

Poverty Trends in India 2004-05 to 2009-10

Updating Poverty Estimates and Comparing Official Figures

UTSA PATNAIK

A comparison of the consumption expenditure and associated nutritional intake data for 2009-10 with that of 2004-05 shows worsening poverty in terms of the percentage of people unable to reach the minimum required calories energy intake through their monthly spending on all goods and services. This result must be seen in the context of neo-liberal policy, the financial crisis and consequent global recession affecting export production, the rapid rise in food prices, declining employment growth, the drought of 2009-10, and in spite of a positive development like the National Rural Employment Guarantee Scheme. It is argued that the decline claimed in the official poverty ratios is spurious.

1 Introduction: The Background

The period since 2004-05 to date has seen the inception of financial crisis and global recession from 2007 which continues in the US and has more recently affected the Latin European countries severely. Rapid rise in international and local food prices peaked in 2008 but inflation continues to be high thereafter. In India a moderately severe drought took place in 2009-10. Given these adverse developments it was to be expected that the poverty situation would worsen. The data on employment, consumption expenditure and nutrition from the 66th round, 2009-10 of the National Sample Survey (NSS) confirm the inference of deterioration.

First, the employment data show a virtual collapse of employment growth. After registering dismal performance during 1993-94 to 1999-2000, total employment had grown annually at 2.66% during 1999-2000 to 2004-05, partly reflecting the lowered base and partly owing to significant fiscal expansion by the government to counter the bad drought of 2002-03. In the five following years between 2004-05 and 2009-10, however, the employment growth rate for the economy as a whole declined to only 0.88%. The decline has been sharper in rural India from 2.2% to 0.4% compared to urban decline from 4% to 1.9%. A major contributor to the decline in rural areas has been the large absolute decline in female self-employment.¹

What explains this remarkable decline in employment growth? Most serious answers will focus on the twin impact of global recession affecting export production and the 2009-10 drought which lowered agricultural output and with it employment. While this is correct, a major reason for employment collapse, which is generally ignored, was the ill-advised renewal of fiscal contraction as soon as the United Progressive Alliance-1 government came to power in mid-2004 and notified the Fiscal Responsibility and Budget Management (FRBM) Act. Fiscal compression was reflected in the absolute reduction of the current value fiscal deficit from Rs 1,464 billion in 2005-06 to Rs 1,269 billion by 2007-08 entailing a halving of the ratio of budget deficit to gross domestic product (GDP), to 2.7%, although there was no external payments crisis which could have been adduced, even by the fallacious arguments of financial interests, as warranting such sharp contraction. The finance minister while creating income deflation and unemployment, in his 2008 budget speech quoted the 2.7% figure proudly to claim that the target of reduction in budget deficit to GDP ratio set in the Act had been more than met, and India's

Utsa Patnaik (patnaikutsa@yahoo.com) is Professor Emeritus, Jawaharlal Nehru University, New Delhi.

economic reforms were on track. Fiscal contraction could not have been more badly timed, on the very eve of major global financial crisis and recession. One is reminded of the misguided deflationary policies of Japan's Finance Minister K Inouye in 1928 on the eve of financial crisis in the advanced countries and the collapse of US demand for Japan's exports.²

A positive development was the enacting in early 2006 of the National Rural Employment Guarantee Act (renamed the Mahatma Gandhi NREGA) but the sums allocated for it were initially paltry, no higher in real terms than the sum of all earlier employment generation schemes taken together. The positive impact of implementing the MGNREGA and larger spending under it started only after the severe employment decline had already made itself felt. There is little doubt that in the states where MGNREGA has been seriously implemented, without it the employment situation would have been worse.

The rapid global food price inflation from the end of 2007 caused food riots in 37 countries by 2008, and current analyses generally attribute this to the increasing diversion of grain to ethanol production as fossil fuel prices rose and speculation kicked in. This is quite correct as a proximate explanation of recent food price spikes but nevertheless remains at a rather shallow level because the basic causes for supply constraints go back much earlier, to the decline in per capita grain output in developing countries not compensated by sufficient rise in developed countries so that at the global level too per-head grain output has been falling since the mid-1980s.

Not one or two, but dozens of developing countries opened up to free trade from the 1980s and saw the conversion of foodgrains growing land to export crops which led to declining per-head output of basic staples for their own populations, since grain yields could not rise enough to compensate for area decline, given the neo-liberal policy context of contraction in public spending on rural development, crop research and extension services. Further, vulnerability to external shocks increased owing to undermining of domestic food procurement systems. Under advice and pressure from the International Monetary Fund (IMF) and the World Bank, very many developing countries unwisely dismantled their public foodgrains procurement and distribution systems, as they were urged to rely on imports from the global grain market which is dominated by North America and western Europe. The process of dismantling food security systems started with Asian countries such as the Philippines in the mid-1990s and continued for the next 15 years in other Asian and in African countries. In India too, the public distribution system (PDS) was allowed to run down as a matter of state policy: procurement prices were kept virtually stagnant for five years from 2002 to 2007, grain output saw a plateau at 212 to 215 million tonnes during those years, and public procurement volumes reduced drastically. A revival of the system took place only with the emergency of the 2008 global food price spike, with procurement prices being raised substantially followed by recovery in foodgrains output which peaked at over 250 million tonnes in 2011-12, bringing per capita net output back to the 175 kg mark.

However demand deflation owing to fiscal contraction, rising unemployment under global and local recession with consequent loss of mass purchasing power, had already gone quite far. Combined with the exclusion of most of the actually poor from accessing affordable grain from the PDS owing to their being wrongly labelled "above poverty line", this meant that the increased output could not be absorbed. Decline in domestic absorption was reflected in the build-up of public food stocks and large exports (as had occurred during 1999 to 2002), reducing the three-year annual domestic grain absorption as food, during 2008-10 to 156 kg per capita. The food grains availability figures from the annual *Economic Survey* tell the same story – there has been steep decline in availability during the period of reforms (Figure 6, p 54). Availability roughly measures direct consumption as food. We have earlier pointed out that the supply-utilisation accounts from the Food and Agriculture Organisation (FAO) database show that India's per capita cereal absorption for all purposes (food, livestock feed, seed, processing and other) was declining and by 2007 – even before global recession and the drought – fell below the level not only of sub-Saharan Africa but also below that of the least-developed countries (Patnaik 2009).

In the light of the foregoing trends we would expect the poverty situation to worsen, and this is indeed the case when we compare the consumption expenditure and associated nutritional intake data for 2009-10 with 2004-05. The percentage of rural persons unable to reach 2,200 calories energy intake, through their total monthly spending on all goods and services, has gone up from 69.5 to 75.5. Considering the urban population which is unable to reach 2,100 calories energy intake, the percentage rise is from 64.5 to 73. The below 2,400 calories percentage of persons has risen from 87 to 90.5 in rural India. The only positive aspect is that the ratio of rural persons below 1,800 calories intake has remained constant at 25%: if we take it as an indication of poverty depth, this has not increased over the five years, but it has not declined either. Over the entire reform period however there has been deepening of poverty affecting a quarter of the rural population by 2009-10 compared to one-fifth in 1993-94. The same holds for urban areas, where the percentage of persons falling below 1,800 calories has registered a larger rise from 23.5% to 32%, with greater than average increase in poverty depth in states with big cities.

The official poverty ratios (on revised basis) released by the Planning Commission, however show a decline from 41.5% to 33.8% in rural India and from 25.7% to 20.9% in urban areas over 2004-05 to 2009-10. The decline claimed is a spurious one since the estimates are not comparable over time, with the later poverty lines providing access to successively lower levels of nutrition than each of the earlier ones. This author has presented from 2004 onwards a number of critiques of the official estimates and has shown that official poverty lines have cumulatively underestimated true poverty lines, permitting access to a level of nutritional intake which is not constant but continuously declining over time, thus violating the very definition of poverty line. The increasing divergence between

nutrition-invariant poverty lines and official poverty lines was the outcome of the Planning Commission abandoning the original definition of poverty line and applying a different definition, namely, merely bringing forward the base-year poverty line using a price index. This method keeps the consumption basket fixed at the base-year level and thereby assumes that the same commodities are available in the later year as in the base year. The definition of poverty line was delinked from the nutrition norm on the unstated assumption that indexation would preserve access to nutritional standards, but the assumption has turned out to be incorrect since the very availability of the base-year basket itself is in question. Particularly during the period of market-oriented economic reforms, choices open to consumers have changed greatly with market pricing of essential utilities, healthcare and education, disappearance of common property resources and so on. The basic problem has not been addressed to date since the 2009 Tendulkar Committee stayed with the method of price indexation producing such an underestimation.

A significant finding of our investigations has been that consumer price indices are not equivalent to cost-of-living indices and tend to underestimate the actual rise in the cost of living, particularly when applied over long periods of time. This is of some importance since “real” values are obtained routinely from nominal values by applying price indices to even fairly long time-series. How real these “real” values are, becomes open to question, since not only the magnitude but even the direction of change in consumption spending is highly sensitive to small changes in the index used.

An alternative check we suggested was to use the change in the nutrition-invariant poverty lines to estimate real expenditure and showed that there was decline in real expenditure whereas consumer price indexation showed the opposite (U Patnaik 2010b). Few will contest the proposition that if the majority of persons with already inadequate nutrition are unable to preserve access to these levels over time, this can be reasonably interpreted to mean decline in their “real” spending on consumption and a worsening of welfare. Following these findings Prabhat Patnaik (2013) has pointed out that a basic proposition of welfare economics when comparing states over time is that the same commodities and services are available at a later date as the earlier one, but this is a patently false assumption for India, especially during the period of economic reforms with the disappearance of many traditional simple consumer goods and the move towards market pricing of utilities and healthcare.

2 Direct and Official Poverty Estimates: 2009-10, All-India

We have applied the original official nutrition norms to obtain the poverty line for every large sample NSS round. The nutrition-invariant poverty line, or the direct poverty line is the current level (observed directly from the large sample NSS expenditure survey at each five-yearly point of time) of total monthly spending on all goods and services per capita, whose food spending part allowed the consumer to access an energy intake of 2,200 calories in rural and 2,100 calories in urban

areas. Those spending below these levels were designated as the poor in the first official estimate. Although 2,400 calories was the original official rural norm, it was lowered in actual application to 2,200 calories for the first official estimate itself. Applying the 2,200/2,100 calories rural and urban norms using the uniform recall period (URP) distribution and comparing with my earlier estimates on the same basis for 2004-05, while 69.5% of rural and 64.5% of urban persons were in poverty in 2004-05, by 2009-10 these ratios had risen to 75.5% and 73%, respectively. The mixed recall period (MRP) distribution for 2009-10 gives the same ratios: whatever the distribution, poverty is found to have risen.

Only the original 1973-74 rural/urban poverty lines were derived by the Planning Commission using the official definition based on rural/urban nutrition norms and hence provided correct poverty ratios. The subsequent estimates were quietly delinked from satisfying any nutrition norm, because the original definition was abandoned for a different definition, namely, price-indexation of the base-year poverty line, which entails keeping the quantities of different items in the consumption basket fixed at the base-year level.

Thus, if at the level of base-year expenditure which satisfies the nutrition norm, the monthly quantities q_0 of food and non-food items when valued at prices p_0 amounts to the sum $\sum p_0 q_0$, then the official poverty line in year t is given by $\sum p_t q_0$. The ratio of the current and base-year poverty lines is a Laspeyres index, namely, the price relatives are weighted by the base-year quantities. The official poverty lines so obtained by indexation of base-year quantities are not nutrition-invariant and correspond to steadily declining nutritional intake over time. Not only nutrition, access to other basic necessities like clothing is lower at the successive official poverty lines. Indexation clearly fails to capture the actual rise in the cost of living when applied over long time-periods, because the basket is fixed while in reality the available choices of goods and services are changing, so enforcing change in the basket itself.³

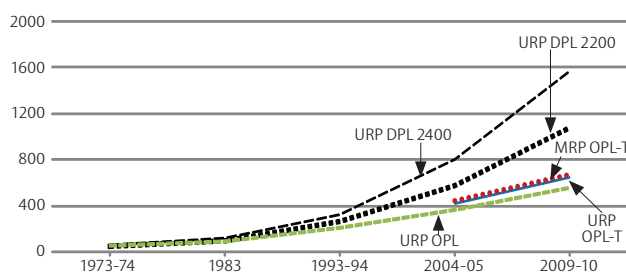
An employee in the public sector and in government service enjoys automatic indexation of earnings to price change by way of dearness allowance, the amount of which over time can easily exceed the basic salary. The fact that such price indexation still does not capture the actual rise in the cost of living is admitted in practice by the government by the very fact of its appointing decadal pay commissions which push up the entire structure of salaries to maintain living standards. A Rs 1,000 gross monthly salary for a central university associate professor in 1973-74, comes to Rs 17,000 by 2009-10 on applying the consumer price index for urban non-manual employees. The actual 2009-10 gross salary of a university employee occupying the same position, however, was over three times this amount. The official poverty estimators would be the first to protest if their own earnings were merely indexed. They think nothing, however, of indexing the cost of a 40-year-old basket, saying that the urban poverty line is a mere Rs 28.7 per day and anyone spending above this is “non-poor” and so to be excluded from affordable food, health insurance and other benefits.

Table 1: Rural Direct Poverty Lines and Official Poverty Lines on URP and MRP Bases

	URP DPL	URP DPL	URP OPL	URP OPL-T	MRP OPL-T
	2,400	2,200			
1973-74	56	49	49		
1983	120	100	86		
1993-94	325	260	206		
2004-05	800	575	359	415*	446.7
2009-10	1,550	1,075	557*	645*	672.8

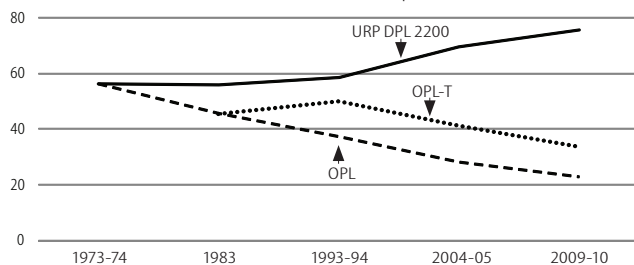
OPL-T refers to the revised official poverty lines from the Tendulkar Committee report. Starred numbers are estimated. For 2004-05 the URP value Rs 415 of the MRP official poverty line Rs 446.7 is obtained using the cross-classification of spending on URP and MRP bases in Table 6R, Report No 508. For 2009-10 the Rs 645 value has been obtained directly from the URP distribution available in NSS Report 538. The implicit price inflator from these two values is used to bring forward the pre-revision 2004-05 official poverty line, giving Rs 557 for 2009-10.

Figure 1a: Divergence of Official and Direct Poverty Lines, 1973-74 to 2009-10 (Rs per capita per month)



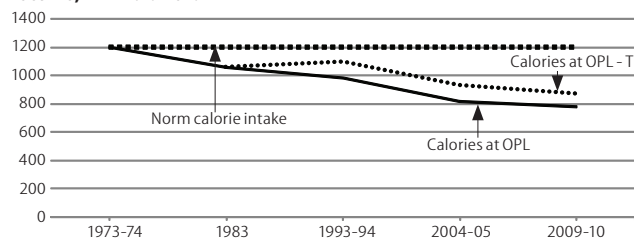
MPCE is monthly per capita expenditure in rupees. OPL is the official poverty line up to 2004-05 which has been extended to 2009-10 to show the difference from OPL-T, the revised official poverty lines for 2004-05 and 2009-10 on a comparable URP basis to values for earlier years. Source: Table 1 data on poverty lines, URP distribution except where MRP is specified.

Figure 1b: Divergent Trends of Direct Poverty Ratios and Official Poverty Ratios, 1973-74 to 2009-10, All-India Rural (% of persons)



OPR is the Planning Commission official poverty ratios for the specified large-sample years from 1973-74 to 2004-05, extended to 2009-10 using the same method by this author. OPR-T is the revised official poverty ratio calculated retrospectively in the Tendulkar Committee Report (2009) for 1993-94 and 2004-05, and for 2009-10 presented by the Planning Commission. Source: Table 5.

Figure 1c: Declining Daily Calorie Intake at Official Poverty Lines, 1973-74 to 2009-10, All-India Rural



All calorie intake values are normalised by deducting 1,000 calories as survival minimum. Source: Table 5.

The monthly per-head poverty lines announced by the Planning Commission for 2009-10 are Rs 672.8 in rural and Rs 859.6 in urban areas which works out to Rs 22.4 and Rs 28.7 daily, respectively. The persons falling below these

levels are officially designated as “the poor”. Using the 2009-10 NSS data, mixed recall period, on the distribution of persons by spending levels, the commission found that “the poor” made up 33.8% of all persons in households in rural areas and the corresponding figure was 20.9% in urban areas with 29.8% as the overall ratio. (The Planning Commission poverty lines and ratios for 2009-10 are given in the Appendix (p 57). These may be checked against the rural/urban ogives we present in Figures 4RU and 4UR, p 51.) We must remember that the “poverty line” is supposed to cover not only minimal food expenses but every type of non-food expense (manufactured necessities, utilities, rent, transport, medical care) for one person. It is clear to anyone who shops in a local market for daily necessities however that the paltry amounts of Rs 22.4 and Rs 28.7 per day would buy only one kilogram of the cheapest variety of rice and nothing else. The latter sum would not buy even a single cup of coffee in a medium-grade food outlet. The official poverty lines by now are destitution lines.

That there is something very wrong with the official poverty lines and poverty percentages is now generally accepted. The

Table 2RU: All-India Rural 2009-10, Basic Data on Spending and Nutrition (MRP Distribution)

Decile Group (Persons)	MPCE Upper-end Value, Rs	Per Cent of Persons Cumulative	MPCE Average Rs	Daily Energy Calories	Daily Protein gm	Daily Fat gm
1	2	3	4	5	6	7
1	479	10	404.6	1,531	40.4	18.9
2	569	20	526	1,703	45.2	24.2
3	645	30	607.12	1,798	48.1	28.3
4	721	40	681.97	1,908	51.4	31.3
5	801	50	760.2	1,968	53.3	34.8
6	895	60	846.28	2,016	54.8	38
7	1,013	70	951.17	2,113	57.5	41.7
8	1,186	80	1,092.81	2,198	60.5	46.3
9	1,525	90	1,329.51	2,319	64.3	52
10	3,136	100	2,330.61	2,643	74.5	67.3
All			953.05	2,020	55	38.3

MPCE is monthly per capita expenditure (in rupees). Column 2 to be read as up to Rs 479, 479 up to 569, 569 up to 645, and so on. Last value Rs 3,136 is not in source; it is approximated here by assuming Rs 2,330.61 to be the mid-point of the last group. Source: NSS Report No 538, *Level and Pattern of Consumer Expenditure 2009-10* and Report No 540, *Nutritional Intake in India 2009-10*. www.mospi.nic.in

Table 2UR: All-India Urban 2009-10, Basic Data on Spending and Nutrition (MRP Distribution)

Decile Group	MPCE Upper-end Value, Rs	Per Cent of Persons Cumulative	MPCE Average Rs	Daily Energy Calories	Daily Protein gm	Daily Fat gm
1	2	3	4	5	6	7
1	682	10	554.7	1,544	42.4	25
2	846	20	765.74	1,681	46	32
3	1,004	30	923.07	1,749	47.9	36.5
4	1,179	40	1,088.15	1,831	50	41.2
5	1,382	50	1,279.3	1,894	51.9	44.9
6	1,638	60	1,503.82	1,951	53.8	49.2
7	1,962	70	1,791.79	2,039	56.4	53.4
8	2,459	80	2,188.98	2,118	58.2	58.7
9	3,385	90	2,856.98	2,227	61.7	64.4
10	7,831	100	5,608.19	2,425	66.8	73.8
All			1,856.01	1,946	53.5	47.9

Rs 7,831 as upper-end value for the last decile is approximated by taking Rs 5,608.19 to be the mid-point of the class.

Source: As Table 2RU.

more unrealistically low the official poverty line is, the lower will be the proportion of persons below it. If the poverty line is set low enough at a level where people cannot survive, “poverty” so measured will be zero even though in reality it may be very high. About Rs 330/430 per-head in rural/urban areas in 2009-10 are the lowest limits of monthly spending by the poorest decile of persons (Tables 2RU and 2UR, p 46), levels below which there are no observations for households, because there are no survivors.⁴ At these levels, 1,100 or less calories daily energy intake per person can be obtained while nutritionists tell us that on average 1,000 to 1,100 calories intake is the survival minimum even for a person not doing any work at all.

Table 3: Average Nutritional Intake Per Capita Per Day (1983 to 2009-10)

NSS Round	Year	Rural Calorie	Rural Protein Gm	Rural Fat Gm	Urban Calorie	Urban Protein Gm	Urban Fat Gm
38	1983	2,221	62	27	2,089	57	37
50	1993-94	2,153	60.2	31.4	2,071	57.2	42
61	2004-05	2,047	57	35.5	2,020	57	47.3
66	2009-10	2,020	55	38.3	1,946	53.5	47.9

Source: NSS Reports on *Nutritional Intake in India* for the concerned years.

The Planning Commission, after adopting the Tendulkar report, continues to follow a method of indexation leading to cumulative underestimation of its poverty line in current prices, hence its poverty ratios remain grossly understated. To take the most striking case: the 2009-10 official poverty estimate for rural Puducherry is near-zero, only 0.2% (Appendix table) at the official poverty line of Rs 21.4 daily but of course, it is not mentioned anywhere that at this spending level the consumer could access only 1,150 calories (Table 6RU, p 49) – a virtual starvation level. The actual 2,200 calories poverty line for rural Puducherry is Rs 46.7 daily and 56% of persons failed to reach this level. How can public policy be correctly guided if official estimates show 0.2% in poverty compared to 56% in reality?

The basic reason for the gross underestimation of the poverty lines, and hence poverty ratios, is the procedure of defining the poverty line in one way but measuring it in a different way. To do this is to commit a logical fallacy, the fallacy of equivocation, since the same term, “poverty line” is used with two completely different meanings rendering impossible any valid inference about change over time. Successive expert committees on poverty (1993, 2009) for no good reason stayed with the method of price indexation of a receding, increasingly distant base-year basket, even though the members knew very well that the nutrition norm was no longer satisfied at their poverty lines so calculated.

The change in the set of choices open to consumers became particularly rapid in the period of economic reforms which was marked by the move towards market pricing of basic utilities and healthcare, targeting of the PDS and decline in per capita foodgrains availability. The effects of the enforced alteration in the consumption pattern could not be captured in the official poverty lines based on a fixed basket. These official poverty lines, being increasingly underestimates, by 2004-05 corresponded to nutritional intakes which were far below the declared daily norm, for some states as much as 800 to 1,000 calories below the norm. Protein intake in India is almost

perfectly associated with calorie intake (Figures 5RU and 5UR, p 53), so it is correct to take calorie intake as representing nutritional intake in general.

At the all-India level, as well as for every state the nutritional intake at the official poverty lines were seen to decline over the years (Figure 1c, p 46 and Figure 2c, p 48).⁵ These very significant facts were never mentioned in either the official publications or by individual economists presenting their estimates following the same method. The state poverty lines were indexed using varying state-specific price indices, so the extent of downward deviation of nutritional intakes at official state poverty lines varied widely. In some states the poverty lines were higher than the all-India level (although remaining below the correct nutrition-invariant poverty line) and the calorie intake at these lines was 100 to 200 below the daily norm. In other states, owing to their poverty lines being lower than even the underestimated all-India level, the associated energy intake was 800 to 1,000 calories a day below the norm, making a complete mockery of the very concept of poverty line. Since the standard against which poverty was measured, the nutritional intake was allowed to decline over time and decline at varying rates for the different states, the official estimates after the initial year became non-comparable both temporally and spatially. Detailed nutritional intake data are available for India at five-yearly intervals, so we can trace this process of declining standard in the official estimates very precisely. The same type of underestimation of poverty has been taking place in all other countries which follow the method of price indexation to a base-year line, but because many countries lack collection of regular family budget and nutritional intake data, the extent of underestimation of their poverty lines and ratios over time cannot be mapped as precisely as in India.

Widespread rural distress had led to many observers questioning the very low 2004-05 official rural poverty percentage of 28.3. The Tendulkar Committee was set up which submitted its report in 2009. This committee unfortunately did not address the basic methodological problem which had produced both rural and urban underestimation, arising from applying

Table 4RU: Direct and Official Poverty Estimates, All-India Rural, 2009-10 (MRP distribution)

(1) Calorie intake level	2,400	2,200	2,100	1,800
(2) Required MPCE, Rs (Direct poverty line)	1,580	1,100	925	610
(3) Per cent of persons Below direct poverty line	90.5	75.5	62	25
(4) Official poverty line, Rs				672.8
(5) Per cent of “poor” persons				33.8
(6) Calorie intake at OPL				1,870

Table 4UR: Direct and Official Poverty Estimates, All-India Urban, 2009-10 (MRP distribution)

(1) Calorie intake level	2,400	2,200	2,100	1,800
(2) Required MPCE, Rs (Direct poverty line)	5,300	2,700	2,120	1,025
(3) Per cent of persons Below DPL	95	84	73	32
(4) Official poverty line, Rs				859.6
(5) Per cent of “poor” persons				20.9
(6) Calorie intake at OPL				1,720

Table 5: Trend in Rural and Urban Poverty, Direct and Official Estimates, 1973-74 to 2009-10, All-India (URP except when indicated otherwise)

	1973-74	1983	1993-94	2004-05	2009-10
Rural (MRP)					
1 Direct Poverty Line DPL in Rs					
(a) below 2,400 calories	56	120	325	800	1,570
(b) below 2,200 calories	49	100	260	575	1,075
2 Direct Poverty Ratio DPR, %					
(a) below 2,400 calories	72	70	74.5	87	90.5
(b) below 2,200 calories	56.4	56	58.5	69.5	75.5
3 Official Poverty Line OPL in Rs	49	86	206	358.6	557*
4 Revised OPL, Rs				415*	645
				(MRP 446.7)	672.8
5 Official Poverty Ratio OPR, %	56.4	45.7	37.3	28.3	23
6 Revised OPR, %				50.1	41.5
7 Calorie intake at OPL,	2,200	2,060	1,980	1,820	1,780
8 Calorie intake at revised OPL				2,100	1,930
9 Ratio of DPL 2,200 to OPL	1	1.16	1.26	1.62	
10 Ratio of DPL 2,200 to revised OPL				1.39	1.63
Urban (MRP)					
3 Direct Poverty Line DPL in Rs (2,100 calories)	65	147	398	1,000	2,000
4 Direct Poverty Ratio DPR, %	60	58.8	57	64.5	73
3 Official Poverty Line OPL in Rs	56.6	117.6	285	538.6	830
4 Official Poverty Ratio OPL, %	49.2	42.2	32.6	25.7	20.9
5 Calorie intake at OPL	2,000	1,905	1,885	1,795	1,720
6 Ratio of DPL to OPL	1.14	1.25	1.4	1.9	2.4

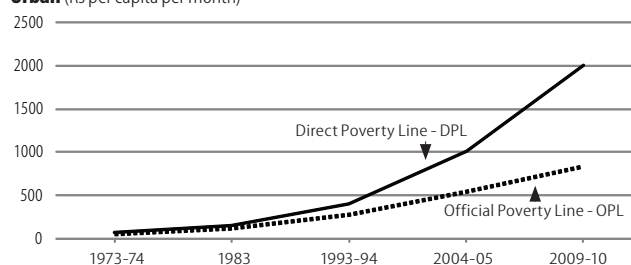
(i) The 1973-74 direct urban poverty line and ratio are provisional. (ii) All poverty lines are on URP basis for comparison, except where specified as MRP basis. Source: For 2009-10, Table 2RU and 2UR in this paper; for earlier direct estimates, Patnaik (2007, 2010b).

the price-adjustment-to-base-year definition of the poverty line, delinked from the actual current cost of obtaining minimum nutrition.

The Tendulkar Committee tinkered with the problem by retrospectively raising the rural poverty line for 2004-05 by a mere 16% while leaving the urban poverty line unchanged.⁶ There was no valid theoretical justification given for arriving at this small rise, and for completely ignoring underestimation of urban poverty, other than the statement that critics were talking more about rural poverty. However underestimation was actually far more for urban India: by 2004-05 the 2,100 calories urban direct poverty line was 86% higher than the official one while the 2,200 calories rural direct poverty line at Rs 575 was 62% higher than the (unrevised) official Rs 356 (Patnaik 2007, 2010a).

Figure 1a (p 46) shows just how rapidly over the period 1993-94 to 2009-10 the nutrition-invariant rural poverty lines at both the 2,400 and 2,200 calorie levels for all-India diverged upwards from the official rural poverty lines, and how inadequate the upward revision by 16% in the 2004-05 official value was in addressing the problem. The post-Tendulkar official poverty lines for 2009-10 derived from the 66th round NSS spending data continue to rely on price indices, but they use the implicit prices from the NSS expenditure data. In short, the same procedure of assuming a fixed basket and indexation of the cost of this base-year basket has been retained, which had produced the problem in the first place. It is hardly surprising that the official poverty lines for 2009-10 under the “new”

Figure 2a: Direct and Official Poverty Lines, 1973-74 to 2009-10, All-India Urban (Rs per capita per month)



Source: Table 5.

Figure 2b: Direct and Official Poverty Ratios, All-India Urban 1973-74 to 2009-10 (per cent of persons)

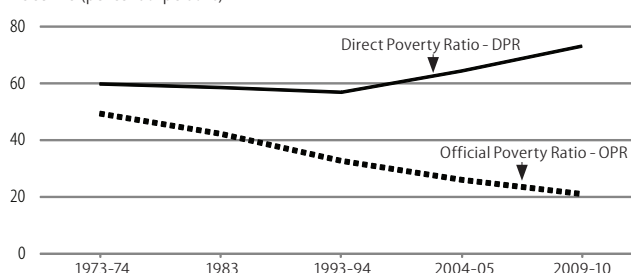
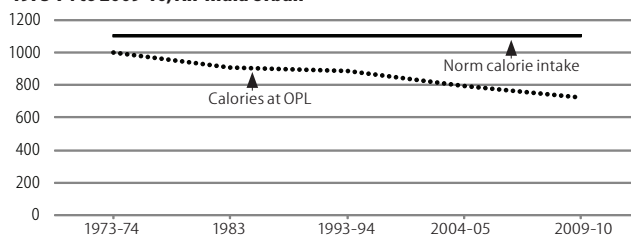


Figure 2c: Declining Calorie Intake at Official Poverty Lines, 1973-74 to 2009-10, All-India Urban



method continue to correspond to a lower level of nutritional intake (1,870/1,720 calories rural/urban) compared to nutritional intake at the 2004-05 revised Tendulkar poverty lines (1,980/1,820 calories rural/urban). Once again the official estimates over time are not comparable because the “poor” are being counted below a declining, not a constant standard.

If we do maintain a constant standard by using the same nutritional norms over time and across states to obtain poverty lines for India comparable with the Planning Commission’s own 1973-74 nutrition-norm-based poverty line, what are the findings for 2009-10? The nutrition-invariant poverty line was called the direct poverty line (DPL) in earlier papers by this author to contrast it with the official poverty line (OPL). The DPLs were presented for three levels of nutritional intake along with the proportion of population falling below these levels. Poverty lines in 2009-10 for rural/urban areas for the 2,200/2,100 calorie intake norms are Rs 1,075/2,000, respectively (URP distribution). The proportion of persons spending below these levels is found to be 75.5% in rural and 73% in urban India, with an overall poverty ratio of 74.7%. Thus three-quarters of the population is in poverty, while the rural-urban gap observed earlier has narrowed (Table 1, p 46).

The ogives from the MRP distribution (Figures 4RU, 4UR) give the same poverty ratios, 75.5%/73% in rural/urban areas on applying the higher MRP poverty lines of Rs 1,100/2,120 for

accessing 2,200/2,100 calories, respectively. The identity of the results from the two distributions is to be expected as earlier discussed in Patnaik (2010b): although the mean spending level is higher for the MRP distribution, the poverty line itself will be higher as well. There is a substantial increase over the 2004-05 direct estimates of 69.5% rural and 64.5% urban population in poverty. Urban poverty has risen faster over the recent five years, registering an 8.5 points increase compared to a 6 points rise in rural areas. Over the entire period of economic reforms, 1993-94 to 2009-10, directly measured rural and urban poverty both show a substantial rise, from 58.5% to 75.5% in rural and from 57% to 73% in urban areas. This contrasts with a mere 2% point rise in the two decades before 1993-94 in rural areas and a decline by 3% points in urban areas (Table 5, p 48, Figure 1b, p 46 and Figure 2b, p 48). Increasing poverty in India can legitimately be said to be the dubious gift of neo-liberal economic reforms, as has indeed been the experience worldwide.

The official poverty estimates, however, show a decline in poverty ratios over the entire period. It is clear from an inspection of Table 5 and Figures 1b and 1c that this “decline” arises from the fact that the nutritional standard against which poverty is measured is not held constant over time under the official price indexation method. The calorie (and protein)

Table 6RU: Direct (below 2,200 calories norm) and Official Poverty Lines, Direct and Official Poverty Percentages for States in Rural India (2009-10)

Rural	DPL Rs	OPL Rs	CAL@OPL	DPR %	OPR %	Deficit from 2,200 Norm	DPR Minus OPR
All-India	1,100	672.8	1,890	75.5	33.8	320	41.7
Andhra Pradesh	1,285	693.8	1,850	76	22.8	350	53.2
Arunachal	1,150	773.7	1,680	60	26.2	520	33.8
Assam	1,100	691.7	1,900	79	39.9	300	40.1
Bihar	860	655.6	1,915	79	55.3	285	23.7
Chhattisgarh	630	617.3	2,050	58	56.1	150	1.9
Delhi	2,600	747.8	1,500	86	7.7	700	78.3
Goa	2,900	931	1,500	92	11.5	700	80.5
Gujarat	1,230	725.9	1,770	76	26.7	430	49.3
Haryana	1,290	791.6	1,780	52	18.6	420	33.4
Himachal	1,000	708.8	1,950	36	9.1	250	26.9
Jammu & Kashmir	1,000	722.9	2,000	38	8.1	200	29.9
Jharkhand	1,050	616.3	1,850	88	41.6	350	46.4
Karnataka	1,230	629.4	1,700	85	26.1	500	58.9
Kerala	2,080	775.3	1,500	76	12	700	64
Madhya Pradesh	1,020	631.9	1,830	81	42	370	39
Maharashtra	1,150	743.7	1,880	70	29.5	320	40.5
Manipur	1,700	871.9	1,930	95	47.4	270	47.6
Meghalaya	1,960	686.9	1,550	100	15.3	650	84.7
Mizoram	1,300	850	2,000	76	31.1	200	44.9
Nagaland	2,500	1016.8	1,750	100	19.3	450	80.7
Orissa	660	567.7	2,000	56	39.2	200	16.8
Puducherry	1,400	641	1,150	56	0.2	1160	55.8
Punjab	1,400	830	1,850	56	14.6	350	41.4
Rajasthan	980	755	1,970	58	26.4	230	31.6
Sikkim	1,600	728.9	1,890	83	15.5	310	67.5
Tamil Nadu	1,430	639	1,680	85	21.2	520	63.8
Tripura	900	663.4	2,020	48	19.8	180	28.2
Uttar Pradesh	900	663.7	1,920	70	39.4	280	30.6
Uttarakhand	1,060	719.5	1,780	55	14.9	420	40.1
West Bengal	1,240	643.2	1,780	89	28.8	420	60.2

intake at the new retrospectively revised OPLs continue to decline. This is not a methodologically correct way of measuring and comparing poverty trends. Comparability whether over time, or at a given point of time comparing different states, requires as a necessary condition that the standard against which poverty is being measured is kept constant and does not either rise or fall. A veritable army of economists located in institutions ranging from the World Bank to national governments and universities have been producing a staggering volume of faulty poverty estimates and claiming decline in poverty, without even being aware of the spurious nature of their inferences because the method they use violates the basic necessary condition of maintaining at a constant level, the standard against which poverty is measured.

In Figures 1b and 1c we have shown both the official rural values for 2004-05 and 2009-10 revised according to the Tendulkar Committee suggestions, designated as OPL-T, and the values without the revision. It is clear that the revision merely meant a one-time upward movement of the poverty ratio following from the revision of poverty line shown in Figure 1a. The revised poverty line for 2004-05 has been officially indexed to obtain the 2009-10 poverty line, at which the accessible energy (and protein) intake is lower than at the 2004-05 level. So no difference has been made to the basic

Table 6UR: Direct (below 2,100 calories norm) and Official Poverty Lines, Direct and Official Poverty Percentages for States in Urban India (2009-10)

Urban	DPL Rs	OPL Rs	CAL@OPL	DPR %	OPR %	Deficit from 2,100 Norm	DPR Minus OPR
All-India	2,125	859.6	1,710	74	20.9	390	53.1
Andhra Pradesh	2,200	926.4	1,730	68	17.7	370	50.3
Arunachal	1,430	925.2	1,850	52	24.9	250	27.1
Assam	1,620	871	1,670	64	26.1	430	37.9
Bihar	1,140	775.3	1,920	70	39.4	180	30.6
Chhattisgarh	1,350	806.7	1,860	61	23.8	240	37.2
Delhi	5,200	1040.3	1,400	92	14.4	700	77.6
Goa	2,300	1,025.4	1,400	62	6.9	700	55.1
Gujarat	2,080	951.4	1,650	66	17.9	450	38.9
Haryana	1,830	975.4	1,600	62	23	500	49.1
Himachal	1,650	888.3	1,780	44	12.6	320	31.4
Jammu & Kashmir	980	845.4	1,900	24	12.8	200	11.2
Jharkhand	1,350	831.2	1,830	60	31.1	270	28.9
Karnataka	2,390	908	1,800	74	19.6	300	54.4
Kerala	1,990	830.7	1,480	62	12.1	620	49.9
Madhya Pradesh	2,300	771.7	1,680	85	22.9	420	62.1
Maharashtra	1,150	961.1	1,700	70	18.3	400	51.7
Manipur	1,700	551.8	1,580	95	46.4	520	48.6
Meghalaya	2,080	989.8	1,450	100	24.1	650	75.9
Mizoram	1,300	939.3	1,720	76	11.5	380	64.5
Nagaland	1,780	1147.6	1,700	64	25	400	39
Orissa	1,160	736	2,005	56	25.9	95	30.1
Puducherry	2,200	777.7	1,650	68	1.6	450	66.4
Punjab	1,700	960.8	1,750	56	18.1	350	37.9
Rajasthan	1,350	846	1,790	56	19.9	350	36.1
Sikkim	1,950	1035.2	1,780	38	5	310	33
Tamil Nadu	2,200	800.8	1,730	75	12.8	370	62.2
Tripura	1,000	782.7	1,880	29	10	220	19
Uttar Pradesh	1,750	799.9	1,760	78	31.7	340	46.3
Uttarakhand	1,850	898.6	1,730	71	25.2	370	45.8
West Bengal	2,500	830.6	1,650	82	22	450	60

problem of continuous decline of the standard and of non-comparability of the official estimates over time.

Since no revision was made to the official urban poverty line we see from Table 5 and Figures 2a to 2c (p 48), that by 2009-10 the gap between the all-India official poverty ratio and direct poverty ratio had widened to comprise 52% of urban population and daily calorie intake at the OPL had dropped further to 1,720 calories, a deficit of 380 calories amounting to 35% of the normalised required intake. While urban poverty is underestimated for all states, in some the deficit is very large with 60% or more of urban population being excluded owing to exceptionally low poverty lines relative to the actual cost of living (Table 6UR, p 49). As we shall see in Section 4, this holds most starkly for urban Delhi state where less than 15% of persons were officially in poverty in 2009-10, solely owing to the unrealistically low official poverty line just below Rs 35 per day, which allowed access to only 1,400 calories, barely 300 calories above survival level. The actual percentage of persons unable to reach 2,100 calories daily has risen phenomenally to 90% from 57% a mere five years earlier. This should not surprise us given the high rate of food price inflation and the fast pace of privatisation of healthcare and utilities which continues to date.

How has real spending changed? We had suggested earlier that apart from the standard procedure of deflating by price indices, we should also deflate by the index derived from successive direct, nutrition-invariant poverty lines. As regards the official procedure of deflating current values we can obtain the implicit price index used from the ratio of the OPLs for 2004-05 and 2009-10. In the past this was simply the consumer price index for rural labour and for urban workers, but with the recent change in procedure it now measures the change in prices inherent in the recorded spending on various items from the NSS schedules on quantities consumed at the two dates. Applying this official price index (which shows a 55% rise over the five years) to the average per capita expenditure in 2009-10, gives a rise in average real spending in both rural and urban India compared with 2004-05. But applying the index derived from the DPLs at the norm levels (which show a near-doubling), we see a fall in both areas in average real spending over the period. Deflating by the index obtained from the 1,800 calories level DPLs which rises much less by 65% – not very different from the 55% rise of the official price index – it is interesting to find a decline albeit a small one, in real spending compared to rise in the latter case, the official calculation. This confirms the sensitivity of the direction of change in real expenditure, to small differences in the specific deflator used, discussed by this author (Patnaik 2010b) in the context of earlier rounds. The detailed fractile-specific change in real spending up to 2009-10 will be taken up in a later study.

3 Derivation of Poverty Ratios for 2009-10

The derivation of our 2009-10 estimates should be completely transparent; to this end, Tables 2RU and 2UR summarise and juxtapose from NSS reports the grouped data on spending and nutritional intake at the all-India level. These tables are

sufficient for the reader to get a good idea, simply by inspection without any need for calculation of the true magnitude of rural and urban poverty when the original definition of poverty line is applied; and also to understand what the OPLs and percentages mean in terms of nutritional access.

The basic data collected from households by NSSO are the physical quantities of food items, and the quantity or number as applicable of all other, non-food goods and services consumed. This vector of physical quantities gives rise to two other vectors. On the one hand, the quantities vector times unit prices give the expenditure. The values of all items consumed, whether they are purchased, own-produced, obtained in kind as wages or through exchange, are recorded under “expenditure”, shown on a per capita per month basis in column 4 of Tables 2RU and 2UR. On the other hand, the vector of quantities as regards food items, gives the vector of nutritional intakes specified in the last three columns of the same tables. The nutritional intakes of energy, protein and fat show a clear monotonic relation with spending levels.

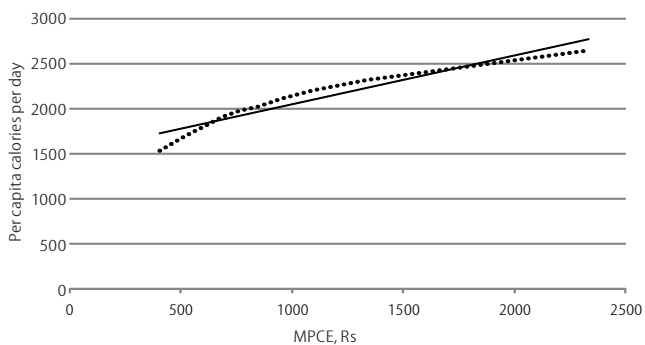
Thus the same basic data set in physical units generate both the expenditures on the one hand and the calorie, protein and fat intakes on the other. It is incomplete and selective use of the data to talk of “calorie deprivation” without reference to the associated expenditure, just as it is selective use of the data to talk of “income poverty” without reference to the associated nutritional intakes. Figures 5RU and 5UR show that calorie intake is a good proxy for nutritional intake, since protein intake is almost perfectly associated with calorie intake over spending classes save only for the richest decile in rural India. Fat intake however shows a larger range, rises faster with spending than do the other two variables and is more highly concentrated with the rich.

The practice earlier was to collect data over a uniform 30-day recall period (URP-30); since 1999-2000 a MRP of 30 days for all items except infrequently purchased ones (clothing, bedding, footwear, durables, education, institutional medical care) with 365 days for the latter, has been presented as well. The current reports also give the data according to modified mixed recall period (MMRP) in which a seven-day recall rather than 30-day recall, is used for pan, tobacco and intoxicants, processed foods and for all food items except foodgrains, milk and its products, sugar and salt. The overall average expenditure differs in the three distributions, but the poverty ratio will be the same whatever distribution we use since the poverty lines for each distribution will be correspondingly altered as was explained in Patnaik (2010b). We had used the URP data in earlier analyses for comparing with official estimates but since the 2009-10 official estimates are exclusively based on the MRP distribution, in this paper the DPLs are presented on MRP basis for all-India and the states. The trend over time over the last four decades (Table 5) however gives the URP-basis poverty lines for 2009-10 to maintain comparability with earlier years.

Inspecting the rural data for 2009-10 in Table 2RU, the calorie intake is below 2,200 for 70% of persons and is reached only by the eighth decile whose mean spending Rs 1,093 gives

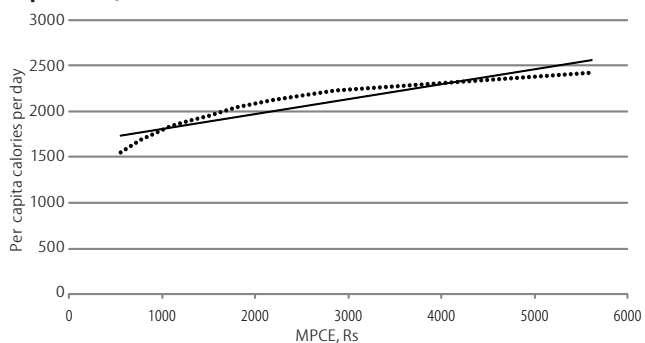
a mean energy intake of 2,198 calories, virtually identical with the norm, so the poverty line should be just above Rs 1,093 per month. Each group has 10% of all persons with a little more than half spending below the mean, so we can infer that at least 75% of all rural persons are poor.

Figure 3RU: Daily Calorie Intake by Monthly Per Capita Expenditure 2009-10 All-India Rural



Source: Table 2RU, columns 4, 5 MPCE is monthly per capita expenditure.

Figure 3UR: Average Daily Calorie Intake by Monthly Per Capita Expenditure, All-India Urban 2009-10



Source: Table 1UR, columns 4 and 5. The 2,100 calories norm requires Rs 2,125 MPCE.

For a more precise idea of the poverty line spending, average daily calorie intake is plotted against average monthly spending, namely, column 5 against 4, shown as Figure 3RU. This is the *g* relation between expenditure and calorie intake, presented in earlier papers (Patnaik 2007, 2010a). From this we can read off the total spending required to obtain any calorie intake level from its food spending part. The required monthly spending in rupees is 1,580, 1,100, 925, and 610 to access energy intake levels of 2,400, 2,200, 2,100 and 1,800 calories per day. Thus Rs 1,100 is required for reaching the same 2,200 calories rural norm which the Planning Commission had actually used in the base year 1973-74 to obtain its initial Rs 49.1 poverty line which gave 56.4% as the poverty ratio. The nutrition invariant poverty line is 22 times the original poverty line. The official rural poverty line for 2009-10 however is only Rs 673 per month which falls in the fourth spending class and reading from Figure 3RU, allows 1,870 calories energy to be accessed, well below the nutrition norm. Its URP equivalent Rs 645 is 13 times the original poverty line. It would have been even lower at Rs 580 giving 1,780 calories, if the Tendulkar Committee (2009) had not raised the 2004-05 rural poverty line retrospectively by 16% and then updated with price change to 2009-10.

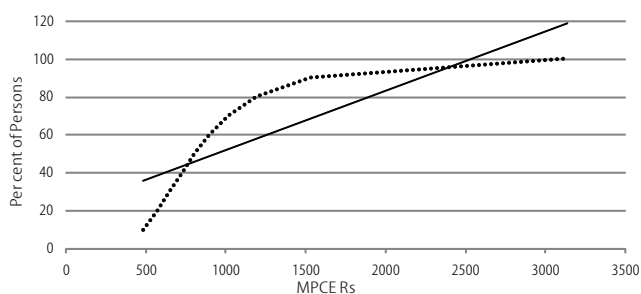
Applying the nutrition-invariant poverty line of Rs 1,100 to the ogive of Figure 4RU, we see that 75.5% of all rural persons

fall below this level, whereas 33.8% fall below the OPL of Rs 673. The rural population incorrectly excluded as “above poverty line” and hence non-poor from the official estimate, is the difference, namely, 41.7% of the population. The numbers excluded actually exceed those recognised as the poor, solely because the revised OPL still remains a very large underestimate. Without the minor Tendulkar hike it would have been 53% of the true poverty line, while after the hike it is 61% of the latter. Since the distribution of persons by spending levels is skewed, a given *x* per cent underestimation of the poverty line leads to a substantially larger than *x* per cent underestimation of the poverty ratio.

As regards urban poverty, Table 2UR presents the data required for ascertaining its all-India level and comparing with official estimates. Inspection shows that the eighth decile calorie intake is 2,118, closest to but above the norm, at a mean spending level of Rs 2,189, so the actual poverty line is below this. Plotting Figure 3UR we find that 2,100 calories is accessed at Rs 2,120, and applying this to the ogive of Figure 4UR we find that 73% of persons spent below this level. The nutrition-invariant poverty line is 35 times the base-year value reflecting the real rise in the urban cost of living, while the OPL of Rs 859.6 is only 16 times the base-year level and gave access to only 1,720 calories. Urban poverty has risen significantly to 73% by 2009-10. The official urban poverty line is only two-fifths of the true poverty line and needs to be raised 2.5 times.

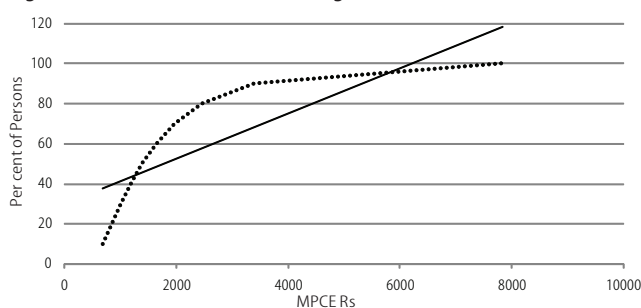
Calorie intake and protein intake per head have been falling over the successive rounds (Table 3, p 47) and this is mainly owing to the decline in per capita foodgrains consumption for every decile, since foodgrains as late as 2004-05 provided three-quarters of total energy as well as slightly higher share of total protein to the average consumer. However, the

Figure 4RU: Ogive: Per Cent of Persons below Specified MPCE Levels, 2009-10 All-India Rural



Source: Table 2RU, columns 2 and 3.

Figure 4UR: All-India Urban 2009-10: Ogive of Persons Below MPCE Levels



Source: Table 1UR, columns 2 and 3.

per capita fat intake has risen, mainly owing to a steep rise for the top two deciles.

In China the same faulty method was followed by its government; the annual cost of a 1985 basket satisfying a nutrition norm, based on budget surveys of 67,000 households was fixed at 205 yuan, followed thereafter by updating by price indices. This produced a quarter century later, by 2007, a severely underestimated poverty line of 1,067 yuan or a mere 2.9 yuan per day. (For China's OPLs, see Hu Angang et al 2003, Shaohua Chen and Yan Wang 2001). For a realistic poverty line and estimate we have A R Khan (1998)⁷ who uses a nutrition norm based poverty line for 1995 that is over double the official one for that year. While indexing he points out that the official consumer price index "results in an understatement of the increase in cost of living for those households that are at or below the poverty threshold".

Widespread agitations for many years against a squeeze in rural living standards finally induced public policies to restore a modicum of affordable food and medical care to China's rural population, but the new policies could benefit very few of the actually poor as long as the faulty poverty lines and estimates were retained. The 2011 rural poverty line was 1,274 yuan or just 3.5 yuan per day with associated large underestimation of the poverty ratios. (3.5 yuan was about Rs 30 at the prevailing exchange rate, very close to the Indian official rural poverty line of Rs 28.4 for 2011.) In December 2011 the Chinese government raised, at one stroke, this poverty line by 80.5% to 2,300 yuan or 6.3 yuan daily in order to include more of the actually poor and thereby tacitly admitted that all its previous poverty estimates were incorrect. Note that if the Tendulkar Committee had doubled India's 2004-05 official rural poverty line instead of raising it by a mere one-sixth, then with indexing to 2009-10, the resulting sum, Rs 1,080 would have been adequate for accessing just under 2,200 calories.

Some Indian economists had earlier committed the solecism of claiming zero "extreme poverty" for a number of states where extreme poverty was defined as spending half or less than the official poverty line: they ignored the fact that it is not extreme poverty which is zero, rather there are no observations at the extremely low spending levels they use, because people are dead at those levels. In fact for many states the spending levels defined as "extreme poverty" levels are hypothetical, not observed because they are too low to be observable. The actual cost of urban living being much higher in the large metros compared to official poverty lines, we get particularly bizarre results. Half the 2009-10 official monthly poverty line for urban Delhi is a mere Rs 520 or Rs 17.3 per day, at which there are no observations, because the associated energy intake level is 850 calories at which the average person in a household does not survive (we can only obtain this level by projecting downwards the left side of the *g* relation of Figure 3UR, plotted for urban Delhi in the same manner as for all-India). Economists using the official method which pays no attention to the nutritional implications of poverty lines would claim a very positive sounding outcome

by saying that there is no one in extreme poverty any longer in urban Delhi.

Perhaps the main reason that the concerned economists do not correct the method which is giving rise to such notable interpretative faux pas is that they seem to find strength in the large numbers of persons and global institutions following the fallacious method. The very same incorrect method is used by the World Bank, for its estimates are based on the average of local currency lowest (hence rural) poverty lines of a number of poor countries including India and China. The problem of unrealistic poverty lines thus affects the Bank's global poverty estimates which by now are not only severe underestimates for the developing countries but show in most cases decline in poverty, although in reality poverty is worsening. Other critics have noted only the arbitrariness imparted to the Bank's poverty ranking of countries owing to differential variation over time in purchasing power parity (PPP) conversion factors of different countries. (PPP conversion is relevant for arriving at the global dollar poverty line and again when this line is applied to individual countries since its nominal local currency value is deflated by the particular PPP coefficient of the concerned country.)

The critics have not noted the quantitatively far more serious basic problem that the very method of estimating national currency poverty lines with a distant fixed basket has led to absurd outcomes in terms of cumulatively underestimated "poverty lines" which entail a steady decline in nutritional access, in India to the point where in many states it has reached nearly a thousand calories below any reasonable norm.

In the light of our findings we can evaluate the claim made by Ravallion and Datt (2010) for India in a paper titled "Shining for the Poor Too?" that

the rate of poverty reduction has increased in the post-reform period, compared to the previous 30-year period, although it is still too early to say if this marks a new trend. In contrast to the pre-reform period, the post-reform process of urban economic growth appears to have brought significant gains to the rural poor as well as to the urban poor.

The "decline" in the poverty ratios claimed in the authors' paper on India is however a spurious decline. This is not specific to their estimate alone; it is the case as regards *all* poverty estimates which use the official World Bank and individual government method of indexing the base-year cost of a fixed basket. The decline in poverty ratios is spurious because as we have shown, the local currency poverty lines for successive years which give these ratios, when applied to the respective ogives for those years, correspond to lower and lower levels of nutritional intake, in short, the very definition of poverty line is violated. (See Table 5 and Figures 1c, 2c in this paper for the extent of decline in nutritional intake at India's official poverty lines.) The violation is not minor, for some constituent states in India the calorie intake at official poverty lines reached 800 calories to nearly 1,000 calories below norm and protein intake is similarly far below recommended levels. And it is these local currency official rural poverty lines of poor countries including India and China, converted at PPP to dollar, which are

averaged to derive the World Bank's global poverty line (\$1.25 at present):

\$1.25 is the average of the national poverty lines found in the poorest 10-20 countries. Using this line, poverty in the world as a whole is being judged by what 'poverty' mean in the world's poorest countries (World Bank 2012).

When this dollar line is applied to an individual country the process of PPP adjustment is reversed: the local currency equivalent of \$1.25 at the nominal exchange rate is deflated (the factor used at present by the World Bank is 0.4 for India, 0.5 for China) so giving a figure very close to the original local official poverty line, and this is then applied to the ogive to obtain the percentage of persons in poverty. The World Bank's poverty estimate for India is 32.7% in 2010 (World Bank 2013) which is of a similar order of magnitude as the Planning Commission's 29.8%, and both are a far cry from the correct 74.7% in overall poverty obtained by applying the nutrition-invariant poverty lines.⁸

Figure 5RU: Per Capita Nutritional Intake by Decile Groups, 2009-10 All-India Rural

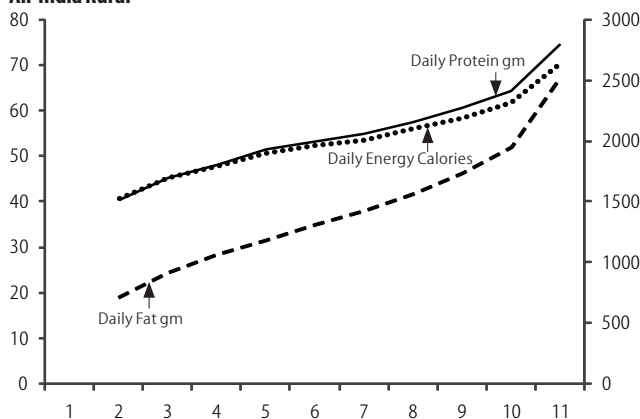
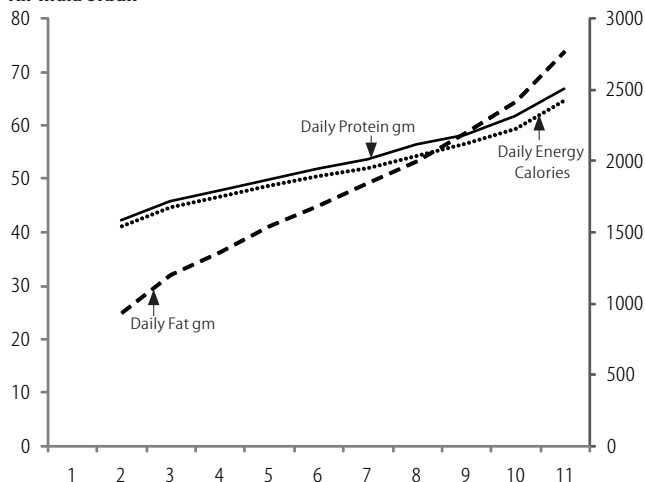


Figure 5UR: Per Capita Nutritional Intake by Decile Groups, 2009-10 All-India Urban



Calorie intake scale on right hand axis, protein and fat on left hand axis.
Source: Tables 1RU and 1UR.

Further a faster rate of spurious "decline" in official poverty in more recent years is only to be expected as the statistical result of the conceptual mistake alone of delinking from the nutrition norm, without reflecting any real trend. This is because first, with the price indexation of a four decade old base year poverty line, the underestimation has been taking place

over a very long period and has been cumulative. Starting in 1973-74, there were six rounds of underestimation at five-yearly intervals up to 2004-05 producing as end-result the most absurd daily poverty lines of Rs 12 and Rs 18 for rural and urban India, trivial sums which would have purchased one bottle and one and a half bottles of water respectively and nothing else. Second, the expenditure distribution to which the line is applied is skewed with two-thirds of persons spending below the mean level. The more underestimated is the poverty line, the steeper is the slope of the ogive at the point where that line is being applied to arrive at the poverty ratio (Figures 4RU and 4UR), hence the larger is the spurious decline.

One outcome as well as index of underestimation is the steep decline in the ratio of the annual poverty line to national income per capita. The Planning Commission's revised 2009-10 rural poverty line on annual basis is Rs 8,186 which is only 17.7% of the per capita net national income (NNI).⁹ Compare this with 1993-94: the official annual rural poverty line was Rs 3,163.3 which was 39% of per capita NNI and the ratio declined continuously over the subsequent official estimates. In the base year 1973-74 the current value annual poverty line, Rs 588 was a little over 70% of per capita current GDP at factor cost.

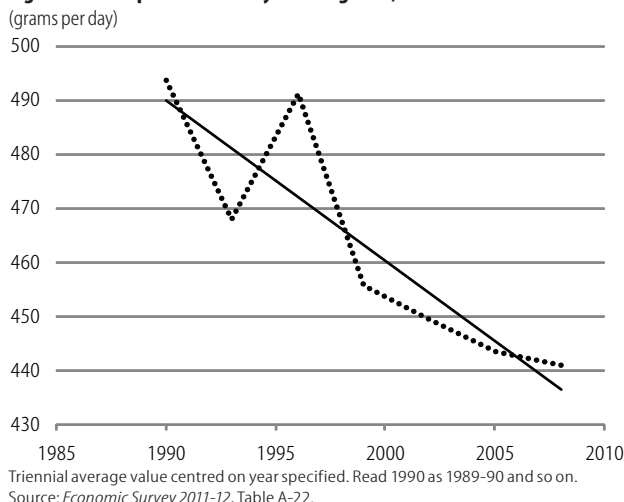
In China the official rural poverty line got delinked from the nutrition norm, was price-indexed and declined to unrealistic levels even faster: starting at 33% of per capita GDP in 1978, the ratio declined continuously to a mere 8% by 1998 (Shaohua Chen et al 2003). A R Khan's derivation from family budget surveys, of a realistic rural poverty line using a 2,150 calories daily intake norm, gave 1,157 yuan for 1995, compared to the official price-indexed 625 yuan for that year. Clearly the average energy intake at the latter level would have been very considerably below 2,150 calories.

We have had an excellent data base on consumption expenditure in India from the NSSO, which has used the same concepts, sample frame and data collection method for over half a century, allowing valid comparison over time. Every five-yearly NSS large sample study on expenditure has included data on the corresponding nutritional intakes from the quantities obtained under the food spending part, thus permitting our precise charting of the increasing divergence of the nutrition-invariant poverty lines from the official poverty lines shown in Figures 1a and 2a and the steadily falling energy intake at official poverty lines, shown in Figures 1c and 2c. In many other countries subject to the same type of fiscal compression and market-oriented reforms, there is little doubt that a similar large underestimation of poverty lines and poverty ratios has taken place in official and World Bank estimates, but owing to the lack of reliable nutritional intake data over time, such precise charting of nutritional decline as we have been able to undertake for India may not be possible.

However, the realism or otherwise of official and World Bank estimates can be checked easily by local residents in these countries if they look, not merely at the uninformative official poverty ratios, but at the absolute daily current poverty lines which are applied to generate these official ratios, and

compare these with the lowest local market prices of available necessities and services. No one can maintain that 3.5 yuan daily per person in rural China in 2011 or Rs 28/32 daily per person in rural/urban India in 2011 constitute, even after the most strenuous efforts of parsimony, adequate sums for meeting the most minimal cost per person of food, manufactured goods, rent, medicines, transport and utilities. These sums will however cover the cost of one urban haircut. Those who are found to live below this level are not the poor as claimed, but the ultra-poor.

Figure 6: Per Capita Availability of Foodgrains, 1989-90 to 2008-09



We cannot accept a claim of “decline” in poverty when the standard against which poverty is measured is being lowered over time. Say we are told that academic performance in a school is improving because the percentage of student failures every year has declined. On investigating we find that this decline in the failure percentage is because the pass mark has been continuously lowered; and that the same figures show a rise in the failure percentage when the pass mark is held constant. Clearly, the inference that academic performance is improving cannot be correct, rather the opposite inference of worsening is true.

In reality, the poverty situation in India has been worsening since reforms began in the early 1990s, and to boot there is a rise in the proportion of the very poor, those who are unable to access even 1,800 calories daily by 2009-10 compared to 1993-94 (up from 20% to 25% in rural India and from 25% to 32% in urban India). Economists at international institutions routinely engaged in poverty estimation however seem to be either unaware of or unconcerned about the Indian debate on poverty lines which led the government to set up a new committee in 2009 to revise poverty lines. It is a different matter that the committee in question failed to address the problem, while the Chinese government has done so if not in theory, in practice and in the short run, by almost doubling the poverty line.

OPLs correspond to a nutritional standard which is falling over time, because the consumption basket has been frozen at a 40-year-old level in arriving at these poverty lines, whereas the very process of economic reforms has altered the actual

accessible basket. This has happened partly via the drive to target food subsidies – involving large-scale exclusion of the actually poor – combined with privatisation of essential health and other services; and partly via alteration in the structure of purchasing power through several rounds of mass income-deflating fiscal policy. This has constricted access by the population to basic necessities – affordable food, medical care and utilities. Not only has per capita foodgrains availability fallen (Figure 6), there is absolute decline in calorie and protein intake from animal products as well (see last section) and real spending on clothing has declined. India’s experience is not unique; it has replicated that of many other developing countries subjected from an earlier date to similar mass income-deflating, unemployment creating neo-liberal policies.

4 State-wise Estimates, 2009-10

The 66th round NSS data on consumer spending have been presented in a different manner compared to all earlier reports. The number of expenditure groups has been reduced from 12 to 10; thereby the information on the poorest 5% and richest 5% of spenders is no longer directly available. The loss of detail at the two ends of the distribution is unfortunate, as asset variables like landownership have shown a greater concentration over time with the top 5% at the expense of all other groups, and whether expenditure has followed the same trend could have been ascertained if the earlier format had been retained. The same nominal expenditure classes are no longer used for all-India and the states, rather the data are presented by 10 decile groups and the upper-end values of spending classes are given in each case.

On the positive side, both the spending and nutritional intake data for 2009-10 are fully presented for the URP, MRP and MMRP. I had pointed out earlier (2010a) that the Planning Commission practice followed until recently, of applying the official URP poverty line to both the URP as well as the MRP distribution to present two separate poverty percentages from the same data set, was incorrect. The poverty line generated by the MRP distribution is higher than that from the URP distribution, and exactly the same headcount ratio

Web Exclusives

EPW has introduced a new section, “Web Exclusives” on its new and improved website (<http://www.epw.in>).

This section will feature articles written exclusively for the web edition and will normally not appear in the print edition. All visitors to the website can read these short articles written mainly on current affairs.

Readers of the print edition are encouraged to visit the EPW website and read these web exclusives which will see new articles every week.

can be expected from both distributions. The other new feature is the use of implicit prices inflators from the sample data themselves, to update the 2004-05 official poverty lines. This procedure had been followed by A Deaton in making poverty estimates for India for earlier years (Deaton and Kozel 2005). His all-India headcount ratios were found to be little different, if anything somewhat lower than the Planning Commission ones which used consumer price indices as inflators (Patnaik 2007).

Whatever type of price index may be used, all these estimates continue to suffer from the basic and serious methodological problem arising from the fact that they have abandoned the original definition of poverty line which was anchored to nutrition norms. Consistent definition is the essence of precision, and to use one definition of poverty line to begin with to measure poverty, and then change to a completely different definition when it comes to subsequent years, is not correct procedure. It has led to the present imbroglia where official poverty lines correspond to declining nutritional intake over time. Since the poor are being measured using in practice not a constant but a declining standard, the inference of improvement is false.

5 Urban Poverty in the States with Large Cities

The cost of urban living is much higher on average in the large cities, so we see particularly sharp underestimation and bizarre results follow from the official poverty lines for the states containing the conurbations. Table 7 gives the situation in urban Delhi, Maharashtra, Tamil Nadu and West Bengal which contain, respectively, the cities of Delhi, Mumbai, Chennai and Kolkata. The monthly expenditure required to obtain 2,100 calories in urban Delhi is Rs 5,100, while the official poverty line is Rs 1,040 per month, only one-fifth of the true poverty line, or below Rs 35 per capita per day which permits a calorie intake of 1,400 only, hardly 300 calories above bare survival level, with 14.4% of persons consuming below this. The official estimators would readily spend on a single cup of coffee the sum of Rs 35 on which they claim all daily expenses, food and non-food, can be met by the urban Delhi resident.

Actual deprivation has been increasing very fast in recent years in the national capital state: over an entire decade of reforms, 1993-94 to 2004-05, the DPL rose 2.5 times from Rs 445 to Rs 1,150 and the poverty percentage rose from 35 to 57. In the next five years ending 2009-10, however, the DPL has nearly quadrupled and the population unable to access 2,100 calories has risen phenomenally from 57% to 91%, compared to the all-India urban value of 73% (Table 7).

The rapid food price inflation of these years which continues to date, and faster rise in the cost of transport, education and healthcare in the national capital have all combined to oblige the mass of the people to cut back on food to make ends meet. On the one hand, hire-purchase has enabled a minority of households with stable incomes, to each own multiple cars and other consumer durables, on the other hand, the vast working underclass comprising the bulk of the urban population has to

cutback on food and other necessities to meet those essential fast-rising expenses over which they have no control. The average calorie intake for urban Delhi has fallen to a mere 1,756 per day, while the percentage of population unable to access 1,800 calories has risen sharply from 23.5 to 53, the biggest increase in urban poverty depth in the entire country.

Urban Maharashtra and Tamil Nadu are found to have fared much better, Tamil Nadu, in particular, from registering the highest level of urban poverty in 1993-94 now has the lowest of all these states (but still higher than the all-India level) mainly no doubt owing to its determination to provide affordable basic staple food to the bulk of the population through the PDS by providing additional subsidy at the state level. Maharashtra experienced very sharp rise in poverty during the decade ending 2004-05 but over the next five years ending 2009-10 has prevented any further rise and in fact saw a slight decline. Over the five years ending in 2009-10 both Maharashtra and Tamil Nadu saw reducing poverty depth with the below 1,800 calories percentage of persons dropping by at least 10% points. West Bengal had seen a significant decline in urban poverty over the 15 years before 1993 while the process has been reversed thereafter with fast rise in urban poverty from below 50 in 1993, reaching 82% of the population by 2009-10, while poverty depth also increased substantially from 18% to 38% of population.

Officially estimated urban poverty, as expected, shows a decline for all states, except for West Bengal, over the five years ending in 2009-10, which arises solely from further underestimation of the poverty lines. At the all-India level, the OPL gave access to only 1,720 calories intake by 2009-10

Table 7: Urban Poverty in States with the Large Cities, 1993-94 to 2009-10

	1993-94	2004-05	2009-10	1993-94	2004-05	2009-10
Calorie intake level	2,100	2,100	2,100	1,800	1,800	1,800
1 MPCE required for calorie intake, Rs						
Delhi	445	1,150	5,100	325	705	2,010
Maharashtra	558	1,750	3,200	295	850	1,200
Tamil Nadu	440	1,180	2,250	308	680	1,040
West Bengal	365	1,150	2,500	230	515	1,070
All-India	395	1,000	2,100	253	542	1,032
2 Per cent of persons						
Delhi	35.0	57.0	92	19.0	23.5	53
Maharashtra	52.5	85.0	82	27.0	49.0	36
Tamil Nadu	69.0	70.5	76	42.5	39.0	29
West Bengal	49.0	67.5	82	18.0	21.5	38
All-India	57.0	64.5	73	23.5	26.3	32
Official Poverty Line, Rs			Official Poverty Ratio, %			
Delhi	309.5	612.9	1,040.3	16.1	15.2	14.4
Maharashtra	335.0	665.9	961.1	35	32.2	18.3
Tamil Nadu	300.0	547.4	800.8	39.9	22.2	12.8
West Bengal	255.0	449.3	830.6	23	14.8	22
All-India	285.0	538.6	859.6	33.2	25.7	20.9
Calorie Intake at OPL						
Delhi	1,770	1,710	1,400			
Maharashtra	1,865	1,715	1,700			
Tamil Nadu	1,785	1,685	1,730			
West Bengal	1,850	1,735	1,650			
All-India	1,885	1,795	1,720			

Source: For years before 2009-10, U Patnaik (2010a). For 2009-10, Table 6UR.

compared to 1,795 in 2004-05 and 1,885 in 1993-94. The largest deficit at OPLs, of 500 calories or more from the nutrition norm is registered by Delhi, Goa, Haryana, Kerala, Manipur and Meghalaya. The next largest deficit of 400 calories up to 500 calories at OPLs are seen for Assam, Gujarat, Madhya Pradesh, Maharashtra, Nagaland, Puducherry and West Bengal. The largest underestimation of poverty, such that the officially excluded among the actually poor make up 60% or more of urban persons, is observed in all the states mentioned earlier.

We leave it as an exercise to research scholars to work out the rank correlation coefficients between the states ranked by official poverty ratios, and ranked by direct poverty ratios for both rural and urban India: the required basic information is provided in Tables 6RU and 6UR.

6 Changing Structure of Consumer Expenditure

The worsening nutritional situation and rising poverty are closely linked to the observed decline in the consumption of foodgrains per head. We refer here to the consumption of foodgrains for all purposes, both directly as food, and indirectly as feed converted to animal products, as processed items, and other uses. The NSS data shows a clear decline in direct foodgrains consumption per head in physical terms, a trend which predates economic reforms and continues to the present. It is not only direct consumption alone; the use of grain for all purposes has been declining as well on a per capita

basis, specifically during the period of reforms whereas it was rising during the pre-reforms period. The use of grain for all purposes is obtained directly from published official data on the annual tonnage of foodgrains produced, from which net exports and net addition to public stocks are deducted to give the domestic supply. This is identically equal to the sum of the various heads of utilisation: direct consumption, seed, animal feed, processing and other uses.

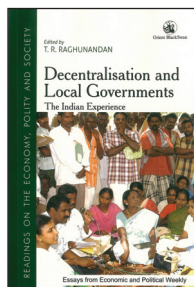
The decline in foodgrains directly consumed, both in physical terms and as a share of household spending, has been interpreted by many economists in a positive light as an outcome of dietary diversification towards more consumption of animal products (milk, eggs, meat and fish) and of fruits and vegetables. However this positive interpretation is not borne out by a detailed analysis of the changes in the structure of food consumption and in nutritional intake.

First, more animal products being consumed should mean more feed grain use, and a rise in consumption per capita of grain summed over all uses. But the official data show that not only grain directly consumed as food, but also total grain consumption (food plus feed plus other uses) has been declining on a per-head basis since the mid-1990s, although per capita income has been rising. This is very unusual and goes against the past trend in the pre-reform period in India, which had seen rising per-head grain consumption for all uses with rising per-head income. It is against the global trend as well, where the higher the per capita income rank of a country, the higher

Decentralisation and Local Governments

Edited by

T R RAGHUNANDAN



The idea of devolving power to local governments was part of the larger political debate during the Indian national movement. With strong advocates for it, like Gandhi, it resulted in constitutional changes and policy decisions in the decades following Independence, to make governance more accountable to and accessible for the common man.

The introduction discusses the milestones in the evolution of local governments post-Independence, while providing an overview of the panchayat system, its evolution and its powers under the British, and the stand of various leaders of the Indian national movement on decentralisation.

This volume discusses the constitutional amendments that gave autonomy to institutions of local governance, both rural and urban, along with the various facets of establishing and strengthening these local self-governments.

Authors:

V M Srisikar • Nirmal Mukarji • C H Hanumantha Rao • B K Chandrashekar • Norma Alvares • Poornima Vyasulu, Vinod Vyasulu • Niraja Gopal Jayal • Mani Shankar Aiyar • Benjamin Powis • Amitabh Behar, Yamini Aiyar • Pranab Bardhan, Dilip Mookherjee • Amitabh Behar • Ahalya S Bhat, Suman Kolhar, Aarathi Chellappa, H Anand • Raghavendra Chattopadhyay, Esther Duffo • Nirmala Buch • Ramesh Ramanathan • M A Oommen • Indira Rajaraman, Darshy Sinha • Stéphanie Tawa Lama-Rewal • M Govinda Rao, U A Vasanth Rao • Mary E John • Pratap Ranjan Jena, Manish Gupta • Pranab Bardhan, Sandip Mitra, Dilip Mookherjee, Abhirup Sarkar • M A Oommen • J Devika, Binitha V Thampi

Pp xii + 432

ISBN 978-81-250-4883-1

2012

Rs 695

Orient Blackswan Pvt Ltd

www.orientblackswan.com

Mumbai • Chennai • New Delhi • Kolkata • Bangalore • Bhubaneswar • Ernakulam • Guwahati • Jaipur • Lucknow • Patna • Chandigarh • Hyderabad

Contact: info@orientblackswan.com

is the grain consumption per head taking all uses. The current observed range from the Food and Agriculture Organisation Corporate Statistical Database as regards cereals is from nearly 900 kg per annum per capita in the us, 450 to 650 kg in European countries averaging 555 kg in the European Union, nearly 300 kg in China to 450 kg in middle-income countries like Mexico, and 175 to 250 kg in poor developing countries, with the global average at about 315 kg. The strong positive relation between income and cereal consumption has been confirmed in an exhaustive econometric study taking FAO data for 85 countries, by Krishna Ram (2013).

With decline in per head cereals consumed for all uses over the reform period, India at present registers at 175 kg, the lowest level of cereal consumption per capita for all purposes, below the average for sub-Saharan Africa and even below the figure for the least developed countries.¹⁰ Such a remarkable decline in total grain consumption per head in India is explainable only in terms of adverse shifts in income distribution (Patnaik 2009, 2010c). The process of mass income deflation and rising unemployment through fiscal contraction under economic reforms, combined with fast rise in the real incomes of a minority means not merely that income inequalities have risen, but there is absolute decline of purchasing power and real consumption of the majority, which is swamping out the rising consumption per capita of the minority which has gained from reforms. Further the exclusion of a majority of the actually poor from accessing affordable food from the PDS owing to their being wrongly counted as non-poor in the incorrect official estimates, has also contributed significantly to the observed trend of declining nutrition.

Second, direct analysis of the food consumption data in physical units show that while the intake per capita of “milk and milk products” has risen, that of “meat, eggs and fish” has fallen, with a net decline in protein and energy intake from animal products taken as a whole. This has been reinforcing and not offsetting the decline in protein and energy intake from foodgrains consumption. This also explains the first point, why total grain demand per capita (consumed directly plus feed and other uses) has been falling.¹¹ It allows us to reject decisively the inference of diversification leading to higher nutritional intake.

Table 8: Share of Consumer Expenditure on Foodgrains, All Food and on Miscellaneous Goods and Services

	All-India			All-India		
	Rural Cereals+ Pulses	All Food	Miscellaneous Goods and Services	Urban Cereals+ Pulses	All Food	Miscellaneous Goods and Services
1987-88	30.6	64	14.5	18.7	56.4	23.2
1993-94	28.3	63.2	17.3	17.3	54.7	27.5
1999-2000	26.2	59.4	19.6	15.3	48.1	31.3
2004-05	21.3	55	23.4	12.3	42.5	37.2
2009-10	19.6	53.6	24	11.9	40.7	37.8

Source: Key Indicators of Household Consumer Expenditure in India, 2009-10, NSS 66th Round, July 2011.

Third, over time as per capita income has risen, a fall in the share of all food in household budgets is observed, which is apparently consistent with Engel's law (Table 8). But this is accompanied by absolute decline in real spending on all food

and decline in net nutritional intake (average calorie and protein intake have both fallen while fat intake has risen). Such absolute decline is certainly not part of Engel's law. A fall in the share of food spending with rising income does not entail absolute decline on food spending or nutritional decline, nor was this the case in India in the pre-reform period. The fact of such absolute decline over the last two decades is specific to the period of economic reforms. The counterpart of the falling share of all food in household per capita expenditure is rise in the share of the two groups “fuel and light” and “miscellaneous goods and services”.

Table 8 summarises the change in the main categories of spending during 1987-88 to 2009-10. In rural India the share of “all food” in the average household budget has declined by 10.4% points, almost matched by rise in spending on “miscellaneous goods and services” by 9.5% points; the balance of 0.9% is on account of rise in “fuel and light”. In urban India the share of “all food” starting at a lower level, has declined more by 14.7% points while that of “miscellaneous goods and services” has risen by exactly as much, 14.6% points. The “miscellaneous goods and services” include house rent, transport, medical and educational expenses. These findings are consistent with our observation made nearly a decade ago that

The food spending share of total spending can fall and is actually observed to fall, when people are getting worse off...since owing to greater monetisation of the economy and higher cost of utilities, they are forced to spend more on the bare minimum of non-food essentials. Thus even when price-index adjusted income is unchanged over time, some food expenditure has to be sacrificed at the later date to buy fuel (which is jointly demanded with food grains and is no longer available from common property resources), incur higher transport costs in search of work, incur higher health costs and so on. Since the overwhelmingly large part of food expenditure itself is on staple grains, it is this which falls when food expenditure is cut (U Patnaik 2005).

Our current work-in-progress concerns an analysis of the specific food groups which account for the observed decline in calorie and protein intake and the observed rise in fat intake. We also hope to update and present our earlier findings on change in poverty by social groups in a forthcoming paper.

The importance of arriving at realistic poverty lines and estimating poverty ratios using realistic lines, should be obvious. All current official welfare schemes, whether they give access to affordable food through the PDS or access to affordable medical insurance through the Rashtriya Swasthya Bima Yojana (RSBY), rely on identifying beneficiaries using the official poverty estimates. Given that these are gross underestimates of the true extent of poverty, a much larger number of deserving families are excluded than are included at present. The problem of large-scale wrong exclusion affects the more narrowly targeted schemes for special groups as well. As long as such exclusion continues, no effective countervailing public policy exists to moderate the welfare-reduction and mass impoverishment induced by following neo-liberal economic policies over the last quarter century.

NOTES

- See Chandrasekhar and Ghosh (2011a, b). Employment growth rates are calculated after obtaining the absolute numbers employed, by applying the NSS labour force/workforce participation rates to census data on category-wise population, obtained for the relevant NSS years by interpolation between census years. While there has been rise in enrolment in educational institutions, this explains only part of the observed decline in participation rate. This accepted method cannot take account of changes in the extent of the floating migrant population.
- C P Kindleberger (1987), G C Allen (1947).
- See Patnaik (2004, 2006, 2007, 2008, 2010a, 2010b) for the critique and alternative estimates using the original official definition.
- These lower end figures are approximated by taking the mean spending in the lowest decile to be the mid-point for the class.
- See Patnaik (2007, 2010a) for state-wise calorie intakes at official poverty lines in 1993-94, 1999-2000 and 2004-05.
- On uniform recall period or URP basis, the 2004-05 poverty line was Rs 356, this was raised by 16% to Rs 415 which corresponds to Rs 446.7 on MRP basis and is the declared revised official 2004-05 poverty line, giving 41.5% in poverty.
- Khan estimates an annual rural poverty line of 1,157 yuan for the 1995 based 2,150 kilocalories norm, taking household spending data. This is over double the official rural poverty line of 530 yuan for that year.
- We can approximate the Bank's procedure for India. The rupee-dollar exchange rate of Rs 46.5 for 2010 (average of 2009-10 and 2010-11) gives Rs 58.125 as the nominal value of \$1.25. Deflating by the PPP factor 0.4 gives Rs 23.25 as the lower, hence rural poverty line at which 37% is seen to be in poverty using the rural ogive for 2009-10, namely, Figure 3RU. The rural-urban population weights 69/31 of the Planning Commission estimate applied to the World Bank 32.7% overall estimate, in conjunction with the estimated 37% rural poverty ratio, gives us 23% urban persons in poverty, which is found to lie below Rs 30 urban daily poverty line from Figure 2UR. Thus the Bank's estimated 32.7% in overall poverty for India is consistent with rural/urban poverty lines of Rs 23/30 daily, only marginally more compared to the Planning Commission's Rs 22/29, all figures rounded.
- Economic Survey 2012-13*, Table 1.1.
- See the data from Food Balance Sheets and Supply Utilisation Accounts (FBS-SUA) available from Food and Agriculture Organisation, Rome (quoted in U Patnaik 2009).
- Ranjana Roy 2009 and doctoral research work in progress. The states which are exceptions are Goa, Kerala and West Bengal.

REFERENCES

- Allen, G C (1947): *A Short Economic History of Modern Japan 1867-1937* (New York: Macmillan).
- Chandrasekhar, C P and Jayati Ghosh (2011a): "The Latest Employment Trends from the NSS", *The Hindu Business Line*, 12 July, also available at <http://www.thehindubusinessline.com/opinion/columns/c-p-chandrasekhar/latest-employment-trends-from-the-nss/article2219107.ece>
- (2011b): "Deciphering Employment Trends", *The Hindu Business Line*, 26 July, also available at <http://www.thehindubusinessline.com/opinion/columns/c-p-chandrasekhar/deciphering-employment-trends/article2293456.ece>
- Deaton, Angus and Valerie Kozel (2005): "Data and Dogma: The Great Indian Poverty Debate",

- World Bank Research Observer*, Vol 20, No 2, pp 177-99.
- Government of India, Ministry of Finance (2013): *Economic Survey 2012-13*.
- Hu Angang, Linlin Hu and Chang Zhixiao (2003): "China's Economic Growth and Poverty Reduction (1978-2002)", accessed on 31 March 2013 at <http://imf.org/external/np/apd/seminars/2003/newdelhi/angang.pdf>
- Khan, Azizur Rehman (1998): "Poverty in China in the Period of Globalisation: New Evidence on Trend and Pattern", issues in Development, Discussion Paper 22, Development Policies Department, ILO Geneva.
- Kindelberger, C P (1987): *The World in Depression 1929-39* (London: Allen Lane).
- Krishna Ram (2013): "Cereal Consumption as a Proxy for Real Income", *Economic & Political Weekly*, Vol 48, No 29, 20 July.
- Patnaik, P (2013): "A Critique of the Welfare Theoretic Basis of the Measurement of Poverty", *Economic & Political Weekly*, Vol 48, No 14, 6 April.
- Patnaik, U (2004): "The Republic of Hunger", *Social Scientist*, Vol 32, Nos 9-10, September-October.
- (2005): "Theorising Food Security and Poverty in the Era of Neo-liberal Reforms", *Social Scientist*, Vol 33, Nos 7-8, July-August, also available at www.righttofoodindia.org/data/pds/theorising_food_security.doc
- (2005): "Poverty and Neo-liberalism", *Arthvinjana*, Vol XVII, Nos 3-4, September-December.
- (2007): "Neoliberalism and Rural Poverty in India", *Economic & Political Weekly*, Vol 42, No 30, 28 July.
- (2008): "The Question of Employment and Livelihoods in Labour Surplus Economies", *Social Scientist*, Vol 36, Nos 5-6, May-June.

- (2009): "Origins of the Food Crisis in India and Developing Countries", *Monthly Review*, Vol 61, No 3, July-August.
- (2010a): "Trends in Urban Poverty under Economic Reforms 1993-94 to 2004-05", *Economic & Political Weekly*, Vol 45, No 4, 23 January, pp 42-53.
- (2010b): "A Critical Look at Some Propositions on Consumption and Poverty", *Economic & Political Weekly*, Vol 45, No 10, 6 March.
- (2010c): "On Some Fatal Fallacies", *Economic & Political Weekly*, Vol 45, No 47, 20 November.
- Planning Commission, Government of India (2012): "Press Note on Poverty Estimates 2009-10", March, accessed on 5 May at http://planning-commission.nic.in/news/press_pov1903.pdf
- Ravallion, M and G Datt (2010): "Shining for the Poor Too?", *EPW*, Vol XLV, No 7, 13 February.
- Roy, Ranjana (2009): *Change in Grain Consumption Pattern in Rural India 1993-94 to 2004-05*, M Phil Dissertation submitted in the Centre for Economic Studies and Planning, School of Social Sciences, Jawaharlal Nehru University.
- Shaohua Chen and Yan Wang (2001): "China's Growth and Poverty Reduction: Recent Trends between 1990 and 1999", The World Bank, July.
- United Nations Food and Agriculture Organisation, Rome. Food Balance Sheets-Supply Utilisation Accounts (FBS-SUA) at faostat.fao.org/site/354/default.aspx
- World Bank (2012): "An Update to the World Bank's Estimates of Consumption Poverty in the Developing World" (Dated 03/01/2012). Briefing note by Shaohua Chen and M Ravallion, accessed on 2 May 2013 at http://siteresources.worldbank.org/INTPOVCALNET/Resources/Global_Poverty_Update_2012_02-29-12.pdf
- (2013): <http://povertydata.worldbank.org/poverty/country/IND> accessed on 30 April.

Appendix Table A: Planning Commission Poverty Lines and Ratios (2009-10)

	OPL, Rs Rural	OPR, % Rural	OPL, Rs Urban	OPR, % Urban
All-India	672.8	33.8	859.6	20.9
Andhra Pradesh	693.8	22.8	926.4	17.7
Arunachal Pradesh	773.7	26.2	925.2	24.9
Assam	691.7	39.9	871	26.1
Bihar	655.6	55.3	775.3	39.4
Chhattisgarh	617.3	56.1	806.7	23.8
Delhi	747.8	7.7	1,040.3	14.4
Goa	931	11.5	1,025.4	6.9
Gujarat	725.9	26.7	951.4	17.9
Haryana	791.6	18.6	975.4	23
Himachal	708.8	9.1	888.3	12.6
Jammu and Kashmir	722.9	8.1	845.4	12.8
Jharkhand	616.3	41.6	831.2	31.1
Karnataka	629.4	26.1	908	19.6
Kerala	775.3	12	830.7	12.1
Madhya Pradesh	631.9	42	771.7	22.9
Maharashtra	743.7	29.5	961.1	18.3
Manipur	871.9	47.4	551.8	46.4
Meghalaya	686.9	15.3	989.8	24.1
Mizoram	850	31.1	939.3	11.5
Nagaland	1016.8	19.3	1147.6	25
Orissa	567.7	39.2	736	25.9
Puducherry	641	0.2	777.7	1.6
Punjab	830	14.6	960.8	18.1
Rajasthan	755	26.4	846	19.9
Sikkim	728.9	15.5	1035.2	5
Tamil Nadu	639	21.2	800.8	12.8
Tripura	663.4	19.8	782.7	10
Uttar Pradesh	663.7	39.4	799.9	31.7
Uttarakhand	719.5	14.9	898.6	25.2
West Bengal	643.2	28.8	830.6	22

Source: Government of India, Planning Commission, Press Note on Poverty Estimates, 2009-10, March 2012.