

## **AN ANALYSIS OF POVERTY IN SRI LANKA\***

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### **1. Introduction**

Measurements of poverty help us make poverty comparisons, over time, between different sectors or regions, between different Socio-Economic Groups etc. Poverty comparisons could be either quantitative or qualitative. Quantitative poverty comparisons need information on how much difference there is in the amount of poverty. In the case of qualitative comparisons one would study how poverty manifests it-self socially and culturally over time whether one Socio-Economic Group is more affected compared to another etc.

The analysis in this study is based on the data collected in the 'Labour Force and Socio-Economic Survey - 1980/81' (LFSE 80/81), 'Labour Force and Socio-Economic Survey - 1985/86' (LFSE 85/86) and the 'Income and Expenditure Survey - 1990/91' (INEX 90/91), conducted by the Department of Census and Statistics. In all three surveys, the quantities and values of all food items consumed during seven consecutive days were collected using a comprehensive survey schedule.

In this analysis an attempt is made to compare the nutritional levels over time and between sectors (Urban, Rural and Estate) using the data from the three surveys. In addition to this, an in-depth analysis was done on the prevalence of poverty in the country using the data collected in the INEX 90/91.

### **2. Methodological Aspects**

#### **2.1 Computation of Requirement and Consumption of Nutrients and the Adult Equivalency Units at Household Level.**

- (i) **Computation of Daily Recommended Nutrient Allowance in respect of Individual Households.**

Table 1 below prepared by the Department of Nutrition, Medical Research Institute, Colombo, Sri Lanka, was used to compute the minimum nutrient requirement of each of the sample households.

The Total requirement of Calories (CR) and Proteins (PR) for a particular household was computed by obtaining the appropriate values (minimum recommended calorie and protein allowances) from the table, according to the age group and sex of individual members of the household and then summing those values for the entire household.

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\* Based on DCS/JICA Research Study on Poverty using Household Income and Expenditure Survey - 1990/91.

**Table 1: Daily Recommended Nutrient Allowances for Sri Lanka.**

Age Group	Calorie		Protein	
	Male	Female	Male	Female
<1 year	818	818	19	19
1 - 3 years	1212	1212	24	24
4 - 6 years	1656	1656	31	31
7 - 9 years	1841	1841	35	35
10 - 12 years	2414	2238	45	46
13 - 15 years	2337	2300	49	46
16 - 19 years	2500	2200	51	42
20 - 39 years	2530	1900	52	41
40 - 49 years	2404	1805	52	41
50 - 59 years	2277	1710	52	41
60 - 69 years	2024	1520	52	41
70 years +	1771	1330	52	41

Source: Department of Nutrition, Medical Research Institute, Sri Lanka.

For example, if a household comprises of father (42 years), mother (39 years), son (14 years) and two daughters (10 & 6 years) then the daily requirement of Calories and Proteins for that particular household could be computed as follows.

H/H Members	Age	Calories	Proteins
Father	42	2404	52
Mother	39	1900	41
Son	14	2337	49
Daughter	10	2238	46
Daughter	6	1656	31
Requirement		10535(CR)	219(PR)

(ii) Computation of Actual Consumption of Nutrients at Household Level.

Appendix (1) gives the nutritional conversion factors used in this study to convert the different quantities of food items consumed by the members of the households into nutrient equivalents.

The quantities of each food item consumed by the household per day were converted to its nutrient equivalent by using the following procedure.

The nutrient equivalent (N)<sub>i</sub> of the food item i could be given by the expression.

$$(N)_i = \frac{Q_i}{7} \cdot g_i \cdot \frac{P_i}{100} \cdot f_{(N)_i}$$

Where Q<sub>i</sub> = Quantity of food item i consumed by the household in seven days. This could be in terms of value in the case of food items for which only the value is recorded.

g<sub>i</sub> = gram equivalent of the food item.

P = Percentage of edible portion.

f<sub>(N)<sub>i</sub></sub> = Conversion factor for the relevant nutrient from the Appendix (1).

The total amount of any particular nutrient consumed by a household is computed by summing the nutrient equivalents (N) as shown above, in respect of all the food items consumed by the members of the household. For example, the total amount of Calories consumed by any particular household per day would be

$$\sum_i (\text{Calorie})_i = \frac{1}{100} \sum_i \left[ \frac{Q_i}{7} \cdot g_i \cdot \frac{P_i}{100} \cdot f_{(\text{Cal})_i} \right]$$

The household Calorie and Protein consumption per day computed this way could be used to examine the nutritional implications of dietary consumption.

(iii) Computation of Adult Equivalent Units (AEU) per Household.

Table (2) gives the required weights (Adult Equivalent Units) by age group and sex. Appropriate values were picked from the table (2) according to the age group and sex and those values were summed to compute the total Adult Equivalent Units for the particular household.

**Table 2: Adult Equivalent Units (AEU).**

Age Group	Male	Female
<1 year	0.43	0.43
1 - 3 years	0.54	0.54
4 - 6 years	0.72	0.72
7 - 9 years	0.87	0.87
10 - 12 years	1.03	0.93
13 - 15 years	0.97	0.80
16 - 19 years	1.02	0.75
20 - 39 years	1.00	0.71
40 - 49 years	0.95	0.68
50 - 59 years	0.90	0.64
60 - 69 years	0.80	0.51
70 year +	0.70	0.50

*Source: National Sample Survey Organization of India.*

If we take the same example of the household used earlier

H/H Members	Age Group	AE
Father	42	0.95
Mother	39	0.71
Son	14	0.97
Daughter	10	0.93
Daughter	6	0.72

Total Number of Persons in the Household in AEU ) 4.28

## 2.2 Classification of Households into four groups depending on their fulfilment of the Minimum Requirement of Calories and Proteins.

The households were divided into four categories given below depending on fulfilment of nutrient requirements.

### Type of H/H

- A - Households which have achieved both Calorie and Protein requirements.
- B - Households which have achieved the requirement of Calories but not Protein.
- C - Households which have achieved requirement of Protein but not Calories.

D - Households which have achieved the requirement of neither Calories nor Protein.

If the daily requirement of Calories and Protein for a particular household are denoted by CR and PR respectively and if the actual daily intakes of Calories and Proteins by the households are denoted by AIC and AIP then the following conditions determine whether a household is receiving the required amount of Calories and Proteins or not.

Condition	Fulfilment of the requirement
(1) if $CR \leq AIC$	- The household has achieved the minimum requirement of Calories.
(2) if $CR > AIC$	- The household has not achieved the minimum requirement of Calories.
(3) if $PR \leq AIP$	- The household has achieved the requirement of Protein.
(4) if $PR > AIP$	- The household has not achieved the requirement of Protein.

According to the above, the household type in terms of fulfilment of minimum requirement of Nutrients (i.e. A,B,C & D) could be determined as follows:-

Type of H/H	Combination of above conditions
A	(1) + (3)
B	(1) + (4)
C	(2) + (3)
D	(2) + (4)

When the households are classified into these four groups it is possible to identify the population groups at greatest risk, by studying Socio-Economic Groups to which they belong and in what sector or region they are in.

In this study the Households were classified into 14 Socio Economic Groups (SEG) by considering the main activity of the Principal Income Earner. They are as follows:

- SEG - 1 .... Self Employment in Agriculture - Employer
- SEG - 2 ... Self Employed in Agriculture - Own Account Worker
- SEG - 3 ... Employee in Agriculture - Professional, Technical or Related Worker, Administrative or Supervisory Worker
- SEG - 4 ... Employee in Agriculture - Farm Labourer, Manual Labourer related to Agriculture

SEG - 5 ...	Other type of Employee in Agriculture
SEG - 6 ...	Self Employed in Non-Agriculture - Employer
SEG - 7 ...	Self Employed in Non-Agriculture - Own Account Worker Technical or Related Worker, Administrative or Related Worker
SEG - 9 ...	Employee in Non-Agriculture - Clerical, Sales or Service Worker
SEG - 10 ...	Other type of Worker in Non-Agricultural Activities (excluding Manual Labourers)
SEG - 11 ...	Manual Worker in Non-Agricultural Activities
SEG - 12 ...	Unemployed but an income receiver
SEG - 13 ...	Economically Inactive, but an income receiver
SEG - 14 ...	Other (Those who do not fall into any of the above categories).

### 2.3 Computation of Average Nutrient Requirements Per Adult Equivalency Unit (AEU) and Per Capita for Sri Lanka.

Average requirement of Calories and Protein Per AEU and Per Capita was computed using Table (1), by applying the recommended daily requirement of Nutrients to each individual in the sample and then estimating the requirements for the entire population under study and dividing by the estimated total Adult Equivalent and the total number of persons respectively. The following are the Nutrient requirement Per AEU and Per Capita, computed using the actual survey populations in three recent surveys done in Sri Lanka.

#### Calorie and Protein Requirement

	LFSE 80/81	LFSE 85/86	INEX 90/91
<b>Calorie Requirement</b>			
Per Adult Equivalent	2502	2506	2518
Per Capita	2022	2018	2042
<b>Protein Requirement</b>			
Per Adult Equivalent	53	53	53
Per Capita	43	43	43

As can be seen from the above table the per AE and Per Capita requirements of Calories computed using entirely different samples at different points of time are remarkably close. In the case of Protein, requirements are identical in all three survey populations. As such these values could be used for analytical purposes with confidence.

### 2.4 Poverty Measures

There are a number of poverty measures one could use in Poverty Analysis. Three of the main measures which have been proposed by Foster,

Greer and Thorbecke (1984), are **Head-Count Index (H)**, the **Poverty Gap Index (PG)** and the **Foster - Greer - Thorbecke (P2) measure**. The *Head Count Index* is a *measure of the prevalence of poverty*. The *Poverty gap Index* is a *measure of the depth of poverty*, while the *P2* measures the *severity of poverty*.

(i) Head Count Index (H)

The simplest measure is the Head Count Index of Poverty, given by the proportion of the population for whom consumption  $y$  is less than the poverty line  $z$ . The Head Count Index could be given by

$$H = \frac{\text{No. of poor people in a population of size } n}{\text{Total Population}}$$

$$= \frac{q}{n} = \text{[Proportion of the total population deemed to be poor.]}$$

This is a good measure in assessing overall progress in reducing poverty. However the Head Count Index  $H$  is insensitive to differences in the depth of poverty.

(ii) Poverty-Gap Index (PG)

A better measure to study the depth of poverty is the Poverty-Gap Index (PG). This measure depends on the distance of the poor below the poverty line ( $z$ ). As such it gives a good indication of the depth of poverty. The Poverty-Gap Index could be given by

$$PG = \frac{1}{n} \sum_{i=1}^q \left\{ \frac{z - y_i}{z} \right\}$$

where  $z$  = poverty line

$y_1$  = Consumption of the poorest.

$y_q$  = Consumption of the least poor.

PG could also be defined as the Mean proportionate poverty gap across the whole population (zero gap for non-poor).

PG also has an interpretation as an indicator of the potential for eliminating poverty by targeting transfers to the poor. The minimum cost

of eliminating poverty using targeted transfers is simply the sum of all the poverty gaps in a population. The cost would be

$$\sum_{i=1}^q [z - y_i]$$

One drawback of the poverty gap measure is that it may not properly capture differences in severity of poverty.

(iii) Foster-Greer-Thorbecke Measure (P2).

Foster-Greer-Thorbecke (P2) measure which is additive, could be used to measure the severity of poverty.

Foster-Greer-Thorbecke measure could be given by

$$P_2 = \frac{1}{n} \sum_{i=1}^q \left\{ \frac{z - y_i}{z} \right\}^2$$

which could be defined as the Mean of squared proportionate poverty gaps.

2.5 Determination of Households which are 'Nutritionally at Risk' and 'Ultra Poor'.

The Households whose 'Food Ratio (FR)' is less than or equal to 80%, but achieve less than 80% of their Calorie requirement has been considered in this study as households which are '**Nutritionally at Risk**'.

The Households whose FR is more than 80 per cent, but achieve less than 80 percent of the Calorie requirement has been considered in this study as '**Ultra Poor**'.

Thus a household will be considered '**Nutritionally at Risk**' if

$$\left\{ \frac{AIC}{CR} \times 100 < 80 \right\} \text{ AND } \left\{ \frac{HFE}{HE} \times 100 \leq 80 \right\}$$

and a household has been considered to be '**Ultra Poor**' if

$$\left\{ \frac{AIC}{CR} \times 100 < 80 \right\} \text{ AND } \left\{ \frac{HFE}{HE} \times 100 > 80 \right\}$$

where AIC = Total Calorie Consumption of the H/H.  
 CR = Total Calorie Requirement of the H/H.  
 HFE = Household Expenditure on Food & Drink.  
 HE = Total Household Expenditure.

## 2.6 Determination of Poverty Lines.

The most common approach in defining an absolute poverty line is to estimate the cost of a bundle of goods needed to assure that basic consumption needs are met. The difficulty in identifying what constitutes 'basic needs' for developing countries like ours, the most important component of a basic needs poverty line is usually the food expenditure necessary to attain some recommended food energy intake. This then could be incorporated with a modest allowance for non-food goods.

Section 2.1 of this paper described how the minimum requirements of nutrients (per capita as well as per adult equivalent unit) was computed using the minimum recommended nutrient values for different age groups and sex using the survey population. These minimum values obtained were used in this analysis.

The 'food energy method' which is commonly used in determining the poverty lines could be implemented by first fixing a food energy intake level at which a person typically attains that food energy requirement. This could be estimated from a regression of Calorie intake on consumption expenditure, income or the expenditure on food. If consumption expenditure or income is used it automatically includes an allowance for non-food consumption as long as one locates the total consumption expenditure at which a person typically attains the Calorie requirement. This method yields a poverty line which is consistent with local tastes, as well as prices.

The 'Expenditure on food' usually shows a better correlation to 'Food energy intake' than to the total consumption expenditure or to the total household income. In this method, one could first find the *minimum cost* of a food basket which achieves the stipulated energy intake levels and then divide the minimum cost thus obtained by the 'Food Ratio' of some group of Households which are deemed to be poor in order to estimate the total consumption Expenditure required to attain the minimum requirement of Calories.

The food energy method is good for setting a single poverty line but one should be careful in applying it separately to each region or sector. If one is comparing living standards in terms of household consumption *per capita* then comparisons of absolute poverty across regions, sectors etc. can be misleading unless the poverty line has constant purchasing power (based on the cost of living index). However, the methods described above

are not likely to generate poverty lines which are constant in terms of real consumption or income. The main reason is that the relationship between food energy intake and consumption or income is not the same across regions, sectors etc.

For example, the cost of the Food Basket required to achieve the minimum Calorie requirement will be much higher in the Urban Sector compared to the one needed to achieve the same Calorie level in the rural sector.

As such it is more appropriate to set different poverty lines for different regions, sectors etc.

It is important to recognize that there is a certain amount of arbitrariness in defining any poverty line in practice. As such one should be careful about how the choices made affect the poverty comparisons.

In this study four different criteria were considered to see how the poverty measures differ when different criteria are used. The first step was to do Regressions: 'Per capita Food Expenditure' vs 'Per capita Calorie intake', for Sri Lanka and for each sector (Urban, Rural & Estate) separately. A similar set of Regressions were also done for the same two variables per Adult Equivalent Units. (i.e. 'Food Expenditure per Adult Equivalent' vs 'Calorie Consumption per Adult Equivalent') the later set shows a higher correlation than the former. The results of the Regressions are given below:

Regression: ( $Y = a + bx$ )

- (i) 'Per Capita Expenditure on Food (y)' vs 'Actual Per capita Calorie Intake (x)'

	R	a	b	Per capita Food Expenditure to achieve Minimum requirement of Calories per cap. (Rs. Cts.)
SRI LANKA	0.69	8.35	0.26	539.27
URBAN	0.74	-22.48	0.32	630.96
RURAL	0.72	-10.58	0.24	479.50
ESTATE	0.80	-15.20	0.23	454.46

## (ii) 'Expenditure on Food per Adult Equivalent (y)' vs 'Actual Calorie Intake Per Adult Equivalent (x)

	R	a	b	Food Expenditure per Adult Equivalent to achieve Minimum requirement of Cal./AE (Rs. cts.)
SRI LANKA	0.73	-3.42	0.26	646.58
URBAN	0.76	-30.74	0.32	769.26
RURAL	0.76	-29.31	0.25	595.69
ESTATE	0.82	-56.36	0.25	568.64

## A. Based on Regression (i) above two sets of poverty lines were defined.

Households which meet the following three conditions were identified as those below poverty line.

(a) (Per Capita Calorie Consumption (PCCC))  
< (Minimum Per Capita Calorie Requirement)

AND (b) (Food Ratio (FR)) > (a certain specified limit)

AND (c) (Per Capita Expenditure on Food (PCEF))  
< (Minimum Per Capita Expenditure to achieve the minimum requirement Calorie Per Capita)

On the above conditions two sets of poverty lines were defined for Sri Lanka and the three sectors as follows.

## Poverty Line 1 (PL 1)

SRI LANKA : [(PCCC < 2042) AND (PCEF < Rs. 539.27) AND (FR > 50%)].

URBAN : [(PCCC < 2042) AND (PCEF < Rs. 630.96) AND (FR > 50%)].

RURAL : [(PCCC < 2042) AND (PCEF < Rs. 479.50) AND (FR > 50%)].

ESTATE : [(PCCC < 2042) AND (PCEF < Rs. 454.46) AND (FR > 50%)].

## Poverty Line 2 (PL 2)

Exactly similar to the conditions specified in PL 1 above except the Food Ratio. For PL 2, FR > 60.

- B. Based on Regression (ii) above, another two sets of poverty lines were defined under the following conditions.

Poverty Line 3 (PL 3)

- (a) [C and D type households as defined in Section 2.2 (i.e. those households whose total requirement of Calories (CR) > total household consumption of Calories (AIC)]

AND (b) [FR > 50%]

AND (c) [Expenditure on Food per AE (FEXAE) <  $y_i$ ]

where  $y_i = a + b (CR/AE)$ .  $i = SL, U, R, E$ .

SRI LANKA :  $y_{SL} = (-3.42 + 0.26 (CR/AE))$

URBAN :  $y_U = (-30.74 + 0.32 (CR/AE))$

RURAL :  $y_R = (-29.31 + 0.25 (CR/AE))$

ESTATE :  $y_E = (-56.36 + 0.25 (CR/AE))$

where CR = Total H/H requirement of Calories  
 AE = Total Adult Equivalent of the H/H.

Poverty Line 4 (PL 4)

Exactly similar to PL 3 except the Food Ratio (FR). For this poverty line FR > 60%.

### 3. Results and Analysis

#### 3.1 Poverty Measures for different Poverty Lines

Table (3) shows a comparison of Poverty Measures for different Poverty Lines fixed according to the conditions stipulated in Section 2.6.

The Poverty Lines 1 and 2 are based on per capita Expenditure on Food. As can be seen in Section 2.6(A) the conditions used in these two lines were the same, except the Food Ratios (FR):

Poverty Line 1 (PL 1): Households receiving less than the minimum requirement of Calories per capita and whose per capita expenditure on food is less than the minimum required to achieve the minimum requirement of Calories and whose food ratio (FR) is greater than 50 percent (FR>50).

Poverty Line 2 (PL 2): Same as in PL 1 above with  $FR > 60$ .

The Poverty Lines 3 and 4 are based on Food Expenditure per Adult Equivalent Unit. Section 2.6(B) gives the conditions used to fix these two poverty lines. The criteria used in this case is better than the criteria used in PL 1 and PL 2. In the case of PL 3 and PL 4 the minimum expenditure on food per adult equivalent to achieve the minimum requirement of Calories was computed using the regression model as shown in Section 2.6(B).  $Y_1$  which is the per Adult Equivalent (AE) expenditure on food to achieve the minimum requirement of Calories was compared with the actual expenditure on food per Adult Equivalent (FEX AE). Since the actual composition of the household is taken into consideration in determining whether the actual expenditure on food per AE had been sufficient to achieve the minimum requirement of Calories at individual household level, the identification of the households in poverty would be more accurate in this case than in PL 1 and PL 2 and as such these two poverty lines give a more realistic picture than PL 1 and PL 2.

Poverty Line 3 (PL 3): Households which do not receive the minimum requirement of Calories and whose expenditure on food per AE is less than  $y_1$  where  $y_1$  is the per adult equivalent food expenditure actually needed to achieve the minimum requirement of Calories of the particular household and  $FR > 50$ .

Poverty Line 4 (PL 4): Same as in PL 3 above with  $FR > 60$ .

As can be seen in Table (3), the Head Count Index (H) for PL 1 and PL 3, are quite close to each other at national level as well as at sector level. The same is true for PL 2 and PL 4. According to PL 3, 36.1 percent of the households in Sri Lanka are in poverty. The percentages of Households below poverty line in the Urban, Rural and Estate sectors are 37.9, 36.8 and 19.7 respectively. According to PL 3 the percentages of persons in poverty at National Level and in Urban, Rural and Estate sectors are 42.3, 44.1, 43.2 and 22.8 respectively. According to these figures the Estate Sector is very much better off compared to Urban and Rural Sectors.

The Poverty Gap Index (PG) under PL (3) for National level and for Urban, Rural and Estate Sectors are 27.9, 30.2, 31.2 and 9.6 respectively. This shows that the depths of poverty in the Urban and in the Rural Sectors are of the same level. The depth of poverty in the Estate Sector is very low compared to the Urban and Rural Sectors.

The Foster-Greer-Thorbecke measure under PL(3) for National level and for Urban, Rural and Estate sectors are 32.9, 40.9, 37.7 and 7.0 respectively.

According to these figures the poverty is most severe in the Urban sector followed by the Rural sector.

**Table 3: Alternative measures of poverty when different criteria are used to determine the poverty line Sri Lanka and sectors (All poverty measures expressed as percentages).**

Sector	C & D* Type H/H (persons)	Poverty Line No. 1 (FR > 50)			Poverty Line no. 2 (FR > 60)		
		H		PG	H		PG
		H/H (persons)	P2		H/H (persons)	P2	
SRI LANKA	45.4 (51.6)	37.2 (42.6)	23.8	25.1	34.0 (39.1)	22.0	23.0
URBAN	52.5 (58.8)	37.8 (43.5)	25.1	30.1	31.8 (36.9)	21.6	25.2
RURAL	45.5 (51.6)	36.8 (42.3)	19.7	18.0	34.0 (39.3)	18.3	16.6
ESTATE	25.6 (28.2)	20.4 (24.0)	7.6	4.8	19.8 (23.6)	7.4	4.7
		Poverty Line No. 3 (FR > 50)			Poverty Line No. 4 (FR > 60)		
SRI LANKA		36.1 (42.3)	27.9	32.9	33.0 (38.8)	25.7	29.9
URBAN		37.9 (44.1)	30.2	40.9	32.0 (37.5)	25.5	33.0
RURAL		36.8 (43.2)	31.2	37.7	34.1 (39.5)	29.0	34.7
ESTATE		19.7 (22.8)	9.6	7.0	19.3 (22.5)	9.4	6.9

Note: Percentages given within brackets are percentages of persons

H = Head Count Index

PG = Poverty Gap Index

P2 = Foster - Greer - Thorbecke Measure

H/H = Households

\* C & D Type Households are those H/Hs which have not achieved the minimum requirement of Calorie

### 3.2 Poverty Measure for different Socio-Economic Groups (SEG)

The households have been classified into 14 Socio-Economic groups in this study as explained in page 6. Table 4 gives the poverty measures for different Socio-Economic Groups by sectors. This table is very useful in identifying the Socio-Economic Groups which are worst affected. According to the figures in this table there are four Socio-Economic groups with a Head Count Index (H) more than 40 percent, at national level. These Socio-Economic groups are (1) SEG-4: "Agricultural Labourers", (11) SEG-10: "other types of worker in non-agricultural activities. (excluding manual labourers)", (111) SEG-11: "Manual worker in non-agricultural activities" and (1V) Seg-14: "Others-the residual category". The percentages of households below poverty line (or the head count Index-4) in these four Socio-Economic-Groups are 40.5, 42.7, 53.3 and 53.7 respectively. The corresponding poverty Gap Index (PG) and the Foster-Greer-Thorbecke Measure P2, pertaining to those four Socio Economic Groups are 33.1, 28.6, 42.1 and 47.2 respectively and 40.8, 28.9, 53.2 and 61.3 respectively.

A clear picture can be seen when the figures for each sector is studied closely. In the urban sector 54.4 percent of the households in SEG 4: "Agriculture Labourer" are below poverty line. Poverty Gap Index (PG) and Foster-Greer-Thorbecke measure (P2) for the group in urban sector are 43.9 and 60.1 percent respectively, which shows the depth and severity of poverty in this group. Corresponding figures for the Rural Sector are 48.1 and 64.1 percent respectively. The situation is also similar for manual worker engaged in non-agricultural activities.

As can be seen from the table the situation is very much better in the Estate Sector except for example SEG-9, SEG-12 and SEG-13. However the percentages of households in these three Socio-Economic Groups in the Estate Sector are extremely small, 2.0, 0.2 and 3.4 percent respectively. The above are just a few observations based on the figures in table 4. The table is self-explanatory and one could easily identify the Socio-Economic-Groups which are having higher incidences of poverty.

### 3.3 Nutritional Status of the Population at National Level and at Sector Level

Table (5) gives an overall picture of the nutritional status of the population at national level as well as at sector level based on three surveys. LFSE-85/86 and INEX-90/91. Table clearly shows that there had been an improvement in the nutrition status, during the past 10 years, both at national level as well as at sector levels. For example, the percentage of households deficient in both energy and protein at national level has decreased from 35.6 percent in 1980/81 to 27.3 percent in 1990/91. In the Urban Sector the percentage has decreased from 32.8 percent in 1980/81 to 25.4 percent in 1990/91. In the case of the rural sector it has decreased from 37.4 percent to 29.5 percent during the same period. The drop is more significant between the period from 1985/86 to 1990/91, from 36.5 percent in 1985/86 to 29.5 percent in 1990/91.

**Table 4: Alternative measures of poverty by socio-economic group (SEG) of the household (H/H) for Sri Lanka and Urban, Rural and Estate sectors based on PL3.**

Socio-economic group (see page 6 for details)	Sri Lanka				Urban sector				Rural sector				Estate sector			
	%	H	PG	P2	%	H	PG	P2	%	H	PG	P2	%	H	PG	P2
SEG1 - Agri: Employer	0.7	16.1	12.7	11.8	0.3	7.9	8.2	9.8	0.9	18.0	13.2	12.5	0.0	-	-	-
SEG2 - Agri: Own account workers	21.6	34.7	28.1	32.0	3.3	28.5	22.5	25.8	28.6	33.2	28.5	32.6	1.8	28.7	13.7	8.8
SEC3 - Agri: Employee; Prof; Tech. etc.	0.1	8.2	2.3	0.6	0.0	17.4	5.3	1.6	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
SEG4 - Agri: Labourer	12.8	40.5	33.1	40.8	1.4	54.4	43.9	60.1	9.6	51.0	48.1	64.1	76.2	19.3	8.8	5.5
SEG5 - Agri: Other	2.1	36.7	30.8	36.0	0.3	53.9	41.7	38.3	2.3	41.3	36.3	44.1	6.1	11.7	6.1	4.1
SEG6 - Non Agri: Employer	1.1	14.5	7.3	5.9	2.6	12.6	4.4	2.3	0.8	19.5	11.5	8.4	0.0	-	-	-
SEG7 - Non Agri: Own account worker	12.5	35.7	24.7	26.9	17.4	42.7	32.5	44.3	12.2	34.2	26.0	28.1	1.5	22.4	8.8	5.8
SEG8 - Non Agri: Employee; Prof, Tech. etc.	4.3	16.3	7.7	6.2	8.3	12.6	6.6	5.3	3.6	16.1	9.9	8.7	0.5	13.9	5.1	1.9
SEG9 - Non Agri: Employee Clerical etc.	8.9	30.5	19.2	21.3	18.0	35.0	26.3	34.6	7.1	28.3	20.4	23.0	2.0	38.2	14.8	9.4
SEG10 - Non -Agri: Others excluding Manual workers	13.0	42.7	28.6	28.9	17.4	48.7	37.9	49.5	12.9	40.4	29.8	29.8	1.2	22.7	11.2	7.0
SEG11 - Non Agri: Manual workers	4.5	53.3	42.1	55.2	6.3	54.5	49.1	65.7	4.3	50.0	44.8	61.3	1.7	29.3	38.5	62.5
SEG12 - Unemployed	0.7	34.2	21.5	23.3	1.3	29.4	30.7	39.2	0.5	28.0	19.2	22.3	0.2	80.8	67.2	55.8
SEG13 - Economically inactive	9.6	32.2	21.3	31.2	15.5	27.0	21.1	30.4	8.6	27.3	24.9	38.6	3.4	32.4	14.1	10.6
SEG14 - Other	8.0	53.7	47.2	61.3	7.8	56.3	55.0	83.9	8.4	54.0	51.5	67.8	5.3	11.1	6.9	8.6
All Groups	100.0	37.2	27.9	32.9	100.0	37.9	30.2	40.9	100.0	36.8	31.2	37.7	100.0	19.7	9.6	7.0

**Table 5: Relationship between energy (calorie) and protein deficient households by sectors - for the years 80/81, 85/86 and 90/91.**

		Protein Deficient %			Not Protein Deficient			Total		
		LFSE	LFSE	*INEX	LFSE	LFSE	*INEX	LFSE	*INEX	
		80/81	85/86	90/91	80/81	85/86	90/91	80/81	85/86	90/91
<b><u>Sri Lanka</u></b>										
(i)	Not Energy Deficient	1.2	1.3	1.3	44.2	49.5	53.3	45.4	50.8	54.6
(ii)	Energy Deficient	35.6	33.7	27.3	18.9	15.6	18.1	54.6	49.2	45.4
	<b>Total</b>	<b>36.8</b>	<b>35.0</b>	<b>28.6</b>	<b>63.2</b>	<b>65.1</b>	<b>71.4</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b><u>Urban</u></b>										
(i)	Not Energy Deficient	0.4	0.4	0.4	40.6	45.8	47.1	41.0	46.2	47.5
(ii)	Energy Deficient	32.8	29.8	25.4	26.2	24.0	27.1	59.0	53.8	52.5
	<b>Total</b>	<b>33.2</b>	<b>30.2</b>	<b>25.8</b>	<b>66.8</b>	<b>69.8</b>	<b>74.2</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b><u>Rural</u></b>										
(i)	Not Energy Deficient	1.5	1.6	1.5	44.2	48.3	53.0	45.7	49.9	54.5
(ii)	Energy Deficient	37.4	36.5	29.5	16.9	13.7	16.0	54.3	50.2	45.5
	<b>Total</b>	<b>38.8</b>	<b>38.0</b>	<b>31.0</b>	<b>61.2</b>	<b>62.0</b>	<b>69.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b><u>Estate</u></b>										
(i)	Not Energy Deficient	0.7	0.4	1.1	53.2	76.3	73.3	53.9	76.7	74.4
(ii)	Energy Deficient	25.2	13.5	11.4	20.9	9.8	14.2	46.1	23.3	25.6
	<b>Total</b>	<b>25.9</b>	<b>13.9</b>	<b>12.5</b>	<b>74.1</b>	<b>86.1</b>	<b>87.5</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*\*Excluding Northern and Eastern Provinces.*

The improvement in the Estate Sector is much more significant compared to urban and Rural Sectors. In this sector the percentage has decreased from 25.2 in 1980/81 to 11.4 in 1990/91.

Table (5) is self explanatory and therefore could be used to compare the nutritional status at different points of time which are 5 years apart.

Table (6) gives percentages of households by type of household (i.e. A,B,C or D type) and by sectors for the years 1980/81, 1985/86 and 1990/91. It is quite clear from this table that the situation has been improving with time.

**Table 6: Percentage of households by type of household and by sectors for the years 80/81, 85/86 and 90/91.**

Type of HH and Sector	LFSE 80/81	LFSE 85/86	INEX 90/91
Sri Lanka	100.0	100.0	100.0
A	44.2	49.5	53.3
B	1.2	1.2	1.3
C	18.9	15.6	18.1
D	35.6	33.7	27.3
Urban	100.0	100.0	100.0
A	40.6	45.8	47.1
B	0.4	0.4	0.4
C	26.2	24.0	27.1
D	32.8	29.8	25.4
Rural			
A	100.0	100.0	100.0
B	44.2	48.3	53.0
C	16.9	13.7	16.0
D	37.4	36.5	29.5
Estate	100.0	100.0	100.0
A	53.2	76.3	73.3
B	0.7	0.4	1.1
C	20.9	9.8	14.2
D	25.2	13.5	11.4

- A = Both calorie and protein adequate  
 B = Calorie adequate and protein inadequate  
 C = Calorie inadequate and protein adequate  
 D = Both calorie and protein inadequate

**Table 7: Percentages of Households receiving less than minimum requirement of energy (calories) at different levels of calorie adequacy and food ratios - Sri Lanka..**

Food Ratio	Percentage Calorie Adequacy						
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%
All Groups	55.3	44.7	31.8	19.8	10.9	5.2	2.3
< 40	62.7	37.3	27.6	15.1	9.8	6.9	5.2
≥ 40	53.1	43.4	30.1	19.3	10.6	4.9	2.1
≥ 50	50.2	41.5	29.6	18.4	10.1	4.7	1.9
≥ 55	48.3	39.7	28.3	17.7	9.7	4.5	1.8
≥ 60	45.2	37.5	26.8	16.8	9.2	4.2	1.7
≥ 65	40.8	34.0	24.2	15.1	8.4	3.9	1.6
≥ 70	34.7	29.0	20.7	12.8	7.1	3.3	1.3
≥ 75	26.9	22.2	15.7	9.8	5.4	2.5	0.9
≥ 80	17.7	14.1	9.9	6.2	3.4	1.5	0.6
85 or more	8.7	6.0	4.2	2.7	1.4	0.6	0.2

*Note: Cell percentages are given as a percent of the total number of households in Sri Lanka (excluding Northern and Eastern provinces)*

**Table 8 : Percentages of Households receiving less than minimum requirement of energy (calories) at different levels of calorie adequacy and food ratios - Urban Sector.**

Food Ratio	Percentage Calorie Adequacy						
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%
All Groups	48.4	51.6	38.0	23.4	13.0	6.7	3.3
< 40	57.3	42.8	32.8	17.6	9.2	5.5	4.4
≥ 40	43.1	47.6	35.0	21.8	12.2	6.2	2.9
≥ 50	36.9	43.9	32.4	20.3	11.4	5.7	2.7
≥ 55	33.4	41.0	30.2	19.0	10.7	5.4	2.5
≥ 60	29.1	37.2	27.6	17.1	10.0	4.9	2.3
≥ 65	24.1	31.8	23.8	15.1	8.9	4.4	2.1
≥ 70	18.7	25.2	19.1	12.4	7.2	3.7	1.8
≥ 75	12.9	17.8	13.5	8.8	5.1	2.7	1.3
≥ 80	7.4	10.2	7.7	5.1	3.0	1.7	0.9
85 or more	3.0	4.0	2.9	2.1	1.2	0.6	0.3

*Note: Cell percentages are given as a percent of the total number of households in the Urban Sector (excluding those in the Northern and Eastern provinces).*

**Table 9 : Percentages of Households receiving less than minimum requirement of energy (calories) at different levels of calorie adequacy and food ratios - Rural Sector.**

Food Ratio	Percentage Calorie Adequacy						
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%
All Groups	55.3	44.8	31.6	19.9	11.1	5.1	2.2
< 40	69.0	30.9	21.1	11.8	9.9	8.0	2.0
≥ 40	53.7	44.1	31.2	19.6	10.8	5.0	2.0
≥ 50	51.6	42.6	30.1	18.9	10.4	4.7	1.9
≥ 55	49.9	40.9	29.0	18.2	10.0	4.5	1.8
≥ 60	47.0	39.0	27.7	17.4	9.6	4.3	1.7
≥ 65	42.7	35.7	25.2	15.8	8.7	4.0	1.6
≥ 70	36.5	30.9	21.8	13.6	7.5	3.4	1.2
≥ 75	28.4	24.1	16.9	10.5	5.8	2.5	0.8
≥ 80	19.0	15.6	10.8	6.8	3.8	1.6	0.5
85 or more	9.3	6.7	4.7	2.9	1.6	0.6	0.2

*Note: Cell percentages are given as a percent of the total number of households in the Rural Sector (excluding those in the Northern and Eastern provinces).*

**Table 10 : Percentages of Households receiving less than minimum requirement of energy (calories) at different levels of calorie adequacy and food ratios - Estate Sector.**

Food Ratio	Percentage Calorie Adequacy						
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%
All Groups	74.9	25.2	16.6	8.8	3.4	1.4	0.5
FR < 40	43.4						
FR ≥ 40	74.7	25.0	16.4	8.7	3.2	1.3	0.4
FR ≥ 50	73.5	24.6	16.1	8.5	3.2	1.2	0.4
FR ≥ 55	73.1	24.3	16.0	8.5	3.2	1.2	0.4
FR ≥ 60	72.1	23.9	16.0	8.4	3.2	1.2	0.4
FR ≥ 65	68.7	22.9	15.2	7.8	2.8	1.1	0.2
FR ≥ 70	61.1	20.2	13.4	6.7	2.5	0.9	0.3
FR ≥ 75	50.4	15.6	10.0	5.1	2.1	0.7	0.3
FR ≥ 80	33.7	9.6	6.4	3.3	1.4	0.5	0.3
85 or more	18.6	5.0	3.4	1.7	0.5	0.2	-

*Note: Cell percentages are given as a percent of the total number of households in the Urban Sector (excluding those in the Northern and Eastern provinces).*

### 3.4 Households receiving less than the minimum requirements of Energy

The tables 7,8,9 and 10 give the percentages of households receiving less than the minimum requirement of energy (calories) at different levels of calorie adequacy and food ratios, for Sri Lanka and the three sectors. It should be noted that the cell percentages in these tables are given as a percent of the total number of households in Sri Lanka (excluding Northern and Eastern Provinces) and in the Urban, Rural and Estate Sectors respectively.

This set of tables gives some flexibility to the users to fix their own poverty lines, if necessary. For example, if a user decides to consider a "Food Ratio" greater than or equal to 60 percent and "Percentage Calorie Adequacy" less 80 percent as the limits for a household to be in the poverty group, the cell value would give the percentage of households below the specified limits. In the specific example, it is 16.8 percent at national level. The corresponding percentages for Urban, Rural and Estate sectors are 17.1, 17.4 and 8.4 respectively.

### 3.5 Households which are "Nutritionally at Risk" or "Ultra Poor"

The definitions of "nutritionally at risk" and "Ultra Poor" households are given in section 2.5 of this paper. Tables 11 to 14 give the percentages of households which are "Nutritionally at Risk" and those household which are "Ultra Poor" according to these definitions by "Per Capita Expenditure Decides".

Table (11) shows that 14.4 percent of the households in Sri Lanka (excluding Northern and Eastern Provinces) are "Nutritionally at Risk". The percentages in the first four per capita expenditure decide are 44.9, 32.5 20.2 and 13.3 respectively. As can be seen in the last column of the same table 5.4 percent of the households are "Ultra Poor". The percentage in the first four decides are 34.5, 11.2, 3.9 and 2.0 respectively.

The situation is worse in the Urban sector. Table (12) shows that 19.0 percent of the households in the urban sector are "Nutritionally at Risk". Percentages in respect of the first four per capita expenditure decides are 56.1, 42.3, 25.9 and 18.1 respectively. In this sector only 44.4 percent of the households are in the "Ultra Poor" group. The percentages for the first four decides are 27.7, 10.3, 3.1 and 1.9 respectively.

Table 13 shows that the pattern in the rural sector is more or less similar to the pattern at national levels as one would expect because more than 70 percent of the households are located in the rural sector.

The situation in the Estate Sector is much better compared to the Urban and Rural sectors. As can be seen from Table (14) only 5.8 percent of the households in the Estate Sector are "Nutritionally at Risk" and only 3.0 percent are "Ultra Poor".

**Table 11: Percentage of households with different levels of calorie adequacy by per capita expenditure deciles - Sri Lanka.**

Per capita Expenditure Decile	Percentage of Calorie Adequacy							Nutritionally at risk	Ultra Poor
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%		
All Groups	55.3	44.7	31.8	19.8	10.9	5.2	2.3	14.4	5.4
1st (0-384)	2.4	97.6	92.3	79.8	59.7	35.0	16.8	44.9	34.5
2nd (385-466)	15.0	85.0	66.3	43.7	20.8	7.6	2.0	32.5	11.2
3rd (467-537)	34.4	65.6	44.8	24.2	10.1	3.7	1.3	20.2	3.9
4th (538-610)	48.0	52.0	31.7	15.2	6.2	1.4	0.4	13.3	2.0
5th (611-689)	61.5	38.5	24.3	10.6	3.9	1.2	0.4	9.5	1.1
6th (690-781)	69.8	30.2	16.5	8.2	3.0	1.2	0.6	7.8	0.4
7th (782-902)	74.8	25.2	15.6	6.5	1.8	0.5	0.3	6.0	0.5
8th (903-1094)	78.6	21.4	10.7	4.5	1.6	0.6	0.3	4.4	0.2
9th (1095-1473)	82.6	17.4	8.4	2.9	1.4	0.6	0.3	2.8	0.1
10th (1474+ )	85.7	14.3	8.2	3.4	1.5	0.9	0.5	3.2	0.2

*Note: Cell percentages are given as a percent of the total, number of households within each decile (this table excludes Northern and Eastern Provinces)*

**Table 12: Percentage of households with different levels of calorie adequacy by per capita expenditure deciles - Urban**

Per capita Expenditure Decile	Percentage of Calorie Adequacy							Nutritionally at risk	Ultra Poor
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%		
All Groups	48.4	51.6	38.0	23.4	13.0	6.7	3.3	19.0	4.4
1st (0-455)	1.7	98.3	93.9	83.8	66.8	43.0	22.7	56.1	27.7
2nd (456-575)	10.0	90.0	77.2	52.6	25.4	9.6	3.9	42.3	10.3
3rd (576-687)	22.9	77.1	58.0	29.0	11.3	2.9	1.3	25.9	3.1
4th (688-796)	37.3	62.7	37.7	20.0	7.7	2.8	0.5	18.1	1.9
5th (797-917)	48.8	51.2	34.6	14.7	5.0	2.0	0.9	14.5	0.2
6th (918-1076)	59.5	40.5	23.8	10.2	3.5	1.6	0.7	10.0	0.2
7th (1077-1267)	69.8	30.2	16.8	7.4	3.0	1.2	0.3	7.4	-
8th (1268-1580)	73.8	26.2	13.7	5.5	3.2	1.5	1.2	5.4	-
9th (1581-2176)	82.1	17.9	10.1	5.1	1.9	0.9	0.3	4.8	0.4
10th (2177+ )	78.7	21.3	13.8	5.3	1.7	0.9	0.5	5.1	0.1

*Note: Cell percentages are given as a percent of the total, number of households within each decile within the Urban Sector (this table excludes Northern and Eastern Provinces)*

**Table 13: Percentage of households with different levels of calorie adequacy by per capita expenditure deciles - Rural.**

Per capita Expenditure Decile	Percentage of Calorie Adequacy							Nutritionally at risk	Ultra Poor
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%		
All Groups	55.2	44.8	31.8	19.9	11.1	5.1	2.2	14.0	5.9
1st (0-369)	2.0	98.0	93.7	81.9	61.5	34.8	16.3	44.9	
2nd (370-444)	11.6	88.4	71.2	47.5	22.1	8.4	1.9	34.1	13.4
3rd (445-509)	29.0	71.0	47.7	25.7	10.5	3.7	1.3	21.5	4.2
4th (510-573)	45.5	54.5	31.8	14.5	5.6	1.5	0.2	12.4	2.1
5th (574-644)	58.0	42.0	23.8	120.4	4.8	0.7	0.2	9.2	1.2
6th (645-724)	71.1	28.9	15.8	6.2	2.2	0.6	0.4	5.9	0.3
7th (725-827)	76.5	23.5	13.5	6.3	2.0	0.9	0.7	6.1	0.2
8th (828-984)	82.6	17.4	8.7	4.0	0.8	0.2	0.1	3.6	0.4
9th (985-1280)	84.9	15.1	6.5	1.6	0.8	0.2	1.5	0.1	
10th (1281+)	90.2	9.8	4.6	1.8	1.1	0.7	0.4	1.5	0.3

*Note: Cell percentages are given as a percent of the total, number of households within each decile within the Rural Sector (excluding Northern and Eastern Provinces)*

Table 14: Percentage of households with different levels of calorie adequacy by per capita expenditure deciles - Estate.

Per capita Expenditure Decile	Percentage of Calorie Adequacy										Nutritionally Ultra at risk Poor		
	100% or more	Less 100%	Less 90%	Less 80%	Less 70%	Less 60%	Less 50%						
All Groups	74.9	25.5	16.5	8.8	3.4	1.4	0.5	5.8	3.0				
1st (0-441)	14.4	85.6	72.8	49.6	26.7	11.4	4.1	27.1	22.6				
2nd (442-508)	49.3	50.7	31.4	13.8	4.2	0.2	-	11.7	2.1				
3rd (509-569)	65.9	34.1	15.1	6.7	0.2	-	-	5.4	1.3				
4th (570-629)	83.9	16.1	9.1	3.2	0.4	0.2	-	1.6	1.6				
5th (630-700)	68.6	31.4	22.2	10.0	0.8	0.8	-	7.8	2.2				
6th (701-768)	86.2	13.8	4.8	-	-	-	-	-	-				
7th (769-853)	93.3	6.7	2.5	-	-	-	-	-	-				
8th (854-969)	96.1	3.9	1.5	1.5	-	-	-	1.5	-				
9th (970-1171)	94.0	6.0	4.4	2.9	0.9	0.9	0.9	2.9	-				
10th (1172+)	97.7	2.3	1.1	0.5	0.2	-	-	0.2	0.3				

Note: Cell percentages are given as a percent of the total number of households within each decile within the Estate Sector.

Table (15) below compares the situation in 1980/81, 1985/86 and 1990/91 based on the results of the three surveys.

**Table 15: Percentage of households which are "Nutritionally at Risk" and "Ultra Poor" households in 1980/81, 1985/86 and 1990/91\*.**  
(percentages are within each sector)

Type of Households	Survey	Sri Lanka	Urban	Rural	Estate
"Ultra Poor" households	LFSE 80/81	5.5	5.8	5.7	2.5
	LFSE 85/86	2.9	3.2	2.9	1.8
	INEX 90/91	5.4	4.4	5.9	3.0
Households which are "Nutritionally at Risk"	LFSE 80/81	23.8	26.6	23.5	19.5
	LFSE 85/86	22.4	24.0	23.1	9.2
	INEX 90/91	14.4	19.0	14.0	5.8
Households not receiving minimum requirement of calories	LFSE 80/81	54.6	59.0	54.3	46.1
	LFSE 85/86	49.2	53.8	50.2	23.3
	INEX 90/91	45.4	52.5	45.5	25.6

\* *Excluding Northern and Eastern Provinces*

There is not much of a change in the percentage of "Ultra Poor" in 1990/91 compared to 1980/81. However in 1985/86 the percentages are comparatively low. The "Ultra Poor" provides an Index of households which are unambiguously and seriously undernourished. Though the groups of households spend virtually all available resources on food, they receive less than 80 percent of the requirement of energy.

There is a significant reduction in the percentage of households which are "Nutritionally at Risk". At national level it has dropped from 23.8 percent in 1980/81 to 14.4 percent in 1990/91. A similar pattern can be seen in all three sectors.

### 3.6 Gini Coefficients

Table (16) below gives the Gini coefficients for households incomes in 1980/81, 1985/86 and 1990/91.

**Table 16: Gini Coefficients by sectors.**

Sector	LFSE 1980/81	LFSE 1985/86	INEX 1990/91
Sri Lanka	0.43	0.46	0.47
Urban	0.44	0.48	0.62
Rural	0.38	0.43	0.42
Estate	0.27	0.31	0.24

In the urban sector, the Gini Coefficient has increased from 0.44 to 0.62 in 1990/91, which shows that the disparity between rich and poor in this sector has increased considerably.

**Appendix 1: Nutritive values of Sri Lankan foods.**

(Only a few items have been included in this table)

Serial No.	Item	Edible Portion	Energy	Proteins	Fats
1.	Rice	100	346.0	7.30	0.6
2.	Wheat Flour	100	344.0	12.00	1.3
3.	Kurakkan	100	328.0	7.30	1.3
4.	Sorgham	100	328.0	7.30	1.3
5.	Bread	100	245.0	7.80	0.7
6.	Buns	100	311.0	7.00	2.3
7.	Cakes	100	100.0	2.10	4.1
8.	Hoppers	100	334.0	5.60	11.2
9.	String Hoppers	100	324.0	9.30	1.3
10.	Thosai	100	166.0	6.00	20.0
11.	Pittu	100	369.0	6.20	14.4
12.	Pappadam	100	288.0	18.80	0.3
13.	Noodles	100	363.0	10.40	1.6
14.	Oats/Rye/Barley	100	336.0	11.50	1.3
15.	Infant cereal food	100	384.0	13.40	5.0
16.	Dried Chillies	100	291.0	15.00	11.0
17.	Red Onions	95	59.0	1.80	0.1
18.	Bombay Onions	95	50.0	1.20	0.1
19.	Garlic	85	145.0	6.30	0.1
20.	Cummin Seed	100	356.0	18.70	15.0
21.	Fennel Seed	100	333.0	26.20	5.8
22.	Mathe Seed	100	33.0	26.20	5.8
23.	Corriander	100	288.0	14.10	16.1

## Appendix 1 Contd.

Serial No.	Item	Edible Portion	Energy	Proteins	Fats
24.	Maldive Fish	100	204.0	42.20	3.9
25.	Ginger	100	67.0	2.30	0.9
26.	Turmeric	100	349.0	6.30	5.1
27.	Mustard	100	541.0	20.00	39.7
28.	Tamarind	100	283.0	3.10	0.1
29.	Green Chillies	90	29.0	2.90	0.6
30.	Pepper	95	304.0	11.50	6.8
31.	Limes	77	59.0	1.50	1.0
32.	Cinnamon	100	229.0	12.00	7.8
33.	Curry Leaves	83	108.0	6.10	1.0
34.	Vinegar	100	4.0	0.40	0.0
35.	Mysoor Dhall	100	343.0	25.10	0.7

(Values are given for 100 grams of edible portion).

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