



Poverty And Poverty Line In India: Revisiting The Methodology

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Abstract

The many characteristics of poor such as hunger, inadequate health care, illiteracy, uncleaned sanitation and unprotected drinking water tend to impair a person's nutritional status. The impaired nutritional status affects a person's productivity and earning capacity which leads to again into the poverty trap. Understanding these facts, poverty eradication has been one of main objectives in every five year plan. The Planning Commission claiming that the incidence of poverty in India has declined due to sustained economic growth. At the same time, there are literatures explaining the prevalence of undernutrition, hunger, unemployment and increasing trend of poverty in many forms. In this condition, it is important to analyse the methods of identifying poor in the society so that the scarce means can be effectively distributed to the large number of poor people and enable them to escape from the poverty.

Keywords: poverty, poverty line, poverty measurement, consumer expenditure, calorie intake

Introduction

Since independence, the Government of India has implemented several poverty eradication programmes and allocated large sums of money to improve the standard of living of the people. The Planning Commission claims that the incidence of poverty has declined in India from 54.9 per cent in 1973-74 to 26.1 percent in 1999-2000 due to the sustained economic growth and the average standard of living has increased resulting in decline in the consumption expenditure on cereals that caused for the excess of foodgrains in the buffer stocks. On the other hand literature of several academicians criticized the methodology of poverty line fixed by the Planning Commission and argue that the incidence of poverty has increased and the more number of people have been deprived of calories due to inadequate intake of food. In this situation, the paper aims to review the methodology followed by the Planning Commission (now, NITI Aayog) for estimating rural poverty line and emphasizing the need for revising the methodology.

I. Poverty Estimates by Planning Commission

In India, initially the importance of fixing the poverty line was mooted in 1957 at the Indian Labour Conference held at Pune. In 1962, the Planning Commission set up a

Working Group to fix poverty line. For this purpose, the balanced diet recommended by the Nutrition Advisory Committee of the Indian Council of Medical Research in 1958 has been taken into account. The Working Group fixed poverty line as the nationally desirable minimum consumer expenditure level. Accordingly, the poverty line for the rural area for a household consisting of five persons is Rs.100 per month in terms of 1960-61 prices whereas for the urban area this amount is Rs.125 per household per month to cover the higher prices of the commodities. The Working Group advocated that this level of income is enough to provide a minimum nutritional diet in terms of calorie intake as well as to allow for a modest level of expenditure on non food items. The norm exclude the expenditure on education and health which were expected to be provided by the state (Planning Commission, 1969, EPW 1993).

In 1979, the Planning Commission set up a Task Force to redefine the poverty line in India. The Task Force accepted the nutritional requirements vary according to age, sex and nature of activity undertaken by the individuals and the following information has been used to define the norm: a) age, sex and activity specific calorie requirements recommended by the Nutrition Expert Group of the Indian Council of Medical Research in 1968 b) Population estimates for the year 1982-83 (IIIrd projections, Expert Committee on Population) and c) Occupation structure for the year 1972 (NSS 27th Round, 1972-73). Based on this information, the Task Force recommended an average norm of 2435 and 2095 kcal per capita for rural and urban areas respectively. Later, these figures have been rounded off to 2400 and 2100 respectively. To derive the monetary equivalent or poverty line of these norms, NSS consumer expenditure survey for the year 1973-74 (28th Round) has been used. Based on this information, the Task Force defined the poverty line as the monthly per capita consumer expenditure at which these calorie norms were met. Accordingly, the poverty line for the rural area was Rs.49.09 and Rs.56.64 for the urban area.

For the subsequent years, instead of estimating the poverty line based on the corresponding year calorie requirements and consumer expenditure survey, the Planning Commission merely updated the 1973-74 poverty line for the changes in the price level by using Consumer Price Index Numbers. For example, for the year 1999-2000 the poverty line has been estimated as Rs.327.56 and the percentage of people below the poverty line was Rs.454.11 for rural and urban area respectively.

Poverty estimates for rural area (Based on Price Index)

Year	Poverty Line (in Rs)	Head Count Ratio (in %)
1983	89.50	40.4
1993-94	205.84	32.4

1999-2000	327.56	23.6
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Source:

Savita Sharma (2004), 'Poverty Estimates in India: Some Key Issues,' ADB Working Paper, Economic Survey (2001-2002), Government of India, 2002, p.238

It is important to note that in 1979, the Task Force has taken into account the normative component (calorie requirement) and empirical component (actual consumer expenditure pattern) while defining poverty line. But later, these factors have not been taken into account while fixing the poverty line. Moreover, the method adopted by the Planning Commission to estimate the poverty line, over the years did not reflect the actual cost of living of the people (RohiniNayyar 1997). Mehta and Venkataraman(2000) taking into account the actual consumer expenditure (NSS consumer expenditure survey 1993-94) have arrived at a higher poverty line than the price adjusted poverty line fixed by the Planning Commission in 1993-94.

II. Poverty Estimates by the author (Based on actual calorie intake)

To reexamine these arguments, the poverty line and the incidence of poverty are estimated based on the actual consumption expenditure and the calorie norm. To this end, the monthly per capita consumer expenditure and average per capita per day intake of calories data available for the years 1983, 1993-94 and 1999-2000 are used. Based on this information, the income level (poverty line) is worked out at which the 2400 calories are met. Based on the estimated poverty line the head count ratios are calculated and compared with the Planning Commission estimates.

Poverty estimates for rural area (Based on actual calorie intake)

Year	Poverty Line (in Rs)	Head Count Ratio (in %)
1983	120.03	63.46
1993-94	321.82	73.94
1999-2000	565.04	74.28

Source: Computed from NSSO documents for the respective years

The result is that the calculated poverty line and head count ratio based on actual calorie intake is higher than the estimates based on price index followed by the Planning Commission.

III. Reasons for varying poverty line and incidence of poverty

1. Changes in the population structure

To understand the changes in the population structure, Census Reports for the years 1961 to 2001 have been used. The analysis shows the following results. In 1961, the sex ratio was 963 in the rural whereas in 1981 and 2001 it has declined to 952 and 946 respectively. In 1961, 30.3 percent of the total population is children (less than 9 years) whereas in 1981 and 2001 it has declined to 27.4 percent and 24.7 percent respectively. Thus in the rural area, the number of female per thousand male and number of children in the total population has decreased over the years. In 1961, 5.8 per cent of people are aged whereas in 1981 and 2001 it has increased to 6.8 per cent and 7.7 per cent respectively

The ratio of sex, children and aged people in India

Year	Sex Ratio	Ratio of Child (upto 9 years)	Ratio of Aged (more than 60 years)
1961	941	29.8	5.6
1971	930	29.5	6.0
1981	934	26.6	6.5
1991	927	25.5	6.8
2001	933	23.2	7.4

Source:

Census of India 1961, Social and Cultural Tables, Vol I, Part II-C(I)

Census of India 1971, Part II C (ii), Social Cultural Tables (Table C-II, C-III part A&B and C-IV)

Census of India, 1981, Socio-Cultural Tables, Part IV-A, (Tables C-1 to C-6)

Census of India, 1991, Socio-Cultural Tables, Part A, Volume 2

Census of India 2001, available at <http://www.censusindia.net/>

Government of India (2001), Family Welfare Programme in India, Year Book 2001, Department of Family Welfare, Ministry of Health and Family Welfare, New Delhi

If there is increasing trend of the aged people and decreasing trend in sex ratio and child ratio in the total rural population, there may be the changes in the per capita calorie requirement also. This must be taken into account while fixing the poverty line.

2. Changes in the types of occupation

Now let us look at the changes in the structure of working population. Normally, the calorie requirement for a worker is higher than the non-worker. In India, there is a considerable change in number of workers and non-workers in the total population over time in the rural areas. For example, in 1961, 45.03 per cent of rural people are workers and the remaining people are non workers whereas in 1981 the number of rural workers have declined to 38.87 percent. In 2001 the percentage of workers in the total population was 41.75 per cent. Thus the percentage of non-workers have declined in the rural area in 2001. These observed changes indicate that the average calorie requirement for a person has been varying over the years.

Percentage distribution of workers and non workers in the total population in rural in India

Rural	Workers			Non Workers		
	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7
1961	45.03	58.17	33.66	54.89	41.75	68.53
1971	33.81	53.46	13.09	66.19	46.54	86.91
1981	38.87	53.80	23.18	61.13	46.20	76.82
1991	39.98	52.48	26.67	60.01	47.52	73.32
2001	41.75	52.11	30.79	58.25	47.89	69.21

Source:

Census of India 2001, Primary Census Abstract, Total Population Table A-5,
Census of India 1991, Primary Census Abstract, General Population, Part II B (I),
Vol.1

Census of India 1981, Primary Census Abstract, General Population, Part II B (I)

Census of India 1961, Union Primary Census Abstract, Vol.1, Part II-A, (ii)

Census of India 1971, Union Primary Census Abstract, Vol.1, Part II-A, (ii)

The calorie requirement for a person not only varies between a worker and a non worker but also with varying due to the variation in the activities in which the workers are engaged. In India, the numbers of people engaged in different activities have changed over the years. For example, in 1961 in the total rural workers, the percentage share of cultivators was 60.33 percent, agricultural labourers was 18.86 per cent, household industry workers was 6.13 per cent and other workers was 14.68 percent. In 1981, the percentage of cultivators and household industry workers have declined to 51.10 percent and 3.08 percent respectively whereas the percentage of agricultural labourers and other workers have increased to 29.88 percent and 15.94 percent respectively. In 2001, the percentage of cultivators and agricultural labourers have declined to 44.22 percent and 26.41 percent whereas the percentage household industry workers and other workers

have increased to 3.63 percent and 25.74 percent respectively. It is expected that the observed changes in the activity pattern cause changes in the calorie requirement.

Percentage distribution of total main workers by occupation wise in rural area in India

Year	Cultivators			Agricultural Labourers			Household Workers			Industry			Other Workers		
	Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female
1	2	3	4	5	6	7	8	9	10	11	12	13			
1961	60.33	61.09	54.91	18.86	15.77	23.15	6.13	5.69	6.51	14.68	17.45	8.70			
1971	51.59	55.99	32.64	30.71	25.21	54.39	3.21	3.13	3.57	14.49	15.67	9.40			
1981	51.10	55.16	37.07	29.88	24.00	50.19	3.08	2.87	3.79	15.94	17.97	8.94			
1991	48.39	51.58	38.93	31.64	25.97	48.49	2.16	1.91	2.91	17.80	20.54	9.68			
2001	44.22	45.20	41.46	26.41	23.14	35.60	3.63	2.98	5.48	25.74	28.68	17.47			

Source:

Census of India 2001, Primary Census Abstract, Total Population Table A-5,

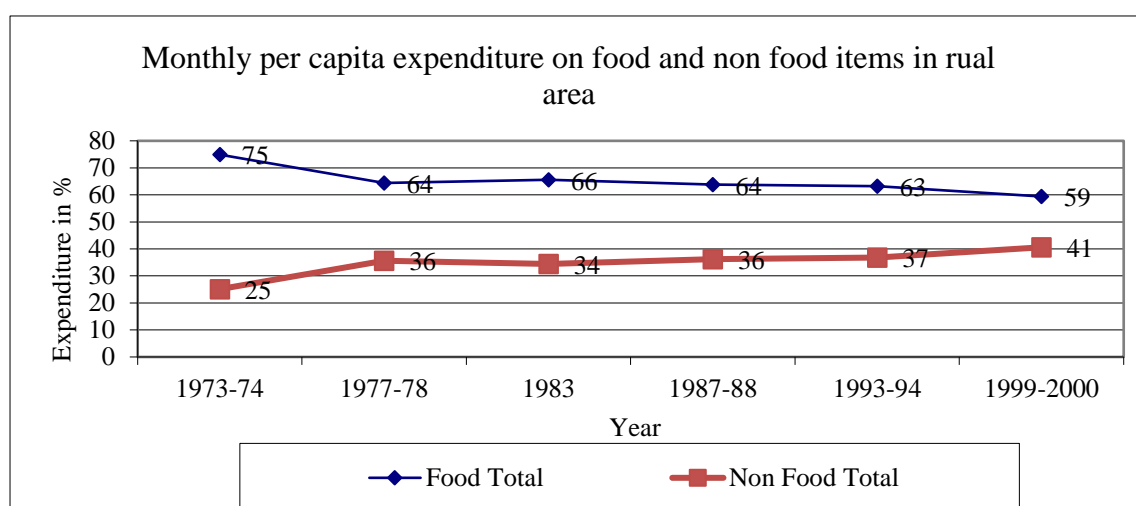
Census of India 1991, Primary Census Abstract, General Population, Part II B (I), Vol.1

Census of India 1981, Primary Census Abstract, General Population, Part II B (I)

Census of India 1961, Union Primary Census Abstract, Vol.1, Part II-A, (ii)

Census of India 1971, Union Primary Census Abstract, Vol.1, Part II-A, (ii)

There are considerable changes in the consumption pattern due to the changes in the taste and preferences over the years. The expenditure on non-food items has increased while expenditure on food items has decreased over the years. For example, in 1973-74 the share of expenditure on food and non-food items were 74.89 and 25.11 per cent respectively whereas in 1999-2000 the percentage share of food and non food items were 59.40 and 40.60 percent.



Source:

Level and Pattern of Consumer Expenditure in India 1999-2000, NSS 55th Round, (July 1999-June

2000), NSSO, Ministry of Statistics and Programme Implementation, Government of India, May 2001

Conclusion

The issue of poverty is the cause for concern especially in a developing country like India. Because, many faces of poverty such as hunger, inadequate health care, illiteracy, unclean sanitation and unprotected drinking water tend to impair a person's nutritional status. The impaired nutritional status affects a person's productivity and earning capacity. Ultimately it affects the growth of a nation. Understanding these facts, since independence, poverty eradication has been one of the main objectives of every five year plan. It is important to note that in 1979, the Task Force has taken into account the actual calorie requirement and actual consumer expenditure pattern while defining poverty line. But later, these factors have not been taken into account while fixing the poverty line. Moreover, the method adopted by the Planning Commission to estimate the poverty line, over the years did not reflect the actual cost of living of the people. The average calorie requirement varies with the changes in population structure, working pattern or occupational structure, taste and preferences of the people. It is necessary to consider all these factors for estimating poverty.

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