

# FEATURES

## Poverty in Sri Lanka: An assessment of some trends in the period 1953 to 1981/82

Dilesh Jayanthha

*A closer examination of poverty indicators in Sri Lanka suggests that there are certain misconceptions regarding the assessment of real incomes and living standards, in recent years, of the bulk of the population, maintains Dilesh Jayantha who holds an economics honours degree and Ph.D from the University of Cambridge. He examines trends in poverty in Sri Lanka (using a variety of indices) over the period 1953-1981/82, with a special focus on developments over the last ten years and argues that, contrary to popular belief, absolute poverty has increased markedly in certain sectors and income groups since the advent of the Open Economy. He draws attention to the need for a re-appraisal of current policies.*

### Poverty : An Introduction

Poverty can be viewed in two contexts, relative and absolute. Relative poverty is present even in the richest of societies and is indicated by very large discrepancies in the income, wealth and living standards of different income groups. Absolute poverty is indicated by the presence of individuals and households enjoying less than a certain minimum income or nutritional intake.

Relative poverty can be assessed by using income distribution data, and absolute poverty by

measuring real wages, incomes, and food consumption patterns. Various indices can be used in these exercises. This Paper will seek to examine some trends in the incidence of relative and absolute poverty using consumer finance survey data on income and income distribution drawn from the Central Bank, and household expenditure and consumption data from the Department of Census and Statistics. Sri Lankan wage information is very poor and sparse and will not be used.

### Income and Income Distribution Trends

In examining income and income distribution, the Central Bank data is generally regarded as the more useful and comprehensive. The Central Bank publishes the share, mean and median income of each income quintile. Moreover data on income distribution is available for several years from 1953 onwards. The Department of Census and Statistics on the other hand is only able to give information for two reference periods; 1969/70 and 1980/81. Then too, this is by arbitrarily defined income or expenditure level groups, rather than income or expenditure shares. Thus although we can trace patterns of income distribu-

tion amongst households with an income of say less than Rs.200, we cannot do this for say the bottom quintile of the household population (except through a process of linear interpolation which can be very inaccurate).

The Central Bank has data on income and income distribution by spending unit and income receiver. A spending unit is defined as one or more persons who are members of the same "household" and share at least a major part of income and expenditure. An income receiver is defined as a person who has received an income of more than a specified sum during the six months immediately prior to the first visit of the Central Bank survey investigators. Thus one spending unit may comprise more than one income receiver, but not vice versa.

Table 1 shows estimates of the Gini coefficient for the whole island based on one month income for the period 1953 - 1981/82. These figures suggest that there was an improvement in distribution between 1953 and 1973, and a worsening thereafter. The ranking of spending units according to total income rather than per capita income exaggerates income inequality (over that devoted for income receivers), as the number of persons per spending unit is higher among the richer spending units.

Table 1

### ESTIMATES OF THE GINI COEFFICIENT BASED ON ONE MONTH INCOME - ALL ISLAND - 1953, 1963, 1973, 1978/79 AND 1981/82

Year	1953	1963	1973	1978/79	1981/92
For Income Receiver	0.50	0.49	0.41	0.49	0.52
For Spending Units	0.46	0.45	0.35	0.44	0.45

Source : Central Bank Consumer Finance Surveys, 1953, 1963, 1973, 1978/79 and 1981/82.

*The idea that there was an improvement in distribution was questioned by Lee who used consumption data to argue that the situation deteriorated between 1963 and 1973. (Lee, "Rural Poverty in Sri Lanka 1963 - 73" in ILO Poverty and Landlessness in Rural Asia. Geneva, 1977). Lee's use of consumption data has however been questioned. See for instance D.W. Lakshman "Consumer Finances Survey Data on Income Distribution in Sri Lanka, 1963 and 1973 : Some Misinterpretations" in Modern Ceylon Studies Vol. 7, Nos. 1 and 2, 1976 and H.N.S. Karunatileke "Mr. E.L.H. Lee's Interpretation of Rural Poverty in Sri Lanka, Central Bank Staff Studies, Vol. 8, 1 April 1978.*

Table 2

**GINI COEFFICIENT BASED ON ONE MONTH INCOME OF  
INCOME RECEIVERS BY SECTOR - 1973, 1978/79 AND 1981/82**

Sector	Gini Coefficient		
	1973	1978/79	1981/82
Urban	0.40	0.51	0.54
Rural	0.37	0.49	0.49
Estate	0.37	0.32	0.32

Source : *Central Bank Consumer Finance Surveys, 1973, 1978/79 and 1981/82.*

Table 2 shows estimates of the Gini coefficient based on the one month income of income receivers by sector for the period 1973 - 1981/82. These estimates suggest that there has been a steady worsening in distribution in the urban sector since 1973. In the rural sector there has been a worsening between 1973 and 1978/79, but no change thereafter. Conversely, in the estate sector there has been an improvement between 1973 and 1978/79, with no change thereafter.

The above estimates however only indicate trends in distribution over time. They do not indicate trends in absolute poverty, for which some measure of movements in real income is necessary.

Such a measure involves deflating money incomes by a price index. Generally, an overall consumer price index is used as the deflator. However consumer price indices for various income groups and sectors may differ because (i) the consumption baskets of these groups and sectors may differ, and (ii) the prices paid for the same commodity by different groups and sectors may differ. Thus, ideally, different price indices should be used for different income groups and sectors. However, the available expenditure data on Sri Lanka does not render the construction of a variety of such indices an easy task.

Three standard indices are widely used in Sri Lanka; the G.N.P. deflator, the Wholesale Price

Index and the Colombo Consumer Price Index (hereafter called the CCPI). Of these, the CCPI is probably the nearest approximation to a consumer price index. It is supposedly designed to reflect changes in the consumption basket of the average working class household in Colombo. Yet, for several reasons it can be expected to underestimate price inflation. Its value weights have been periodically adjusted to take account of price changes in such a way as to sometimes underestimate the magnitude of inflation. Some weights have not been adjusted realistically, and the indices of certain components have been arbitrarily assumed as constant. For instance rent was assumed not to have changed between 1954 and 1968, and then again since 1970. Such factors mean that the CCPI tends to underestimate the true impact of price inflation on a wide

range of income groups and sectors, and cannot be taken as a realistic deflator.

In this context, we have used the Food Price Index component of the CCPI (hereafter called the FPI) as our deflator. The FPI gives a more realistic estimate of the inflation experienced by low income households than the CCPI. However the value weights of even the FPI have been adjusted, to underestimate the magnitude of inflation. Moreover the FPI underestimates the impact of such inflation on low income households vis a vis that on high income households. This is because prices of food tend to rise faster than that of other components. As food accounts for a larger proportion of the consumption basket of a low income household (than a high), the money income accruing to such a household is deflated to a greater extent than that accruing to a high income household. Thus in assessing changes in the real incomes of particular income categories and FPI would tend to underestimate the distributional adversities caused by inflation as well as any deterioration in real mean and medium incomes, though to a lesser extent than the CCPI.

Table 3 gives estimates of the real average one month income per spending unit for the whole island in constant 1953 prices for several reference periods. These figures suggest that real mean and median incomes increased steadily over the period 1953 - 1981/82.

Table 3

**ESTIMATES OF REAL AVERAGE ONE MONTH INCOME PER SPENDING  
UNIT - ALL ISLAND IN CONSTANT 1953 PRICES - 1953 1963, 1973,  
1978/79 AND 1981/82**

Year	1953	1963	1973	1978/79	1981/82
Average					
Real Mean Income	169	199	200	371	385
Real Median Income	114	134	161	265	273

Source : *Central Bank Consumer Finance Surveys 1953, 1963, 1973, 1978/79 and 1981/82 and Central Bank Annual Reports 1963-83.*

Table 4

ESTIMATES OF REAL AVERAGE ONE MONTH INCOME OF INCOME RECEIVERS BY SECTOR AND ALL ISLAND IN CONSTANT 1973 PRICES AND THE RATIO OF MEDIAN : MEAN INCOMES 1973, 1978/79 AND 1981/82

Sector and year	Urban			Rural			Estate			All Island		
	1973	78/79	81/82	1973	78/79	81/82	1973	78/79	81/82	73	78/79	81/82
Average												
Real Mean Income	318	516	595	238	386	394	158	188	164	228	386	407
Real Median Income	255	337	357	197	268	286	88	158	138	180	255	224
Median Income as a proportion of Mean Income	0.80	0.65	0.60	0.83	0.69	0.73	0.56	0.84	0.84	0.79	0.66	0.55

Source : Central Bank Consumer Finance Surveys 1973, 1978/79 and 1981/82 and Central Bank Annual Reports 1963-83

Table 4 gives estimates of the real average one month income of income receivers by sector and for the whole island in constant 1973 prices for the period 1973 - 1981/82. The table also shows the ratio of median income to mean income which is another index of income distribution.

The real mean and median incomes of the urban and rural sectors have risen steadily over the period 1973 - 1981/82. This rise has been especially rapid in the urban sector. At the same time in the urban sector there has been a steady fall in the ratio of median to mean income, pointing to a steady worsening of income distribution over the period. This confirms the findings of Table 2. In the rural sector the ratio fell between 1973 and 1978/79 but rose marginally thereafter. Thus although distribution worsened between 1973 and 1978/79, it may have improved very slightly since then. However such an improvement is ambiguous as suggested in Table 2 and as will be seen in Table 5.

The real mean and median income of the estate sector rose between 1973 and 1978/79, but fell thereafter. In terms of distribution denoted by the ratio of median to mean income, there was a marked improvement between 1973 and 1978/79, but no change thereafter, this confirms the findings of Table 2.

Viewing the island as a whole real mean incomes rose rapidly between 1973 and 1978/79, and more slowly thereafter. Real median incomes rose between 1973 and 1978/79 and fell consequently, largely reflecting the very substantial fall witnessed in the estate sector). The ratio of median to mean income has fallen steadily since 1973, reflecting a worsening of income distribution in the island over the last decade. This confirms the findings for income receivers given in Table 1. Traditionally the urban and rural sectors spend a lesser proportion of their total budget on food than the estate. As food tends to rise in price more rapidly than the other components

of a consumption basket the use of the FPI as our deflator underestimates the improvement in the real mean and median incomes of the urban and rural sectors, as against the trend in the estate sector. Further, essential food items such as rice, flour and coconuts, tend to cost much more in the estate than in the urban or rural (2).

Thus, as the FPI reflects food prices in Colombo, it underestimates the extent of food price inflation in the estate sector. In short, the position of the estate sector relative to the urban and rural may have worsened to a greater extent since 1978/79 than pictured by the indices we have used.

Table 5 provides a closer examination of trends. Data on the real mean one month income of each quintile of ranked income receivers by sector and for the whole island in constant 1973 prices is provided for the period 1973 - 1981/82.

(2) Gooneratne and Gunawardene, "Poverty and Inequality in Rural Sri Lanka" in ILO, *Poverty in Rural Asia*, Bangkok, 1984.

The real mean income of all quintiles in the urban sector has risen steadily over the period, though this is more marked in the case of the higher groups, explaining the worsening distribution. In the rural sector the real mean income of the lowest quintile fell markedly between 1973 and 1978/79 and rose marginally thereafter. The real mean income of the middle three quintiles of the rural sector rose between 1973 and 1978/79 and has remained about the same since then. (It rose slightly in the case of the second quintile and fell marginally in the case of the third and fourth quintiles). The real mean income of the highest quintile of the rural sector has risen steadily since 1973.

In the estate sector every quintile (save the third) saw a rise in its real mean income between 1973 and 1978/89. The sharp rise

in wages in 1974 (following the nationalization of the plantations) would account for a large part of this rise. However since 1978/79 every quintile in the estate sector has seen a significant fall in its real mean income. This points to a very marked deterioration in the living standards of the estate sector as against those of the other sectors. This deterioration is likely to be greater than pictured in Table 5, as for reasons elaborated earlier, the FPI deflator used tends to underestimate the extent of price inflation in the estate sector as against that in the urban or rural.

In the island as a whole the real mean incomes of the bottom four quintiles rose significantly between 1973 and 1978/79 with little change thereafter. The highest quintile however has seen a steady rise in its real mean income over the entire period 1973 - 1981/82.

Given the limitations of the FPI deflator, Gini coefficient and other indices used, it is useful to check our findings from another angle. For this purpose we shall try to assess trends in the living standards of each sector using the food consumption data provided by the Department of Census and Statistics.

### Consumption Trends

Detailed data on household expenditure and food consumption is available from the Department of Census and Statistics for the periods 1969/70 and 1980/81. A sample of 10,000 housing units was used in 1980/81 and 9,694 in 1969/70, as compared to 8,000 households by the Central Bank in 1981/82 and 1978/79, and 5,000 in 1973. (3) The Census

Table 5

### REAL MEAN ONE MONTH INCOME OF EACH QUINTILE OF RANKED INCOME RECEIVERS BY SECTOR AND ALL-ISLAND IN CONSTANT 1973 PRICES - 1973, 1978/79, AND 1981/82.

Sector and year Ranked Income Receivers	Urban			Rural			Estate			All Island		
	1973	78/79	81/82	1973	78/79	81/82	1973	78/79	81/82	1973	78/79	81/82
Lowest Quintile	85	86	106	88	68	73	44	73	68	57	73	75
Second Quintile	170	219	228	135	166	173	69	125	104	115	161	164
Third Quintile	265	341	346	198	272	266	288	158	135	180	255	254
Fourth Quintile	355	496	539	273	402	392	122	209	178	265	393	390
Highest Quintile	717	1435	1753	498	1023	1066	268	377	336	522	1048	1149

Source : Central Bank Consumer Finance Surveys 1973, 1978/79 and 1981/82 and Central Bank Annual Reports 1963-83

and Statistics food consumption data has been more rigorously analysed by computer than that from the Central Bank. (4)

In assessing the calorie and protein adequacy of a sample two methods can be used. The first involves assessing the number of households which fall in expenditure groups which, on the average, have per capita nutrient intakes below the designated cut-off point 2,200 calories and 48 grams of protein. This means calculating the mean per capita calorie and protein intake of each expenditure cell in each sector. The approach, which will be termed the "cell mean data" method, assumes a very close and even correlation between nutrient intake and income. This assumption has been severely criticized by a number of writers (5). It has been shown that the results achieved by following this procedure can be highly inaccurate. (6)

The second method involves assessing the calorie and protein intake of each individual household using the raw unaggregated data, taking account of its size and sex and age composition thus determining adequacy and then estimating the proportion of the total above or below the minimum requirement. This procedure is more accurate than the former and will be termed the "comprehensive method". However the data published by the Department of Census and Statistics and the Central Bank does not enable us to follow this method.

The procedure involves detailed searching of the raw data by computer. Such searching has only been done for the material of the Department of Census and Statistics Surveys of 1969/70 and 1980/81. For these reasons it is this material that will be used in what follows.

Table 6 shows the percentage proportion of households deficient in calories and proteins by sector and nutrient in 1969/70 and 1980/81, using the "comprehensive method". The proportion deficient in calorie intake has risen in every sector, this being most marked in the estate areas. The proportion deficient in protein intake has fallen in the urban and rural sectors, but risen in the estate. Overall the deterioration in nutritional intake has been most marked in the estate sector. This substantiates our earlier finding of a significant fall in the real wage in this sector in the last few years. (Although the bottom two quintiles and top quintile saw an improvement in real income between 1973 and 1978/79, the third and fourth quintiles saw a deterioration over the entire period 1973 - 1981/82 - Table 5). The evidence on the average minimum daily wages on the estates suggests a slight deterioration between 1969/70 and 1975. (7) Thus we can assume that for many quintiles in the estates the whole period 1969/70 - 81/82 saw a steady fall in real incomes.

The increased deficiency of the calorie intake in the urban sector despite the steady rise in real incomes here since 1973, may appear paradoxical. However, this could be attributed to a poorer urban consumer judgement in consumption. City dwellers may select commodities with higher prestige

value thereby spending more per calorie.

In the rural sector, the food consumption data suggests a fall in the incidence of protein deficiency and a rise in that of calorie deficiency of somewhat the same magnitude as the urban. This implies that the improvement in real incomes for the top four rural quintiles shown in Table 5 may be slightly illusory. In particular the steady fall in the real incomes of the bottom quintile over the period 1973 - 1981/82 may be representative of a more general decline in living standards.

By 1980/81 the calorie shortfall exceeded the protein shortfall in every sector, whereas in 1969/70 the reverse had been the case in the urban and rural areas. This corroborates an earlier finding that there may have been a switch in the dietary composition of a part of the population from calories to protein in the last years. (8)

## Conclusion

Any assessment of the trends in relative or absolute poverty has to be based on a number of criteria. Most measures of distribution point to a gradual reduction in inequality between 1953 and 1973, and a reversal of this trend thereafter. The increase in inequality since 1973 is especially marked in the urban sector.

- (3) *Central Bank, Report on Consumer Finances and Socio Economic Surveys 1973, 1978/79 and 1981/82 and Department of Census and Statistics, Labour Force and Socio-Economic Surveys, 1969/70 and 1980/81.*
- (4) *Some results of this analysis can be found in Sahan, D.E. Preliminary Findings on Nutritional Status and Food Consumption in Sri Lanka, Community Systems Foundation, Michigan, USA, 1983.*
- (5) *A discussion of this can be found in Irfan and Amjad, "Poverty in Rural Pakistan" in ILO, Poverty in Rural Asia, Bangkok, 1984.*
- (6) *Ibid.*
- (7) *Gooneratne and Gunawardene: "Poverty and Inequality in Rural Sri Lanka" in ILO, Poverty in Rural Asia, Bangkok, 1984.*
- (8) *Jayanntha, Dilesh "Some Recent Trends in the Nutritional Status of Sri Lankan Pre-Schoolers," Economic Review, May 1983.*

Table 6

**PERCENTAGE PROPORTION OF HOUSEHOLDS WITH AN INADEQUATE INTAKE OF CALORIES AND PROTEINS BY SECTOR AND NUTRIENT (1969/70 AND 1980/81) AND CHANGES BETWEEN THE TWO REFERENCE PERIODS**

Sector and Nutrient	Urban		Rural		Estate	
	Calories	Protein	Calories	Protein	Calories	Protein
Year						
1969/70	36.3	45.5	31.7	44.5	19.7	19.5
1980/81	50.0	35.3	43.0	38.0	33.0	28.3
Percentage change 1969/70 - 1980/81	+38	-22	+36	-15	+68	+45

Source : Sahn, D.E : "Preliminary Findings on Nutritional Status and Food consumption in Sri Lanka", Table 26, Community Systems Foundation, Michigan, USA, 1983.

\* The minimum daily requirement of an adult equivalent in Sri Lanka is taken as 2,200 calories and 48 grams of protein.

However proponents of the Open Economy argue that real incomes and living standards have risen, so that overall, absolute poverty has declined, in the last few years. A close examination of the data suggests that this view is erroneous as regards the large bulk of the population.

In the estate areas every quintile has seen a fall in its real

income since 1978/79. In terms of food consumption too, the incidence of deficient calorie and protein intake has risen here since 1969/70.

In the rural sector too, the bottom quintile has seen a fall in its real income over the period 1973 - 1978/79, and a slight rise thereafter to a level below that in 1973. The second, third and fourth

quintiles saw a rise in their real incomes between 1973 and 1978/79, but little change thereafter. The incidence of caloric deficiency has also risen in the rural areas over the period 1969/70 - 1980/81

It is only in the urban sector that the real incomes of each quintile have risen steadily over the period 1973 - 1981/82. Even here however the calorie intake seems to have been reduced. By 1980/81 as much as one in two of urban dwellers had an inadequate intake of calories.

These trends point to a growing incidence of overall poverty amongst the bulk of the Sri Lankan population. In particular the condition of certain social groups, notably the estate workers, seems to have deteriorated markedly of late. A just solution to these problems would require a fundamental re-appraisal of the economic policies currently being followed.

