

Contentious Methodological Issues in the Official Estimates of Poverty Line and Head Count Ratios

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Abstract

This article summarizes the recommendations of various committees and expert groups for deriving the official poverty estimates pertaining to Indian population. It also brings out the major contentious issues in the official estimates of poverty line and head count ratio.

Key words: Poverty Line, Head Count Ratio, Monthly Per Capita Total Consumer Expenditure, Earlier Methodology, New Methodology

1. Introduction

In arriving at poverty estimates, the first and foremost step is to appropriately define a poverty line (PL) which divides the population into 'poor' and 'non-poor' and then estimating proportion of persons below the PL. Information on head count ratio (HCR), i.e. percentage of people below the PL, is of vital importance to the planners and policy makers. Both the governments at the centre and at the states need periodic information on HCR to monitor the changes in the incidence of poverty over time. Given the importance, the need for accurately estimating the PL and HCR hardly needs any emphasis. This article focuses on these measures and the contentious issues in the official poverty estimates. The paper is organized as follows: Section 2 describes the commonly referred official poverty lines and head count ratios in the post-independence period, Section 3 highlights the contentious methodological issues in the poverty estimates, and finally, Section 4 concludes.

2. Official Estimates of Poverty Lines and Head Count Ratios

The commonly referred poverty lines during the post-independence period are those recommended by the Working Group (1962), Task Force (1979), Lakdawala Committee (1993), and finally the latest one by the Tendulkar Committee (2009).

A Working Group (1962) of eminent economists and social thinkers recommended a minimum level of expenditure of Rs. 100 per month for each household of 5 persons i.e. Rs. 20 per capita per month for rural areas and Rs. 25 per capita per month for urban areas at 1960-61 prices so as to ensure basic requirements of living. The above minimum excluded expenditure on healthcare and education expected to be provided by the State. The above norm was based on a broad judgment of minimum needs and was not strictly related to nutritional requirements although those were taken into consideration.

The Task Force (1979) on Projections of Minimum Needs and Effective Consumption Demands under the Chairmanship of Y.K. Alagh, set up by the then Planning Commission, defined the PL as the monthly per capita total consumer expenditure of Rs. 49.09 for rural India and Rs. 56.64 for urban India at 1973-74 prices as the base line. The same was anchored corresponding to the calorie norms of 2,400 calories per capita per day for rural India and 2,100 calories per capita per day for urban India on the basis of the all-India size distribution of monthly per capita consumer expenditure (MPCE) for 1973-74 as per NSS 28th round conducted during the year. For arriving at the above calorie norms, the Task Force used the age-sex-activity specific calorie requirements recommended by the Nutrition Expert Group (1968) and the age-sex-occupational structure of the Indian population as projected for 1982-83.

The Expert Group (1993) on estimation of proportion and number of poor (known as 'Lakdawala Committee') recommended the continuance of 1973-74 as the base year for estimating the poverty line and accepted rural poverty line of Rs. 49.09 and urban poverty line of Rs. 56.64, both at 1973-74 prices, recommended by the Task Force (1979) as the base. The Expert Group also recommended the use of calorie norms of 2,400 for rural and 2,100 for urban uniformly for all states. Other major recommendations of the Expert Group, inter-alia, included the following: (i) Adjusting the rural/urban all-India PL of the base year with the help of suitable consumer price index (CPI) numbers (so as to reflect the observed differences in the rural/urban cost of living across states) to arrive at the state-level *PLs* for the base year; (ii) Moving the state level *PLs* for the base year further with the help of CPI numbers to derive the state level *PLs* at current prices for the succeeding years; (iii) Estimating the HCR for the state from the size distribution of MPCE for the corresponding year based on the NSS quinquennial round on household consumer expenditure as the proportion of persons below the *PL*; (iv) Calculating the absolute number of poor for the state by multiplying the HCR for the state with the estimated population of the state based on Population Census; (v) deriving the all-India HCR as a ratio of the aggregate number of state-wise poor persons to the total all-India population; and finally, (vi) given the all-India HCR, deriving the implicit all-India *PL* from the all-India percentage distribution of persons by MPCE class based on the NSS.

The Tendulkar Committee (2009) moved away from anchoring the *PL* to a calorie norm since calorie consumption based on NSS data set was not found to be well correlated with the nutritional outcomes observed from other specialized surveys as remarked by the committee. Other salient features of the Tendulkar Committee *PL* include the following: (a) Adoption of the Mixed Reference Period (MRP¹)-based estimates of consumption expenditure as the basis for new *PL* (instead of Uniform Reference Period-based approach corresponding to last 30 days prevalent so far); (b) Acceptance of urban HCR of 25.7% for 2004-05 as per the old (Lakdawala Committee) methodology to be realistic on the ground of the same being 'less controversial than its rural counterpart'; and (c) Recommending MRP-equivalent of urban poverty line basket (*PLB*) corresponding to 25.7% urban HCR as the new reference *PLB* provided to both rural and urban populations in all the states after adjusting it for within-state urban-relative-to rural and rural and urban state-relative-to-all-India price differentials based on unit prices implicit in the same survey of NSS 61st round (2004-05). Based on the above (i.e. new) methodology, the Tendulkar Committee derived the *PL* and HCR for the year

¹ MRP based approach uses 365 days as the reference period for low frequency items (namely, clothing, footwear, durables, education and medical-institutional) and 30 days for all other items of consumption.

2004-05. They also suggested procedure for updating the base year (2004-05) PL for the year 2009-10 (being the year corresponding to NSS 66th round where household consumer expenditure data were collected based on a 'large sample') and beyond by using (a) Fisher index of changes in state-level urban prices between the years 2004-05 and the subsequent/current year and (b) within-state rural-relative-to urban Fisher indices for the current year based on NSS data of household consumer expenditure survey. Finally, the HCR for the current year can be derived from the MRP-based size distribution of persons by monthly per capita total expenditure class for the current year as per the NSS².

As per the methodology discussed above the official estimates of all-India PL and HCR for the years 1973-74, 1977-78, 1983, 1987-88, 1993-94, 1999-2000, 2004-05, 2009-10 and 2011-12 corresponding to NSS 28th round (1973-74) and the subsequent NSS quinquennial rounds viz. NSS 32nd, 38th, 43rd, 50th, 55th, 61st, 66th and 68th rounds on household consumer expenditure and employment-unemployment as released by the then Planning Commission are presented in **Tables 1 and 2**.

Table 1: All-India Poverty Lines for Various Years

Sector	All-India Poverty Line (Rs. at current prices)									
	Earlier Methodology*							New Methodology**		
	1973-74	1977-78	1983	1987-88	1993-94	1999-2000	2004-05	2004-05	2009-10	2011-12
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rural	49.63	56.84	89.45	115.43	205.84	327.56	356.30	446.68	672.80	816.00
Urban	56.96	72.50	117.64	165.58	281.35	454.11	538.60	578.80	859.60	1000.00

*Lakdawala Committee

**Tendulkar Committee

Table 2: Head Count Ratio for all-India

Sector	All-India Head Count Ratio (%)									
	Earlier Methodology*							New Methodology**		
	1973-74	1977-78	1983	1987-88	1993-94	1999-2000	2004-05	2004-05	2009-10	2011-12
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Rural	56.4	53.1	45.6	39.1	37.3	27.1	28.3	41.8	33.8	25.7
Urban	49.2	47.4	42.2	40.1	32.4	23.6	25.7	25.7	20.9	13.7

*Lakdawala Committee

**Tendulkar Committee

3. Contentious Issues in the Official Poverty Estimates

In this section, we focus on the following contentious issues in the official poverty estimates: one, the suitability of 1973-74 as the base year used in the earlier methodology (i.e. the one suggested by the Lakdawala Committee) for deriving the poverty estimates from 1973-74 to 2004-05; two, the appropriateness of calorie norms considered for defining the PL in the earlier methodology; and three, the major limitation of the new (Tendulkar Committee) methodology. We also examine the validity of the official PL and HCR as per the earlier methodology for the year 2004-05 as an illustration by comparing those with the alternative estimates of PL and HCR that we have derived afresh based on the household consumer

² For more details, see Report of the Expert Group to Review the Methodology for Estimation of Poverty, Government of India, Planning Commission, November 2009.

expenditure data of NSS 61st round (2004-05) using the same (earlier) methodology as adopted during the base year (1973-74).

A. Suitability of the Base Year

Base year plays a very important role in deriving the poverty estimates. This is because the PLs as per the base year are simply moved forward by using some index of changes in the price level to derive the PLs for the subsequent years. The earlier methodology adopted 1973-74 as the official base year. For deriving the base year PL, NSS 28th Round (1973-74) data on household consumption expenditure was used. For this purpose, based on this survey, estimates of average monthly per capita total consumer expenditure (MPCE) and the associated average calorie content of food items were obtained first for each total MPCE class separately for the rural and urban areas. Finally, using the linear interpolation method, the PL was taken as the average MPCE as per NSS 28th round that corresponded to the fixed 'calorie norm'. Accordingly, the official base year PL in terms of MPCE was obtained as Rs. 49.09 for rural India and Rs. 56.64 for urban India at 1973-74 prices. The said interpolated MPCE (i.e. the PL) for rural and urban population was found to correspond to the average calorie consumption of 2,435 and 2,095 per capita per day for the rural and urban areas respectively during 1973-74.

Coming to the suitability of 1973-74 as the base year, it is worth noting that NSS 28th round survey period was of only nine months' duration and the sample size adopted in this round was much less (*less than one-fourth for rural India and less than one-sixth for urban India*) than the sample size of NSS 27th round, which was a one-year survey. Given the above limitation of NSS 28th round survey, we found it interesting to work out the base year PL by adopting 1972-73 and 1971-72 as the alternative base years and following exactly the same approach using household consumer expenditure data of NSS 27th round (1972-73) and NSS 26th round (1971-72)³. Finally, the PLs for alternate base years so obtained are converted to constant (1973-74) prices using Consumer Price Index for Agricultural Labourers (CPIAL; Base: 1960-61 = 100) for rural areas and both Consumer Price Index for Industrial Workers (CPIIW; Base: 1960 = 100) and Consumer Price Index for Urban Non-Manual Employees (CPIUNME; Base: 1960 = 100) for urban areas. **Tables 3 and 4** summarize the findings.

Table 3: All-India Poverty Lines for Different Base Years at Current Prices

Sector	Poverty line for different base years at current prices (Rs.)			Sample size (Number of households) involved in the corresponding distribution of persons by MPCE class		
	Alternate base year 1: (1971-72)	Alternate base year 2: (1972-73)	Official base year (1973-74)	Alternate base year 1: (1971-72)	Alternate base year 2: (1972-73)	Official base year (1973-74)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural	36.83	45.07	49.09	11,468	72,270	15,467
Urban	47.78	54.67	56.64	19,459	52,820	7,881

[Source: Manna, G C (2007): "On Calibrating the Poverty Line for Poverty Estimation in India", *Economic & Political Weekly*, Vol XLII, No. 30.]

³ NSS 26th round (July 1971 – June 1972) too had a larger sample size than NSS 28th round for urban India. In view of larger sample sizes of NSS 27th and 26th rounds, estimates of average MPCE and per capita calorie intake based on these rounds are likely to be superior to those based on NSS 28th round from the point of view of sampling errors associated with the related estimates.

Table 4: Alternative Poverty Lines at Official Base Year Prices

Sector	Consumer Price Index (CPI)* (CPIAL for rural; CPIIW & CPIUNME for urban)			Monetary equivalence of alternative poverty lines (Rs.) at official base year (1973-74) prices		
	Alternate base year 1: (1971-72)	Alternate base year 2: (1972-73)	Official base year (1973-74)	Alternate base year 1: (1971-72)	Alternate base year 2: (1972-73)	Official base year (1973-74)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural	199.67	235.42	290.44	53.57 (36.83)	55.60 (45.07)	49.09
Urban	195.08 (IW)	224.00 (IW)	273.00 (IW)	66.86 (47.78)	66.63 (54.67)	56.64
	183.17 (UNME)	203.75 (UNME)	236.67 (UNME)	61.74 (47.78)	63.50 (54.67)	56.64
	189.125 (Av)	213.875 (Av)	254.835 (Av)	64.38 (47.78)	65.14 (54.67)	56.64

* Obtained as the simple average of corresponding monthly indices as per the CSO's Monthly Abstract of Statistics

Note: Figures within brackets denote the alternative poverty lines for two alternate years at respective current prices;

'Av' means simple average of CPIs for IW and UNME. [Source: As in Table 3]

It is interesting to note from Table 4 that the PLs as per the two alternate base years are closer to each other and they are significantly higher than the official base year PL for both rural and urban areas at constant 1973-74 prices. Thus we are of the view that in the official methodology, both rural and urban PLs were underestimated in the base year with the resultant downward bias in the official estimates of both PLs and the *HCRs* for the subsequent years released till 2004-05.

B. Appropriateness of Calorie Norm

The official PLs for rural and urban India have been anchored on an average calorie norm of 2,435 and 2,095 calories per capita per day, respectively (which have been rounded off to 2,400 calories and 2,100 calories respectively). These are based on the recommendation of the Task Force (1979) on Projections of Minimum Needs and Effective Consumption Demand of the Planning Commission, Government of India (henceforth to be referred to as the 'Task Force'). The Task Force used the calorie norms of the Indian Council of Medical Research (ICMR) for various 'relatively homogeneous' person categories and the corresponding age-sex-activity distribution of the population as the weighting diagram to obtain these average calorie norms. The said weighting diagram is based on (a) the projected age-sex structure of the population for 1982-83 (III projection) of the Expert Committee on Population (1977), (b) 1971 census occupational structure and (c) workforce participation rates based on 'usual activity status' from the NSS employment-unemployment data of 27th round (1972-73). The weighting diagram of population along with the calorie norms across age-sex-activity groups yielded an average calorie requirement of 2,432 calories per capita per day for rural areas and 2,094 calories per capita per day for urban areas. Adding the extra calorie needs of pregnant and lactating women, the average daily calorie requirement came to

be 2,436 calories for rural areas and 2,097 calories for urban areas. For the sake of simplicity, these were rounded off to 2,400 kcal for the rural areas and 2,100 kcal for the urban areas⁴.

In the age-sex-activity grouping, the Task Force made the following assumptions while classifying workers: Heavy workers included persons engaged in cultivation, agricultural labour, mining and quarrying and construction; Moderate workers included persons engaged in livestock, forestry, hunting, plantations, orchards and allied activities, manufacturing, servicing and repairing; Sedentary workers included persons engaged in trade & commerce, transport, storage, communication and other allied services; and Calorie requirements for adult non-workers were the same as those for sedentary workers. We, however, define heavy work to be “manual work” as per the practice followed for quite some time in the National Sample Survey (NSS) where a manual work was defined as a job essentially involving physical labour. With the above change in the definition of heavy work and (a) retaining the coverage of ‘sedentary work’ as per the Task Force, (b) adopting the more recent recommendations on dietary allowances for different ‘homogeneous groups’ of people as made by the Expert Group of ICMR (1988), (c) considering the age, sex and occupation (NCO, 1968) distribution of persons according to ‘*principal usual status*’ as per the data available for the two quinquennial NSS large-sample rounds on the Survey on Employment-Unemployment, namely, NSS 50th round (1993-94) and NSS 55th round (1999-2000), we have derived alternative estimates of average per capita daily calorie requirement of the Indian population. Our derived average calorie norms work out approximately to be 2,290 for rural and 2,250 for urban as against official norm of 2,400 for rural and 2,100 for urban. It may be noted that in our derived norm, rural-urban divergence is not so pronounced as it exists in the official norms⁵.

C. Validity of the Official PL and HCR

As per the official methodology, the state level PLs for the base year are moved forward by using CPI numbers to derive the state level PLs at current prices for the succeeding years. Thereafter, HCR at the state level for any succeeding year is derived from the percentage distribution of persons by total MPCE class as per the NSS conducted during the year. Finally, all-India HCR and PL for the current year are derived by using the state level HCRs, projected population (state/UT/all-India) for the current year and all-India size distribution of persons by total MPCE class based on the NSS for the current year. It would be of interest to see how the alternative PL and HCR behaves if those are directly worked out from the size distribution of persons by total MPCE class based on the NSS survey for any current period by linking the PL with the all-India calorie norm (instead of moving the base year PLs by price indices as was the practice in earlier methodology). We have done this exercise for the year 2004-05 as an illustration using NSS 61st round (2004-05) survey results of household consumer expenditure. **Statements A-1 and A-2** in the Annexure summarizes the findings. It is worth noting that the alternative PLs and HCRs for the year 2004-05 derived afresh from NSS 61st round data are much higher than the corresponding official estimates. In fact, the divergence between the alternative estimates is quite alarming.

⁴ For more details including age-sex-activity wise calorie norms, refer to Manna, G C (2007): “On Calibrating the Poverty Line for Poverty Estimation in India”, *Economic & Political Weekly*, Vol XLII, No. 30.

⁵ For further details and also the state-wise calorie requirements, see Manna, G C (2007): “On Calibrating the Poverty Line for Poverty Estimation in India”, *Economic & Political Weekly*, Vol XLII, No. 30.

D. Limitation of the Tendulkar Committee Methodology

As mentioned earlier, the new methodology suggested by the Tendulkar Committee has moved away from anchoring the PL to a calorie norm which was the practice earlier. Instead, it accepted 25.7% urban HCR for the year 2004-05 as per the earlier methodology to be realistic and less controversial than the rural HCR. Accordingly, the new PL accepts 25.7% urban HCR as the benchmark and bases the new base year (2004-05) PL as the Mixed Reference Period-equivalent of poverty line basket (PLB) corresponding to this HCR on the basis of NSS 61st round and moves the base year PL further. In our view, the major limitation of the new methodology is the above assumption to accept 25.7% urban HCR as the realistic one without giving adequate technical justifications. In fact, the above HCR is not free from the limitations of the corresponding old PL, with which the accepted HCR has its linkage. As per our analysis, the accepted HCR seems to have a serious downward bias. Further, adoption of same reference PLB for both urban and rural population is another debatable issue in the new methodology given the age-sex-activity differentials between the rural and urban population across various states and Union Territories.

4. Concluding Remarks

Our analysis based on NSS household consumer expenditure data of two alternative years i.e. 1972-73 and 1971-72 brings out the fact that in the official methodology, PL and HCR for the official base year (1973-74) in the earlier (Lakdawala Committee) methodology has been underestimated. This must have resulted in the downward bias in the official estimates of the PL and HCR in the subsequent years as well. We also observe that the calorie norm (2,400 for rural India and 2,100 for urban India, per capita per day) on which the PL for the base year (1973-74) as per the earlier methodology was anchored is significantly different from the calorie requirement (2,290 for rural and 2,250 for urban) that we have estimated based on more recent calorie requirements of different categories of persons and their age-sex-activity distribution as per NSS 50th round (1993-94) and NSS 55th round (1999-2000). A fresh calculation of alternative PL and HCR based on household consumer expenditure data of NSS 61st round (2004-05) by replicating the earlier methodology leads us to a much higher estimate of PL and HCR than the corresponding official estimates. Further, in our view, the major limitation of the new (Tendulkar Committee) methodology of deriving the PL and HCR is the acceptance of 25.7% urban HCR as per the earlier methodology for the year 2004-05 as the benchmark and the use of corresponding poverty line basket as the reference basket for both urban and rural population across states to derive the poverty estimates from the year 2004-05.

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Annexure

Statement A-1: Official and Alternative Poverty Lines (Rs.) for the Year 2004-05

State/UT	Rural			Urban		
	Official PL@	Alternative PL		Official PL^	Alternative PL	
		PL1@	PL2*		PL1^	PL2#
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pr.	292.95	932.78	784.20	542.89	856.44	1042.35
Ar. Pradesh	–	767.02	715.57	–	**	**
Assam	387.64	748.00	621.69	378.84	922.32	1104.02
Bihar	354.36	538.81	492.55	435.00	**	**
Chhattisgarh	322.41	616.30	554.73	560.00	**	**
Goa	362.25	**	**	665.90	**	**
Gujarat	353.93	956.66	886.82	541.16	1260.62	1554.31
Haryana	414.76	788.56	728.20	504.49	1101.15	1377.06
Himachal Pr.	394.28	741.89	674.24	504.49	**	987.58
J & K	391.26	781.02	701.19	553.77	722.32	965.89
Jharkhand	366.56	626.81	562.99	451.24	602.19	853.26
Karnataka	324.17	1018.73	766.85	599.66	1179.53	1452.04
Kerala	430.12	1427.51	1202.42	559.39	1095.12	1610.68
Madhya Pr.	327.78	729.51	611.08	570.15	869.18	**
Maharashtra	362.25	1194.66	828.35	665.90	1746.46	2520.74
Manipur	–	**	**	–	636.37	**
Meghalaya	–	1432.51	1216.32	–	1675.17	2181.82
Mizoram	–	728.57	**	–	**	**
Nagaland	–	2136.65	1775.10	–	**	**
Odisha	325.79	539.70	470.22	528.49	566.23	805.13
Punjab	410.38	890.20	801.27	466.16	944.52	1220.73
Rajasthan	374.57	657.98	602.33	559.63	761.36	1016.19
Sikkim	–	1603.48	1348.76	–	1334.74	1647.81
Tamil Nadu	351.86	1290.31	956.58	547.42	1178.66	1587.32
Tripura	–	1229.30	1029.08	–	949.21	1056.45
Uttarakhand	478.02	725.35	608.34	637.67	724.16	942.14
Uttar Pradesh	365.84	569.24	522.46	483.26	**	777.11
West Bengal	382.82	711.61	624.48	449.32	1160.95	1479.05
A & N Is.	–	1728.94	1426.89	–	1271.14	2117.09
Chandigarh	–	**	**	–	1206.19	1397.64
D & N Hav.	362.25	**	**	665.90	1398.01	2638.24
Daman& Diu	–	**	**	–	1429.88	2480.64
Delhi	410.38	**	**	612.91	1159.94	1445.95
Lakshadweep	–	**	**	–	710.56	769.18
Puducherry	–	1146.17	1051.08	–	1065.38	1363.23

(Source: Manna, G C, Sisir Kumar Samanta and Coondoo, Dipankor (2009): "What Does the Recent Indian Consumption Behaviour Tell?" *Economic & Political Weekly*, Vol XLIV, No. 32.)

Note: Calorie norms (per capita per day) associated with the respective PLs: @ 2400; * 2290; ^ 2100; # 2250

** Not presented due to doubtful fluctuations in the average per capita calorie intake over MPCE classes as per Report Number 513, NSS 61st round

Statement A-2: Official Head Count Ratio and Alternatives (%) for the Year 2004-05

State/UT	Rural			Urban		
	Official HCR@	Alternative HCR		Official HCR^	Alternative HCR	
		HCR1@	HCR2*		HCR1^	HCR2#
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pr.	11.2	90.0	82.5	28.0	58.8	70.3
Ar. Pradesh	22.3	61.9	57.1	3.3	**	**
Assam	22.3	85.7	71.0	3.3	52.4	70.0
Bihar	42.1	83.0	76.2	34.6	**	**
Chhattisgarh	40.8	88.3	84.4	41.2	**	**
Goa	5.4	**	**	21.3	**	**
Gujarat	19.1	88.8	86.7	13.0	71.3	81.4
Haryana	13.6	62.3	56.8	15.1	65.4	77.4
Himachal Pr.	10.7	62.1	55.0	3.4	**	40.1
J & K	4.6	62.3	54.8	7.9	25.0	51.7
Jharkhand	46.3	88.6	83.8	20.2	34.7	53.3
Karnataka	20.8	95.6	90.0	32.6	71.9	80.3
Kerala	13.2	76.3	76.2	20.2	60.5	78.4
Madhya Pr.	36.9	90.5	84.6	42.1	66.6	**
Maharashtra	29.6	94.3	85.6	32.2	84.7	94.0
Manipur	22.3	**	**	3.3	42.2	**
Meghalaya	22.3	97.8	97.5	3.3	81.3	93.7
Mizoram	22.3	52.9	**	3.3	**	**
Nagaland	22.3	81.5	79.3	3.3	**	**
Odisha	46.8	82.9	76.1	44.3	48.5	67.2
Punjab	9.1	68.2	59.8	7.1	50.9	65.9
Rajasthan	18.7	74.1	67.0	32.9	55.5	72.7
Sikkim	22.3	90.7	90.0	3.3	76.6	85.8
Tamil Nadu	22.8	94.6	94.8	22.2	69.9	82.6
Tripura	22.3	98.0	96.7	3.3	63.6	68.9
Uttarakhand	40.8	75.3	62.2	36.5	44.7	61.0
Uttar Pradesh	33.4	72.4	66.2	30.6	**	62.0
West Bengal	28.6	82.7	73.7	14.8	67.9	78.5
A & N Is.	22.9	74.9	73.9	22.2	49.1	77.3
Chandigarh	7.1	**	**	7.1	42.0	48.0
D & N Hav.	39.8	**	**	19.1	60.4	91.5
Daman& Diu	5.4	**	**	21.2	85.4	96.4
Delhi	6.9	**	**	15.2	57.3	70.4
Lakshadweep	13.3	**	**	20.2	22.6	26.9
Puducherry	22.9	85.0	81.2	22.2	65.4	79.5
All-India	28.3	82.7	-	25.7	66.2	-

(Source: Manna, G C, Sisir Kumar Samanta and Coondoo, Dipankor (2009): "What Does the Recent Indian Consumption Behaviour Tell?" *Economic & Political Weekly*, Vol XLIV, No. 32.)

Note: Calorie norms (per capita per day) associated with respective HCRs: @ 2400; * 2290; ^ 2100; # 2250

** Not presented due to doubtful fluctuations in the average per capita calorie intake over MPCE classes as per Report Number 513, NSS 61st round