

Poverty and Food Insecurity in India: A Disaggregated Regional Profile

M.H. Suryanarayana and Dimitri Silva



Indira Gandhi Institute of Development Research, Mumbai

March 2008

<http://www.igidr.ac.in/pdf/publication/WP-2008-005.pdf>

Poverty and Food Insecurity in India: A Disaggregated Regional Profile¹

M.H. Suryanarayana

Indira Gandhi Institute of Development Research (IGIDR)
General Arun Kumar Vaidya Marg
Goregaon (E), Mumbai- 400065, INDIA
Email (corresponding author): surya@igidr.ac.in

Dimitri Silva

International Poverty Centre, Brasilia

Abstract

This study provides a profile of deprivation with respect to consumer expenditure, cereal consumption and energy intake across demographic and agro-climatic regions as defined by the National Sample Survey Organisation of India. It examines this evidence at the disaggregated level to verify whether a public distribution system (PDS) targeted with reference to estimates of poverty would end up penalizing the non-poor but food insecure. The empirical profiles have also useful policy relevance with respect to decentralized formulation and implementation of the PDS.

Key words: Consumer expenditure, food insecure, non-poor, poverty, public distribution system

JEL Code(s): I32

¹ This study was carried out when the first author was with at the International Poverty Centre, Brasilia as an Economic Specialist during 2004-2005. An earlier version has been presented at the Silver Jubilee Seminar on 'Equitable Development: International Experience and What can India Learn?', 7-9 January 2006, Centre for Economic and Social Studies, Hyderabad.

Poverty and Food Insecurity in India: A Disaggregated Regional Profile

M. H. Suryanarayana and Dimitri Silva

1. Introduction

With the United Nations' Millennium Declaration adopting eight major development goals on 8 September 2000, the question of reduction in poverty and food insecurity has received major policy focus in several developing countries the world over. India has not exhibited similar policy concern on achieving these goals because of the general sense of comfort from the success in reducing poverty and food insecurity as revealed by estimates of consumption-based poverty measures² and surplus stocks of food grains, which are even exported in recent years (Government of India (GoI) 2004; p. S-21).

However, the High Level Committee appointed by the Government of India has challenged this sense of comfort by attributing the excess stocks of food grains to the decline in cereal consumption in recent decades than to increases in food production (GoI, 2002b). The Committee has found that the energy intake level of more than 70 per cent of the population is less than 2100 calories and that the bottom 80 per cent of the rural and bottom 40 per cent of the urban households have a food expenditure share (food expenditure as a share of total expenditure) of over 60 per cent. In other words, the magnitude of food insecurity by both the energy intake norm and food share criterion is more than the incidence of poverty in India. In such a context, the

² The estimates of poverty declined from 51.3 per cent in 1977/78 to 36 per cent in 1993/94 and 26.1 per cent in 1999/2000 (Government of India (GoI), 2004; p. 204)

recent attempt to revamp the PDS by targeting it with reference to state wise estimates of poverty for 1993/94 (GoI, 1997) by differential pricing across poor and non-poor households has ended up penalizing the non-poor but food insecure also. This is because the PDS has become (i) non-viable due to a reduction in sales and profit margin for the retail outlets; and (ii) ineffective in price stabilization. As a result, PDS off-take under the new regime declined from 19.6 million tonnes in 1996/97 to an annual average of 17.5 million tonnes during 1997-2000. Price instability too increased; a measure of instability given by the ratio of the wholesale price index for cereals to that of all commodities, increased by 17.4 per cent between 1997/98 and 1999/00 and declined sharply by 13.3 per cent between 1999/00 and 2001/02 (GoI, 2002b). Thus, as per the Committee, the targeted PDS has penalized states with low incidence of poverty but relatively high incidence of food insecurity.

Such findings and interpretations with reference to outdated norms have limited validity in the development context involving structural and technological changes and hence, reduced energy requirements. This would call for downward revisions in food security norms as done in several countries. Therefore, we have verified the hypothesis in terms of estimates of the dual dimensions of food insecurity, namely (i) deprivation in economic access (incidence of poverty), and (ii) inadequate physical access to food grains (incidence, depth and severity of deprivation in cereal consumption/calorie intake), corresponding to two different norms, conventional as well as revised ones (Suryanarayana and Dimitri, 2007). For this purpose, we have (a) identified measures and standards for defining food security; (b) provided quantitative cross-sectional profiles of average levels of food security in its economic and physical dimensions across states and their covariance; (c) presented quantitative cross-

sectional profiles of incidence, depth and severity of food insecurity across states and their covariance with average levels of food security; and (d) examined how far estimates of food insecurity in its economic and physical dimensions tally and their policy implications.

The present study makes an attempt to verify the same issues at the disaggregated National Sample Survey (NSS) regional levels by rural and urban sectors. The study is organised as follows: To highlight the importance of the questions raised, the following section would briefly cover the concept, approach and some important findings of Suryanarayana and Dimitri (2007). Section 3 sums up some relevant features of the data base and methodology. Section 4 provides estimates of food security from different perspectives at the regional level in India for the year 1999/00. The final section concludes the paper.

2. Food Security: Concept and Issues

Food security has both economic and physical dimensions; the former referring to economic access and the latter to physical availability of food grains in sufficient quantities required for an active and healthy life. The official definition and measurement of income/consumption poverty in India is anchored in a physical norm for food insecurity. Hence, one would expect the estimates of poverty and food insecurity to tally for any given reference year. However, the two sets of estimates could diverge for any other subsequent year for the following methodological reasons (Suryanarayana and Dimtri, 2007): (i) Estimates of poverty are based on monetary measures of consumer expenditure distributions (at current prices) with reference to a base year norm, where only the norm gets adjusted for percentage price changes; and

(ii) those for deprivation in physical access to food are made in terms of physical quantities (which respond to changes not only in prices, but also tastes and preferences as well as a host of other variables such as levels of living and infrastructural facilities) with reference to a constant base year physical norm. Hence, from a methodological perspective, the estimates of poverty and food insecurity would not tally for non-reference years leading to both Type I and Type II errors in food distribution programmes targeted with reference to monetary-measure based poverty estimates³. This is precisely what underlies the issue raised by the High Level Committee.

If so, how to go about verifying the hypothesis underlying the Expert group study? One approach could be to revise the food security norms downward taking into account the ongoing structural changes in consumption preferences. Until 1993/94, cereal consumption, which is the major source of calorie intake for the Indian household, has increased for the bottom two decile groups and declined for the top seven decile groups in rural All-India; urban All-India does not exhibit such clear cut patterns; but broadly speaking, cereal consumption increased somewhat for the bottom decile groups and decreased for the top decile groups. Per capita calorie intake increased for the bottom four decile groups and decreased for the top six decile groups in rural All-India; as regards urban All-India, it increased for the bottom six decile groups and declined for the top four decile groups. In other words, levels of cereal consumption and calorie intake for different decile groups have been converging to a limit. Hence, we have calculated (i) such limits for the alternative measures of physical access to food as the respective thresholds or revised norms to

³ See Cornia and Stewart (1993) for errors in targeting.

define food insecurity for both rural and urban India; and (ii) estimates of food insecurity after appropriate allowances for adult equivalent scales (Suryanarayana and Dimitri, 2007). The findings show that the estimates of monetary measures of poverty by sectors at the national level exceed or tally with those for food insecurity, obtained with necessary adjustments for calorie intake to account for age-sex composition. This result holds good for the majority of the states, except Andhra Pradesh, Gujarat, Karnataka, Kerala, Punjab and Delhi. The latter are relatively better off states; hence, any shortfall in cereal consumption/calorie intake could be by choice and does not call for policy measures for income transfers by subsidised food distribution.

In other words, estimates of food security may be worked out with reference to two alternative norms, viz., the norm underlying the estimation of the official poverty line, and the convergence levels observed in 1993/94. It is important to adjust for sex-age-activity status of the population. Since the relevant adult equivalent scales are available only for calorie requirements (GoI, 2001a), this study could make such corrections only for calorie intake.

4. Data Base & Methodology

This study is based on the NSS unit record data on household consumer expenditure during the 55th round of the NSS (July 1999- June 2000). This particular round has received considerable attention for the following novel feature, which was absent in the earlier rounds. Till the 50th round (1993-94), the NSS collected information on consumption of food, pan, tobacco & intoxicants for a reference period of 30 days preceding the date of interview. In order to control non-sampling errors, information on consumption of these items was collected for two different reference periods, viz.,

week and a month during the 55th round. Experts have raised questions regarding the advisability of this change since pilot surveys have shown that week-based estimates are higher than the month based estimates for food, pan, tobacco & intoxicants (GoI, 2000). This has rendered the data base from the 55th round virtually incomparable with those from the previous rounds. Therefore, it may not be possible to use the data for estimating trends in food security; instead, it could be useful for cross-sectional comparisons for policy analysis.

India is a Union of States and Union Territories. The country is diverse and heterogeneous. Hence, to obtain representative estimates the NSS sample design is stratified and two-stage in both rural and urban sectors. The rural and urban sectors are stratified into what are called NSS regions.⁴ In the rural sector, such regions are formed with reference to agro-climatic parameters while in the urban on the basis of population size. Thus reliable estimates of NSS distributions are available at the national, state and regional levels. Having examined the issue at the state level, this study proposes to obtain estimates of food insecurity for (78) NSS regions across states.

From the point of view of the present study, the NSS 55th round survey results have the advantage that they provide estimates of household per capita consumption, calorie intake and other related parameters like household size, education, ownership of assets like land. In an *ex post* sense, estimates of per capita consumer expenditure, cereal consumption and calorie intake measure realized quantities of measures of physical and economic access to food. Therefore, we measure (a) levels of food

⁴ In a given NSS region, villages (blocks) in the rural (urban) sector are selected in the first stage and households in the second stage.

security in terms of averages (per head of population) and (b) different dimensions of food insecurity in terms of P_α class of poverty measures (Foster, Greer, Thorbecke, 1985) for per capita consumer expenditure, cereal consumption and calorie intake.

The details on estimation of economic deprivation measures are given below:

- Estimates of poverty are made with reference to Government of India official definition and estimate of rural and urban poverty lines, viz., Rs 49.09 and Rs 56.64 per capita per month at 1973/74 prices respectively (GoI, 1979). Poverty line estimates for the rural and urban areas of all-India and major states for the year 1999-2000 are taken from Government of India (2001d).
- Estimates of poverty for NSS regions in a given state are made with reference to respective state-specific poverty lines.
- For some smaller states like Sikkim, for which either NSS sample size is not adequate or complete information is not available, Government of India (1993) uses either the poverty lines or poverty ratios from a neighbouring state (decided with reference to physical proximity and economic profile). We have followed the Government of India approach while choosing poverty lines but not poverty ratios. For instance, Government of India (1993) has adopted the poverty ratio of Assam for Sikkim. But, we have used only the poverty lines of Assam for Sikkim but not poverty ratios. This is because the imposition of the average estimate of a given state on another (i) would impose an additional non-sampling error on the estimates for the latter since region wise estimates of poverty within a given state vary widely (Table 3 - 6); and (ii) would not add to the information content of the sample of region wise estimates.

As regards physical access, we measure it from two complementary perspectives, viz., food grain (cereal) consumption and calorie intake for the following reasons:

- The hypothesis in question is based on findings related to these two measures.
- Much of the policy effort of the Government of India to mitigate food insecurity runs in terms of augmenting physical access through (i) a comprehensive agricultural policy for promoting agricultural and food grain production; and (ii) buffer stocking and safety nets like the PDS selling cereals at subsidized prices.⁵ An estimate of the magnitude of food grain / cereal consumption shortfall has definite implications for such policies to promote physical access to food grains and their sustainability.
- Calorie is a major nutrient required for day to day functioning. Without calorie adequacy, protein intake is not of much use (Swaminathan Research Foundation, 2001). Incidence of protein deficiency is much less than that of calorie deficiency (GoI, 2001a & 2001b). The estimated incidence of protein deficiency with reference to a common norm of 50 gm per capita per day is about 20 per cent (see GoI 2001a and 2001b).
- Consumption pattern of the Indian population has undergone some diversification in favour of non-food items; diversity is an important indicator of food security and requirement for nutrition security. Any attempt to define food security only with reference to food/cereal consumption would involve overestimation and neglect of related policies for nutrition security. In fact, the Government of India has an agenda to promote nutrition security by a variety

⁵ Government of India has expanded many of its welfare schemes with a change in design in favour of the food grain in-kind transfer. For instance, Antyodaya, Annapurna and mid-day meal schemes account for more than 25 per cent of the food grain off take from the PDS (*Economic and Political Weekly* editorial, November 6, 2004).

of policies and programmes for income generation, sanitary environment, adequate health services and awareness creation.

For these measures, the normative calorie norm underlying the poverty line may be taken as the norm for defining food security. Till recently average rural Indian household derived about 85 per cent of the total calorie intake from cereal consumption; at present it is about 68 per cent (GoI, 2001b; p. 25). The cereal consumption levels corresponding to the poverty line baskets in the rural and urban areas are 15.50 kilograms and 12.25 kilograms respectively. Any individual having cereal consumption or calorie intake less than the norm could be considered food insecure.

However, given the convergent patterns of changes in cereal consumption and calorie intake across decile groups of population in rural and urban India, we may consider the corresponding cereal consumption and calorie intake levels as thresholds for defining food and nutrition security in India. Such estimates of convergence for the year 1993/94 work out to (i) 13 kg per capita per month in rural India and 11 kg per capita per month in urban India; and (ii) daily per capita calorie intake of 2100 calories in rural India and 2030 calories in urban India. Hence, estimates of food security may be worked out with reference to two alternative norms, viz., the norm underlying the estimation of the official poverty line, and the convergence levels observed in 1993/94. It is important to adjust for sex-age-activity status of the population. Since the relevant adult equivalent scales are available only for calorie requirements (GoI, 2001b), this study could make such corrections only for calorie intake.

5. Food security levels: Average levels of economic & physical accesses

- Estimates at the regional level bring out the regional imbalances within the so called developed states. For instance, per capita state domestic product⁶ is the second highest in the state of Maharashtra (Government of Maharashtra, 2002); yet it fell in the lower middle quartile in terms of rural per capita consumption and upper quartile in terms of urban per capita consumption (Table 1). At the disaggregate level, its regions fell in different quartile groups when ranked in terms of per capita consumer expenditures, cereal consumption and calorie intake across regions in the country as a whole. For instance, (i) Maharashtra Eastern region fell in the lowest quartile in terms of rural per capita consumer expenditure and Inland Central in the lowest quartile in terms of urban per capita consumer expenditure; (ii) Inland Northern and Inland Western regions in the lowest quartile in terms of rural per capita cereal consumption, and Coastal. Inland Northern and Inland Western regions in the lowest quartile in terms of urban per capita cereal consumption; and (iii) Eastern, Coastal and Inland Northern regions in the lowest quartile in terms of rural calorie intake, and Inland Northern and Inland Eastern regions in terms of urban per capita calorie intake. This result has implications for targeted distribution of food grains; it would be imperative to target food distribution programmes at the state level with reference to regional estimates of food insecurity.
- Irrespective of the state, poorer regions belonged to the lower quartile group in terms of rural/urban per capita consumer expenditures and upper quartile

⁶ Per capita state domestic product is the average for the entire state.

groups in terms of cereal consumption. The disaggregated regional analysis brings out the associations much more sharply (Table 2). There is significant negative association between per capita consumer expenditure and cereal consumption and significant positive association between cereal consumption and calorie intake in both rural and urban sectors. But the association between per capita consumer expenditure and calorie intake is statistically insignificant; this could be because consumption diversification that has accompanied the reduction in economic deprivation has not adequately compensated for the decline in cereal consumption and calorie intake.

- The results presented above clearly bring out the changes in consumption patterns associated with improvement in economic status. Reduction in cereal consumption cannot be interpreted to indicate a worsening of food security.

(b) Poverty & Food Insecurity:

This section proposes to examine economic deprivation and food insecurity as reflected in the rural/urban sectoral incidence (P_0), depth (P_1) and severity (P_2) of poverty, food insecurity and severity across regions in India. Estimates of food insecurity are made using different measures- per capita cereal consumption and per capita calorie - with reference to two alternative norms discussed already.⁷ The main findings are as follows (Tables 3-6)

- The regional estimates of economic deprivation reconfirm the findings based on estimates of averages, that is, regional imbalances exist within the developed states, or, for that matter, even in poorer states. For instance, incidence of rural poverty ranged from 11 per cent in Inland Western to 42 per

⁷ These all-India norms are applied uniformly across all regions without any reference to differences in tastes & preferences, and requirements. This is one limitation of this exercise.

cent in Eastern region and incidence of urban poverty ranged from 11 per cent in the Coastal to 54 per cent in the Central Region of advanced Maharashtra. Similarly, the incidence of rural poverty varied from 32 per cent in the Coastal region to 87 per cent in the Southern region and incidence of urban poverty varied from 41 per cent in the Coastal to 46 per cent in the Northern region of relatively backward State of Orissa.

- Poverty seems to be concentrated in some of the regions of rural Assam, Bihar, Orissa, West Bengal, Madhya Pradesh, Uttar Pradesh, and the eastern region of Maharashtra. Barring Eastern Maharashtra, these are precisely the regions where the incidence of cereal deprivation is one of the lowest.
- In general, there is negative association between incidence of poverty and alternative measures of cereal deprivation in the rural sector across regions (Table 7). This is further confirmed by statistically significant negative coefficients of correlation between the two measures. The association is rather weak for the urban sector. In other words, the poorer states seem to be reasonably food secure in terms of cereal consumption. The high incidence of cereal deprivation in the richer regions could be due to the shifts in consumption preferences in favour of non-cereal and non-food items and hence is not involuntary.
- The association between incidence of poverty and different measures of per capita calorie deprivation is positive significant at the regional level for both rural and urban sectors.

In other words, cross-sectional estimates across regions too confirm the changes in consumption preferences associated with reduction in economic deprivation. Therefore, calorie inadequacy *per se* could not be taken indicate food insecurity.

(c) Physical Access: Calorie Intake adjusted for Age-Sex-Activity

The discussion so far is based on per capita measures, of course, relative to all-India per capita norms. This is based on the implicit assumption that the age, sex and activity composition is invariant across states. With the available equivalence scales, adjustments for calorie intake to take into account age-sex-activity could be made across households. Since 1972/73, the standard NSS norm has been 2700 kilo calories per consumer unit per diem for both rural and urban sectors (Government of India, 2001d).⁸ However, we consider the calorie levels corresponding to the alternative per capita norms for the analysis below. Some important findings are as follows (Table 8):

- Majority of the NSS regions seem to have achieved food security as measured by average calorie intake per adult equivalent scale. The lower quartiles exceed the two alternative norms in both rural and urban sectors (Table 1).
- The association between estimates of monetary measures of poverty and per adult equivalent calorie intake measure of food insecurity is positive and significant at the regional level in both rural and urban sectors (Table 9).
- As pointed out in our previous study (Suryanarayana and Dimitri, 2007), the PDS is targeted with reference to estimates of poverty for the year 1993/94 and not for 1999/2000. A comparison between estimates of incidence of poverty for 1993/94 and incidence of (per adult equivalent) calorie deficiency brings out that both in rural and urban India the size of the targeted population exceeded that of the (per adult equivalent) calorie deficient.

⁸ This norm works out to a per capita norm of 2178 calories for the rural sector and 2208 calories for the urban.

- Though the previous result stood valid good for majority of the states except Andhra Pradesh, Gujarat, Karnataka, Kerala, Punjab and Delhi, it may not imply any imperilment of the food insecure since (i) states like Kerala have targeted the PDS to a larger proportion (42 per cent) of the population than that (25 per cent) estimated by the Central Government and hence, to a proportion larger than that of the calorie insecure; and (ii) these states are relatively better off and the estimate of calorie insecurity may be apparent (by choice) than real.
- However, it may be noted that the measures used in the paper are not comprehensive enough to answer unambiguously the question under review. For instance, Kerala and Tamil Nadu fall in the first quartile group in terms of calorie intake (Table 4). Still they do very well in terms of nutritional status of children thanks to effective public welfare programmes in Kerala and mid day meal schemes in Tamil Nadu.
- In sum, the policy message that emerges has more to do with influencing consumption choice rather than enlarging the PDS net to the whole population.

Conclusion:

This paper has attempted to verify the question, whether the PDS targeted with reference to estimates of poverty based on monetary measures of consumption distribution has penalised the set of food insecure identified with respect to a physical measure of consumption. This is carried out with reference to disaggregate estimates of poverty and food deprivation for different regions in India by rural and urban sectors. The study re-confirms the findings obtained at the aggregate state level that the hypothesis under review has limited empirical basis and validity. At the same

time, our findings call for reconsideration of the emphasis on targeting with reference to aggregate estimates of poverty at the state level. Regions even within developed states like Maharashtra fall in the poorest quartile at the national level in terms of cereal consumption/ calorie intake. Ideally there is a need to formulate policies with respect all the three different measures of deprivation. The study also provides a regional profile of food insecurity in different dimensions which could go a long way in decentralized formulation and implementation of the PDS.

References

Cornia, Giovanni Andrea and Frances Stewart (1993): 'Two Errors of Targeting', *Journal of International Development*, Vol. 5(5), pp. 459-96.

Foster, J., Greer, J. and Thorbecke, E. (1984): "A Class of Decomposable Poverty Measures", *Econometrica*, Vol. 52(3), pp. 761-766.

Government of India (1979): *Report of the Task Force on Projections of Minimum Needs and Effective Consumption Demand*, Planning Commission: New Delhi.

Government of India (1993): *Report of the Expert Group on Estimation of Proportion and Number of Poor*, Planning Commission: New Delhi.

Government of India (1997): *Focus on the Poor: Guidelines for the implementation of the Targetted Public Distribution System*, Ministry of Civil Supplies, Consumer Affairs and Public Distribution: New Delhi.

Government of India (2000): *Choice of Reference Period for Consumption Data*, NSS Report No. 447, National Sample Survey Organisation, Department of Statistics: New Delhi.

Government of India (2001a): *Reported Adequacy of Food Intake in India 1999-2000, NSS 55th Round July 1999-June 2000*. Report No 466 (55/1.0/7). National Sample Survey Organisation, Ministry of Statistics & Programme Implementation: New Delhi.

Government of India (2001b): *Nutrition Intake in India 1999-2000. NSS 55th Round July 1999 – June 2000*, National Sample Survey Organisation, Ministry of Statistics & Programme Implementation: New Delhi.

Government of India (2001c): *Level and Pattern of Consumer Expenditure in India 1999-2000 NSS 55th Round July 1999 – June 2000*, National Sample Survey Organisation, Ministry of Statistics & Programme Implementation: New Delhi.

Government of India (2001d): *Poverty Estimates for 1999-2000*, Press Information Bureau: New Delhi.

Government of India (2002a): *Tenth Five Year Plan (2002-2007)*, Planning Commission, New Delhi.

Government of India (2002b): *Report on Long Term Grain Policy*, Ministry of Consumer Affairs, Food & Public Distribution: New Delhi.

Government of India (2004): *Economic Survey 2003-04*, Ministry of Finance: New Delhi.

Government of Maharashtra (2002): *Human Development Report Maharashtra 2002*, Government of Maharashtra: Mumbai.

Suryanarayana, M.H. and Dimitri Silva (2007): “Is Targeting the Poor a Penalty on the Food Insecure? Poverty and Food Insecurity in India”, *Journal of Human Development*, Vol. 8 (1), pp. 89-107.

Swaminathan Research Foundation, M. S. (2001): *Food Insecurity Atlas of Rural India*, M. S. Swaminathan research Foundation: Chennai.

Table 1: Indicators of Food Security Levels: NSS Regions

Region	Per Capita Consumer Expenditure for 30 days (PCE)		Per Capita Cereal Consumption for 30 days (PCC)		Per Capita Energy Intake (kilo calories) per diem (PCI)		Per Adult Equivalent Calorie Intake (kilo calories) per diem (PAECI)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pradesh - Coastal	491.93	773.53	12.99	11.34	2121	2070	2645	2547
Andhra Pradesh - Inland Northern	436.61	792.42	12.48	10.77	1963	2069	2443	2517
Andhra Pradesh - South-Western	399.40	655.70	12.07	10.22	1909	1933	2365	2380
Andhra Pradesh - Inland-Southern	386.93	756.59	12.40	10.67	1885	1956	2354	2458
Arunachal Pradesh - Arunachal Pradesh	649.79	760.42	15.75	14.43	4540	5246	5566	6121
Assam - Plains Eastern	451.70	821.64	12.61	11.51	1933	2079	2366	2510
Assam - Plains Western	410.28	817.51	12.66	12.62	1912	2236	2350	2735
Assam - Hills	390.09	732.87	12.28	12.92	1747	2032	2128	2468
Bihar - Southern	374.49	670.09	13.55	12.15	2030	2138	2514	2591
Bihar - Northern	397.26	516.23	13.77	13.28	2129	2139	2671	2621
Bihar - Central	371.90	596.92	13.89	12.80	2171	2220	2726	2721
Goa	868.66	1155.35	11.18	10.16	2435	2205	2991	2745
Gujarat - Eastern	459.81	915.47	10.47	8.96	1886	1919	2338	2346
Gujarat - Plains Northern	570.84	947.03	9.73	7.88	1979	1976	2450	2420
Gujarat - Plains Southern	573.23	976.84	9.91	8.05	1922	1993	2381	2453
Gujarat - Dry Areas	562.03	740.76	9.96	9.19	1971	2185	2476	2669
Gujarat - Saurashtra	586.98	787.87	10.79	9.43	2136	2206	2670	2721
Haryana - Eastern	746.97	954.51	11.33	9.33	2465	2131	3051	2620
Haryana - Western	649.14	785.78	11.43	9.48	2429	2292	3011	2854
Himachal Pradesh - Himachal Pradesh	684.70	1242.83	12.85	10.33	2453	2655	3076	3225
Jammu & Kashmir - Mountainous	739.62	1083.16	12.94	11.92	2389	2456	2996	3019
Jammu & Kashmir - Outer Hills	632.60	1038.26	15.16	13.48	2836	2800	3621	3489
Jammu & Kashmir - Jhelam Valley	695.75	853.92	14.86	13.42	2521	6771	3080	8075
Karnataka - Coastal & Ghats	645.08	781.04	11.95	9.82	2195	1952	2724	2424
Karnataka - Inland Eastern	595.26	753.31	11.46	11.81	2066	2171	2553	2638
Karnataka - Inland Southern	545.34	1106.31	11.89	10.09	2047	2097	2521	2569
Karnataka - Inland Northern	431.21	673.42	11.30	10.18	1984	1965	2494	2417
Kerala - Northern	636.88	741.91	10.12	9.29	1819	1831	2298	2310
Kerala - Southern	858.79	1059.51	11.37	9.97	2100	2105	2672	2655
Madhya Pradesh - Chattisgarh	366.08	676.60	13.67	12.26	1987	2142	2476	2626
Madhya Pradesh - Vindhya	389.64	599.63	13.75	12.90	2206	2715	2772	3243
Madhya Pradesh - Central	423.66	786.13	12.45	10.04	2085	1974	2615	2399
Madhya Pradesh - Malwa	473.37	735.08	11.90	10.01	2044	2045	2557	2520
Madhya Pradesh - South	358.71	693.51	12.98	11.39	1983	1992	2473	2438
Madhya Pradesh - South Western	376.84	626.70	11.45	10.52	1883	1993	2342	2425
Madhya Pradesh - Northern	453.31	671.53	13.36	11.20	2350	2144	2878	2652
Maharashtra - Coastal	517.78	1163.54	11.47	8.82	1921	2058	2418	2505
Maharashtra - Inland Western	595.87	962.91	10.72	9.30	2000	2033	2493	2489
Maharashtra - Inland Northern	464.06	815.01	10.67	8.88	1969	1942	2469	2401
Maharashtra - Inland Central	444.69	610.94	12.86	11.68	2166	2137	2702	2644
Maharashtra - Inland Eastern	450.28	716.29	11.45	10.05	2014	1951	2527	2414
Maharashtra - Eastern	379.88	841.48	11.89	11.04	1859	2137	2347	2604

Manipur - Plains	565.51	710.94	16.04	15.72	6251	17096	7792	21593
Manipur - Hills	502.10	610.15	16.14	16.59	10951	6130	14261	7613
Meghalaya - Meghalaya	563.34	971.94	11.98	10.76	1857	2006	2299	2464
Mizoran - Mizoran	723.81	1054.90	12.78	13.34	4464	3946	5452	4811
Nagaland - Nagaland	941.19	1242.11	14.82	13.02	2397	2165	2922	2599
Orissa - Coastal	425.10	644.96	15.47	13.76	2239	2268	2801	2789
Orissa - Southern	246.14	637.17	14.15	14.60	1864	2345	2333	2875
Orissa - Northern	369.23	576.31	15.10	15.57	2088	2328	2597	2837
Punjab - Northern	769.65	886.80	10.44	8.98	2375	2185	2967	2652
Punjab - Southern	713.05	918.88	10.80	9.64	2406	2212	3002	2723
Rajasthan - Western	585.04	788.71	14.66	12.44	2562	2417	3205	2972
Rajasthan - North-Eastern	559.84	802.25	14.22	11.17	2449	2258	3085	2778
Rajasthan - Southern	481.44	925.47	13.52	10.97	2178	2291	2755	2841
Rajasthan - South-Eastern	497.44	690.05	13.70	10.65	2285	2414	2820	2926
Sikkim - Sikkim	531.14	908.47	11.97	13.75	2023	2376	2459	2857
Tamil Nadu - Coastal Northern	435.50	1036.37	10.33	9.57	1731	2116	2151	2635
Tamil Nadu - Coastal	521.73	748.49	11.96	10.42	2004	2110	2510	2650
Tamil Nadu - Southern	519.89	1044.96	10.40	9.64	1774	1897	2245	2383
Tamil Nadu - Inland	601.25	899.05	10.51	9.39	1862	1931	2316	2380
Tripura - Tripura	530.00	876.67	13.16	13.22	2302	2286	2782	2797
Uttar Pradesh - Himalayan	559.14	836.59	13.77	11.97	2467	2395	3113	2902
Uttar Pradesh - Western	529.77	720.57	12.92	10.57	2420	2165	3034	2679
Uttar Pradesh - Central	419.67	650.29	14.94	10.20	2388	1984	3013	2429
Uttar Pradesh - Eastern	424.30	646.71	13.55	11.81	2211	2191	2798	2670
Uttar Pradesh - Southern	496.58	594.91	14.72	11.44	2408	2104	3027	2646
West Bengal - Himalayan	476.69	726.41	14.18	11.32	2092	2031	2573	2477
West Bengal - Eastern Plains	417.58	698.89	13.18	11.88	2038	2113	2528	2596
West Bengal - Central Plains	505.15	906.73	13.53	10.92	2166	2105	2668	2580
West Bengal - Western Plains	426.47	823.29	14.02	12.60	2074	2625	2539	3193
Andaman & Nicobar Islands	779.44	1114.04	11.17	10.23	2100	2076	2556	2498
Chandigarh - Chandigarh	979.35	1435.39	9.33	8.75	2245	2247	2610	2747
Dadra & Nagar Haveli - Dadra & Nagar Hav	560.27	1207.24	11.72	10.45	2087	2306	2538	2810
Daman & Diu - Daman & Diu	901.38	977.39	11.68	9.97	2278	2219	2710	2736
Delhi - Delhi	916.65	1379.19	7.85	8.61	1825	2151	2147	2634
Lakshadweep - Lakshadweep	876.13	1018.13	11.19	10.88	2489	2449	3072	3033
Pondicherry - Pondicherry	597.48	784.16	11.05	9.64	1998	1974	2516	2463
All-India	485.85	854.30	12.77	10.44	2149	2155	2685	2648
Lower Quartile*	427.66	701.90	11.31	9.86	1973	2033	2461	2480
Median*	520.81	790.57	12.43	10.77	2096	2141	2604	2641
Upper Quartile*	624.76	960.81	13.69	12.23	2385	2290	2956	2807

* Simple estimates (population unadjusted).

Table 2: (Product Moment) Correlation Matrix (Region wise)

	Rural PCE	Urban PCE	Rural PCC	Urban PCC	Rural PCI	Urban PCI	Rural PAECI	Urban PAECI
Rural PCE	1.0000							
Urban PCE	0.7362*	1.0000						
Rural PCC	-0.3449*	-0.4765*	1.0000					
Urban PCC	-	-0.3991*	0.8324*	1.0000				
Rural PCI	0.1001	-0.1155	0.4404*	0.5232*	1.0000			
Urban PCI	0.0739	-0.0857	0.4045*	0.4832*	0.6292*	1.0000		
Rural PAECI	0.0815	-0.1302	0.4406*	0.5187*	0.9992*	0.6138*	1.0000	
Urban PAECI	0.0715	-0.0865	0.3965*	0.4745*	0.6265*	0.9995*	0.6115*	1.0000

* p-values less than 0.01

**p-value less than 0.05

Table 3: Estimates of Rural Deprivation (%): Regions and All-India: 1999/2000

Region	Consumer Expenditure			Cereal Consumption (Norm I)			Calorie Intake (Norm I)		
	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)
Andhra Pradesh - Coastal	7.13	1.19	0.37	81.10	19.27	7.29	77.02	16.81	5.39
Andhra Pradesh - Inland Northern	9.29	1.12	0.21	83.36	22.63	7.91	83.14	22.22	7.44
Andhra Pradesh - South-Western	18.68	3.46	1.16	90.84	23.48	8.41	85.57	22.46	7.96
Andhra Pradesh - Inland-Southern	24.30	6.10	2.22	80.63	22.98	9.28	83.65	24.66	9.93
Arunachal Pradesh - Arunachal Pradesh	100.00			63.00	19.54	9.07	63.58	19.06	7.95
Assam - Plains Eastern	34.92	6.51	1.94	85.80	21.03	6.82	87.56	22.32	7.26
Assam - Plains Western	42.93	9.68	3.21	84.50	20.67	6.94	86.09	22.78	7.88
Assam - Hills	53.95	10.43	2.83	90.33	21.61	7.09	95.51	27.65	9.82
Bihar - Southern	49.94	10.29	3.10	75.08	17.79	6.14	81.24	19.81	6.58
Bihar - Northern	40.00	7.71	2.15	73.23	17.40	5.80	73.64	17.29	5.43
Bihar - Central	45.85	9.21	2.72	70.17	16.48	5.57	72.17	16.16	5.09
Goa	0.00	0.00	0.00	91.76	29.22	11.39	79.47	16.73	4.86
Gujarat - Eastern	25.61	4.47	1.15	92.53	33.82	14.79	87.06	23.58	8.03
Gujarat - Plains Northern	8.92	1.24	0.27	95.03	38.03	17.45	80.24	21.13	7.04
Gujarat - Plains Southern	13.53	2.81	0.82	91.72	37.76	19.48	82.03	23.72	8.86
Gujarat - Dry Areas	12.02	2.68	0.87	94.25	36.44	17.16	80.35	21.81	7.88
Gujarat - Saurashtra	3.85	0.61	0.16	91.67	31.45	12.86	74.18	15.46	4.52
Haryana - Eastern	6.09	0.99	0.28	88.96	28.73	11.47	54.01	10.69	2.93
Haryana - Western	9.74	1.75	0.52	89.25	29.20	11.86	57.62	12.49	3.84
Himachal Pradesh - Himachal Pradesh	7.80	1.05	0.24	84.61	19.49	6.33	56.47	9.44	2.24
Jammu & Kashmir - Mountainous	8.66	1.42	0.34	84.94	18.35	5.37	54.53	9.38	2.34
Jammu & Kashmir - Outer Hills	5.32	0.49	0.07	41.03	9.59	3.28	29.49	4.56	1.10
Jammu & Kashmir - Jhelam Valley	0.69	0.08	0.01	56.78	10.67	2.99	44.08	6.81	1.50
Karnataka - Coastal & Ghats	3.85	0.85	0.22	85.00	26.32	10.13	72.20	16.36	5.00
Karnataka - Inland Eastern	3.35	0.42	0.10	94.64	27.79	9.73	82.72	17.78	4.93
Karnataka - Inland Southern	10.73	1.65	0.40	84.61	27.02	11.07	78.63	21.12	7.63
Karnataka - Inland Northern	25.13	4.11	1.05	86.12	30.47	13.85	79.30	23.57	9.10
Kerala - Northern	14.96	2.26	0.55	94.57	35.69	15.79	88.76	26.57	10.02
Kerala - Southern	5.44	0.89	0.24	88.78	28.82	11.88	75.63	18.21	6.11
Madhya Pradesh - Chattisgarh	45.91	9.64	2.83	78.44	18.48	6.28	84.28	22.31	7.64
Madhya Pradesh - Vindhya	33.05	5.26	1.30	72.55	15.45	5.34	66.79	14.00	4.20
Madhya Pradesh - Central	35.70	7.87	2.48	80.33	24.87	10.21	75.03	20.97	7.93
Madhya Pradesh - Malwa	25.83	5.86	2.05	87.63	25.53	9.93	80.18	20.41	7.04
Madhya Pradesh - South	50.68	11.92	3.95	81.22	22.11	8.03	82.68	22.87	8.04
Madhya Pradesh - South Western	39.54	7.80	2.29	91.96	27.31	10.04	87.96	23.86	8.09
Madhya Pradesh - Northern	19.88	3.03	0.70	75.08	19.44	6.81	62.90	13.68	4.09
Maharashtra - Coastal	18.35	4.33	1.56	90.84	27.78	10.37	87.26	22.61	7.52
Maharashtra - Inland Western	10.67	1.67	0.41	95.60	31.45	12.20	85.98	19.90	6.04
Maharashtra - Inland Northern	31.76	6.23	1.86	93.92	34.33	14.87	86.16	24.42	8.92
Maharashtra - Inland Central	24.32	4.82	1.51	81.47	19.40	7.28	75.40	14.88	4.63
Maharashtra - Inland Eastern	31.71	5.86	1.65	90.70	29.39	12.35	80.74	21.88	8.05
Maharashtra - Eastern	42.12	7.07	1.89	88.63	25.04	9.25	88.33	24.44	8.55
Manipur - Plains	6.72	0.38	0.05	53.76	7.00	1.68	72.62	12.76	3.15
Manipur - Hills	23.44	3.67	0.87	64.68	6.46	1.22	72.16	13.09	2.94
Meghalaya - Meghalaya	5.94	0.54	0.08	93.54	23.79	7.24	93.09	24.03	7.29

Mizoran - Mizoran	2.81	0.23	0.03	84.13	20.12	6.60	73.77	16.90	5.35
Nagaland - Nagaland	0.20	0.03	0.01	63.95	10.65	2.84	65.31	11.18	2.75
Orissa - Coastal	31.78	5.76	1.55	51.93	9.67	2.95	68.21	13.23	3.70
Orissa - Southern	87.18	27.88	11.08	68.67	13.76	4.03	90.13	23.69	8.05
Orissa - Northern	49.82	11.34	3.61	57.73	11.25	3.46	75.25	17.42	5.44
Punjab - Northern	5.57	0.74	0.17	93.19	33.68	14.14	62.89	12.02	3.36
Punjab - Southern	6.54	0.87	0.19	91.97	32.05	13.01	62.25	12.69	3.58
Rajasthan - Western	10.34	1.44	0.34	63.99	13.37	4.23	48.67	8.75	2.42
Rajasthan - North-Eastern	11.40	1.63	0.41	70.28	15.60	5.07	52.96	9.17	2.30
Rajasthan - Southern	23.89	4.43	1.21	78.53	17.02	5.30	76.93	15.92	4.41
Rajasthan - South-Eastern	17.06	2.32	0.46	76.21	16.03	4.94	66.60	12.65	3.34
Sikkim - Sikkim	21.65	3.13	0.72	86.43	24.09	9.23	87.30	21.16	6.69
Tamil Nadu - Coastal Northern	31.43	7.04	2.42	92.94	34.91	15.69	89.31	30.31	12.69
Tamil Nadu - Coastal	12.80	2.13	0.50	81.35	25.85	10.66	78.51	21.23	7.76
Tamil Nadu - Southern	18.36	2.85	0.64	94.07	33.72	14.49	89.07	28.01	10.85
Tamil Nadu - Inland	12.92	2.03	0.48	93.60	34.07	15.03	86.90	26.31	9.97
Tripura - Tripura	16.57	2.58	0.64	83.16	17.59	4.89	82.55	18.55	5.43
Uttar Pradesh - Himalayan	15.51	2.14	0.45	76.92	18.08	6.12	56.74	10.14	2.68
Uttar Pradesh - Western	21.75	3.62	0.96	77.68	21.83	8.31	59.77	13.05	4.13
Uttar Pradesh - Central	42.13	8.61	2.49	62.73	13.23	4.24	60.39	12.15	3.52
Uttar Pradesh - Eastern	36.42	6.83	1.87	76.31	18.08	6.19	70.87	15.39	4.69
Uttar Pradesh - Southern	20.89	4.75	1.59	62.91	12.29	3.60	61.33	10.60	2.71
West Bengal - Himalayan	32.59	6.05	1.51	69.99	14.40	4.46	78.53	16.99	5.09
West Bengal - Eastern Plains	38.16	7.48	1.97	72.98	20.63	7.55	76.19	19.79	6.58
West Bengal - Central Plains	20.14	3.20	0.81	74.94	17.62	5.81	74.11	15.94	4.65
West Bengal - Western Plains	38.44	10.00	3.77	67.83	16.22	5.80	76.23	18.47	6.48
Andaman & Nicobar Islands	0.25	0.00	0.00	93.55	28.91	10.99	78.32	16.57	4.83
Chandigarh - Chandigarh	7.61	1.18	0.20	91.20	42.21	22.45	61.88	16.22	5.59
Dadra & Nagar Haveli - Dadra & Nagar Hav	16.46	3.00	0.74	97.32	24.66	10.07	82.06	17.86	5.47
Daman & Diu - Daman & Diu	0.00	0.00	0.00	88.86	26.67	11.31	60.42	11.40	3.11
Delhi - Delhi	0.72	0.03	0.00	98.91	49.49	27.61	87.29	28.20	10.99
Lakshadweep - Lakshadweep	0.00	0.00	0.00	94.26	28.09	12.17	43.73	8.05	2.29
Pondicherry - Pondicherry	11.47	2.14	0.64	89.99	29.96	12.68	77.77	21.09	7.50
All-India	26.70	5.26	1.55	79.30	22.03	8.40	74.08	17.87	5.91

Note: Estimates of consumer expenditure deprivation are with reference to the respective state-specific and all-India poverty lines for 1999/2000.

(Contd.)

Table 4: Estimates of Rural Deprivation (%): Regions and All-India: 1999/2000

Region	Consumer Expenditure			Cereal Consumption (Norm II)			Calorie Intake (Norm II)		
	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)
Andhra Pradesh - Coastal	7.13	1.19	0.37	50.82	10.54	4.09	53.85	9.73	2.98
Andhra Pradesh - Inland Northern	9.29	1.12	0.21	61.55	12.77	3.73	69.32	14.41	4.07
Andhra Pradesh - South-Western	18.68	3.46	1.16	63.07	12.74	4.30	69.87	14.41	4.73
Andhra Pradesh - Inland-Southern	24.30	6.10	2.22	56.71	14.25	5.31	67.12	17.27	6.53
Arunachal Pradesh - Arunachal Pradesh	100.00			43.90	12.99	6.03	51.64	13.44	5.39
Assam - Plains Eastern	34.92	6.51	1.94	59.79	10.81	2.93	71.28	13.98	3.89
Assam - Plains Western	42.93	9.68	3.21	56.14	10.72	3.23	69.93	14.77	4.52
Assam - Hills	53.95	10.43	2.83	62.31	11.35	3.12	80.01	18.68	5.70
Bihar - Southern	49.94	10.29	3.10	45.89	9.39	3.02	61.16	12.41	3.66
Bihar - Northern	40.00	7.71	2.15	47.07	9.01	2.68	55.82	10.44	2.84
Bihar - Central	45.85	9.21	2.72	43.96	8.70	2.62	51.09	9.61	2.71
Goa	0.00	0.00	0.00	79.00	18.40	6.03	55.25	9.46	2.34
Gujarat - Eastern	25.61	4.47	1.15	79.62	23.32	8.86	72.25	15.49	4.47
Gujarat - Plains Northern	8.92	1.24	0.27	86.89	27.72	10.80	66.36	13.65	3.84
Gujarat - Plains Southern	13.53	2.81	0.82	76.83	28.58	13.64	70.17	16.28	5.41
Gujarat - Dry Areas	12.02	2.68	0.87	82.89	26.29	11.06	63.79	14.58	4.70
Gujarat - Saurashtra	3.85	0.61	0.16	79.54	20.80	7.15	52.17	8.69	2.21
Haryana - Eastern	6.09	0.99	0.28	72.69	18.61	6.23	37.23	5.71	1.32
Haryana - Western	9.74	1.75	0.52	72.46	19.13	6.58	40.38	7.28	1.99
Himachal Pradesh - Himachal Pradesh	7.80	1.05	0.24	53.00	9.67	2.85	33.99	4.23	0.85
Jammu & Kashmir - Mountainous	8.66	1.42	0.34	53.11	8.36	2.02	31.87	4.54	0.96
Jammu & Kashmir - Outer Hills	5.32	0.49	0.07	23.56	5.13	1.58	16.17	2.05	0.43
Jammu & Kashmir - Jhelam Valley	0.69	0.08	0.01	31.03	4.15	1.16	26.11	2.79	0.50
Karnataka - Coastal & Ghats	3.85	0.85	0.22	69.37	16.37	5.31	53.75	9.68	2.54
Karnataka - Inland Eastern	3.35	0.42	0.10	79.81	15.83	4.50	61.45	9.70	2.22
Karnataka - Inland Southern	10.73	1.65	0.40	68.71	17.26	6.32	61.76	13.99	4.57
Karnataka - Inland Northern	25.13	4.11	1.05	71.83	20.98	8.76	64.65	16.49	5.73
Kerala - Northern	14.96	2.26	0.55	84.96	25.07	9.49	75.03	18.52	6.15
Kerala - Southern	5.44	0.89	0.24	71.25	18.76	6.78	54.85	11.39	3.45
Madhya Pradesh - Chattisgarh	45.91	9.64	2.83	49.03	9.70	3.00	67.99	14.47	4.32
Madhya Pradesh - Vindhya	33.05	5.26	1.30	39.84	7.89	2.73	45.96	7.95	2.13
Madhya Pradesh - Central	35.70	7.87	2.48	59.64	15.99	5.86	57.77	14.35	4.95
Madhya Pradesh - Malwa	25.83	5.86	2.05	69.77	15.24	5.45	63.25	13.03	4.05
Madhya Pradesh - South	50.68	11.92	3.95	58.94	12.77	4.02	68.29	15.19	4.65
Madhya Pradesh - South Western	39.54	7.80	2.29	73.53	16.22	5.01	74.02	15.57	4.49
Madhya Pradesh - Northern	19.88	3.03	0.70	52.47	10.74	3.30	44.80	7.90	2.04
Maharashtra - Coastal	18.35	4.33	1.56	74.15	16.90	5.21	70.46	14.46	4.12
Maharashtra - Inland Western	10.67	1.67	0.41	83.36	19.97	6.37	65.16	11.81	3.02
Maharashtra - Inland Northern	31.76	6.23	1.86	85.01	23.66	8.77	70.09	16.76	5.33
Maharashtra - Inland Central	24.32	4.82	1.51	51.38	10.21	4.12	48.64	8.26	2.53
Maharashtra - Inland Eastern	31.71	5.86	1.65	73.63	18.97	7.27	61.88	14.73	4.90
Maharashtra - Eastern	42.12	7.07	1.89	65.61	14.57	4.75	74.48	16.18	4.91
Manipur - Plains	6.72	0.38	0.05	16.00	2.27	0.61	48.76	5.82	1.28

Manipur - Hills	23.44	3.67	0.87	17.17	1.67	0.23	55.13	5.76	0.93
Meghalaya - Meghalaya	5.94	0.54	0.08	74.72	11.51	2.72	82.49	14.73	3.53
Mizoran - Mizoran	2.81	0.23	0.03	56.90	10.32	2.96	53.53	10.04	2.87
Nagaland - Nagaland	0.20	0.03	0.01	28.36	3.96	1.07	38.94	5.15	1.12
Orissa - Coastal	31.78	5.76	1.55	24.31	4.07	1.35	44.58	6.99	1.75
Orissa - Southern	87.18	27.88	11.08	37.92	6.03	1.59	73.70	15.27	4.51
Orissa - Northern	49.82	11.34	3.61	30.55	5.01	1.54	57.47	10.40	2.84
Punjab - Northern	5.57	0.74	0.17	84.08	22.86	8.03	39.99	6.38	1.59
Punjab - Southern	6.54	0.87	0.19	81.72	21.34	7.09	43.07	6.95	1.68
Rajasthan - Western	10.34	1.44	0.34	35.27	6.56	1.88	28.32	4.46	1.17
Rajasthan - North-Eastern	11.40	1.63	0.41	43.42	7.81	2.31	32.84	4.38	0.96
Rajasthan - Southern	23.89	4.43	1.21	46.93	8.17	2.26	57.65	8.54	2.01
Rajasthan - South-Eastern	17.06	2.32	0.46	44.13	7.38	2.11	42.74	6.50	1.46
Sikkim - Sikkim	21.65	3.13	0.72	62.85	13.78	5.08	68.98	12.93	3.49
Tamil Nadu - Coastal Northern	31.43	7.04	2.42	83.00	24.53	9.64	79.09	22.55	8.44
Tamil Nadu - Coastal	12.80	2.13	0.50	63.30	16.82	6.11	60.09	14.37	4.68
Tamil Nadu - Southern	18.36	2.85	0.64	82.96	23.00	8.50	78.48	19.94	6.79
Tamil Nadu - Inland	12.92	2.03	0.48	81.73	23.63	9.08	74.72	18.49	6.13
Tripura - Tripura	16.57	2.58	0.64	50.98	7.19	1.72	63.63	10.58	2.61
Uttar Pradesh - Himalayan	15.51	2.14	0.45	45.81	9.61	2.89	33.99	5.11	1.20
Uttar Pradesh - Western	21.75	3.62	0.96	56.98	13.08	4.42	41.08	7.69	2.23
Uttar Pradesh - Central	42.13	8.61	2.49	35.10	6.31	1.95	41.65	6.48	1.76
Uttar Pradesh - Eastern	36.42	6.83	1.87	47.92	9.55	2.99	50.25	8.86	2.41
Uttar Pradesh - Southern	20.89	4.75	1.59	32.12	5.50	1.43	37.66	5.31	1.13
West Bengal - Himalayan	32.59	6.05	1.51	36.26	6.86	1.93	55.63	9.63	2.58
West Bengal - Eastern Plains	38.16	7.48	1.97	55.51	11.94	3.82	61.78	12.74	3.58
West Bengal - Central Plains	20.14	3.20	0.81	48.02	8.93	2.66	53.54	9.02	2.26
West Bengal - Western Plains	38.44	10.00	3.77	41.42	8.87	2.97	54.48	11.78	3.84
Andaman & Nicobar Islands	0.25	0.00	0.00	78.56	17.44	5.72	55.42	9.40	2.34
Chandigarh - Chandigarh	7.61	1.18	0.20	85.64	33.28	15.86	46.34	10.72	3.18
Dadra & Nagar Haveli - Dadra & Nagar Hav	16.46	3.00	0.74	64.84	14.06	6.18	60.11	10.24	2.84
Daman & Diu - Daman & Diu	0.00	0.00	0.00	70.30	15.95	6.99	38.58	5.74	1.46
Delhi - Delhi	0.72	0.03	0.00	95.32	40.39	20.16	74.50	20.47	6.86
Lakshadweep - Lakshadweep	0.00	0.00	0.00	67.91	17.02	7.72	22.50	4.44	1.13
Pondicherry - Pondicherry	11.47	2.14	0.64	76.20	19.82	7.42	62.36	14.06	4.39
All-India	26.7	5.26	1.55	56.73	13.07	4.51	55.66	11.08	3.27

Note: Estimates of consumer expenditure deprivation are with reference to the respective state-specific and all-India poverty lines for 1999/2000.

(Contd.)

Table 5: Estimates of Urban Deprivation (%): Regions and All-India: 1999/2000

Region	Consumer Expenditure			Cereal Consumption (Norm I)			Calorie Intake (Norm I)		
	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)
Andhra Pradesh - Coastal	29.09	5.44	1.56	63.38	14.41	5.71	55.96	10.54	3.10
Andhra Pradesh - Inland Northern	22.67	4.52	1.31	71.10	17.60	6.83	62.31	13.07	3.84
Andhra Pradesh - South-Western	41.98	10.92	3.95	79.91	19.65	7.06	74.55	17.92	5.97
Andhra Pradesh - Inland-Southern	32.89	7.04	2.42	68.50	17.68	7.01	66.02	14.39	4.51
Arunachal Pradesh - Arunachal Pradesh	4.92	2.71	1.98	47.78	14.34	6.94	44.09	11.43	4.57
Assam - Plains Eastern	9.72	2.31	0.74	62.95	14.51	5.37	61.00	13.95	4.30
Assam - Plains Western	6.45	1.09	0.24	45.73	9.27	3.71	50.81	9.20	2.34
Assam - Hills	4.30	0.41	0.06	36.99	5.35	0.97	54.89	8.46	1.92
Bihar - Southern	29.19	7.40	2.95	53.56	12.49	4.92	55.16	12.12	4.25
Bihar - Northern	40.62	7.78	2.05	45.15	8.66	2.52	50.19	10.55	2.90
Bihar - Central	32.71	5.51	1.37	44.41	7.99	2.91	48.43	7.44	1.81
Goa	6.20	1.37	0.39	77.95	23.24	8.81	50.24	10.58	3.10
Gujarat - Eastern	22.21	5.03	1.59	96.39	27.17	10.06	71.98	13.00	3.16
Gujarat - Plains Northern	14.09	2.43	0.69	94.99	36.33	16.74	66.66	13.41	3.85
Gujarat - Plains Southern	14.89	2.04	0.42	93.91	35.14	15.68	64.90	13.04	3.68
Gujarat - Dry Areas	19.94	3.43	1.17	90.30	25.98	11.09	58.99	10.35	3.01
Gujarat - Saurashtra	13.45	1.99	0.46	88.11	24.76	9.62	51.35	8.64	2.23
Haryana - Eastern	9.57	2.11	0.84	86.68	26.92	10.52	53.71	10.64	3.14
Haryana - Western	11.10	1.80	0.51	86.49	25.36	9.67	58.61	11.66	3.18
Himachal Pradesh - Himachal Pradesh	4.57	0.59	0.12	66.98	21.16	12.34	27.09	4.05	1.08
Jammu & Kashmir - Mountainous	2.37	0.11	0.01	58.50	10.13	2.92	26.32	3.21	0.61
Jammu & Kashmir - Outer Hills	0.00	0.00	0.00	31.37	7.39	2.72	16.96	1.81	0.25
Jammu & Kashmir - Jhelam Valley	0.54	0.07	0.01	32.85	4.65	1.09	32.44	3.52	0.61
Karnataka - Coastal & Ghats	33.80	8.52	2.59	78.10	24.28	11.50	64.61	16.89	6.23
Karnataka - Inland Eastern	22.50	3.76	0.86	63.70	13.00	4.05	57.59	8.40	1.84
Karnataka - Inland Southern	11.92	1.74	0.39	77.73	22.77	9.09	57.47	10.96	3.13
Karnataka - Inland Northern	42.08	11.08	4.02	76.21	23.25	9.87	65.58	15.37	5.01
Kerala - Northern	30.04	6.11	1.83	87.37	26.06	10.38	75.27	18.65	6.36
Kerala - Southern	12.94	2.41	0.67	79.09	22.92	10.10	54.96	11.74	3.80
Madhya Pradesh - Chattisgarh	33.55	7.60	2.41	52.02	10.96	3.70	53.34	9.73	2.73
Madhya Pradesh - Vindhya	42.86	11.52	4.02	47.56	8.22	2.21	47.57	8.41	2.29
Madhya Pradesh - Central	32.89	6.68	2.01	83.37	24.23	9.14	71.54	15.18	4.45
Madhya Pradesh - Malwa	29.41	6.96	2.27	78.10	22.42	9.28	59.95	12.91	4.10
Madhya Pradesh - South	38.18	10.27	3.88	65.33	13.27	4.17	62.03	12.16	3.61
Madhya Pradesh - South Western	35.66	8.42	2.99	78.09	19.06	6.98	63.24	12.74	3.88
Madhya Pradesh - Northern	36.62	9.14	3.13	70.17	16.55	5.64	55.32	10.14	2.79
Maharashtra - Coastal	10.78	1.59	0.40	89.64	29.80	12.99	63.36	12.14	3.36
Maharashtra - Inland Western	27.67	6.17	2.01	87.36	26.15	10.49	60.85	12.05	3.41
Maharashtra - Inland Northern	40.49	12.38	4.95	93.11	29.79	12.35	67.90	14.20	4.67
Maharashtra - Inland Central	54.27	14.42	5.13	63.78	15.80	6.34	56.44	11.33	3.22
Maharashtra - Inland Eastern	51.20	15.65	6.10	80.48	21.89	7.91	65.38	15.51	4.90
Maharashtra - Eastern	28.04	8.38	3.32	65.72	16.98	6.59	48.67	11.10	3.81
Manipur - Plains	0.52	0.02	0.00	10.89	1.51	0.40	35.14	3.51	0.59
Manipur - Hills	0.64	0.01	0.00	15.88	1.30	0.20	24.83	3.24	0.60
Meghalaya - Meghalaya	0.00	0.00	0.00	73.43	15.19	6.17	67.16	10.36	2.21

Mizoran - Mizoran	0.00	0.00	0.00	45.25	7.72	2.24	43.15	7.72	2.02
Nagaland - Nagaland	0.00	0.00	0.00	44.08	8.69	3.26	53.72	9.87	2.70
Orissa - Coastal	41.27	10.81	3.85	35.08	7.85	3.63	42.48	6.99	2.06
Orissa - Southern	43.97	13.19	5.10	28.23	3.22	1.10	36.92	5.48	1.25
Orissa - Northern	45.77	10.52	3.53	28.74	4.31	1.55	42.68	6.36	1.36
Punjab - Northern	3.98	0.49	0.11	90.53	28.57	11.56	53.59	9.76	2.58
Punjab - Southern	8.32	0.90	0.17	81.03	25.31	10.09	48.69	9.04	2.43
Rajasthan - Western	16.79	3.11	0.93	50.55	11.23	3.75	33.00	5.53	1.57
Rajasthan - North-Eastern	20.85	3.61	0.89	66.47	16.32	5.96	51.72	7.88	1.85
Rajasthan - Southern	8.75	0.93	0.12	69.88	16.35	5.79	42.43	7.51	2.00
Rajasthan - South-Eastern	30.13	5.72	1.57	71.33	16.96	5.98	63.28	10.79	2.70
Sikkim - Sikkim	4.86	0.69	0.13	68.11	17.35	8.19	66.80	11.18	2.84
Tamil Nadu - Coastal Northern	20.26	4.90	1.68	83.87	26.87	11.71	64.63	15.21	5.22
Tamil Nadu - Coastal	23.94	4.28	1.20	75.55	20.39	8.33	57.81	11.23	3.26
Tamil Nadu - Southern	26.69	5.80	1.85	81.83	24.13	9.73	70.30	16.07	5.42
Tamil Nadu - Inland	21.76	3.70	1.10	87.20	26.40	10.86	73.05	15.99	5.10
Tripura - Tripura	2.13	0.29	0.06	29.34	4.00	1.04	46.68	6.27	1.20
Uttar Pradesh - Himalayan	14.04	3.23	1.03	51.15	11.84	5.54	27.22	5.17	2.05
Uttar Pradesh - Western	30.24	6.01	1.75	74.65	18.93	6.83	57.25	11.09	3.05
Uttar Pradesh - Central	33.45	8.03	2.53	76.27	22.29	9.17	62.23	14.95	5.46
Uttar Pradesh - Eastern	31.07	6.25	1.83	56.79	13.31	4.72	53.25	10.08	2.90
Uttar Pradesh - Southern	40.89	9.20	3.25	64.90	15.76	5.55	57.25	13.01	3.79
West Bengal - Himalayan	20.27	4.47	1.39	59.44	14.64	5.25	59.22	11.51	3.83
West Bengal - Eastern Plains	28.47	6.08	1.93	58.23	11.38	4.23	55.87	10.22	2.99
West Bengal - Central Plains	11.39	1.77	0.45	67.39	17.26	6.64	59.53	11.30	3.20
West Bengal - Western Plains	21.77	2.99	0.63	46.30	12.68	5.79	45.18	9.57	3.06
Andaman & Nicobar Islands	0.54	0.14	0.03	77.52	19.90	7.44	58.06	10.19	2.63
Chandigarh - Chandigarh	3.04	0.68	0.19	90.44	31.05	13.71	44.52	8.81	2.67
Dadra & Nagar Haveli - Dadra & Nagar Hav	12.29	1.98	0.38	67.18	19.87	10.18	32.01	6.81	1.97
Daman & Diu - Daman & Diu	10.82	1.71	0.43	83.46	20.32	7.17	45.37	7.67	2.00
Delhi - Delhi	9.31	1.55	0.36	89.57	31.67	13.77	57.16	11.36	3.12
Lakshadweep - Lakshadweep	3.30	0.29	0.05	69.42	16.63	6.29	34.63	5.24	1.53
Pondicherry - Pondicherry	22.35	6.22	2.34	84.16	24.80	10.33	66.27	13.83	4.18
All-India	23.46	5.16	1.65	73.61	20.82	8.4	58.12	11.7	3.49

Note: Estimates of consumer expenditure deprivation are with reference to the respective state-specific and all-India poverty lines for 1999/2000.

(Contd.)

Table 6: Estimates of Urban Deprivation (%): Regions and All-India: 1999/2000

Region	Consumer Expenditure			Cereal Consumption (Norm II)			Calorie Intake (Norm II)		
	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)	P ₀ (%)	P ₁ (%)	P ₂ (%)
Andhra Pradesh - Coastal	29.09	5.44	1.56	44.46	9.87	4.18	51.46	9.06	2.63
Andhra Pradesh - Inland Northern	22.67	4.52	1.31	53.99	12.48	4.86	57.96	11.45	3.25
Andhra Pradesh - South-Western	41.98	10.92	3.95	62.86	13.63	4.75	71.22	16.02	5.20
Andhra Pradesh - Inland-Southern	32.89	7.04	2.42	60.25	12.28	5.08	62.85	12.66	3.88
Arunachal Pradesh - Arunachal Pradesh	4.92	2.71	1.98	39.67	10.99	5.56	39.19	10.39	4.13
Assam - Plains Eastern	9.72	2.31	0.74	48.47	9.80	3.74	58.59	12.37	3.67
Assam - Plains Western	6.45	1.09	0.24	27.61	6.18	2.76	47.23	7.81	1.91
Assam - Hills	4.30	0.41	0.06	25.45	2.33	0.29	48.98	6.93	1.51
Bihar - Southern	29.19	7.40	2.95	35.39	8.86	3.55	50.31	10.71	3.75
Bihar - Northern	40.62	7.78	2.05	30.70	5.20	1.47	48.05	9.24	2.40
Bihar - Central	32.71	5.51	1.37	26.98	4.88	2.07	41.54	6.16	1.46
Goa	6.20	1.37	0.39	66.79	17.41	6.03	47.56	9.26	2.62
Gujarat - Eastern	22.21	5.03	1.59	88.94	19.68	6.82	69.04	11.01	2.54
Gujarat - Plains Northern	14.09	2.43	0.69	90.87	29.87	12.78	61.33	11.66	3.24
Gujarat - Plains Southern	14.89	2.04	0.42	88.85	28.68	11.75	60.37	11.31	3.08
Gujarat - Dry Areas	19.94	3.43	1.17	70.63	19.53	8.27	50.13	8.79	2.55
Gujarat - Saurashtra	13.45	1.99	0.46	71.28	18.33	6.74	46.12	7.25	1.83
Haryana - Eastern	9.57	2.11	0.84	73.70	20.72	7.31	50.81	9.20	2.66
Haryana - Western	11.10	1.80	0.51	73.85	19.22	6.63	54.66	10.12	2.64
Himachal Pradesh - Himachal Pradesh	4.57	0.59	0.12	50.47	16.85	10.74	22.52	3.35	0.89
Jammu & Kashmir - Mountainous	2.37	0.11	0.01	36.79	5.60	1.74	20.68	2.53	0.45
Jammu & Kashmir - Outer Hills	0.00	0.00	0.00	23.05	5.05	1.89	12.32	1.32	0.15
Jammu & Kashmir - Jhelam Valley	0.54	0.07	0.01	16.49	2.32	0.53	25.88	2.63	0.44
Karnataka - Coastal & Ghats	33.80	8.52	2.59	64.63	18.89	9.06	62.14	15.29	5.54
Karnataka - Inland Eastern	22.50	3.76	0.86	43.77	8.19	2.48	49.44	6.81	1.44
Karnataka - Inland Southern	11.92	1.74	0.39	67.35	17.04	6.48	51.99	9.44	2.64
Karnataka - Inland Northern	42.08	11.08	4.02	64.56	17.84	7.30	60.37	13.74	4.34
Kerala - Northern	30.04	6.11	1.83	73.35	19.87	7.34	72.13	16.75	5.56
Kerala - Southern	12.94	2.41	0.67	63.00	17.28	7.69	50.59	10.33	3.29
Madhya Pradesh - Chattisgarh	33.55	7.60	2.41	37.19	7.11	2.42	48.21	8.32	2.29
Madhya Pradesh - Vindhya	42.86	11.52	4.02	31.55	4.65	1.20	43.57	7.11	1.91
Madhya Pradesh - Central	32.89	6.68	2.01	70.43	18.03	6.23	67.16	13.34	3.77
Madhya Pradesh - Malwa	29.41	6.96	2.27	64.62	16.88	6.79	56.76	11.33	3.54
Madhya Pradesh - South	38.18	10.27	3.88	46.26	8.50	2.57	56.09	10.55	3.07
Madhya Pradesh - South Western	35.66	8.42	2.99	56.73	13.30	4.78	56.41	11.12	3.32
Madhya Pradesh - Northern	36.62	9.14	3.13	54.40	11.24	3.65	47.73	8.71	2.32
Maharashtra - Coastal	10.78	1.59	0.40	80.77	23.42	9.69	57.72	10.48	2.80
Maharashtra - Inland Western	27.67	6.17	2.01	75.62	19.79	7.47	56.11	10.44	2.86
Maharashtra - Inland Northern	40.49	12.38	4.95	81.89	23.12	8.94	61.16	12.46	4.07
Maharashtra - Inland Central	54.27	14.42	5.13	48.61	11.00	4.64	51.13	9.88	2.70
Maharashtra - Inland Eastern	51.20	15.65	6.10	67.99	15.83	5.26	61.73	13.85	4.21
Maharashtra - Eastern	28.04	8.38	3.32	49.42	12.20	4.67	44.58	9.90	3.34
Manipur - Plains	0.52	0.02	0.00	5.77	0.76	0.24	26.86	2.54	0.42
Manipur - Hills	0.64	0.01	0.00	7.19	0.44	0.05	22.91	2.51	0.44
Meghalaya - Meghalaya	0.00	0.00	0.00	50.75	9.93	4.65	62.13	8.50	1.71

Mizoran - Mizoran	0.00	0.00	0.00	27.91	4.59	1.31	38.76	6.59	1.66
Nagaland - Nagaland	0.00	0.00	0.00	29.42	5.53	2.36	46.30	8.47	2.25
Orissa - Coastal	41.27	10.81	3.85	22.38	5.46	2.92	38.55	5.81	1.76
Orissa - Southern	43.97	13.19	5.10	9.59	1.77	0.81	31.05	4.54	0.99
Orissa - Northern	45.77	10.52	3.53	15.13	2.45	1.12	38.77	5.18	1.05
Punjab - Northern	3.98	0.49	0.11	81.54	21.89	8.26	47.67	8.35	2.13
Punjab - Southern	8.32	0.90	0.17	72.95	19.36	7.13	44.29	7.76	2.02
Rajasthan - Western	16.79	3.11	0.93	38.34	7.52	2.40	27.59	4.67	1.32
Rajasthan - North-Eastern	20.85	3.61	0.89	51.44	11.50	4.05	44.96	6.48	1.47
Rajasthan - Southern	8.75	0.93	0.12	50.60	11.23	3.87	37.51	6.41	1.65
Rajasthan - South-Eastern	30.13	5.72	1.57	54.56	11.61	3.99	56.36	9.12	2.19
Sikkim - Sikkim	4.86	0.69	0.13	47.35	12.54	6.58	61.58	9.35	2.32
Tamil Nadu - Coastal Northern	20.26	4.90	1.68	74.15	20.89	8.77	59.41	13.59	4.58
Tamil Nadu - Coastal	23.94	4.28	1.20	60.96	14.82	6.09	54.10	9.69	2.76
Tamil Nadu - Southern	26.69	5.80	1.85	70.16	18.06	6.98	65.23	14.28	4.74
Tamil Nadu - Inland	21.76	3.70	1.10	77.12	19.94	7.89	68.04	14.10	4.41
Tripura - Tripura	2.13	0.29	0.06	14.79	1.97	0.59	42.56	4.96	0.89
Uttar Pradesh - Himalayan	14.04	3.23	1.03	31.11	8.42	4.45	24.35	4.47	1.86
Uttar Pradesh - Western	30.24	6.01	1.75	60.17	13.24	4.60	52.59	9.57	2.54
Uttar Pradesh - Central	33.45	8.03	2.53	64.64	16.76	6.67	55.23	13.45	4.85
Uttar Pradesh - Eastern	31.07	6.25	1.83	41.25	9.15	3.16	47.30	8.69	2.44
Uttar Pradesh - Southern	40.89	9.20	3.25	49.90	10.97	3.67	52.94	11.56	3.20
West Bengal - Himalayan	20.27	4.47	1.39	48.78	10.10	3.54	50.75	10.01	3.34
West Bengal - Eastern Plains	28.47	6.08	1.93	34.56	7.37	3.02	50.66	8.74	2.53
West Bengal - Central Plains	11.39	1.77	0.45	53.05	12.31	4.68	54.39	9.72	2.69
West Bengal - Western Plains	21.77	2.99	0.63	34.98	9.40	4.53	40.53	8.41	2.64
Andaman & Nicobar Islands	0.54	0.14	0.03	63.15	13.99	5.14	53.15	8.65	2.15
Chandigarh - Chandigarh	3.04	0.68	0.19	82.41	24.69	10.28	40.29	7.64	2.28
Dadra & Nagar Haveli - Dadra & Nagar Hav	12.29	1.98	0.38	50.10	15.84	8.34	31.54	5.95	1.66
Daman & Diu - Daman & Diu	10.82	1.71	0.43	65.35	13.89	4.78	39.55	6.48	1.65
Delhi - Delhi	9.31	1.55	0.36	83.43	25.36	10.20	52.71	9.86	2.59
Lakshadweep - Lakshadweep	3.30	0.29	0.05	53.78	11.44	4.42	28.23	4.32	1.30
Pondicherry - Pondicherry	22.35	6.22	2.34	71.61	18.61	7.58	62.22	12.08	3.57
All-India	23.46	5.16	1.65	60.51	15.49	6.05	53.12	10.18	2.97

Note: Estimates of consumer expenditure deprivation are with reference to the respective state-specific and all-India poverty lines for 1999/2000.

Table 7: Rank Correlation Matrix

	Correlation between incidence of poverty (P₀) and Cereal deprivation (norm I)			Correlation between incidence of poverty and Cereal deprivation (Norm II)		
	Incidence (P₀)	Depth (P₁)	Severity (P₂)	Incidence (P₀)	Depth (P₁)	Severity (P₂)
Region rural	-0.3584*	-0.2958*	-0.2675**	-0.3335*	-0.2637**	-0.2241**
Region urban	0.0519	0.0351	0.0066	0.0540	0.0268	-0.0003
	Correlation between incidence of poverty and Calorie deprivation (Norm I)			Correlation between incidence of poverty and Calorie deprivation (Norm II)		
	Incidence (P₀)	Depth (P₁)	Severity (P₂)	Incidence (P₀)	Depth (P₁)	Severity (P₂)
Region rural	0.3258*	0.3904*	0.4228*	0.3630*	0.4007*	0.4164*
Region urban	0.3649*	0.4472*	0.4629*	0.3778*	0.4614*	0.4643*

* p-value less than 0.01

**p-value less than 0.05

Table 8: Proportion of Food Insecure People as per Calorie Equivalent Intake (%): Regions and All-India: 1999/2000

Region	Rural		Urban	
	Norm I	Norm II	Norm I	Norm II
Andhra Pradesh - Coastal	41.05	21.23	24.31	19.58
Andhra Pradesh - Inland Northern	56.02	35.84	35.27	30.35
Andhra Pradesh - South-Western	55.57	34.33	46.78	42.36
Andhra Pradesh - Inland-Southern	55.81	37.15	32.03	29.05
Arunachal Pradesh - Arunachal Pradesh	43.73	29.53	27.56	26.34
Assam - Plains Eastern	60.60	35.32	39.10	35.59
Assam - Plains Western	58.36	35.23	23.11	19.20
Assam - Hills	73.04	53.73	25.05	20.05
Bihar - Southern	50.21	28.65	27.53	23.76
Bihar - Northern	43.94	22.37	25.03	20.74
Bihar - Central	38.64	21.91	16.35	13.70
Goa	44.97	26.36	23.01	19.35
Gujarat - Eastern	60.41	38.27	34.99	26.12
Gujarat - Plains Northern	56.01	36.00	34.47	29.43
Gujarat - Plains Southern	56.11	40.55	33.93	29.21
Gujarat - Dry Areas	52.39	33.25	22.81	17.68
Gujarat - Saurashtra	38.57	17.45	15.53	12.86
Haryana - Eastern	27.62	11.06	27.33	22.29
Haryana - Western	31.39	15.05	27.61	21.72
Himachal Pradesh - Himachal Pradesh	21.77	6.76	7.22	6.24
Jammu & Kashmir - Mountainous	21.76	9.58	5.17	3.03
Jammu & Kashmir - Outer Hills	12.58	3.66	2.55	2.55
Jammu & Kashmir - Jhelam Valley	17.65	3.62	7.48	5.35
Karnataka - Coastal & Ghats	38.32	21.35	36.37	35.55
Karnataka - Inland Eastern	48.86	24.45	17.79	15.97
Karnataka - Inland Southern	51.71	33.69	27.42	23.90
Karnataka - Inland Northern	53.92	36.46	37.67	34.37
Kerala - Northern	62.48	45.37	41.05	37.11
Kerala - Southern	41.24	24.01	24.33	21.27
Madhya Pradesh - Chattisgarh	55.29	33.10	22.00	18.69
Madhya Pradesh - Vindhya	33.46	17.62	19.40	14.84
Madhya Pradesh - Central	49.31	31.95	41.71	37.80
Madhya Pradesh - Malwa	44.71	30.14	28.80	24.80
Madhya Pradesh - South	56.19	37.76	32.11	25.82
Madhya Pradesh - South Western	62.86	38.24	29.82	24.29
Madhya Pradesh - Northern	35.11	18.91	25.77	22.17
Maharashtra - Coastal	57.02	33.40	30.83	26.25
Maharashtra - Inland Western	51.52	27.78	28.41	25.79
Maharashtra - Inland Northern	60.14	41.10	33.08	27.10
Maharashtra - Inland Central	35.30	16.14	27.23	21.51
Maharashtra - Inland Eastern	53.16	33.42	39.68	36.57
Maharashtra - Eastern	56.86	39.37	26.31	23.54
Manipur - Plains	30.44	9.61	5.63	4.32
Manipur - Hills	36.32	6.91	2.88	2.88
Meghalaya - Meghalaya	69.69	34.57	22.99	14.44
Mizoran -Mizoran	44.47	25.48	18.58	15.88
Nagaland - Nagaland	31.35	11.14	28.64	24.65
Orissa - Coastal	29.84	14.61	12.67	10.24
Orissa - Southern	60.00	35.10	11.32	8.25
Orissa - Northern	41.49	22.37	13.90	10.86

Punjab - Northern	26.83	13.11	25.56	21.05
Punjab - Southern	30.99	16.00	24.23	20.80
Rajasthan - Western	16.94	7.34	11.20	10.00
Rajasthan - North-Eastern	19.32	7.29	17.38	12.75
Rajasthan - Southern	36.57	15.88	15.63	14.09
Rajasthan - South-Eastern	29.94	13.95	23.74	20.16
Sikkim - Sikkim	57.95	32.74	29.12	25.72
Tamil Nadu - Coastal Northern	70.66	55.20	34.78	30.77
Tamil Nadu - Coastal	50.55	34.17	24.56	21.91
Tamil Nadu - Southern	65.95	49.01	38.39	33.02
Tamil Nadu - Inland	65.52	47.29	39.15	36.15
Tripura - Tripura	52.66	27.24	15.80	12.51
Uttar Pradesh - Himalayan	22.06	9.68	11.86	10.07
Uttar Pradesh - Western	29.82	16.42	27.08	22.39
Uttar Pradesh - Central	25.85	12.74	34.78	32.10
Uttar Pradesh - Eastern	34.91	17.20	23.27	19.85
Uttar Pradesh - Southern	21.39	8.59	34.83	29.63
West Bengal - Himalayan	43.73	20.79	25.99	23.59
West Bengal - Eastern Plains	51.62	28.16	26.30	22.35
West Bengal - Central Plains	42.00	20.18	28.87	23.92
West Bengal - Western Plains	44.78	26.93	24.62	17.52
Andaman & Nicobar Islands	45.27	20.87	23.94	17.18
Chandigarh - Chandigarh	40.76	27.86	19.51	16.50
Dadra & Nagar Haveli - Dadra & Nagar Hav	42.62	18.52	20.77	17.87
Daman & Diu - Daman & Diu	28.91	13.34	17.89	12.02
Delhi - Delhi	71.67	56.27	28.11	23.68
Lakshadweep - Lakshadweep	17.27	10.44	7.65	6.59
Pondicherry - Pondicherry	52.34	33.20	32.34	26.95
All-India	43.28	25.04	28.19	24.18

(Contd.)

Table 9: Rank Correlation Matrix

	Correlation between incidence of poverty and Calorie equivalent deprivation	
	Norm I	Norm II
Region rural	0.3365*	0.3491*
Region urban	0.3913*	0.3997*

* p-value less than 0.01

Table 10: Percentage of People that Are Food Insecure as per the Calorie Equivalent Intake Norm I & II by Population Type – All India 1999/2000

Population type	Norm I		Norm II	
	Rural	Urban	Rural	Urban
Non-poor	31.34	19.02	14.75	15.56
Poor	75.57	58.10	52.87	52.28
Total	43.28	28.19	25.04	24.18

Source: NSS Unit record data

Table 11: Percentage of People that Are Food Insecure as per the Calorie Equivalent Intake Norm I & II by Population Type – Region Wise 1999/2000

Region	Norm I				Norm II			
	Rural		Urban		Rural		Urban	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
Andhra Pradesh - Coastal	37.15	91.87	12.75	52.52	16.90	77.52	9.54	44.07
Andhra Pradesh - Inland Northern	52.30	92.33	26.94	63.70	30.63	86.78	22.15	58.33
Andhra Pradesh - South-Western	46.21	96.33	22.16	80.80	22.05	87.76	18.00	76.03
Andhra Pradesh - Inland-Southern	43.21	95.09	18.20	60.22	21.56	85.72	17.53	52.56
Arunachal Pradesh - Arunachal Pradesh	-	43.73	26.28	52.28	-	29.53	25.00	52.28
Assam – Plains Eastern	46.23	87.39	33.07	95.18	19.89	64.08	29.18	95.18
Assam - Plains Western	36.69	87.17	20.53	60.58	13.99	63.47	17.20	48.21
Assam - Hills	47.36	94.95	22.78	75.58	18.14	84.11	17.55	75.58
Bihar - Southern	24.15	76.33	11.27	66.96	9.91	47.43	8.19	61.55
Bihar - Northern	24.04	73.78	9.33	47.99	7.54	44.63	5.12	43.58
Bihar - Central	17.13	64.05	7.14	35.32	4.98	41.91	4.97	31.67
Goa	44.97	-	19.20	80.66	26.36	-	15.76	73.53
Gujarat - Eastern	51.54	86.21	22.67	78.17	27.47	69.65	15.05	64.92
Gujarat - Plains Northern	52.05	96.47	25.30	90.38	31.49	82.00	20.17	85.88
Gujarat - Plains Southern	53.36	73.68	26.54	76.12	37.93	57.24	21.13	75.40
Gujarat - Dry Areas	46.45	95.85	11.96	66.39	24.80	95.09	5.93	64.84
Gujarat - Saurashtra	36.18	98.25	11.07	44.28	14.87	81.78	9.46	34.73
Haryana - Eastern	23.84	85.81	19.81	98.38	8.18	55.52	14.86	92.57
Haryana - Western	25.67	84.34	20.11	87.71	9.77	63.94	14.13	82.53
Himachal Pradesh - Himachal Pradesh	17.51	72.05	4.78	58.01	4.60	32.31	3.76	58.01
Jammu & Kashmir - Mountainous	16.38	78.53	4.30	40.96	4.96	58.36	3.06	1.62
Jammu & Kashmir - Outer Hills	10.93	41.86	2.55	-	3.09	13.75	2.55	-
Jammu & Kashmir - Jhelam Valley	17.26	73.45	6.98	100.00	3.47	24.65	4.84	100.00
Karnataka - Coastal & Ghats	36.14	92.84	13.68	80.79	19.06	78.66	13.32	79.09
Karnataka - Inland Eastern	47.09	100.00	9.13	47.63	22.16	90.39	8.04	43.30
Karnataka - Inland Southern	46.73	93.08	21.81	68.92	27.62	84.18	18.24	65.77
Karnataka - Inland Northern	41.16	91.95	17.14	65.91	24.61	71.77	14.84	61.24
Kerala - Northern	56.12	98.64	24.70	79.11	36.49	95.89	20.30	76.27
Kerala - Southern	38.49	89.15	16.64	76.04	20.92	77.80	14.24	68.53
Madhya Pradesh - Chattisgarh	32.74	81.85	12.04	41.75	14.25	55.30	8.89	38.10
Madhya Pradesh - Vindhya	18.71	63.34	6.21	37.00	5.95	41.26	3.76	29.62
Madhya Pradesh - Central	29.58	84.85	30.56	64.45	13.78	64.68	27.29	59.23
Madhya Pradesh - Malwa	30.38	85.85	16.34	58.71	15.35	72.62	13.14	52.78
Madhya Pradesh - South	34.98	76.83	16.82	56.87	15.26	59.65	12.67	47.10
Madhya Pradesh - South Western	47.47	86.39	15.49	55.67	22.41	62.45	11.70	47.00
Madhya Pradesh - Northern	24.30	78.66	12.31	49.08	10.15	54.21	10.36	42.62
Maharashtra - Coastal	48.21	96.23	25.22	77.26	21.57	86.04	21.08	69.02
Maharashtra - Inland Western	46.12	96.79	15.61	61.88	22.18	74.75	13.79	57.16
Maharashtra - Inland Northern	42.76	97.50	14.20	60.83	20.32	85.74	10.15	52.01
Maharashtra - Inland Central	24.77	68.10	8.70	42.85	7.67	42.52	5.96	34.61
Maharashtra - Inland Eastern	38.38	85.00	11.25	66.77	17.35	68.05	9.55	62.31

Maharashtra - Eastern	39.75	80.37	12.37	62.08	22.22	62.93	8.52	62.08
Manipur - Plains	28.12	62.66	5.34	60.00	6.54	52.20	4.02	60.00
Manipur - Hills	26.97	66.83	2.89	0.00	6.01	9.85	2.89	0.00
Meghalaya - Meghalaya	67.95	97.14	22.99	-	31.54	82.59	14.44	-
Mizoran -Mizoran	43.43	80.34	18.58	-	23.89	80.34	15.88	-
Nagaland - Nagaland	31.21	100.00	28.64	-	10.96	100.00	24.65	-
Orissa - Coastal	15.80	60.00	3.09	26.29	4.53	36.22	2.53	21.21
Orissa - Southern	18.57	66.09	2.39	22.71	3.50	39.74	0.85	17.68
Orissa - Northern	16.45	66.71	4.92	24.55	4.87	40.00	4.60	18.27
Punjab - Northern	23.18	88.69	23.16	83.59	10.14	63.51	18.79	75.71
Punjab - Southern	27.29	83.81	20.29	67.66	12.33	68.50	17.47	57.49
Rajasthan - Western	11.89	60.74	3.60	48.85	4.14	35.09	3.22	43.63
Rajasthan - North-Eastern	14.70	55.25	13.64	31.55	4.83	26.45	9.74	24.14
Rajasthan - Southern	29.31	59.70	11.59	57.74	10.04	34.48	9.90	57.74
Rajasthan - South-Eastern	18.71	84.54	12.58	49.61	7.45	45.53	8.91	46.23
Sikkim - Sikkim	52.29	78.41	26.26	85.26	25.80	57.86	22.77	83.41
Tamil Nadu - Coastal Northern	59.51	94.99	23.06	80.90	39.62	89.18	18.84	77.72
Tamil Nadu - Coastal	43.79	96.54	13.97	58.22	26.66	85.34	11.45	55.15
Tamil Nadu - Southern	59.11	96.36	26.65	70.67	39.34	92.00	21.11	65.73
Tamil Nadu - Inland	60.84	97.04	26.64	84.13	40.60	92.38	23.26	82.53
Tripura - Tripura	45.86	86.90	14.29	85.13	18.88	69.30	11.41	62.93
Uttar Pradesh - Himalayan	17.17	48.70	4.76	55.32	6.10	29.18	4.12	46.46
Uttar Pradesh - Western	19.69	66.26	14.98	54.98	8.52	44.86	11.32	47.93
Uttar Pradesh - Central	10.62	46.77	21.75	60.69	3.43	25.54	20.87	54.43
Uttar Pradesh - Eastern	19.13	62.47	11.97	48.33	6.63	35.64	9.03	43.87
Uttar Pradesh - Southern	17.96	34.40	18.77	58.05	8.52	8.85	15.20	50.48
West Bengal - Himalayan	28.86	74.50	11.74	82.06	8.95	45.28	11.09	72.74
West Bengal - Eastern Plains	32.65	82.35	12.84	60.12	8.51	59.99	10.33	52.55
West Bengal - Central Plains	32.21	80.79	24.22	65.04	12.88	49.10	19.74	56.45
West Bengal - Western Plains	25.71	75.33	16.83	52.62	8.85	55.88	11.33	39.77
Andaman & Nicobar Islands	45.13	100.00	23.52	100.00	20.67	100.00	16.73	100.00
Chandigarh - Chandigarh	35.88	100.00	17.27	90.99	21.92	100.00	14.19	90.07
Dadra & Nagar Haveli - Dadra & Nagar Hav	36.29	74.69	17.87	41.47	12.14	50.87	16.07	30.74
Daman & Diu - Daman & Diu	28.91	-	11.48	70.76	13.34	-	8.24	43.22
Delhi - Delhi	71.46	100.00	23.38	74.21	55.95	100.00	18.98	69.45
Lakshadweep - Lakshadweep	17.27	-	7.56	10.22	10.44	-	6.47	10.22
Pondicherry - Pondicherry	46.25	99.34	21.37	70.44	25.78	90.46	15.83	65.60
Total	32.05	74.29	18.50	59.28	15.29	51.94	15.06	53.44

Source: NSS Unit record data