Sustainable Development Goals Need for India to Refocus on Measurement and Monitoring

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ABSTRACT

The first and most important Global Goal set in the Charter of Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, is “NO POVERTY.” Countries estimate the extremely poor population based on the International Poverty Level (IPL), which uses Global Purchase power parities (PPP) set by the World Bank International Comparison program. Some claims state that India has made substantial progress in fighting extreme poverty during the last few decades. Published data shows there is no headcount below the National Poverty line. This paper attempts to study the relevance of the national statistical data sets on the limits and levels for the poverty line in India as against the international poverty level, taking into consideration of the Purchasing Power Index, Gross GDP, and per capita GDP, Gross National Income, and Per capita Income, minimum wedge regulations, and the critical parameters for the Hunger Index.

INTRODUCTION

The ambition to eliminate extreme poverty worldwide by 2030 is at the forefront of development policy. “End poverty in all its forms everywhere.” To realize this ambition, it is first necessary to be able to count the number of poor people in the world and to know where they live. The answer to this question lies in how poverty is defined. There are continuous efforts by the United Nations in collaboration with the member nations to identify needy people and help them escape poverty.

The world has seen a significant transformation in its demographic and economic structure over the last few decades. In 1990, about 57% of the world’s population lived in Low-Income Countries, whereas today, only 9% live in low-income countries. Since 2015 (the adoption of the common goals), Government spending on essential services (Food, Education, Health, and Social Protection) has increased from 47% to 53% [1]. There has been recognizable but uneven
progress in the reduction of extreme poverty. However, it is still estimated that only one-third of the countries will have halved their national poverty level by 2030 – 575 million people will still be living in extreme poverty. While this is concerning, it is notable that the data published by many countries, including India, regarding poverty levels do not align with the United Nations assessment. For example, the latest data published by the World Bank for 2021 shows India has no headcount for living in extreme poverty per the nationally defined extreme poverty line. In contrast, 12.9% of people live below the extreme poverty line defined by the United Nations ($2.15 per capita per day in 2017 PPP) [2]. In the case of Bangladesh, data published in 2022 shows 5% of the population lives below the United Nation’s extreme poverty line, but 18.7% of people live below their national extreme poverty line. Similarly, in Pakistan, 2018 data showed that 4.9% of people living below the United Nations’ extreme poverty line and 21.9% of the population living below the national extreme poverty line [2]. The differences are clearly attributable to the definition of poverty adopted by different authorities from time to time.

In fact, population growth and income status are highly correlated, and their interaction may result in differences in the definitions of poverty across countries and over time. This implies that there can not be an absolute definition of Poverty; the assessment and resource allocation must be adjusted continuously as the Country or region evolves socially, demographically, and economically.

Review

The World Bank produced its first global poverty estimates for developing countries for World Development Report 1990: Poverty (World Bank 1990) using household survey data for 22 countries [3] and set the original poverty line at “$1- a-day”. Since then, there has been considerable expansion in the number of countries that field household income and expenditure surveys, and the Poverty Line has been revised from time to time- the last one being in September 2022. The current extreme poverty line is set at $2.15 a day in 2017 PPP terms, representing the mean of the national poverty lines found in 28 low-income countries [5]. The new poverty line maintains the same standard for extreme poverty - the poverty line typical of the poorest countries in the world - but updates it using the latest information on the cost of living in developing countries.

To measure extreme poverty across countries, the World Bank’s international measures consistently apply the above common standard anchored to what “poverty” means in the world’s poorest countries. Though the above approach provides a global basis, it fails to capture the fact that depending upon the country’s social and economic status required to attain the basic needs, the poverty line may vary from one country to another. A person earning less in the USA may suffer more misery than a person in India even though his minimum earning is more than the 

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Indian fellow. Acknowledging the above fact, the World Bank has adopted more official poverty lines that reflect different concepts of poverty. These include $2.15, $3.65, $6.85, and max ($2.15, $1.15+ 50% of median consumption or income), all expressed in 2017 PPP (more details on these lines below). The first three lines are the absolute poverty lines typical of low-, lower-, and upper-middle-income countries [4]. As a country's income status (Gross Per capita Income) increases, so does its national poverty line, reflecting the relative concept of poverty.

India has made substantial economic progress in the last few decades — and currently ranks fifth in world GDP. Its per-capita GDP is 10175.768 US$ per annum, which places it amongst the lower-middle income group of countries [6].

Though different authority reports claim that Poverty in India has declined over the last decade, grassroots reality and public perception do not support the claim. A report published [7] by CNN based on NGO research claims that about 60% of India's nearly 1.3 billion people live on less than $3.10 a day, which is the World Bank's median poverty line. And 21%, or more than 250 million people, survive on less than $2 a day, but the Poverty and Inequality brief published by the World Bank [8] claimed only 13.4 %, around 175.8 million, living below the extreme poverty line (US$1.9 2011 PPP). The World Bank data 2021 shows that 13.3% of people in India live below $3.65 a day (2017 PPP), and 81.8% of people live below $6.85 a day (2017 PPP) [2] UNDP multidimensional poverty headcount shows as of 2019, 16.4% of people were below the level. In contrast, India’s multidimensional poverty level measurement report [9] shows that 24.85% of people were below the benchmark in 2015-16, which reduced to 14.96% in 2019-21. The recently published Hunger Index data by the World Bank shows that India ranks 111th amongst 125 countries. The GHI score of India dropped from 38.4 in 2000 to 28.7 in 2023, showing progress, but the country is still in the group of countries with serious GHI concerns [10] [11]. The anomaly in the presented figures is clearly attributable to the lack of a unanimously agreed clear definition of “Poverty” throughout the country.

In the absence of data/baseline, economists have devised different estimates of the number of poor people in the country. There are at least five estimates which put the number of poor in India between 34 million to 373 million. All these estimates use different data sources and different bases for the estimate.

India's government is currently uncertain about the criteria for identifying families living in poverty. Post-independence, the Union Government has formed different committees from time to time to estimate the poverty line or calculate the number of poor in India; all these committees tried to adopt the method of determining a baseline per capita expenditure for food only based on calorific consumption.
Figure 1. Poverty Estimates for India by Different Authors

<table>
<thead>
<tr>
<th>Authors</th>
<th>Poverty estimate</th>
<th>Year</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rangarajan</td>
<td>29.5% (363 million people)</td>
<td>2014</td>
<td>NSS survey 2011-12</td>
</tr>
<tr>
<td>Bhalla, Virmani and Bhasin*</td>
<td>2.5% (34.32 million, based on World Bank poverty line of $1.9, MMRP and without considering food transfers)</td>
<td>2022</td>
<td>National Accounts*</td>
</tr>
<tr>
<td>Roy and van der Wilde</td>
<td>10.2% (140.04 million)</td>
<td>2022</td>
<td>CMIE-CPHS</td>
</tr>
<tr>
<td>Jha and Lahoti</td>
<td>4.7% (rural, based on World Bank poverty line of $1.9)</td>
<td>2022</td>
<td>CMIE-CPHS</td>
</tr>
<tr>
<td>Panagariya and More**</td>
<td>26.9% (372.83 million)</td>
<td>2023</td>
<td>PLFS</td>
</tr>
</tbody>
</table>

* By taking food transfer into consideration, 0.9% of Indians were living on $1.9 a day, found the authors
**The authors adjusted for the differences between the CES and PLFS

(Source: scroll.in [12]). Credit: via IndiaSpend

VM Dandekar and N Rath, in 1971, based on the data from the National Sample Survey (NSS), suggested that the poverty line’s criteria must be based on the expenditure that would provide 2250 calories per day in both rural and urban areas.

Alagh Committee (1979) constructed a poverty line for rural and urban areas based on nutritional requirements and related consumption expenditure. The estimates for the ensuing years were to be adjusted, taking into account the price level for inflation.

The Lakdawala Committee submitted a report in 1993 and recommended:

- The Poverty Line approach can be continued based on calorie consumption (fixed consumption basket)
- State-specific poverty lines should be constructed, and these should be updated using the CPI-IW in urban areas and CPI-AL in rural areas
- Scaling of poverty estimates should not be based on National Accounts Statistics. The Expert Group recommended that only NSS data be relied upon.

Indian Government accepted the Lakdawala Committee recommendations with minor modifications in 1997.

Suresh Tendulkar Committee (2009) recommended:

- A shift away from calorie consumption-based poverty estimation
A uniform poverty line basket (PLB) across rural and urban India
A change in the price adjustment procedure to correct spatial and temporal issues with price adjustment
Incorporation of private expenditure on health and education while estimating poverty

The committee used the Mixed Reference Period instead of the Universal Reference Period used by earlier committees. Using this method, the committee arrived at a conclusion that the poverty line was Rs. 446.68 per capita per month in rural areas and Rs. 578.80 per capita per month in urban areas from 2004-2005. In 2009-2010, it was Rs. 859.6 in urban areas, while it was Rs. 672.8 in rural areas. In 2010-2011, it was Rs. 1000 for urban and Rs. 816 for rural areas.

The C Rangarajan Committee, appointed by the United Progressive Alliance-II government (2012), published a report in 2014 that dismissed the Tendulkar Committee's estimation of the poverty level in India and suggested a different poverty threshold, using higher expenditures and estimated the poor at much higher than the 2011 official estimate. The report said it was much higher in 2011-2012, at 29.5% of the population, meaning three out of 10 people in India were poor. However, the committee's findings were not accepted by the government, and the official poverty line continues to be based on the 2011 numbers, which estimated 269 million poor people in India (21.9% of the population).

As per the current method authorized by the Union Cabinet, the household income limit to become a beneficiary under the BPL (Below Poverty Line) list is approximately Rs. 27,000 per year, which is derived from the consideration of five persons per household and food expenditure Rs 450 per capita per month. The regulation is stuck in the lowest consideration made based on a data set obtained in 2002 and an estimate made in 2004 and does not align with today’s ground reality.

MINISTRY OF CONSUMER AFFAIRS, FOOD, AND PUBLIC DISTRIBUTION answered Rajya Sabha Question NO23.04.2010 stating that the Planning Commission is the nodal agency of the Government of India for estimating poverty at the National and State levels. The Planning Commission uses a poverty line based on per capita consumption expenditure as the criterion to determine the number of persons living below the poverty line. The per capita consumption norm has been fixed at Rs.49.09 per month in rural areas and Rs.56.64 per month in urban areas at 1973- 74 prices at the national level. The state-specific poverty lines are derived from the national-level poverty lines, using state-specific price indices and inter-state price differentials. The national poverty line at 2004-05 prices is Rs.356.30 per capita per month in rural areas and Rs.538.60 per capita per month in urban areas [13].

Notably, the per capita monthly consumption of Rs. 538.60 (US$11.88 @ 2004 PPP value) was
not only less than the World Bank-defined original global poverty line benchmark of $1 per person per day but also did not consider even the definition provided by the Suresh Tendulkar Committee—people who spend Rs. 33 daily in urban areas and only Rs. 27 in rural areas live below the poverty line.

The Indian Government has a ration card system to ensure food security, access to affordable food, targeted resource distribution, and people's inclusion in government social welfare programs. Five different types of cards are issued. Priority House Hold (PHH – Eligible to receive 5Kg of food grain per person as per criteria set by state governments), Antyodaya (AAY – defined as the poorest of the poor – eligible to receive 35 Kg of food grain per month), APL ration card (families living above the poverty level defined by the state – monthly entitlement varies), BPL ration card (families living below the poverty line – entitlement varies), and AY (Annapurna Yojna – for elderly people aged above 65 in need – allocation as per the scheme varying time to time) [14, 15].

The Government uses several parameters to recognize the below-poverty line (BPL) sections. These parameters may differ from state to state and may differ for rural and urban areas. For example, in Maharashtra, families with annual earnings between Rs. 15000.00 to Rs. 100,000.00 are eligible for a BPL card [16]. In Karnataka, APL and BPL cards have been replaced with PHH and Non-PHH cards. To get a PHH card, a family's annual income has to be below Rs. 120,000.00. Employees of government/aided and any government-allied institution cannot avail themselves of these cards. Those who have 3 hectares of land in rural areas and 1,000 sq ft of houses in urban areas do not qualify; those owning four-wheelers other than for self-employment [17]. In West Bengal, no specific criteria have been defined. However, the applicant is assessed by local authorities like Gram Panchayat and Municipality/Corporation, and the card is issued [18, 19].

The difference in regulation followed by the different state governments and the union government, the share of responsibility amongst the union and state governments, and the lack of clarity in unanimously defined benchmark criteria to be followed, have led to a confusing condition where the number of BPL cards no longer indicates reality. For example, a report in Decan Herald dated 24th June 2023 [17] shows Karnataka has 1.2 crore BPL card holders, covering 4.42 crore citizens. That’s 72.13% of the 6.1 crore population per 2011 census. It is obvious that the number of BPL card holders in the state does not tally with the national extreme poverty line. It is neither known how many people are really under the Extreme poverty level ($2.15 a day level) nor how many people are under the Lower middle-income poverty level ($3.65 a day level). The Union Government’s answer to Rajya Sabha Question NO07.03.2011 clearly acknowledged improper targeting, inclusion as well as exclusion errors in the system [20].
Niti Ayog has been trying to monitor multidimensional poverty using the internationally acclaimed Alkire Foster methodology. The National MPI covers twelve indicators, whereas the global MPI covers ten. Refer to Figure 2 for details of the indicators.

The undernourishment indicator has been assigned a weightage of 1/6th. It is measured based on the National Family Health Survey (NFHS), which collects individuals' height and weight to calculate their BMI. A woman (15 to 49 years) or a man (15 to 54 years) is considered undernourished if their Body Mass Index (BMI) is below 18.5 kg/m² or the age-specific BMI cutoff for individuals aged 15-19 years when information is available. Children under five years of age are considered malnourished if their z-score of height-for-age (stunting) or weight-for-age (underweight) is below minus two standard deviations from the median of the reference population [9]. The report showed that 31.52% of people in India are undernourished, whereas only 14.96% of people are declared MPI poor. Obviously, the absolute high intensity of the particular indicator flattened down mathematically toward the overall poverty indicator.

**Figure 2. Indicators in India’s National MPI**

(Source: India-National-Multidimensional-Poverty-Index-2023 [9]).
Awareness and involvement of the Union and state governments have substantially increased in the last decade. Many new schemes, aid programs, and regulations have been launched to improve the well-being of people. However, the efforts are failing to reach the groups in real need and failing to achieve the expected goal of fighting poverty in all forms. The problem is complex in nature. The complication is further engraved by the country's large mixed-cultural population and the limitations of federal democratic governance. To overcome these constraints, it is absolutely necessary that a clear guideline be defined and unanimously agreed upon by all state and union governments and followed in the distribution of resources and aids so that sustainable growth may be achieved.

**Impact of Increase in Gross Domestic Product (GDP) and Gross National Income (GNI)**

The below Graphs shows Increase of Per capita GDP and GNI of India from 1962 to 2022. Per Capita GDP has increased from US$90.28 (INR 430.00) to US$2410.89 (INR1,96,126.00) and Per Capita National Income has increased from US$90.00 (INR 428.00) to US$2390.00 (INR1,94,427.00) which puts India to be one Middle Income Group Country.

![Figure 3. Growth of Per Capita GDP and GNI in India](Data Source: www.macrotrends.net [21])

While the above graphs show the absolute increase, it is also to be noted that purchase power of
Rupee has decreased during the same period. Normalizing the Growth of National Income with respect to Base 1960, the total growth in Average Per Capita National Income is approximately 5.5 times.

**Figure 4. Growth of Per Capita GNI in India**  
*(Normalized against 1960 base line)*

![Figure 4. Growth of Per Capita GNI in India](Data Source: www.macrotrends.net [21])

It is evident that inflation/the change in the consumer price index reduces the benefit of increased income, and it is necessary to realign the benchmark regularly. In fact, if the change in the consumer price Index is taken into consideration, the poverty line constituted by the Alagh Committee (Rs. 56.64 per capita per month) based on the market price of 1973-74 and the Tendulkar Committee’s recommendation of Rs. 578.8 per capita per month for urban areas maintained the same level of consumption. The market price of 56.64 in 1973-74 became Rs. 595.6 in 2005 – The Consumer Price Index changed from 2.6 to 27.34. All recommendations considered the 2250 Kcal food requirement for adults per day (9.4 MJ/day), the bare minimum requirement for a man with a physical activity level (PAL) of 1.4. It must be noted that the PAL value varies between 1.33 to 2.0. A chairbound or bedridden man usually has a PAL between 1.2 and 1.3. An office worker with no option of moving around has a PAL value of 1.4 to 1.5. Students, homemakers, and white-collar office workers usually have a PAL value between 1.6 and 1.9; Construction workers/miners / physical laborers have a PAL value of 2 to 2.2 and should require approx. 14MJ/day (3350 Kcal) food per day. [23] The poorest section of the country are the physical laborers, and the consumption requirement considered by committees did not consider their professional needs, which could ensure a healthy working population.
Distribution of Gross National Income (GNI)

India's current average per capita Gross National Income is US$2390.00. Gross National Income US$3385,774,166,000.00. US$2390.00 per annum equals US$6.55 per day, which looks to be a lucrative figure for most people. However, the Country has high inequality in the distribution of income and wealth. Today, the richest 10% in India controls 80% of the nation's wealth, according to a 2017 report published by Oxfam, an international confederation of agencies fighting poverty. And the top 1% owns 58% of India's wealth. (By comparison, the richest 1% in the United States owns 37% of the wealth.). The distribution of National Income as surveyed by The World Inequality Report 2022 [22] is shown in Figure 5.

**Figure 5. Distribution of Income and Wealth in India**

<table>
<thead>
<tr>
<th></th>
<th>Average Income (PPP €)</th>
<th>Share of total (%)</th>
<th>Average Wealth (PPP €)</th>
<th>Share of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full population</td>
<td>7,400</td>
<td>100%</td>
<td>35,800</td>
<td>100%</td>
</tr>
<tr>
<td>Bottom 50%</td>
<td>2,000</td>
<td>13.1%</td>
<td>4,200</td>
<td>5.9%</td>
</tr>
<tr>
<td>Middle 40%</td>
<td>5,500</td>
<td>29.7%</td>
<td>26,400</td>
<td>29.5%</td>
</tr>
<tr>
<td>Top 10%</td>
<td>42,500</td>
<td>57.1%</td>
<td>231,300</td>
<td>64.6%</td>
</tr>
<tr>
<td>Top 1%</td>
<td>161,600</td>
<td>21.7%</td>
<td>1,181,400</td>
<td>33.0%</td>
</tr>
</tbody>
</table>

(Table Source: The World Inequality Report [22])

Considering the above income distribution, the per capita per day gross earning of the bottom 50% of people in India is only US$1.72, lower than the current extreme poverty line set by the
World Bank (US$2.15).

The Survey of Household Income shows the distribution in Figure 6. The current household size in India lies between 3 and 5, with an average of 4.44 [25].

**Figure 6. Distribution of Household Income in India**

(Figure Source: www.statista.com [24])

Considering the average household size, the higher limit of the Aspire group's household income (Rs. 500,000.00) yields a per capita per day income of Rs. 308.53 (US$3.69). As such, it would not be unwise to say that most households in the Aspire group and all of the Destitutes group live below the threshold poverty limit considered by the World Bank (US$3.65) for Middle-Income Countries.

A number of Economists, including the Tendulkar Committee and NGOs, have calculated that the cost of food in India is between Rs 30 and Rs 40 per capita per day [26,27]. These calculations take into consideration the subsidized food supply through the rationing system. Considering per capita per day consumption of Rs. 40.00 and the household average size of 5, the total annual earnings required by a family only for food work out to be Rs. 73000.00. It is
more than 50% of the higher limit earning of the Destitutes group. The estimate follows the minimum calorie requirement and the inexpensive food pattern the World Health Organization (WHO) recommended. While this is scientifically correct, it fails to allow a person to follow the 50/30/20 rule for budgeting [28, 29] and is thus not sustainable. Keeping a section of society at the minimum for their basic needs can not be a wise way forward since this situation increases the frustration among poor people, affecting their mental health and increasing social stress.

**Parity of Minimum wage**

The Labour Bureau of India, established in 1920, regulates labour wages. In the last few years, conscious efforts have been made to adjust the minimum wage for workers, considering market conditions and associated financial stresses [30]. The latest order issued by the Chief Labour Commissioner(C) dated 01/04/2024 [File no. 1/7(1)/2024-LS-II] shows that the minimum wage of unskilled workers needs to be Rs. 454.00 per day, including the Variable Dearness Allowance (VDA). The Labour Bureau considers three heads per earning person. It leads to earnings of approximately Rs. 150.00 per person per day. The food cost of Rs. 40 per person per day constitutes approx. 27% of the total earnings, which is a relatively more sustainable condition. This wage limit leads to an annual income of Rs.2,43,090.00 (considering the average household size 4.44). So, it would relevant to conclude that all 15% of the population in the destitute group and a decent share of the 52% of the population in the aspire group are in extreme poverty and need to be aided reasonably and effectively.

**Relevance of monitoring BMI to monitor Hunger**

BMI is a way to calculate healthiness or assess the amount of body fat; however, it has its own shortfall. BMI fails to capture people who might have sufficient body fat and less muscle density /Bone density but still satisfy the BMI threshold limit and thus do not possess the sustaining health of a working adult. It also fails to capture energy needs as per the working stress level. A person may be satisfying the BMI threshold but may not be active due to a lack of energy-adequate food. The body mass index and activity level of a worker are statistically significantly related to the physical workload. BMI and occupational workload must be studied together, and food requirements must be adjusted accordingly. [31, 32]

**The weightage assigned in the National Multidimensional Poverty Index**

The National Multidimensional Poverty Index - Progressive Review report-2023 [9] concluded that 14.96% of people were poor. This report collected the Health Statistics from NFHS-5 (2019-21) [33]. This report shows the percentage of the population below 18.5 BMI, as presented in Figure 7.
There is a substantial difference in the percentage of people declared poor and people having low BMI. If a low BMI indicates hunger, how can a hungry person be above the poverty line but unable to get adequate food?

**CONCLUSION**

The above analysis clearly summarizes that

- There is a need to adjust weightage and calculation procedures to identify the target group properly and adequately.
- It is necessary to agree on and adopt a uniform poverty identification method and implement the same.
- The weighted poverty identification may be good for identifying multidimensional poverty, but to implement the proper identification process for the poor and implementation of targeted distribution at the grassroots level, it is mandatory to define a financial cutoff line that helps the government officials and elected local representatives to decide properly. This needs to be adjusted regularly with respect to the Consumer Price Index.

While all the state governments, as well as the union government, are trying their best to fight poverty by providing aid to different target groups, it will be beneficial that a joint committee involving all state, as well as the union government, be formed (similar to GST Council) who should decide on the cutoff line and implementation procedure.

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