Poverty Indicators
Household Income and Expenditure Survey - 2006/07
Department of Census and Statistics
Ministry of Finance and Planning
Sri Lanka

Introduction

The Household Income and Expenditure Survey (HIES) which is a year long national sample survey conducted by the Department of Census and Statistics (DCS) once in about five years time since 1980/81 is the main data source for the calculation of poverty indices for Sri Lanka. The HIES 2006/07 was conducted from July 2006 to June 2007 and this issue exposes the values of key poverty indicators discovered for the period by comparing the household food and non-food consumption and expenditure data collected by the survey with the official poverty line of Sri Lanka.

Who is poor?

The poverty or poor exists where some persons fall short of reasonably defined minimum levels of wellbeing such as access to certain consumption or income levels, housing, health and education facilities and certain rights recognized according to standards of human needs and socio economic conditions of the society. Therefore a poverty line may be defined as the minimum level required acquiring by the poor to escape the poverty thereby identifying poor.

Official poverty line of Sri Lanka

Sri Lanka used several poverty lines made on different surveyed data using diverse approaches until her acceptance of the poverty line established on HIES 2002 data by the DCS as the Official Poverty Line (OPL) for Sri Lanka in June 2004. The OPL is an absolute poverty line which is fixed at a specific welfare level to compare over time with household food and non-food consumption and expenditure data hence call consumption poverty line as well and the Cost of Basic Needs (CBN) approach was used to determine its value. The surveyed household consumption expenditure values used to determine the OPL and compare with the OPL are standardized using Laspires price indexes calculated for each district using local unit prices of items most preferred (food basket) by households in survey periods. Therefore the value of the OPL is a real value which is free from effects of commodity price differences over districts.

Current poverty line

The year 2002 value of the OPL which was Rs. 1423 real total expenditure per person per month is updated for the inflation of prices through the Colombo Consumer Price Index (CCPI) calculated monthly by the DCS. According to price index values 3176 in 2002 and 4983 in 2006/07 as reported by the CCPI the value of the OPL for 2006/07 is Rs. 2233 real total expenditure per person per month.

Table 1: Real total food and non-food expenditure (average monthly per capita) and Poverty headcount measures by Sector, Province and District - Sri Lanka - 2006/07

Sector/ Province/ District	Mean real monthly total expenditure per-capita	Poverty Head Count Index	Number of poor persons	Contribution to total poverty
	Rs.	%	thousands	%
Sri Lanka	**5436**	**15.2**	**2,805**	**100.0**
Sector				
Urban	7556	6.7	184	6.6
Rural	5200	15.7	2,303	82.1
Estate	3078	32.0	318	11.3
Province				
Western	6935	8.2	471	16.8
Central	4560	22.3	573	20.4
Southern	5302	13.8	338	12.1
Eastern	4843	10.8	100	3.6
North-Western	5035	14.6	342	12.2
North-Central	5698	14.2	168	6.0
Uva	3879	27.0	346	12.3
Sabaragamuwa	3982	24.2	467	16.6
District				
Colombo	7885	5.4	125	4.5
Gampaha	6693	8.7	196	7.0
Kalutara	5499	13.0	149	5.3
Kandy	5151	17.0	230	8.2
Matale	4960	18.9	89	3.2
Nuwara Eliya	3254	33.8	254	9.1
Galle	5468	13.7	146	5.2
Matara	5205	14.7	119	4.3
Hambantota	5131	12.7	73	2.6
Batticaloa	4757	10.7	36	1.3
Ampara	4892	10.9	64	2.3
Kurunegala	4924	15.4	238	8.5
Puttalama	5251	13.1	104	3.7
Anuradapura	5754	14.9	118	4.2
Polonnaruwa	5586	12.7	50	1.8
Badulla	4172	23.7	197	7.0
Monaragala	3340	33.2	150	5.3
Rathnapura	4073	26.6	292	10.4
Kegalle	3861	21.1	175	6.2

How many poor are there? Head count

The basic measure of the poverty is the size of poor population which fall underneath the poverty line and the same is reported as incidence of poverty by Poverty Headcount Index (HCI or P0) as a percentage of total population. The HCI for Sri Lanka in 2006/07 is 15.2 percent which is 2,805 thousand persons. The HCI can mislead when it is used to compare sub domains as the size of the total population and depth of the poverty are dissimilar in different domains. For instance, according to Table 1 shown above the headcount index for Rural sector and Estate sector of Sri Lanka in 2006/07 is 15.7 percent and 32 percent respectively. However the contribution by the Estate sector to total poverty of the country is only 11.3 percent against the 82.1 percent contribution by the Rural sector.

Among provinces the Western province reported the least headcount index which is 8.2 percent and yet its high contribution to islands total poverty by 16.8 percent is behind only to Central province where 22.3 percent or 573 thousands of poor persons exist as Table 1 shows. In Nuwara Eliya and Monaragala districts one out of every three persons is poor as the two districts reported the headcount index near to 33.3 percent. Although the Eastern province reported relatively low poverty headcount it is to be noted here that some of the remote areas of the Batticaloa and Ampara districts where high existence of poverty is suspected and the total Trincomalee district of the province were unable to be covered by the survey due to prevailed conditions.

How poor the poor are? Poverty gap

The poverty gap is defined as the requirement of money (shortfall) by a poor to come out of the poverty or gap between the total consumption value of a poor and the value of the poverty line. The Poverty Gap Index (PGI or P1) is a standard measure of the depth of the poverty that averages the ratios of shortfalls to the value of poverty line over both poor and non-poor assuming zero shortfalls for non-poor and presents as a percentage.

The measure of shortfall quantifies the poverty gap in terms of money required to escape the poverty hence provide more information than headcount to poverty alleviation policy makers and assistance to precise allocation of resources. According to the average monthly shortfalls in Table 2 an average poor in Estate sector of Sri Lanka requires Rs. 434 boost to his or her monthly expenditure which is less than Rs. 452 required by an average poor in Rural sector in 2006/07. However the PGI in Estate sector is far higher than the PGI calculated for the Rural sector caused by the high density of poor reported by 32 percent of HCI in the Estate sector.

The total and average monthly shortfalls in Table 2 says in order to take the poor in the entire country out of poverty the authorities have to transfer Rs. 1,257 million monthly to the economy of the poor or work through alternative poverty reduction programmes towards increasing the household income or expenditure of poor by Rs. 448 per person on average at 2006/07 prices. Western province reported the least PGI (1.5%) but the province requires 15.3 percent of the total resources of a national poverty alleviation project to be allocated. Despite these hard calculations according to past experience and poverty alleviation experts the self migration of poor (and non-poor) to fast developing or developed areas highly contributes to the reduction of poverty in total. Therefore the focusing on development of less populated areas should not be discouraged by the status of poverty statistics of such project targeted areas. Yet the changes of statistics provide a powerful feed back about the recent development work of the project areas.

Table 2 : Poverty Gap Index and Shortfall by Sector, Province and District - Sri Lanka - 2006/07

Sector / Province/ District	Poverty gap index	Monthly Shortfall Total	Average	Contribution to total shortfall
	%	Rs. million	Rs.	%
Sri Lanka	**3.1**	**1,257**	**448**	**100.0**
Sector				
Urban	1.3	78	423	6.2
Rural	3.2	1,041	452	82.8
Estate	6.2	138	434	11.0
Province				
Western	1.5	192	408	15.3
Central	4.6	267	466	21.2
Southern	2.6	145	430	11.6
Eastern	2.1	43	425	3.4
North-Western	2.9	149	435	11.8
North-Central	2.8	74	440	5.9
Uva	6.2	177	511	14.1
Sabaragamuwa	4.9	210	451	16.7
District				
Colombo	1.0	54	428	4.3
Gampaha	1.4	70	358	5.6
Kalutara	2.7	68	456	5.4
Kandy	3.8	114	496	9.1
Matale	3.7	39	443	3.1
Nuwara Eliya	6.8	114	446	9.0
Galle	2.9	70	478	5.6
Matara	2.4	44	368	3.5
Hambantota	2.5	31	433	2.5
Batticaloa	1.5	11	318	0.9
Ampara	2.4	31	485	2.5
Kurunegala	3.1	107	451	8.6
Puttalama	2.3	41	398	3.3
Anuradapura	2.8	49	416	3.9
Polonnaruwa	2.8	25	498	2.0
Badulla	5.3	98	501	7.8
Monaragala	7.8	78	524	6.2
Rathnapura	5.3	131	447	10.4
Kegalle	4.3	80	457	6.4

How deprived the poor are? Inequality

Presence of high inequality in possession of resources and access to basic consumption needs among people or social segments is attributed to an unjust society that leads to several social conflicts. The Squared Poverty Gap Index (SPGI or P2) is the measure for severity of poverty by means of the inequality among poor. The SPGI is the self weighted (squared) average of poverty gaps taken as proportions of the value of poverty line of both poor and non-poor assuming zero poverty gaps for the non-poor. Gini coefficient which ranges from zero to one explains the total inequality of a distribution and the higher the Gini higher the inequality. Table 3 shows the most popular inequality measures of the distribution of real total consumption expenditure per-capita in 2006/07 for Sri Lanka. The Urban sector reported the lowest SPGI (0.4%) and highest Gini (0.43) among sectors. The inequality among poor as reported by the SPGI in the Urban sector is the minimum (0.4%) among sectors while the total inequality among both poor and non-poor are high as reported by 0.43 of Gini. Exactly the opposite to the above is shown by the Estate sector where non-poor also are not much far beyond the poverty line as Gini for all is low (0.26) and the inequality among poor who stay below the poverty line is high (1.8 percent of SPGI) which is the highest among sectors.

Table 3 : Squared Poverty Gap Index and Inequality measures of the distribution of real total food and non-food expenditure per-capita by Sector, Province and District - Sri Lanka - 2006/07

Sector/ Province/ District	Squared Poverty Gap Index (SPGI)	Gini co-efficient of per-capita expend-iture	Share of poorest 20 percent of total consumption	Consumption ratio of Richest 20 percent over Poorest 20 percent
	%		%	
Sri Lanka	**0.9**	**0.40**	**7.1**	**6.7**
Sector				
Urban	0.4	0.43	6.5	7.7
Rural	1.0	0.38	7.3	6.3
Estate	1.8	0.26	10.5	3.5
Province				
Western	0.4	0.41	6.7	7.2
Central	1.4	0.38	7.6	6.2
Southern	0.8	0.37	7.5	6.0
Eastern	0.6	0.33	8.6	4.9
North-Western	0.9	0.36	7.8	5.7
North-Central	0.8	0.40	6.9	6.8
Uva	2.1	0.35	8.2	5.4
Sabaragamuwa	1.5	0.34	8.6	5.0
District				
Colombo	0.3	0.42	6.6	7.3
Gampaha	0.4	0.41	7.0	6.9
Kalutara	0.8	0.38	7.3	6.2
Kandy	1.2	0.39	7.1	6.6
Matale	1.0	0.39	7.4	6.2
Nuwara Eliya	2.0	0.29	9.8	4.0
Galle	0.9	0.39	7.2	6.4
Matara	0.6	0.37	7.7	5.9
Hambantota	0.7	0.34	7.9	5.2
Batticaloa	0.4	0.32	9.1	4.5
Ampara	0.7	0.34	8.4	5.1
Kurunegala	1.0	0.36	7.7	5.7
Puttalama	0.7	0.37	7.7	5.8
Anuradapura	0.8	0.40	6.8	7.0
Polonnaruwa	1.0	0.39	7.1	6.5
Badulla	1.7	0.36	7.9	5.7
Monaragala	2.8	0.31	8.9	4.5
Rathnapura	1.6	0.36	8.3	5.4
Kegalle	1.3	0.31	9.2	4.3

Share of contribution or total consumption by deciles or quintiles calculated as proportions of the total consumption and decile or quintile dispersion ratios are also used to measure the inequality of income and consumption expenditure distributions. Percentile, decile and quintile represents 1 percent, 10 percent and 20 percent proportions respectively of a distribution of observations sorted in ascending order and the lower observation values get grouped in lower percentile, decile and quintile groups in this classification. Total consumption of these groups of the distribution of real total expenditure per-capita is the sum of all the per capita expenditure values attributed to the group.

Total consumption proportion of the richest 20 percent of the entire population who fall in the fifth quintile of Sri Lanka is nearly 50 percent of the total consumption and it is 6.7 times larger than 7.1 percent of total consumption shared by poorest 20 percent persons in the first quintile the HIES 2006/07 revealed. This quintile dispersion ratio in Urban sector is the topmost (7.7 times) as confirmed by highest Gini (0.43) among sectors. A comparatively low consumption disparity among Estate sector population is also revealed and this special characteristic is reflected in the Nuwara Eliya district where high proportion of Estate population exists. The Nuwara Eliya district reported the least Gini (0.29), highest consumption share by poorest 20 percent of the population (9.8%) and least top to bottom quintile ratio (4) between districts.

In line with the least SPGI (0.4%) reported as an indication of low consumption disparity among poor by the Western province in 2006/07 Colombo and Gampaha districts of the Western province have reported the lowest SPGI among districts. However the Kalutara district reported relatively more deprived conditions of high existence of poverty, poverty depth and inequality among poor than the other 2 districts in the Western province as a highlight of the poverty analysis of the HIES 2006/07.

Is food secured? Dietary Energy consumption

Monetary status of the family is not the only deciding factor but the food habits and awareness about the amounts of nutrition values and market prices attributed to different food items also vary the amount of nourishment receives by a person or a household. The amount of Carbohydrate intake that fulfils the bodily energy requirements measured in calories is the largest portion of an average human diet over other necessary nutritional inputs such as proteins, micronutrients etc. The daily average dietary energy consumption per capita is also applied as an indicator to measure living conditions of a society assuming minimum requirements of the other necessary nutrients are met if the energy requirement is met. The daily energy requirement of a person depends on gender, age, physical activities and climate conditions that vary from country to country. The daily per capita calorie requirement for the country (caloric norm) that was calculated on minimum per capita calorie requirements by age and sex obtained from medical research studies and according to age and sex distribution of the population and food consumption data gathered in HIES 2002 to be set as the nutritional anchor for the OPL of Sri Lanka is 2030 kilo calories.

Table 4 shows that an average poor in Sri Lanka receives only 1696 kcal per day while a Non-poor receives 2194 kcal and 50.7 percent of the population receives less dietary energy than that set as the minimum level required in 2002. However some food items for which household consumption quantities are not collected in the survey due to difficulties in reasonable quantifying or identifying the item that leads to unavailability of calorie conversion factors are excluded from this calculation of dietary energy consumption of households and persons.

Persons in Urban sector of Sri Lanka and highly urbanized Western province consume less dietary energy despite their minimum poverty HCI. Further it is revealed that the daily energy consumption of 65 percent of the Urban population is less than the level of 2030 kcal per person. Comparatively very high dietary energy consumption is reported by all the Estate sector persons regardless of their poverty status and the percentage of population below the 2030 kcal level in Estate sector is also only 32.7 percent which is far below the national figure (50.7%) and the values reported by the other two sectors. Uva province in which the HCI is highest between provinces reported the highest dietary energy consumption and highest percentage of population (61.6%) who receive energy above 2030 kcal per day per capita. The reason for the inconsistency between the HCI and the dietary energy consumption is the consideration of both food and non-food expenditure when establishing the value of the OPL on which the HCI is determined.

Individuals in Nuwara Eliya, Hambantota and Monaragala districts are at the top of the list of high dietary energy consumers among districts and the respective figures are 2383, 2309 and 2313 kcal per day per capita on average. Relatively high energy consumption by both poor and non-poor population in Monaragala district where 33.2 percent of poverty exists is an exceptional feature revealed by the HIES 2006/07. However the reverse to the above and an improved condition which is relatively less existence of poverty along with high per capita dietary energy consumption has reported by the Hambantota district.

Table 4 : Dietary energy consumption by Poverty status, Sector, Province and District - Sri Lanka - 2006/07

Sector/ Province/ District	Daily average dietary energy consumption per person			Population below 2030 kcal level of dietary energy consumption
	Both poor and non poor	Poverty Status		
		Non poor	Poor	
	kcal	kcal	kcal	%
Sri Lanka	**2118**	**2194**	**1696**	**50.7**
Sector				
Urban	1906	1949	1316	65.0
Rural	2138	2222	1686	49.2
Estate	2420	2626	1984	32.7
Province				
Western	1977	2022	1471	59.7
Central	2210	2325	1808	45.5
Southern	2151	2228	1669	47.5
Eastern	2182	2242	1686	45.2
North-Western	2154	2254	1574	48.7
North-Central	2221	2300	1746	46.9
Uva	2266	2406	1886	38.4
Sabaragamuwa	2138	2267	1734	50.7
District				
Colombo	1920	1955	1301	64.3
Gampaha	1985	2031	1503	57.9
Kalutara	2075	2150	1573	53.7
Kandy	2137	2231	1675	50.0
Matale	2144	2245	1710	49.3
Nuwara Eliya	2383	2598	1962	34.9
Galle	2077	2163	1533	53.0
Matara	2137	2211	1710	47.9
Hambantota	2309	2372	1877	36.8
Batticaloa	2109	2157	1709	50.9
Ampara	2223	2290	1673	42.0
Kurunegala	2162	2267	1584	48.6
Puttalama	2140	2229	1549	48.8
Anuradapura	2207	2293	1719	48.9
Polonnaruwa	2249	2313	1809	42.8
Badulla	2240	2362	1850	40.1
Monaragala	2313	2500	1934	35.3
Rathnapura	2238	2399	1791	43.3
Kegalle	2006	2103	1639	60.6

Where are we heading? Trends and comparisons

The HIES 2006/07 is the sixth year long survey conducted by the DCS in the HIES series. Applying the inflation of commodity prices as measured by the CCPI on the OPL that declared in 2002 the updated values of the OPL for the survey periods 1990/91, 1995/96, 2002 and 2006/07 are Rs. 475, 833, 1423 and 2233 real total food and non-food expenditure per month per capita respectively. Table 5 shows the HCI values derived from the food and non-food consumption information of the HIES data series and the updated values of the OPL for the survey periods from 1990/91 to 2006/07. The HCI value at national level shows a steady decline since 1995/96 and the welcome drop of poverty incidence between 2002 and 2006/07 is exactly one third. The HCI reported in 2006/07 (15.2%) is nearing the 50 percent mark (13.1%) of 26.1 percent reported in 1990/91 and it is to be noted here that halving the incidence of poverty between 1990 and 2015 is also a part of the target 1 of the first goal of Millennium Development Goals (MDGs) declared in 2000 by the United Nations.

At residential sector level the 36 percent drop of poverty incidence from 24.7 percent in 2002 to 15.7 percent in 2006/07 in the Rural sector in to which 80 percent of the population of Sri Lanka belongs is the main contributor to the drop of national poverty. However poverty in the Estate sector which holds about 5.5 percent of the population of the country has reached a new high from 30 percent in 2002 to 32 percent in 2006/07 where almost 1 in every 3 persons suffers from poverty. Continuous drop of poverty throughout the last two decades in the Urban sector of Sri Lanka has been matched by the highly urbanized Western province in which above 60 percent of the urban population of Sri Lanka lives. All the provinces have shown a significant decline of HCI since 2002 to 2006/07 and near halved drop of poverty in the Southern province and North-Western province since 2002 is the highlight. The Uva province which remains as the poorest province since 1990/91 shows a notable poverty reduction from 46.7 percent in 1995/96 to 27 percent in 2006/07. The Central province and the Sabaragamuwa province also show a remarkable drop of poverty since 1995/96. Yet these three provinces Uva, Sabaragamuwa and Central have reported comparatively high incidence of poverty even in 2006/07 as witnessed by the HCI values reported are ahead of 22 percent which is far poorer value than that reported by the other provinces.

Although the Nuwara Eliya district and the Monaragala district are the poorest districts that reported HCI above 33 percent in 2006/07 the Nuwara Eliya district is the only district that reported an increase of poverty from 2002 to 2006/07 and the increase is an alarming and almost 50 percent jump from 22.6 percent in 2002 to 33.8 percent in 2006/07. It is also visible that the reason for the prevalence of Uva province and Central province as poorest provinces is high within the provinces and far beyond the country's average poverty incidence reported by Monaragala district and Nuwara Eliya district respectively. Hambantota district which was among poor districts since 1990/91 to 2002 has gained over 60 percent of an unprecedented drop of poverty incidence from 32.2 percent in 2002 to 12.7 percent in 2006/07. This achievement has brought up the Hambantota district on top of even the Kalutara district of the Western province which reported all time least poverty incidence. However the Kalutara district has also gained a highly significant continuous reduction of poverty HCI from 32.3 percent in 1990/91 and 20 percent in 2002 to 13 percent in 2006/07 and some what similar improvements in poverty reduction has shown by Puttalama and Polonnaruwa districts.

Table 5: Poverty Headcount Index (percentage) by Sector, Province, District and Survey period - Sri Lanka from 1990/91 to 2006/07

Sector/ Province/ District	Poverty head count index (percentage) by survey period			
	1990/91	1995/96	2002	2006/07
Sri Lanka	**26.1**	**28.8**	**22.7**	**15.2**
Sector				
Urban	16.3	14.0	7.9	6.7
Rural	29.5	30.9	24.7	15.7
Estate	20.5	38.4	30.0	32.0
Province				
Western	19.1	16.3	10.8	8.2
Central	30.7	36.2	25.1	22.3
Southern	30.2	32.6	27.8	13.8
Eastern				10.8
North-Western	25.8	27.7	27.3	14.6
North-Central	24.5	24.7	21.5	14.2
Uva	31.9	46.7	37.2	27.0
Sabaragamuwa	31.0	41.7	33.6	24.2
District				
Colombo	16.2	12.0	6.4	5.4
Gampaha	14.7	14.1	10.7	8.7
Kalutara	32.3	29.5	20.0	13.0
Kandy	35.9	36.7	24.9	17.0
Matale	28.7	41.9	29.6	18.9
Nuwara Eliya	20.1	32.1	22.6	33.8
Galle	29.7	31.6	25.8	13.7
Matara	29.2	35.0	27.5	14.7
Hambantota	32.4	31.0	32.2	12.7
Batticaloa				10.7
Ampara				10.9
Kurunegala	27.2	26.2	25.4	15.4
Puttalama	22.3	31.1	31.3	13.1
Anuradapura	24.4	27.0	20.4	14.9
Polonnaruwa	24.9	20.1	23.7	12.7
Badulla	31.0	41.0	37.3	23.7
Monaragala	33.7	56.2	37.2	33.2
Rathnapura	30.8	46.4	34.4	26.6
Kegalle	31.2	36.3	32.5	21.1