Global Multidimensional Poverty for Sri Lanka
Department of Census and Statistics
Ministry of Economic Reforms and Public Distribution

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Introduction

The Department of Census and Statistics (DCS) measures poverty in consumption approach since 2002 to determine incidence of poverty across regions based on the information collected from Household Income and Expenditure Survey (HIES) conducts periodically by the Department using Cost of Basic Need (CBN) approach. In relation to the consumption, the incidence of poverty in Si Lanka has been dramatically declined from 2002 to 2016 from 22.7 percent to 4.1 at present. However, overall poverty has declined at national level although poverty pockets are still in existence across the regions.

According to the Sustainable Development Goals (2030) poverty should be eliminated in all its forms everywhere. Accordingly, in addition to the consumption approach the DCS has decided to measure poverty in multidimensional approach periodically. This publication provides the measures of poverty in multidimensional approach using on Alkire and Foster (2007) counting method which is globally accepted and used to measure acute poverty covering more than 100 developing countries. The DCS has compiled the Multidimensional poverty measures as official statistics for the first time in 2018 in collaboration with the

Oxford Poverty & Human Development Initiative (OPHI) in the United Kingdom using the data collected through the Demography and Health Survey (DHS) conducted by the DCS in 2016.
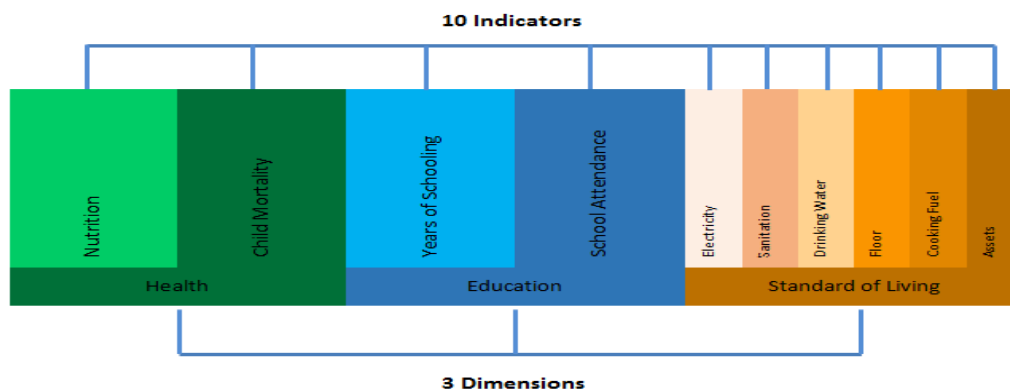
The Global Multidimensional Poverty Index (MPI) measures poverty in multidimensional approach considering three dimensions with ten indicators which reflect that deprivations of people facing at household levels. Each dimension is equally weighted and each indicator within the dimension is also equally weighted. This method was developed and introduced by Alkire and Foster in 2007 and it was further developed by Alkire and Santos in 2010 for Human Development Report. This note provides the multidimensional poverty statistics considering the Global concept to understand the people who live in poverty and makes a comparison across regions within the country and across countries .

Special Points of Interest:

- Multidimensional Poverty Headcount Index (H) is 2.4 %
- Average deprivation score per poor (Intensity of Poverty (A)) is 37.5 %
- Multidimensional poverty Index (MPI) is 0.009
- Vulnerable to multidimensional poverty is 11.9 %
- Severely multidimensional poor is 0.2%

2.5 MILLIONS OF PEOPLE ARE VULNERABLE TO POVERTY

Inside this issue:

Indicators Considered

What is Global MPI

The Global Multidimensional Poverty Index (MPI) is an international measure of acute poverty covering over 100 developing countries. It complements traditional income-based poverty measures by capturing the severe deprivations that each person faces and at the same time with respect to education, health and living standards. This makes it invaluable as an analytical tool to identify the most vulnerable people who live in poverty and also the poorest people among the poor that is severity of poverty. The methodology which is used to measures the Global Multidimensional Poverty is given below. (http://ophi.org.uk/)

Global MPI Methodology

Each person is assigned a deprivation score according to his or her household's deprivations in each of the 10 component indicators. The maximum score is 100 percent, with each of the dimensions: Education, Health and Living Standard are equally weighted (thus the maximum score in each dimension is 33.3 (100/3) percent). Each of the education and health dimensions have two indicators , so each component is worth 33.3/2 (100/6) percent. The standard of living dimension has six indicators, so each component is worth 33.3/6 (100/18) percent.

To identify the multidimensional poor, the deprivation scores for each indicator are summed to obtain the household deprivation score, A cutoff of 33.3 percent which is equivalent to 1/3 of the weighted indicators is used to distinguish between the poor and non-poor.

Multidimensional poor: Deprivation score, k >=33.3 percent
Vulnerable to poor: 20<=Deprivation score, k<33.3 percent
Severely multidimensional poor: Deprivation score, k>=50 percent

Multidimensional Poverty Head Count Ratio (Incidence), **H** = Number of multidimensional poor population

Total population

Intensity of Poverty, **A** = The sum of deprivation scores of multidimensional poor population
Total number of multidimensional poor population

Multidimensional Poverty Index, MPI = H*A

MPI Measures

According to the survey findings, it is reported that the proportion of population that is multidimensional poor (H) living in Sri Lanka is 2.4 percent (around five hundred thousands people) . That is the **incidence** of multidimensional poverty. The average proportion of indicators in which poor people are deprived is described as the **intensity** of their poverty (A). That is the average deprivation score a multidimensional poor person experiences. For Sri Lanka, it is 37.5 percent for Sri Lanka in 2016. In other words, on average poor people are deprived in 37.5 percent of the weighted indicators. The **Multidimensional Poverty Index (MPI)** is product of incidence and the intensity. That means the percentage of deprivation of poor person experienced , as a share of the possible deprivations that would be experienced if all people were deprived in all dimensions. The multidimensional poverty Index for Sri Lanka is 0.009 in 2016. This means the poor in Sri Lanka experience 0.9 percent of the total possible deprivations the country could experience.The people whose deprivation score
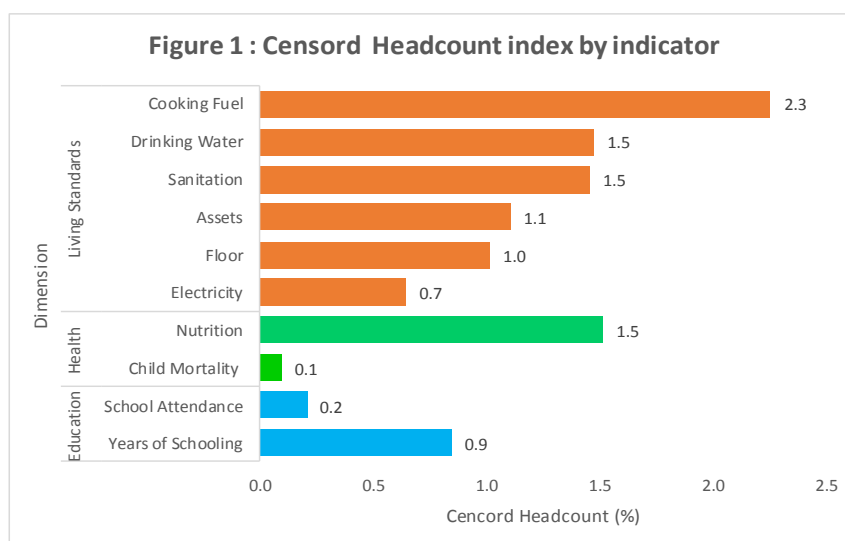
Table 1 : Multidimensional Poverty Measures -2016

Multidimensional Poverty Measures	
Multidimensional poverty Headcount Index (H)	2.4 %
Intensity of Poverty (A)	37.5%
Multidimensional poverty Index (MPI)	0.009
Vulnerable to multidimensional poverty	11.9%
Severely multidimensional poor	0.2%

greater than or equal to 20 percent and less than 33.3 percent are considered as the vulnerable group with respect to the multidimensional deprivation scores. Accordingly, 11.9 percent are reported as vulnerable in poverty status in Sri Lanka. That amounts to 2.5 millions poor people. The people having the deprivation score equal or more than 50 percent are considered the severely poor people in the country. It is reported that 0.2 per cent are severely multidimensional poor in Sri Lanka in 2016.

Incidence of Multidimensional Poverty by Indicator

The MPI uses 10 indicators to measure poverty in three dimensions: education, health and living standards. Figure 1 shows the proportion of the population that is multidimensionally poor and deprived in each indicator at the same time, also called the censored headcount index. The highest deprivation has been reported from the deprivation of cooking fuel in the dimension of living standard and the lowest deprivation reported from child mortality in the health sector. That is 2.26 percent of the total population are multidimensional poor and deprived in cooking fuel. Only 0.1 percent are multidimensional poor and deprived in child mortality.

Figure 1 : Censord Headcount index by indicator

Multidimensional Poverty by Sector

Sector level multidimensional poverty measures are given in Table 2. It reveals that all the multidimensional indicators for the estate sector are comparably higher than the other two sectors. For instance, 11.3 per cent of population living in estate sector are multidimensional poor. Whereas, the figures for urban and rural are 0.6 per cent and 2.3 per cent respectively. Likewise , intensity, MPI and ratio of population to vulnerable poor also comparably higher in estate sector than in the other two sectors.
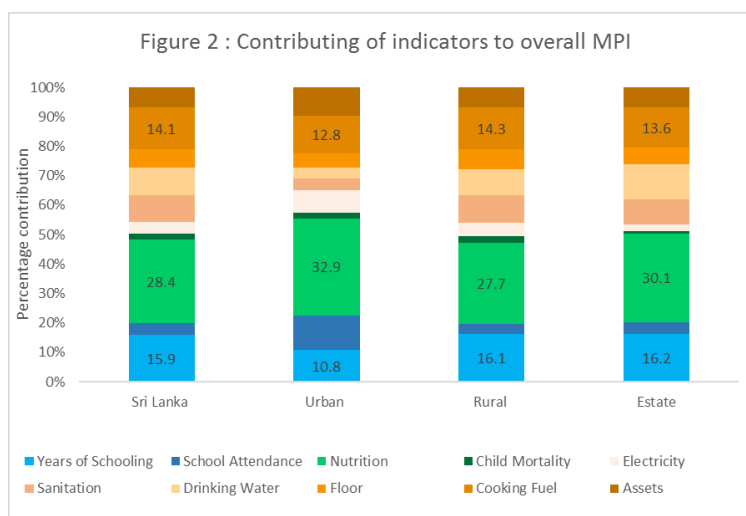
It is observed that the error of some estimators for urban sector is significantly high. Hence, some precautionary measures should be adapted when using these numbers for policy purposes. As the number of multidimensional poor population is very low in Sri Lanka, the reliable multidimensional poverty measures cannot be provided beyond sector levels. The error term (CV) of the estimators are very high at district level estimators. However, the error of the intensity (A) of multidimensional poverty is relatively low.

Table 2 : Multidimensional Poverty Measures by Sector - 2016

Multidimensional Poverty Measures by Sector					
	Mean	**Std.Err**	**(95% Conf.Interval)**		**CV**
Multidimensional Poverty Headcount ratio (H)					
Sri Lanka	**0.0237**	**0.0011**	**0.0215**	**0.0260**	**4.78**
Urban	0.0058	0.0017	0.0024	0.0093	29.83
Rural	0.0229	0.0012	0.0205	0.0253	5.36
Estate	0.1134	0.0109	0.0919	0.1349	9.65
Intensity of Poverty (A)					
Sri Lanka	**0.3751**	**0.0024**	**0.3703**	**0.3798**	**0.65**
Urban	0.3726	0.0178	0.3376	0.4076	4.79
Rural	0.3734	0.0026	0.3683	0.3786	0.71
Estate	0.3818	0.0057	0.3707	0.3930	1.49
Multidimensional poverty Index (MPI)					
Sri Lanka	**0.0089**	**0.0004**	**0.0081**	**0.0097**	**4.84**
Urban	0.0022	0.0007	0.0009	0.0035	30.26
Rural	0.0085	0.0005	0.0076	0.0095	5.41
Estate	0.0433	0.0042	0.0350	0.0516	9.81
Vulnerable to multidimensional poor (0.20<=k<0.33)					
Sri Lanka	**0.1192**	**0.0025**	**0.1143**	**0.1240**	**2.07**
Urban	0.0547	0.0046	0.0456	0.0637	8.42
Rural	0.1276	0.0029	0.1219	0.1333	2.27
Estate	0.2242	0.0109	0.2027	0.2457	4.88

Contribution of Each Indicator to Overall MPI

The Figure 2 presents the contribution of each indicators to overall multidimensional poverty index by national and sector levels. The colors inside each bar denotes the percentage contribution of each indicator to the overall MPI, and all bars adds up to 100%. The highest contribution to overall MPI is given by nutrition indicator and the lowest contribution is represented by child mortality in the same dimension of health for national and all three sectors.

Figure 2 : Contributing of indicators to overall MPI

Indicator Thresholds

Indicator Thresholds

1. Education (Each indicator is weighted equally at 1/6)

Years of Schooling : A household is deprived in schooling if no household member (older than 15) has completed at least five years of schooling.

School Attendance : A household is deprived in school attendance if any school age child (age 5-14) in the household is not attending school.

2. Health (Each indicator is weighted equally at 1/6)

Nutrition : A household is deprived in nutrition if any woman aged 15-49 or child aged less than 5 years in the household with nutritional information is undernourished. (The household consist with only eligible woman who is pregnant and no children is considered as non-deprived)

Child Mortality : A household is deprived in mortality if age 0-5 child has passed away in the household within the last 5 years

3. Standard of living (Each indicator is weighted equally at 1/18)

Electricity : A household is deprived in electricity if the household has no electricity

Drinking water : A household is deprived in water if the household does not have access to safe drinking water or have to walk more than 30 minutes to fetch safe drinking water

Sanitation : A household is deprived in sanitation if the household's sanitation facility is not improved or it is shared with other households

Floor : A household is deprived in floor if the household has a mud, sand or other floor

Cooking fuel : A household is deprived in cooking fuel if the household's cooking is done using wood, saw dust/rice husk/charcoal or other.
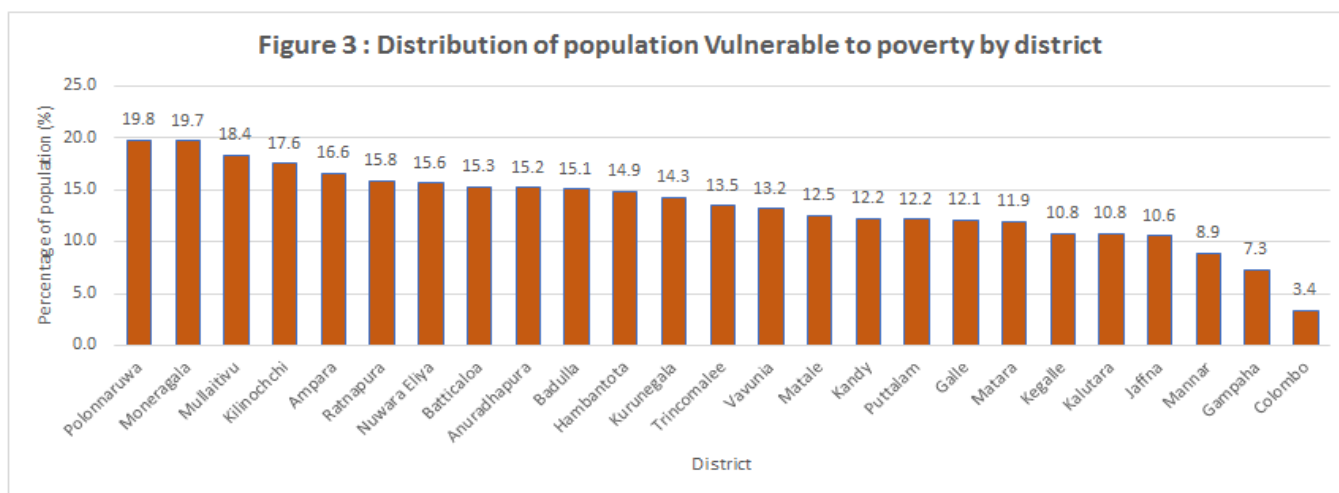
Assets : A household is deprived in assets if the household owns at most one radio, telephone, TV, bike, motorbike or refrigerator and does not own a car or truck.

Note:

The MPI implements a rigorous technique for multidimensional measurement developed by Sabina Alkire and James Foster (the Alkire & Foster method). The same method can be used with different indicators, weights and cut offs to develop national MPIs that reflect s the country status . DCS is proceeding progressively with compilation of National MPI.

Vulnerable to Poverty

A household is said to be vulnerable if it or he/she is likely to be fallen into poverty in future. The people living just above the poverty threshold are more vulnerable than the other groups of people. The economic shocks such as loss of the job, severe illnesses, injuries and loss of livelihood have ghastly impact to cause poverty. In the process of analysing multidimensional poverty, a person is identified as vulnerable if his/her deprivation score is greater than or equal to 20 percent and less than 33.3 percent. The following Figure 3 presents the percentage distribution of vulnerable population by district level. It depicts that the highest number of vulnerable people to multidimensional poverty living in Polonnaruwa district while the lowest number of vulnerable people living in Colombo district.

Figure 3 : Distribution of population Vulnerable to poverty by district

Multidimensional Poor Households

One deprivation alone may not represent poverty. The MPI requires a household to be deprived in multiple indicators at the same time. A person is multidimensional poor if he or she is deprived in at least one third of the weighted indicators.

Table 3 presents the multidimensional poverty measures at household level. Out of the total 5 million households in Sri Lanka, 3 percent is multi-dimensionally poor . This amounts to around one hundred and fifty thousands households which are multidimensional poor. When considering the residential sectors, the highest multidimensional poor households are in estate sector. Accordingly, 12.4 percent of households are multidimensionally poor. The average deprivation score per multidimensional poor household is 0.375.

The multidimensional household poverty index is 0.011 in 2016. It is the percentage share of deprivation experienced by the poor household which is 1.1 percent in this year. if as a share of the possible deprivations that would be experienced if all households were deprived in all the dimensions.

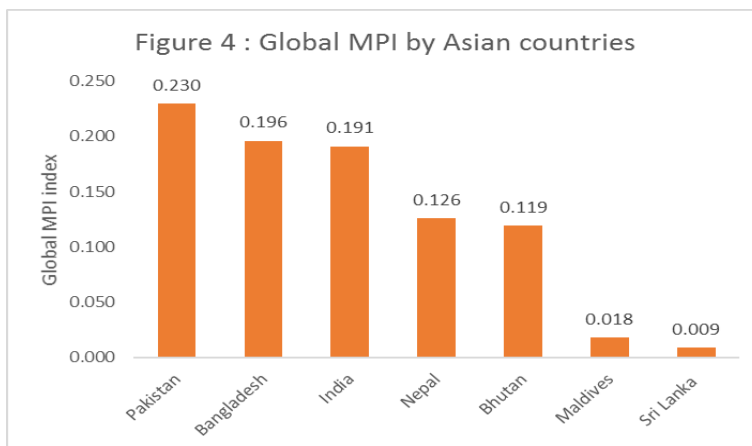**Table 3 : Household Multidimensional Poverty Measures by Sector -2016**

Household Multidimensional Poverty Measures by Sector				
	Mean	**Std. Err.**	**(95 % Conf. Interval)**	**CV**
Multidimensional Poverty Headcount ratio (H)				
Sri Lanka	**0.0297**	**0.0012**	**0.0273** **0.0321**	**4.14**
Urban	0.0058	0.0013	0.0031 0.0084	23.21
Rural	0.0299	0.0014	0.0272 0.0327	4.68
Estate	0.1236	0.0104	0.1033 0.1440	8.41
Intensity of Poverty (A)				
Sri Lanka	**0.3752**	**0.0020**	**0.3712** **0.3791**	**0.53**
Urban	0.3593	0.0100	0.3398 0.3789	2.78
Rural	0.3747	0.0023	0.3703 0.3791	0.60
Estate	0.3802	0.0047	0.3710 0.3893	1.23
Multidimensional poverty Index (MPI)				
Sri Lanka	**0.0112**	**0.0005**	**0.0102** **0.0121**	**4.18**
Urban	0.0021	0.0005	0.0011 0.0030	23.35
Rural	0.0112	0.0005	0.0102 0.0123	4.74
Estate	0.0470	0.0040	0.0392 0.0548	8.46

Consumption poverty vs. Global MPI

The MPI is a globally comparable measure of poverty. It measures acute multidimensional poverty, and only includes indicators that are available for many countries. National poverty measures are typically monetary measures, and thus capture something different. The fact that there are differences does not mean that the national poverty number, or the MPI headcount is wrong. These simply measure different conceptions of poverty. At the same time, just as national poverty measures, in contrast, are designed to reflect the national situation more accurately. The global MPI index is more complement with $1.9 international poverty line.
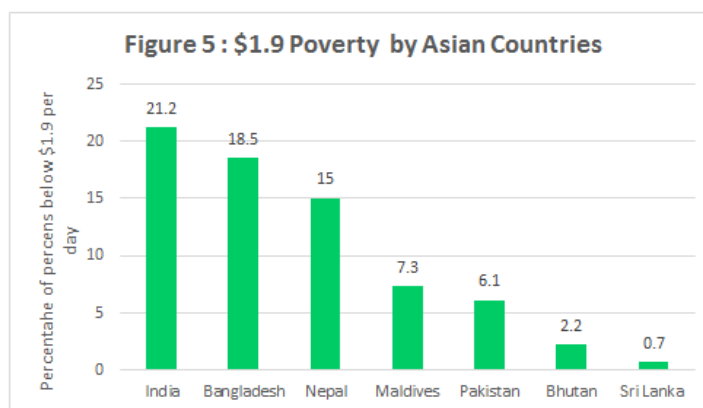
Figure 4 presents the global multidimensional poverty index for Asian countries which is published by OPHI (except for Sri Lanka; Sri Lanka figures are yet to be presented). It reveals that among seven countries Pakistan reported the highest MPI (.23) while Sri Lanka reported the lowest MPI (.01). Figure 5 shows the comparative figures of international $ 1.9 per day poverty headcounts for same countries.

Global MPI measures are especially useful for cross country comparisons and in country context it is useful for policymakers to target resources more effectively identifying severely deprived dimensions of poverty. For example, in Sri Lankan context among the ten areas considered, the most deprived area is nutrition. However, it is needed to compile National MPIs to understand poverty measure that reflects local priorities in multidimensional approach for policy targeting. Further, it provides the information for the SDGs to target goal 1 indicator 1.2 in 2030.

Figure 4 : Global MPI by Asian countries

Source:http://ophi.org.uk/multidimensional-poverty-index/global-mpi -2017 (except Sri Lanka figures)

Sri Lanka (2016), Maldives (2009), Bhutan (2010), Nepal (2014),India(2012), Bangladesh(2014) and Pakistan (2013)

Figure 5 : $1.9 Poverty by Asian Countries

Source :http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx
Sri Lanka (2016), Maldives (2009.5), Bhutan (2012), Nepal (2010.17),India(2011.5), Bangladesh(2010) and Pakistan (2013.5)