

Trade Liberalization and Wage Inequality: The Case of Sri Lanka*

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Abstract

The main purpose of this paper is to analyze the impact of trade liberalization on wage inequality in Sri Lanka. For this purpose, both micro and macro level labour income and wage data were used. After explaining the special features of the economy, attempts were made to examine wage trends and causes of inequalities in terms of ownership of firms, gender, occupation, skill levels and sector of production. Mean income of the male legislators, senior officials and managers was two times higher than the national average income and females in the same categories. Generally, real wage increases in exporting sector in comparison to other sectors and number of government employees decline with trade liberalization activities. Sri Lanka has shown contrary situation during the past 30 years. On the other hand, longitudinal analysis on sectoral wage inequalities indicated an increasing wage gap among the income earners in different economic activities, and also by gender, and skill levels. Male-female wage gap has been widening in many occupational categories that were

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associated with tea, rubber, and coconut producing sectors. However, skill level has been recognized as an important factor in determining wage gap in construction sector. Wage behavior has been favorable for strong labour union members, politically influential groups and a limited number of professionals in some fields or industries. Finally, high inflation rate led to decline real wages and that has been acted as another major (push) factor contributing for massive increase of Sri Lankan migrant workers in other countries, regardless of gender, sector, occupation, skill level or professional category of employee in Sri Lanka.

1. Introduction

Trade liberalization is one of the influential factors affecting the short-term and long-term behavior of nominal and real wage inequalities in specially developing countries. Although literature on the relationship between trade liberalization and wage inequality has significantly increased since 1980s, case studies regarding South Asian countries are still not adequate. Even though the trade liberalization has been practicing some countries in the region since late 1970s, long-term data on wages are not widely available. In this context Sri Lanka is a special case. General research papers on income inequality trends in Sri Lanka and their determinants have been published since early 1970s, but very limited number appeared on wage inequality. Similarly, there have been many research articles on trade liberalization in Sri Lanka, but very few attempted to present analysis on its impacts on wage inequality. This paper attempts to fill this lacuna.

Sri Lanka implemented trade liberalization policies as the first South Asian country in 1978, and since then it has been the most liberalized economy in the region. According to Kelegama (2006), there were two

main waves of trade liberalization in Sri Lanka. The first wave of trade liberalization has taken place from 1977 to 1988. The second wave occurred during the period of 1988-1993. Even after these two waves successive governments have been undertaking privatization, deregulation and various, other free market promotion activities. Therefore, it is worth to investigate how trade liberalization activities influenced on wage inequalities in Sri Lanka during the past 30 years.

Sri Lanka is one of the first developing countries to understand the importance of investing in human resources and promoting gender equality (World Bank, 2000, P.1). In the transition years following colonial rule, Sri Lankan policy makers introduced a social policy package of free health and education services and subsidized food, which dramatically improved women's quality of life. Compared to the rest of the South Asia, Sri Lankan women are very well-off, enjoying high life expectancy (74 years), nearly universal literacy, and access to economic opportunities, which are nearly unmatched in the rest of the subcontinent (Asian Development Bank, 1999, P. ix). In this regard, it is interesting to evaluate trend of male-female wage inequality in Sri Lanka during the post-liberalized period. Attempts made to capture this trend by using both formal and informal sector wages during the concerning period.

Sri Lanka came to be known as an exception among developing countries in improving its physical quality of life-achieved by an extensive social welfare programs (providing free education, free health, food subsidies for poor people), which cost between 8 and 10 percent of the GDP from mid-1950s to 1980s (Sanderatne, 1997). As pointed out by Kelegama (2006), these achievements caught the attention of many economists in the late 1970s and early 1980s. The economic growth versus equality debate Sri Lanka has been analyzed by many of these economists. One school of

thought believes that high achievements in basic needs indicators came at a cost to economic growth (Bhalla and Glewwe, 1986). The other school of thought believes Sri Lanka achieved a reasonable rate of growth with equity (Isenman, 1980; Sen, 1981). This debate is often re-visited by economists (Osmani, 1994, Karunaratne 2000, 2004, and 2006) and remains far from settled (Kelagama, 2006, P.21). Therefore, it is worth to investigate what happens to upgraded human capital in terms of financial benefits in Sri Lanka. In this regard, it will be very important to investigate causes of trends and structural changes in wages in Sri Lanka during the past thirty years. This paper fills this lacuna.

Trade liberalization, deregulation and privatization affect the level and trends of wage inequality in developing countries in several ways. First, when government removes quantitative restrictions, tariff briers, and other restrictions on international trade, domestic firms have to face international competition within the domestic markets (so called infant industry argument in standard trade theory) and as a result (at least for a short time period) some firms needs to restructure their employment by reducing workers, re-arranging economic activities and cutting down labour costs. Usually at the initial period of trade liberalization activities wage inequality increases while generating high unemployment rate in the economy.

Second, majority of state-owned firms are inefficient and ruining on loss due to several main reasons like unbearable number of workers, subsidized-low prices of final products, and political appointments, link-with politicians, and corruptions. When government implements privatization programs, unemployment rises while supply prices of final products of those firms are rising at least during the initial period. Since, many utilities such as electricity gas, water, irrigation, transportation and telecommunication activities, are handling by the state-owned firms in

majority of developing countries, soon after the introduction of privatization programs prices of these services are raising. As a result, inflation rate increases into substantial number at least in urban sector. So it is important to investigate how high inflation rate adversely affected on real wage distribution in developing countries.

Third, when deregulation activities are undertaking first in the trade and financial arena, consumption patterns of the people are subjected to change and inflation rate increases due to sudden increases in the aggregate demand. If nominal wages are not increasing par with the inflation rate, workers tend to unionize and take union actions against relevant authorities. Those activities normally adversely affect on production, productivity, consumption, exports and imports. With respect to labour unionization and labour union actions, Sri Lanka has shown a typical behavior during the liberalized regime rather than the inward-looking policy period. On the other hand if nominal wages are increasing with inflation rate, the economy is getting trap into wage-price spiral inflation and beggar-thy neighbor situation in terms of foreign currency devaluation. As a result of these reasons, Sri Lanka has endowed slower growth rate in exports while generating long-term deficit in the balance of payment. Since investor confidence has lost due to internal and external shocks, domestic employment creation has been very slow and real wages have come down in some industries. However, if government is acting by implementing right policies in right times, these fluctuations in business cycle can be minimized to at least to a certain extent. Therefore, it is important to understand recent trends in government policies to address those wage inequalities in Sri Lanka.

The aim of this paper is to analyze how trade liberalization, privatization and deregulation programs influenced on wage inequalities in Sri Lanka

during the past thirty years. Wage inequality in terms of age, gender, region, skilled level of the employees, place of the work, business ownership, across the time is very important to understand. The data availability is one of the most important issues with respect to inequality studies in developing countries. This paper utilizes two types of data. First, available data in annual reports of the Central Bank of Sri Lanka can be extended to analyze formal and informal sector wage inequalities in Sri Lanka. By using formal sector wages real wage indices have been calculated from 1978. It is possible to evaluate real wage differences across the various sub-groups of employment. In addition, wage inequalities in sub-sectors of agricultural sector and construction sector are also analyzed. Second, data available in the Report of Consumer Finances and Socio-economic Surveys conducted by the Central Bank of Sri Lanka in various years have also used to explain trends and structural changes in Labour income during the past thirty years.

The outline of the paper is as follows. Section 2 is devoted to introduce the economy of Sri Lanka. Since this paper is writing for a non-Sri Lankan Journal, first, the author wishes to provide a wide understanding on the economy of Sri Lanka. Section 3 summarizes actions taken by the Sri Lankan economy for trade liberalization. Section 4 provides explanation on data and methodology used in the paper. Section 5 analyses the causes behind the trends and structural changes in wage inequalities in Sri Lanka. Concluding remarks are given in the final section.

2. Introduction to the Economy of Sri Lanka

Sri Lanka has not been a typical developing country since regaining its political independence in 1948. It was under the colony of Portuguese

(1505-1668), The Netherlands (1669-1798) and British (1798-1948) over four hundred years. As a result of this long-held colonialism, people, politics and economy of Sri Lanka have been linked to the rest of the world in all the possible ways such as, trade, financial, technology, human capital flows, as well as, terrorism, fine arts, and sports. It has never been a closed economy or away from the international trends of policy changes and behavior of macroeconomic variables.

Sri Lanka has been practicing five star democracy since independence. All elected governments have endeavored to develop the country and improve the living standard of the people. Two notable features of the Sri Lankan political system have been the welfare bias in policy formation during the 1948-1977 period and the changes in the government policy depending upon which of the two major political parties was in power. Of the two major political parties, the United National Party (UNP) has been favorable towards outward-looking development policies, while the Sri Lanka Freedom Party (SLFP), along with its leftist coalition members, was favorable to public sector led, inward-looking development policies until late 1970s. In this background, failure of SLFP led leftist government policies in mid 1970s led to establish strong UNP government with 5/6 parliamentary power in 1977. As a result, outward-oriented liberalized trade policies were introduced since December 1977. Subsequently, the SLFP has also been supporting growth-oriented, outward looking development policies since mid 1980s.

The welfare orientation of government policies was a outcome of factors such as the great depression (1929-1933), the malaria epidemic, World War II, the Korean war, Terawada Buddhism and cultural influences, the International request for improvement of living standards of Tamils working in Plantation estates, influence from British welfarism, free

election system and implementation of three major policies call free education, free health and free nutrition programs throughout the post independence period regardless of differences in industrial and trade policies (See Snodgrass (1966), Jayawardena (1974), Isenman (1980), Oshima (1987), Bhalla and Glewwe (1986), Jayasundara (1986), Bhalla (1988), Anand, and Kanbur (1991) and Bruton (1992), Lakshman (1997), Corea (1998), and Kalegama (2004), for further analysis of these factors). During the past five decades, Sri Lanka has used various types of welfare and equity oriented policies which varied in their influence. See Karunaratne 1997 for more detail explanation of these policies. However, as a result of implementation of state-led social welfare policies in longer period, and freer trade policies since 1977, the following features appeared in the economy of Sri Lanka during the past few decades. Apart from those policies, deep-rooted ethnic conflict, natural disasters such as flooding, Tsunami, and drought as well as trends in the world economy and politics have influenced to appear those features in the economy of Sri Lanka.

As the first feature of the economy of Sri Lanka, it is possible to understand changing pattern of the total population and its rate of change. The total population has increased in almost three fold, while population growth rate have come down by 2/3 during the past 50 years. Implementation of free education, free health and free nutrition policies as well as adaptation of family planning methods since early 1970s led to generate this situation. As shown in the Table 2.1 population aging problem has also been emerging due to low birth rate appeared in early period, and changes in age composition of the total population have also influenced this situation. Population density has also increased to a substantial number from 196 persons per square Kilometer in 1970 to 310 in 2005.

As the second feature of the economy of Sri Lanka it is important to

Table 2.1 Population in Sri Lanka- 1950-2005

Year	Mid Year	Population	Age Composition			Density
	Population Millions	Growth rate	<20	20-64	64<	Per Sq KM
1950	6.0	3.4	47	49	3	—
1955	7.5	3.3	47	49	3	—
1960	8.6	2.4	47	49	3	—
1965	9.8	2.8	50	48	2	—
1970	11.2	2.4	52	45	4	196
1978	12.5	2.1	52	45	4	219
1980	14.2	1.6	50	46	4	228
1985	14.7	1.6	50	46	4	245
1990	15.8	1.5	46	50	4	271
1995	17.0	1.4	46	50	4	289
2000	18.1	1.3	46	50	5	309
2005	19.4	1.2	46	50	6	310

Source: CBSL, Annual Reports of Various Year

understand trends in the labour market and related variables. As shown in the statistics given in Table 2 Total labour force increased from 6 million in 1990 to 7.5 million in 2006. Total employment rate as a percentage of labour force increased from 84.1% to 93.4% in the same period. In other words, unemployment rate decreased from 15.9% in 1990 to 6.6% in 2006. This is a remarkable achievement of the economy during the past few years. There were three main reasons behind the sizeable decline in unemployment rate; the first, declining population growth rate since 1970s caused to reduce average family size in Sri Lanka and less number of people in the labour force. According to Consumer Finances and Socio-economic Survey data, number of individual per household declined from 5.75 in 1963 to 4.31 in 2004. This declining trend has been drastic in urban sector. Second reason for considerable decline in unemployment rate has been the increasing foreign employment opportunities for Sri Lankan workers in Middle East countries. For example, estimated number of Sri

Lankan workers in foreign countries increased from 710,000 people in 1997 to 1.2 million in 2004. Total number of Sri Lankan migrant workers accounted to 15 percent of total labour force in Sri Lanka in 2004. As a result domestic unemployment rate declined in considerable proportion. Third, reason for this phenomenon has been the increasing labour demand in service sector-led economic activities such as tourism, hotels, restaurant, wholesale and retail trade, transportation, real state, construction, cleaning etc. As observed from the data given in Table 2.2, services sector employment share increased from 33.8 percent in 1990 to 43.8 percent in 2003 due to rapid expansion of domestic informal services.

Third feature of the economy of Sri Lanka has been the use of alternative policies during the various periods and sub-periods of past fifty-nine years. Statistics on population, gross domestic production and per capita income with respect to various policy regimes during the post independence period is presented in Table 2.3. Eventhough population, population growth rate has been decreasing irrespective of the policy regime, as indicated above total population has doubled from 7.5 million in 1955 to 15 million in 1989. Sri Lanka could produce only 20 percent of domestic rice requirement when it obtained political independence from United Kingdom in 1948. Under these conditions, the achievement of self-sufficiency in rice production in 1980s has one of the most important land marks Sri Lanka reached due to all these policy regimes. The Mahaweli river development scheme, implemented by Sri Lanka governments with help of Japan, United Kingdom, Germany, Canada and Sweden contributed much towards the agricultural development of Sri Lanka.

One of the important characters observed in the economy of Sri Lanka has been the relatively high economic growth rates in out-ward oriented economic policy regimes in comparison to in-ward looking policy regimes.

Table 2.2 Labour Force, Employment and Unemployment in Sri Lanka, 1990-2006

Year	Total Labour Force in Number	Labour Force Participation Rate-%	Employment			Percentage of Employment by Industry			Unemployment Rate-%		
			Rate %	Agriculture %	Industry %	Services %	Total %	Male %	Female %		
1990	6001148	51.9	84.1	47.0	19.3	33.8	15.9	11.8	23.4		
1991	5877198	49.8	85.3	42.0	21.2	36.3	14.7	10.2	23.0		
1992	5808062	48.2	85.4	42.0	19.8	38.1	14.6	10.7	22.9		
1993	6032383	49.1	86.2	41.5	19.7	38.8	13.8	9.7	21.7		
1994	6078863	48.7	86.9	39.4	19.8	40.7	13.1	9.7	20.1		
1995	6106138	47.9	87.7	36.7	22.2	41.1	12.3	9.0	18.7		
1996	6241889	48.6	88.7	37.4	21.9	40.6	11.3	8.2	17.7		
1997	6266160	48.7	89.5	39.3	24.1	39.6	10.5	7.7	16.1		
1998	6660520	51.7	90.8	39.3	21.9	36.9	9.2	6.5	14.0		
1999	6673487	50.7	91.1	41.8	21.8	41.8	8.9	6.7	13.0		
2000	6827312	50.3	92.4	36.0	23.6	40.3	7.6	5.8	11.0		
2001	6772834	48.8	92.1	32.6	23.9	43.5	7.9	6.2	11.5		
2002	7145382	50.3	91.2	34.4	22.4	43.1	8.8	6.6	12.9		
2003	7653716	48.9	91.6	34.0	23.0	43.0	8.4	6.0	13.2		
2004	8061354	48.6	91.7	33.4	24.1	42.4	8.3	6.0	12.8		
2005	7518007	48.3	92.3	30.7	25.6	43.7	7.7	5.5	11.9		
2006	7111982	51.1	93.4	33.1	26.3	40.6	6.6	4.9	9.8		

Source: Department of Census and Statistics of Sri Lanka, (1990-2006) Labour Force Survey

Table 2.3 Periodization of Development Policy Regimes in Post Independence History of Sri Lanka

Policy Period	Policy Regimes	Average growth rate of		
		Population -%	GDP-%	Per capita GDP-%
1950-55	Colonial Policy	2.7	4.3	1.6
1956-65	First Wave of ISI Policy	2.6	3.2	0.6
1966-69	Partial Outward-looking Policy	2.4	5.5	3.1
1970-77	Second Wave of ISI Policy	1.6	2.9	1.3
1978-06	Outward-looking Policy	1.3	4.9	3.6

Source: Ratnayake, P. (2004), *Lost Opportunities: Sri Lanka's Economic Relationship with Japan*, P.26. and Updated by using Annual Report (2006) of the Central Bank of Sri Lanka.

As a result Sri Lanka has been a good case study for a small country argument in the commercial policy regimes. As Sanderatne (2005), pointed out a small country with few raw materials, inadequate capital and technology and a very small domestic market, cannot produce quality industrial products at competitive prices. Widespread import substitution can only lead to worse balance of payments problems than those it attempts to solve by such a strategy (P.5). In this respect, economic situation in 1970s, provide good example for other small developing countries also.

Fourth feature of the economy of Sri Lankan economy has been the moderate growth rate in Gross Domestic Production during the 1950-1977 period, and substantial growth rate after the introduction of liberalized trade policies in 1977. Even if it is not numerically comparable with economic growth rates appeared in East Asian countries in recent history, achievements were substantial, when someone considers domestic and international problems faced by the Sri Lanka during this period, including domestic civil war and tsunami disaster. Sri Lanka has been the only country reached substantial economic growth while facing civil war in longer period. Statistics on national production related variables are given in the Table 2.4.

There has been a debate on reasons behind the slow economic growth

Table 2.4 Economic Growth by Decades and Semi-decades

Decade	Annual Average GDP growth-%	Semi decade	Annual Average GDP growth-%
1951-59	3.0	1951-54 1955-59	3.9 2.5
1960-69	4.7	1960-64 1965-69	4.5 4.8
1970-79	3.9	1970-74 1975-79	2.9 4.9
1980-89	4.3	1980-84 1985-89	5.4 3.2
1990-99	5.2	1990-94 1995-99	5.5 4.9
2000-06	4.3	2006	7.4

Source: CBSL, Annual Reports of Various Years.

rate appeared in Sri Lanka before 1977. Some people believe that implementation of free education policy, free health policy and provision of nutrition subsidies for poor people made additional burden on government budget in Sri Lanka during that period. As a result, government implemented export taxes on primary products and attempts made to regulate income and consumption of the rich people in the country. This situation became worse during the 1970-1977 period. However, as pointed out by Sen (1981) and many others, substantial investment in human capital during this period caused to develop social development level in Sri Lanka in later years. As shown in the Table 2.5, social development in Sri Lanka is quite impressive during the early stage of development.

One important advantage of the high social development level has been the low population growth rate since early 1970s. As a result, first, Sri Lanka has been showing the highest per capita income level among the South Asian countries. Second, according to the World Bank classifications, Sri Lanka was able to move from Low Income Country Group to Lower-middle Income Country Group since 1997.

Sri Lanka was the first country to enter into lower-middle country

Table 2.5 Some Demographic Information about Sri Lanka, Value and Rank of Human Development Index

Year	Birth Rate (per '000)	Death Rate (per '000)	Infant Mortality (per '000 Live births)	Life Expectancy at Birth		Value of (rank) HDI
				Male Years	Female	
1990	20.8	6	19.3			0.694
1991	21.7	5.8	17.7			
1992	21.5	5.9	17.9	69.5	74.2	
1993	20.8	5.7	16.3		-	
1994	20.8	5.9	16.9		-	
1995	19.9	6	16.5		-	0.714
1996	19.5	7	17.3		-	
1997	18.8	6.4	15.9	70.7	75.4	
1998	18.2	6.2	14.1		-	
1999	18.1	6.3	13.4		-	
2000	18.4	6.1	13.3		-	0.735
2001	18.9	5.9	12.2		-	
2002	19.1	5.8	11.2	71.7	76.4	0.740
2003	18.9	5.9	11.2		-	
2004	18.5	5.8	11.0		-	
2005	18.1	6.5	11.0		-	

Source: Source: CBSL, Annual Report, and UNDP, Human Development Reports in Various Years

category from South Asia. In order to understand these movements, GDP figures for South Asian countries during the past few decades have summarized in Table 2.6. As we have already discussed one of the most important factors behind the differences in per capita income growth rate among these countries, have been the population growth rate differences. Sri Lanka recorded the lowest population growth among these countries during the entire post independent period.

Fifth important character of the economy of Sri Lanka is very large services sector while experiencing a declining share of agricultural sector both in terms of output and employment. Table 2.7 summarizes statistics on sectoral composition of GDP in 1950, 1977 and 2005. Services sector expansion in Sri Lanka has been accelerated since introduction of the

Table 2.6 Per Capita GDP in Selected South Asian Countries*, 1990-2005

	1970	1980	1990	2000	2001	2002	2004
Sri Lanka	183	273	469	881	826	858	1,355
India	107	245	361	460	473	478	797
Pakistan	88	286	366	502	467	512	830
Bangladesh	78	144	294	363	364	376	451
Nepal	76	139	198	241	245	241	339
Bhutan	-	-	173	657	685	740	1254

*Since total population of the Maldives is very small, we excluded it from our analysis. All Values are in US\$

Source: World Bank, World Development Report publishes in Various Year &

liberalized trade policies in 1977. Agricultural sector share in the GDP has declined from 46.3% from 1950 to 17.2% in 2005. Meanwhile a substantial expansion was recorded in the services sector. Services sector contribution to GDP remarkably increased from 36.9 % in 1950 to 55.8 % in 2005. Services sector has not only been the largest sector in the economy, but also has been the main contributor to the GDP growth during the past few years. For example, services sector contributed to GDP growth by 59.3%, while that of Agricultural (4.4%), and manufacturing (36.3%) sectors were less than half of the GDP growth in 2005. Wholesale and retail trade item has been the highest contribution sector to the GDP in recent past. (see Karunaratne 2003/2004. and Kelegama 2001 for more details about services sector expansion and its impacts on the economy of Sri Lanka).

Table 2.7 Sectoral Composition of GDP and Employment*

Sector	1950	1977	2005
1. Agriculture	46.3	30	17.2(30.7)
2. Manufacturing	19.6	28.7	27.0(24.5)
3. Services	36.9	40.6	55.8(44.8)
3.1. Wholesale			21.6
3.2. Transportation			15.5
3.3. Real estate & financial			11.7

*Employment figures are in within brackets.

Source: CBSL, Annual Reports of Various Years.

Sixth important character of the economy of Sri Lanka has been the growing regional income inequality since introduction of the liberalized trade policies since 1977, and expanding regional diversity of the production structure. In order to elaborate this character, statistics on industrial structure of Sri Lanka by province is presented in Table 8 and land share and population shares by province is presented in Table 9. By using data available from Report on Consumer Finances and Socio-economic Surveys conducted in 2003/2004, Lorenz curves for nine provinces in Sri Lanka are drawn Figure 2.1. As depicted in Table 2.8 and 2.9 almost 50 per cent of GDP is contributing from the Western Province of Sri Lanka and its services sector share was as high as 32 percent of the total production of Sri Lanka. Since labour migration from the Western Province to other countries has been the highest, it is possible to assume that contribution of international migration (through remittances) to regional disparity in production and consumption as sizable one in Sri Lanka. With respect to widening regional income inequalities in Sri Lanka, Karunaratne (2007a), and (2007b) provide comprehensive analysis.

Table 2.8 Regional and Sectoral Shares of GDP in Sri Lanka, 2004

% Share of Gross Domestic Production				
Province	Agriculture	Industry	Services	GDP
1. Western	1.68	16.00	32.02	49.70
2. Southern	3.47	1.67	4.16	9.30
3. Sabaragamuwa	1.73	1.81	2.61	6.14
4. Central	2.83	1.54	4.45	8.82
5. Uva	2.17	0.60	1.66	4.42
6. Eastern	2.25	1.30	1.94	5.48
7. North Western	2.47	3.00	4.00	9.47
8. North Central	1.66	0.33	1.96	3.94
9. Northern	0.78	0.18	1.75	2.72
10. Sri Lanka	19.03	26.41	54.56	100.00

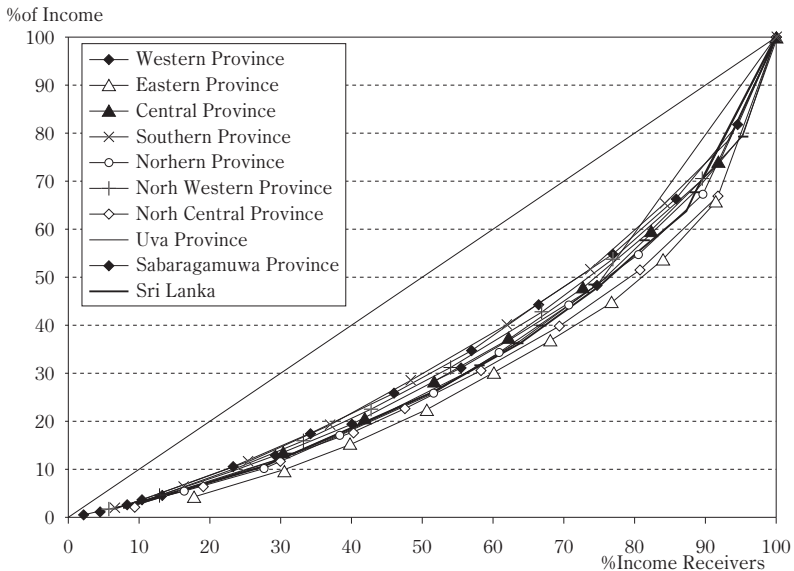
Source: Karunaratne (2007b).

Table 2.9 Provincial Land Share, and Population Share in Percentage

Province	Land Share	Population Share							
		1946	1953	1963	1971	1981	1996	2001	2004
Western	5.7	28.2	27.3	26.8	26.8	26.4	25.7	28.6	28.4
Southern	8.6	14.4	14.1	13.5	13.1	12.7	13.0	12.2	12.1
Sabaragamuwa	7.8	11.2	11.0	10.6	10.3	10.0	9.7	9.6	9.5
Central	8.9	17.1	16.6	16.0	15.4	13.5	12.7	12.9	12.9
Uva	13.3	5.6	5.8	6.2	6.4	6.2	6.2	6.3	6.3
Eastern	14.9	4.2	4.5	5.2	5.7	6.6	7.2	7.6	7.9
North Western	12.0	10.0	10.8	10.9	11.1	11.5	11.8	11.5	11.4
North Central	15.5	2.1	3.0	3.7	4.4	5.7	6.1	5.9	5.9
Northern	13.2	7.2	7.0	7.0	6.9	7.5	7.6	5.6	5.8

Sources: (i). Department of Census and Statistics, Sri Lanka, Various published documents
(ii). Central Bank of Sri Lanka(2005) Economic and Social Statistics of Sri Lanka

Figure 2.1 Provincial Level Lorenz Curves for Sri Lanka in 2003/2004

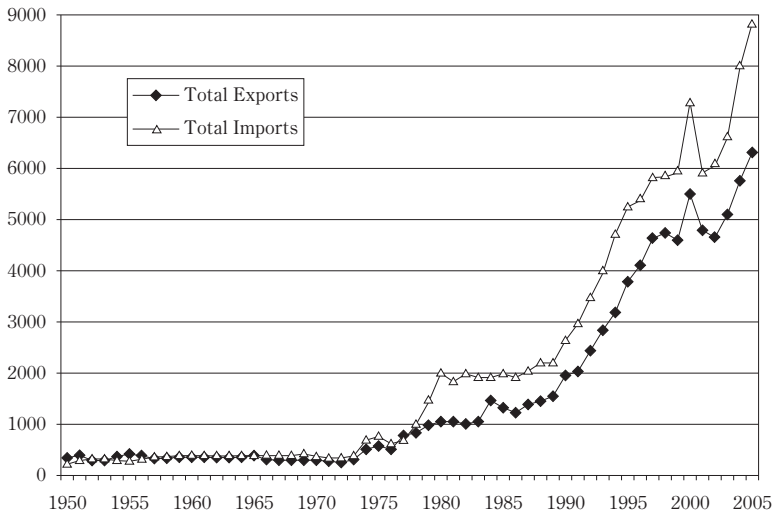


Source: Based on Author's Calculations, Data were obtained from Report on Consumer Finances and Socio-Economic Survey published by the Central Bank of Sri Lanka in 2005.

Different degrees of changes in industrial structure in different provinces after introduction of liberalized trade policies have contributed to increase provincial income inequality in Sri Lanka. In addition, widening regional gap in sources of income has also contributed to this situation.

Seventh important characteristic of the economy of Sri Lanka is that the growth and diversification of the international trade activities during the past few decades. In order to understand trends of total exports and total imports of Sri Lanka during the past five decades, absolute values in US dollar terms have been plotted in Figure 2.2. As shown there in, the both variables have shown remarkable growth since 1978. However, the value of imports has been higher than the value of exports after the introduction of open door policies in 1977. Widening trade gap has been financed by utilizing remittances from migrant workers, official development assistance

Figure 2.2 Total Exports and Imports of Sri Lanka in US Dollar Terms



Source: Central Bank of Sri Lanka (2006), Annual Report 2005

given by some countries and loans obtained from international organizations and some donor countries such as Japan, USA, Republic of China, countries in EU and East Asian region. Promotion of Foreign Direct Investment (FDI) has been one of the main objectives of the trade liberalization programs in Sri Lanka.

However, this was not realized to the expected level due to widely known internal civil war in Sri Lanka, rapidly increasing cost of production, shortage of domestic raw materials, quota issues in garment industry, limited capacity in domestic market, and competition came from the newly liberalized countries such as India, china, Vietnam and Bangladesh.

Table 2.10 and present statistics on export structure of Sri Lanka during the post independence period. Export Structure of Sri Lanka has undergone significant diversification during the concerning period. Especially, agriculture contributed to 94 percent of total exports in 1950 and that has decline to only 17 percent in 2005. Eventhough quantity of tea export has been continuously increasing, declining price of primary product in the world market caused to decline agricultural share in the total exports of Sri Lanka. On the other hand category of industrial goods increased from 14 percent to 78 percent from 1977 to 2005. Rapid expansion of garment

Table 2.10 Export Structure of Sri Lanka, 1950, 1977, 2005

All figures are in percent of total exports

Export Categories	Items	1950	1977	2005
1. Agricultural Commodities		94	79	18
	Tea, rubber, coconut	94	74	17
	Other agricultural products		5	4
2. Industrial goods			14	78
Textiles & Garments			2	46
	Petroleum		9	2
	Other Industrial		3	30
3. Others-Minerals		6	7	4

Source: CBSL, Annual Reports of Various Years.

industry after introduction of trade liberalization policies was the main reason behind this phenomenon.

Expansion of Garments industry in Sri Lanka has vividly captured by Kelegama (2004b) as follows:

“Since the late 1970s, Sri Lanka’s garment sector has grown rapidly and by 2001 the sector contributed approximately 51 per cent of export earnings, 44 percent of industrial output, and provided employment for roughly 6 per cent of total labour force.” (P.6). The expansion of garments industry can be considered as one of the main reasons behind the rapid decline in unemployment rate in Sri Lanka during the past few decades. Especially, as we have seen from data given in Table 2.2, female unemployment rate has significantly declined from 23.4 percent in 1990 to 9.4 percent 2004. Apart from the foreign employment opportunities, garment sector played a crucial role in this regard. However, there are some criticisms with respect to garment sector as high dependency on imported raw materials, lack of linkages with other parts of the economy, and labour exploitation by paying very low wages for females and high wages for white collar workers etc. Table 2.11 presents data on import structure of Sri Lanka in selected years from 1950 to 2005. Import structure of the country has also diversified remarkably during the past fifty-five years. Importation of consumer goods contributed to 57 percent of total imports in 1951, and it has come down to the level of 19 percent in 2005. Especially, as a result of various agricultural development programs undertaken by the Government of Sri Lanka, domestic production of rice increased to the level of self sufficiency during this period. Meanwhile, importation of intermediate goods such as oil, gas, fertilizer and chemicals for agriculture and raw materials for garment industry increased from 18 percent in 1951 to 60 percent in 2005. This has been mainly due to

increasing domestic crude oil consumption and escalating raw materials importation for garment industries. However, there has been a sizeable fluctuation in importation of investment goods to the country. Importation of vehicles has been the only steadily growing item within the category of investment goods.

Apart from above mentioned characteristics, trends in imports and exports, behavior of trade dependency ratio have shown very peculiar pattern during the post independence period. The total value of exports and imports as a percentage of GDP often cited as trade dependency ratio. Sri Lanka's trade dependency ration has been declining from 71.4 percent in 1950 to 27.7 percent in 1972. However, it has been marginally increasing during the 1973-1977 period. The increase of trade dependency ratio from 36.5 percent in 1977 to 68.9 percent in 1978 was a remarkable changed achieved by trade liberalization. Thereafter, it was fluctuating and reached the maximum value as 86.6 percent in 2000. The openness in Sri Lanka has been widening in year by year during the past few decades. As a result, Sri Lanka became the most liberalized country in South Asia. Therefore, it is

Table 2.11 Import Structure of Sri Lanka 1951, 1977, 2005

All figures are in percent of total exports

Import Categories	Imported items	1951	1977	2005
1. Consumer goods		57	42	19
	Food	45	36	9
	Rice	15	15	0
	Other consumer goods	12	6	10
2. Intermediate goods		18	44	60
	Textiles		3	17
	Petroleum		23	19
	Other Intermediate		22	24
3. Investment goods		26	13	21
4. Unclassified		0	1	1

Source: CBSL, Annual Reports of Various Years.

worth to evaluate wage behavior during the past few decades in Sri Lanka.

3. Trade Liberalization and Labour Income Inequality in Sri Lanka

This section is devoted to present an overview of labour income inequality by gender, employment sector, industry and occupation in Sri Lanka in 2004. Data available in latest Consumer Finances and Socio-economic survey is used to explain labour income inequality in above-mentioned three dimensions. Data on monthly average income from main occupation by sector and gender in Sri Lanka is given in Table 3.1. Trends and causes behind these data were interpreted by the Central Banak of Sri Lanka (2005) as follows: “It was seen that in both the formal private sector and informal private sector, the mean income of males was higher and over twice that of females. It should be noted , however, that the male-female difference in the mean income form any sector can be arise due to two reasons, namely, (i). different wages paid for the same job/skill, and (ii). Different wages paid for different jobs/skills within the same occupation. Hence the difference in gender-wise mean incomes recorded in even the

Table 3.1 Monthly Average Income from Main Occupation by
Employed Sector and gender in Sri Lanka, 2003/2004

Employment Sector	Male	Female	All	Male income as % of Female income
	in Sri Lanka Rupees			
1. Government	10,863	9,817	10,463	111
2. Semi government	11,635	7,236	10,527	161
3. Formal Private Sector	11,805	5,370	9,000	220
4. Informal Private Sector	7,248	3,337	6,406	217
Total	8,370	5,036	7,455	166

Source: Central Bank of Sri Lanka (2005) The Consumer Finances and Socio Economic Survey Report 2003/2004.

government sector, which is an equal opportunity employers and does not discriminate gender-wise in its wages structure, reflected the different levels of jobs handled by males and females in all employment sectors.” (CBSL, 2005, P. 166 and 117).

Table 3.2 presents data on distribution of income receivers and one month occupation income levels by production sector in Sri Lanka. As depicted in data given in Table 3.2, income receivers belonging to agricultural sector was 29.4 percent and their average monthly labour income was 4,449 Rupees in 2004. However it was only 60 percent of national average income in the same year. Contrary, percentage of income receivers in manufacturing sector was 27.5 and their average income was

Table 3.2 Distribution of Income Receivers and One Month Occupation Income Levels by Production Sector in Sri Lanka in 2003/2004

Production sector	% of Income Receivers	Income Receivers Average Income in Rupees	% of Income From national average income
1. Agriculture, Forestry, Fishing	29.4	4,449	60
Agriculture	27.6	4,353	59
Forestry	9.4	6,267	85
Fishing	1.4	5,842	79
2. Industry	27.5	7,313	99
Mining and quarrying	1.3	6,103	82
Manufacturing	18	7,008	95
Electricity, Gas and water	0.6	15,214	205
Construction	7.5	7,650	103
3. Services	40.6	9,846	133
Trade, Hotels & Restaurants	15.3	10,071	136
Transportation & communication	7.7	9,968	135
Financial services	3	13,631	184
Public administration	14.6	8,771	118
4. Activities not defined	2.5	3,601	49
All	100	7,405	100

Source: Central Bank of Sri Lanka (2005) The Consumer Finances and Socio Economic Survey Report 2003/2004

7, 313 Rupees. It was more or less same value with national average figure. Interestingly, income receivers belong to service sector represented 40.6 percent while their average monthly income was recorded as 9,846 Rupees in 2004. It was a 133 percent of national average monthly income. Therefore, as a result of trade liberalization workers associated with the expanded service sector were better-off while workers in agricultural sector suffered with low monthly average income in Sri Lanka. Since urbanization and service sector employment rates have been very slowly changing, income inequality has been widening. in Sri Lanka during the past three decades.

Average monthly mean income by gender and occupation category is given in Table 3.3. The highest male-female average labour income gap was recorded among income receivers in occupation category of legislators, senior officials and managers. Male average labour income was more than twice in comparison to female average income in those occupational categories. Further, average labour income of the females in occupation categories in professionals, craft and related works, and elementary occupations has been substantially lower than the males in those categories.

According to above analysis it was possible to understand widening labour income inequality by gender, occupation, and production sector in Sri Lanka. However, above analysis was depended on labour income data available in from the consumer finances and socio-economic data. Since micro-data can be questioned at macro angle, attempts made to use existing macro level time series data to provide a similar kind of analysis in next section. After defining simple concepts relevant to labour, importance of wage income for Sri Lankans is explained in the initial part of the section 4. The latter part of section 4 presents analysis wage inequality by sectoral

Table 3.3. Distribution of Income Receivers and One Month Labour Income Levels by Main Occupation and Gender in Sri Lanka. 2003/2004

Main Occupation	Male		Female		All		Male income as % of female income
	% of Income Receivers	Mean income in Rupees	% of Income Receivers	Mean income in Rupees	% of Income Receivers	Mean income in Rupees	
1. Legislators, Senior Officials & Managers	10.3	18,408	7	8,252	9.3	16,352	223
2. Professionals	3.4	15,192	12	9,350	5.8	11,870	162
3. Technicians & Associate Professionals	5.8	13,491	6	8,247	5.8	12,027	164
4. Clerks	3.4	9,821	8	7,895	4.6	8,921	124
5. Service Workers and Sales Workers	7.5	7,985	5	5,481	6.6	7,516	146
6. Skilled Agricultural & Fishery Workers	20.8	5,470	20	2,707	20.6	4,728	202
7. Craft and Related Workers	15.6	7,526	19	3,096	16.6	6,125	243
8. Plant and Machine Operators	9.0	8,735	7	5,035	8.5	7,872	173
9. Elementary Occupations	23.7	4,335	17	2,949	21.8	4,044	147
10. Armed Forces	0.6	12,106	0	10,105	0.5	12,051	120
11. Unidentified	0.1	3,629	0	2,275	0.0	3,291	160
12. All	100.0	8,311	100	5,019	100.0	7,405	166

Source: Central Bank of Sri Lanka (2005) The Consumer Finances and Socio Economic Survey Report Part 1, 2003/2004.

industry, occupational and gender at macro level in Sri Lanka.

4. Trade Liberalization and Wage Inequality in Sri Lanka

Wage is defined as a reward for labour in less than one month period, say for hourly basis or weekly basis. If wages are paid on monthly basis, it is called as salaries. However, this paper considers both as wages. There are various concepts relevant to wages in economics. Nominal absolute wage is the widely known simple concept. It is the financial reward for physical or mental labour within a given time period. Although, in modern societies, majority of the people receive wages in nominal terms, some people, particularly in agricultural societies, receive at least part of wages in kind. When people receive wages in kind, inflationary impact is excluded and it is easy to measure the living conditions by using it. However, for the comparison purposes it is possible to use nominal wages by converting into relative wages. Relative wages can be defined as wages of an individual, a firm or an industry with respect to others. The most common form of comparison is taking place with the real wages, which are calculated by eliminating price increases in the nominal wages. Real wages can be used to compare across the units, place or time.

Nominal wages are determined as a result of individual and collective negotiations between the employees (and their representatives) and, the management (and the owners) of firms. However, in public bodies, laws and negotiations decide wages. Firms and organizations pay wages to employees usually depending on working time and/or on results (production made or objectives reached). Nominal wages often depends on occupied position in the organization as well as on education level, cumulated experience and seniority, labour productivity level, profitability of the firm,

sales and employment perspectives of the firm, past and forecasted inflation trends, existing laws, rules and regulations, strength of the labour unions, etc. However, for certain jobs in advanced countries, international levels of wages and immigration may be additional determinants, with a large pool of emigrants being the source of international remittances, on the one hand, and downward pressure on current domestic wages in advanced countries, on the other.

It may be useful to set out why it is essential to investigate wages and earnings in Sri Lanka. First, Sri Lanka as a labour abundant country and it has followed a various types of economic policies during the past fifty-nine years to absorb surplus labour to industrial sector production process. It is important to see how wages have changed for different groups of people during this period. Attempts have been made to investigate wage behavior in terms of industry, male-female, and skill levels in formal and informal sectors during the past decade. Second, since there has been a substantial male-female unemployment rates gap in Sri Lanka during the entire period concerned, it is essential to investigate causes behind the trends of male-female wage inequality by sector and occupation wise in Sri Lanka. Third, trade liberalization policies have been utilizing since 1970s in Sri Lanka. Under these policies, privatization process and deregulation activities have been taking place and foreign investment projects were accepting. Therefore, it is worth while to investigate the trend, determinants and structural changes in various concepts relevant to wages in Sri Lanka during this period. Finally, since construction sector has been a volatile sector after the introduction of trade liberalization in Sri Lanka, it is important to investigate wage behavior that sector by skill levels, However, lack of literature and micro level data are two main obstacles to undertake rigorous study on wage behavior in Sri Lanka. However, by

using available secondary data, this section investigates two dimensions of wage behavior in Sri Lanka. First, wage behavior in formal institutions affiliated to government and private sector in nominal and real terms are investigated. Second, informal sector wage behavior is investigated with the help of selected industries and occupational categories from mid 1980s to 2005.

Table 4.1 presents the data regarding minimum nominal wage index and real wage index for formal sector in Sri Lanka. These data were obtained from the Annual Reports of the Central Bank of Sri Lanka for 1990-2002 periods. By using these data, the following features of wage behavior can be observed in formal sector in Sri Lanka. First, irrespective of the industry or sector, minimum nominal wages has substantially increased during the post 1977 period. As shown in the minimum nominal wage rate columns in Table 4.1, it has increased more than three times during 1990-2002 periods. There were several reasons behind this significant growth in nominal wages. First and the most important reason has been the existence of double digit inflation rate in Sri Lanka since 1978. This has been due to large expenditure and substantial budget gap in the government sector. On one hand, each and every government budget proposed higher wages for all government sector employees in almost every year, and urged private sector organizations also to be par with government wage increases. On the other hand, as a result of high inflation rate, employees were lobbying for higher wages by taking union actions and subsequently increases in nominal wages led to increase price level repeatedly. As a result of these activities, there has been a nominal wage-price spiral in Sri Lanka during this period. Second, both import prices and import volume have been increasing while export sector recording a very slow growth since later 1970s. One of the main reasons for this situation is

Table 4.1 Wage Rate index Number - 1978 December = 100

Year	Workers in Wages Boards						Government Employees									
	Workers in Agriculture (a)		Workers in Industry and Commerce (b)		Workers in Services (c)		Workers in Wages Boards Trades (d)		All Non Executive officers		All Minor Employees		All Central Government Employees		Government School Teachers	
	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)	Min. Wage Rates Index (b)	Real Wage Rates Index (b)
1990	517	123	380	90	268	64	454	108	440	104	514	122	477	113	405	96
1991	578	122	460	97	337	71	519	110	488	103	582	123	535	113	445	94
1992	664	126	511	97	366	70	590	112	507	96	610	116	558	106	462	88
1993	804	137	529	90	366	62	686	117	622	106	728	124	676	115	567	96
1994	822	129	556	87	431	68	712	112	693	109	772	121	736	115	596	93
1995	831	121	652	95	457	67	740	108	749	109	828	121	793	115	761	111
1996	908	114	683	86	487	61	802	101	757	95	879	111	818	103	761	96
1997	972	111	711	81	487	56	849	97	843	97	967	111	907	104	779	89
1998	1098	115	808	85	506	53	953	100	960	101	1029	108	1001	105	806	84
1999	1116	112	829	83	560	56	978	98	960	96	1029	103	1001	100	806	81
2000	1143	108	857	81	560	53	1000	94	1031	97	1126	106	1085	102	865	81
2001	1176	97	920	76	658	54	1049	87	1226	101	1388	115	1311	108	1027	85
2002	1270	96	987	74	678	51	1127	85	1410	106	1637	123	1525	115	1180	89

Source: <http://www.cbsl.lk/cbsl/index.html>

high marginal propensity to import of consumer in Sri Lanka. When income of a consumer increasing, substantial proportion of it has spent on imported goods such as fuel, electricity (produced by using gas turbine), electrical equipments, building materials, fertilizer for farming, etc. Another reason was expansion of garment industry and excessive use of imported raw material of it. As a result import bill has been rapidly increasing during the past few years. Rising prices of imported goods in domestic market happened due to devaluation of value of Rupee, rising world market prices (especially oil), implementation of infrastructure and housing development projects by using imported goods, weak domestic industrial sector, mismatch between domestic production and consumer demand, etc. In order to overcome this situation and to promote exporters, government devalued the value of Rupee with respect to all major currencies. However, high domestic inflation rate led to appreciate real effective exchange rate with respect to all these currencies. Therefore, domestic high inflation rate and real effective exchange rate moved one after the other to worsen the situation in Sri Lanka.

The second important feature of the nominal wage behavior of Sri Lanka has been associated with the growth pattern of nominal wages. That pattern has differed across the sectors and different levels of government employees. For example agricultural sector minimum wages index increased from 517 in 1990 to 1270 in 2002. Further, workers in trade sector received a significant growth in nominal wages by increasing index from 454 in 1990 to 1127 in 2002. Among the government sector workers, nominal wages of the minor workers and non-exceptional workers has been increasing faster than that of the school teachers and executives. In other words, within the government sector, less educated people were relatively better-off than the more educated people. It has happened not only in

financial terms, but also in power struggle as well. This has been one of the influential factors to increase migration among educated people in Sri Lanka.

Third, on contrary to the nominal wages, real wages has been declining in almost all formal sector organizations during the past few years. The highest real wage level has been recording among the government employees due to frequent nominal wage revisions for them in the recent past. In this regards, role of labour unions in government sector enterprises have been significant. Labour unions are either professionally strong or has been linking to political decision making process through political parties. For example medical doctors working in government hospitals have the strongest labour union in Sri Lanka. Apart from that, nurses, pharmacists, and minor staff people in government hospitals, workers in Ceylon Electricity Board, Port Authority, Petroleum Cooperation have also very strong labour unions. They were undertaking labour union activities frequently to demand higher wages for them. On the other hand representing plantation workers, Ceylon Workers Congress as a labour union achieved objectives through participating political decision making at parliament. By linking to contemporary government irrespective to the ruling party and made pressure on the political decision making power to increase plantation workers nominal wages and welfare facilities since late 1970s. Contrary, employees of firms established in investment promotion zones and foreign investment projects had neither strong labour union nor political power. As a result nominal wages for garment sector workers have not much increased during the past thirty years. This situation let to create labour shortage in garment industry since late 1990s. At present around eight thousand vacancies are said to exist in investment promotion zones in Sri Lanka. On the other hand female unemployment

rate was around 10 percent and underemployment rate was around 20 percent in Sri Lanka.

Apart from the formal sector, it is important to understand wage behavior in agricultural sector and construction sector in terms of gender and skill levels. In order to investigate behavior of occupational, gender and skill level wage gaps, agricultural sector can be divided into four categories as paddy, tea, rubber, and coconuts producing sectors. Trends of average absolute daily nominal wages of each sector and wage gap in terms of gender and types of works are presented in relevant tables and figures below.

The most important feature associated with these kinds of informal employment opportunities are the male-female wage gap. Even though formal sector government and private firms does not discriminate wages by gender, male-female wage gap has been prevailing in informal sector in Sri Lanka. Especially in agriculture and construction industries different wages are paid to females even for the same job.

4. 1. Paddy Farming Sector

As indicated in data given in Table 3.5, average daily nominal wages in absolute terms had been increasing for all the categories of employees in paddy farming sector in Sri Lanka during 1986-2004 period. Apart from the category of females winnowing workers, wages of all other categories had increased by over 100 percent from 1996 to 2004.

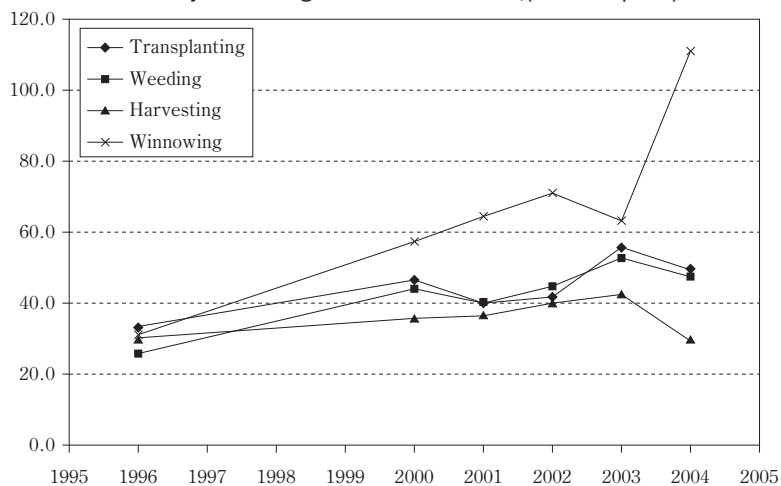
The highest wage growth was recorded among male workers employed in padding threshing activities (143 percent from 145 Rupees in 1996 to 352 Rupees in 2004). This was an indication of insufficient number of young male workers in rural sector due to various reasons. By contrast, lowest growth in absolute wage was recorded among winnowing females. As

Table 4.5 Average Daily Nominal Wages by Types of works and Gender in Paddy Farming Sector

Activity	Gender	1986	1990	1996	2000	2001	2002	2003	2004
(in Sri Lankan Rupees)									
1. Ploughing with Ploughs	Male			173	240	260	292	313	348
2. Ploughing with Mammoities	Male			-	227	244	267	297	310
3. Broadcasting	Male			152	228	253	272	295	328
4. Transplanting	Male			148	221	239	265	286	304
5. Transplanting	Female			115	175	199	23	229	254
6. Manuring	Male			147	224	245	268	288	316
7. Spraying	Male	49	82	174	262	278	306	326	373
8. Weeding	Male	37	69	141	217	234	255	274	301
9. Weeding	Female			115	173	194	210	221	253
10. Harvesting	Male	29	52	147	217	241	264	279	306
11. Harvesting	Female			117	181	205	224	236	276
12. Threshing	Male			145	224	248	271	294	352
13. Winnowing	Male			145	230	259	278	303	336
14. Winnowing	Female			114	172	194	207	239	225

Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

Figure 4.1 Trend of Average Daily Absolute Nominal Male-Female Wage Gap in Paddy Producing Sector in Sri Lanka, (in SL Rupees)



Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

depicted in Figure 4.1 below, male-female wage gap in paddy farming sector had been widening in Sri Lanka from the introduction of trade liberalization policies in 1977 to 2004. For example, occupation category called weeding in paddy sector male-female daily wage gap was only 8 rupees in 1986 and it had increased to the 48 Rupees in 2004.

4.2 Tea Production Sector

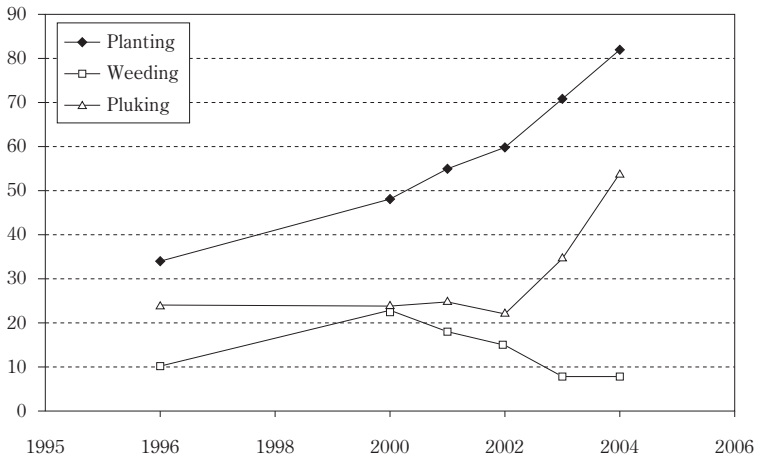
As depicted in data given in Table 4.5, average daily nominal wages in absolute terms had been increasing for all the categories of employees in tea production sector in Sri Lanka during 1986-2004 period. Wages of all categories had increased by over 100 percent from 1996 to 2004. The highest wage growth was recorded among female workers employed in weeding activities (126.5 percent from 98 Rupees in 1996 to 222 Rupees in 2004), followed by male workers in the same occupation. This is an indication of labour union actions in tea producing sector. By contrast, lowest absolute wage growth was recorded among male workers preparing

Table 4.6 Average Daily Nominal Wage Rate by Sex in Tea Production Sector

Activity/ Type of Labour	in Sri Lankan Rupees							
	1986	1990	1996	2000	2001	2002	2003	2004
(1) Male Wage Rate								
1. Preparation of Land			136	206	233	247	276	290
2. Planting	34	60	139	210	230	250	281	307
3. Manuring			139	210	234	250	267	298
4. Weeding			129	187	216	235	259	290
5. Pruning			171	251	283	292	312	346
6. Plucking	30	52	117	163	188	199	221	254
(2). Female Wage rate								
1. Planting	26	49	105	162	175	190	210	225
2. Weeding			98	148	170	178	198	222
3. Plucking	26	44	93	139	163	177	186	200

Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

Figure 4.2 Trend of Male-Female Average Daily Absolute Nominal Wage Gap in Tea Production Sector in Sri Lanka,(in SL Rupees)



Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

lands for tea cultivation. As depicted in Figure 3.2 below, male-female wage gap had been widening in two occupation categories, namely weeding and planting in Sri Lanka from 1996 to 2004. For tea plucking works this gap had increased from 4 Rupees to 54 Rupees during the same time period

4.3 Rubber Production Sector

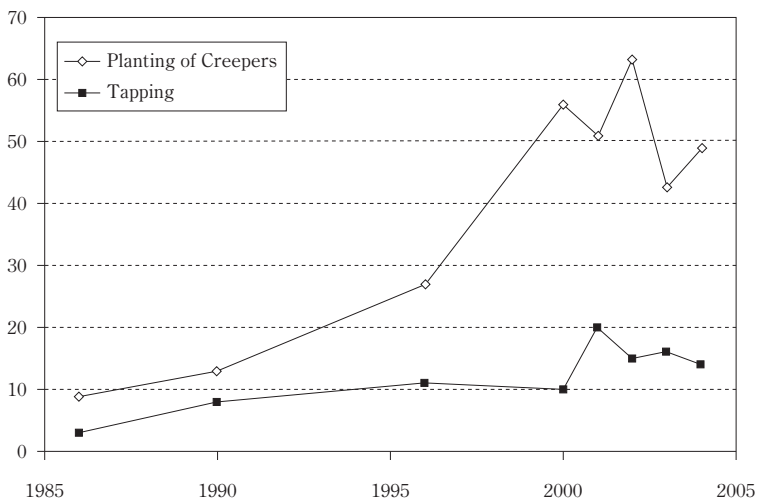
As reflected in data given in Table 4.5, average daily nominal wages in absolute terms had been increasing for all the categories of employees in rubber production sector in Sri Lanka during 1986-2004 period. Wages of all categories had increased by over 100 percent from 1996 to 2004. The highest wage growth was recorded among female workers employed in weeding activities (126.5 percent from 98 Rupees in 1996 to 222 Rupees in 2004), followed by male workers in the same occupation. This is an indication of labour union actions in tea producing sector. By contrast,

Table 4.7 Average Daily Nominal Wage by Sex
in Rubber Production Sector

Activity/ Type of Labour	Average Daily Wage in Sri Lankan Rupees							
	1986	1990	1996	2000	2001	2002	2003	2004
(1). Male Wage Rates								
1. Uprooting and Cleaning			157	231	255	279	287	311
2. Planting			147	235	266	278	286	317
3. Planting of Creepers	35	63	142	237	262	276	291	321
4. Pruning			143	235	259	280	282	316
5. Manuring			143	230	253	278	281	313
6. Spraying			146	250	268	285	282	312
7. Tapping	32	54	110	129	146	161	185	207
(2). Female Wages Rate								
1. Planting of Creepers	26	50	115	181	211	213	248	272
2. Tapping	29	46	99	119	126	146	169	193

Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

Figure 4.3 Trend of Average Daily Absolute Nominal Male-Female Wage Gap in Rubber Production Sector in Sri Lanka, (in SL Rupees)



Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

lowest absolute wage growth was recorded among male workers in rubber tapping activities.

As depicted in Figure 4.3 below, male-female wage gaps both in terms of planting of creepers and tapping occupation categories were widening during the concerning period. For example, male-female wage gap in planting of creepers was only 9 Rupees in 1986 and that has widening to the level of 49 Rupees in 2004.

4.4. Coconut Production Sector

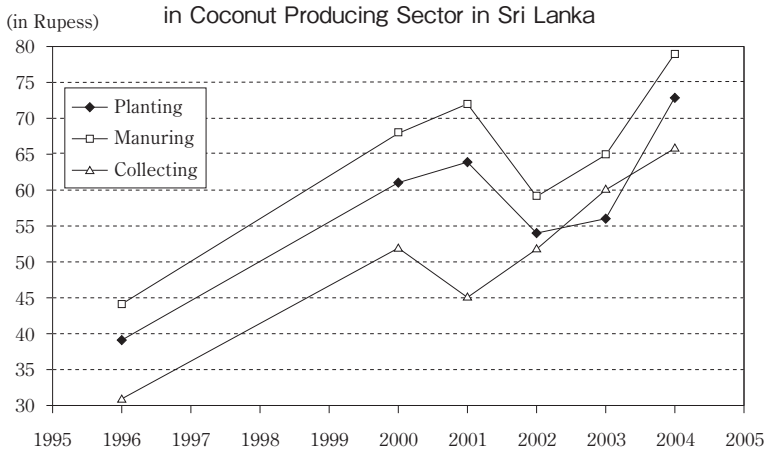
Average daily nominal wages by types of economic activities and gender in coconut production sector in Sri Lanka is given in Table 4.8. Apart from male workers occupational categories called digging pits, manuring, and husking, all other occupational categories have shown more than 100 percent growth in daily nominal wages during period. The highest growth in nominal wages was recorded in female employment category called collecting of nuts. Since garment sector has been attracting for unskilled

Table 4.8. Average Daily Nominal Wages by Sex in Coconut Production Sector

Activity/ Type of Labour	Average Wage Rate in Sri Lankan Rupees							
	1986	1990	1996	2000	2001	2002	2003	2004
(1). Male Wage Rates								
1. Digging Pits			177	264	309	324	332	336
2. Planting			157	232	266	281	293	315
3. Manuring			162	242	272	286	297	319
4. Plucking	56	90	202	359	401	420	410	465
5. Collecting nuts	34	60	133	210	241	255	269	286
6. Husking			195	286	309	324	338	366
(2) Female Wage Rates								
1. Planting			118	171	202	227	237	242
2. Manuring			118	174	200	227	232	240
3. Collecting nuts	26	47	102	158	196	203	209	220

Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

Figure 4.4 Trend of Average Absolute Nominal Male-Female Wage Gap by Type of Occupation



Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

females in rural sector during this period, coconut producers had to pay higher wages for even unskilled labour categories. The lowest wage growth has been associated with the occupation category of digging pits. This category has shown a seasonal performance during the entire period. It was undertaking only in some seasons in every year. People who engaged in other activities in the coconut land participate for activity called digging pit. Therefore, it has not been hard to attract labour for such activities.

As shown in the Figure 4.4, male-female wage gap has been increasing in three occupation categories namely, planting, manuring and collecting in coconut production sector in Sri Lanka during the concerning period. Eventhough coconut production sector male-female wage gap has shown slightly declining trend during the 2001-2002 period, it has grown steadily thereafter.

4.5. Construction Sector

After introduction of liberalized trade policies, construction sector has been emerging as one of the leading sectors in the economy of Sri Lanka. It's annual growth rate in terms of investment, production, employment creation, utilization of imported raw materials and price level has been substantially contributing to determine the national trends of those variables. Since male workers dominates the construction activities and skill level matters to determine wage gap, it is important to investigate wage differences in construction sector by skill related variables rather than the gender related variables. Average daily wages in construction sector by workers level of skills is given in Table 3.9 below. Over 100 percent wage growth was associated with all categories of workers, while the highest wage growth has been associated with the unskilled workers, followed by skilled workers and the lowest rate was among the master workers. This behavior has been seen in both carpentry and masonry works. It has been a reflection of shortage of unskilled and skilled workers in construction sector in Sri Lanka. On one hand, working as an unskilled worker in construction sector in abroad has been far profitable than the

Table 3.9 Average Daily Nominal Wages by Skill Levels in Construction Sector in Sri Lanka

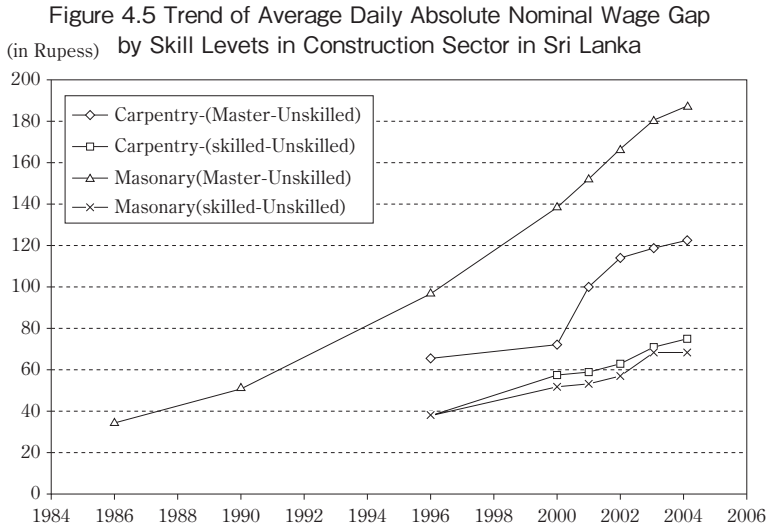
Activity	Type of Labour	1986	1990	1996	2000	2001	2002	2003	2004
		(in Sri Lankan Rupees)*							
1. Carpentry	Master	75	121	234	324	402	440	474	506
	Skilled			169	253	303	328	357	385
	Unskilled helper			132	197	246	267	287	312
2. Masonry	Master	72	115	227	335	397	433	466	499
	Skilled			168	248	297	324	353	380
	Unskilled Helper	37	65	131	197	245	268	286	313

* Exchange rate was 100 yen = 95 Rupees in Sri Lanka in 2004

Source: Central Bank of Sri Lanka (2006) Economic and Social Statistics-2005

domestic construction sector in Sri Lanka. On the other hand, expanded job opportunities in armed forces, and transportation sector (specially, Three-wheel taxis) for male workers led to increase labour shortage in unskilled worker category. In addition, long-term improvements in education levels caused to increase the mismatch between young males and job opportunities in construction sector in Sri Lanka.

Another important feature associated with data given in Table 3.9 has been the widening of wage gap among skilled and unskilled workers in construction sector in Sri Lanka. In absolute terms, daily average nominal wage gap between master carpenter and unskilled helper was 28 rupees in 1986 and that has increased to the level of 193 Rupees in 2004. The situation was more or less similar among unskilled workers and other professional workers like master masonry, electricians, designers or architects. This phenomenon was visible due to several reasons. First, construction industry in Sri Lanka has shown significant growth momentum after later 1970s in Sri Lanka. It has recorded a more than 7 percent per year and its share has increased from around 3 percent to 6 percent in GDP. As a result, demand for professionals, master workers and other trained people have tremendously increased in Sri Lanka. However, Supply of these types of labour has not been increased to that level. Second, professional and skilled people in construction sector had an opportunity to migrate as contract workers to Middle East countries since late 1970s. Third, education expansion led to reduce school drop out ratio in Sri Lanka. Usually people educated less than high school level move into those types of professions. The ratio of them has been declining while alternative job opportunities such as security forces, petty trading, and services sector have been expanding for less educated people in Sri Lanka. As a result, there has been a supply side shortage for training in professionals to



construction sector in Sri Lanka. Trends of wage gap among master-unskilled, master-skilled and skilled-unskilled workers in carpentry and masonry works are plotted in Figure 4.5. The highest growth in the wage gap has been associated with master-unskilled categories of the masonry activities in construction sector in Sri Lanka during the entire period concerned. One of the main reasons behind this situation has been the increasing demand and supply for luxury and semi luxury housing sub-sectors in Sri Lanka. Those two industries require master and skilled workers than the low-income housing programs. It is widely accepted that after 1989, there has been severe bias towards the luxury and semi luxury housing development in Sri Lanka. Finally wage behavior in Sri Lanka has not been favorable for educated people, less educated people, males or other group. It was favorable for strong labour union members, people who could influence on political decision making and limited number of professionals in

some fields or industries. The objective of labour union actions have been changing from higher absolute wages to reduction of wage gap with union members and other professions during the past three decades. Pay for performance or pay for labour productivity is not in practice in government sector in Sri Lanka. As a result educated people are discouraged and willing to migrate to other countries. On the other hand high inflation rate leads to lower real wages and that has been acted as the major push factor for international migration, irrespective of the employed sector, skill level or profession in Sri Lanka.

5. Summary and Concluding Remarks

The aim of this paper is to analyze the impact of trade liberalization on wage inequality in Sri Lanka. In order to achieve this objective, this paper was organized as follows. Section one is allocated to explained why Sri Lanka has been a good case study to examine impact on trade liberalization on wage inequality. There are several reasons for that, namely, (i). Sri Lanka was the first country to introduce trade liberalization policies in South Asia, (ii). Until today, Sri Lanka has been the most open economy in South Asia, (iii). Sri Lanka has long-span macro-level and micro-level data set to analyze the wage behavior, (iv). Sri Lanka has been considered as a special developing country by many researchers over the long period due to relatively high human capital level in early stage of development. It was achieved through excessive government intervention (v). gender inequality is supposed to be very low level in Sri Lanka due to high level of human development achievements etc.

Since this paper is supposed to publish in a foreign journal, a comprehensive introduction on the economy of Sri Lanka was presented in section 2. Attempts were made to remind readers that Sri Lanka has been

showing several special characters, while been considered as low income country till 1997 and achieving the status of lower-middle income country thereafter. These features are: (i). Sri Lanka could experience demographic transition as early as a developing country in 1970s. (ii). trends in the labour market related variables are also special in Sri Lanka. (iii). the economy of Sri Lanka has been the using two of alternative policies (namely ISI and Outward oriented) during the various periods and sub-periods of past fifty-nine years. (iv). the economy has recorded a moderate growth rate (around 4 percent) in Gross Domestic Production during the 1950-1977 period,(v). the economy of Sri Lanka has a very larger services sector while experiencing a declining share of agricultural sector both in terms of output and employment. (vi) regional disparities have been widening in the economy of Sri Lanka since introduction of liberalized trade policies in 1977, and expanding regional diversity of the production structure. (vii). the growth and diversification of the international trade activities are substantial during the past few decades. (viii). trends in imports and exports, and behavior of trade dependency ratio have shown a very peculiar pattern during the posed liberalized period. (xi). the economy of Sri Lanka is highly depend on not the trade, FDI, foreign aid, but on remittances of migrant workers at present. (x). the cost of on-going war has been substantial and it was estimated to equal Sri Lanka's two to three years GDP in financial terms, (xi), eventhough, war has been continuing average GDP growth rate of Sri Lanka accounted to 6 percent during past six years and 7.5 percent in 2006.

Section 3 of the paper has been devoted to analyze the impact of trade liberalization on labour income inequality in Sri Lanka. By using micro data available in Consumer Finances and socio-economic surveys, it was possible to understand the reasons for widening the labour income

inequality by income receivers employed sector, gender, occupation, and production sector in Sri Lanka. Average monthly income of the income receivers was 7,455 Sri Lankan Rupees in 2004. Informal private sector income receivers' average income was lower than the overall income levels. All other three sectors recorded a relatively higher levels, of average income levels. Male-female average income gap was highest in the formal private sector. Income receivers associated with agricultural sector received only 60 percent of national average income. Contrary, income receivers in services sector earned 130 percent of national average income. Mean income of the male legislators, senior officials and managers was two times higher than the national average income and females in the same categories.

Section 4, used the longitudinal macro-level data to analyze the impact of trade liberalization on income inequality, both at national level and sectoral levels in Sri Lanka. Real wage indices indicated an increasing tendency for state sector employees, while it has been worsening for private sector employees. This was due to strong labour unions in state-own enterprises and their linkages to political parties. Contrary, relatively weak position of the private sector employees in wage bargaining process led to deteriorate their real wages. This means, real wage behavior in Sri Lanka has not followed a shape of typically liberalized developing country. Generally, real wages are rising in exporting sector in comparison to other sectors and over the long-run employees in government sector benefits the development of the economy. This has not been visible in Sri Lanka.

Finally, longitudinal analysis on sectoral wage inequality indicated an increasing wage gap among the income earners in different economic activities, gender, and skill levels in Sri Lanka. Specially, paddy farming sector, male-female daily wage gap in people work as winnowing workers

increased from 31 Rupees in 1996 to 111 Rupees in 2004. Male-female wage gap has been widening many occupational categories of with tea, rubber, and coconut producing sectors as well. Contrary, skill level has been important factor in determining the wage gap in construction sector in Sri Lanka during the entire period. Further, wage behavior in Sri Lanka has not been favorable for educated people, less educated people, males or other groups. It was favorable for strong labour union members, people who could make influence on political decision making and limited number of professionals in some privileged fields or industries. The ultimate objective of labour union actions has been shifting from higher absolute wages to reduction of wage gap between union members and non-members during the past three decades. Pay for performance or labour productivity has not been in practicing in government sector or informal private sector. As a result educated people are de-motivated and migrated to other countries. On the other hand high inflation rate led to decline real wages and that has been acted as another major (push) factor contributing for massive increase of Sri Lankan migrant workers in other countries, regardless of gender, sector, occupation, skill level or professional category of employees in Sri Lanka..

References

- Asian Development Bank (1999), *Country Briefing paper; Women in Sri Lanka*, Programs Department West, <http://www>.
- Athukirala, P. and S. Rajapathirana (2000), *Liberalization and Industrial Transformation: Sri Lanka in International Perspective*, Oxford University Press, New Delhi, India.
- Athukorala, P. (2004) Complementarity of Trade and FDI Liberalization in Industrial growth: Lessons from Sri Lanka, *A Paper Presented in the 10 years of ASARC an International Conference*, Institute of Economics and Business, Australian National University, April 2004.
- Bhalla, S. and P. Glewwe (1986), Growth and Equity in Developing Countries: A Reinterpretation of the Sri Lankan Experience, *World Bank Economic Review*, Vol. 1 No.1.
- Bigsten, A and Dick Durevall (2004), Trade Reform and Wage Inequality in Kenya, 1964-2000, *A paper presented at the seminars at the 2nd Nordic Conference on Development Economics* at Copenhagen University and the Department of Economics at Göteborg University.
- Central Bank of Sri Lanka (2005) *Annual Report, Colombo, Sri Lanka*.
- Central Bank of Sri Lanka (2005) *The Consumer Finances and Socio-economic Survey Report 2002/04*, Part I & II, Colombo, Sri Lanka
- Central Bank of Sri Lanka (2005) *Economic and Social Statistics of Sri Lanka 2005*, Colombo, Sri Lanka
- Corea, G. (1998), *50 Years of Economic Development in Sri Lanka, Independence Commemoration Lecture*, Occasional papers, 27 November, Central bank of Sri Lanka.
- Dong, X. Y (2005) Wage Inequality and between-firm Wage Dispersion in the 1990s: A Comparison of Rural and Urban Enterprises in China, *Journal of Comparative Economics*, 33, available online at [w.w.w.sciencedirect.com](http://www.sciencedirect.com).
- Heyman, F. (2005), Pay Inequality and Firm Performance: evidence from Matched Employer-employee data, *Applied Economics*, 37, pp.1313-1327.
- Isenman, P. (1980), Basic Needs: The Case of Sri Lanka, *World Development*, Vol.8, March.
- Jayawardena, L. (1974), "Sri lanka" In *Redistribution with Growth: Policies to Improve Income distribution in Developing Countries in the Context of Economic Growth*, by Hollis Chenery et.al. London: oxford University

Press.

- Karunaratne H.D, (1999) Sectoral Diversity of Income Inequality in Sri Lanka: A Disaggregated Analysis by Factor Incomes, *Regional Development Studies* 5: 1-26, Annual Journal of the United Nations Center for Regional Development (UNCRD), Japan.
- Karunaratne, H. D. (2000b) "Income Inequality among Sub-groups of Population at the Sectoral Level in Sri Lanka, 1963-1997: A Decomposition Analysis," *Forum of International Development Studies*, 16, Graduate School of International Development, Nagoya University, Japan.
- Karunaratne, H. D. (2000c) "Income Distribution in Rural Sri Lanka, 1963-1997," *The Economic Science*, Vol. 8, No.3, Graduate School of Economics, Nagoya University, Japan.
- Karunaratne, H.D. (2000d) Age as a Factor Determining Income Inequality in Sri Lanka, *The Developing Economies*, Vol. XXXVII, No.2. 211-42.
- Karunaratne, H. D. (2001) An Analysis of Long-term Income Inequality Trends in Sri Lanka, *Sri Lanka Economic Journal*, The of the Sri Lanka Economic Association, Vol.1 (2) New Series.
- Karunaratne, H.D. (2002) Gender Specific Employment Creation and Male-Female Income Disparity in Sri Lanka, *A paper presented at the First Annual Research Conference of the Faculty of Management & Finance*, University of Colombo, August 30, 2002.
- Karunaratne, H.D. (2002/2003) Globalization, Service Sector Expansion and Income Inequality in Sri Lanka, *Sri Lanka Journal of Social Sciences*, Vol, 32,
- Karunaratne, H. D. (2007a) Managing Regional Income Inequality in Sri Lanka: Lessons from Japanese Experience, *Journal of International Economic Studies*, No.21 Institute of Comparative Economics, Hosei University Japan.
- Karunaratne, H. D. (2007b) An Inquiry into the Regional Disparity in Per Capita Income and Labour Productivity: A Case of Sri Lanka, *Forum of International Development Studies*, Vo. 33, GSID, Nagoya University, Japan.
- Karunaratne, H. D. (2007c) Structural Change and the State of the Labour Market in Sri Lanka, *Kezai Serin*, , (*Journal of the Faculty of Economics*), 75 (1), Hosei University, Japan.

- Lakshman, W. D. (1997) Income Distribution and Poverty, in *Dilemmas of Development: Fifty Years of Economic Change in Sri Lanka*, ed. W.D. Lakshman. Colombo: Sri Lanka Association of Economists.
- Kelegama, S (2004a), *Economic Policy in Sri Lanka: Issues and Debates*, A festschrift in Honour of Gamini Corea, Vijitha Yapa Publications, Sri Lanka.
- Kelegama, S (2004b). *Ready-made Garment Industry in Sri Lanka: Facing the Global Challenge*, Institute of Policy Studies of Sri Lanka.
- Kelegama, S (2006), *Development Under Stress; Sri Lankan Economy in Transition*, SAGE Publications, New Delhi.
- Osmani, S. (1994), Is there a Conflict between Growth and Welfarism: The Tale of Sri Lanka, *Development and Change*, Vol.25, No.2.
- Ratnayake, P. (2004), *Lost Opportunities: Sri Lanka's Economic Relationship with Japan*, Karunaratne & Sons Ltd, Colombo, Sri Lanka.
- Ratnayake, K. (2004), *Sri Lankan Reports Reveal Widening Social Inequality*, World Socialist Website, <http://www.wsws.org/articles/2004/dec2004/sril-d24.shtml>.
- Sanderatne, N (1997), Social Development Expenditure: 1950-1995, *Upanthi*, The Journal of the Sri Lanka Association of Economists, Vo.8. No.1.
- Sanderatne, N (2005), *Development and Change: The Sri Lankan Economy 1950-2005*; The 55th Anniversary Lecture of the Central Bank of Sri Lanka, 02 September.
- Sen, A.K. (1981), Public Action & Quality of Life in Developing Countries, *Oxford Bulletin of Economics and Statistics*, Vol.43, No.1.
- Silva, W.I.D. (2003) Family Transition in South Asia: Provision of Social Services and Social Protection, Information paper for the *Meeting on Assessing Regional Implementation of Commitments from the World Summit for Social Development, 16-18 September 2003*, Economic and Social Commission for Asia and the Pacific, Bangkok.
- Simonsen, C. (2003) The Ethics of Development in a Liberalizing Sri Lanka: Effects on Women,
- World Bank (2000) *Sri Lanka: Recapturing Missed Opportunities*, Poverty reduction and Economic management Unit, South Asia Region.
- World Bank (2007) *Sri Lanka Development Forum: The Economy, Regional Disparities, and Global Opportunities*, Poverty Reduction and Economic Management Sector Unit, South Asia Region.