3457	10108
2015	6894	3578	10472
2020	7052	3723	10775
2025	7172	3790	10962
2030	7201	3878	11079

Source: A.T.P.L. Abeykoon, Demographic Projections for Sri Lanka, (1997), Table 44 in Abeykoon (1998) p. 46

Table 4: Average Rates of Growth of Labour Force, 1995-2030 (per cent)

Period	Total	Male	Female
1995-2000	1.95	1.78	2.27
2000-2005	1.47	1.49	1.43
2005-2010	1.06	0.95	1.27
2010-2015	0.71	0.72	0.69
2015-2020	0.57	0.45	0.79
2020-2025	0.34	0.34	0.36
2025-2030	0.21	0.08	0.46

Source: A.T.P.L. Abeykoon, Demographic Projections for Sri Lanka, (1997). Table 45 in Abeykoon (1998) p.46.

Third: the most significant change is the age composition of the population. The old age dependency ratio would increase while the child dependency ratio would decline. The first half of the 21st century will witness the problems of an ageing population. While the child dependency ratio would decline from over 50 per cent in 1991 to 38 per cent by 2001 and be less than 25 per cent around 2030, the old age dependency ratio will increase from about 15 per cent at present to 32 per cent in 2026 and

increase to as much as 48 per cent in 2041.(Table 5). By the middle of the 21st century persons over 60 years of age would constitute about half the number between the ages of 15 and 60. (de Silva (1997) p.31).

The change in the age structure of the population is a reversal of the character of the demographic dependency ratio. The country has had a high demographic dependency ratio in the past owing to the high proportion of children below 15 years. For instance, in 1991 the total demographic dependency ratio was 65 per cent, consisting of a 52 per cent child dependency and 13 per cent of old age dependency. In 2006 the total dependency ratio will decline to about 53 per cent owing to child dependency decreasing quite sharply to 35 per cent and old age dependency increasing to only 17 per cent. After that the total dependency would increase to 59 per cent in 2026 owing to the sharp increase in old age dependency to 32 per cent. In 2041 old age dependency is projected to be 48 per cent in a total dependency ratio of about 73 per cent. (Ibid.Ioc cit).

Table 5: Dependency Ratios 1991 to 2041: Standard Projection

Year	Child dependency (<15 years)	Old age dependency (60+ years)	Total Dependency
1991	51.9	13.5	65.4
1996	44.0	14.3	58.3
2001	38.0	15.3	53.3
2006	35.4	17.2	52.6
2011	33.9	20.1	54.0
2016	32.1	24.0	56.1
2021	29.8	28.2	58.0
2026	27.0	32.1	59.1
2031	24.6	36.0	60.6
2036	24.1	41.1	65.2
2041	24.6	47.9	72.5

Source: W. Indralal de Silva (1997) Table 11

The two different projections of the age structure of the population given in Tables 6 and 7 indicate a similar age structure of the population. These changes in age structure have important implications and repercussions, both beneficial and unfavorable on the country's economy and society. The next section discusses the opportunities the demographic change provides for improvements in education and health.

Table 6: Projected Distribution of Population of Sri Lanka By Broad Age Groups, 1991-2041

Age Group	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036	2041
<15	31.4	27.8	24.8	23.2	22.0	20.6	18.9	17.0	15.3	14.6	14.3
15-59	60.4	63.2	65.2	65.5	64.9	64.0	63.2	62.8	62.3	60.5	57.9
60+	8.2	9.0	10.0	11.3	13.1	15.4	17.9	20.2	22.4	24.9	27.8

Source: W. Indralal de Silva (1997) Table 10

Table 7: Population Projections 1996-2021 Per Cent of Population

	1996	2001	2011	2021
Under 15	28	25	23	20
15-49	55	56	52	50
50-59	08	09	12	12
60 and over	09	10	13	18

Source: Soma de Silva (1994)

3. The Benefits and Opportunities

During most of Sri Lanka's post independent period policies were oriented towards coping with a rapid increase in population. The emerging demographic scenario of a low rate of population growth and lower child dependency ratio confers economic and social benefits to the country. As Hermalin Gas observed with respect to the ageing population of Asia:

An older ageing structure should be viewed as a recent human triumph representing gains toward a universal aspiration for longer and healthier lives.

In the next half century the proportion of children in the population will decline. Even more significant is the fact that the numbers of children would also decline. The annual decline in numbers of children is not large, but since it is a declining trend, by 2031 the number of children below 15 years would have decreased by 1.5 million and be about 3.5 million compared to today's 5 million. This implies that in the coming decades public policy would not have to cope with increasing the physical infrastructure in education. In fact this trend has already begun and about 50 per cent of government schools have less than 20 students in a class. Some schools do not have an adequate density of children and have been closed. The number of schools and teachers need not expand in the coming decades.

This development provides the country the opportunity to improve the quality of educational services. Thus far the country has concentrated in increasing the number of schools, expanding physical infrastructure and increasing teachers. Keeping pace with the increasing numbers of school children was an enormous financial strain on the public finances. Given such a thrust in educational policy there is evidence that qualitative improvements were neglected. School facilities have deteriorated, particularly in the remote areas where teacher: pupil ratios have been unsatisfactory and the quality of education severely eroded. In common with other South Asian countries the quantitative expansion in education has been at the expense of quality improvements in education.

The reduction in the number of children entering school gives an opportunity to improve the quality of education by expending the same proportion of an increasing GDP on education especially primary and secondary education. Since real GDP is increasing at around 5 per cent, the expenditure of a constant proportion of GDP on education in the coming decades implies a per child real expenditure increase of more than

5 per cent. These increased funds, together with a possible reduction of certain types of capital expenditures on education, should provide a better financial capacity to improve the quality of education. The financial capacity could be further enhanced by much needed educational reforms, the weaning away of the affluent from free education and cost effective community participation in education.

The increasing demands on school education has resulted in too little being spent on technical and tertiary education. Given the country's high literacy and secondary school enrolment rates, the expenditure on tertiary education has been disproportionately small. The reduced needs on school education provides an opportunity to shift expenditures to technical, vocational and university education.

The danger however is that governments faced with fiscal difficulties could use the opportunity of the reduced school going population to reduce expenditures on education, thereby entrenching inefficiencies in education and making them permanent.

The changing demographic pattern implies a need to plan education to cope with the emerging demographic changes. If education planning is not geared to the demographic changes, there could be redundant teachers, a mismatch between teacher needs and available teachers and a waste of school infrastructure. An unchanged educational system could be costly but inefficient.

These demographic changes also imply that there would be lesser new teaching employment opportunities in the 21st Century. Teacher needs for primary school education would shrink first, then secondary teaching opportunities. Some teachers would require to be re-trained for higher levels of school teaching.

Sri Lanka can justly be proud of her improvements in maternal and infant morality. These attainments have been in a context of increasing numbers of maternal cases. The trend of decreasing fertility and smaller numbers of

births, gives an opportunity for the country to improve its pre-natal, maternal and post natal services. The progressively smaller number of births each year means that the pre-natal and post-natal health services would not be strained as in the past. The smaller families would also enable parents to improve the care for their children. These forces could enable Sri Lanka to reduce her maternal mortality rate from the current 80 per 100,000 live births, to around 30 per 100,000 live births. Similarly, the infant mortality rate of about 14 per one thousand live births could be reduced to around 7-10. In fact the population projections used in this paper have incorporated similar improvements in maternal and infant mortality.

These opportunities should be seized in the next decade as the advantages of the reduced numbers of children are not offset by increases in the numbers of the aged during this period.

After 2006 part of the reduction in the child dependency ratio would be offset by an increase in the old age dependency ratio. Beyond 2036 the advantage would be completely offset by the increased proportion of old age dependents. Therefore the advantages in the initial decade or two should be exploited fully to improve educational standards and provide better health services for mothers and children as a shift in expenditure towards the caring of the elderly is likely after that.

4. The Challenges

The challenges posed by the demographic transition arise out of the ageing of the country's population. The challenges are serious owing to the rapidity and momentum of the ageing process in Sri Lanka. To appreciate the magnitude of the challenge, it must be noted that Sri Lanka would be the first low income country to enter the third phase of the demographic transition and will be the only poor country in the world to have an elderly population of over 20 per cent in 2020-25. (Ranan-Eliya et.al.1998 p.11).

The ageing of the population would be somewhat gradual in the next few years, but gain momentum after 2011. In the next 20 years the percentage of the aged in Sri Lanka would double. By the middle of the 21st century old age dependency would be around 50 per cent. Our health care systems would require to be geared to the ageing process and caring for illnesses associated with longevity and senile conditions. Geriatric services are quite insignificant at present. The incidence of old age illnesses like Alzheimer's disease, arthritic conditions and osteoporosis, a degenerative bone disease, would increase considerably. The longevity of life implies an increasing need and greater attention to such health conditions. There is a need to re-organise our health services to provide specialised services to cope with these illnesses. Since the development of adequate numbers of skilled personnel takes time. It is essential to focus on the training needs from now on.

The ageing of the population implies the need for the social system to have methods of caring for the elderly. Traditionally, Sri Lankan society has cared for the elderly through the extended family system. There is evidence that this system is breaking down. For instance most of those who are in elderly homes have several children. As much as 80 per cent of the elderly in institutional homes for the aged are parents of 3 to 6 children. (Siddhisena and Ratnayake 1998 p.48).

The higher female labour participation, the lesser subsistence nature of family household income, the erosion of incomes through inflation, larger consumer needs, pressures on housing conditions, migration of wives and daughters for overseas employment and changes in social values have all contributed to the erosion of the traditional system of caring for the elderly within the household. This erosion of the traditional system is likely to gain in momentum, particularly in urban areas. At the very time when the aged population reaches a high proportion, the capacity of the traditional system to maintain the elderly would be seriously eroded. Therefore there is a need to find institutional and community based systems of caring for the elderly.

In advanced Western countries a large proportion of the population have the means to pay for comfortable institutional lodgings which are either financially viable or only partially subsidised. The aged affluent in Sri Lanka could be cared for by the development of such systems through private enterprise. Yet the supply of such facilities appears to lag behind demand even at present. The bulk of the elderly population in the country would however need a degree of public support for their care. Such institutional systems would require both public funding and voluntary contributions, may require to be organised by community and religious based voluntary groups and public health services would require to provide effective support to the elderly.

The ageing of the population has serious implications for retirement benefits. A recent study of the Institute of Policy Studies has addressed these issues in depth. (Rannan-Eliya, de Mel, Ramachandran and Senagama 1998. The main issues and challenges posed by ageing on our retirement benefits arise from the limited coverage of retirement plans, the inadequacy of the benefits, the erosion of their real values through inflation, the financial viability of pension schemes and the fiscal burdens of the government pensions.

Although the country has several social security systems, such as the Employees Provident Fund (EPF), the Employees Trust Fund (ETF), private pension schemes and a pension scheme for public servants, these do not adequately cover the expenditure needs of the elderly at retirement. This is partly due to the country's high inflationary trends which erode such savings. The ageing of the population compounds the severity of this erosion in real incomes of retirement benefits over time. The extended longevity of life implies that the real incomes available in the later years of a retired person's living would be more seriously eroded while their needs could increase. This is particularly so as expenditure on medicine, drugs and hospital expenditures are high and subject to sharp increases in prices. Therefore there is a need to reconsider the financing of these schemes, the investment of such pension funds so as to generate a better

return to the retirees and consider higher contributions than at present during the period of employment.

The other challenge posed by ageing relates to the viability of pension schemes. While there is a general inadequacy of pension benefits after retirement, the pension schemes would have to pay out monthly pensions over a longer period of time. The burden of the retirement benefits on employers would be heavy. Adequate provisioning for pensions schemes on a revised actuarial basis becomes imperative.

Although the issue of viability of the government pension scheme does not arise as the payments are not paid out of a pension fund, the cost on the annual budget would tend to escalate as retirees live for a longer period. Therefore, there are serious implications of aging on the public finances of the country. Government pensions could absorb as much as 20 per cent of expenditure in the future (Rannan - Eliya et al 1998). Such a high proportion spent on pensions could distort the public expenditure pattern with serious implications for public investment and economic growth.

Connected with the issue of retirement benefits is the issue of a realistic retirement age. The retirement age of 55 years for men and 50 years for women in the public service, with a possible extension of another 5 years, was designed at a time when the country's life expectancy was around 55 years. With the current life expectancy of over 70 years and an expected increase in life expectancy to over 75 years, there is little justification for retaining the retirement age of 55 years. While the private sector has a more flexible policy, which responds to the issue on a more case by case basis, the government would require to give consideration to an increase in the retirement age.

The extension of the retirement age may be one means by which the burdens of the pension scheme, as well as an improvement in retirement benefits, could be effected. Another imaginative proposal is phased retirement. Instead of persons retiring at once on reaching the stipulated age of retirement, the number of days of work could be gradually reduced

from 5 to 4 days of work per week and then reduced to 3 and 2. The employees would begin to draw a partial pension at first and the full pension at full retirement. (Foot 1996.p.78). Such a phased retirement enables institutions to benefit from experienced staff, while at the same time recruiting new staff. Such phased retirement would also assist retirees to cope better with their retirement.

Three factors could render the problems for the elderly in the future less burdensome than suggested by this discussion. Although the old age dependency is calculated on the basis of those over 60 years of age, many work much beyond this age to nearly seventy, the health care requirements are not excessive till over 70 years and by 2030 when old age dependency would have increased, per capita incomes are likely to have more than quadrupled from today's levels.

The aging of the country's population requires public policy actions to develop institutional methods of caring for the elderly, gearing the health system to cope with the illnesses associated with old age, revamping social security systems to generate adequate incomes for old age sustenance, and a rethinking of the methods of financing the government's pension scheme. These are serious challenges. The next decade, during which these problems are not particularly serious, should be used to design the needed policies and programmes.

5. Conclusions

The transition from high to low fertility rates and the ageing of the population provides both opportunities and challenges for the country. One important need is to develop a sensitivity to the changes and develop a new perspective of different demographic impacts on various aspects of the economy and society.

The reduced numbers of children of school-going age would give the education system an opportunity to improve the quality of primary and secondary education. Such qualitative improvements are critically

important to transform the labour force into a more productive one for the future. In the past, the increasing numbers of children entering school resulted in the system coping with an expansion of facilities rather than qualitative improvements. The lesser strain on the public finances owing to the smaller increases in school going children in the next decade provides the financial capacity to effect educational improvements. It is also a period of time when the full momentum of the aging process would not have had its impact of increasing the old-age dependency ratio. This opportunity must be seized immediately as in about two decades the increase in old age dependency may require the diversion of funds for the care of the elderly.

Similarly the smaller number of births would give the opportunity of the primary health services, particularly the maternity and natal services, to improve their delivery systems. There is no doubt that in the past the chain of health services provided a very cost-effective primary health care. Now the country has a further opportunity to leap forward and achieve maternal and infant mortality rates comparable to the developed countries of the world. Ambitious targets must be set to achieve low rates of infant and child mortality and to improve maternal and child health. The emerging small families also provides the family unit to improve the nutrition and health of children.

The health services would require to be geared to a different morbidity pattern with greater resources devoted to diseases of old age. The increased longevity of life and changes in social modes of living require expanded institutional means of caring for the elderly. Old-age homes - more in the character of senior citizens homes - would need to be established. These could involve significant public spending as most senior citizens would not be able to pay for their living. This problem is also not confined to the issues of finance. It requires new modes of thinking, developing institutional capabilities and mobilisation of human resources through voluntary and community participation. The country is at present inadequately accustomed to coping with this problem and a new focus of attention requires to be developed.

The retirement schemes now in operation are limited in coverage, inadequate to those who benefit by them and their real values eroded by inflation. The government pension scheme too confers inadequate real incomes over time and is also a strain on the resources of the government. A total revamping of these schemes to make them more supportive of the elderly and at the same time financially viable is a serious challenge facing the country.

The next decade must be viewed as a period of economic and social readjustment to the realities of the demographic transition. It provides opportunities for a qualitative improvement in education and health and reduced unemployment. It is also the time to prepare to meet the new challenges of ageing, build the infrastructure for caring for the aged, revamp retirement benefits and ensure that the demographic transition is not burdensome to society as a whole. Overall, the demographic transition could be advantageous to our economic growth, containment of social tensions, improvements in the environment and would enhance the capacity for more positive social engineering. But like all social challenges, the result depends on the quality of our response and the effectiveness of our strategies.

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Agrarian Reforms, Agricultural Policies and Food Security

TENANCY IN CEYLON'S PADDY LANDS: THE 1958 REFORM

1. Introduction

The conditions under which land is held have an important bearing on a nation's agricultural productivity, the distribution of incomes and the nature of her political, social and economic institutions. This is especially so in a country such as Ceylon where the bulk of her population secures its/livelihood from land, and the avenues of non-agricultural employment are limited.

A comprehensive discussion of land tenure reform in Ceylon would have to view the total land tenure structure, encompassing not merely the peasant agricultural sector but also the estate sector. The inter-relationships between these sectors as well as the greater maneuverability of a tenure reform concerned with the rationalization of the entire tenure structure suggest such an approach. Yet, perhaps owing to several domestic and foreign economic and political constraints, such a comprehensive discussion has been lacking. It is also likely that the higher productivity per acre of the estate sector has lulled minds into a presumption that the existing tenure structure in tea, rubber and coconut lands is ideal. Perhaps the conventional categorization of Ceylon's agriculture into an estate and non-estate sector has also contributed to reinforcing the implicit presumption that tenure problems exist only in the latter and that reforms could be undertaken without reference to the estate sector. Since this paper concentrates solely on the tenure problem in paddy lands, it is essential to state explicitly that effective land reforms in the rice economy should be conceived of within a broader framework of readjustments in the entire agricultural sector.

Tenancy in Ceylon's Paddy Lands: The 1958 Reform. *South Asian Review*, Volume 5, Number 2, January 1972.

2. Importance of Paddy Land Tenure

Tenure reforms in paddy lands assume a special importance in that rice cultivation covers the largest cropped area for any single crop and its cultivation is the largest single occupation. Besides, the pace of achieving self-sufficiency in rice and thereby permitting the reallocation of foreign exchange earnings at present expended on rice imports is an important determinant of the level of industrialization and economic development. In so far as productivity per acre in Ceylon's rice fields differs widely from the levels technically feasible with modern inputs, and in so far as such inputs are not utilized owing to unsatisfactory tenure conditions, tenure reforms could affect significant increases in production. Yet while tenure reform, by providing incentive-oriented conditions, could provide a base for a progressive agriculture, it alone would not suffice. An effective agrarian reform policy would incorporate measures designed to improve credit conditions, make available the necessary inputs at reasonable prices, ensure purchase of output at steady and remunerative prices, protect the farmer at times of crop failure through insurance and ensure the availability of the technical know-how of improved methods through a properly trained and committed extension service.

The discussion here is confined to the paddy land tenure problem and its reform. It will focus attention on the systems of tenure, their incidence and nature; the objectives and provisions of the reform legislation; an assessment of the effectiveness of the reforms; and suggestions for new directions in reforms.

3. Types of Paddy Land Tenure

The types of tenure in paddy lands as obtained in the Census of Ceylon for 1946 are summarised in Table 1. This discloses that about 61 per cent of paddy holdings and about 55 percent of the total area were owner-cultivated. This is indicative of owner-cultivated holdings being generally smaller than average. In contrast, although the number of holdings under lease arrangements constituted only 3.6 percent of total holdings, this

category accounted for about 9 percent of the area cultivated, indicating that the size of leased holdings was above the average size of holdings.

4. *Ande* Tenancy

The *ande* form of tenure, or share-cropping, which accounted for about 26 per cent of holdings and 24 per cent of the area cultivated, presents the most significant tenure problem on paddy lands. The proportion of lands under share tenancy given by the national figures understates the seriousness of the problem, owing to wide regional differences. Share-cropping is a significant tenure condition in the Wet Zone areas of the country. This can be gauged from Table 2, which gives the area and holdings under share-cropping and rotational forms of owner-cultivation in Wet Zone areas. In Matara, Kandy, Matale and Ratnapura districts more than 40 percent of the holdings and more than 45 percent of the area are under share-cropping arrangements.

Table 1: Paddy lands by type of tenure, 1946

Type of Tenure	Holdings		Area	
	Number	Percent	Acres	Percent
Owner	469,701	60.8	495,525	55.1
Lessee	28,069	3.6	81,917	9.1
<i>Ande</i> Tenant	199,934	25.9	212,151	23.6
<i>Tattumaru</i> Cultivator	52,190	6.8	58,572	6.5
Others	22,014	2.9	51,805	5.7
Total	771,908	100.0	899,970	100.0

Source: *Department of Census and Statistics, Census of Ceylon, 1946, Vol. I, Part II, Table 69.*

Note: Other forms of tenure include usufructuary mortgages included as a separate category in the original data. "Others" therefore includes (1) usufructuary mortgages where the land has been obtained as security for a loan, and the creditor has rights to its cultivation in lieu of interest on the debts; (2) land held and operated on the basis of a permit under the Land Development Ordinance; (3) land operated with a food production permit; (4) land held as a lease from the Crown; (5) land squatted or forcibly occupied without payment of rent; (6) land held as payment for services performed to temples; and land held in any other way not mentioned in the four types of tenure in the table or in the categories (1) to (6) above.

Table 2: Percentage of share-cropping and rotational cultivation in Wet Zone district, 1946

District	Share-cropping or <i>Ande</i> Tenure		Rotational or <i>Tattumaruru</i> Cultivation	
	Holdings	Area	Holdings	Area
Low Country				
Colombo	28.7	34.6	3.2	3.4
Kalutara	21.2	23.5	14.4	16.6
Galle	13.8	14.6	7.8	7.3
Matara	44.2	51.3	4.2	3.5
Chilaw	27.0	34.9	9.3	4.6
Kurunegala	28.4	29.3	9.7	11.7
Up Country				
Kandy	42.8	45.9	1.0	0.8
Matale	42.3	47.2	1.8	1.5
Nuwara Eliya	34.8	40.2	1.0	0.9
Badulla	35.7	35.3	3.0	3.7
Ratnapura	48.7	50.2	25.3	26.0
Kegalle	27.8	31.8	35.7	35.6

Source: *Department of Census and Statistics, Census of Ceylon, 1946, Vol. I, Part II, Table 69*

Although most districts in the Dry Zone are relatively free of *ande* tenancy, about a third of the area under paddy cultivation in the Hambantota district in 1946 was under this form of tenancy. Hambantota is also unique in that large extents of land are controlled by middlemen known as "gambarayas". The intervention of these middlemen results in particularly extortionary conditions for the tenant. Owing to the presence of this system some of the lands included among lessees may in fact be *ande* tenancies. Anuradhapura and Puttalam also disclosed 17 and 16 per cent respectively of their land area to be under *ande* tenancy, despite the fact that these areas are sparsely populated. This is perhaps indicative of the lack of irrigated lands.

There are indications that with increasing population pressure on land this form of tenancy has increased. The Census of Agriculture 1962 disclosed the area under share-cropping as 281,785 acres compared to 212,151 in 1946. Although the 1962 figure relates to all land and not paddy lands alone, since this form of tenancy is rarely found in the cultivation of other crops the increase of 69,634 acres under share-cropping is indicative of the increase in share-cropping in paddy cultivation.¹

There is a wide spectrum of share tenancy in the country. Not only is there a variation in different regions of the country, but even within a region varying forms of share tenancy may prevail. The common features of these arrangements are that the tenant pays the rental to the landlord as a proportion of the total produce and the agreement is oral without any certainty attaching to the period of tenancy.

5. Factors Influencing Share Rent

The exact share proportion and the resources contributed by the landlord vary. Among the factors which influence the share arrangements are the population pressure on available land; the alternative avenues of employment available to the peasants; the fertility of the land; the susceptibility of the land to drought, flood or other forms of crop damage; the occupational status and economic condition of the landlord and his place of residence; the personal relationship between the landlord and the peasant families; and the social customs prevailing in the area. Generally, a landlord resident in the vicinity of the cultivation provides more inputs and obtains a larger proportion as share rent. Even When the only landlord resource is land, generally the resident landlords obtain a higher rental than the absentee landlords. This is because the resident landlord is able to insist on better cultivation practices, on the threat of eviction, and to supervise the harvesting so as to ensure he obtains the agreed share. Resident landlords are often a source of social and financial security, providing assistance to the cultivator at times when there is sickness or death, or a festivity such as marriage.

The proportion of produce the tenant gives the landlord may vary from one sixth to two thirds of the gross produce, but more commonly it varies between one quarter and one half the gross produce. The landlord may provide the seed and draft animals in addition to the land resource, and obtain a share of the produce, or provide only the land resource. Often the non-land resources are provided by the landlord for a separate interest payment which may be as high as 50 per cent for a season of about five months. A principle for share arrangements is one quarter for the land resource and one quarter for the draft animals and a return at harvest of seed paddy at a rate of one half to two times the seed borrowed at the time of sowing. However, half the produce may often be given for only the land resource.

In addition to the share rental, the tenant may provide certain services to the landlord and make token gifts known as *madaran* to indicate his loyalty. In some areas of very high population pressure, such as the Kandy district, the token presentation has deteriorated from a customary presentation of betel and areca nuts to a compulsory payment of cash.²

Whatever precise terms the *ande* form of tenancy may take, it has a built-in disincentive for the adoption of improved cultivation practices. One advantage of share tenancy, however, is that the payment of rent as a proportion of total produce makes the landlord a party to the risk. When the vagaries of the weather affect the tenant adversely his rental is proportionately reduced. The disadvantages stem from the insecurity of the tenure arrangement, which discourages capital investment, and from the fact that most share tenancy arrangements require the tenant to pay the landlord a share of an additional output produced by an increase in investment or extra labour input.

6. *Tattumar* Tenure

The *tattumar* system of tenure has arisen in areas of very acute land shortage where the divisions of paddy holdings have become so small that it is not feasible for them to be further divided. Therefore, instead of the paddy plot being divided among the heirs, the rights of ownership and of cultivating the plot are rotated season by season, in an arranged order. Although the Census of Agriculture 1946 disclosed that only 6.8 percent of all paddy holdings and 6.5 per cent of the total paddy areas were under the *tattumar* type of tenure, in the Kalutara, Ratnapura and Kegalle districts 16.6, 26.0 and 35.6 percent respectively of the paddy area was cultivated under it. (See Table 2.)

This form of tenure leaves the cultivator of each season little concerned with effecting improvements on the land. Since each owner's right to cultivation is at intervals of time it tends to be an inefficient and wasteful utilisation of his labour resources, and provides him with an inadequate, uncertain and discontinuous income. The Census of Agriculture 1962 indicated the total extent under *tattumar* cultivation under all crops in the non-estate sector to be 50,000 acres, compared to 58,600 acres for paddy alone in 1946. This decline is probably an indication that many holdings under this form of tenure have been sold to creditors because of their owners' inability to make a living from the use of such small plots at intervals of time.

7. Size of Holdings

The high incidence of small-sized holdings and the tendency towards fragmentation and parcelization constitute fundamental problems of land tenure. By fragmentation is meant the usual phenomenon of dividing existing holdings, while parcelisation is the spatial separation of agricultural units which are both technically and economically a single unit. Parcelisation has arisen mainly owing to the practice of passing through inheritance not only pieces of land of equal size, but also

distributing the land among heirs equitably with respect to fertility and water.

Table 3: Paddy land in the non-estate sector by size of holding, 1946

Size of Holding	Number of Holdings	Acreage	Average size	Percentage of	
				Holdings	Acreage
Below ½ acre	242,690	58,005	0.2	31.5	6.4
½ acre up to 1 acre	253,823	147,376	0.6	32.9	16.4
1 acre up to 2 acres	162,120	193,794	1.2	21.0	21.5
2 acres up to 5 acres	85,310	231,726	2.7	11.0	25.8
5 acres up to 10 acres	19,705	122,073	6.2	2.5	13.6
10 acres and over	8,260	146,996	7.8	1.1	16.3
Total	771,908	899,970	1.2	100.0	100.0

Source: *Department of Census and Statistics, Census of Ceylon, 1946, Vol. I, Part II, Table 70.*

The 1946 Census of Ceylon disclosed the average size of paddy holding to be 1-2 acres. As much as 64 per cent of holdings and 23 per cent of the total area under paddy were in units under one acre; 85 per cent of all holdings and 44 per cent of the total area under paddy were in units under two acres (See Table 3.) The Census of Agriculture 1962 discloses a somewhat larger size distribution of paddy which is accounted for by the larger-sized land holdings given under colonisation schemes. Yet 233,000 of a total of 568,000 holdings were below one acre, and barely 190,000 holdings were in the size group 1-2 1/2 acres.³ The 1962 Census of Agriculture also disclosed an average of 2-5 parcels per agricultural operator. Although this pertains to all cultivation, it is still indicative of the nature of the problem.

Fragmentation and parcelisation reduce the efficiency of paddy cultivation in several ways. Fragmentation leads to a waste of cultivable land as "bunds". The synchronisation of operations such as irrigation control and use of insecticides, weedicides and fertiliser in the tract are more problematic. Parcelisation also introduces several diseconomies such as waste of time in moving from one unit to another and the duplication of structures such as bunds and watch huts.

8. Paddy Lands Act 1953

An initial attempt was made at tenure reform in the Paddy Lands Act of 1953. This legislation included provisions to grant security of tenure for a five-year period, the registration of tenancy agreements, and a maximum rental provision. Yet it was more a recognition that tenure problems existed than a serious attempt to remedy them. The act was applied in two districts, but attempts at enforcement proved ineffective.

9. Paddy Lands Act 1958

The Paddy Lands Act of 1958 and its subsequent amendments sought to remedy the basic tenurial problems. Its main objectives were the following:⁴

- to regulate the authority which landlords exercised over tenants;
- to control rents paid by tenants;
- to confer security of tenure of a permanent and heritable nature;
- to prevent further fragmentation of paddy lands and provide means for consolidation of small-sized holdings;
- to establish cultivation committees among farmers for the organisation of paddy cultivation in each local area;
- to regulate interest rates and hire charges for implements and draft animals and to fix wage rates for agricultural labour.

It may be added that the legislation did not attempt to give "land to the tiller" or abolish tenancy, but only to regulate it.

The act was administered throughout the country within five years of enactment, i.e. by 1963, but the sections pertaining to tenancy rights were made retroactive from April 12, 1956.

10. Rent Regulation

The regulation of tenancy rents had the important stipulation of a maximum rental which ensured that increased production beyond a certain level accrued entirely to the tenant. The rent payable was stipulated from time to time by the Commissioner of Agrarian Services whose authority to fix rents was restricted to a maximum of fifteen bushels per acre or a one-quarter share of the produce, *whichever should be less*.⁵ In practice the range of rentals has been between a maximum of twelve bushels per acre or a quarter of the yield, *whichever is less*, and a minimum of two bushels per acre or one eighth of the yield, *whichever is less*. The higher rentals applied to areas of higher yields and the low rentals to those with low yields.

The rent could vary not only from district to district but within different parts of each district.⁶ A landlord or tenant could appeal to the Board of Review against the rent fixed by the Commissioner of Agrarian Services,⁷ but changes made by the Board were applicable from the next season.⁸ Rent could be paid in cash at the request of the landlord or tenant. In which case, the cash rent would be set at the money value of the produce share converted at the current guaranteed price for paddy of the same quality.⁹

The principle underlying the rental arrangement combines the merits of a fixed and of a share rental. The stipulation of the rent in terms of a fixed quantity of paddy determines a maximum rent payable, while the provision of a crop-share makes the rent flexible relative to the crop out-turn realised by the tenant. This form of rental is incentive-oriented, since the fixed rental provision is operative when productivity increases beyond the inverse of the landlord's share ratio. In such an event, the entire increase in output beyond the fixed rental accrues to the tenant.

In order to protect landlords from low rentals resulting from neglect of the land, and to prevent such wilful neglect of paddy cultivation, the act provides that when the cultivation committee of the local area is satisfied that there is such neglect, it will determine a rent on a basis other than the actual yield.¹⁰ On the other hand, where the land has not been wilfully neglected but there has been a partial or complete crop failure, or when the land has not been cultivated for any cause other than the tenant's neglect, the cultivation committee can determine a reduced rent for partial failure or waive the rent for the other conditions.¹¹

11. The Tenant's Predicament

While the rental provisions of the Act were decisively favourable to the tenant, many tenants continued to pay the earlier customary share rental for many reasons, chief among these being the fear of eviction. As the Commissioner of Agrarian Services, J. V. Fonseca, expressed it: "...every tenant cultivator did not seek to take advantage of this particular provision, because he didn't want to provoke eviction by the landlord by seeking to pay the regulated rent."¹² Although the act had provisions for non-eviction, the length of time it would take to follow procedures for the restoration of land constituted a serious disadvantage to the tenant, who lost his means of livelihood for a time at least. In a context of a lack of alternative employment opportunities and the absence of savings to live upon meanwhile, such eviction would make his prospect of livelihood precarious. Most tenants were in no position to risk it. Each instance of an eviction was a painful warning to other tenants of what their own predicament would be if they were to insist on the legal rights conferred by the act, indisputable as the provisions might seem to be.

12. Difficulty of Proof

Tenancy arrangements were oral agreements. Notwithstanding the fact that the act recognised such oral rights, there were serious difficulties in proving them. This was especially so in a socio-economic context in which the landlords wielded dis-proportionate economic power and commanded

the customary respect characteristic of a feudal hierarchical social structure. In such a context it would be difficult to get the evidence necessary to support a tenant's customary rights. Viewed in such a perspective, it is surprising to find that between 1958 and 1968 about 35,500 evictions were reported to the government,¹³ and the number would in fact have been larger than reported. This attempt to obtain better conditions in the face of great odds bespeaks some dynamism in the peasant sector.

13. Dependence on Landlords

Apart from the threat of eviction, there were other factors which hindered the implementation of the rental provisions. In many cases the tenant was dependent on the landlord for operating capital such as draught animals, and even for loans for purchases of fertiliser or for his living expenses between sowing and harvesting. The limited number of institutional credit sources accessible to the peasant was a serious impediment to a tenant's ability to insist on the act's rental provisions. A survey of rural credit on the eve of the Paddy Lands Act in 1957 disclosed that 54 per cent of rural families were in debt, and that only 7.8 per cent of debts involved institutional sources. Landlords accounted for 8 per cent of loans, while relatives and friends accounted for 44.2 per cent and professional moneylenders 27.0 per cent. (See Table 4.)

Table 4: Sources of rural credit, 1957 and 1961/62

Sources	Percent of Total	
	1957	1961/62
Institutional	7.8	34.2
Of which: Government	2.6	
Cooperatives	4.1	33.0
Commercial Banks	1.1	1.2
Non- Institutional	79.2	65.8
Of which: Relatives and Friends	44.2	28.4
Landlords	8.0	-
Professional moneylenders	15.5	15.9
Boutique Keepers	7.4	16.9
Itinerant Traders, Merchants and Commission Agents	4.1	4.6
Unspecified and Others	13.0	-

Sources: 1. 1957 data from Ministry of Agriculture and Food, *Agricultural Plan-First Report of the Ministry Planning Committee*, Colombo, 1958.

2. 1961/62 data from *Administration Report of the Commissioner of Agrarian Services for 1962-63*, Colombo, 1964.

The tenants' dependence on the landlord was not confined to paddy cultivation. In some cases, the tenant farmer was also a labourer in the landlord's coconut or rubber land and was paid wages for such work. This was a useful supplement to his income from his paddy holding. The tenant's wife and other members of his family might be similarly dependent on the landlord for wage labour, and an attempt to pay the stipulated rent might jeopardise these other avenues of income as well. Landlord retaliation might not be confined to the tenant and his immediate family but could spill over to his extended family. All these factors could influence the tenant to refrain from seeking to take advantage of the new rental stipulation.

The restraints are not merely economic. Social and customary restraints also play a role. The tenant long accustomed to the traditional form of *ande* tenancy may view the payment of the agreed share as a moral obligation and the breach of the oral agreement as an ungrateful act to a landlord who

has for years provided him with a means of livelihood. The landlord-tenant relationships are not impersonal contractual relationships and may have existed for generations among the landlord and tenant families. It may be considered not morally justifiable to break such an agreement for the sole purpose of obtaining what might in any case be an uncertain economic advantage: once a tenant breaks the long-standing relationship, to whom can he turn when he needs a recommendation for his son's employment, or who of importance would grace his children's weddings? If he were in dire need who would come to his rescue, especially when anyone else he could turn to might be closely related to or associated with the landlord?

14. A Spate of Evictions

An important objective of the Paddy Lands Act of 1958 was to confer permanent transferable and heritable tenancy rights subject to the following conditions:

the payment of the prescribed rent;¹⁴

the maintenance of an efficient standard of cultivation; ¹⁵

the option of the landlord to cultivate the land himself within five years and up to a maximum of five acres.¹⁶

Each of these conditions had further stipulations to ensure both the rights of cultivation of the tenants and the rights of the landlords to a rental income. However, of greater importance to the effectiveness of the land reform is the spate of evictions that preceded and followed the implementation of the Paddy Lands Act.¹⁷ Though the objective of the legislation was to confer a secure tenure on share-croppers, in practice it probably increased their insecurity, especially in the first few years. Landlords evicting tenants who attempted to pay the regulated rents in order to secure the land for cultivation with hired labour. In some areas, landlords kept the old form of share tenancy going by pretending that the share tenant was a labourer, and adducing proof of this by using his own name as cultivator on all records.

In the context of a high population pressure on land and few alternative avenues of employment, finding a new tenant was no problem to the landlord, and possibly held out to him prospects of a more favourable agreement. The threat of eviction or eviction itself, unjustified though it might be, put power in the hands of the landlord to secure conditions forbidden by the Paddy Lands Act. Even if after inquiry the eviction was found to be unjustified, the landlord lost little if anything, for it only meant the restoration of the land to the former tenant on conditions which the landlord would have had to concede initially under the act. There was no punitive clause which would have acted as a deterrent against improper eviction.

In the first five years of the implementation of the act, of about 23,100 complaints of eviction, 19,400 had been inquired into and 8,000 such complaints upheld. Yet the actual number restored was only 3,800. At the end of ten years (up to 1968), of 35,500 evicted tenants only about 6,100 had been restored to their lands, over ten per cent of the complainants had lost interest and withdrawn their applications.¹⁸

The seriousness of this deficiency has been well expressed by J. V. Fonseka, the Commissioner of Agrarian Services: "The fundamental basis of this legislation is the guarantee it holds out to every tenant cultivator in this country of permanent and uninterrupted rights of cultivation. Should this ideal be largely unattainable due to defects in the existing law or be achievable only after years of investigation and protracted judicial procedures, it is clear that the other objectives of the Act as well, such as the assurance of a fair and just return to the cultivator of the fruits of his labour and the modernisation of a branch of our agriculture which is still dominated by primitive methods of cultivation and still more primitive systems of tenure will also be rendered futile."¹⁹

15. Consolidation of Holdings

The Paddy Lands Act did not make any explicit provisions for solving the twin problems of fragmentation and parcelization except for the stipulation

that tenancy rights should evolve without division. The act merely included a provision for cultivation committees to prepare and submit schemes for consolidation of paddy holdings,²⁰ In only very few instances have voluntarily worked out schemes of consolidation been effected.

While the Paddy Lands Act stipulated that tenancy rights could not be divided it made no provision to prevent fragmentation in owner-operated holdings or other forms of tenure. By treating owner-cultivated lands differently from those which were tenant cultivated, the act failed to recognise that irrespective of the type of tenure there existed extents of land which were too small to permit efficient cultivation, furnish incentives for innovation, allow full utilisation of family labour resources or provide a reasonable income. In fact, failure to establish legal controls to prevent fragmentation of owner-cultivated paddy lands may overtime be an important factor creating the very conditions of tenancy which the act sought to prevent.

16. Limiting Factors

Several considerations guided the approach of the Paddy Lands Act to the question of size of holdings. First, it drew a distinction between the size of ownership and the size of operation, apart from the case of tenancy devolving undivided while ownership may be fragmented, the Paddy Lands Act also provided for the common management of cultivation if the cultivation committees so desired. Second, since there were differing views on both optimum and minimum size of holdings, it preferred to let voluntary programmes of consolidation resolve the problem with due consideration to the particular local conditions rather than impose an administrative and less flexible solution. Connected with this consideration was the fact that the subdivision of land had significant social and customary implications which it deemed desirable not to come in conflict with. Further, a solution which displaced persons from agricultural employment in a context of inadequate alternative avenues of employment was not considered desirable. In other words, there was an implicit

recognition that disguised unemployment was at this stage preferable to overt unemployment.²¹

The merits of this approach have been aptly summarised by Arulpragasam: "The Paddy Lands Act does not apply a dogmatic approach to these problems. It does not try to do away small holdings, purely because of their size, but provides the means by which some of their greatest shortcomings-especially in the field of management-can be overcome even within the present pattern of ownership (or under new types of ownership if so desired) by improved organisation. It is flexible in that it does not impose any solution on any particular area, but allows the Cultivation Committee of the area to adopt (or not adopt) schemes for improved management, schemes for consolidation of ownership or cultivation rights, and schemes for collective operation or collective farming most suited to its needs. It is dynamic in that it enables such a rationalisation to be extended from management to production, where so desired."²²

The main deficiency of this approach to solving the problems of fragmentation and parcelization lies in the reliance it placed on the effectiveness of cultivation committees.

17. Setbacks for the Cultivation Committees

The creation of cultivation committees to organise paddy cultivation at the local level was an important provision of the Paddy Lands Act of 1958. These committees, which were to consist of twelve elected members, were to be responsible for a wide range of activities. These included, *inter alia*, the collection of rents, loan payments and other charges on behalf of those entitled to receive them; the fixing of wages of agricultural labourers for the area; the development and maintenance of irrigation works and the collection of irrigation rates; the organisation of the co-operative or communal facets of paddy cultivation within paddy tracts; the preparation of schemes for the consolidation of holdings and the establishment of collective farms; making representations concerning the grievances and problems of the farmers to the government; ensuring the supply of

agricultural inputs such as fertilisers, agro-chemicals and implements; and being generally responsible for collectively improving paddy cultivation.²³ In order to perform these functions these committees were empowered to levy a charge from cultivators and land owners.

The formation of the cultivation committees was perhaps the most far-reaching institutional reform envisaged in the legislation. It was an attempt to capture the traditional spirit of voluntary community organisation, and envisioned the active participation of the farmer in the formulation, reorganisation and implementation of agricultural policy. The committees were to provide the organisation through which the activities of the various government departments would be effectively coordinated. It was upon the vitality of the cultivation committees that the land reform legislation, and indeed wider agrarian reform, ultimately depends for success.

At an early stage, however, aggrieved landlords were able to invalidate the cultivation committees by absenting themselves from their elections. The Paddy Lands (Amendment) Act No.61 of 1961 remedied this by providing for the substitution of cultivators to fill such vacancies. Yet the initial defect was significant in that it affected the stature and influence of the newly formed committees. Observing their initial ineffectiveness, peasants had their enthusiasm dampened and, led to expect little from them, withdrew their participation as well as their call on them. As the Commissioner of Agrarian Services observed: "In the districts where there were serious set-backs to the very establishment of Cultivation Committees in the earlier years, the response of Cultivation Committees was understandably slow."²⁴ The main source of revenue of the cultivation committees was the levy of Rs.6 per acre per cultivation season. Actual collection of these dues, though increasing over the years, has been only about one fourth of the amount due.²⁵ This shortfall has seriously hampered committees in employing personnel to carry out their functions, particularly with respect to the establishment of offices and the maintenance of proper records.

18. Areas of Progress

Cultivation committees have made valuable contributions in several ways. Their foremost concern has been in the promotion of irrigation facilities. They have undertaken the construction of minor irrigation schemes both as contracts and as "self-help" schemes assisted by a 50 per cent government subsidy. Besides this they have secured the maintenance of irrigation under the Irrigation Ordinance as well as performed the regulatory functions entrusted to them under this Ordinance.²⁶ They have also helped to improve cultivation practices by popularising fertiliser use or sponsoring weeding and transplanting in their paddy tracts. Some committees have used their funds further to subsidise fertilizer obtained by their members under existing fertiliser subsidy schemes, and for the purchase of sprayers and dusters. In some instances, the committees, by acting as collection agencies for the ande rent, have facilitated the enforcement of the rental provisions under the act.²⁷

But the committees have on the whole played only a modest role compared with the role expected of them in the act. Most of the progress has been in areas of activity- such as irrigation where there was already a tradition of community effort. Had the legislation envisaged a more gradual process of achieving its aims and made provision for supervision and help to be given to the committees in establishing themselves firmly at the outset a greater confidence could have been engendered and this would have later produced more substantial results. A further factor hampering the growth of these committees is the existence of a multitude of other institutions which perform functions such as credit disbursement, fertiliser distribution and marketing. In the performance of these functions cultivation committees are often by-passed. This is in part owing to the fact that cultivation committees have themselves not come up to expectations.

19. Credit Requirements

An important factor influencing the effectiveness of land reform measures is the extent to which ancillary services, and in particular credit, are provided by institutional sources which are not controlled or influenced by landlords. The provision of credit inadequate volume at the correct time and at reasonable rates of interest is inextricably connected with tenurial reform, as without such provision the peasantry is unable to command the physical means of achieving higher productivity levels.

The distribution of credit by sources in 1957, just before the act, indicates a very limited dependence on institutional sources (Table 4). The heavy dependence on personal sources of credit and on moneylenders and landlords is significant. Apart from the high interest charge the borrower may be called upon to pay, creditors often insist on conditions bearing on the cultivation and disposal of the crop. On the other hand, these sources may require little or no collateral security and they adjust repayments to times convenient to the cultivator. Further, such loans may not be restricted to production, but often extend to personal consumption requirements. Therefore, on the one hand the cultivator is subjected to high rates of interest which are not conducive to undertaking investments in material inputs, and on the other, in a context of limited institutional credit resources, such personal sources provide his basic credit requirements conveniently and flexibly.

Under the circumstances, in fact, the Paddy Lands Act may have aggravated the conditions of many tenants. Since landlords and their associates were an important source of credit, tenants who took advantage of the rental and security controls found their capital supplies withdrawn. A tenant cultivator who insisted on the tenancy rights conferred by the act needed to be independent of the landlord for capital resources; otherwise the landlord, deprived of his higher rent, could use his control of capital resources as a means of exacting the previous rent. The results of a survey on credit sources in 1961/62 show a conspicuous absence of landlords,

unlike the situation in 1957 (Table 4). This supports the argument advanced here.

While cooperatives accounted for a larger proportion of credit in 1961/62 than in 1957, yet non-institutional sources still provided about two-thirds of the total credit needs. In July, 1963, a new scheme of credit increased substantially the supply of institutional credit.²⁸

The Paddy Lands Act addressed itself to this problem by pre-scribing maximum rates of interest on cash loans as well as on loans of seed and buffaloes, tractors and other agricultural implements.²⁹ In a context of an inadequate supply of credit from institutional sources such provisions to control rates were either ineffective or dried up sources which serviced at the higher rates.

20. The Act's Shortcomings

Judged by their effectiveness in altering the basic tenure conditions surrounding paddy cultivation, the Paddy Lands Act of 1958 and its supporting amendments have had very limited success. Inadequacies of the legislation itself, difficulties in implementation, and the lack of sufficient coordination with other facets of agrarian reform and of a more realistic approach to the basic problems, significantly limited their impact. The legislation, by its failure to recognise adequately the strength of the interests it affected adversely, prevented successful implementation. The large number of evictions and the dilatory action for redress possibly accentuated the insecurity of tenure that the act was designed to lessen.

While provision for the organisation of peasant agriculture at the local level through cultivation committees was fundamentally sound proposition, less optimism and more practical help towards their organisation in the initial stages might have had a greater impact in the long run.

The absence of simultaneous provisions for satisfactory credit placed tenants in a position where they either had to accept earlier rental provisions and continue to receive capital requisites, or be deprived of adequate capital resources. The lack of specific measures for the consolidation of fragmented holdings was a significant limitation in the scope of the legislation. Even in terms of preventing further fragmentation, it confined itself to tenant-operated units.

Interaction of the several deficiencies has had a cumulative impact in depriving the peasantry of expected gain and in dampening the revitalisation of spirit essential for establishing a dynamic climate in peasant agriculture. Yet a hopeful sign is the increased involvement of cultivation committees in improving cultivation practices.

A significant contribution of the Paddy Lands Act to future reform measures is that it has stripped the feudal landlord-tenant relationship of its legality, thereby reincarnating the landlord in a somewhat defensive role if he continues to accept the former share arrangements. This is likely to contribute to a greater aggressiveness on the part of tenants in a new phase of reform, while landlords may come to accept more readily a scheme whereby they forgo their rights to land for moderate compensation. It is important to conceive of tenure reform as a continuing process geared to emerging conditions, rather than once-and-for-all change in the institutional structure of land-holding relationships.

21. A More Far-Reaching Proposal

Tenurial reforms have so far envisaged the landlord's role essentially as a passive one, the mere contributing of land resource in return for a regulated rent. However, the *status de facto* has probably been more substantial than the *status de jure* for a significant segment of landlords. The recent increases in institutional credit may now be relegating landlords closer to the *de jure* status of being little more than the land provider.

Restriction of the landlord's role may well be justifiable and even essential in an environment of exploitative landlordism. Yet the ground for the continuance of landlordism in such a passive role seems to be weak; in such a position the landlords are at best non-functionaries, at worst instruments negating instituted reform. This points strongly a new direction in tenurial reform—the converting of existing tenancy to owner-cultivation through the medium of public purchase and re-transfer of landlord holdings. Tenant-operated paddy lands could be purchased on the basis of values representing a capitalisation of present regulated rentals and resold to tenants on repayment terms related to rentals. The immediate difficulties suggested by the scheme reside in the compensation bill to be met by public financing and the incapacity of the tenants to make payment immediately. These could be met, with advantage to both general economic development and the improvement of paddy cultivation, by making compensation to landlords payable in the form of shares in some of the state-sponsored industrial corporations, thereby eliminating the necessity of direct cash financing. To make financing of such transfers even less burdensome, it could be phased geographically and over time.

This scheme has two great merits. It would expedite the development of commercially and industrially oriented thinking by transforming the present land-oriented feudal landlord class into an industrial entrepreneurial one. The reorientation could be useful not merely to initial capital accumulation but also in subsequent stages when even small savings could be channeled into industrial investment.

Greater capital accumulation would also be encouraged on the part of the peasants—the new landowners. By requiring them to make payments towards the purchase of the land higher than the stipulated share rent, they would be induced to make greater savings than formerly and thereby to increase the rate of capital formation. Unlike the share rental, the purchase repayment would be operating towards procuring land ownership and would hold a strong incentive to make payments. The basic desire for the kind of security afforded by ownership and deep attachment to land are likely to furnish a sound basis for exceptional sacrifice towards capital

accumulation. In the peasant context, where the alternatives between a higher consumption level and additional capital investment, and between more leisure or enhancement of the capital stock, are direct, such a measure would tend to maximise the accumulation of capital by diverting surpluses above subsistence requirements and by additional effort applied to capital improvements in land and agricultural stock. This is particularly valuable as the increases in income expected from higher productivity consequent on improvements in tenure and techniques of cultivation could otherwise be easily dissipated in conspicuous consumption.

Footnotes

1. *Department of Census and Statistics, Census of Agriculture 1962, Vol. 1, Colombo, 1965, p. 42.*
2. *See University of Ceylon, The Disintegrating Village-Report of a Socio-Economic Survey, Part 1, Colombo, 1957, pp. 23-24.*
3. *Census of Agriculture 1962, op. cit., Vol. III, p. 28.*
4. *Paddy Lands Act No. 1 of 1958. For a fuller statement of its objectives, see its preamble. The amendments are: Paddy Lands(Amendment) Acts No. 30 of 1958; No. 61 of 1961; No. 11 of 1964. The Paddy Lands (Special Provisions) Act No. 2 of 1970 relates to nindagams--lands granted for offices held. This aspect is not discussed in this article.*
5. *Paddy Lands Act 1958, Section 22(2).*
6. *Ibid., Section 22(3).*
7. *Ibid., Section 22(4).*
8. *Ibid., Section 22(6).*
9. *Ibid., Section 22(7).*
10. *Ibid., Section 22(8).*
11. *Ibid., Section 22(9).*
12. *Administration Report of the Commissioner of Agrarian Services for 1962-63, Colombo, 1964, p. Kk72.*
13. *Administration Report of the Commissioner of Agrarian Services for 1967-68, Colombo, 1970, p. kk67. See footnote 18.*
14. *Paddy Lands Act 1958, Section 5.*
15. *Ibid., Section 18.*
16. *Ibid., Section 14.*
17. *Administration Reports of the Commissioner of Agrarian Services 1963-64 and 1967-68.*

18. *Of 35,465 complaints of evictions received between 1958 and 1968, 30,746 had been acted upon and disposed of. Of the total number of restorations, 2,666 had been by orders while 3,425 were amicably settled by restoring tenants. It is significant that as many as 4,751 complaints were withdrawn "as petitioners have lost interest". The number of complaints of evictions dismissed as un-justified amounted to 11,840. A further 8,064 were in different stages of implementation.* Administration Report of the Commissioner of Agrarian Services for 1967-68, p. kk67.
19. Administration Report of the Commissioner of Agrarian Services for 1962-63, p. Kk73.
20. Paddy Lands Act 1958, Section 36(1)N(8).
21. See Report of the Land Commission, *Sessional Paper X of 1958, Colombo, 1958, especially memorandum of dissent by B. H. Farmer, pp. 175-179.*
22. Arulpragasam, L. C., "A Consideration of the Problems Arising from the Size and Sub-Division of Paddy Holdings in Ceylon, and the Principles and Provisions of the Paddy Lands Act Pertaining to Them", *Ceylon Journal of Historical and Social Studies*, Vol. 4, No. I, January-June, 1961, p. 70.
23. Paddy Lands Act 1958, Section 36.
24. Administration Report of the Commissioner of Agrarian Services for 1961-62, p. Kk58.
25. Administration Reports of the Commissioner of Agrarian Services from 1958-59 to 1967-68.
26. *Ibid.*
27. *Ibid.*
28. *For a fuller discussion of credit policies see W. M. Tilakaratna, Agricultural Credit in a Developing Economy-Ceylon, Central Bank of Ceylon, 1963, and Nimal Sanderatne, "Agricultural Credit: Ceylon's Experience", South Asian Review, Vol. 3, No. 3, April, 1970, pp. 215-225.*
29. Paddy Lands Act 1958, Section 52.

8

EIGHT DECADES OF LAND POLICIES IN SRI LANKA: MOTIVATIONS, OBJECTIVES AND OUTCOMES

Politics and economics have been inextricably interwoven in Sri Lanka's land policies from pre-independence times till the present. Political considerations and economic objectives have guided and motivated land settlement policies, land tenure reforms and land reforms. Political and economic reasons have also impelled land acquisitions from time to time for development projects such as the construction of roads, highways and expressways. These policies have had significant economic objectives and impacts. There have also been rather arbitrary acquisitions of land by the government for political reasons.

The objectives of this paper are to discuss the political motivations, ideological considerations and economic reasons that motivated land policies and discuss their political repercussions and economic outcomes.

The paper begins with a discussion of land settlement policies that commenced prior to independence. This is followed by a discussion of land tenure reforms on paddy lands in the 1950s and the land reforms of the 1970s. Land acquisition for development purposes is then discussed. The paper does not discuss the forcible acquisition of land by the LTTE and army occupation of land in the North and East during the civil war and the post war resettlement of people in the war torn areas.

1. Land Settlement

The basis for the country's land settlement policies was the considerable extents of land owned by the government owing to the Waste Lands Ordinance No 12 of 1840 passed by the British that vested all land that

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was not occupied and had no legal ownership in the government. Consequently most land in the country was owned by the government. It was this acquisition of land that enabled the British government to give large extents of land in the highland areas at first for coffee cultivation, and later tea cultivation, on estates owned by the British. Lands were also given to Sri Lankans entrepreneurs for coconut and rubber cultivation in other areas.

The government also owned large extents of land in the sparsely populated dry zone of the country. These lands were alienated in small holdings in land settlement schemes known as colonisation schemes. The North Central part of the country that was the region of the country's ancient civilisation with its ancient capitals had large irrigation reservoirs known as tanks that were in disrepair. This region was malaria infested during the time of British rule.

From 1927 the government took steps to rehabilitate these areas in 'colonisation schemes' in small farm plots. Land settlement was not confined to the aforesaid expansive land settlement programme. Besides these large colonisation schemes in the North Central part of the country, there were also Highland Colonisation Schemes, Middle Class Alienation Schemes, Village Expansion Schemes, and much later, Youth Settlement Schemes. All these had political motivations as well as the economic objective of providing employment and incomes and increasing the country's food supplies.

Colonisation Schemes Ideological, political and economic factors motivated land settlement policies. The land owning oligarchy, which ruled the country during the early post independent period viewed land settlement as a useful long-run strategy for ensuring political stability. This was particularly so as the first Prime-Minister, D.S. Senanayake had very strong agricultural-fundamentalist views. Land settlement of the dry zone offered a good opportunity for the government to gain political support, in the dry zone where families were settled and in the wet zone areas from where the settlers were chosen (Gunawardena, 1981).

While the resettled peasants were likely to support the existing political structures and institutions owing to their vested interest in land, the out migration from the densely populated regions, dampened political pressures for more radical land policies. A driving force for the settlement schemes was the conviction that a land-owning peasantry was the best bulwark against Marxist ideologies and support for revolutionary parties. Therefore land settlement policies were a means by which the governing rightist party entrenched themselves in power by creating a substantial voter base.

Marxist parties that had a significant political voice in the country at the time were opposed to the colonisation schemes for ideological and political reasons. They viewed these policies as a means by which the governing rightist party entrenched themselves in power by creating a land-owning peasantry opposed to revolutionary Marxist ideologies that viewed peasant agriculture as a retrograde form of production and favoured state farms and communes as the progressive mode of production.

At this time there was a strong economic rationale for land settlement as the country was importing about 60 percent of its requirement of its staple rice and a large range of food items (Sanderatne, 2002). The objective of self-sufficiency in rice was therefore a strong motivating factor. Besides this, expanding cultivation by bringing in new areas rather than intensive cropping was the available strategy for increasing agricultural production at that time as high yielding crop technology was not available and increased food production was possible only through extensive land use.

As there was a substantial amount of land owned by the government and the north central part of the country was sparsely populated, the cultivation of this area was economically sound. In addition, the government also had the financial capacity to bear the costs of land settlement owing to the economic prosperity of the post war years based on the export of coconut, rubber and tea.

A significant political dimension of land settlement in ethnically pluralist Sri Lanka was the contention that it gave the majority ethnic community the opportunity to resettle Sinhalese in their ancient historical kingdoms, while those of the Tamil community were denied land in these areas. Consequently, land settlement schemes have been a controversial political issue and a cause for ethnic discontent.

Land settlement in the Dry Zone was the key agricultural development policy from pre-independence to the first decade after independence (1947-1956). The progress of government sponsored colonisation that commenced under the Land Development Ordinance of 1935 was slow till 1947. Between 1931 and 1947 only 13 colonies involving 3,145 settlers had been established. Peasant colonisation gained momentum after independence as the spraying of DDT cut malarial deaths drastically from 12,500 to 4,500 in 1946-47. The impact of this on colonisation was unmistakable. Between 1948 and 1953, sixteen colonisation schemes were inaugurated and 10,426 colonists settled (Farmer, 1957, 147- 167, Gunawardena, 1981).

Until 1953, peasant families were resettled on an 8 acre agricultural holding that consisted of 5 acres of wet or irrigated land for rice cultivation and 3 acres of dry land or 'highland' for a homestead and cultivation of other crops (Farmer, 1957). The reduced availability of irrigated land and the need to settle more peasants on the available land necessitated a reduction in land holding. It was also contended that a 5-acre paddy holding was too large for cultivation solely with farm-family labour. Therefore in 1953 the government reduced the area of land holding alienated per family to 3 acres of wet paddy land and 2 acres of dry land or highland (Sanderatne, 1974, 321-323).

In 1956 the unit of allotment was further reduced to 2 acres of wet paddy land and one acre of dry land or highland. Together with the change in the size of allotment was a new policy known as "advanced alienation". Hitherto the colonist was brought to the scheme only after irrigation facilities were provided, the land made suitable for cultivation and the

allottees' houses constructed. Under the new policy of "advanced alienation", colonists were brought into the settlement 2 or 3 years prior to the availability of irrigation facilities (Farmer, 1957).

The colonists were paid cash subsidies for jungle clearing and land preparation, given work for wages on irrigation works and road building and encouraged to undertake chena (slash and burn) agriculture at this stage. Allottee participation in preparing the settlement from its earliest stages was thought of as a means of evoking greater commitment to the project and of decreasing costs.

However, inability of the irrigation plan to keep up with the schedule created considerable hardship as farmers had to face a period of unemployment. In response to this problem, the date of arrival of a colonist on the site was reduced to a year prior to the provision of irrigation (Farmer, 1957 and Sanderatne, 1974, 323).

2. Accelerated Mahaweli Development Programme

Another significant thrust in land settlement occurred in 1978 with the Accelerated Mahaweli Development Programme (AMDP). It was the centre-piece of agricultural development policy of the 1977 regime that brought about 265,000 hectares of new land under cultivation and the cultivation of about 100,000 hectares of land that had been developed but lacked adequate irrigation facilities in the Dry Zone. In addition it was designed to supply 600 MW of electricity through generation of hydroelectricity within a short period of seven years (Chandrapala 1986, 269-270).

The Accelerated Mahaweli Development Programme was completed in 6 years between 1978 and 1983. By the end of 1985, 47,278 farmers were settled in systems H, C, B and A at an estimated cost of around Rs. 34 to 35 billion. The increase in paddy production and yields in the post 1977 period was mainly due to the lands brought under its cultivation. The progress in human settlements left much to be desired owing to resource

constraints. After 1988, the project lost steam owing to the newly elected President Ranasinghe Premadasa changing the minister in charge of the project and downgrading its priority owing to political friction within the cabinet.

Once again the Mahaweli settlements brought out the allegation that the resettlement was discriminatory as most settlers were from the ethnic majority and was a significant reason for discontent among the minority Tamil Community.

3. Highland Colonisation

In 1955, Highland Colonisation Schemes for growing cash crops on smallholdings were begun. Till 1966, about 31,500 acres were cultivated with tea, rubber and coconut (Land Utilization Committee, 1967, 34). In 1968, cultivation of tea and rubber was abandoned on these schemes owing to uncertainties in the international market for these products, and cinnamon and coffee schemes commenced. A colonist in these schemes was given 2 acres of tea, or 2 acres of rubber or 5 acres of coconut. The cost to the government of settling a colonist was about Rs.7,500 in the case of the tea and rubber schemes and Rs.7,000 for the coconut scheme. This expenditure included expenditure on jungle clearing and subsidies for seed, fertiliser, implements, and other cultivation needs as well as housing. In recent years, there has been less expansion of these schemes.

The objective of this scheme was to provide sources of income and employment to villagers and at the same time increase the production of tea, rubber and coconut on small holdings.

4. Middle Class Alienation

Land was also alienated to “middle- class” individuals defined initially as one obtaining an income of less than Rs. 12,000 per annum and later as one with an income of less than Rs. 24,000 per annum for development. The government did not meet any expenses but the recipient of the land

was entitled to a loan. Nearly 75,000 acres were alienated until 1955 to about 6,000 allottees. From 1956 to 1966, about 73,000 acres were alienated to about 8,000 allottees. This scheme was abandoned, as its objectives were not attained (Land Utilisation Committee, 1967).

5. Village Expansion Schemes

Interestingly, the largest extent of land alienation has been under Village Expansion Schemes. Land surrounding purana (ancient) villages were allotted to villagers in blocks of 1-3 acres as a means of reducing the extreme population pressure on available village land. Subsidies were provided for house construction and digging of a well, but financial assistance was much more modest than under the major colonisation schemes. The number of recipients of land under these schemes exceeded 700,000. These beneficiaries, out-number those under all other settlement schemes (Farmer, 1957, 174-176).

6. Youth Settlement Schemes

The increasing incidence of unemployment among educated youth in the country and the limited absorptive capacities in traditional agriculture and other sectors led to the formulation of a new policy of Youth Settlement Schemes in 1965. Its objective was to provide a youth a minimum monthly income by the cultivation of profitable food and cash crops on a scientific basis. Ancillary income sources from poultry and livestock were also envisaged. These schemes were expected to generate high incomes for the youth to be adequate incentives for them to remain in agriculture.

During 1966-69 forty youth settlement schemes were established that covered an area of about 9,500 acres of which about 2,100 acres were devoted to homesteads. This scheme was abandoned in the 1970s (Ministry of Land Irrigation and Power 1966, 133-136 and 1966a).

7. Land Tenure Reforms

Tenancy reforms on paddy lands evoked much political controversy. There were two attempts to regulate tenancy conditions on paddy lands. The initial attempt in 1953 was a limited reform that had almost no effect. The Paddy Lands Act of 1958 was a far more comprehensive effort at regulating tenancy conditions that evoked considerable political controversy and created divisions within the government and was one reason that led to the assassination of Prime Minister S.W.R.D. Bandaranaike in 1959.

The Paddy Lands Act of 1958 was a much needed agrarian reform based on economic principles to incentivise paddy farming. Its effective implementation could have increased productivity on paddy lands, enhanced entitlements of tenant paddy farmers and led to more equitable distribution of rural incomes. However, strong feudal structures, vested interests of the land owning class and inadequate administrative capacity resulted in its ineffective implementation that resulted in its economic objectives being barely achieved.

8. The Paddy Lands Act 1953

In 1951, the United National Party (UNP) government presented a Paddy Lands Bill ostensibly to solve some of the tenure problems on paddy lands. The reasons for introducing this bill are somewhat obscure. It was perhaps a means of facing some of the criticisms that came from a few Opposition members who advocated the abolition of tenancy. It may also have been an endeavour to keep up with other countries in Asia which were enacting land reforms. However the voluminous World Bank Report *Economic Development of Ceylon* in 1952 only mentions the need to consolidate small sized holdings on paddy lands.

The Bill was finally passed in 1953 after a two-year delay. Its applicability was restricted to the two districts of Hambantota and Batticaloa, which had certain unique conditions and peculiar problems. Strangely, the Minister

of Agriculture himself admitted that this Bill was not meant to benefit tenants, but to increase productivity on paddy lands. In the parliamentary debate he said:

This measure has been introduced solely with a view to obtaining greater production. Incidentally, the tenants obtain certain advantages but I emphasise the fact that these advantages are incidental to the main purposes underlying the introduction of this Bill, the main purpose being greater productivity from paddy lands (Quoted in Sanderatne, 1974).

The Paddy Lands Act of 1953 required tenancy arrangements to be written and registered. During the period of such an agreement ejection of a tenant was permitted for only certain specified causes and for such ejection a court order was required. A five-year period was laid down as a minimum period of secure tenancy and a maximum rent stipulated.

The characteristic feature of the Hambantota district was that large extents of paddy lands were owned by absentee landlords and managed by middlemen called *gambarayas*. The latter often managed the lands of more than one owner. The 1953 Act in effect reduced the rent paid by the middlemen to the landlords and improved their security as 'tenants'. Those who tilled the land were treated as labourers and did not benefit from the reform at all.

Similarly, in the Batticaloa district landowners rent their land on a leasehold basis to managers who farm a number of small sized ownership units in a single operational unit. As in the case of the Hambantota district, the reform benefited these managers (*gambarayas*) by providing them with a degree of secure tenure and rent reduction.

The applicability of the Paddy Lands Act of 1953 to only these districts either indicated ignorance and disregard for actual conditions prevailing in them or was designed purposefully to discredit reforms by not conferring any benefits to tenants (Sanderatne, 1974, 344-346). This reflected the

vested interests of the powerful landed oligarchy that governed the country at the time.

9. The Paddy Lands Act of 1958

The change of government in 1956 had important repercussions on land policy and agrarian reform. It enacted the Paddy Lands Act of 1958, whose main objectives were to regulate the rents paid by tenants and to provide security of tenure of a permanent and heritable nature.

This Act was very controversial within the cabinet and government itself with one faction determined to implement it, while another powerful group opposed it vehemently. The leftist parties in the coalition government and those in the centre including the Prime Minister were in support of the reform. The rightist group including the Finance Minister and the Minister of Lands and Irrigation, C.P. De Silva, strongly opposed it from within the cabinet.

The 1956 Mahajana Eksath Peramuna (MEP) government was a coalition of several parties under the leadership of S.W.R.D. Bandaranaike's Sri Lanka Freedom Party (SLFP). An important constituent party was the Viplavakari Lanka Sama Samaja Party (VLSSP) under the leadership of Philip Gunawardena. The MEP also had electoral support and no contest agreements with other left parties, notably the Lanka Sama Samaja Party (LSSP) and the Ceylon Communist Party. The MEP platform consisted of a very large number of issues including the nationalisation of foreign owned estates. However, the critical issues which resulted in its victory were the adoption of Sinhala as the official language, patronage of Sinhala culture and support for Buddhism and the dissatisfaction with the previous regime. Although agrarian reform as such was not an issue at the election, the SLFP had a strong rural support base.

There were two factors in the new leadership, which influenced espousal of land reforms: the government's substantial rural support base and the Minister of Agriculture's deep seated interest in agrarian issues. Philip

Gunawardena as Minister of Agriculture gave a new direction on agrarian reform. His own university education in Agriculture and the Social Sciences in Wisconsin and Iowa and an active involvement in Mexican revolutionary politics provided the background and enthusiasm for agrarian reforms.

For the first time the need for comprehensive policies covering marketing, credit, crop insurance and land tenure reform with village level farmer organisations was recognised and policies formulated to establish these. A new Department of Agrarian Services was established to administer these programmes. Although the significance of these years lay in the formulation of all these policies that gave a new direction to peasant agriculture, Gunawardena is best remembered for introducing the controversial Paddy Lands Act of 1958 (Sanderatne, 1974, 347-348).

The main objectives of the Paddy Lands Act No. 1 of 1958 and its subsequent amendments were to regulate the authority that landlords could exercise over tenants, regulate the rents paid by tenants and to provide security of tenure of a permanent and heritable nature. It also had provisions to prevent further fragmentation of paddy lands and provide measures for the consolidation of small-sized holdings. An important objective was to establish Cultivation Committees for the organisation of paddy cultivation. It also had provisions to regulate interest rates on cash loans made to paddy cultivators; charges made for the hire of implements and draft animals by cultivators; and the fixing of wages for agricultural labourers (Sanderatne, 1974, 350-357).

The economic principles on which the legislation was based were sound. It had both equity and productivity objectives. The control of tenancy rents stipulated in the Act was designed to alter tenurial conditions towards an incentive-oriented rental structure. The two important aspects of the control are regulation to an equitable level and the introduction of a form of payment, which would remove disincentive effects with respect to the adoption of improved practices. Effective implementation of the

legislation would have incentivised tenant farmers to increase yields, as they would be the beneficiaries of increased yields (Sanderatne, 1974).

The introduction of the Paddy Lands Act of 1958 was preceded and followed by considerable discussion and political controversy all over the country. Although the Bill did not abolish tenancy, only regulated the conditions of tenancy, those opposed to it interpreted it as a communist plot to abolish private property. The clause which provided for the possibility of establishing collective farms was used as evidence of this. The powers vested in the Minister were considered dictatorial and contrary to the need to have judicial control of government action (Sanderatne, 1974, 348-349).

The introduction of the Bill threw open the contradictions in policies and principles of the coalition government. The Cabinet and the government parliamentary party split into a Rightist group led by C.P. De Silva, the Minister of Lands and Irrigation, and a Leftist group of Philip Gunawardena. The issues were of course not confined to agricultural policies but encompassed several other economic issues, especially those involving nationalisation and state ownership of industries. The Right also viewed the growing activities and vigour of the Minister of Agriculture as a threat to their influence in the government and popularity in the country.

The Prime Minister, who was himself an owner of paddy lands, was a keen supporter of the Bill and attempted to reconcile the two groups or at least to keep them together by various compromises (Sanderatne 1974, 349). A year after the passing of the Paddy Lands Act, he wrote:

“Vested interests are still trying to defeat the purposes of the Act. They are trying to bring the peasant back into a dark age. This government which people thought would break on the issue of the Paddy Lands Bill will never allow this type of resistance. If necessary, the law will be made more effective. Let there be no doubt this government will do everything in its power to make this far-reaching legislation a real boon to the cultivators

for promoting paddy production. For, if we fail, it will be the greatest setback to our Socialist Programme” (Quoted in Sanderatne, 1974, 349).

Yet, the opposition to the Minister of Agriculture continued to grow within the government and various pressures such as a campaign against the Paddy Lands Act was organised. When Gunawardena proposed a co-operative credit bill designed to substantially increase credit for peasant agriculture, the opposition within the government grew to such an extent that the Prime Minister himself undertook to administer the proposed bill, and Gunawardena and his small group left the government. In September 1959, the Prime Minister was assassinated (Sanderatne, 1974, 350).

The opposition to the reform at the macro level and the inadequate provision of services, and weaknesses of tenants vis-à-vis their landlords, rendered this reform largely ineffective. Soon after the enactment of the Paddy Lands Act its strongest supporters were no longer in the government. Besides, the years after the enactment were some of the most troublesome years in the country. The passage of the Sinhala Only Official Language Act in 1956 led to communal riots in May 1958. The assassination of the Prime Minister in September 1959 was followed by a period of considerable political uncertainty. The indecisive election in March 1960 that did not give any party a majority in parliament ushered in a period of an unstable government till July 1960.

Due to all these reasons, the implementation of the Paddy Lands Act of 1958 lacked a political will and initiative. The implementation was largely left to the bureaucracy (Sanderatne, 1974). The implementation of the Paddy Lands Act of 1958 illustrates the difficulty of attempting to regulate tenancy conditions in a context where the interests adversely affected wield considerable power and influence and feudal structures and patron-client relations vitiate implementation (Sanderatne, 1974, Herring, 1983).

10. Land Reforms of 1972 and 1974

Political and ideological motives rather than economic reasons prompted the Land Reforms of 1972 and 1974. The land reform of 1972 was in response to the insurgency of April 1971. Youth unemployment that was considered the underlying reason for the revolt made the government enact the land reform of 1972. This is clear from the fact that no political party had espoused land reform in their manifestos for the July 1970 election.

Some of those who supported the Land Reform Bill of 1972 expressed concern in the limitation of the land ceiling to private lands and the exemption of the land ceiling for company owned estates. The Marxist parties that were a component of the government that had throughout advocated the nationalisation of estates expressed this concern. Mounting criticism that foreign owned company estates were not taken over led the government to take these over by the Land Reform Act of 1974.

Although the main opposition party, the UNP and large land owners opposed the reforms, there was an absence of serious opposition to the land reforms. In contrast, there was considerable criticism of the management of state lands and the decreasing productivity on estates after their implementation (Fernando, 1980 and Central Bank of Sri Lanka, 1974).

State ownership and management of estates led to a fall in productivity and huge losses. As a result, in 1994, the SLFP led government reversed their position on the ownership and management of the estates and privatised estates. The privatisation of the estates was at first through a management contract with companies and then as an outright sale of a large shareholding. There was however criticism with respect to the manner in which the privatisation took effect.

11. Land Reform of 1972

The Land Reform of 1972 was the first attempt to redistribute privately owned land by placing a ceiling on individual ownership of land at 50 acres, except for paddy land where the ceiling was 25 acres.

Lands in excess of the ceiling were vested in the Land Reform Commission and alienated in several different ways to individuals and co-operative farms. Although owners were compensated, the method of compensation and delays in payment of compensation resulted in lands being virtually expropriated with very minimal compensation. The total extent of land expropriated amounted to a little less than one million acres, over one-half of which were coconut lands. Only 56,000 acres of paddy land were available for re-distribution.

12. Land Reform of 1974

There was displeasure and criticism that the 1972 law did not apply to company estates, many of which were foreign owned. In response to this criticism, the Land Reform Law of 1974 took over company owned estates and distributed them among several state owned corporations. The Sri Lanka State Plantations Corporation (SLSPC) and the Janatha Estate Development Board (JEDB) managed the bulk of the estates. Some lands from estates were given to villages in small plots and JANAWASAMA, another state run corporation. Once again this reform was politically motivated and was an unproductive economic policy (Central Bank of Ceylon, 1974; Fernando, 1980 and Herring, 1983).

13. Economic Impact

The Land Reform of 1974 that was motivated entirely by political factors and ideological considerations was an economic disaster. Owing to fluctuations in prices of tea and rubber, the poor management of the estates and high costs of production, the state corporations incurred heavy losses and productivity on tea estates declined. For these reasons the government

decided to hand over these estates to 22 regional private companies in 1996.

14. Privatisation

The initial privatisation did not yield the expected increase in productivity due to inadequate security of tenure of the management contract. Consequently in 1996 the government decided to divest the ownership of estates to private companies. This measure that reversed the land reform enacted in 1974 was motivated by pragmatic economic policies of the government that was elected in 1994.

15. Land Acquisitions by the Government

Land acquisitions by the government, the LTTE and the army have been a contentious and controversial dimension of land policies in Sri Lanka. The forcible acquisition of lands by the LTTE and the military occupation of lands in the North and East of the country is a distinctive issue in Sri Lanka. These acquisitions by the LTTE and the army that are enmeshed in the country's ethnic problem and politics are not discussed here. The discussion is confined to land acquired by the government for "public purposes" that are also contentious.

The manner of land acquisition by the government, the purposes and justification for acquisition of lands and the method of compensation and expropriation of lands are controversial political, legal and constitutional issues.

16. The Accelerated Mahaweli Scheme

The Accelerated Mahaweli Scheme did not require acquisition of land of any significant extent for settlements, but required the acquisition of large areas of land from villages and townships for the construction of reservoirs. The people who were dislodged were resettled in other areas and paid compensation for their demolished houses and buildings.

17. Acquisitions for Development Purposes

The government has used its power of acquiring private land for a public purpose under the Land Acquisitions Act No 5 of 1950 to acquire large extents of land for development purposes. Lands have also been acquired by the Ministry of Highways under this Act for the construction of roads, highways and expressways.

Such acquisitions have been pronounced in recent years for construction of the Southern Expressway, the Outer Circular Highway, the Katunayake Airport Expressway and the ongoing Kandy Expressway. Large extents of land have been acquired for mega development projects such as the Mattala airport and the Hambantota port in the South.

Earlier acquisitions have not paid much respect for individual property rights of land and compensation was meagre compared to market values. In some instances compensation had not been for as long as 25 years. The more recent acquisitions for large developmental purposes have been paid reasonable compensation without much delay as clear guidelines have been laid down.

The Government has also attempted, through special laws, to take over possession of privately owned land without having recourse to existing legislation, without a specific plan and without stating a specific purpose such as constructing a temple or the like by the mere declaration of an area of land as being a 'Sacred Area' or for an undefined purpose. Such arbitrary and controversial acquisitions have been challenged in the courts. In several court cases the Supreme Court has held that it is inadequate to merely state that it is for a public purpose and that the specific purpose must be stated and justified. Justice Mark Fernando in *Manel Fernando v. Jayaratne*, 2000(1) held that where a Minister declares that a land is required for a public purpose what that purpose is must be disclosed. However owing to the politicisation of the judiciary in recent years judgments have been given without regard to this principle.

18. Acquisition Under the Revival of Underperforming Enterprises and Underutilized Assets Act

Thirty six private enterprises were taken over by the government under the Revival of Underperforming Enterprises and Underutilized Assets Act No 43 of 2011. Several of these enterprises had extents of land. The most notable ones among them that had large extents of land were the Pelwatte Sugar Industries and Sevanagala Sugar Company that had thousands of acres for sugar cane cultivation.

Although the Act provided for fair and prompt payment of compensation, the shareholders of the company were not paid compensation. After the change of government in August 2015, shareholders of Pelwatte Sugar Industries met at an Extraordinary General Meeting on Aug. 18 2015 and passed a resolution to take legal action about the acquisition of its business.

It is likely that other institutions whose business undertakings have been expropriated too would have recourse to legal actions either to get compensation or divest their undertakings. There is also a strong possibility that the new government would divest the undertakings that have been acquired.

19. Summary

Political motivations, ideological factors and economic considerations motivated land policies in Sri Lanka. Several land policies that were motivated principally by political considerations had economic impacts. While the large land settlements were motivated by both political and ideological factors as well as economic objectives, the land reforms of the 1970s were motivated solely by political compulsions and had adverse economic repercussions that impelled the same political party that nationalised the plantations to privatise them.

Ideological, political and economic factors motivated the government to embark on large land settlement schemes from pre-independent times till

a few decades after independence. Agricultural fundamentalism was a strong motivation for land settlement. The land owning oligarchy that ruled the country from 1931, when the country gained home rule, to the early post independent period, viewed land settlement as a useful long-run strategy for ensuring political stability. These settlements offered a good opportunity for the government to gain political support among the settlers in the dry zone. The resettled peasants were likely to support existing political structures and institutions owing to their vested interest in land. And it reduced political pressures for radical land reform policies in the wet zone areas where the settlers were chosen from.

Marxist parties opposed these programmes for ideological and political reasons. They viewed these policies as a means by which the governing rightist party entrenched itself in power by creating a land-owning peasantry opposed to revolutionary Marxist ideologies.

The objective of self-sufficiency in rice was also a strong motivating factor in settlement schemes. The expansion of cultivation by bringing in new areas at a time when there was a substantial amount of land available and owned by the government was a rational economic policy. Furthermore, the government had the financial capacity to bear the costs of land settlement and increased food production was possible only through extensive land use at that time as high yielding crop technology was not available.

Land settlement has been a controversial political issue as it gave the government the opportunity to resettle large numbers of Sinhalese in their ancient historical kingdoms. Minority Tamil political parties have viewed these settlements as discriminatory of Tamils. Consequently land settlement has been a cause for discontent.

The Paddy Lands Act of 1958 had economic and ideological motives. Its main objectives were to provide security of tenure of a permanent and heritable nature and regulate rents paid by tenants on paddy lands. Its objectives were both egalitarian and economic efficiency. The control of

tenancy and rents stipulated in the Act were designed to provide an incentive-oriented rental structure for adoption of improved cultivation practices on paddy lands. However the implementation of the Paddy Lands Act was flawed owing to administrative deficiencies and feudal agrarian structures. The control of tenancy rents was hardly achieved and large scale evictions of tenants worsened the security of tenants. The Paddy Lands Act evoked opposition from sections of the government itself that led to a rift within it. This is one of the reasons that led to weakening of the government and to the assassination of the Prime Minister in September 1959.

The Land Reforms of 1972 and 1974 were motivated by political factors. The Land Reform of 1972 was a response to the youth insurgency of April 1971. It redistributed privately owned land by placing a ceiling on individual ownership of land at 50 acres with the ceiling on paddy land at 25 acres.

Lands in excess of the ceiling were vested in the Land Reform Commission and alienated in different ways to individuals and co- operative farms. Although owners were compensated, the minimal compensation, the method of compensation and delays in paying resulted in lands being virtually expropriated.

In response to the criticism that the Land Reform of 1972 did not apply to foreign owned company estates, the government took over company-owned estates in 1974 and distributed them among several state owned organisations. These land reforms that were motivated entirely by political factors and ideological considerations were economic disasters owing to politicisation and poor management of the estates, high costs of production and fluctuations in tea and rubber prices. The state owned plantation corporations incurred heavy losses and productivity declined.

Due to these reasons, the government decided to hand over these estates to 22 regional private companies. As this did not yield the expected results due to the in- security of tenure of the short-term management contract, the

government decided to divest the ownership of estates to private companies in 1996. This measure that reversed the land reform enacted in 1974 was motivated by pragmatic economic policies of the government by the same party that nationalised the estates.

A significant thrust in land settlement occurred in 1978 with the Accelerated Mahaweli Development Programme (AMDP) that was the centre-piece of agricultural development policy of the 1977 regime. The AMDP sought to bring under cultivation about 265,000 hectares of new land and about 100,000 hectares of land that had been developed but lacked adequate irrigation facilities in the Dry Zone. In addition it was designed to supply 600 MW of electricity through generation of hydroelectricity within a short period of seven years.

The AMDP was completed in 6 years between 1978 and 1983 at an estimated cost of around Rs.34 to 35 billion. Increased paddy production and yields in the post 1977 period was mainly due to this programme. However progress in human settlements left much to be desired. After 1988 the project lost steam owing to the downgrading of the project by the new President and resource constraints.

Although the project was a key economic programme to enhance hydropower generation and increase agricultural production, it is contended that land settlement under the project had political motivations as these settlements ensured political support of settlers to the UNP government. The resettlement of people mostly of the ethnic majority created discontent among minority communities.

Political and economic reasons have impelled land acquisitions from time to time for “public purposes”. These land acquisitions have been replete with political, legal and constitutional questions. The manner of land acquisition, the purposes and justification for acquisition of lands and the method of compensation and expropriation of lands are controversial and contentious issues. The government has used its power of acquiring private land for a public purpose under the Land Acquisitions Act No 8 of 1950 to

acquire large extents of land for development purposes and the construction of roads, highways and expressways. Such acquisitions have been pronounced in recent years for construction of the Southern Expressway, the Outer Circular Highway, the Katunayake Airport Expressway and the ongoing Kandy Expressway. Other mega development projects such as the Mattala airport and the Hambantota port in the South requisitioned much land.

While earlier acquisitions have not paid much respect for individual rights of land ownership and compensation was meagre compared to market values, the more recent acquisitions for large developmental purposes have been paid reasonable compensation. Clear guidelines have been laid down for the payment of compensation and payments have been made without much delay.

The Government has also attempted, through special laws, to take over possession of privately owned land without having recourse to existing legislation, without a specific plan and without stating a specific purpose. Although the Supreme Court has held that acquisitions without a justification of the purpose are unlawful, this has not been followed in many instances as the politicised judiciary in recent years has not respected this dictum.

A serious violation of property rights was the takeover of thirty six private enterprises by the government under the Revival of Underperforming Enterprises or Underutilized Assets Act. No 43 of 2011. Several of these enterprises had extents of land. Although the Act provided for fair and prompt payment of compensation, the shareholders of the company were not paid compensation.

After the change of government in August this year, shareholders are contemplating legal action about the acquisition of its businesses. There is also the likelihood that the new government might divest the businesses to the previous owners. The story of land issues in Sri Lanka exemplifies that

land policies have been motivated by political, ideological, economic and security considerations and is controversial and contentious.

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9

PLANTATION AGRICULTURE: ECONOMIC OPPORTUNITIES AND CHALLENGES

1. Introduction

Like in Sri Lanka, plantation agriculture has been, and is, an important and vital sector in the economies of many countries in Asia, Africa, Latin America and the West Indies. In many of these countries plantations have been an outgrowth of colonial economic exploitation and have developed as an enclave divorced from the mainstream of social and economic development. They are highly differentiated in economic and social organization from peasant agriculture.

Plantations are often presumed to be efficient. This is mainly due to their higher yield levels, compared to small holdings in most countries. These higher yield levels on plantations are due to, *inter alia*, a better availability of resources, the scientific cultivation of crops backed by scientific research and knowledge, the cultivation of higher yielding varieties, the use of the correct inputs and better disease and pest control. Whatever be the reasons for the higher productivity on estates and it is not always so) the significance of this presumption is that it blinds us from the available potential for increasing production of plantations.

The challenge facing plantation economies in the years ahead is the formulation of policy alternatives for reorganization on plantations which would ensure higher production and productivity and the distribution of these gains among the workers. Although this paper focuses on the productivity issues on plantations, some of the opportunities for increasing production discussed in this paper would itself contribute to

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better distributive justice. Nevertheless the main focus of this paper is on increasing production and productivity on the plantations. Since the historical roots of the plantation system has a bearing on the present lesser productivity on the estates, the next section of this paper discusses the objectives, methods, and characteristics of plantation management. The third section which is the core of the paper, discusses, the many opportunities for increasing, production and productivity on Sri Lanka;s estates. The significant issues are summarised in the final section.

2. The Objectives, Methods and Characteristics of Plantation Management Bearing on Production

Company plantations dominate the plantation sector in most Asian, African, Latin American and West Indian Countries. Crop wise company plantations dominate the cultivation of sugar, tea, rubber, oil palm, bananas and sisal^c. Companies either managed their own estates or contracted with agencies (agency houses) for their management. Plantation as a system of management has had significant social and economic implications. The manner of land utilization and labour deployment hitherto on plantations, have an important bearing on future possibilities for better economic utilization of these lands.

The underutilization of land is a fairly common characteristic of plantations^d. Only about half the land under sugar plantations in Guina^e

^c There are tenant plantations in Brazil and the Philippines, and family plantation in Mauritius, Barbados and Sri Lanka. As in Sri Lanka, company estates were nationalized and converted to state plantations in Cuba in 1959. This section primarily discusses the large scale company type estates or plantations but many proprietary owned plantations had the same system of management.

^d G. L. Beckford, *Persistent Poverty : Underdevelopment in Plantation Economies of the Third World*, Oxford 1972 pp. 146-148 and pp. 165-168, A. H. Adamson, *Sugar without Slaves; The Political Economy of British Guina, 1835-1204*, Yale 1972, E. Boorstein, *The Economic Transformation of Cuba*, Monthly Press, New York 1968, S. Barraclough and A. Domike, "Agrarian Structure in Series Latin American Countries". *Land Economies*, Vol. 42, pp. 391-424. Contrary views include G. B. Hagelberg, *The Caribbean Sugar Industries: Constraints and Opportunities*, Occasional Paper 3 Antilles Research Program, Yale University 1970.

^e Adamson, *Ibid* p. 259

and Cuba^f were cultivated, while only one sixth of estate lands in Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala and Peru has been cultivated^g. Tea lands in India have also had large uncultivated extents^h. Rubber plantations in Malaysia and Sri Lanka have had lesser unutilized land.

In addition to cultivable land within estates being uncultivated, the lack of intercultivation or inter-cropping and the minimal development of ancillary agricultural enterprises like dairying and livestock enterprises, which are suited to the areas, are also aspects of under utilization of plantation lands.

Several reasons have been attributed to this phenomenon, such as the creation of an unemployed labour pool by denying land and thereby alternate employment opportunities to others; the elimination of competitive plantations, and the welding of political power through large land holdings. The unsuitability of land for the plantation crops; and the cheapness with which plantations obtained land are considered factors responsible for this under utilizationⁱ.

Whatever the reasons, its developmental significance lies in that the availability of a sizable extent of unutilized or underutilized land provides a basis for their increased exploitation.

Several aspects of labour deployment on plantations have an important bearing on its reorganization. Plantations are characterised by resident labour which generally live in block houses known as lines. Each unit often houses an extended family. This large labour force is "trapped" on the estate owing to few other economic opportunities or because of their being

^f Boorstein, *Ibid* p. 4.

^g Barraclough and Domike, *Ibid* loc, cit.

^h Government of India, *Report of the Plantation Inquiry Commission*, 1956.

ⁱ Beckford, *op. cit.* pp. 168-167; Boorstein *op.cit.* Courtenay *Plantation Agriculture* New York, 1965

immigrant indentured labour with a different ethnicity and culture from the indigenous people^j.

Since most estates are an enclave cut off from villages, it is not feasible to increase or augment labour supplies on a commuting basis. Therefore an increase in the estate workforce implies provision of housing for the new labour. Conversely, plantations have often harbored a larger workforce than necessary. Plantations are characterised by low levels of unemployment "defined as persons registered in the workforce and working for some days per month) and high rates of underemployment (defined as working less number of days than an acceptable norm such as 20 days per month). Such an excess labour force, without alternate employment opportunities, has conferred a bargaining power for the management. Since plantations often offer less than full employment opportunities for its labour, it has been easier to maintain a low wage rate.

The implication of such under-employment on estates is the availability of labour for both intensive cultivation of underutilized land, new planting on unutilized land and the undertaking of ancillary economic activities. The under-employed workforce also offers opportunities for self-employment in enterprises such as vegetable gardening, dairy farming, poultry and bee-keeping.

There are, however, certain limitations for such deployment of labour such as climatic considerations. For instance, some of the underemployed on estates may not be utilizable owing to the inability to use labour on rainy days. Further, where estates have a high man: land ratio and the cultural practices are optimum with limited new opportunities labour may need to be moved out of particular estates for their economic deployment. But problems of human mobility which are often difficult to resolve could arise. The need for adequate housing on the estate is another short-run constraint.

^j See Beckford, *op. cit.*

Plantation labour which has often been described as unskilled has in fact developed skills in such operations as tea plucking, pruning of tea bushes, coffee and cotton picking and sugar cane cutting. Their skill can be gauged by the output per day (e.g. amount of tea leaf plucked) and the quality of produce (e.g. tender tea leaves rather than coarse leaf). Their skill specificity is possible due to the largeness of the plantations which enable the work force to be rotated from one area to another doing the same operation such as pruning of tea bushes or fork fertilizing at intervals of time decided by the management. The labourers themselves do not necessarily understand the rationale of their operation.

This rotational use enables a fuller utilization of labour and reduces the peaks and lay offs, characteristic of other agricultural labour. The implication of the rotational use of labour and skill specificity of labour is the total dependence of plantation workers on the estate organization. Like industrial workers they are wage earners without ties to the land they till. They are not farmers who know to cultivate the crop, but labourers who are skilled only in a particular operation. The skill-specificity could also be a constraint in a more rational deployment of labour.

An important aspect of plantation management which is of consequence in increasing production and productivity on large estates is the traditional mono-crop culture of plantations. Most plantations, the world over, have restricted themselves to a single crop. And this has not been on purely agronomic considerations. Difficulties in the development of skills to manage several crops, problems associated with labour deployment in multi-cropped lands and economics in confining processing facilities to a single crop may account for this mono crop structure of plantations.

Whatever be the reasons, the consequent mono-crop psychological orientation of traditional managers of plantations could pose difficulties in introducing a system of multi cropping on estates. This mono-crop orientation of the typical planter is not merely due to a lack of expertise for other crops but is in part due to a prejudice derived from the traditional plantation system being geared to a single crop.

Within this framework of thinking, multi-cropping is viewed as a distraction from the main cultivation-one which would reduce productivity of the main crop. But economic rationality from the point of view of the estates, as well as the nation, requires the maximization of total income from land rather than the revenue from a particular crop. In fact, the intensification of land use requires a new perspective which plans all agricultural activities of the estate rather than particular crop production.

3. Economic Opportunities in Sri Lanka

Over three fourths (78 %) of tea lands, over two thirds (68%) of rubber lands and two fifths (40 %) of coconut lands are in estates¹⁰. State organizations manage over 60 per cent of tea lands and nearly 80 per cent of all estates are under their management. Therefore the opportunities for increased tea production discussed here falls mainly within the state managed estate organizations. Unlike in tea, the state sector manages only 42 per cent of rubber estates. Therefore the major thrust in rubber development in the plantations lies with the private sector. (Table 1). Only about 100,000 acres of coconut are managed by the State Corporations. Perhaps about 300,000 acres are private small estates.

Since the definition of an estate in the data presented in Table 1 has been that of a land holding over 10 acres; for a better appreciation of the extent under plantations, relevant to the earlier discussion, it is useful to consider the incidence of larger units in Tea, Rubber and Coconut. Whereas 60 per cent of Tea lands are in holdings over 500 acres, and about 1/3 is in holdings of 100 to 500 acres, such large holdings are relatively less significant on Rubber and Coconut. About 45 per cent of Rubber lands are in holdings of over 100 acres and only half of these are over 500 acres. Coconut holdings over 100 acres constitute a very small proportion of the Coconut plantations.

¹⁰ Estates have been defined as land holdings of over 10 acres.

Therefore the possibilities discussed in respect to increased production on estates are mainly in the Tea sector, somewhat in the Rubber plantations and to a very much lesser extent on the coconut lands.

Although no inventory exists to indicate the total extent of uncultivated land on the plantations, there is evidence of under-utilization of land on Sri Lanka's plantations, especially on tea lands. The fact that 30 per cent of lands vested under the Land Reform Law of 1972 was in jungle, patna or uncultivated is an indication that larger estates have significant uncultivated extents.¹¹ It must however be recognised that the actual extent cultivable may be much less due to the need to keep some lands under forest cover, while others may not be suitable for cultivation.

Underutilized land could be categorised as follows:

- (a) Land suitable for main crop.
- (b) Land not suitable for main crop but cultivable with other economic crops.
- (c) Land utilization not intensive due to vacancies not being filled or spacing of crops being too wide.
- (d) Land mono-cropped but capable of being inter-cropped.
- (e) Small extents of land such as ravines and marshes which could be utilized for other crops.
- (f) Land not suited for any of the above categories or needs to be left for forest cover for environmental reasons.

¹¹ A study of 19 estates in the Badulla area revealed that about 11 percent of land was in Patna, jungle and waste land while 5 estates in Matale has 22 percent of their land in these categories. Asian Development Bank, *feasibility Study and Preparation for Sri Lanka Integrated Tea Development Project* Colombo, 1980, Table 5.2 p.24 (Unpublished).

Table 1: Distribution of Tea and Rubber Lands in Estates and Small-holdings-1983

	Estate			Small Holdings	Total
	State Sector	Private Sector	Total		
Tea					
Acres	365,423	101,706	467,129	131,185	598,314
Percentage of Total Tea Lands	61	17	78	22	100
Percentage of Estate Lands	78	22	100	-	-
Rubber					
Acres	146,950	200,087	347,037	161,121	508,158
Percentage of Total Rubber Lands	29	39	68	32	100
Percentage of Estate Lands	42	58	100	-	-

Note: (1) Includes non-estate holdings owned by the government.

(2) A number of State organizations own/manage tea estates. The JEDB manages 185,349 acres and the SLSPC manages 156,538 acres. Therefore these two organizations manage about 73 percent of Tea estates or about 94 percent of State secret tea estates.

(3) The JEDB manages 53,848 acres and the SLSPC manages 95,102 acres of rubber lands.

(4) An inventory of rubber lands undertaken by the *Rubber Industry Master Plan Study* estimated the total cultivated extent to be 515,000 acres or 25 percent less than the Rubber Controller's estimate.

Sources: Sri Lanka Tea board, Rubber Controller's Department

An inventory of lands available in each of these categories on each estate would be the starting point in a strategy for a more intensive use of land on the estates.

Once this is known the following measures could be taken. The extent of land available for the main crop on the estate is likely to be the least significant. This arises from the points raised in the discussion on the characteristics of plantations. Where land was available for the main crop, plantation management was more likely to have exploited it. Labour constraints or factory processing capacity could have also been a limitation. Where there are uncultivated extents suitable for the main crop, extension of cultivation should be reasonably easy.

Diversification of plantation lands, especially tea lands into other crops, must be cautiously approached. Pessimism on the prospects of the tea market in the late fifties and sixties coupled with the neglect of tea lands gave an impetus to diversification as an important economic strategy. The concept of diversifying "Marginal tea lands" was widely advocated and the establishment of the National Agricultural Development and Settlement Authority (NADSA) to diversify marginal tea lands in the Kandy, Kegalle and Matale districts was the best expression of this. Marginal tea lands have been defined variously, but generally considered to yield less than 500 lbs. per acre. A number of crops such as coffee, cocoa, cardamom, cloves, pepper are estimated to yield higher returns¹² and employ a larger number than on these marginal tea lands.

Several limitations should be borne in mind in implementing diversification. Lands may be considered marginal tea lands merely because present yields are low. Such low yields may be due to neglect, rather than due to the inherent potential of the lands. Large scale diversification may be a difficult proposition owing to managerial and labour difficulties. Small scale cultivation may lack resources and know how. The failure of NADSA, despite considerable financial assistance from the World Bank, in a sense underscores these difficulties. In any event, the total extent of land available for diversification may be more limited than one is expected to believe-perhaps only about 25,000 acres.

¹² The crops to be grown in mixed forest gardens also include Arecanut, Breadfruit, Jak Fruit, and Coconut, Banana, Nutmug, Citrus, Papaya, Avocado and Mango.

One of the important observations of the *Tea Master Plan* was that there had been a failure to maintain tea bush density.¹³ A mistaken emphasis on replanting, high taxation, low prices, uncertainty of the future of tea properties are among the important factors bearing on the failure of the management to fill in vacancies. The most seriously affected were the midgrown tea estates¹⁴.

The potential for increased productivity on tea lands is mainly in intensifying cultivation, rather than diversification, inter cropping or other ancillary activities. The strategies that need to be adopted consist of infilling vacancies where the density of tea cultivation is low, the replanting of old seedling tea with Vegetatively Propagated (VP) teas and the adoption of proper cultural practices such as fertilization, weeding and adherence to the proper pruning cycle.

The economics of infilling is indisputable. Unlike replanting, there is no loss of production. Infilling improves fertilizer efficiency, prevents soil erosion, plucking is more economical and weed growth is less. Further, the failure to uproot dead tea bushes results in these becoming hosts for the introduction of spore transmitted root diseases which kill surrounding tea bushes. Therefore failure to infill vacancies results in a continuous decrease in bush density and hence low yields.

Infilling is a labour intensive operation and an initial step towards a self-sustaining high labour absorptive tea cultivation. Precise estimates of labour requirements for infilling are difficult as it varies with the terrain, location of infilling and soil conditions. Labour is needed for uprooting dead bushes, holing, and weeding and fertilizer application. Apart from

¹³ HM Associates, CIDA/Government of Sri Lanka, *Tea Master Plan* (1979), Vol. III, Chapter 4 and Volume IV, Chapter 2

¹⁴ A sample of 36 estates in the mid-country covering about 22,550 acres disclosed that about 25 per cents of the area had a vacancy rate of over 50 per cent and the other 75 per cent had vacancy rates of 20-30 per cent. Anon. An inventory study of Tea lands and factories in Matale and Kandy districts. FAO development project 1978. More recently the JEDB indicated vacancy rates of 2-22 per cent in Kandy, Awissawella, Kegalle and Nawalapitiya regions, 18 per cent in Nuwara-Eliya and 3.5 per cent in the Hatton region. JEDB, Medium Term Investment programme (undated) P.11.

labour for the initial infilling, labour is also needed for re-supplying casualties in the first two years and results in a continuous increase in labour input on tea lands with a high stand density owing to higher plucking. The increased productivity of such lands provides the financial basis to undertake optimum cultural practices subsequently.

Unlike tea lands, coconut and rubber estates are capable of more intensive land utilization by intercropping with a number of crops. Such intercropping would increase the returns to land and make a significant impact on decreasing underemployment and increasing employment and incomes. Coconut offers the possibility of inter-cropping with a larger number of crops than rubber owing to a greater infiltration of light than under rubber and the better terrain of coconut lands. Plantations could be more suited for inter-cropping with perennials as there is considerable expenditure for upkeep of the crop till bearing, increased cost of fertilization and need to develop marketing channels.

Since rubber is often grown at a spacing of 12--20 ft. other crops could be grown in between the rubber trees. The main constraints for inter-cropping mature rubber is the poor light infiltration caused by the fairly close distance between trees and widespread branches. Also in many areas rubber is grown on slopes and fairly rocky terrain which permits limited other cultivation. Replanted rubber lands have a greater potential for inter-cropping as the sun light constraint is less till the rubber plants grow tall.

Inter-cropping provides a useful income source on replanted rubber prior to maturity. On flat land in the low country area, bananas and pineapple could be grown, while passion fruit and coffee could also be grown in the hilly and somewhat rocky terrains. Cocoa has been successfully inter-cropped with rubber in Malaysia but the Rubber Research Institute is of the view that in Sri Lanka inter-cropping with cocoa would decrease rubber yield¹⁵. Small holders inter-crop replanted areas during the period before bearing as well as after in many areas. Bananas is their most popular crop.

¹⁵ Commonwealth Development Corporation, *Report on the Rubber Industry Master Plan Study*-Vol VI, London 1979

Crop budgets prepared by the *Rubber Master Plan* indicate substantial increase in income for smallholder inter-cropping of rubber with bananas, coffee and pineapple. The increase in income on an 8 year basis calculated by them are summarized in Table 2. Yet, they are cautious about its success under estate conditions¹⁶.

The Rubber Master Plan considers inter-cropping on estates as being at an experimental stage and therefore does not recommend it. It states, *inter alia*:

"There is undoubtedly a conflict of interest and opinion in regard to the desirability of intercropping rubber, the Rubber Field Experts considering that, to achieve a fully productive rubber tree, full effort and investment should be directed to mono-culture, each crop being grown separately and intensively."¹⁷

Despite these comments, it is likely that the Research Institutes experimental results could be implemented in estate conditions to yield higher incomes and increase employment. The two state corporations could demonstrate the feasibility of intercropping and generate the data for a conclusive economic evaluation of intercropping on estate conditions. The growing of fodder grass as a base for a livestock industry is an important area of investigation. Poultry and piggery are other enterprises which should offer possibilities though not necessarily enjoying special advantages on rubber estates.

¹⁶ Commonwealth Development Corporation, *op. cit.* Vol. VI, pp. ii-iv and pp.4-12

¹⁷ Commonwealth Development Corporation *op. cit.* Vol. VI p. ii

Table 2: Net Return From Intercropping for 8 Year Period

Crop	Rs. Per Acre
Rubber only	3,125
Rubber/Banana	22,179
Rubber/Coffee	11,224
Rubber/Pineapple	30,392

Note: These calculations were for small holders and made around 1978/79

Sources: *Rubber Industry Master Plan* Vol. VI Tables 1 & 2 and 10-13

Substantial increases in employment and incomes could arise from a more intensive use of coconut lands by inter cropping with other crops. The main strategies for increasing productivity, employment and incomes on coconut lands are the intercropping of coconut with a number of other crops and the raising of livestock on pasture under coconut.

Coconut lands have been least labour absorptive, as well as least intensified in land use. On an average one person is employed on ten acres under coconut cultivation. Land under coconut requires only about 25-30 per cent of the land area and only about half the sunlight. Only about 50,000 acres of a potential of 250,000 acres of coconut suited for inter-cropping are estimated to be intercropped.¹⁹

There is a wide array of crops which could be grown under coconut but the crops suitable for particular lands depend on the location, the density pattern and spacing of the crop and the height of the palms.

With respect to location, 7 agro-ecological and soil terrain regions have been identified. These include 1 in the Dry Zone and 3 each in the Intermediate and Wet Zones. Although no specific location of the private estates are available to determine the extent in each of the zones, it is known that most estates are in the Wet Zone. Therefore it is more relevant to discuss the potential for inter-cropping in the Intermediate and Wet Zones or 6 regions. The crops suitable for inter-cropping in the Wet Zone region include cinnamon, pepper, passion fruit, pineapple and pasture (on shallow, flat or sloping lands) ; and cocoa, coffee, pepper,

nutmeg, cloves and banana (on deep flat lands),²⁰ These are the crops most suited agronomically to the estates.

Crop budgets prepared for 10 feasible crops in 1981 indicated returns from Rs. 1,700 to Rs. 6,000 per acre. The 10 crops in decreasing order of profitability were lime, pineapple, banana, ginger, coffee, pepper, cocoa, turmeric, papaw and manioc. The returns per acre and the labour absorption ratios for these crops are given in Table 3.

Table 3: Returns from the Ten Crops Inter-Cropped with Coconut

Crop	Returns per Acre Rs.	Labour Absorption Man days per Acre per Year*
Lime	6262	0.07
Pineapple	5072	0.23
Banana	3946	0.09
Ginger	3736	0.27
Coffee	2808	0.14
Pepper	2200	0.31
Cocoa	1945	0.12
Turmeric	1706	0.21
Papaw	0265	0.28
Manioc	0526	0.20

Source: Ministry of Finance & Planning, A study of Inter-cropping in Coconut Lands 1981.

Note: *An year was defined as one with 264 working days.

¹⁹ Ministry of Finance and Planning, A study of Inter-cropping in Coconut Lands, Colombo 1981,p.1.

²⁰ Ministry of Finance and Planning 1981,pp.5-10.

Several of these crops have a high development cost and a long gestation period. Consequently, while these crops are quite suited for small holder cultivation, unless satisfactory credit arrangements are developed, small holders may not have the capacity to undertake their cultivation. This aspect is particularly significant as it has to be stressed that inter-cropping without adequate fertilization of coconut and the inter-crops, would reduce the yield of coconut.

It is also important to realise that while coconut yields should not be allowed to fall due to intercropping, the economic objective should be to increase total output and income rather than the yield of a particular crop. Further, the potential for the highest output of these lands would depend on the correct planting of the inter-crops.

In the long run, inter-cropping of coconut should be conceived of before the planting of the coconut so that the spacing of the palms should be optimum for inter-cropping.

The inter-cropping of coconut offers considerable gains in employment. Part of this would necessarily be in terms of reducing under-employment on the estates, but if inter-cropping is systematically undertaken, there is a potential for increasing employment besides decreasing under-employment.

The labour absorption ratios for the 10 crops range from about 0.2 to 0.3 labour units per acre (Table 3). This is an appreciable increase of employment on coconut lands where mono-cropping only absorbs 0.1 labour units per care. On the basis of these labour absorption ratios, the inter-cropping of about 200,000 acres implies an increase in employment of about 40,000 persons.

A further potential of these lands is its use for pasture as a base for the introduction of livestock. The economic return as well as the labour absorption of the livestock industry is very high. This is especially appropriate in certain areas where other crops may be too difficult to grow,

Livestock development may be the logical alternative to achieve the twin objectives of increased incomes and employment in these areas. This has been considered for the last two decades or more, but the attainments have been rather minimal.

Intensified cultivation and inter-cropping on estate lands require constant supervision of labour. Labour supervision is particularly important as the activities relating to new cultivation may not be streamlined as the regular cultural practices on the main crop and labour skills, knowledge and other abilities for the subsidiary crop cultivation may not be as efficient. Labour may also have less interest in the efficient cultivation of these crops. These features on estates may prove a constraint in plantation management for intensified land use and ancillary agricultural enterprises.

Plantations are characterised by extents of land unsuitable for the cultivation of plantation crops. These include *patana* lands, ravines, marshes, and low lands. Estates could lease out such unutilized land for workers to cultivate crops or rear livestock. Ravines and marshes and lands near labour lines and cottages could be made to yield valuable output especially for vegetables. Marshes could be converted for paddy cultivation. Such cultivation, while not increasing wage employment, would in fact be a rational utilization of underutilized labour and, uncultivated land. It would increase real incomes both in kind and in-money. The limiting factors are marketing possibilities and availability of inputs and also possibly credit facilities. The estates should consider the development of these lands by the workers as a part of their activities and offer extension services, inputs and credit and organize marketing channels. Such effective participation by the estates could indeed increase the real income levels of workers considerably.

Such home gardens cultivating vegetables and fruits could be very productive as several facilities which estates have could be coupled with a highly incentive oriented system. The benefits of such exploitation accrue directly to the cultivator. The estate organization can play an important role in making such agricultural exploitation a success by providing extension

facilities, inputs on credit terms and where possible and feasible organise the marketing of the produce. The estate organisation could assist by providing credit guarantees to financing agencies for the required capital funds. In livestock enterprises to the estate could provide extension facilities and inputs and possibly assist in the marketing activities²¹. Besides crops, this type of system could be used for raising livestock and poultry.

This strategy of providing the resources for estate workers to undertake these activities without the estate itself being directly involved in the production of the crops is of significance for increasing incomes and employment of the estate workers without any additional cost to the estate enterprise. The provision of such ancillary employment and the raising of income by such a strategy makes estate employment more remunerative and attractive and under-employment on the estates more acceptable.

A word of caution in promoting cultivation by workers is necessary. The cultivation of crops on these lands should be undertaken on a scale which ensures that it does not adversely affect the labour supply for estate activities. Sufficient safeguards should be devised to prevent workers from utilizing estate inputs for their private cultivation. Replanting of tea and rubber lands with higher yielding clones could achieve substantial increase in production. Similarly coconut production could be increased significantly by both replanting and under planting.

²¹ The dairy development scheme for estate labour sponsored by the Ministry of Rural Industrial Development on these lines. This scheme is still of limited scope. For details of scheme see, Central Bank of Ceylon, *Credit Information Bulletin 2 Dairy Farming, Colombo 1982.*

Table 4: Tea and Rubber Replanting 1975-1984

Item	Unit	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984(A)
Tea											
Area planted with tea	Acres	4359	2758	3069	4223	6155	5327	6615	4895	3378	2829
Percentage of Total cultivated area		0.73	0.46	0.51	0.70	1.02	0.88	1.09	0.82	0.59	0.50
Rubber											
Area planted with Rubber	Acres	7984	6301	6467	7971	10299	13427	15918	16758	12649	12891
Percentage of Total cultivated area		1.42	1.12	1.15	1.42	1.84	2.39	3.13	3.30	2.49	2.54

(A) Provisional

The productivity impact of replanting with Vegetatively Propagated (VP) tea is quite dramatic. While seedling tea yields about 500--700 lbs of tea per acre, VP teas could produce around 1,600-1,800 lbs per acre or more. The immediate disadvantage of replanting is the income foregone, by uprooting and the cost of upkeep till plucking which takes about 5 to 6 years.

In recent years replanting with VP teas has fallen far short of the annual target of 2 per cent of the cultivated acreage set in the early sixties. In the last decade the replanted acreage was less than 1 percent of the cultivated area except in 1979, when it barely exceeded 1 percent. (See Table 4).

The potential for increasing tea production by replanting could be seen clearly by analysing tea production by the traditional elevational categories of *high grown* (above 4,000 feet) *mid grown* (2,000-4,000feet.) and *low grown* (below 2,000 feet.). Most tea lands (77 per cent) in the estate sector is in the first two categories (Table 5).

Table 5: Distribution of Tea Estates by Elevational Category-1984

Elevation	Acres	Percentage of Total	Production Mn. Lbs	Percentage of Total	Yields in lbs. per Acre
High Grown	163546	38	174	38	1064
Mid Grown	165317	39	120	26	726
Low Grown	98393	23	163	36	1057
Total	427256	100	457	100	-

Source: Sri Lanka Tea Board

The mid grown tea areas have the lowest levels of productivity in the country, as a high proportion of these lands were neglected previously by private proprietors as prices for these teas were low and the incidence of taxation was high.

In these mid grown tea estates, the neglect in cultivation and poor cultural practices have resulted in a considerable extent of soil erosion. Therefore to rehabilitate these lands for tea growing, soil conservation measures have to be undertaken. Such rehabilitation which would include the provision of growing of Guatemala grass will not bring in returns immediately. Those lands which have been badly neglected may have to be diversified to the growing of other crops such as pepper, cardamom, cloves and coffee.

Replanting could increase productivity on these lands substantially from its present level of an average of 700 pounds per acre to over 1,000 pounds per acre.

Replanting would be relatively modest in the high grown areas as the income forgone would be high, the infilling program would have priority and labour availability may be a constraint. These areas have a big potential for infilling as soil erosion is less, the vacancy rates are lower and crop diversification impracticable.

In the low country considerable increases in productivity could be achieved by replanting with seedling tea as well as by infilling. Low grown teas have the highest yield potential but owing to poor cultural practices, attained yields are only moderately high.

The author's estimate of the extent of lands in tea estates available for infilling and replanting by elevational categories, summarized in Table 6, is given to indicate the broad magnitudes of the potential in these areas of development.

Replanting is the only method by which rubber production could be increased. Productivity of plantation rubber lands could be enhanced

mainly by replanting. Whether interplanting on estate rubber lands is good or not is unsettled and inter-cropping rubber plantation lands with other crops has been undertaken only to a very limited extent. Some diversification of rubber into tea at high elevations and into coconut or oil palm at low elevations may be attempted but the extent of such diversification is likely to be limited.

Considering the importance of rubber replanting, the extents replanted in the sixties and seventies, have been far less than required. Till 1962 the rubber replanting programme was implemented satisfactorily and about 185,000 acres were replanted between 1953 - 1962. Since then replanting declined. In September 1979, the *Rubber Industry Master Plan Study* estimated that 166,421 acres of rubber in the estate sector required replanting²². Since 1980 the replanting programme has been satisfactory and over 2 per cent of the total cultivated area replanted. Therefore, the extent of rubber plantations that requires to be replanted may be probably around 125,000 acres or less.

The replanting of these rubber lands is of utmost importance as the yield that could be expected from replanted rubber is much higher. Conversely, if replanting is not done, rubber yields would decrease significantly. It may be also mentioned that since labour absorption in rubber is mainly for tapping, higher yielding rubber would be more labor absorptive and would consequently reduce under-employment and unemployment in rubber producing estates.²³

Replanting is also important on coconut lands which have a high proportion of senile palms. Since many of the more productive coconut lands taken over by the State under the Land Reform Laws of 1972 and 1975 were given back as smallholdings, it is likely that a fair extent of the lands presently in the estate sector have senile palms. This is implied by

²² Commonwealth Development Corporation, *op. cit.* Vol. 1, p.9

²³ Nimal Sanderatne, "Potential for Raising Employment and Incomes in the Estate Sector". Paper presented to the ILO ARTEP *National seminar on Production Employment promotion in the plantation crop sector of Sri Lanka*, Colombo 1982

the fact that the 11 per cent of the coconut lands vested in the Land Reform Commission is estimated to have produced 30 per cent of the country's coconut production.²⁴ Therefore, the remaining estate lands should be rehabilitated with high yielding new dwarf varieties to ensure that production in coconut estates are increased. This is particularly significant as there are significant constraints in increasing coconut production on smallholdings owing to the large number of small producers to whom replanting is unattractive owing to the long gestation period.

Although only 40 per cent of the extent under coconut is in estates and the 1982 Census estimated that only 25 per cent are in units of over 25 acres, estates have an important role to play in replanting due to the factors just mentioned and as small holders do under planting unsatisfactorily. They do not remove the old stand at the time when it competes for light with the new stand and thus overcrowding of palms results in poor yields²⁵. This need not happen on estate lands which could ensure that the old stand is removed in time.

An important issue that we must focus on when discussing economic opportunities in the estate sector, is the post land reform tendency by which highly productive estate lands with high yielding vegetatively propagated (VP) teas and budded rubber being taken away by the State for non-agricultural uses. While there is no denying that the other needs such as housing and village expansion are important, these needs should be met by using lands which are not fully exploited. To use lands on which considerable investments have already been made and which have a potential for high yields or are high yielding, to say the least, is uneconomic. The author's discussion with the plantation community has revealed that one of the reasons for decreased production on tea and rubber lands has been the significant reduction in the cultivated extent of tea and rubber lands. The plantation sector should bring to light the magnitude of this problem and ensure that a policy decision is taken to prevent the use of highly productive plantation lands for other purposes.

²⁴ Ministry of coconut Industries, Coconut Development Strategy, Colombo 1984 pp i-ii

While the three main plantation crops are overwhelmingly important, there are other plantation crops grown in Sri Lanka that should receive our consideration as well.

These crops include cocoa, coffee, cinnamon, cardamom, citronella and pepper. These crops have been largely neglected and their productivity is very poor. On the other hand, many of these crops have a good market potential. The plantation sector has a special responsibility in reviving the production of some of these crops on their lands. The total extent that could be cultivated with these crops is not insignificant. Perhaps about 200,000 acres could be put under these crops, in a systematic way to yield substantial increases in output for export. The Bowing of new plantation crops such as oil palm on estate lands should also be explored.

The neglect of these crops, Should be illustrated by the present state. Cocoa yields are as low as 2-3 cwt. per acre compared to that around 10 cwt per care in Malaysia. Poor planting material, low stand per acre, insufficient or excessive shade, senility to a significant extent and virus disease (vein clearing disease) account for the poor cocoa yields²⁶.

4. Summary of Issues

Several features of the plantation system have a bearing on the economic opportunities available on the estates. The basic contention here is that these should be considered as challenges to plantation management. The particular features which have a bearing are the sizeable extent of unutilized or under-utilized lands on estates, the mono crop orientation of estate culture, and the availability of a skilled and resident labour force which is often larger than the optimum requirement for estate operations.

Since a large proportion of land under tea is in estates, these opportunities are of greater significance for tea. Estate plantations are somewhat less

²⁵ *Ibid.* p. 18.

²⁶ E.A. Ariyaratnam, *Developing of Cocoa Industry in Matale, Kurunegala and Kandy Districts*, Peradeniya 1978.

significant on rubber and considerably less significant on coconut lands where only 16 per cent are in holding of 50 acres.

The greatest opportunities for increased production on tea estates lie in a vigorous program of infilling vacancies. This paper has argued that the economics of infilling is indisputable. Infilling would ensure higher yields of tea lands with no loss of immediate production. It would also be more labour absorptive and reduce maintenance costs. Replanting also offers significant opportunities, especially as the replanting program has not kept to the desired target of 2 per cent of the cultivated acreage. Yet, when tea prices are high, uprooting of old tea stands is less attractive and this may be a problem in the current situation. A significant extent of uncultivated land on tea estates provides the opportunity for increasing production of crops other than tea, and providing ancillary income for estate labour. While such cultivation could be undertaken by estate labour, the estate organization could provide resources and extension and marketing facilities. The cultivation of these lands with other crops, either on a leasing arrangement with ones labour or as part of in activities of the estate itself, should be viewed in terms of additional production and productivity of existing resources. The estate would need to view itself as managing the entire land resources at its command economically rather than merely managing a particular crop. Intercropping and diversification on tea lands are not insignificant options available to them.

On rubber lands, replanting is the most important strategy available for increasing production. Although the spacing on rubber lands is such that there is a considerable extent of unutilized land under rubber trees and there is adequate infiltration of light for different crops at different stages of the rubber plant, intercropping is done on a very limited scale. The economics of intercropping on rubber lands has been demonstrated on smallholdings. It is also being practiced on rubber estates in Malaysia, where particularly cocoa is grown. Since the returns on rubber lands would be greatly enhanced and employment opportunities would be increased with intercropping, plantations have a responsibility to demonstrate the feasibility of such intercropping on estate lands.

The very high proportion of senile palms on coconut lands and the fact that smallholdings practice underplanting, and the method of replanting unsatisfactory, imply that plantations have an important role in ensuring that the area at their command is made very high yielding. Since there is a great degree of under-utilization of coconut lands if they are mono cropped, estate coconut lands too should explore the possibility of intercropping of their coconut lands with a large variety of crops which have been found to be agronomically feasible and economically remunerative.

In undertaking these activities on tea, rubber and coconut lands plantations have certain distinct advantages which should be exploited. Foremost among the advantages of a plantation system is in its ability to mobilise adequate capital. The need for capital arises due to several reasons. More intensified cultivation requires larger fertilizer use and often requires more labour and sometimes machinery. New cultivation, especially of perennials, has a long gestation period during which there is expenditure for the upkeep of the lands without returns. Plantations are in a better position than smallholders to mobilize the required capital either from the profits of existing activities or by the use of credit from the banking system or other financing agencies. Institutional credit sources have financed smallholders of plantation crops only to a very limited extent.

The second advantage of plantation management is that when new crops are grown for which the 'know how' is not readily available, the estate organization may be in a better position to acquire the technical knowledge, employ suitably trained agricultural personnel or have greater access to limited extension facilities.

The third advantage is that the estate organization could itself be involved in the processing or marketing of the produce. The estate organization itself undertaking the marketing of the crops or their processing add distinct advantages. The estate could establish a processing unit or organize a marketing link-up either for retail distribution elsewhere or for

direct export. Small-holders are often unable to get a reasonable price for their crops. Consequently, an economic analysis based on market prices may show a new cultivation to be economically viable and profitable, but in fact the farm gate prices may be very low and hence such cultivation uneconomic and risky to smallholders.

Plantations also have certain disadvantages which should be recognised. Intensified cultivation and undertaking ancillary activities could prove more burdensome from a managerial point of view. When holdings are small these problems are less. Owners and managers of small extents have a greater incentive to undertake such activities as these increase their total output and income more significantly. Another disadvantage is that the psychological orientation of the management on large plantations is not always appreciative of the need for intensified land use by multicropping and undertaking ancillary economic enterprises. The traditional planter is a mono crop orientated one but newcomers are receiving a somewhat different perspective.

The plantations have depended on an authoritarian system with a rigid hierarchy. As long as plantations were owned and managed by the private sector and operated in a different socio political context, this system achieved its objectives. Under public ownership and control and in a different socio political environment it is futile to expect an authoritarian system to function effectively. Therefore, it is essential for the plantations to devise an incentive oriented system for both managers and workers. Owing to the variety of plantations, such a system must have a considerable degree of adaptation for particular conditions on estates, such an incentive oriented system is a *sine qua non* for both developmental work on estates as well as intensive land use on plantations, there should be financial incentives for development work, increased output and improved quality of produce.

It is also necessary to recognise that estates may have physical and financial constraints in undertaking inter-cropping and other new plantations. One such constraint could be the lack of water and irrigation

facilities. Another constraint could be the lack of adequate residential facilities for labour where the labour supply needs to be augmented. In some instances given the escalating costs of construction, the provision of such housing could be prohibitive.

Another requirement for the development of plantations is a longer term perspective in management. Estates should plan their work having long-run interests of the plantations rather than undertaking cultivation activities on an year to year basis. In the years soon after state ownership, one of the disadvantages plantations suffered from was the uncertainty of tenure of planters on estates. This has changed appreciably but it must be stressed that the tenure of managers should have a degree of certainty and be sufficiently long to ensure an interest in their development and to see the fruits of their labours.

The plantation sector should also seek the opportunities available to them in the growing of plantation crops which have been largely neglected like cocoa, coffee, cardamom, citronella and pepper. These crops which have a good international market often have poor yields owing to unsatisfactory cultural practices. Plantations should also attempt to grow new plantation crops such as oil palms which are economically very attractive.

It is fitting to conclude this paper by stressing the need to ensure that high yielding lands under plantations should not be allowed to be used for non-agricultural purposes. To use lands which have been systematically cultivated and are high yielding or have a high yielding potential for other purposes, is to deny the nation the returns of investments already undertaken. The plantation sector should assess the magnitude of this problem and take steps to ensure that a policy decision is taken to prevent such lands being taken away from agricultural exploitation.

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10

CROP INSURANCE FOR PEASANT AGRICULTURE

1. Introduction

Risks and uncertainties in agricultural production arise out of unstable producer prices and natural hazards. Natural hazards include the vagaries of weather such as drought, flood, frost and hail, as well as damage caused to crops and livestock, by pests and diseases. While price stabilisation has received considerable attention in both economic literature and policy formulation, attempts to stabilize income by taking into account as certainable risks caused by natural factors beyond human control have been relatively scanty. This is particularly so in developing countries. In recent years, however, an increasing interest has been shown by these countries in some form of crop insurance.

The objective of crop insurance is to give farmers financial protection at times of crop failure to enable them to continue their subsequent cultivation uninterrupted. In return for the payment of regular premia, farmers are provided with a minimum income which recoups the costs of the unsuccessful cultivation¹.

The present paper discusses the need, advantages and problems of crop insurance in peasant agriculture and suggests some guidelines for introducing an insurance scheme under such conditions.

2. Need and Benefits

Peasant agriculture is characterised by farmers who cultivate small-sized holdings and obtain only the bare minimum of a subsistence income.

Crop Insurance for Peasant Agriculture. Review of Agricultural Economics, Malaysia. Volume 3, Issue 1, 1969

They generally lack a reservoir of savings and acceptable forms of security to obtain credit from institutional sources. Crop failure therefore often results in farmers obtaining credit at exorbitant rates of interest, the commitment of future produce to lenders at arbitrary low prices or the mortgaging of farm land, all of which result in the payment of a high proportion of their produce. Crop failure is often the underlying cause of farmer indebtedness, high costs of production and low prices for output.

Generally, a crop failure impairs a peasant farmer's position in the complex of socio-economic relations vis-a-vis landlords, moneylenders, merchants and purchasers of farm produce, boutique keepers and other retailers of consumer articles. The failure to protect a farmer from natural calamities beyond his control could vitiate other aspects of agricultural policy such as institutional credit programmes, guaranteed prices, the marketing organisation and the extension services.

The development of peasant agriculture requires an increasing amount of material and capital inputs such as improved seed, fertilizer, insecticides, weedicides and farm machinery. The risk of crop failure could be a serious disincentive to the use and adoption of these inputs as their costs are a substantial proportion of a farmer's income. In fact, a farmer adopting improved methods of cultivation would be much worse off after crop failure than had he not invested his money in these inputs.

Agricultural development programmes attempting to increase productivity by improved methods of cultivation requiring additional financial commitments would face lesser farmer resistance against the adoption of these methods with crop insurance than without. As Ray (1967) observes "..... insurance gives farmers greater confidence in venturing upon the adoption of new and improved farming practices and in making greater investments in agriculture for improving crop yields and increasing agricultural production"². The incentives for the adoption of better methods of cultivation could be further reinforced and strengthened by offering higher indemnity coverage on lands cultivated with improved techniques.

Further, the increased financial costs of these cannot often be met by a farmer's own financial resources. Institutional credit sources must therefore be found which provide these resources at reasonable costs and convenient terms of repayment. However, institutional credit institutions generally run a heavy risk of not recovering loans at times of crop failure. A scheme of crop insurance, by ensuring repayment of loans even at times of crop failure, would enable the credit institution to be sufficiently liquid for its credit operations even after wide spread crop damage. Crop insurance could enhance a farmer's worthiness by such insurance being used as collateral security for loans³.

Coverage by crop insurance could enable a better utilization of both agricultural land and irrigation resources, from machinery, draft animals and labour resources. In the absence of crop insurance farmers dependent on irrigation water may await water levels to rise to unnecessarily high levels to begin cultivation and thereby much water may be wasted by evaporation and seepage. On the other hand, when crop insurance coverage is available farmers may be more easily persuaded to stagger their cultivation cycle.

Lands with a high-risk probability could also be brought under cultivation when the risks of their cultivation are spread over time by an insurance scheme. Yet lands with very high-risk probability should not be covered to ensure that cultivation is not undertaken to merely receive insurance indemnity.

The operation of a crop insurance scheme by a government agency could increase its awareness and interest in introducing measures to avoid crop failure in order that indemnity payments or premium rates may be reduced. Such measures would include better irrigation and drainage facilities and improved research and extension services to reduce pest and insect damage and plant diseases.

The benefits of crop insurance are reaped not only by farmers directly covered by the scheme but also by the community in general. In a rural community whose income is mainly derived from agriculture, the effects of widespread crop failure are felt by other sectors too. The depression of agricultural incomes leads to a sudden decrease in demand for goods produced by other sectors and consequently their dislocation too. The stabilization of farm incomes through insurance, therefore, leads to a greater degree of overall stabilization of the economy.

Further, widespread crop failure often requires some form of governmental assistance as a relief measure. A crop insurance scheme, therefore, reduces the cost of providing such relief. An element of government subsidy in crop insurance is perhaps justified in that crop insurance has a built-in social insurance component.

3. Problems of Crop Insurance in Peasant Agriculture

While crop insurance could confer substantial benefits to peasant agriculture, its adoption under peasant agricultural conditions is wrought with considerable difficulties⁴. The lack of reliable data on crop yields over a sufficiently long period to compute crop loss probabilities, premium rates and indemnity coverages is one of the basic difficulties.

At the initial stages an experimental scheme with tentative actuarial computations could be introduced. However, if the introductory rates are demonstrated to be too low in certain areas, their subsequent upward revision may encounter opposition. On the other hand, where the introductory premium rates are too high the scheme may run the risk of encountering a lack of willing farmer participation.

Apart from the lack of adequate data on risk probabilities, peasant agriculture presents a wide spectrum of cultivation techniques, costs and yields. These vary not merely from area to area but also within an area and sometimes in the same plot, from season-to-season. While on the one hand, the large number of small-sized holdings makes it impracticable for

actuarial calculations to be related to particular farms, on the other hand, the calculation of premium rates on a large area sometimes results in these being not directly related to the costs of production or the normal yields of particular farms.

The large number of farmers operating small-sized holdings increases both administrative difficulties and costs of administering the scheme. This is particularly so as the successful implementation of a crop insurance scheme requires immediate supervision and assessment of crop damage and early payment of indemnity. A scheme which does not have adequately trained personnel to assess crop damage runs two risks of:-

One: farmers reporting fraudulent claims; and

Two: farmers who have suffered crop damage not being paid indemnities within a reasonable period from the dates on which the damage occurred and thereby defeating the basic purpose of providing farmers with an income to tide over till next harvest.

These considerations imply the need for a large number of trained personnel and the decentralisation of the programme by the establishment of regional offices handling a manageable geographical area. The costs of administration of an effective crop insurance scheme is, therefore, likely to be high in terms of the value of agricultural production covered by it.

At the commencement of such a scheme peasant farmers may not easily appreciate the benefits of agricultural insurance and they may not participate willingly. An insurance scheme is by its nature one where the quid pro quo is not immediately realised as the benefits accrue only at times of failure which are far between. As a result premia paid under a compulsory crop insurance programme tend to be interpreted as taxation measures, while a voluntary scheme may not enlist adequate participation.

This is particularly so at the commencement of an insurance scheme when there have been no crop insurance benefits of any kind. Therefore the education of farmers on the ultimate and long-run advantages and benefits

of crop insurance is an essential pre-requisite of introducing a scheme and may prove a difficult task.

The introduction of crop insurance like other agrarian reform measures, such as, land reforms and institutional credit, tends to weaken the economically and socially dominant groups in the village. This is necessarily so as the farmers' dependence on the village money lender or landlords at times of distress is reduced, and from his very vulnerability at such times may arise his dependence and subjection to them. As such the village leadership may overtly or covertly indulge in propaganda to discredit the benefits of such a scheme and interpret it as a measure of government taxation. Both due to the accepted leadership of these persons as well as the difficulties of demonstrating the benefits of crop insurance at its commencement, this campaign may be particularly forceful.

4. Suggestions for Introducing a Crop Insurance Programme

In view of the problems that have been discussed, a crop insurance scheme could be introduced in staggered phases⁵. The first phase or pre-operation phase could be devoted to the collection of information and research on the actuarial aspects of the scheme, the type of organization to handle the scheme and the education of farmers of the benefits of insurance.

Information collected would include farm practices, the cost of production, yields, and the causes and frequency of crop damage. This information would facilitate the compilation of actuarial tables giving the premium rates and indemnity coverages. Concurrently policy decisions should be taken on the principles and the extent of government subsidization, the actuarial unit for computation of indemnity and the extent and methods of indemnity coverage.

The nature and organization of the agency operating the scheme and the role of farmers' organizations, co-operatives and other village institutions should be determined. The possibility of tying up the crop insurance programme with other agricultural policies such as credit and marketing

policies should be explored and the necessary organizational framework worked out for such an integrated programme of policies. In the pre-operation phase information about the benefits of crop insurance should be publicised and a psychological climate conducive to implementing the programme created. Such a programme is essential in a context where, as has been emphasised, several influential sectors in the village may be opposed to it. A strong conviction of its benefits among farmers would be a useful preliminary requirement.

The second phase could consist of an experimental project confining the insurance scheme to limited areas. This would provide an opportunity of testing and amending the actuarial tables. The pilot scheme would also give an opportunity to train personnel who would ultimately implement the widespread scheme.

The experience gained in implementing a pilot scheme would be invaluable. Ray (1967) has observed-

"No amount of advance work, however important it may be for initiating a crop insurance programme, can secure the desired level of perfection. This can be attained only by a process of trial and error, that is, through actual field experiments. Therefore, where there is genuine need for crop insurance, as soon as essential data have been obtained for certain major crops from specific regions or areas, it should be tried in practice, but only on a limited experimental basis so that a large amount of money or effort is not involved in the beginning."

The pilot scheme, as well as the initial stages of crop insurance, could be confined to a single crop or perhaps two, such as the major grain crops. Information is likely to be more easily available and the problems confronting one or two crops more easily handled. Once experience is gained in a single crop the programme could be widened to include other crops. The extension of crop insurance could also be introduced in stages, with different areas, specialising in crops dominant in the particular area.

The experience gained in each area on particular crops would be useful in extending coverage of the scheme to a wider number of crops.

The large number of scattered smallholdings, often cultivated by a single farmer, makes it exceedingly difficult to administer a scheme based on each cultivation plot as an "insurance unit". The calculation of premium and indemnity rates on each individual plot would be administratively tedious and expensive. A more practical basis is the demarcation of agricultural zones of the insurance agency on the basis of its studies of average yields, costs of production and crop loss probabilities.

Within a specified 'insurance area' it is easier to administer a scheme where a farmer's total holdings rather than each separate plot constitute the insurance unit'. On this basis, a farmer would be compensated only if his total income falls short of the average yield. He does not obtain compensation when the shortfall in yield of a particular plot has been offset by higher production in other plots.

This basis has the advantage of reducing premium rates but suffers the disadvantage of creating disappointment among farmers who have not been compensated for crop damage of a particular plot. It also reduces the 'moral hazard' of farmers neglecting particular plots.

It is preferable to introduce an all-risk crop insurance programme to cover crop damage by all unavoidable causes rather than a specific risk insurance which offers indemnity coverage only for crops damaged. From the point of view of a farmer his financial difficulties are the same, whether crop damage occurred owing to drought, flood or pests.

The inability to obtain indemnity coverage on crops damaged by a particular cause could seriously undermine the confidence of the farmer on the benefits of insurance. It would be much easier to elicit interest and participation in an all-risk crop insurance programme rather than in a specific risk insurance which could leave a farmer without any benefit when crop loss occurs owing to a specific reason.

Limited risk coverage would also reduce the value of such an insurance policy as collateral for credit. A credit agency's ability to recover lent funds at times of crop failure would be less when indemnity payment is restricted to damage by a few specified causes.

Crop insurance on a voluntary basis is not likely to attract a widespread number of farmers for reasons discussed earlier. Therefore the introduction of crop insurance on a voluntary basis could lead to an "adverse selection" of risks. Such a programme would require very high premium rates or a high level of subsidisation. Further, a voluntary scheme requires a sales staff to persuade farmers to take insurance. This would also increase costs.

A compromise between a compulsory and voluntary scheme which could be operated advantageously is one where basic indemnity coverage is provided by a compulsory scheme which is complemented by a voluntary scheme providing higher indemnity coverage on the payment of an additional premium rate. Such a two or three-tiered scheme enables farmers who adopt improved practices requiring additional costs, to ensure that they could recover their higher costs in the event of crop loss. To provide an additional incentive to the adoption of improved methods the higher indemnity coverage could be provided at very small additional premium charges.

A basic difficulty of crop insurance in peasant agriculture is to fix premium rates within the paying capacity of farmers. The government could provide a subsidy which reduces premium costs.

The first step would be to determine the actuarial premium rates. Once these are determined the premium levy could be reduced by a subsidy adopted on one of the following methods: -

(a) Reduce all actuarially computed premium rates by a fixed proportion which when aggregated is equivalent to the total government subsidy. Thus if the aggregate of the actuarially computed premium dues is \$100 million

and a subsidy of \$10 million is decided on, then all actuarially computed premium rates could be reduced by 10 per cent;

(b) An adaptation of method (a) above is to offer a higher proportion of subsidisation as the actuarially computed premium rates rise. For instance the premium subsidy could vary from say 5 per cent to 50 per cent at different levels of premium rates;

(c) Premium rates above a certain rate per acre considered too high could be subsidised in full. The maximum premium rate could be fixed at a particular rate and the shortfall between premium dues and indemnity coverage made good by the subsidy;

(d) Premium rates above a certain rate could be subsidised by, say 75 percent of the costs above this rate. Thus if \$5 per acre is determined as the rate above which a 75 per cent subsidy should be paid, a farmer whose actuarially computed premium rate is \$10 he would need to pay only \$6.25 (i.e. $\$5 + 25/100 \times \5).

(e) A flat premium rate may be charged which necessitates an overall subsidy. In such a system the premium rate charged would be lower than the actuarially computed premium rates in some areas, while in others the rate would be higher. This system has the very serious disadvantage of offering insurance coverage at high rates for farmers with low crop-loss probability. In effect, under such a scheme in addition to the government subsidy farmers of low crop-loss probability areas subsidise those of crop-loss probability. The costs of administering the scheme may be a total subsidy from the government.

Indemnity coverage in keeping with general insurance principles is always a proportion of normal income. The indemnity coverage may in practice range from about 50 per cent to 75 percent of normal income. Within this limitation the indemnity should be adequate to cover the financial costs of production as well as provide a minimal income for the farmer to tide over till the next harvest. If the indemnity coverage is fixed too low, farmers

may be driven to high-interest lenders and this may defeat the basic objectives of crop insurance.

This implies that indemnity coverage would vary with different cultivation practices and yield levels. The indemnity payable should also vary with the stage at which crop-loss occurs commencing with seeding. When it is possible to replant only a minimal compensation should be paid, if any, and this too made conditional on replanting.

Since the price of agricultural produce varies from season-to-season, the indemnity coverage may be stipulated in physical units such as bushels of paddy. The conversion from physical units to its financial value may be made on the basis of prevailing average market prices. Where a scheme of guaranteed prices is in operation and these prices are near or above open market prices, the guaranteed price may be used for this conversion.

Two important factors bearing on the efficient function of a crop insurance programme are the prompt inspection of crop losses and the payment of indemnity without delay. Crop damage does not often leave evidence after a lapse of time. The prompt notification of damage and the ready availability of personnel to visit the scene are necessary to reduce the 'moral hazard' of insurance. On the other hand, unless farmers eligible for indemnity are compensated in time, the objective of helping them at times of difficulty may be defeated. The realisation of these conditions necessitate the decentralisation of the administrative organisation such that each regional office handles a manageable area.

5. Summary and Conclusions

Crop insurance could contribute significantly to increased productivity in peasant agriculture when conceived of as an integrated facet of a well-rounded agricultural programme. It could reduce the risk disincentive in using capital inputs and provide collateral for credit and stabilise the finances of the credit agency at times of wide-spread crop damage. The stabilisation of incomes and purchasing power of a significant proportion

of the population and the decreased liability of the community to give assistance at times of crop failure, are other advantages. Crop insurance enables the staggering of the cultivation cycle and thereby a better utilisation of resources.

While the advantages of crop insurance are numerous its introduction in peasant agriculture is ridden with considerable difficulties. These include the lack of statistical data upon which to base an actuarially sound insurance programme; the possibility that the actuarially computed premium rate may be beyond a farmer's capacity to pay; the variety of agricultural practices and different productivity levels necessitating complex and varied premium rates and indemnity coverages; the inadequate appreciation of crop insurance benefits; its misapprehension as a taxation measure; the opposition of vested interests and the dearth of trained personnel to administer the scheme.

A crop insurance programme could be effectively dovetailed and integrated to marketing and credit programmes. Integration with marketing organizations would be particularly feasible in a context of guaranteed prices above open market prices. The linking of the credit programme to insurance could ensure more ready recovery of loan funds and the collection of premiums.

As a scheme of crop insurance in peasant agriculture is likely to run into many difficulties it is prudent to commence with a pilot project confined to a few crops and a small area. The experience gained from such a project would be invaluable in modifying and refashioning the scheme, prior to the widespread implementation of a crop insurance programme.

Footnotes

- i. For a fuller discussion of the nature of crop insurance see P.K.Ray, *Agricultural Insurance - Principles and Organisation and Application to Developing Countries*, Pergamon Press, Oxford 1967, Pp. 27-65.

- ii. Ibid p. 28.
- iii. William H. Rowe, Considerations on Establishing Crop Insurance in Latin America. Organisation of American States, Washington D.C. 1966, Pp. 2-3
- iv. Ray, op. cit. pp. 282-285.
- v. For a discussion of the nature of crop insurance suited to developing countries see Ray, op. cit. Pp. 286-292, and W.H. Rowe's op. cit. pp. 17 et seq.
- vi. Ray, op. cit. p. 283.

THE NATURE OF THE RURAL INFORMAL CREDIT MARKET IN SRI LANKA

1. Introduction

The informal credit market in Sri Lanka consists of a wide range of credit arrangements and is not confined solely to money-lending. Informal credit includes arrangements tied to land, labour and marketing as well as informal groups such as voluntary credit societies and informal savings associations. These informal credit arrangements which are disguised in terms of other market relations, include trade credit, credit linked to marketing arrangements for crop disposal and land tenure-related credit and are often not discussed as credit arrangements, but subsumed under marketing or land tenure conditions. When one recognises that these arrangements arise out of the lack of credit resources and that finances are a fundamental and integral part of them, it becomes clear that they should be included among informal credit arrangements. With their inclusion, informal credit arrangements become a very wide range of sources, instruments, agreements, understandings and contracts.

The informal sector, defined in this manner, has always played a more important role than institutional sources in the provision of credit in rural areas. Like other countries at an early stage of development of financial markets when institutional credit sources are limited, informal sources have provided essential though perhaps limited and inadequate capital requirements and performed a functional role in economic activity. Although there has been a progressive expansion in institutional lending to rural areas, non-institutional or informal lenders still play the major role in the

The nature of the rural informal credit market in Sri Lanka. MARGA Quarterly Journal, Volume 10, No. 04, 1989

provision of rural credit in Sri Lanka. Informal sources of credit are by no means confined to rural society. In urban areas and in the heart of the metropolis, informal borrowings of both small and large sums of money are a continuous activity which knows no season nor time. The "Pettah Money Market", as it is sometimes called, transacts very large volumes of funds. From time to time public attention has been drawn to this market, implying market by its characterisation as a "black" money market either an illegality in the nature of its trading and financing or to the fact of its transactions being outside the net of the Inland Revenue Department.

The informal sector by its very nature eludes the collection of information on the nature of its activities and its extent. The informal urban money market is particularly secretive for fear that its activities may be disclosed to authorities which may control or tax them. For this reason, money-lenders as well as borrowers, are averse to giving information and it has not been possible to organise any systematic collection of data on the activities of the informal urban money market.

Unlike in the case of the urban sector, data have been collected on the incidence of borrowing and character of informal lending in micro-studies of particular villages or rural areas and national sample surveys. However, even in rural credit surveys, especially of a national coverage, there are difficulties in obtaining data as borrowers do not want to be characterised as "poor", "failures", or as "not having means", while lenders do not wish to be tainted as money-lenders--as it is a profession that has been characterised as "unsocial and exploitative"¹

The next section of this paper gives an overview of the range of informal credit arrangements and discusses the characteristics which distinguish informal credit arrangements from institutional lending. The third section attempts to evaluate the changing importance of informal credit in Sri Lanka and the factors bearing on the changes in the significance of informal credit. The fourth part of the paper deals with the characteristics of exclusive money-lending which is generally the focus of discussion on informal credit. Several hypotheses regarding the nature of informal

money-lenders are re-examined. The conclusion urges that many of the ideas generally held about informal lenders require further study and research.

2. Range and Character of Informal Credit Sources.

Traditionally, the rural economy in Sri Lanka has depended on non-institutional sources for both production and consumption credit. As indicated in the Introduction, the informal sector comprises a wide array of credit arrangements and sources. These could be grouped into three main categories and their sub-groups as indicated in Chart 1.

Chart 1: Informal Credit Market

1. Direct Money lending	2. Indirect money lending	3. Voluntary credit groups
a. Professional money lender	a. Trade credit (boutique-keepers and shops)	a. Single-purpose credit societies (e.g.-funeral societies)
b. Semi-professional money lenders	b. Marketing credit commision agents,purchasers of farm produce)	b. Multi-purpose savings and credit societies
c. Non professional personal sources	c. Landlord credit	c. Rotating savings and credit assoations (ROSCRAS)
d. Pawing	d.crop-related lending (crop mortgages)	

(a). Direct money – lending

Direct sources of credit could be sub-divided into three broad categories: professional money-lenders, semi-professional moneylenders and personal (non-professional) sources of finance.

Professional money-lenders may be defined as those persons whose primary occupation is money-lending. They have generally been characterised as exploitative and usurious. Apart from high interest charges, money-lenders may also insist on conditions bearing on the cultivation and disposal of the farmer's crop. Since this category often includes persons who combine their money-lending function with other services like petty trading, wholesale procuring of produce or as landlords, it is sometimes difficult to distinguish them from those of semi-professional money-lenders. interest charged by them, it being an entirely cash transaction rates of interest charged by them, it being an and their resourcefulness at all times characterise money-lenders.

The semi-professional category includes a whole array of persons generally resident in the village or living close to it. They are mainly engaged in other activities but may lend money when called upon by known parties. Their money-lending activity is often secretive and clandestine and often restricted to a known range of persons. The interest rate charged by this category and their conditions of repayment, could vary significantly but are generally considered to be more flexible and less exacting.

The disadvantage of dependence on these two categories of lenders, who may be landlords and merchants themselves or be allied to them, is that apart from high interest rates, borrowing from them may prevent farmers obtaining the advantages of government measures such as guaranteed prices, rental control provisions and crop insurance. They are also often able to secure the repayment of their money as a first charge and therefore institutional sources could suffer from defaults.

The third category of personal sources of finance includes friends; relations and landlords who assist a farmer at times of need. The distinguishing characteristic of this group of lenders is that they may lend free of interest or at a low rate of interest. The lending of money could be a reciprocal transaction, where the borrower would turn lender at other times or the reciprocity may be in non-financial terms such as assistance in farming operations or help in the domestic chores of the creditor. It may also have no reciprocity but merely be a part of the social and kinship relations in the village.

All three categories of informal or non-institutional credit have several advantages to the small farmer. Little or no collateral is asked for, repayments can be adjusted to times convenient to farmers, the borrower need not go through elaborate procedures, and credit could be obtained for “non-production purposes like consumer expenditure especially at times of personal contingencies. It is the convenience, flexibility and accessibility of informal credit sources which account for small farmers' greater dependence on them even when institutional sources are available.

A form of credit arrangement associated with money-lending is pawning. Under this arrangement a debtor finances his credit needs by pledging gold or jewellery. The creditor in turn gives a loan which is only a small proportion of the value of the pledged item. While pawning has been institutionalised in Sri Lanka more recently, what must be recognised is that there are considerable amounts of pawning transactions in rural societies outside the pale of formal institutions. The availability of gold and jewellery and other valuable possessions provides good security for persons who need to obtain credit. While many transactions may be with persons who are professionally pawnbrokers, yet the good security which items such as gold provide could in fact persuade persons who are not regular money-lenders to lend on such security. Strictly speaking, pawning is a form of security and both direct money-lenders and some indirect money-lenders do lend on such a basis.

(b) Indirect money-lending

A very common phenomenon in both urban and rural society in Sri Lanka is that a large number of poor households obtain their daily provisions for consumption from boutiques and shops on credit given by shopkeepers. Often, the arrangement is a very flexible system of revolving credit where the consumer obtains provisions, the cost of which is added to his account by the shopkeeper. When the consumer is able to advance a sum of money this is set off against his purchase account and the account continues. It is also the experience of those who have investigated these transactions that the consumer has a great degree of trust in the boutique-keeper and the accounting is entirely left in his hands. The general notion is that there is no interest charged, but in fact it is likely that the boutique keeper has the power to charge higher prices, sell items at short weight and conduct the accounting in such a manner as to cost the consumer more than had he paid in cash. Therefore, though trade credit of this nature has no apparent interest charges, in fact it often has concealed interest costs which are difficult to determine. This form of credit is often not included or inadequately included in estimates of informal credit, but in fact do count for a very significant proportion.

Another form of credit is that linked with farmer's marketing of their produce. The system known as "commission agents" is a well known phenomenon in Sri Lanka, especially in vegetable cultivation. It is also prevalent in the purchase of paddy. The significant fact about these arrangements is that the producer sells his produce to his agents who have already given him credit during the cultivation cycle. credit may be for production as well as consumption needs. The tremendous flexibility or these commission agents in the manner in which they give credit and the convenience they provide in purchasing the output are among the reasons for preferring to sell produce to these agents as well as secure credit from them. Even these arrangements do not have explicit interest charges, but the prices paid for the produce when there is a credit linkage would be lower than when the purchase is a direct cash payment.

The third source of this type of credit is landlords who provide inputs such as seed or draught power for cultivation. Here, too, there is often no apparent interest charge and the provision of these inputs is part of the land tenure relationship. An implied interest rate is often borne by the tenant as the share rent arrangement is adjusted to a higher rental. In other words, the share rent of a tenant who obtains such inputs would be higher than from one who is not dependent on the landlord for resources other than land. In addition to the provision of inputs, landlords often provide finance which is repaid in kind at harvest time and the valuation of the produce often includes an interest cost.

Pledging of crops provides another means by which cultivators obtain credit. This is most prevalent in the case of seasonal crops where the standing crop may be pledged in advance for a sum borrowed. In other cases, where perennial crops are involved, the debtor may agree to give the entire produce of the land till such time as he repays the capital. In such arrangements the crop becomes the interest payment and the period of loan may not necessarily be stipulated. Such pledging of crops could involve long periods of time where the capital sum borrowed is large. There could also be arrangements where the amortisation of the loan is included in the produce payments and the loan is liquidated in a stipulated period of time. These arrangements are not generally in the form of legal instruments but informal agreements.

(c) Voluntary credit groups

Voluntary credit associations are found all over the world in diverse cultures. Some of these credit societies are formed for specific needs such as meeting expenses for funerals. Credit societies with more diverse purposes are also found in Sri Lanka. These mobilise savings in small sums and lend for agreed purposes. The thrift and credit societies developed in the Island are a good example of such groups. Rotating credit societies or *chectus* are an informal savings mobilisation form widely prevalent in the country.²

Cheetus take different forms but their essential characteristic is that participants contribute at regular intervals and the pooled sum is distributed as a lump sum in an agreed order. Such arrangements may include the use of a lottery and auction bidding for a predetermined order of payment. Others may have as their objective, the pooling of a sum of money for the purchase of a luxury item. It is a well known observation that these voluntary credit associations create an enthusiasm which enables its low income participants to save significant amounts. It is the commitment to participate in these rotating credit societies which gives the psychological impetus for contributing the agreed amounts.

The purpose of referring to these many sources of informal credit in this section is to stress the point that informal credit arrangements are not exclusively money-lending transactions. Their nature and character are diverse. Even direct money-lending sources are varied. Credit forms the basis of many transactions linked to trade, land tenure and produce marketing. Informal credit groups, too, form a significant though neglected share of this market. Therefore, the amounts of credit given by informal credit sources are much greater than captured by statistical survey data.

3. Incidence of Informal Credit

Despite efforts to increase institutional lending, surveys of rural credit and indebtedness disclose the predominance of non-institutional sources though they appear to have declined in importance. (See Table I) yet this data relate mainly to direct money-lending as data of other sources are difficult to obtain. Trade credit and some part of credit given by landlords are included to a limited extent. Therefore, the incidence of informal credit as defined in this paper is greater than disclosed by this data.

In 1957 the informal sector was responsible for nearly 92 per cent of rural borrowing; in 1969, 75 per cent of rural debt was met by non-institutional sources and in 1975/76 less than one-third of the outstanding debt and 45 per cent of the loans taken by paddy farmers during the survey reference period (1st April 1975 to 31st March 1976) were from informal sources. Even if allowance is made for the fact that this last survey consisted of a

sample of paddy farmers rather than the rural sector, yet the overall magnitude is indicative of the fact that institutional sources had become significantly competitive in the rural credit market. The main factor responsible for this is undoubtedly the expanded government agricultural credit given through the two state banks and to a lesser extent the extension of the branch banking system to rural areas and the activities of rural banks.

The significance of the informal sector may be summarised as one which has decreased in importance as institutional lending increased. Since institutional credit volumes have tended to fluctuate quite markedly, it is likely that the importance of informal lenders would vary from year to year. In an average year of government agricultural lending, it is likely that informal lenders are about as important as institutional sources, but when excessive credit is pumped into the rural sector as in 1967 and 1977/78, the relative importance of informal sources may decline. Conversely, when there is a contraction of institutional credit, informal sources are likely to be predominant. For instance in 1978/79 institutional credit for paddy cultivation increased substantially from Rs. 107 million in the previous year to Rs. 448 million, but declined in subsequent years. The importance of informal lenders is likely to have shrunk in 1978/79 but would have emerged again later.

Given this overall assessment of the informal sector's importance, a more detailed picture of its significance follows. The Survey of Rural Indebtedness of 1957 undertaken by the Department of Census and Statistics revealed that less than 8 per cent of credit was from institutional sources. The major proportion of institutional credit was from co-operatives which accounted for 4.1 per cent of total rural credit. Among informal sources, as much as 44 per cent of total credit was from relations and friends; 15.5 per cent was from professional money-lenders, boutique-keepers, traders and commission agents together lent 11.5 per cent; and landlords, who as a category of lenders declined in importance subsequently, accounted for 8 per cent of total debts. Broadly, we may infer that most informal credit was from non-professional sources.

Certain regional differences in the significance of informal sources of credit were also observed in this survey. Relations and friends who accounted for a conspicuously large proportion of credit nation-wide and were responsible for over 50 per cent of credit in the Jaffna (55 per cent), Vavuniya (59 per cent), Trincomalee (59 per cent) and Kegalla (61 per cent) districts were of lesser significance in Puttalam (21 per cent), Chilaw (21 per cent), Anuradhapura (13 per cent) and Badulla (18 per cent) districts. Landlords were an important source of credit in Matale (22 per cent) Nuwara Eliya (26 per cent) and Batticaloa (35 per cent) districts, while boutique-keepers were important credit sources in Puttalam (41 per cent), Anuradhapura (45 per cent) and Ratnapura (31 per cent) districts.

Professional money-lenders were important credit sources in the Colombo (28 per cent), Hambantota (32 per cent), Chilaw (23 per cent), Anuradhapura (27 per cent) and Badulla (24 per cent) districts, while itinerant traders were particularly significant in the Chilaw District (29 per cent).

By 1969 the quantum of institutional credit to the rural sector had increased substantially under the Expanded Credit Scheme introduced in 1963 and the New Agricultural Credit Scheme introduced in September 1967. The People's Bank had also been established in 1961 with the specific objective of serving the credit needs of the rural sector. A scheme of rural banks, under which selected co-operatives performed limited functions, was also inaugurated in 1967. All these implied significant incursions of financial institutions into the rural sector.

Despite these developments, the Survey of Rural Credit and Indebtedness of 1969 conducted by the Central Bank disclosed that noninstitutional credit sources still accounted for 75 per cent of total debts. Credit from co-operatives and commercial banks showed a significant increase and the new category "other financial institutions" accounted for nearly 6 per cent of credit. Among informal lenders relations and friends continued to dominate but their share of lending had declined significantly from the 1957 level. Professional moneylenders had increased their share of lending

from about 16 per cent in 1957 to nearly 29 per cent. Boutique-keepers were the other important category of lenders, accounting for 14 per cent of total debts. Landlords contributed less than one per cent of total credit.

A more restricted sample survey on rural credit undertaken between these two surveys in 1961-62 by the Department of Agrarian Services disclosed that informal sources provided about two-thirds of total credit.⁷

The Survey of Credit Conditions Among Paddy Farmers conducted by the Central Bank in 1975/76 disclosed for the first time a lesser dependence on the informal sector, which accounted for only 45 per cent of the amount of loans borrowed during 1975/76. Only about 32 per cent of the loans outstanding on 1st April 1975 was from non-institutional lenders. Money-lenders were the most important informal source of lending and were responsible for 30 per cent of the total amount borrowed. Non-interest lenders accounted for 13 per cent of the amount of loans taken during the year⁸.

The data of this survey relate to a period when institutional sources had already attempted to infuse credit to the rural sector. At the time of the survey, institutional credit had been channelled to paddy farming for about two decades. In the last decade prior to the Survey a fairly large amount of credit had been given to paddy farmers and a lesser amount of credit for other food crops. Rural Banks had been established since 1967 and by the end of 1975 there were 338 such units in operation, but these banks had mobilised more savings than lent to their members.

The expansion of the institutional credit network in the rural sector, especially government sources of credit and the activities of the Rural Banks, account for the increased share of institutional credit. However, the sample selected for this survey was such that it was virtually confined to paddy farmers and therefore, did not necessarily reflect the credit conditions in the rural sector as a whole. Therefore, the data disclosed in this survey are not conclusive evidence of a fundamental change in credit conditions in the rural sector which had hitherto largely depended on

informal lenders for most of its credit needs, but do indicate the lesser dependence on informal sources .

The preceding analysis of several national surveys of rural credit suggest that though the share of institutional credit in the rural sector has increased, the informal sector narrowly defined, accounts for a Very significant proportion of credit. If the more comprehensive definition of the informal sector suggested in this paper is accepted, there is little doubt that informal credit predominates. One serious limitation in coming to conclusions is that the latest available national data are of 1975/76 and that, too, of a segment of the rural sector, albeit an important one. A comprehensive rural credit Survey is indeed long overdue.

4. Some Features of Informal Money-lenders

With the evolution of rural financial markets over time, the role and character of the informal sector changes. This evolution differs not only in different countries but also among regions within a country. Therefore the role, function and character of the money-lender changes with changes in the rural financial market and must take full cognizance of the unevenness and diversity of changes which prevail in the country.

The money-lender in rural financial markets has been characterised as one who lends small sums of money at very high interest rates for short periods. These loans are generally assumed to be given without security mostly for consumption purposes. Among these features, the usurious and exploitative nature of interest rates has been the most popular theme and the one which has tended to characterise moneylenders the world over. There is also the inference that the moneylender's role is parasitic, rather than functional. Impliedly, rural society would be better off without them. Paradoxically, despite decades of institutional lending, money-lenders remain a significant source of finance in the rural sector.

The following four hypotheses of informal lenders are examined in the context of Sri Lanka's transitional rural financial market in the mid-seventies.

- (i) Interest rates charged by informal lenders are exorbitant.
- (ii) Informal loans are mainly for consumption purposes rather than for production purposes.
- (iii) Informal loans are mostly unsecured.
- (iv) Informal loans are relatively small loans.

In this section we examine the data collected in the nationwide Survey of Credit and Indebtedness. Among Paddy Farmers conducted by the Central Bank in 1976 to see whether these features of informal money-lenders are supported by facts. Although the sample selected for this survey was primarily of paddy farmers, the general characteristics of informal lenders cannot be expected to be different as paddy farming predominates in the rural sector. The data in this survey lend itself for this examination best in so far as a national survey is concerned. Yet, a testing of these at micro level in field investigations especially designed for this purpose is strongly suggested.

(a). Interest rates

This survey disclosed a very wide spectrum on interest rates in informal lending. Interest rates ranged from interest-free loans to 250 per cent or more per annum. When the total volume of informal lending is considered, about a third (3%) is interest free, about a third (33.5%) is at interest rates of below 25 per cent.¹⁰ Of the remaining third lent at an interest rate of over 25 per cent a year, about 30 per cent was between 25 and 100 per cent and about 6 per cent above 100 per cent a year. The modal interest rate was 26-50 per cent a year (Table 2). Therefore two-thirds of informal lending was below 25 per cent a year, which cannot be considered exorbitant. When interest-free loans are excluded, the distribution of interest-bearing loans was that 29 per cent was at 20 per cent or less, about 53 per cent between 21-50 per cent and 18 per cent at higher than 50 per cent a year.

A significant proportion of informal loans being interest-free has been noted in previous surveys. The 1969 Survey of Rural Credit and Indebtedness disclosed that 34 per cent of the amount borrowed was interest free¹¹.

Interest-free loans underscore the fact that kinship, friendship, patron-client relationships and reciprocity are important factors in meeting credit needs, especially at times of emergency such as illnesses and death or for ceremonies. The fact that 46 per cent of loans for ceremonial purposes was obtained interest-free lends support to this hypothesis.

The incidence of interest-free lending should be cautiously interpreted as some interest-free loans could in fact have a built-in cost. Loans obtained from traders may be nominally free of interest but farmer's obligation and commitment to sell his produce to the lender could result in lower prices. Similarly, boutique-keepers may give credit on purchases and charge higher prices. A more subtle and disguised cost of credit is in interest-free loans given to ensure existing tenancy and labour arrangements which are highly beneficial to the landlord. Also some loans reported as obtained without an interest charge may be loans in kind. The timing of repayment in kind and the different measure used could include an interest component. Therefore, while it must be recognised that a significant proportion of rural loans are interest-free, yet the proportion disclosed in the Survey could be an over-estimate owing to these reasons.

The modal interest rate group of 26-50 per cent accounted for 23 per cent of informal lending. A further 6 per cent was between 51-100 per cent. About another 6 per cent of the amount borrowed was over 100 per cent a year. It is these loans that have drawn the attention of most commentators and observers of the rural economy as these interest rates are in marked contrast to those of the institutional sector. This has led to informal lending rates being characterised as exorbitant and usurious.

There are other reasons why informal interest rates are characterised as very high. Unlike the institutional sector, informal lenders often stipulate

the interest rate on a per month basis. Loans are also often small sums and for a short duration. Therefore the interest rate is often a small cost though a high rate per year. For instance, a villager who borrows Rs. 100 and pays Rs. 10 per month as interest pays an interest rate of 100 per cent per year. Yet if he borrows it for only two months his total cost is only Rs. 20. Further, it does not have any transactions cost and the terms of repayment are often flexible. The borrowers do not therefore consider it an exorbitant interest cost.

Although the volume of credit at very high interest rates was modest, the number of loans transacted is large. About 19 per cent of loan transactions (197,120 loans) was estimated to be at interest rates above 25 per cent and 4.4 per cent of the total number of loans (46,535 loans) transacted was at rates of interest above 100 per cent. The large number of high interest rate loans create the impression of very high interest rates.

The evidence suggests that although very high interest rates are charged by informal lenders, they constitute a small proportion of the total volume of transactions. As against this, there is a sizeable proportion of borrowing on rates comparable with the institutional sector's interest rates (not subsidised interest rates). Also a very significant proportion of amounts lent is nominally interest-free.

(g) Purpose of lending.

The general impression is that informal lending is mainly for non-productive purposes such as ceremonies, household consumption and fortuitous needs such as sicknesses and deaths. It is generally believed that informal lenders advance very limited funds for the cultivation of crops and capital expenditure. In fact the 1976 Survey data disclosed that informal lenders gave credit for a variety of purposes including a significant proportion for production. About 50 per cent of informal lending was for cultivation, about 10 per cent for trade and 4 per cent for house construction. The informal sector's lending for agricultural production¹² was about 65 per cent of the amount lent by the institutional

sector and it lent about five times that of the institutional sector for industry and trade¹³.

It is, however, correct that about 25 per cent of their lending was for consumption purposes (consumption, ceremonies, debt redemption and others). Nearly all the borrowing for ceremonial purposes was from informal sources.¹⁴ Viewed from the point of view of borrowing for consumption purposes it is easy to understand the impression of the informal sector's lending being consumption-oriented, as about 55 per cent of such loans was from the informal sector. Commercial banks were the only institutional source of significance in lending for consumption purposes.

There is an interesting distinction between the purposes of lending of money-lenders and non-interest lenders. While money-lenders gave 58 per cent of their credit for cultivation purposes, non-interest lenders gave only 32 per cent of their credit for the same purpose. While about 20 per cent of money-lenders' credit was for consumption and ceremonial expenditures, as much as 38 per cent of credit of interest-free lenders was for these purposes. Therefore among informal lenders, money-lenders lent more for production purposes than interest-free lenders such as friends and relations.

(h) Security

Since most informal lenders do not go through the usual procedure of institutional lending, such as the filling of forms, it is generally believed that most such lending is without security. As far as non interest lenders are concerned, this impression is confirmed by the Survey data, which revealed that only about 7 per cent of their loan was secured. But money-lenders secured a fairly large proportion (47 per cent) of their loans with several forms of security. About two thirds of all informal credit loans were secured.

Money-lenders secured their loans with immovable assets (19 per cent), jewellery and durable consumer goods (16 per cent) and machinery and equipment (9 per cent). The non-interest lenders who only 7 per cent of their lending did so with immovable assets, jewellery and durable consumer goods.

Therefore, apart from non-interest lenders, other informal lenders did secure about half of their lending with immovable assets as well as jewellery, durable consumer goods and machinery and equipment. Since the number of secured loans was small, the large number of unsecured transactions gives the impression that security is not a consideration in informal lending. In fact a significant proportion of the larger loans are secured.

(i) Size of loans.

Informal loans had a wide range of sizes. Although the average size of loan was not small, the median and modal sizes were small. The modal size group of informal loan was below Rs. 250.

There is an important distinction in the size of loans of moneylenders and non-interest lenders. While money-lenders extended nearly 9 per cent of their credit in loans whose sizes can be considered big (between Rs. 16,001, and Rs. 25,000), non-interest lenders lent mostly small-sized loans though they had given loans over Rs. 10,000.

While money-lenders did give larger loans, yet over half of the sums lent by them was in loans of less than Rs. 2,000, and over 70 per cent of their lendings was below Rs. 3,000. Therefore, money lenders, too, were essentially lenders of small loans though some of their loans were larger.

In contrast, interest-free loans were mostly small. As much as three fourths of the number of loans were below Rs. 500 and accounted for about 39 per cent of their lending. Only 2 per cent of their loaned amount was in loans of over Rs. 5,000.

Therefore, informal lending is generally small-sized though it spreads over a wide range. A very high proportion of non-interest lending is of small loans and does not encompass very large loans. A large proportion of money-lenders' loan portfolio could be characterised as being of small sizes though they do give larger-sized loans.

Many ideas about informal lending have been derived from conditions prevailing during a period when institutional credit was very limited in rural financial markets. It appears that these views are based on conditions when informal lenders operated in a monopolistic situation and exercised their monopoly power to exact high interest rates and other exacting conditions. The preceding discussion leads us to derive some new concepts of informal lending.

5. Conclusions

One of the important perspectives which this paper has tried to convey is that informal lending consists of a wide range of sources and arrangements, in contrast with the general tendency to think of informal credit as synonymous with money-lending solely. This paper has tried to capture the wide array of transactions that are linked to other agrarian relations, which are in fact credit agreements. The quantum of credit transactions encompassed in these indirect systems of lending is inadequately captured in statistical surveys. Consequently, the predominance of informal lending is not fully captured in such assessments of the incidence of non-institutionalised credit. Further, the complexity of informal credit arrangements is not fully appreciated. If these aspects are recognised then it would be admitted that even after four decades of institutional credit in Sri Lanka, the informal sector continues to be the most pervasive.

Apart from the incidence of institutional lending an appreciation of the various forms of informal lending and linkages with other facets of economic transactions are necessary to understand the nature of the informal market. An understanding of its varied transactions provides a

basis for taking meaningful steps to increase institutionalised lending. In fact, it is the character of informal lending and the nature of its operation which create the preference for informal sources over institutional ones. Institutional sources by their very nature are procedure-bound, bureaucratic, time-consuming and tedious. This is particularly so in rural communities. Consequently, though interest rates are low, other costs of the borrower render institutional credit more costly than their interest rates indicate. Even though the interest costs of the informal sector may be higher, the difference in the borrowing costs are less marked owing to higher transaction and opportunity costs of institutional sources. Besides this, other difficulties tend to keep much of the requirements of the rural sector unmet by institutional sources.

The other important aspect which this paper has focused on is that several of the concepts of informal lending may in fact be not correct in the present context. Contrary to popular notions, interest rates of informal lenders may not be as high as is supposed to be. Informal lenders do lend significantly for production purposes and they in fact secure their loans to a significant extent. The view that informal loans are smaller in size is somewhat vindicated by the evidence though money-lenders do in fact lend a significant proportion of their portfolios in larger loans. But the more significant characteristic is that their sizes of lending are very varied.

The analysis of the rural financial market on the basis of data the mid-70's lends considerable scepticism to some of the traditional views of informal lenders, especially on the question of interest rates charged by them. The analysis of interest rates of the informal sector disclosed that nearly one third of their loans are interest-free and that a further third was at interest rates of 25 per cent a year or less, which cannot be considered exorbitant. However, it is clear that informal interest rates do range up to even 300 per cent a year although only about 1 per cent was above 150 per cent a year.

There are several reasons why informal lenders are characterised as exploitative and usurious. First, the assessment of the informal sector does not recognise the role of the non-interest lender. It is true that some of these

so-called interest-free loans may have hidden costs such as high retail prices or lower producer prices to the borrower or payments in kind or other arrangements which are of benefit to the lender. Yet, it is undeniable that a significant proportion of informal lending, even though not totally interest-free are not at exorbitant interest rates.

It is the high interest loan component that has created the image of exorbitant interest rates in the informal market. These high interest loans, even though they do not constitute a majority of the amounts lent, do constitute a very large number of transactions. Since large numbers of small loans of short duration are transacted at high interest rates, it is these loans that have moulded the view that informal lenders are nearly always high-interest lenders.

In an assessment of informal lending it should be borne in mind that informal lenders charge interest on a monthly basis and lend small sums for a short duration. Therefore such loans do not necessary constitute a high cost to the borrower. This is especially so as such lending has no transaction costs or other costs. But when such costs of borrowings are converted to annual interest rates, they yield a high rate of interest.

A further consideration is the fact that contrary to the normal view that informal lenders achieve high rates of recovery, this survey disclosed that only a small proportion of high-interest loans is recovered Therefore the interest rate may include an amount of capital repayment. It is likely that high-interest lenders are reconciled to the non-repayment of loans after a certain length of time. This lender reconciliation to such non-repayment may be complemented by the borrowers themselves considering it justifiable not to repay high interest loans once they have paid interest for a length of time.

The impression that informal sources lend mainly for consumption appears to have arisen from the fact that institutional sources lend very insignificant amounts for such purposes. The lack of consumption-oriented institutional lending has led to a misconception that informal lenders, who lend for

consumption purposes, do so mainly "for such purposes and not for production needs. In fact, this survey has disclosed that over 70 per cent of informal lending was for production purposes. Over half of the volume of informal loans was for cultivation purposes alone and their contribution exceeded that of the institutional sector loans for cultivation. Besides, the informal sector was responsible for the bulk of lending for trade.

The hypothesis that is advanced here, as far as the purpose of lending is concerned, is that the purposes of informal lending are determined by demand. There is no reason why informal sources should be reluctant to lend for production, if they are willing to lend or consumption. However, the demand for rural loans would tend to vary inter alia on agricultural technology, the availability of a marketable surplus and the degree of monetisation of the economy. It is these considerations which would influence the purposes of lending of the informal sector. Further, the non-availability of loans for consumption from the institutional sector implies that informal lenders have to fill the lacunae.

The overall considerations of the informal lender are return for his capital and the recoverability of his loans. two conditions are satisfactorily met, there is no reason for informal lenders to prefer lending for consumption rather than production. In fact, the informal lender's transactions unlike many institutional loan schemes which restrict loans for specified purposes are based on the realistic acceptance of the fungibility of money and credit. Therefore, the purpose-wise breakdown of the informal sector's loan portfolio is a significant reflection of the rural credit demand which has not been met by the institutional sector.

About two thirds of informal loans were unsecured. While non-interest lenders did not secure most of their loans, money-lenders tended to secure their larger loans, while smaller loans were unsecured. Non-interest lenders secured less than 7 per cent of their loans, but money-lenders secured a little less than one half of their loans (47%) with such assets as immovable property, durable consumer goods, machinery and equipment.

There was a wide range of sizes of loans in the informal sector. Money-lenders gave relatively larger loans, but about 40 per cent of their loans could be characterised as small, whereas as much as 60 per cent of non-interest lenders' loans were in this category. Therefore, non-interest lenders lent mostly smaller-sized loans but money-lenders had a fairly wide range of loan sizes.

In summary, what emerges is that informal lenders transact at very wide-ranging rates of interest, they lend for a wide array of purposes and their sizes of lending are more varied than is generally presumed. In fact, these characteristics of informal lending are suggested to be the outcome of the demand for credit rather than characteristics which emerge from the lenders' attitudes.

It is not the intention of the author to suggest conclusively that the features which have emerged from a particular survey necessarily hold but to air a scepticism about the conventional notions of the informal lender with a view to urging better research findings on these hypotheses rather than hold on to preconceived views which are essentially derogatory of the informal sector. In conclusion, it may be said that the general thrust of this discussion has been to suggest that informal lenders are not only significant but also play a crucial and functional role in financial intermediation in Sri Lanka.

Table 1: Distribution of Rural Credit by Sources, Sri Lanka 1957. 1969 & 1975/76

Sources		Percent of total borrowing				
		1957		1969		1975/76
		1	2	3		
I.	Institutional sources of which	7.8	25.0	54.6		
	Government	2.6	2.7	7.3		
	Cooperatives	4.1	9.7	5.1		
	Commercial banks	1.1	6.7	36.9		
	Rural banks	-	-	5.3		
	Other financial institutions	-	-	-		
II.	Non institutional sources of which	92.2	75.0	45.4		
	Money lenders	15.5	11.0			
	Semi professional lenders	-	17.8			
	Boutique keepers	7.4	14.3	30.3		
	Merchants and commission agents	4.1	1.5			
	Land lords	8.0	0.7			
	Relations and friends	44.2	25.8	13.4		
	Others	13.0	3.9	1.7		
	Total	100.0	100.0	100.0	100.0	100.0

Sources: (1). Department of Census & Statistics, Survey of Rural Indebtedness, 1957.(2). Central Bank of Ceylon, Survey of Rural Credit and Indebtedness, 1969. (3). Central Bank of Ceylon, Survey of Credit and Indebtedness Among Paddy Farmers, 1976.

Notes: In the 1975/76 Survey, the non-institutional sources were only categorized into three: money-lenders, non-interest lenders and others.

Therefore, non-interest lenders have been placed under relations and friends.

Table 2: Interest Rates of Informal Sector

Interest rate per annum	Percent of total loans		
	1976 1	1978/79 2	1981/82 3
0	31.19	72.1	54.1
1-10	4.16	4.1	1.6
11-20	15.82	3.5	13.0
21-50	36.81	3.0	3.0
51-100	6.19	5.4	4.0
Over 100	5.83	11.9	24.3
Total	100.00	100.0	100.0

Source: (1). *Survey of Credit and Indebtedness Among Paddy Farmers 1976*, Central Bank of Ceylon, 1981 (2). *Report of Consumer Finances and Socio-Economic Survey 1978/79*, Central Bank of Ceylon, 1983. (3). *Report on Consumer Finances and Socio-Economic Survey 1981/82*. Central Bank of Ceylon, 1984.

Foot notes

1. The author had the interesting experience once of being able to obtain the same information on the interest rate structure in a village in the Kandy District from nearly all households but was unable to obtain any data on borrowings or lendings in the village. The "money lenders" in the village were detected only after a two-week stay in the village. In fact, the investigators discovered that they were staying in the home of one of the two main money-lenders in the village

2. See F.J.A. Bouman, "Informal Saving and Credit Arrangements in Developing Countries: Observations from Sri Lanka", in Dale Adams, Douglas H. Graham and J.D. Von Pischke (Eds), *Undermining Rural Development with Cheap Credit*. (Westview Press, Colorado 1984) p. 232-247.

3. Department of Census and Statistics, *Survey of Rural Indebtedness Ceylon 1957* Monograph No. 12, Colombo, 1959.

4. Central Bank of Ceylon, Report of the Survey of Rural Credit and indebtedness 1969.
5. Central Bank of Ceylon, Survey of Credit Conditions Among Paddy Farmers 1975/76.
6. Department of Census and Statistics, Survey of Rural Indebtedness Ceylon 1957. Monograph No. 12, Colombo, 1959.
7. Department of Agrarian Services, Administration Report 1962/63.
8. Central Bank of Ceylon, Survey of Credit Conditions Among Paddy Farmers (Draft unpublished report).
9. An insignificant proportion (0.10 per cent) of loans at 301-400 per cent a year has been ignored as it distorts the interest rate structure.
10. About 10 per cent of these loans was at interest rates of less than 15 per cent, slightly less than 10 per cent was at interest rates of between 16-20 per cent and 13.5 per cent in the 21-25 per cent interest category
11. In 1957, however, only 6 per cent of the loaned amount was interest-free.
12. The institutional sector was estimated to have lent Rs. 383 million for paddy cultivation, cultivation of other crops, animal husbandry and capital formation in agriculture, while the informal sector was estimated to have lent Rs. 247 million
13. The informal sector was estimated to have lent Rs. 52 million for industry and trade, for which purposes only Rs. 10 million is estimated to have been lent by institutional lenders.
14. Central Bank of Ceylon, Survey of Credit and Indebtedness Among Paddy Farmers, Table 6.3.
15. Survey of Credit and Indebtedness Among Paddy Farmers, op.cit. p. 68-72.

12

FOOD AND NUTRITION SECURITY: EMERGING CONCERNS AND NEEDED POLICY DIRECTIONS

1. Emerging Concerns in Food Security and Nutrition

Sri Lanka faces several concerns in food security. Being a food deficit country, the emerging global food situation of rising prices could have adverse impacts on national and household food security as international prices have an important bearing on the country's capacity to import food. Weaknesses in the trade balance, critical levels of foreign reserves, high foreign debt, and weak macroeconomic fundamentals, such as large fiscal deficits, high debt servicing costs and inadequate government revenue, have an important bearing on national availability of food and household food security.

There are also emerging concerns, *inter alia*, about food safety, food quality, unhygienic food preparation and sale, contamination of foods by insecticides and chemicals, drinking water quality and the nutritional content of basic foods. There is also a need for fortification of foods to ensure minimum nutritional requirements.

1.1 Global food situation

Global food supplies are becoming inadequate to meet growing global demand. This raises international prices of important food imports such as wheat, sugar, milk and dhal. The earlier discussion on the prospect of self sufficiency disclosed that the country would continue to be dependent on imports of these commodities in the foreseeable future.

Sanderatne, N. and S.De Alwis (2014). National and Household Food Security in Sri Lanka, Kandy Publishers.

Therefore, the global food situation will have a significant bearing on the capacity to import. The causes for the current and foreseeable rise in international food prices are many. Although most accounts of the food crisis place the primary causes as being due to supply factors, such as inadequate production of food, climatic change and shift of lands from food cultivation to bio fuels, increasing global demand for food in several regions of the world, particularly in the large emerging countries of Asia, have been important causes for increases in food prices. The global supply of food has been inadequate to meet increasing world demand for food.

The underlying supply and demand factors make it clear that global food prices would be on an uptrend. In the last two decades or so international food prices, especially grain prices, have been declining. This has been so in nominal terms as well as in real terms (i.e. in relation to prices of other commodities). Between 1974 and 2005 food prices fell by 75 per cent in real terms mainly due to increased global food production. In this context farmers had no incentive to increase their production of food.

The recent rise in food prices is also related to the sharp rises in oil prices. The sharp increase in the price of oil compounded the problem in several ways. The high cost of oil meant increasing costs of production of food owing to higher costs of fuel in the use of machinery, higher costs of fertilizer, insecticides and chemicals. Consequently there was a shift away from growing food crops to other crops. For instance in Australia, rice farmers sold their water rights for the growing of grapes (vine) for wine that was a flourishing industry in Australia. There were similar developments in Canada and the United States, where farmers are given subsidies for taking lands out of wheat and barley to prevent depressing prices.

The increase in oil prices also made it more profitable to convert land away from established food crops for bio fuels. In the US farmers were given subsidies to convert land to growing maize for conversion into ethanol. This too meant a reduction of food supplies.

Global climatic change aggravated the situation particularly in 2007 and 2008. Parts of China, Australia, Canada and New Zealand experienced droughts. Large areas of China, Myanmar, Bangladesh and Sri Lanka faced floods. Weather conditions reduced the wheat crop in Canada by 20 to 25 percent, milk production in New Zealand fell drastically owing to drought, and rice production in Australia fell significantly. Therefore, the declining trend in food production was accentuated by climate changes.

The world food equation that had been in balance for some time after the Green Revolution of the 1960s changed imperceptibly at first, and then sharply in the last few years, owing to both the supply factors outlined above and increases in international demand. This reduction in food production and increased demand resulted in an unprecedented rise in food prices. The declining trend in international prices was dramatically reversed when in 2005 alone food prices rose by 75 per cent.

The demand side of the food equation is perhaps less understood. While supply factors diminished the supply of food, the demand for food was increasing. The two large emerging countries of Asia, China and India, were increasing their demand for food due to both increases in their population and rises in per capita incomes owing to rapid economic growth. Although both these countries had reduced their rates of population growth, (China more than India), the annual increase in population in each of these countries was huge, above one million more mouths to feed each year. With increases in their per capita incomes the demand for food increased sharply.

In China in particular, the increase in demand was not confined to staples. The increase in incomes led to a phenomenal increase in demand for meat and dairy products. Chinese annual per capita consumption of meat rose from 20 kilograms in 1998 to 50 kilograms in 2011. There were also increases in demand for food from oil exporting countries in the Middle East and from Russia and Eastern Europe.

These increases in demand for food would be sustained by population and economic growth in these countries. Therefore, one cannot expect the demand for food to subside. International food prices are not likely to decline in the foreseeable future. The underlying reasons for the rise in prices of food, especially the increase in demand for food, would ensure high prices. The climatic factors could be less severe in some future years and the increase in prices may reduce conversion of land from food crop production to other uses. However, inadequate water may continue to be a serious constraint to cultivation. The expectation is that the supply response would be inadequate to bring down prices appreciably. Prices may decline somewhat from what it is today, but will remain high. The *London Economist* conveyed this continuing price increases aptly with the caption: *Good Bye to Cheap Food*.

1.2 Implications for Sri Lanka

These international developments in the global food equation have an important bearing for Sri Lanka's food security as an importer of several basic food items, such as wheat and wheat flour, sugar, milk and basic foods such as lentils (dhal). The prices of all these commodities have risen sharply recently and indications are that food prices would remain high. Besides, an increase in self-sufficiency in these is either impossible or as it was shown limited. Since the increase in international prices is not a temporary phenomenon, it affects food security of poor households. This is especially so if the macro economic conditions discussed below do not improve or they deteriorate.

1.3 Macroeconomic conditions

The rise in food prices affects the trade balance adversely and in turn the capacity to import food. The weakness of the country's external finances due to large trade deficits compounds this concern. The corrective action to reduce the trade deficit has included higher tariffs and depreciation of the currency. Both these measures have increased prices of basic food commodities such as dhal, sugar, milk, wheat flour and potatoes. The

increases in import duties of essential food items in 2012-13 were due to both weaknesses in the trade balance and a means of increasing government revenue.

Fiscal weaknesses have serious implications for food security as shortfalls in revenue lead to the imposition of tariffs to collect revenue that in turn increases food prices, as has happened in 2012-2013. The imposition of higher direct or indirect taxes or withdrawal of subsidies on other essential expenditure items such as transport could reduce poor households' income availability to access adequate food needs.

Fiscal weaknesses also impair the government's capacity to implement interventionist programs to assist the poor. The weakening of public finances could result in the shrinkage of social security benefits. Large fiscal deficits are inflationary and the rise in prices affects the food security of poor households.

For these reasons a healthy balance of payments, adequate foreign exchange reserves and manageable fiscal deficits are important to ensure adequate food supplies and the access of households to food at reasonable prices.

1.4 Poor quality food

An increasingly important issue is the accessibility to wholesome and hygienic food. Emerging urban life styles and increasing dependence on prepared and fast foods require that consumers be protected from unhygienic, contaminated and nutritionally poor quality foods. Regulations to protect consumers from poor quality foods, sale of unhygienic food preparations and the introduction of harmful extraneous substances require to be enacted; existing regulations should be strengthened and implemented effectively.

Foods sold in small restaurants, cafes and on the sidewalks are not subject to an effective surveillance to ensure their hygienic preparation.

Furthermore they are often exposed to dust and motor fumes. Although there are no specific studies to support these assertions, newspaper reports and reported incidents provide ample evidence of these deficiencies.

These foods are also likely to contain, *inter alia*, higher than permissible proportion of lead, pesticide residues and coliform bacteria (Wickramanayake 2002). The existing laws that are expected to be implemented by municipal and urban councils are well known to be practiced in the breach. There is also a need to revise and modernise the regulations pertaining to food preparation and contamination.

Fresh vegetables and fruits sold by wayside vendors, shops and in markets are also often contaminated with pesticides due to excessive use of these in cultivation. Furthermore harmful chemicals such as carbide are used to expedite ripening of fruits, while formalin is used to preserve fish sold in wayside stalls. Apart from regulations and inspection of sales points to ensure that such practices are penalised, there is a need to increase consumer awareness of the dangers of consuming such foods. The problem is compounded as it is often difficult to identify fresh foods which contain harmful chemicals. Where this is possible consumers should be made aware of factors that help to identify tainted produce. They should also be advised on how such produce could harm them and how they could minimise it through proper cleaning, washing and cooking of fresh produce.

Recently media exposed instances of contamination of imported milk powder and sugar. There should be some mechanism to prevent contaminated imported foods entering the market. Imported foods should be subject to regulations that prevent contaminated and sub standard foods entering the market. There should be quality certification from the importer and more frequent testing of samples of imports.

It is important to ensure by law the sale of food containing minimum nutritional ingredients and the prohibition of foods whose nutritional ingredients have been extracted. A clear case of the latter is the 74 per cent

extraction wheat of Prima Mills that is mostly available to the consumer. Such extraction of nutrients should be prohibited by law, on the one hand, and on the other hand, nutritionally fortified foods should be introduced by law. There is a growing need to ensure wholesome, nutritious, clean and unpolluted food by regulatory mechanisms that are effectively implemented.

Owing to deficiencies in micronutrients, iodine and iron there is a need for fortification of foods and advisory services on food and nutrition. Many food items that are commonly consumed have unhealthy additives, are inadequately or inaccurately described or have nutrients extracted. In order to minimise these deficiencies there is a need for effective surveillance of marketed foods and regulations to ensure wholesome food.

The rules and regulations governing the preparation and sale of food require to be revised to incorporate new health hazards. The system of surveillance and enforcement of food safety regulations need to be strengthened; and new regulations to ensure quality food should be included. This would include accurate description of foods, including nutritional values. The composition of food parcels may require certain minimum quantities of vegetables, greens, fish or meat. There should be minimum standards in packing such parcels. The current practice of packing with newspaper should be prohibited as these contain lead that is poisonous.

The fortification of foods is another means by which the nutritional levels of the population could be improved. Already salt is iodized in Sri Lanka. Similarly there is a possibility of fortification of basic foods with vitamin and micronutrient elements. Additionally, the sale of foods with nutrient extraction should be prohibited, as is the case of wheat flour being of 74 per cent extraction in Sri Lanka.

1.5 Food security in the globalized world

The prospects of sharp increases in international food prices have created anxieties about food security in the country. Weak external finances and fiscal difficulties have compounded the problem by reducing the capacity to import food. Macro-economic weaknesses have resulted in increased tariffs on basic food imports to correct both the trade and fiscal balances. These measures increase food insecurity of poor households.

There are serious concerns in accessibility to wholesome, nutritious and hygienic food. Consumers must be protected from poor quality foods, unhygienic preparation and sale of food and the introduction of harmful extraneous substances. Many foods contain, *inter alia*, a higher than permissible proportion of lead, pesticide residues and bacteria. Existing laws require revising and implementing more effectively. Foods that contain unhealthy additives should be prohibited.

It is also important to ensure by law the sale of food containing minimum nutritional ingredients and the prohibition of foods whose nutritional ingredients have been extracted. There is a need for fortification of foods as there are widespread deficiencies in micronutrients, iodine and iron. Advisory services and awareness programs on food and nutrition could play an important role in improving the nutritional status of the population.

2. Needed Policy Directions to Enhance Food Security

Economic performance and social policies determine the degree of food security of a country. While overall economic growth and diversification are important in ensuring national food security, agricultural development, especially enhanced agricultural productivity, has a vital role to play in ensuring food availability at household level by improving incomes of rural households that are a significant proportion of the population. Good governance is a determining factor in achieving these conditions for food security.

A strong economy is a necessary condition as it provides the means of achieving food security. Economic growth, diversified economic activities that provide better employment and income generating opportunities, strong public finances and external finances are necessary conditions to ensure that a high proportion of the population is food secure. The capacity of a government to have adequate safety nets depends on its fiscal capacity, macroeconomic stability and its expenditure priorities.

While overall economic development is a precondition to enhance food security, strategies to achieve economic growth and income distribution have important bearing on the attainment of food security. Economic conditions alone are however inadequate to achieve a high level of food security. The distribution of incomes has an important bearing on food security of households. Social policies are needed to make certain of all inclusive food security and to ensure food security to those who are too poor, such as the unemployed, the unemployable, the handicapped, disabled and the aged, to access adequate food to meet their basic food requirements.

A pre-condition for ensuring food security is the national availability of adequate food stocks year-in year-out. This is particularly relevant for Sri Lanka as she is a food deficit country. There is a need for the country to be self-reliant (not self-sufficient) in food by either domestic production or imports. Agriculture too has a vital role in ensuring food security, especially as agricultural development enhances household food security of a significant proportion of the population that is dependent on agricultural incomes.

2.1 Sustained economic growth

An earlier analysis demonstrated that the current economic situation was one in which the country had a capacity to import the deficit food needs even at much higher levels of consumption than at present levels of consumer demand. Yet it also pointed out that there were several features

of the economy that threatened the capacity to meet these needs in the future.

Sustained economic growth is a necessary condition to achieve food security. It is the foremost condition to achieve a high level of food security. On the one hand, economic growth ensures a high rate of employment and incomes and, on the other hand, the capacity of the government to assist households and individuals, who are food insecure, is enhanced when government finances are strong. A developed economy has a lesser burden to ensure food security and a higher capacity to adopt economic and social policies that would benefit the food insecure. Owing to these reasons, it is vital that Sri Lanka achieves a much higher level of sustained economic development.

2.2 Macro economic imperatives

The country's macro economic weaknesses are a threat to food security. Recurrent large fiscal deficits, a large public debt and huge debt servicing costs are disadvantageous to ensuring food security, as they distort public expenditure, increase taxes on essential foods and reduce the capacity of the government to intervene to ensure food security to the vulnerable.

Fiscal consolidation is essential as the large excess of public expenditure over income reduces the capacity of the government to pursue socio economic policies that would benefit the poor who are food insecure. The large public debt and debt servicing costs, inadequate revenue and unproductive expenditures have resulted in regressive taxation policies. There are high duties on essential foods that are imported. This raises the cost of living of the poor who have to spend a large proportion of their income on basic foods. Weaknesses in public finances and external finances have led to policies that are detrimental to food security. Stronger public finances would strengthen the capacity of the government to assist the poor to access required quantities of food.

It is vital that the country achieves a greater degree of fiscal consolidation by curtailing unproductive expenditure and enhancing revenue. Fiscal consolidation would enable the prioritization of expenditure that would benefit poor household's food security. Proper prioritization of expenditure is needed not only for immediate concerns in food security, but to strengthen the economy to achieve long term economic growth that would enhance food security and enable social welfare programs that would mitigate food insecurity.

Being a food deficit country, the state of external finances has an important bearing on food security, as it affects the capacity to import needed food. The current situation of massive trade deficits impairs food security as tariff measures designed to reduce the trade deficit, as well as increase revenue, increases the costs of basic food items. Therefore, it is vital that the trade deficit be reduced significantly to enable a strong balance of payments position that would avert regressive tariff and fiscal measures that increase the costs of food.

2.3 Economic diversification

While economic growth is a necessary condition to achieve food security, it is not a sufficient one. Strategies to achieve economic growth and income distribution have important bearing on the attainment of food security. The distribution of incomes and social policies are significant in ensuring food security of the poor.

The diversification of the economy is an important strategy to achieve food security. As was demonstrated in chapter 4, the objective of food security has been better served by the diversification of the Sri Lankan economy than might have been achieved by attempting to produce more food domestically, as alternate opportunities in plantation agriculture, industries and services have generated higher earnings. However, owing to the nature of the country's exports and the lack of diversification in exports, the country's food import capacity is vulnerable to international factors over which the country has little control.

For instance, over 50 per cent of the country's merchandise export income is derived from garments exports. These exports account for about two-thirds of industrial exports indicating both the non-diversified nature of industrial exports, as well as the low value added and low technology based nature of most industrial exports. The concentration of export markets in Europe and North America has also added a further vulnerability.

The last two and a half years export performance has raised the issue of whether the country may be losing its competitive edge, especially owing to higher wage costs than that of competitors. The culmination of the Multi-Fibre Agreement in 2005 and the withdrawal of the GSP plus concession by European countries posed further threats.

These developments in exports underscores the need for more stable and higher domestic value added industries, the diversification of exports, increasing exportable surpluses and expanding exports in non traditional markets. Achieving such objectives requires development of skills, better investment climate to draw in foreign investors, labour reforms and infrastructure development. The discussion of these factors is outside the scope of this book, but their importance has to be underscored.

2.4 Agricultural policies and food self sufficiency

The problem of food security is due to the underdevelopment of the economy and not necessarily due to the performance of the agricultural sector alone. Food security is not dependent only on the amount of food produced in a country, but also its capacity to import food needs adequately. However, agricultural production has an important bearing on the capacity of a country to meet food needs, especially of the rural poor.

While overall economic growth and diversification are important factors in ensuring national food security, agricultural development has a vital role to play in ensuring food availability at household level. Increased agricultural production by improving incomes of rural households could enhance

household access to food considerably, as a large proportion of the country's population is dependent on agricultural incomes, directly or indirectly. The improvement of agricultural productivity through technological change is an essential strategy to achieve food security of a significant proportion of the population.

Agricultural policy and performance have an important bearing on household food security, both directly and indirectly. Since about one half of the country's households are rural and derive incomes directly or indirectly from agricultural activity, the level of agricultural production, the productivity of crops, the cost structures of agricultural production, land tenure systems and prices of agricultural produce have an important bearing on the capacity of a sizeable proportion of households to be food secure. In Sen's terminology, these conditions in agricultural production affect the "entitlements" of farm and rural households. Increases in agricultural production, especially an increase in agricultural productivity, would enhance food security of rural and poor households. There lies a strong logic for a sustained thrust in agricultural production to ensure their rights to food.

Mellor and Adams have pointed this out in their paper "The New Political Economy of Food and Agricultural Development". In their words:

Shipping food from more developed 'surplus' countries to still developing deficit' countries might seem to represent the easiest solution to the world's food problem...

Such a simple-minded solution would, however, neglect one very important factor, namely the lack of purchasing power in many Third World countries. In this context it becomes advisable for many developing countries to place a far greater emphasis on agriculture than they have in the past. In most cases increased agricultural production can play several important roles in the development process. First, it can help increase overall domestic food supplies. Second, it can boost overall rates of economic

growth. Third, as part of accelerated growth, it can help increase the poor's access to expand food supplies. Accelerated agricultural growth increases the income and employment opportunities of rural producers. This is important - inasmuch as the bulk of the rural population in many developing countries lives in the rural sector. Expanded opportunities for these people therefore help to facilitate broad-based employment and income growth in other sectors of the economy (Mellor and Adams, 1986, pp. 289-290).

Increased agricultural production means improved food availability to about one-half of the population either directly or indirectly. Directly farm households would have more income, especially the subsistence farm households. Indirectly farm households would have greater access to food through increased incomes or "entitlements". Other poor rural households would have a better access to food because of the likelihood of lower prices.

A strategy to enhance agricultural production is an equity approach to economic development and addresses the problem of household access to food more directly than through industrial development and exports. The latter strategies no doubt contribute to food security at the national level, but their contribution at household level could be more limited and certainly more indirect.

Mellor and Johnston in their paper, "The World Food Equation: Interrelation Among Development, Employment and Food Consumption" have argued that "Agricultural growth not only satisfies the need for food to meet nutritional requirements ... but fosters a favourable employment - oriented demand structure as well" (Mellor and Johnston, 1984, p. 568). They have argued that in "the face of population growth and limited land area land augmenting technological change (is) essential to agriculture playing its productive role" ((Mellor and Johnston, 1984, Ibid.)

Their observation that "The employment - oriented effective demand is most likely to arise from a small holder agriculture, which is also fully

consistent with high rates of technological change," is especially relevant to Sri Lanka at its present stage of agricultural development.

Increased agricultural production could be conceived of as an effective strategy for poverty alleviation, reduction in unemployment, increase in rural incomes and improvement in income distribution. All these improvements would enhance food availability. This is especially so as adequate alternate avenues of employment are not available in the country as a whole and in rural areas, in particular.

Therefore the attainment of food security requires agricultural support policies that would enhance productivity in rice and other food crops where the current levels of yield are far below the technologically achievable levels as well as the productivity in comparable other producing countries. Enhancement of research capability, revamping of the extension system and improvements in marketing and rural infrastructure are needed to achieve this.

2.5 Research and extension

One of the key pre-conditions for agricultural development is investment in research. The amount expended on research has been declining in recent years, and is grossly inadequate at a fraction of one percent of the value of agricultural output. Increases in yield can be achieved only if research develops high yielding varieties adapted to soil and other climatic conditions. Without an effective extension service research expenditure is wasted and high levels of productivity cannot be achieved. The agricultural extension service that has been severely neglected over time is now, for the most part, the responsibility of provinces. It has to be revamped to achieve significant increases in productivity. The current gap in yields between the potential yields and the actual yields is to a good extent due to inadequate extension services.

2.6 Marketing

The marketing of agricultural produce has been a perennial problem. At harvest time farmers are unable to sell their produce at remunerative prices that cover their costs of production. In a context where the costs of agricultural inputs are rising and wages are increasing owing to inflation, it is vital for farmers to obtain good prices for their produce. Prices of agricultural commodities are high at consumer levels but often low at farm gate. The reduction of marketing margins could contribute much to both reducing consumer prices of agricultural commodities and farmers receiving better prices. The development of storage and milling capacity, refrigeration and canning facilities, promoting competition and improving transport facilities are needed to benefit both farmers and consumers.

2.7 Rural infrastructure

The development of rural infrastructure by the repair and maintenance of rural roads, bridges and irrigation works are important determinants of productivity in agriculture. Poor infrastructure in rural areas is a severe constraint to farmers obtaining their inputs and more so for the marketing of their produce.

Without these improvements in vital areas serving agriculture, yields will remain low and agricultural incomes depressed and rural poverty would persist. The rhetoric of a priority for agricultural and rural development must be transformed into an institutional reality.

2.8 Policies to achieve self-sufficiency

The economic problems of the country and increasing food prices have strengthened the argument for food self-sufficiency in Sri Lanka. This is especially so as food prices are expected to continue to rise for the reasons discussed earlier. Since the country is food dependent and international prices of food are expected to continue to be high, the country would have

to import essential food items at high prices. Therefore there is a need for a national response to cope with this reality.

An unrealistic cry for self-sufficiency will not get the country out of the crisis, either in the short run or in the long term. Food self-sufficiency is not an attainable goal for Sri Lanka. There are items of food that we cannot grow in the country such as wheat and dhal. Then there is the unrealism of expecting to increase production of items of which we produce very little to meet all our needs even in the long run. Milk and sugar are good examples. We produce only about 5 percent of our requirements of sugar and about 40 percent of our current requirements of milk. The words “current requirements” are used carefully to denote the fact that the demand for these two commodities has been rising in recent years and the demand for them will rise with increases in population and incomes. It is possible to increase production of these items to meet a higher proportion of our needs, but not be self-sufficient in them. There are limitations in land availability and other resource constrains. The high costs of production in the country may make it economically better to import these commodities rather than produce them locally.

On the other hand, there are commodities where increased production could satisfy our needs. The most notable and important of such items is rice. In the case of paddy production, the country is near self sufficiency in a good year and there is a possibility of increasing paddy production by increasing yields as the current yields of around 4.3 metric tons per hectare is much below the potential yields, particularly in the dry zone areas. If the correct cultivation practices are adopted, fertilizer applied in the correct proportions and good seed material are available, then yields could be enhanced significantly.

An increase in rice production is needed not only to meet the immediate needs but also to have an adequate stock to meet short-falls in bad years, increases in demand for the increasing population of about 200,000 persons per year and to substitute rice for wheat. Farm gate prices must be attractive for paddy farming and excessive interventions to placate consumers have

to be avoided. High prices for paddy are an effective incentive to adopt good cultivation practices, invest in required inputs and to cultivate lands that have not been cultivated. Paddy producers should be able to obtain a price that is above the cost of production. The increased incomes should help in reducing debt and increasing incomes of rural communities. It could have a beneficial impact on reducing poverty as well. However climate change could negate these benefits. Droughts and floods could impoverish paddy and food crop farmers.

There should also be efforts to increase the production of other grains such as finger millet (kurakan), cowpea, soya, and local varieties of lentils. Such increases in production matched by a higher consumption of these are means by which the supply of food could be enhanced with advantage to the country. And at the same time such varied consumption could improve nutrition. There should also be efforts to increase consumption of easily available foods such as jak and breadfruit through an advocacy of consumption of these commodities and ready availability of them in easily packed forms. There have already been such developments in response to the price increases of rice and bread, but these responses are inadequate and should be enhanced.

The recent increases in tariffs on food items while affecting the food security of low income households adversely could be incentives for higher domestic food production in the long run. The campaign to increase food production through home gardens is also a step in the right direction.

In spite of all these strategies there would be a need to import several items of food. This is why a realistic attitude could help. The cost of all food imports in recent years was less than 10 percent of imports. It was demonstrated earlier in this study that the country's current food import requirements are almost fully met by tea export earnings alone. The earnings from industrial exports finance food imports several fold. What this implies is that the country's food needs, even at these high prices, could be met by a diversified and robust export sector.

The food needs of the country cannot be met by local production alone but by domestic production supplemented by an increase in export earnings from agricultural, industrial and services exports. Therefore, it is vital that all sectors of the economy should develop rather than think narrowly about agricultural production alone meeting the food needs of the country.

2.9 Interventions to assist the food insecure

Overall economic growth and diversified economic activities that provide better employment and income generating activities are the best means to reduce the number of households not obtaining their basic food requirements. However, in the foreseeable future economic growth opportunities are not likely to ensure that the proportion of the population unable to access food would be drastically reduced. Even with a better overall economic performance there is likely to be people left behind. These persons have to be provided with safety nets to enable them to obtain their basic food requirements. Therefore, there has to be state interventions that ensure their food security. This in turn implies a capacity on the part of the state to intervene effectively in terms of resources and implementation capacities.

There have been three broad strategies adopted in the past to ensure food security of the poor and vulnerable. The first was the ration scheme that succeeded in providing the staple and a few essential foods. This was not a programme targeted to the poor alone. The entire population obtained food on the ration. It had the merit that most poor households obtained a minimum quantity of food. The deficiency was the very high cost of such an untargeted general subsidy that rendered it financially not viable and unsustainable. The high cost of this welfare programme also impeded economic growth.

The second strategy was the food stamps scheme intended to reduce the cost of the food subsidy and target it to only those who are too poor to be provided with their basic food requirements. This scheme had deficiencies in targeting with some of the poor not receiving food stamps and the

entitlements through the food stamps being eroded by a rapid increase in food prices. Therefore, the objective of providing food security for the poor was not fulfilled.

The third approach was one of income support to the poor through the *Janasaviya* and *Samurdhi* programmes. This was expected to be a targeted programme for the poor. Yet it has ended up with as many as 58 per cent of households receiving the income support in 2000. In 2012 as many as 35 percent of households received *Samurdhi* benefits, when the proportion of the population below the poverty line is officially estimated at 8.9 percent. While the proportion of households receiving the income support is excessive, the poverty count is likely to be an underestimate.

Even with such a large proportion receiving the benefit, many of the really poor do not necessarily receive the income support. Unintended beneficiaries are large, political interference and corruption are rife and the cost of the schemes for the government very high. In 2012 government expenditure on the *Samurdhi* programme was Rs. 10.6 billion (Central Bank 2012, p.159).

The implications of this experience is that the interventionist programme must be more adequate in the provision of incomes to access a larger basket of foods, on the one hand, and on the other, be targeted to only around 20 per cent of total households. Targeting has indeed been a serious problem in Sri Lanka, especially owing to political interventions. However, if the food security of the poor and vulnerable is to be achieved in the context of Sri Lanka's poverty situation, a well targeted program is essential.

3. New Concerns

The previous section pointed out serious concerns in accessibility to wholesome, nutritious and hygienic food. Consumers must be protected from poor quality foods, unhygienic preparation and sale of food and the introduction of harmful extraneous substances. Consumers must be protected from foods containing higher than permissible proportion of

lead, pesticide residues and bacteria. It is important to ensure the sale of food containing minimum nutritional ingredients and the prohibition of foods whose nutritional ingredients have been extracted. There is a need for fortification of foods as there are widespread deficiencies in micronutrients, iodine and iron.

Existing laws require revising and implementing more effectively. At present there is inadequate capacity in institutions that are expected to regulate and be vigilant in the enforcement of the laws and regulations to ensure wholesome food. There has also been inadequate attention on food quality standards and fortification of foods. These are areas that require strengthening.

There is a need for effective surveillance of marketed foods and regulations to ensure wholesome food. The rules and regulations governing the preparation and sale of food require to be revised to incorporate new health hazards. The system of surveillance and enforcement of food regulations need to be strengthened and new regulations to ensure quality food should be introduced. This would include accurate description of foods, including nutritional values.

The fortification of foods is another means by which the nutritional levels of the population could be improved. Already salt is iodized and the possibility of vitamin fortification requires to be explored. The sale of foods with nutrient extraction should be prohibited as in the case of wheat flour which is of 74 per cent extraction.

4. Summing Up

Sustained high economic growth, a robust economy, sound public finances and a healthy balance of payments are the best means of achieving food security. Economic growth, diversified economic activities that provide better employment and income generating opportunities would ensure that a high proportion of the population are food secure. However, food security is not only determined by economic growth but also determined

by the distribution of incomes and social policies that are significant in ensuring food security of the poor.

Social interventions are needed to ensure food security to those who are too poor, the unemployed and the unemployable and those who are handicapped, disabled and the aged and have inadequate means to access adequate food to meet their basic food requirements. The capacity of a government to have adequate safety nets depends on its fiscal capacity, macroeconomic stability and its expenditure priorities.

There is a role for agriculture in ensuring food security, especially as agricultural development has an important bearing on household food security. A pre-condition for ensuring food security is the national availability of adequate food stocks year-in year-out. The national requirements of food are met by domestic production and food imports.

Food self-sufficiency is an unrealistic and unattainable objective. What is needed to ensure food security in the country is a several-pronged strategy in which an increase in agricultural production though enhanced productivity of major crops is important. This applies not only to food crops but also cash crops that are exportable as these earn valuable foreign exchange that goes a long way in enabling the import of the deficit of domestic food requirements.

Development of other sectors in the economy plays a vital role in food security. The higher value industrial products bring in a significant amount of foreign exchange that enables the import of food. Therefore, the objective of ensuring food security requires both an increase in domestic food production, as well as the development of the non-agricultural sectors. It is by the development of all sectors in the economy that national food security could be attained. The state of public finances, external finances, expenditure priorities, agricultural policy and good governance are important in ensuring the country's food security. The problem of food insecurity is not an agricultural problem. It is a problem of economic development.

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BIOGRAPHY OF DR. NIMAL SANDERATNE

Basic Education

Nimal Sanderatne was born in Colombo on the 16th of October 1938. He lived in Dehiwela till 1974, not counting the many spells that he spent abroad. From 1942 to 1944, he was a pupil in a small rural school in Dehiwela that was mostly attended by boys from the large fishing community based in Dehiwela. The only medium of instruction at school was Sinhala. A fresh wind blew in his life in late 1944 when he and his mother left for New Delhi, India, where his father was stationed at the Ceylon Government Food Supplies Department in New Delhi. While there, he attended the New Delhi High School for a year, where the medium of instruction was English. He did learn English and Hindi but partly forgot Sinhala! On his return to Ceylon, he was admitted to Grade 2 at S. Thomas' College, Mount Lavinia, where he had his primary and secondary education. At S. Thomas' College, he was a school prefect, leader of the College debating team, and co-editor of the College Magazine. He won the Pieris-Siriwardena Gold Medal for English, the Arndt Memorial Prize for English Literature, and the Illangakoon Memorial Prize for Oratory in English. He took an interest in sports too and represented his house in athletics and badminton. He left S. Thomas' College in December 1958.

Tertiary Education

After a short spell as a clerk at the Bank of Ceylon, he sat for the GCE Advanced Level Examination of the University of London. Having passed in Economics, History, and Economic History, he joined Aquinas University College, Colombo to read for the London University's B.Sc. (Econ.) degree. At Aquinas, he won the Sir Vaitialingam Doraiswamy Challenge Trophy for Oratory for two successive years and led the Aquinas debating team. He also served as the President of the Social Science Association. After obtaining a B.Sc. (Econ.) Second Class Honours degree, he left Aquinas and started the hunt for a career.

Early Career

Dr. Nimal Sanderatne has served in various positions in many institutions. Soon after graduation he joined Lake House Newspapers and worked on the editorial staff of the Observer. He was assigned the post of a features writer. His articles covered such fields as agricultural development, university education, economic issues, and social development. The Editor of the Observer, Denzil Pieris had identified Manik de Silva and Nimal Sanderatne as prospective future editors. Therefore, apart from his feature writing, he also engaged in investigative and other reporting as well as sub-editing work at the Sunday Observer. Though his initial employment was in a newspaper office, Nimal Sanderatne would later hold important positions in many diverse institutions.

Professional Education

Never one to remain still, in 1964 he applied for and was awarded a Commonwealth Scholarship to Canada. This was a turning point in his life. He worked hard and obtained his M.Sc. in Agricultural Economics from the University of Saskatchewan in 1966.

From October 1966 to March 1967, he toured several European countries including Ireland, Britain, Holland, France, East and West Germany, Austria, Czechoslovakia, Denmark, Sweden, Switzerland, and Greece. His travels also took him to Egypt and India.

Career at the Central Bank

In July 1967, he was appointed Commerce Assistant at the Department of Trade and Commerce. In September, he was selected for the Planning Service of the Ministry of Planning and Economic Affairs and to the Central Bank of Ceylon. On the advice of Dr Gamani Corea, the Secretary to the Ministry of Planning and Economic Affairs, he decided to join the Central Bank.

While he was working in the Central Bank, the Agricultural Development Council of New York (ADC) awarded him a Fellowship in 1970 to do a PhD at the University of Wisconsin. After working on that degree and getting the PhD he resumed his career at the Central Bank of Sri Lanka.

He held the positions of Director of Statistics, Director of Economic Research, and Advisor, Research and Training. He worked in only two departments of the Central Bank, the Department of Economic Research, and the Department of Statistics. However, he would often be called upon to act as the head of various other departments from time to time.

During his early years at the Central Bank, he was deeply involved in conducting Island-wide surveys and writing survey reports. Among those surveys were the Consumer Finances Survey of 1973 and 1983, Survey on Agricultural Loan Defaults (1981), Survey on Land Reforms (1974), and Survey on the Management of State Plantations (1979). He was the co-chair of the Task Force to Assess the Damages caused during the July 1983 disturbances.

He was a regular contributor to the Central Bank economics Journal, “Staff Studies”. He then decided to take early retirement from his Central Bank career in 1993.

Secondments

During his tenure at the Central Bank, he was seconded to several institutions. In 1977 the Central Bank seconded him to take up the position of the first Assistant Director (Research) at the South-East Asian Central Bank’s Research and Training Centre (SEACEN) in Kuala Lumpur, Malaysia. In 1987 he was seconded to the Bank of Ceylon and in 1989 to the Institute of Policy Studies (IPS) as Senior Fellow during the formative stage of IPS.

In January 1987 he was once again seconded to take up the position of Chairman, Bank of Ceylon (BOC) till June 1989.

Chairman of the Bank of Ceylon (1987-89)

Dr Sanderatne recalls his period at the helm of the Bank of Ceylon as his most eventful years. He was chosen by Finance Minister Ronnie de Mel, who knew him well owing to his close association with him while he was Director of Economic Research of the Central Bank of Sri Lanka. Mr de Mel had assured him he will leave the running of the Bank entirely to him and will not interfere.

The Bank of Ceylon Board of Directors was comprised of eminent persons at the time of his appointment and during most of his tenure. Dr. Sanderatne served under President J.R. Jayewardene, President R. Premadasa and no less than four Finance Ministers.

His period of office was troubled by threats from the LTTE and JVP. His life was in danger as from 1st March 1988 when an attempt was made to assassinate the People's Bank Chairman. He received frequent threats to his life demanding that he should resign from office. His home was guarded by armed personnel, and he moved about under armed security and often in security vehicles.

Even banking activities were disrupted to some extent as banks were threatened by the LTTE, JVP and the Indian Army (IPKF). Even the Minister of National Security was unable to help. To compound the problem, the state bank employees' union asked for a big hike in wages and threatened to strike if their demands were not met. Dr Sanderatne was appointed to negotiate with the Union. It was a challenging task as President Jayewardene was initially not agreeable to meet the demands of the Union. Dr Sanderatne considers his settlement of the dispute as one of his important contributions because if the state bank employees went on a strike at a time of national insecurity that would have had calamitous consequences.

Political interventions

Political interference in appointments, promotions and the granting of loan facilities was an inevitable occurrence in a state bank. Several Ministers, and sometimes the President too would intervene on behalf of various parties, requesting special loan concessions. Not even in one instance did Dr. Sanderatne accede to these irregular requests.

Consultancies

In 1982 he went as a member of the World Bank Mission to Indonesia and in 1991 he was a member of the SEACEN team of consultants who advised the Vietnamese government on economic reforms.

In addition, he has served as a consultant to UNICEF, the World Bank, International Labour Organization (ILO), Asian Development Bank (ADB), and UNDP.

Other positions held

In October 1994, he was appointed Chairman of the National Development Bank (NDB). He held this position till 1998 when he decided to come to Peradeniya.

In addition to the positions mentioned earlier, Dr Sanderatne has served as Chairman of the Merchant Bank of Sri Lanka (MBSL), Lanka Securities Ltd, Property Development Ltd (PDL), Capital Development and Investment Co Ltd (CDIC), and NDBS Securities Pvt. Ltd.

He has been a Director of Union Assurance Ltd (UAL), Lanka Orix Leasing Co (LOLC), and Sri Lanka State Plantations Corporation (SLSPC), at various periods. He was also on the Board of Governors of the Agrarian Research and Training Institute (ARTI) now known as HARTI.

Dr. Sanderatne was the Founder/ Chairman of the Centre for Poverty Analysis (CEPA), Chairman and Director of the Gamani Corea Foundation (GCF), a Director of the Centre for Women's Research (CENWOR), and South Asia Partnership (SAP).

Academic links

Dr Sanderatne, together with Professor T. Jogaratnam, laid the groundwork for the formation of the Ceylon Agricultural Economics Society (CAES). He was its secretary from 1968 to 1970.

He was a founder member and the third President of the Sri Lanka Association of Economists (SLAE), now SLEA. Presently, he is an Honorary Fellow of the Sri Lanka Economists Association (SLEA).

Dr Nimal Sanderatne was appointed Visiting Senior Fellow of the Post Graduate Institute of Agriculture (PGIA) of the University of Peradeniya in 1998. He held this position for 5 years till 2003. He continued to teach at the PGIA till January 2020 . He taught a variety of courses including Development Economics, Agricultural Finance, Agricultural Policy and Performance, and Macroeconomic Policies for Business. During his tenure at the PGIA he conducted a Short Course on Rural Finance and published a book entitled "Leading Issues in Rural Finance" and several other publications for the PGIA. He served on the Board of Studies in Agricultural Economics and the Board of Studies in Business Management of the PGIA for many years. In recognition of his contribution to university education, the University of Peradeniya conferred on him the D.Sc. degree (*Honoris Causa*) in 2004.

Dr Sanderatne taught Agricultural Economics at the Vidyalandara University (now Kelaniya University) in 1969-70. He taught and has been on the Board of Studies of the Postgraduate Institute of Management (PIM) of the Sri Jayewardenepura University for many years right from its inception. He has also been on the Board of Studies of the Post Graduate

Institute of the Humanities and Social Sciences (PGIHSS) of the University of Peradeniya.

Dr Sanderatne was on the Committee that drafted the curriculum for the Wayamba and Uva universities, following which he served on the first Council of the Wayamba University.

Publications

Nimal Sanderatne is the author and co-author of several books and anthologies. He has contributed many articles to foreign and Sri Lankan professional journals. He is the author of “Economic Growth and Social Transformation: Five Lectures” (Kandy Books), “Leading Issues in Rural Finance” (PGIA), National and Household Food Security in Sri Lanka (with Sharmini de Alwis, Centre for Poverty Analysis) 2014, “The Demographic Transition in Sri Lanka: A Socio-economic Analysis” (with Sharmini de Alwis) (Marga Institute), and “Reflections and Perspectives” (Kandy Books). He was a collaborative author with Henri Bruton et al. of “Malaysia and Sri Lanka: Poverty, Equity and Growth” (Oxford University Press).

Freelance and creative writing

His writing was not confined to academic and research articles. He contributed to popular journals such as the People’s Bank Economic Review, the Christian Worker, and the Achiever.

He is however best known for his regular Sunday Times column, Economic Imperatives. He has been writing to the Sunday Times and Business Times regularly for over thirty years. He has also written to The Nation and Daily FT. These articles discussed economic issues by adopting an inter-disciplinary approach and were presented in a simple manner.

Dr. Nimal Sanderatne has written three books of short stories: “The Guru’s Library”, “A Tale of Two Sisters”, and “Destiny”. He has also edited three collections of short stories titled “Creative Expressions” (Vol. 1, 2 & 3).

In 2018, Dr. Sanderatne has conferred the prestigious national honour of Deshabandu.
