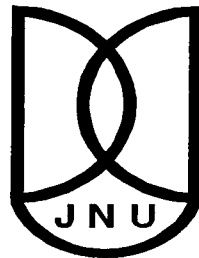


**MEASUREMENT OF THE COST OF LIVING
AND
INCIDENCE OF POVERTY IN INDIA**

**Dissertation submitted to the Jawaharlal Nehru University
in partial fulfillment of the requirements
for the award of the degree of**

MASTER OF PHILOSOPHY

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Certificate


I, Arun Kumar hereby certify that the dissertation entitled "MEASUREMENT OF THE COST OF LIVING AND INCIDENCE OF POVERTY IN INDIA" submitted by me in partial fulfillment of the requirement for award of the degree of Master of Philosophy of Jawaharlal Nehru University is my bonafide work and may be placed before the examiners for evaluation. The dissertation has not been submitted for any other degree of this university or other university.


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Abbreviations

ACRONYM	EXPANSION
APCTEP	Average Per Capita Total Expenditure of the Poor
CES	Consumer Expenditure Survey
CPI	Consumer Price Index
CPIAL	Consumer Price Index for Agricultural Labourers
CPIIW	Consumer Price Index for Industrial Workers
CPIMR	Consumer Price Index for Middle Rural Population
CPIMU	Consumer Price Index for Middle urban Population
CPITR	Consumer Price Index for Total Rural Population
CPITU	Consumer Price Index for Total Urban Population
CPI-UNME	Consumer Price Index for Urban Non-Manual Employees
CSO	Central Statistical Organization
GOI	Government of India
HCR	Head Count Ratio
MOSPI	Ministry of Statistics and Programme Implementation
MPCTE	Monthly Per Capita Total Expenditure
NAS	National Account Statistics
NSSO	National Sample Survey Organization
OPL	Official Poverty Line
SVIR	State- Specific Consumer Price Index Relative to All-India for the Rural Middle-Range Population
SVIU	State- Specific Consumer Price Index Relative to All-India for the Urban Middle-Range Population
WPI	Wholesale Price Index

ACRONYM

AP

HP

J and K

MP

UP

UT

EXPANSION

Andhra Pradesh

Himachal Pradesh

Jammu and Kashmir

Madhya Pradesh

Uttar Pradesh

Union Territory

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CHAPTER 1

INTRODUCTION

Poverty Line helps in dividing the whole population into two parts: poor and non-poor. Most of government's policies are aimed at reducing social inequalities in the population. Therefore, to judge and calculate population below the poverty line serves an important objective towards the policy above. How many persons are living below the poverty line can be measured by measuring the actual cost of living of the population. The cost of living theory can be analyzed by the expenditure consumption pattern and preferences of the people over the time. In this study, therefore we have attempted to measure actual cost of living.

As we know Planning Commission of India has been calculating the percentage and number of poor in the country since independence. They have used official method (implicit deflator). Although it has been moderating its method from time to time by through the recommendations of different committees, in order to ensure measure the number of people below the poverty line (Task Force Committee 1979; Expert Group Committee 1993). Many research scholars from time to time raised many doubts in the official methodology and suggested their own different methods to calculate the poverty line. Nevertheless, the Planning Commission still follows the above mentioned method.

In recent times Planning Commission estimates the percentage of population below the poverty line has decreased at all-India level as well as in both rural and urban areas in 1993-94 and 2004-05, respectively. One of the differences in the rural and urban population below the poverty line is that, it been has reduced from 4.9 percentage point to 2.6 percentage points. But, if we look these differences from poverty line (in MPCE) point of view we get reverse picture. In 1993-94 the poverty line in MPCE term for rural and urban sector was Rs.205.84 and 281.35, respectively. In 2004-05 it was Rs.356.30 and 538.60, respectively. The difference in rural and urban poverty line has increased from 36.68 percent in 1993-94 to 51.16 percent in 2004-05.

Presently, Planning Commission has been using Expert Group (1993) methodology to update the poverty line¹. The Expert Group methodology overcame the Task Force (1979) methodology, although the Expert Group accepted the poverty line as defined by the Task Force as base poverty line but set out different methodology to estimate poverty ratio by using Consumption Expenditure Survey (CES) data of the National Sample Survey Organization (NSSO) and state-specific poverty lines. Expert Group did not allow any adjustment factor for the National Account estimate of private expenditure survey as Task Force did. Using this methodology Planning Commission has been estimating and releasing poverty lines at state as well as sector-wise (rural and urban) since 1973-74².

In one of the pioneer studies was done by Minhas et. al. 1988 to measure the general cost of living for urban India³ and in 1990 for rural cost of living as well. This exercise shows the lacunae of Planning Commission methodology to update poverty line by using Consumer Price Index for Industrial Workers (CPIIW) and Consumer Price Index for Agricultural Labourers (CPIAL) for urban and rural sector and how their newly constructed cost of living indices for total rural (CPITR) and total urban (CPITU) population are superior to the existing indices. Lastly they calculate poverty ratios sector wise and state wise with the help of their indices for middle population CPIMR and CPIMU for rural and urban.

In this study we have Minhas et. al. (1988, 1990) methodology to construct the cost of living indices for middle population for the rural and urban areas and calculate the poverty line and poverty ratio for state level and all- India level for the year 1993-94 and 2004-05.

¹ Planning Commission accepted Expert Group methodology to estimate the poverty in India but with little modification in estimating poverty line in urban areas. To update urban poverty line Planning Commission allows Consumer Price Index for Industrial Workers (CPIIW) alone instead average of CPIIW and Consumer Price Index for Urban Non-Manual employees (CPI-UMNE). Expert Group also recommended for generating poverty line price indices should be used to 20 to 30 percent population around the poverty line but Government of India also turned down this recommendation.

² In the 50th round of NSSO CES reference period has changed from Uniform Recall Period (URP) to Mix Recall Period (MRP); therefore this year poverty estimate is not comparable with the previous estimate.

³ This methodology was suggested by Expert Group to estimate the urban poverty to the Planning Commission.

1.1 Objectives

The objective of this study is to examine the price differentials between the rural and urban areas in India and within the Indian states in the 50th and 61st round of NSSO, specifically, Compare the poverty line constructed with the help of Consumer Price Index for Middle Rural Population (CPIMR) and Consumer Price Index for Middle Urban Population (CPIMU) for the above mentioned periods with the poverty lines given by Planning Commission and those of other researchers which are used to update poverty line, and also compare the effect on incidence of poverty.

1.2 Hypotheses

1. H₀: Decrease in percentage of poverty has led to the increase in disparity in the rural and urban areas of India as well as within the Indian states between 1993-94 and 2004-05.
2. H₀: Use of latest weighting diagram will be able to capture more accurate poverty than the old weighting diagram.

1.3 Methodology

1.3.1 Data

For comparison of welfare, we have used unit record level data on CES. These data are collected by National Sample Survey Organization since 1972-73 on quinquennially basis. In this study we used 43rd, 50th and 61st rounds data pertaining to the years 1987-88, 1993-94 and 2004-05.

Labour Bureau, data on price indices (CPIAL and CPIIW) for the period of 1987-88, 1993-94 and 2004-05 also being used. The Labour Bureau publishes it on a monthly basis for four broad groups for CPIAL: Food Index, Fuel and Light Index, Clothing Bedding and Footwear Index, Miscellaneous Index and General Index, and for CPIIW: Food Index, Pan, Supari, Tobacco and Intoxicant Index, Fuel and Light Index, Housing Index, Clothing Bedding and Footwear Index, Miscellaneous Index and General Index⁴.

⁴ Labour Bureau publishes CPIAL & CPIIW data on the monthly basis in Indian Labour Journal. It publishes CPIAL data at the state level and CPIIW data at the Centre level.

Central Statistical Organization (CSO), data on Consumer Price Index for Urban non-manual employees (CPI-UNME) at centre level for the same period, which we got from MOSPI statistical wing at R. K. Puram Sector-1 New Delhi⁵.

1.3.2 Uses of Data

With the help of CES data we have constructed Weighting Diagram for the period 1987-88 for middle rural and urban population as a base. Then by using Labour Bureau CPIAL indices and middle rural population Weighting Diagram of 1987-88, we construct Consumer Price Index for Middle Rural Population (CPIMR) for the year 1993-94 and 2004-05.

Similarly, for the urban population we have used middle urban population Weighing Diagram for the period 1987-88 as a base and by combined average indices of CPIIW and CPI-UNME for the period of 1993-94 and 2004-05. With the help of these data we will construct Consumer Price Indices for Middle Urban population (CPIMU) for the period 1993-94 and 2004-05.

The purpose of using Weighting Diagram is to examine how it will impact the Consumer Price Indices (CPI) if we choose different base year.

And, lastly we will construct State-specific and all India poverty line by using CPIMR and CPIMU indices and 1987-88 poverty line as the base year poverty line.

1.4 Chapter Scheme

The study is divided into five chapters- first being the introductory and literature review. The second chapter is the 'Data Description' which discusses the availability of present indices in India and the limitation of these indices and problems associated with construction of new index. In chapter three 'Weighting Diagram and its role in calculation of General Index' is reported. Chapter four discusses the Incidence and the changes in poverty line. The chapter five summarizes findings of the study.

⁵ CSO also does survey for urban employees but it has different centres. From its new series it has 59 urban centres all over India.

1.5 Literature Review

Poverty can be defined as a situation in which a person or household is unable to fulfill even its basic necessities of life. The 'poverty line' is defined with reference to consumption of goods and services. In other words "all persons with less than a pre-specified minimum consumption" could be considered poor.

The notion of poverty could be assessed in two types:-

- (a) *Absolute measurement and*
- (b) *Relative measurement.*

Absolute measurement

Absolute measurement is understood as the minimum set of resources a person needs to survive. Absolute poverty is a matter of acute deprivation, hunger, premature death and suffering⁶.

Relative measurement

Relative measurement is a matter of social equity and is associated with the development of policies and the creation of mechanisms to compensate for more extreme differences in wealth, living conditions and opportunities (ibid).

In India, we have absolute measurement of poverty i.e. a fixed level of poverty line; if an individual is unable to cross this line then he/she is considered as a poor and vice-versa.

Since the initial stages of planning, Planning Commission has set up different working group committee in order to tackle the problem related to the issue to define minimum level of living, so that people below the poverty line more are accurately captured. Since, we do not have income data, so in order to calculate population below the poverty line every working committee or researcher uses people expenditure pattern. Different people have suggested different level of MPCE that an individual need to count

⁶ See S. Schwartzman, 1998, "The Statistical Measurement of Poverty", <http://www.ibge.org/poverty>.

as a poor or not to be poor. The *first* Working Group was set-up by the Planning Commission, Government of India, in **July, 1962**, with the recommendation by Nutrition Advisory Committee of balanced diet argued that in order to provide the minimum nutritional diet in terms of calorie intake, and to allow for a modest degree of items other than food, the national minimum consumption expenditure per household of 5 persons should not be less than Rs.100 per month at 1960-61 prices, i.e., Rs.20 per capita per month. The Group suggested that for urban areas, the minimum should be raised to Rs.25 per capita in view of the higher cost of living there⁷. Whereas, in a study conducted by **Dandekar and Rath (1971)**, who suggested the minimum calorie that an individual need per day and its corresponding monthly monetary value in each sector (rural and urban). They suggested an intake of 2,250 calories per capita per day was assured as adequate under the Indian conditions both in rural and urban areas. On the basis of National Sample Survey data on consumer expenditure, the study revealed that an average annual per capita expenditure of Rs.170.8 or equivalently Rs.14.2 per capita per month at 1960-61 prices would suffice to meet these calorie requirements in the rural areas. The corresponding figures in the urban areas were Rs.271.7 and Rs.22.6 at 1960-61 prices. They criticized the minimum monthly recommendation given by the first working group set up by the Planning Commission in 1962. According to them it was considerably low for the rural people and high for the urban people as suggested by the working group. They revised it and suggested that for rural people minimum monthly expenditure should be Rs.180 per annum or Rs.15 per month and for urban people it should be Rs.270 per annum or Rs.22.5 per month at 1960-61 prices to obtain an intake of 2,250 calories per capita per day uniformly in both the sectors. The Planning Commission, in **1977** constituted another working committee known as a **Task Force** on projection of minimum needs and effective consumption demand, which submitted its report in 1979. The Task Force defined “the poverty line as per capita consumption expenditure level, which meets the average per capita daily calorie requirement of 2400kcal in rural areas and 2100kcal in urban areas along with a minimum of non- foods expenditure”. The estimated poverty line, that on the average, Rs.49.09 per capita per month satisfies a calorie requirements of 2435 per capita per day (round off 2400 Kcal) in the rural areas

⁷ See Task Force Report 1979, Planning Commission, Govt. of India

and Rs.56.64 per capita per month satisfies a calorie requirements of 2095 per capita per day (round off 2100 Kcal) in the urban areas respectively, both at 1973-74 prices. Thus, the concept of poverty line used by Task Force was partly normative and partly behavioural. The Task Force used the age-sex- activity specific calorie allowances recommended by nutrition expert group (1968) to estimate the average daily per capita requirements for rural and urban areas using the age-sex- occupational structure of their respective population⁸. The Task Force used the 28th round of NSSO data relating to households consumption both in quantitative and value term in order to compute the monetary equivalent of these kcal norms (ibid). To update poverty line over time to take care of changes in prices levels The Task Force (1979) initially used Wholesale Price Index (WPI). However, private consumption deflator derived from the National Accounts Statistics (NAS) was recommended for this purpose by a Study Group on "The Concept and Estimation of Poverty Line", (Perspective Planning Division, Planning Commission, November, 1984). The Study Group recommended the use of a price index appropriately weighted by the consumption basket of the poor as an index for reflecting price changes relevant to the poor. The implicit private consumption deflator from NAS was found, at that time to be very close to such an index and hence it was used for adjusting the poverty line for the years 1977-78, 1983-84 and 1987-88⁹. Planning Commission set up another working committee known as Expert Group. However the **Expert Group (1993)** adopted Monthly Per Capita Total Expenditure (MPCTE) of Rs.49.09 and Rs.56.64 given by Task Force as the base lines for rural and urban areas respectively, at all- India level for the year 1973-74. These were adopted uniformly for all the states, as these prices implicitly fulfill the need of calorie norms of 2400kcal and 2100kcal rural and urban areas respectively at 1973-74 prices.

Expert Group recommended that the deflator chosen to update poverty should satisfy three main requirements:

(a) They should be state specific consistent with the adoption of state –specific poverty lines on the basis of state- specific base year prices.

⁸ See Expert Group Report 1993, Planning Commission, Govt. of India

⁹ See Expert Group Report 1993, Planning Commission, Govt. of India

(b) They should reflect, as closely as possible price relevant to the consumption basket of those around the poverty line and

(c) The data base for the construction of the deflators should be periodically available.

The Expert Group came to the conclusion that it would be most suitable to rely on the disaggregated commodity indices from CPIAL to update rural poverty line and a simple average of suitable weighted commodity indices of CPIIW and CPINM for updating urban poverty line (ibid). For the constructing state- specific poverty line, Expert Group recommended construction of middle population weighting diagram by observing consumption pattern of 20 to 30 percent population around the poverty line at 1973-74 prices and uses of CPIAL and simple average of CPIIW and CPIUNME. The reason to choose population around the poverty line is that any consumer with income equal to the poverty line will be able to buy a normatively fixed bundle which is common to all the consumers and invariant over the period. So, there were two major deviation of the Expert Group from the Task Force, firstly they did not allow any adjustment factor for the National Account estimate of private expenditure survey as Task Force did; secondly construction of weighting diagram for the 20 to 30 percent population around the poverty line and indices available on the monthly basis from Labour Bureau (CPIAL and CPIIW) and CSO (CPI-UNME) to update the poverty line.

Planning Commission accepted Expert Group methodology in 1997 to update the poverty line but little modification, firstly to update urban poverty line instead of using simple average of CPIIW and CPI-UNME Planning Commission used only CPIIW; secondly they dropped the construction of weighting diagram around the poverty line.

Now, if we look into the depth to update poverty line by the price indices there is always debate among the scholars and the Planning Commission methodology. If we divide scholars into three different school of thought and their finding regarding update poverty line then we find: Planning Commission presently using Expert Group methodology to update poverty line but in favour of Labour Bureau indices i.e. CPIAL and CPIIW; those in favour of uses of retail prices data collected by Labour Bureau and CSO with the middle population weighting diagram from CES data of NSSO (Minhas, Jain, Kansal and Saluja (1988), Minhas, Jain, Kansal and Saluja (1987,1990) Minhas,

Jain, and Tendulkar (1991a) Minhas, Jain, and Tendulkar (1991b), Dubey and Gangopadhyay(1998)); those who constructed superlative indices and average budget shares from unit level data of CES NSSO (Chatterjee and Bhattacharya (1970), Angus Deaton (2003), Dubey and Palmer-Jones (2005)), and their finding are as follows

Chatterjee and Bhattacharya (1970) used household budget data from 18th (Feb 1963- Jan 1964) of the NSSO for constructing indices of consumer price differentials between the rural areas of different states of India. They used budget data for estimating weights as well as average prices of 56 items of the household budget. Chatterjee and Bhattacharya used Laspeyres', Passche's and Fisher's index for comparing the price level in each states with that in every other state and all- India. These indices were computed separately for 5 quintile groups (10-20, 20-40, 40-60, 60-80, 80-100) of the population as well as general population in each region. In their finding, they found that for the general population taking all- India as 100, the index for Uttar Pradesh comes out as 94 and for Madhya Pradesh 96; at the other end of the scale West Bengal and Gujarat indices equal to 116 and 112 respectively. They utilized these indices for comparing the average per capita total household expenditure in different regions. Laspeyres', Passche's formulae were employed for expressing the price level in each state as percentage of the price level in every other state (all- India), Fisher's index was also computed. They found inter state price differential tends to be wide when the budget pattern of the state considered is very different from the over all pattern in rural India and fairly small when the state budget pattern is not so different from the pattern observed in rural India.

In the study conducted by **Minhas, Jain, Kansal and Saluja(1988)**, constructed CPI for urban areas for the period 1970-71 to 1983; for this purpose they used retail price data combined with the NSSO based consumption pattern as the weighting diagram (i. e. consumer expenditure on the 17 commodity sub-groups in the base year). The retail prices data were taken from both the CPIIW and CPINM series. Indices had been worked out separately for food, non-food and all consumer goods and services (general) by using two different weighting diagrams, one based on the consumption pattern observed in 1960-61 and the other in 1970-71. They computed urban index for the years 1970-71, 1972-73, 1973-74, 1977-78 and 1983 with 1970-71 as the base year. They computed urban index number for total urban population (CPITU) and for middle urban population

(CPIMU) for the above year. They constructed CPIMU by observing the consumption pattern of approximately middle 30 percent population by using consumer expenditure 1970-71 of NSSO to estimate the incidence of the poverty state by state. Therefore, Minhas et al constructed two CPITU with base 1960-61 and 1970-71 and one CPIMU with base 197-71. Minhas et al tries to show that CPITU and CPIMU are the superior indices than the used by Planning Commission and published by Labour Bureau (CPIIW) because CPITU and CPIMU capture more households than the households covered by CPIIW and helpful to show more accurate incidence of poverty. Minhas et al also showed annual rate of inflation and found that their CPITU shows higher inflation than the CPIIW and CSO's implicit deflator.

Minhas, Jain, Kansal and Saluja(1987,1990), also constructed rural consumer price index for total rural population (CPITR)and for middle population (CPIMR) for the same years as they constructed for the urban households by using exiting series of CPIAL of Labour Bureau and consumption expenditure survey(CES) of NSSO. They constructed CPITR and CPIMR for 13 item groups for 20 major states and Union Territories. The main point of concerned in this paper was the lacunae of CPIAL i.e. they gave higher weightage to the fire food varying from 72 to 87 percent in 1960-61 as base year. In their paper they tried to show the adjusted price for these item groups with the help of CSO publishes of Monthly Abstract of Statistics July 1970- June 1971. As a result of these changes made for fuel and light group the all India rural consumer price index for 1983 with base year 1970-71 =100 had been risen from 150.7 to 374.1 for the fuel and light group, from 262.5 to 313.0 for all non- food, and from 270.1 to 283.5 for all item groups taken together¹⁰.

Minhas, Jain, and Tendulkar (1991a), extended their work of construction rural and urban cost of living indices up to 1987-88 using two base years 1970-71 and 1983 for four consecutive agricultural years, viz., 1984-85, 1985-86, 1986-87 and 1987-88. In this paper they also constructed country- wide price index i.e. entire India consumer price indices (CPIEI) by combining CPITR and CPITU using their weight of total consumer

¹⁰ Minhas et al "Rural Cost of Living: 1970-71 to 1983 States and All India"; Indian Economic Review, Vol. xxv, no.1.

expenditures of the all- India rural and urban in the base year 1983. Their main findings of this paper are as follows¹¹:

1. Their CPITR and CPITU of India are found to be on higher side in all the four consecutive years than the official CPIAL, CPIIW, CPINM and CSO's implicit deflator.
2. On comparing CPIEI with official WPI their all food index was lower in all the four year whereas their general index was lower in the 1984-85 and 1985-86 and higher side in 1986-87 and 1987-88.
3. On comparing state- specific indices with base year 1983=100; in rural sector food and general index found lowest and highest for the same states in all the four years except 1985-86; Orissa had the lowest food index value and highest for non-food index value for all the years; in all the four years Kerala experienced highest food index values in 1984-85 and 1986-87 years and Rajasthan in other two years and minimum value of non-food index was experienced by West Bengal in 1984-85, 1985-86, 1986-87 and Jammu and Kashmir in last year. Whereas in urban sector Orissa faced lowest index value in all the four consecutive years both for food and general group and Chandigarh for non-food group in first three years; Chandigarh experienced highest index value for food group in all the year and Assam for non-food group.
4. As far inter-state price differential are concerned they found it was higher in rural sector for food group than non-food group in all the year and lower in urban sector; non-food group price differential was higher in urban sector than the rural sector.
5. The annual increase in cost of living value was found higher in urban India than the rural India for three broad aggregates food, non-food and general for the period 1983 to 1984-85, 1984-85 to 1985-86 and 1985-86 to 1986-87 with the exception of non-food in third period. In the fourth period i.e. 1986-87 to 1987-88 the annual rate of increase in food prices was 12.6 percent in rural sector and

¹¹ Minhas, Jain and Tendulkar: "Rural and Urban Cost of Living : 1983 to 1987-88 State-wise and All-India", Journal of Indian School of Political Economy, vol.3 No.3

11.06 in urban sector. The annual rate of increase for general index was 11.04 percent for rural and 11.45 percent for urban areas respectively. At the state level the annual rate of increase in price index was found to be higher in rural area than the urban areas particularly for non-food index than food index. The inter-state disparity in annual rate of increase of index was found wider in over the period in rural area for food than the non-food index.

6. Between period 1983 to 1987-88 the general index faced increasing trend of inflation rate in rural sector for the states: Bihar, Maharashtra and Orissa; and in urban sector: Bihar, Gujarat, Haryana, Orissa and U.P. whereas in urban sector West Bengal faced the reverse trend.

Minhas, Jain, and Tendulkar (1991b), in this paper Minhas et al constructed cost of living indices for middle and total rural and urban population for the year 1987-88 and showed incidence of poverty in the each sector. They also critically examine the big fall in the incidence of poverty by Planning Commission in 1987-88. According to the Minhas the incidence of poverty in 1987-88 was around 48.7 and 37.8 percent in rural and urban sector respectively whereas Planning Commission estimated was 32.7 and 19.4 percent in rural and urban sector respectively. They also calculated state-specific Consumer Price Indices and incidence of poverty for the year 1970-71, 1983 and 1987-88. Their main findings were as follows:

As per the direct all- India estimate of HCR was under estimated about four percentage points (22million) in rural sector in 1987-88. According to aggregate estimates their incidence of poverty in rural sector declined from 58.8 percent in 1970-71 to 50.8 percent in 1983 and 48.7 percent in 1987-88 and in the urban sector in the same period poverty declined from 46.2 percent to 39.7 percent and to 37.8 percent. The combined poverty at all- India level declined from 56.3 percent in 1970-71 to 48.1 percent in 1983 and to 45.9 percent in 1987-88. In absolute numbers had increased (in million) from 257.9 (1970-71) to 276.8 (1983) and further to 283.7 (1987-88), where as in urban sector absolute number of poor increased (in million) from 50.4 (1970-71) to 69.2 (1983) and 77.5 (1987-88). Combined number of poor increased from 308.3 to 346.0 and to 361.2.

Dubey and Gangopadhyay(1998) follow Minhas et. al. methodology and constructed middle range CPI for rural (CPIMR) and urban (CPIMU) for the year 1987-88 and 1993-94 with base year 1983. With the help of this they calculated incidence of poverty by using all the available poverty lines and all the price correction used by other researchers. They calculated poverty lines not only sector-wise but at more disaggregated level i.e. for all the 77 NSS regions. In their result they found that there has been declining incidence of poverty and improvement in the condition of the poor between 1987-88 and 1993-94 by using any poverty line. There has been declined in the HCR in both the sectors and average per capita total expenditure of the poor (APCTEP) increased by 3 percent during the period.

Angus Deaton (2003) uses the consumption data from 43rd, 50th and 55th of the NSSO to compute consumer price indexes for each sector of the large states. He calculated a range of price indexes for 1999-2000 relative to 1993-94 and for 1993-94 relative to 1987-88 and also calculated price index from each states relative to all- India for each sectors household as well as price indexes for urban sector relative to rural prices for each of the states. He used the price indices to calculate a new set of poverty line by state and sector overtime and calculate head count ratio (HCR) based on them. Deaton inflation rates were lower than the Planning Commission. He took official rural poverty line 1987-88 as base, and found for latter period i.e. 1993-94 and 1999-2000 are lower than the official ones.

Deaton HCR was 25.3% compared to 27% of the official ones in 1999-2000. He also found that his estimates of urban poverty line are on average only 15% higher than his rural poverty line whereas in the official ones the differences are 40% in urban rural poverty lines. Deaton used both data of expenditure and quantity purchased in Consumer Expenditure Survey (CES), he used 30 days expenditure and by dividing the reported expenditure by the reported quantity a unit value or prices was generated. He calculated the median unit value for each sector within each state. He also generated budget shares with the help of CES. These household budget shares were then averages by sector and state. Deaton calculated Laspeyres' Paasche's Fisher ideal, and Tornqvist price index with the help of average budget shares and median unit values. He also chose chain index

compared to base weight constant for all the rounds. He tried to show superlative index (Fisher ideal, and Tornqvist price index) are better than the other two indexes in capturing the inflation and price differential trends within the sector and state.

Dubey and Palmer-Jones (2005), replicated Deaton's methodology by using their own variation method. They calculated price index and poverty count from them by using Unit- Value Consumer Price index (UV CPI)¹². Their calculations cover the four quinquennial rounds (1983, 1987-88, 1993-94 and 1999-00). They criticized the consumer price indexes based on unit values calculated from the unit records of the NSS Consumer Expenditure surveys. They argued that unit values constructed from CES may be useful check on prices obtained from market but no good substitute in order to construct indices. They raised objections to Deaton's method by following points: (a) there is no justification for using the all India OPL43r as the base from which to calculate other Poverty Lines (PLs). (b) Deaton's method is not a convincing way to compute urban poverty lines from a rural base PL because it does not treat the higher urban share of non-UV items in an appropriate manner. (c) States are not appropriate geographical units for which to compute PLs; they compute them for NSS Regions (cluster of districts within states), as well as, states. (d) The urban sector as a whole is not an appropriate geographical unit since both unit value and Average Budget Shares vary by town size. (e) Deaton neglects the possibility that CPIs of items that are not included in the UV CPIs, are different from UV CPIs for the same domains. Dubey and Palmer-Jones used official non-unit value CPI that can not be generated with the help of UV CPI from CES. They argued that neither indices constructed from UV nor Official indices show the true cost of living because they ignore environmental variables that vary between the domains affect the changes of consumption into well being. Dubey and Palmer-Jones calculated poverty lines sector-wise but for urban sector they calculated poverty line by three different methods: in first method they calculated urban poverty by taking official rural poverty line of 38th round as base and without considering non-UV share; secondly they include the different share of non-UV items; and thirdly when they considered town of different size in computation of urban poverty. In their results they found western India poverty line is higher than the eastern and central India similar to Deaton's finding. Their urban

¹² CPIs computed using UVs and average budget shares from the NSS CES.

poverty line was higher than the Deaton's poverty line but their finding was lower than the official estimates. Therefore, Dubey and Palmer-Jones counts lie between official and Deaton's estimates.

Two major points of debate among the researchers and the Planning Commission is that researchers always pointed out Planning Commission used price index to update the poverty line carrying fixed and frequently outdated commodity weights; in past 3-4 decades consumption pattern of people has changed and now they are taking fewer intakes of cereals across all- expenditure groups. First point can be ignored because Labour Bureau has changed its base year but for second point we can say that there may be a shift in consumption pattern, rise in income may lead to change in preference of the consumers.

CHAPTER 2

DESCRIPTION OF DATA

To construct any Consumer Price Index we require two things: weighting diagram in the base year and the price data of the base year and the current year. There are four well known CPI in India namely, Wholesale Price Index (WPI), CPIAL, CPIIW and CPI-UMNE. But in the study undertaken here, only last three will be considered. The Planning Commission, after deciding base poverty line in monetary terms i.e. Rupees 49.09 for rural sector and Rupees 56.64 for the urban sector at 1973-74 prices has been using CPIAL and CPIIW indices to update the poverty line for rural and urban sectors of India. But these indices have some problems which will be discussed in this chapter and the indices are constructed in the later part of this study.

2.1 Price Data

CPIAL and CPIIW are being published by the Labour Bureau since September 1964 and 1946, respectively. The existing series of CPIAL is based on 1986-87=100 w. e. f. November, 1995. Prior to this series, CPIAL was based on 1960-61=100¹³. Now the point to be enquired here is what is this base? It means Labour Bureau chose these years to give weight ages to different item groups and sub-groups according to the rural people expenditure on different consumption item groups. For compilation of CPIAL number series, Field Operation Division (FOD) of the NSSO collects the data on prices from 600 sample villages taken from 20 states of India regularly every month¹⁴. Initially the numbers of sample villages were 422¹⁵[Minhas et al. (1985)]. For the purpose of constructing weighting diagram of CPIAL, Labour Bureau used consumer expenditure data of NSSO 38th round (1983). CPIAL is released for 20 states and all India separately on or last working day before 20th of every month (ibid). In 1960-61 base year series of CPIAL Labour Bureau has published indices in four broad groups namely Food Index,

¹³ Labour Bureau annual report on CPIAL and CPIRL year 2003-04

¹⁴ Labour Bureau annual report on CPIAL and CPIRL year 2003-04

¹⁵ On the choice of appropriate consumer price indices and data sets for estimating the incidence of poverty in India.

Fuel and Light Index, Clothing, Bedding and Footwear Index and Miscellaneous Index, while in the 1986-87 based series they have published indices in five broad groups namely Food Index, Pan, Supari, Tobacco and Intoxicant Index, Fuel and Light Index, Clothing, Bedding and Footwear Index and Miscellaneous Index.

The other existing series of Labour Bureau is CPIIW. Initially CPIIW had 1960=100 as base year which was further replaced in December, 1988 with base year 1982=100¹⁶. The construction of weighting diagram for CPIIW series is derived from working class family income and expenditure survey of 1981-82, which covered 34776 working class families in 76 centres. Whereas in the latest survey of 1999-00 number of working families covered were 41040 in 78 centres, with base 2001=100. Among the two above mentioned surveys 69 centres were common (ibid). In these family living surveys Labour Bureau covered 7 organized sectors of employment viz. Registered Factories, Mines, Plantations, Ports and Docks, Public Motor Transport Undertakings, Electricity Generating and Distributing Establishments and Railways. This depicts only the partial coverage of the total urban population. Total number of centres covered by CPIIW series is given in the appendix of this chapter. CPIIW, since the inception of its published series provides six broad groups indices, namely Food Index, Pan, Supari, Tobacco and Intoxicants Index, Fuel and Light Index, Housing Index, Clothing, Bedding, and Footwear Index, Miscellaneous Index.

The third series is CPI-UNME to which our study relates is the publication of Central Statistical Organization (CSO). CSO uses different methodology for the compilation of the CPI series. Although, this series also covers urban employees but they choose different centres in their survey. The urban non-manual employees (UNME) as defined by CSO are those *“who derive 50 per cent or more of their income from gainful employment from occupations of one or more of its members, doing non-manual work in the non-agricultural sector”*. The CSO is into compilation of CPI-UNME for selected urban centres, as well as for all-India since 1960. This index measures changes in the prices of goods and services purchased, consumed or otherwise acquired by UNME only. The current CPI-UNME series with base year 1984-85, introduced in November 1987, derives the weighting pattern from the Family Living Survey specifically conducted for

¹⁶ Labour Bureau annual report on CPIIW year 2003

this purpose during 1982-83 in 59 selected urban centres. In the earlier CPI-UNME series with 1960 as base year, CSO covered 45 selected urban centres¹⁷. For applying weight CSO conducted middle class family living survey in 1958-59 (ibid). CSO publishes 27 item groups and sub groups centre-wise but broadly they have 5 item groups namely Food, Beverages and Tobacco Index, Fuel and Light Index, Housing Index, Clothing, Bedding and Footwear etc. Index and Miscellaneous Index. The total numbers of centres covered by CPI-UNME series in the India are given in the appendix of this chapter.

2.2 Data Limitations, Comparability Issues

Although we have ample data sources available but to generate any new CPI we face many problems, which are being mentioned below:-

First problem, *“to gather together and make use of the full set of item-wise price quotations collected every month under the series is a daunting task. The basic data set is so massive that the cost of processing, in terms of time and money, would be beyond the means that a few private researchers can marshal. Also the CSO maintains records of detailed price quotations for CPINM series only for the latest 3 months and as such, it is practically impossible to get hold of original price quotations for the earlier months”* (Mihis 1988). Due to this problem, we have decided to work with the summarized retail price data which are available in the form of monthly price indices for various commodity broad groups and have selected only those agricultural months i.e. July to June which constituted the NSSO survey rounds. This is done in order to use the weighting diagram which is constructed with the help of CES survey of NSSO (ibid).

Second, to generate Consumer Price Index for the Middle Rural Population (CPIMR) **CPIAL price data** is being used in this study which the Labour Bureau has been publishing for four broad item groups continuously namely Food, Fuel and Light, Clothing, Bedding and Footwear and Miscellaneous indices **and weighting diagram** which we have constructed, that describes consumption pattern of middle rural population.

¹⁷ CPI-UNME Brochure supplements -36, January- June 2006.

Third, in the agricultural year 2004-05 Labour Bureau has given CPIAL indices for five broad item groups including Pan, Supari, Tobacco and Intoxicants Index in addition. Therefore, in order to make price series comparable to the earlier one where Pan, Supari, Tobacco and Intoxicants item groups was merged with the miscellaneous group, we are combining Miscellaneous Index and Pan, Supari, Tobacco and Intoxicants Index by their weighted average as given by the Labour Bureau.

Fourth, in CPIAL 1960-61 base year series Assam includes Manipur, Meghalaya, and Tripura, similarly Punjab includes Haryana and Himachal Pradesh i.e. for these states price indices are not given separately. Therefore we are assuming that these states have same price indices as Assam and Punjab have¹⁸.

Fifth, CPIAL has changed its base period from 1960-61=100 to 1986-87=100 which was implemented from November 1995. In order to make 1960-61=100 series continuous Labour Bureau has given linking factors between old and new series for both state level as well as all India level but linking factors are obscure. For the state level only food and general indices linking factors have been given but as far as all India linking factors are concerned food, fuel and light, clothing, bedding and footwear and general indices have been given. Labour Bureau didn't give any linking factor for the misc. index; they even split these four broad group indices into five for the period 2004-05. Now, to convert 2004-05 indices (which has base period 1986-87=100) into the old series for which base period is 1960-61=100 we have taken state-specific linking factor for food and general indices and all India linking factors for fuel and light and clothing, bedding and footwear common for all the states. Since, Labour Bureau didn't give linking factor for the misc. index therefore we have worked out this index into the base year index by basic mathematical calculations (firstly, by converting rest of indices into 1960-61=100 base period then by giving weights of present series then the difference between them is obtained as misc. index which includes pan, tobacco and intoxicant index in it as well).

Sixth, Labour Bureau has changed CPIIW base period from 1960=100 to 1982=100 between the period which we are considering (1987-88, 1993-94, 2004-05). Again there is linking factor problem to make series continuous. Labour Bureau has

¹⁸ For Delhi, we are assuming has same CPIAL data as Punjab has.

given centre-wise linking factor to convert new base period into the old base period but only for the general index, not for the six broad food and non-food groups and sub-groups indices. It has given all India linking factors for all broad groups (Food Index, Pan, Supari, Tobacco and Intoxicants Index, Fuel and Light Index, Housing Index, Clothing, Bedding, and Footwear Index, Miscellaneous Index and General Index). Therefore, to make indices into the continuous series, we are using all India linking factor, firstly by converting centre-wise indices into the state level indices by averaging them and then by multiplying state level indices with the all India linking factor to convert them from base period 1982=100 to 1960=100.

Seventh, in the year 1987-88, CPIIW indices didn't have Chandigarh as a centre, but in 1993-94 and 2004-05 it has Chandigarh as a centre. So, it has been assumed that in the year 1987-88 Chandigarh had same price indices as urban centre of Punjab had. Similarly, for Meghalaya Assam's indices have been taken. After assuming these things combined average of CPIIW and CPI-UNME price indices have been worked out.

Eight, the new series of CPI-UNME indices start on a monthly basis from the calendar year 1988 and onward. There is no availability of previous series data in the MOSPI Computer centre for broad sub group indices. Therefore, calendar year 1988 has been assumed to be equal to the agricultural year 1987-88¹⁹.

Ninth, in the year 2004-05 Bihar, Madhya Pradesh (MP) and Uttar Pradesh states have split into Bihar and Jharkhand, MP and Chhattisgarh, UP and Uttaranchal. So, we are assuming that Bihar includes Jharkhand, MP includes Chhattisgarh and UP includes Uttaranchal. We are using combined centres of CPIIW for these states.

¹⁹ Agricultural year starts from 1st July to 30th June.

APPENDIX 2A

A 2a: CPIIW centres in 1987-88, 1993-94 and 2004-05

States/UT	1987-88	1993-94	2004-05
Andhra Pradesh			
	Gudur	Gudur	Gudur
	Guntur	Guntur	Guntur
	Hyderabad	Hyderabad	Hyderabad
	Kothagudem	Visakhapatnam	Visakhapatnam
		Warangal	Warangal
		Kothagudem	Kothagudem
Assam			
	Digboi	D-Dooma Tinsukia	D-Dooma Tinsukia
	Doom-Dooma	Guwahati	Guwahati
	Labac-Silchar	Labac-Silchar	Labac-Silchar
	Mariani-Jorhat	Mariani-Jorhat	Mariani-Jorhat
	Tezpur Rangapara	Tezpur Rangapara	Tezpur Rangapara
Bihar/ Jharkhand			
	Jamshedpur	Jamshedpur	Jamshedpur
	Jharia	Jharia	Jharia
	Kodarma	Kodarma	Kodarma
	Monghyr Jamalpur	Monghyr Jamalpur	Monghyr Jamalpur
	Noamundi	Noamundi	Noamundi
		Ranchi Hatia	Ranchi Hatia
Gujarat			
	Ahmedabad	Ahmedabad	Ahmedabad
	Bhavnagar	Bhavnagar	Bhavnagar
		Rajkot	Rajkot
		Surat	Surat
		Vadodra	Vadodra
Haryana			
	Yamunanagar	Faridabad	Faridabad
		Yamunanagar	Yamunanagar
HP	HP	HP	HP
J and K	Srinagar	Srinagar	Srinagar

Continued.....

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States/UT	1987-88	1993-94	2004-05
Karnataka			
	Ammathi	Bangalore	Bangalore
	Bangalore	Belgaum	Belgaum
	Chikmagalur	Hubli-Dharwar	Hubli-Dharwar
	Kolar-Gold-Field	Mercara	Mercara
Kerala			
	Alleppey	Alwaye	Alwaye
	Alwaye	Mundakayam	Mundakayam
	Mundakayam	Quilon	Quilon
		Thiruvananthapuram	Thiruvananthapuram
MP/ Chhatisgarh			
	Balaghat	Balaghat	Balaghat
	Chhindwara	Chhindwara	Chhindwara
	Bhopal	Bhilai	Bhilai
	Gawalior	Bhopal	Bhopal
	Indore	Indore	Indore
	Bhilai	Jabalpur	Jabalpur
Maharashtra			
	Bombay	Mumbai	Mumbai
	Nagpur	Nagpur	Nagpur
	Solapur	Nasik	Nasik
		Pune	Pune
		Solapur	Solapur
Orissa			
	Barbil	Barbil	Barbil
	Sambalpur	Rourkela	Rourkela
	Rourkela		
Punjab			
	Amritsar	Amritsar	Amritsar
		Ludhiana	Ludhiana
Rajasthan			
	Ajmer	Ajmer	Ajmer
	Jaipur	Jaipur	Jaipur
	Bhilwara	Bhilwara	Bhilwara
Tamil Nadu			
	Coimbatore	Coimbatore	Coimbatore
	Coonoor	Coonoor	Coonoor
	Madras	Chennai	Chennai
	Madurai	Madurai	Madurai
		Salem	Salem
		Tiruchirapally	Tiruchirapally

Continued.....

States/UT	1987-88	1993-94	2004-05
Uttar Pradesh	Saharanpur	Ghaziabad	Ghaziabad
	Varanasi	Kanpur	Kanpur
		Saharanpur	Saharanpur
		Varanasi	Varanasi
West Bengal			
	Asansol	Asansol	Asansol
	Kolkata	Kolkata	Kolkata
	Darjeeling	Darjeeling	Darjeeling
	Howrah	Durgapur	Durgapur
	Jalpaiguri	Haldia	Haldia
	Raniganj	Howrah	Howrah
		Jalpaiguri	Jalpaiguri
Chandigarh			
		Chandigarh	Chandigarh
Delhi			
	Delhi	Delhi	Delhi
Pondicherry			
		Pondicherry	Pondicherry
Goa			
	Goa	Goa	Goa
Tripura			
	Tripura	Tripura	Tripura

Source: Indian Labour Journal 1987, 1988, 1993, 1994; <http://www.labourbureau.nic.in>

A 2b: CPI-UNME Centres in 1988, 1993-94 and 2004-05

States/UT	1988	1993-94	2004-05
Andhra Pradesh			
	Hyderabad 1	Hyderabad 1	Hyderabad 1
	Kurnool 2	Kurnool 2	Kurnool 2
	Vijayawada 3	Vijayawada 3	Vijayawada 3
	Visakhapatnam 4	Visakhapatnam 4	Visakhapatnam 4
	Warangal 5	Warangal 5	Warangal 5
Assam			
	Guwahati 6	Guwahati 6	Guwahati 6
Bihar			
	Patna 7	Patna 7	Patna 7
	Muzzaffarpur 8	Muzzaffarpur 8	Muzzaffarpur 8
	Ranchi 9	Ranchi 9	Ranchi 9
Gujarat			
	Ahmedabad 10	Ahmedabad 10	Ahmedabad 10
	Bhavnagar 11	Bhavnagar 11	Bhavnagar 11
	Rajkot 12	Rajkot 12	Rajkot 12
	Surat 13	Surat 13	Surat 13
Haryana			
	Rohtak 14	Rohtak 14	Rohtak 14
HP			
	Shimla 15	Shimla 15	Shimla 15
J and K			
	Srinagar 16	Srinagar 16	Srinagar 16
	Jammu 17	Jammu 17	Jammu 17
Karnataka			
	Bangalore 18	Bangalore 18	Bangalore 18
	Gulbarga 19	Gulbarga 19	Gulbarga 19
	Hubli 20	Hubli 20	Hubli 20
	Mangalore 21	Mangalore 21	Mangalore 21
Kerala			
	Trivandrum 22	Trivandrum 22	Trivandrum 22
	Calicut 23	Calicut 23	Calicut 23
Madhya Pradesh			
	Bhopal 24	Bhopal 24	Bhopal 24
	Gwalior 25	Gwalior 25	Gwalior 25
	Indore 26	Indore 26	Indore 26
	Jabalpur 27	Jabalpur 27	Jabalpur 27
Maharashtra			
	Mumbai 28	Mumbai 28	Mumbai 28
	Aurangabad 29	Aurangabad 29	Aurangabad 29
	Nagpur 30	Nagpur 30	Nagpur 30
	Pune 31	Pune 31	Pune 31

Continued.....

States/UT	1988	1993-94	2004-05
	Solapur 32	Solapur 32	Solapur 32
Manipur			
	Imphal 33	Imphal 33	Imphal 33
Meghalaya			
	Shillong 34	Shillong 34	Shillong 34
Nagaland			
	Kohima 35	Kohima 35	Kohima 35
Orissa			
	Cuttack 36	Cuttack 36	Cuttack 36
	Sambalpur 37	Sambalpur 37	Sambalpur 37
Punjab			
	Amritsar 38	Amritsar 38	Amritsar 38
Rajasthan			
	Jaipur 39	Jaipur 39	Jaipur 39
	Ajmer 40	Ajmer 40	Ajmer 40
	Jodhpur 41	Jodhpur 41	Jodhpur 41
Sikkim			
	Gangtok 42	Gangtok 42	Gangtok 42
Tamil Nadu			
	Chennai 43	Chennai 43	Chennai 43
	Coimbatore 44	Coimbatore 44	Coimbatore 44
	Madurai 45	Madurai 45	Madurai 45
	Salem 46	Salem 46	Salem 46
	Tiruchirapalli 47	Tiruchirapalli 47	Tiruchirapalli 47
Tripura			
	Agartala 48	Agartala 48	Agartala 48
Uttar Pradesh			
	Lucknow 49	Lucknow 49	Lucknow 49
	Agra 50	Agra 50	Agra 50
	Allahabad 51	Allahabad 51	Allahabad 51
	Kanpur 52	Kanpur 52	Kanpur 52
	Meerut 53	Meerut 53	Meerut 53
West Bengal			
	Kolkata 54	Kolkata 54	Kolkata 54
	Asansol 55	Asansol 55	Asansol 55
	Kharagpur 56	Kharagpur 56	Kharagpur 56
	Siliguri 57	Siliguri 57	Siliguri 57
Chandigarh			
	Chandigarh 58	Chandigarh 58	Chandigarh 58
Delhi			
	Delhi 59	Delhi 59	Delhi 59

Source: MOSPI statistical wing at R.K. Puram sector-1

CHAPTER 3

WEIGHTING DIAGRAM AND ITS ROLE IN CALCULATION OF GENERAL INDEX

3.1 Consumer Price Index (CPI) and Its Uses

Before defining CPI the first point that comes to our mind is what is price index? According to the ILO (2004) “*A price index is a measure of the proportionate or percentage changes in the price of goods and services over time*”.

Consumer Price Indices (CPIs) are index numbers that measure changes in the prices of goods and services purchased or otherwise acquired by households, which households use directly or indirectly to satisfy their own needs and wants. CPIs' can be intended to measure either the rate of price inflation as perceived by households, or changes in their cost of living (that is, changes in the amount that the households need to spend in order to maintain their standard of living). There need be no conflict between these two objectives. In practice, most CPIs are calculated as weighted averages of the percentage price changes for a specified set or “basket” of consumer products. These weights reflect relative importance in household consumption for some period (ibid).

3.2 Weighting Diagram

The weighting diagram is the proportionate percentage share of monthly total consumption expenditure on different goods and services by the household in order to achieve its utility. The sum total of percentage expenditure should be equal to unity or 100.

In order to construct any CPI we need two ingredients i.e. weighting diagram in the base year and the price data in the base year as well as in the current. In our work we have constructed weighting diagrams for middle rural and urban population for the period 1987-88 by using CES raw data from NSSO²⁰. Normally we construct weighting diagram

²⁰ To generate middle population we divided total population MPCE into the 10 percentile group and then took 20 percentile populations around the population in the years 1987-88. We took this group because as

for the base year and then we look its impact on the CPI of later years. The study chooses 1987-88 as the base year and finds out its impact on the CPI for the 1993-94 and 2004-05 and ultimately on poverty line.

Weighting diagram has been prepared only for those broad item groups for which monthly price indices were given by Labour Bureau in their publication (for rural sector: food group, fuel and lighting group, clothing bedding and footwear group and misc. group and for urban sector: food group, pan, tobacco and intoxicant group, fuel and lighting group, housing group, clothing, bedding and footwear group, misc. group) and by the CSO (for urban sector: food group, pan, tobacco and intoxicant group, fuel and lighting group, housing group, clothing, bedding and footwear group, misc. group)

The proportionate percentage share of item groups in total consumption expenditure in the base period for middle rural and urban population can be seen from the graph below from figure 3.1 to 3.4, and the tables 3.1 and 3.2 below²¹ with base year 1987-88=100. Major portion in base year 1987-88 for middle rural and urban population is spent on food group i.e. more than 60 percent of the consumers' total expenditure. If we divide total food expenditure into four class intervals²² (60-65, 65-70, 70-75, 75-80) for total rural and urban population in 1987-88 then we can see from box 3.A below, that in rural sector most of the states have food expenditure that lie between class intervals 65-70 to 70-75 except for the states Assam, Meghalaya and West Bengal, for which the expenditure lie in highest class interval 75-80. Whereas in urban sector the food expenditure of most of the states lie between the class intervals 60-65 to 65-70 except for the states Assam, Bihar, J and K and Meghalaya, where it lie in the highest class interval of 70-75. It shows that rural people spend more on food group than urban people.

Expert Group 1993 suggested to measure the poverty 20 to 30 percent population around the poverty line should be considered.

²¹ In the graphs we have put only broad name of the item groups where pan group stand for pan, supari, tobacco and intoxicants group, clothing group stand for clothing, bedding and footwear group

²² In box 3.A Delhi and Chandigarh have not been considered.

Box 3.A: Percentage share of food group in total consumer expenditure 1987-88=100

Class Interval	Rural Sector	Urban Sector
60-65	Nil	Andhra Pradesh, Madhya Pradesh, Tamil Nadu and Uttar Pradesh
65-70	Haryana, Himachal Pradesh, Kerala, Maharashtra, Punjab, Rajasthan and Uttar Pradesh	Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Rajasthan and West Bengal
70-75	Andhra Pradesh, Bihar, Gujarat J and K, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu	Assam, Bihar, J and K, Meghalaya,
75-80	Assam, Meghalaya, West Bengal	Nil

Other than food group misc. group is the second major item group on which the consumer spends more percentage of their total expenditure. In the rural sector 15.33 percent of total consumer expenditure is spent on misc. group. Andhra Pradesh, Haryana, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu and UP have expenditure between 17 to 22 percent on misc. group. While the rest of states expenditure lie between 11 to 16 percent. The Union Territory Delhi has the highest expenditure on misc. group 30.32 percent in the rural sector. In the urban sector consumers spend 15.42 percent on misc. group of their total expenditure. Andhra Pradesh, Haryana, Kerala, Madhya Pradesh, Maharashtra, Punjab and Uttar Pradesh have expenditure between 17 and 19 percent on misc. group. Except Assam and Meghalaya remaining states have expenditure between 12 and 16.50 percent of their total consumer expenditure on misc. group. The Union Territory Delhi has the highest expenditure on misc. group which is more than 20 percent. And Chandigarh has 15.14 percent. On comparing urban and rural sector, urban sector consumers spend more than the rural consumers on misc. group²³.

²³ There may be the case where in some states percentage share of total consumer expenditure on misc. group in rural sector more than the urban sector but in rural sector misc. group also combined pan, supari, tobacco and intoxicant group, which contains approximate 3 percent exp. of total expenditure in urban sector.

The other two item groups in rural sector are fuel and light group and clothing, bedding and footwear group on which rural consumer spends 9.14 and 3.25 percent of their total consumer expenditure, respectively. On fuel and light group Himachal Pradesh has the highest expenditure of 11.14 percent followed by J and K with 10.48 percent and Karnataka with 10.45 percent as compared to other states in rural sector. Except Delhi which has the least spending on fuel and light group of 6.73 percent, all other states have expenditure between 6 to 10 percent.

Karnataka, Kerala and Delhi are those states which spend less than 1 percent on clothing, bedding and footwear group of their total expenditure. Rajasthan has the highest expenditure of 5.61 percent followed by Madhya Pradesh with 5.14 percent on clothing, bedding and footwear item group. Himachal Pradesh, J and K and Uttar Pradesh have expenditure between 4 and 5 percent of their total expenditure on clothing, bedding and footwear group whereas rest of the states have less than 10 percent expenditure.

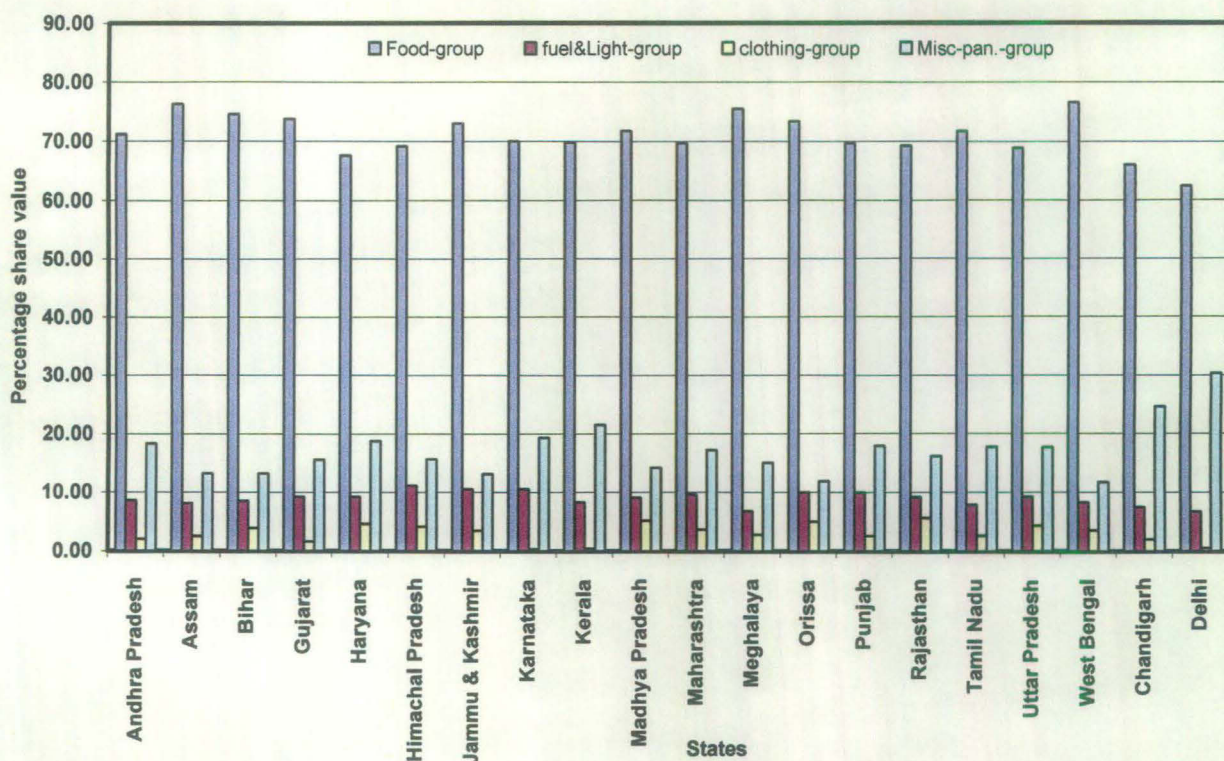
On fuel and light group and clothing group the expenditure of urban sector is 8.60 and 3.26 percent, respectively. Urban sector has less expenditure on fuel and light group as compared to rural sector and almost equal expenditure on clothing, bedding and footwear. On fuel and light item group, HP has the highest expenditure i.e. more than 10 percent whereas Delhi has the least expenditure on it being 7.42 percent. The expenditure of other states lie between 8 and 10 percent except for Andhra Pradesh, Bihar, Kerala and Tamil Nadu where the expenditure lie between 7 and 8 percent on fuel and light group. On clothing, bedding and footwear group, Orissa has the highest expenditure of 5.69 percent of their total consumer expenditure in urban sector and Gujarat has the least of 2.19 percent expenditure. The rest of states have expenditure between 2 and 5 percent on it.

Other two item groups in urban sector are pan, supari, tobacco and intoxicant group and housing group. All India percentage shares of these groups in total urban consumer expenditure are 3.02 and 2.63, respectively. Meghalaya has the highest expenditure on pan, supari, tobacco and intoxicant group of 5.66 percent and the rest of the states have expenditures between 2 and 4 percent respectively.

In the housing group, Tamil Nadu has the highest percent of 5.89 followed by Chandigarh, Karnataka and Andhra Pradesh which have 4.73, 4.26 and 4.01 percent,

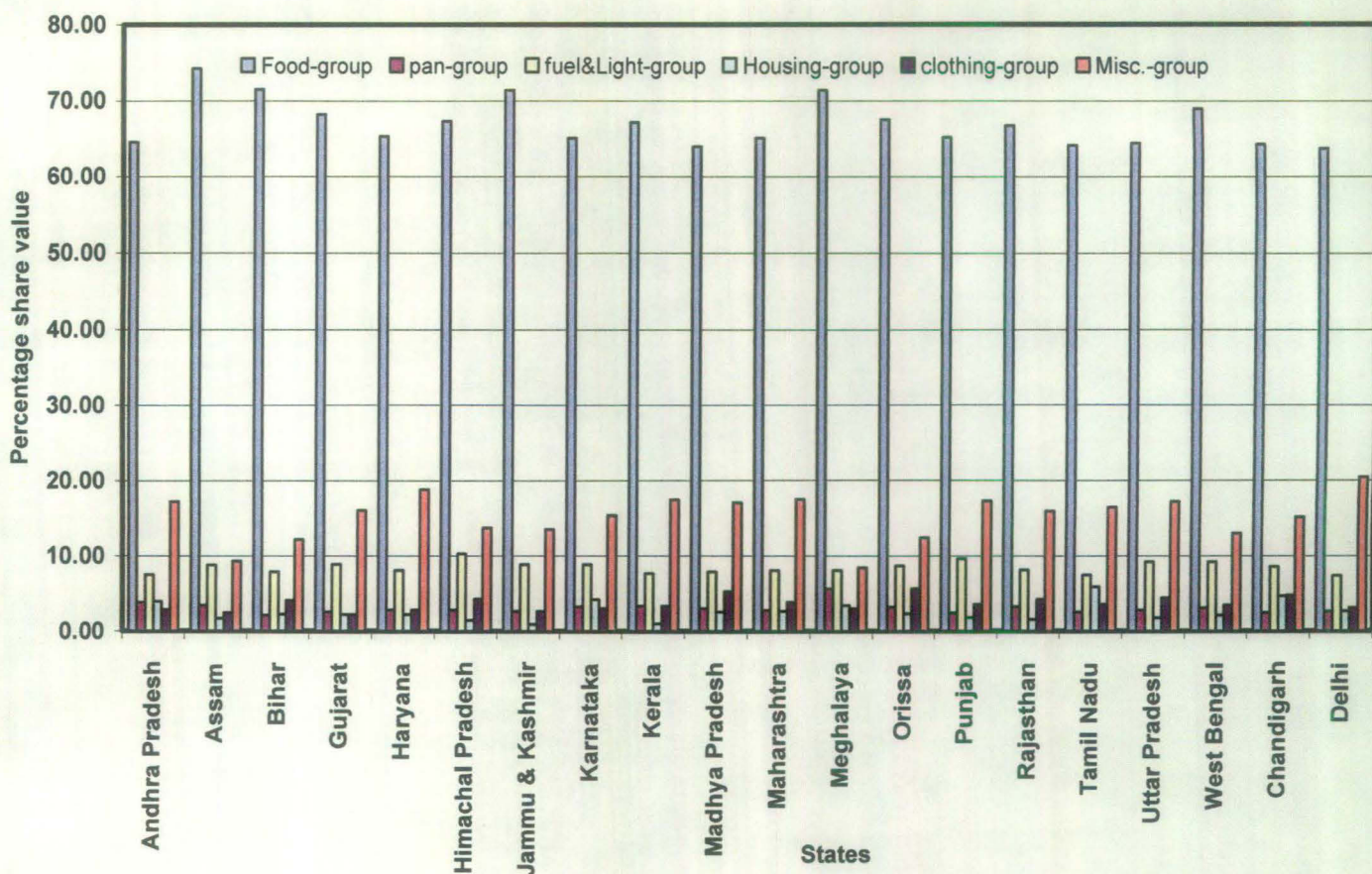
respectively. J and K has the least expenditure of 0.94 percent followed by Kerala with 0.98 percent on housing group and remaining states have expenditures more than 1 percent and less than 4 percent on housing group.

Figure 3.1: State-wise percentage shares of groups of consumer items group in total consumption expenditure for middle rural population 1987-88



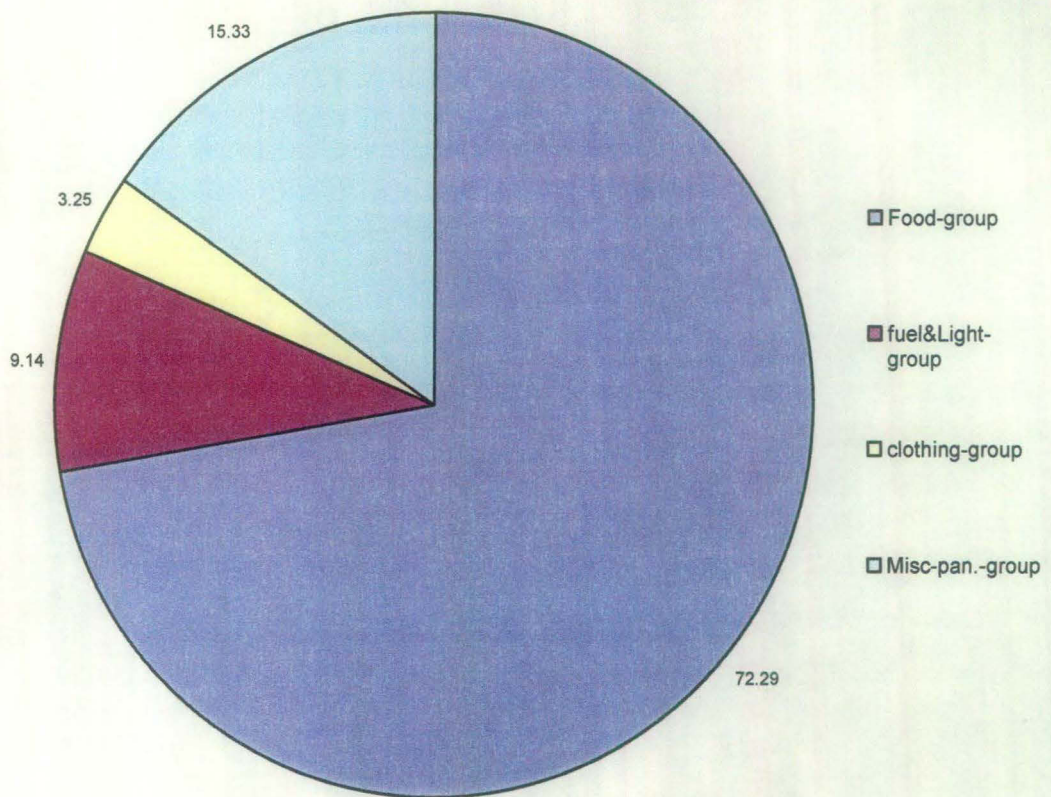
Sources: Authors' calculations from unit records 43rd CES data.

Figure 3.2: State-wise percentage shares of groups of consumer items group in total consumption expenditure for middle urban population 1987-88



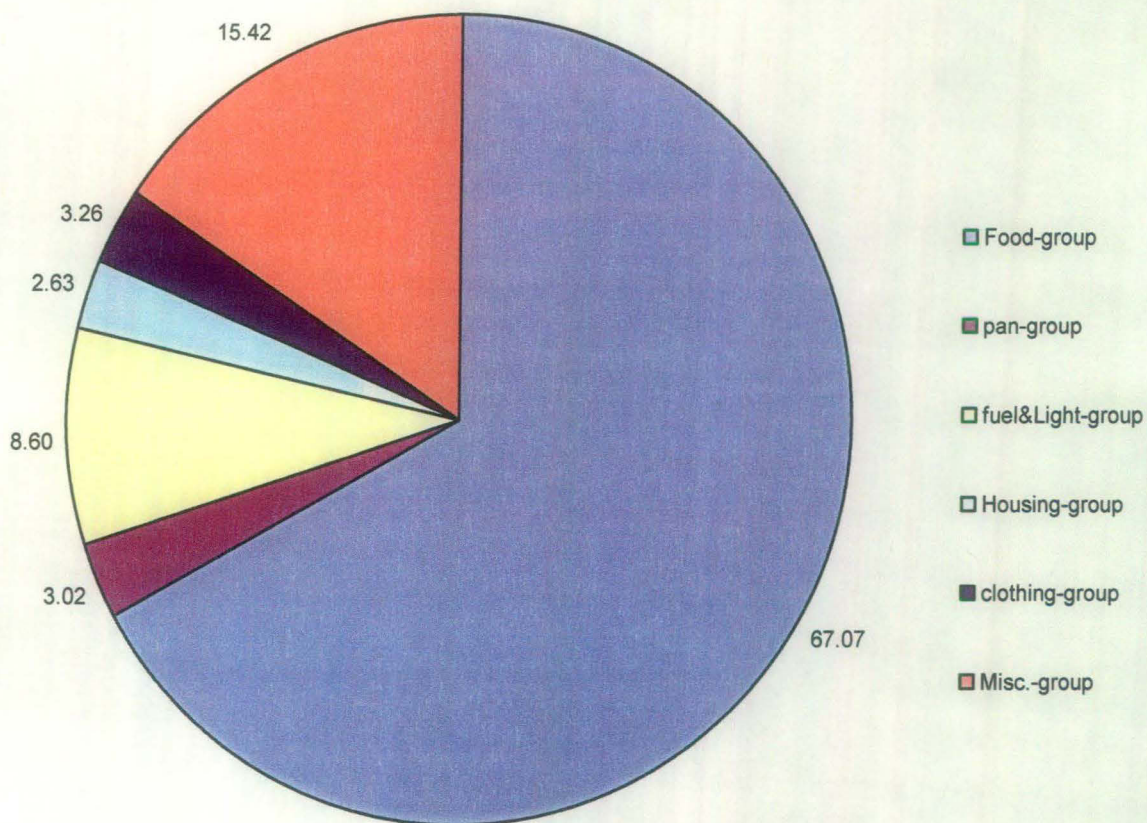
Sources: Authors' calculations from unit records 43rd CES data.

Figure 3.3: All- India percentage shares of groups of consumer items group in total consumption expenditure for middle rural population 1987-88



Sources: Authors' calculations from unit records 43rd CES data.

Figure 3.4: All- India percentage shares of groups of consumer items group in total consumption expenditure for middle urban population 1987-88



Sources: Authors' calculations from unit records 43rd CES data.

3.3 Comparison between CPIMR, CPIMU and Other Indices

Table 3.3 shows the state-wise Consumer Price Index for Industrial Workers (CPIIW) and Middle Urban Population (CPIMU) for the year 1993-94 and 2004-05 with base year 1987-88. In 1993-94 CPIMU is higher than the CPIIW for all the states except Assam, HP, MP, Maharashtra, Meghalaya, Orissa, Rajasthan, Uttar Pradesh, West Bengal and Chandigarh. Similarly, in 2004-05 CPIMU is lower than the CPIIW for all the states except Gujarat and Tamil Nadu. At all- India level in 1993-94, the value of CPIMU is higher than the CPIIW and lower in 2004-05. It shows that if we choose CPIIW instead of CPIMU in 1993-94 then it would result in lower incidence of poverty and reverse is true in case of 2004-05. Many states have higher value of CPIMU in comparison with CPIIW in 1993-94 for instance, Andhra Pradesh, Bihar, Haryana, J and K, Karnataka, Kerala, and Delhi, but lower in 2004-05. Table 3.3 also shows SVIU (i.e. State-Specific Consumer Price Index relative to all-India) for CPIIW and CPIMU for the year 1987-88.

Table 3.4 depicts state-wise Consumer Price Index for Agricultural Labourers (CPIAL) and Middle Rural Population (CPIMR) for the year 1993-94 and 2004-05 with base year 1987-88. In the year 1993-94 CPIMR is found to be lower than the CPIAL for all the states except J and K and Maharashtra. But many states have either equal or closer value of CPIMR to CPIAL for instance Assam, Gujarat, Kerala, MP, Maharashtra, Meghalaya and West Bengal. In 2004-05 CPIMR is higher than the CPIAL for all the states except Andhra Pradesh, Kerala and West Bengal. It shows that if we choose CPIAL instead of CPIMR then there is over estimation of incidence of poverty in rural sector for the 50th round but lower for the 61st round. At all- India level in 1993-94, the value of CPIMR is lower than the value of CPIAL by 0.53 percent and in 2004-05 it is higher by 0.95 percent. Table 3.4 also presents SVIR (i.e. State-Specific Consumer Price Index relative to all-India) for both CPIAL and CPIMR for the year 1987-88.

Table 3.5 shows state- specific price indices relative to all-India for the year 1987-88, 1993-94 and 2004-05 for rural and urban middle populations. This table shows inter-state differential in the price index relative to all- India²⁴. In rural area Andhra Pradesh has minimum SVIR in percentage term in both the years 1993-94 and 2004-05 to be

²⁴ In table3.5 we are explaining state-specific indices only for the year 1993-94 and 2004-05 because we are going to calculate poverty in the next chapter for these years.

82.76 and 84.55 percent, respectively and Kerala has the maximum SVIR in both the years 1993-94 and 2004-05 to be 117.09 and 114.85 percent²⁵, respectively. Other states have different SVIR in different periods. Some states in rural sector have rising value in state-specific CPI while other states have decreasing trends. Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and Delhi have rising trends in the value while other states have decreasing trends in the value.

Whereas in urban sector Assam has the minimum SVIU value in percentage term i.e. 96.72 percent for the year 1993-94 and Meghalaya has 88.42 percent for the year 2004-05, Madhya Pradesh has maximum value of 102.70 percent in 1993-94 and Jammu and Kashmir has 118.59 percent in 2004-05. Other states have either rising value trend or decreasing value trend in SVIU between the period 1993-94 and 2004-05. Andhra Pradesh, Haryana, Karnataka, Kerala, Maharashtra, Chandigarh and Delhi have rising value trend in SVIU and rests of the states have decreasing trends in the value.

Table 3.6 describes the indices obtained by the other researchers from unit level data. On comparing our result with Deaton indices in rural sector, the value of CPIMR is higher than Deaton indices for most of the states except J and K, Maharashtra, Orissa, Punjab and Tamil Nadu where our index value is lower than Deaton's value. At all-India level, CPIMR value is higher than Deaton's value by 3.2 percent. Whereas in urban sector, CPIMU value is higher than the Deaton's value for all the states except Haryana, J and K, Karnataka, Kerala, Maharashtra, Punjab and Uttar Pradesh. Also the value of CPIMU is equal to the Deaton's value at all-India level.

On comparing the value of CPIMR with Dubey and Palmer-Jones' rural sector value we find that CPIMR value is lower than the Dubey and Palmer-Jones for all the states except Madhya Pradesh and Uttar Pradesh. Similarly our CPIMU value is lower than Dubey and Palmer-Jones' urban sector value for all the states.

²⁵ Although in rural area in 2004-05 Delhi has maximum value in percent 119.99 but we can not compare a big metropolitan city with the state value. We can compare it with other big metropolitans like Bombay, Madras etc.

3.4 Measurement of Inflation Rate in Rural and Urban Sector

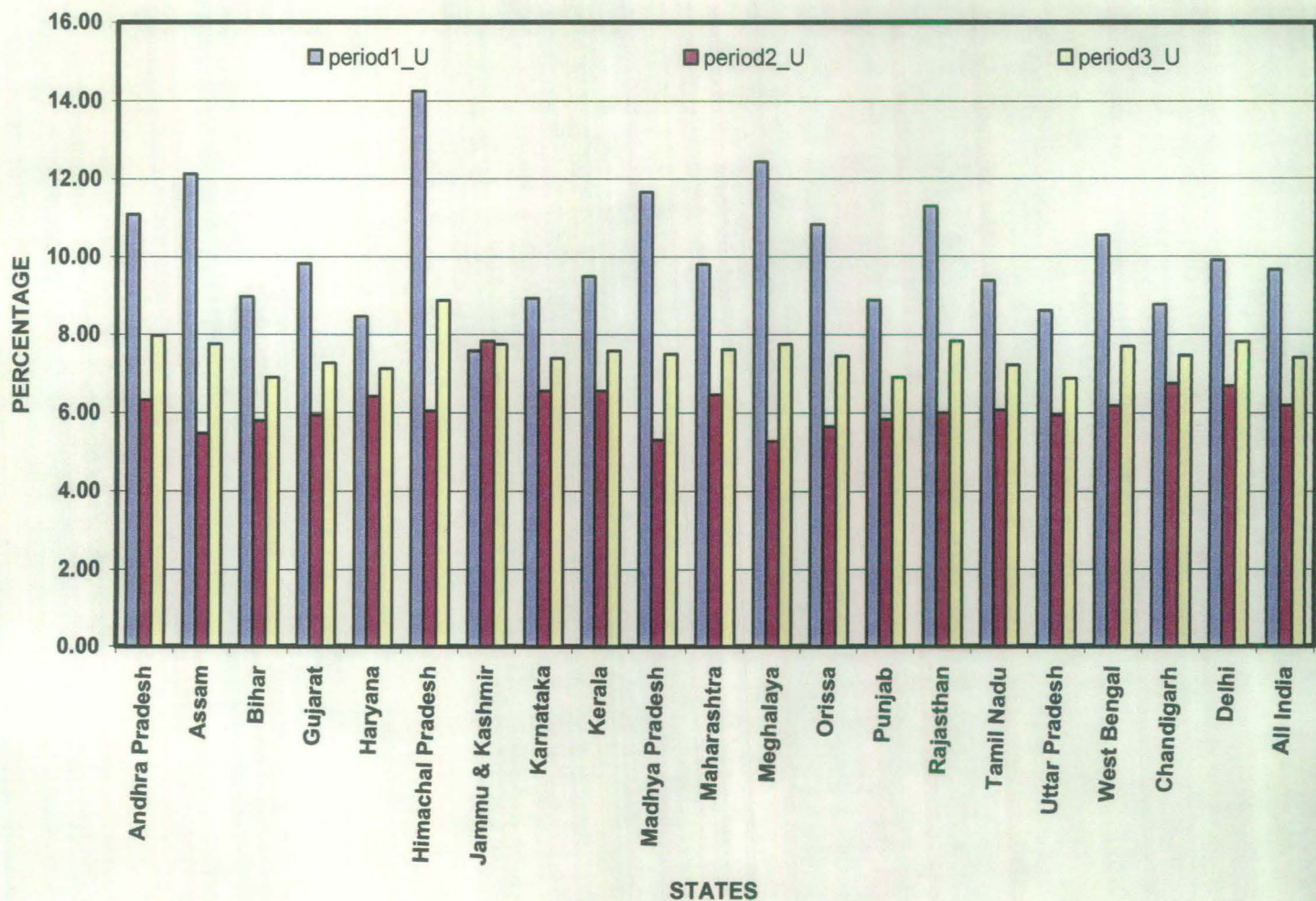
Table 3.7 and figures 3.5 to 3.7 show the annual inflation rate over three periods (period1= 1987-88 to 1993-94, period2 =1993-94 to 2004-05 and period3 = 1987-88 to 2004-05) for the rural and urban sectors. For urban sector, Andhra Pradesh, Maharashtra and Delhi have higher inflation rate than all-India inflation rate in all the periods. Whereas Assam, Gujarat, Himachal Pradesh, Madhya Pradesh, Meghalaya, Orissa, Rajasthan and West Bengal have higher inflation rates in periods 1st and 3rd and lower in period 2nd than all-India inflation rate. Also, Haryana, Jammu and Kashmir and Karnataka have higher inflation rates in periods 2nd and 3rd and lower in period 1st in comparison with all-India annual inflation rate in urban sector. Bihar, Punjab, Tamil Nadu and Uttar Pradesh have low inflation rates in all the three periods as compared to all-India inflation rate in urban sector and inflation rate for rest of the states fluctuate around the all-India urban inflation rate in all the three periods.

Whereas in rural sector, Andhra Pradesh, Haryana, Himachal Pradesh, Karnataka, Kerala, Punjab, Rajasthan, Uttar Pradesh and Delhi have higher inflation rate than the all-India inflation rate for all the three periods. Orissa and West Bengal have lower inflation rate than the all-India inflation rate for all the three periods. While Assam, Bihar, Madhya Pradesh and Meghalaya have higher inflation rates in periods 1st and 3rd as compared to all-India rural inflation. Gujarat, Maharashtra and Tamil Nadu have higher inflation for periods 2nd and 3rd and lower in period 1st than all-India rural inflation rate. And rest of states inflation rate fluctuate around the all-India rural inflation rate for all the three periods.

On comparing inflation rate between rural and urban sectors for all the periods we find that Andhra Pradesh, Assam, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Rajasthan, Tamil Nadu and West Bengal have higher inflation rates in urban sector than the rural sector in all the three periods. Whereas Bihar, Jammu and Kashmir, Karnataka, Kerala and Delhi have lower inflation rates in first period and higher in second and third period in urban sector than the rural sector. Rest of the states have fluctuating pattern in all the three periods. On comparing all-India rural urban inflation rates we find that in first period urban inflation rate is lower than the rural

inflation rate and in rest of the periods urban inflation rate is higher than the rural inflation rate.

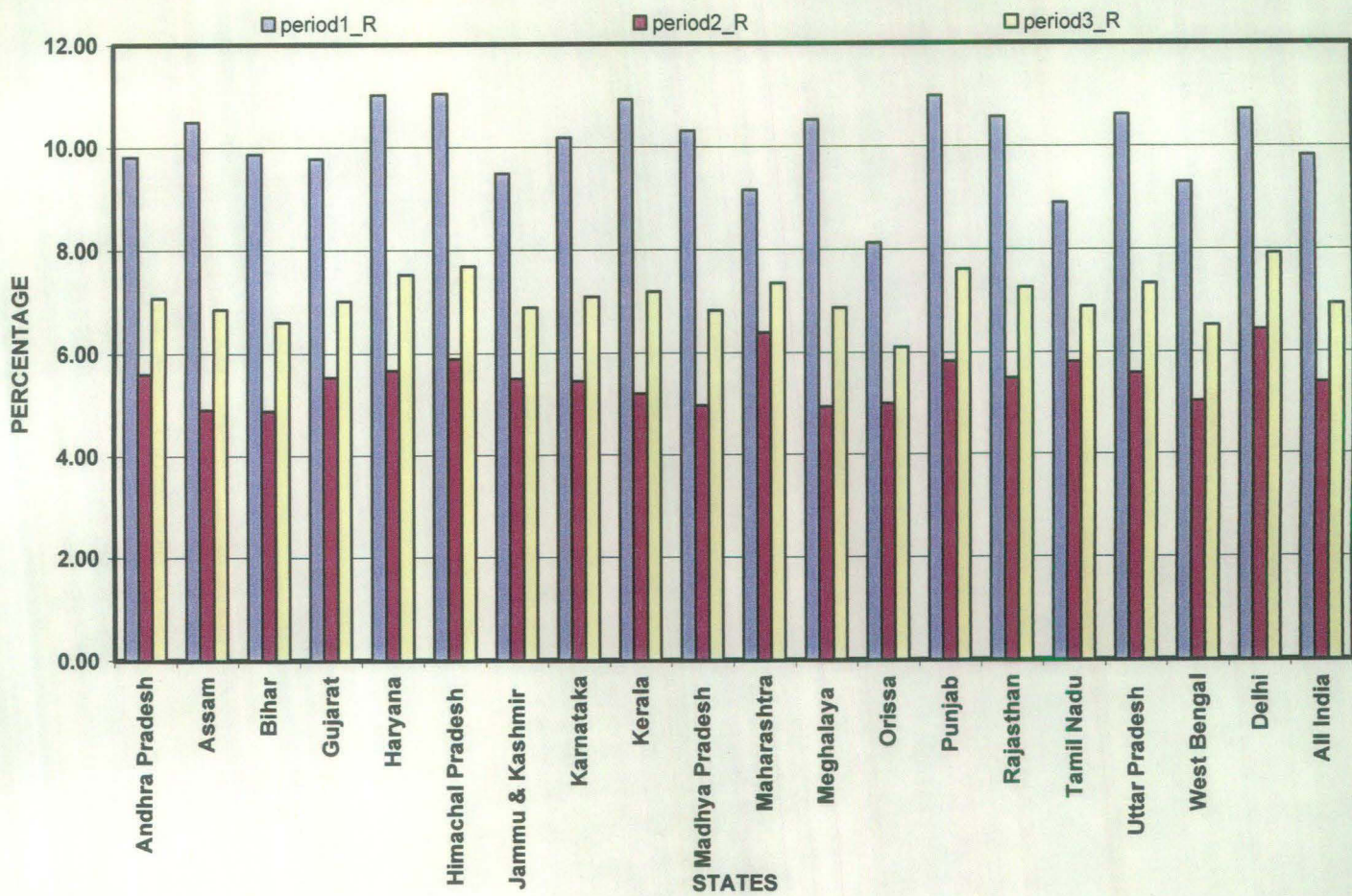
Figure 3.5: Annual Inflation Rate Over the Period for Middle Urban Population



Sources: The figures are made up with the help of table 3.7

Note: U stands for Urban Sector

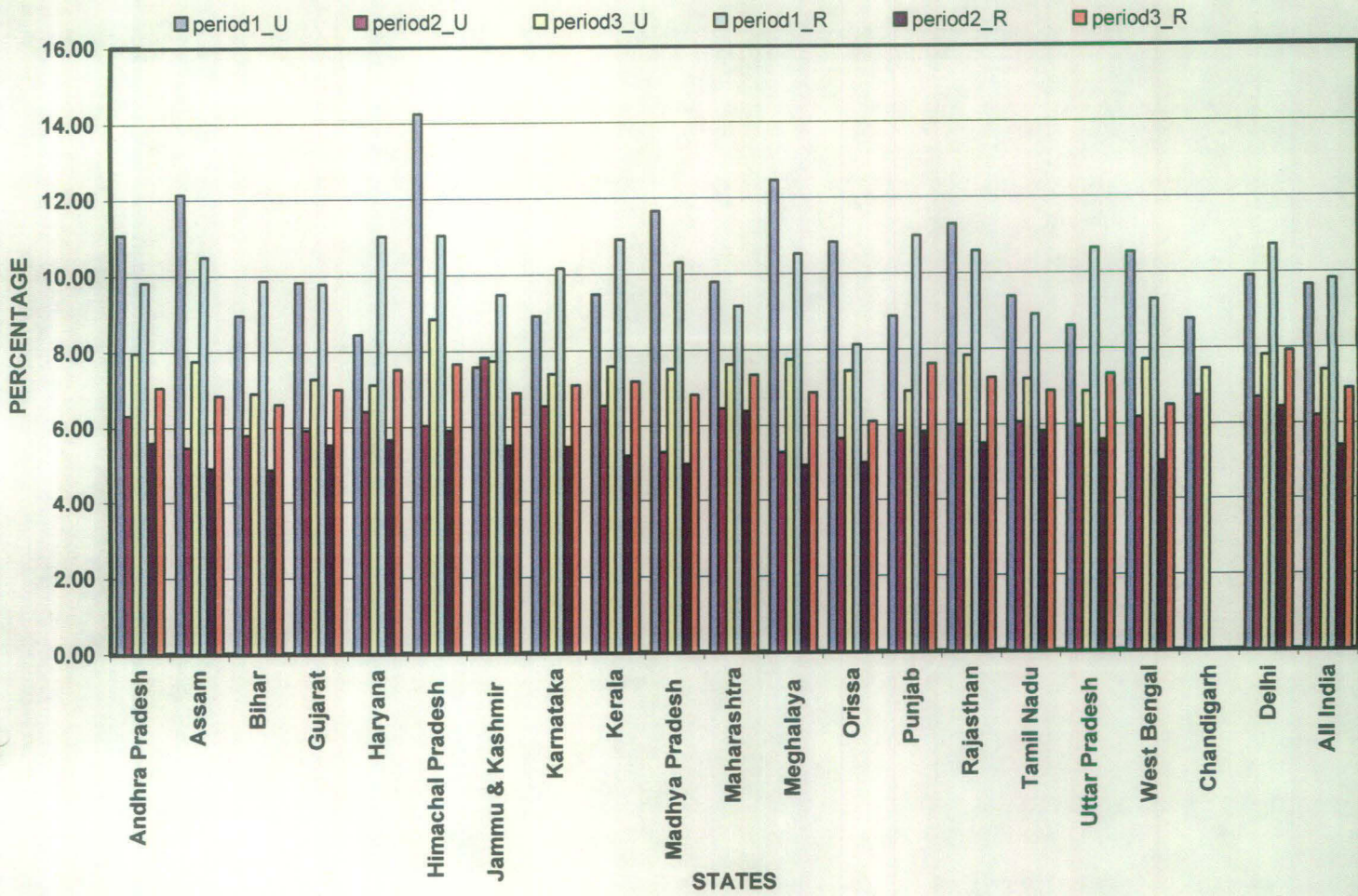
Figure 3.6: Annual Inflation Rate Over the Period for Middle Rural Population



Sources: The figures are made up with the help of table 3.7

Note: R stands for Rural Sector

Figure 3.7: Annual Inflation Rate Over the Period for Middle Population



Sources: The figures are made up with the help of table 3.7

Table 3.1: State-Wise Percentage Shares of Groups of Consumer Items Group in Total Consumer Expenditure for Middle Rural Population 1987-88

Sl No.	States/UT	Food-group	Fuel and Light-group	clothing-group	Misc-pan.-group	General-group
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	71.08	8.58	2.02	18.31	100.00
2	Assam	76.22	8.08	2.49	13.21	100.00
3	Bihar	74.58	8.49	3.85	13.08	100.00
4	Gujarat	73.72	9.16	1.58	15.55	100.00
5	Haryana	67.57	9.17	4.54	18.72	100.00
6	Himachal Pradesh	69.09	11.14	4.18	15.59	100.00
7	Jammu and Kashmir	72.98	10.48	3.48	13.07	100.00
8	Karnataka	70.00	10.45	0.31	19.24	100.00
9	Kerala	69.84	8.24	0.40	21.52	100.00
10	Madhya Pradesh	71.73	9.01	5.14	14.13	100.00
11	Maharashtra	69.65	9.62	3.64	17.10	100.00
12	Meghalaya	75.46	6.82	2.80	14.93	100.00
13	Orissa	73.34	9.89	4.97	11.82	100.00
14	Punjab	69.65	9.90	2.59	17.86	100.00
15	Rajasthan	69.25	9.09	5.61	16.07	100.00
16	Tamil Nadu	71.80	7.84	2.67	17.69	100.00
17	Uttar Pradesh	68.87	9.22	4.30	17.61	100.00
18	West Bengal	76.54	8.27	3.50	11.69	100.00
19	Delhi	62.41	6.73	0.55	30.32	100.00
20	All-India	72.29	9.14	3.25	15.33	100.00

Sources: Authors' calculations from unit records 43rd CES data.

Table 3.2: State-Wise Percentage Shares of Groups of Consumer Items Group in Total Consumer Expenditure for Middle Urban Population 1987-88

Sl No	States/UT	Food-group	pan-group	Fuel and Light-group	Housing-group	clothing-group	Misc.-group	General-group
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	64.56	3.86	7.55	4.01	2.91	17.12	100.00
2	Assam	74.21	3.50	8.79	1.72	2.46	9.32	100.00
3	Bihar	71.47	2.12	7.86	2.30	4.11	12.12	100.00
4	Gujarat	68.19	2.54	8.86	2.23	2.19	15.99	100.00
5	Haryana	65.32	2.84	8.10	2.18	2.82	18.74	100.00
6	Himachal Pradesh	67.33	2.86	10.30	1.44	4.32	13.75	100.00
7	Jammu and Kashmir	71.38	2.65	8.86	0.94	2.66	13.53	100.00
8	Karnataka	65.16	3.30	8.92	4.26	3.02	15.34	100.00
9	Kerala	67.21	3.31	7.72	0.98	3.32	17.46	100.00
10	Madhya Pradesh	64.03	3.08	7.93	2.56	5.34	17.05	100.00
11	Maharashtra	65.14	2.77	8.14	2.63	3.81	17.52	100.00
12	Meghalaya	71.40	5.66	8.10	3.41	2.95	8.48	100.00
13	Orissa	67.57	3.22	8.74	2.32	5.69	12.47	100.00
14	Punjab	65.18	2.44	9.68	1.84	3.57	17.28	100.00
15	Rajasthan	66.77	3.29	8.18	1.56	4.29	15.91	100.00
16	Tamil Nadu	64.14	2.56	7.46	5.89	3.56	16.40	100.00
17	Uttar Pradesh	64.43	2.88	9.27	1.81	4.42	17.20	100.00
18	West Bengal	69.00	3.10	9.26	2.15	3.50	12.99	100.00
19	Chandigarh	64.28	2.49	8.62	4.73	4.74	15.14	100.00
20	Delhi	63.69	2.63	7.42	2.72	3.16	20.38	100.00
	All-India	67.07	3.02	8.60	2.63	3.26	15.42	100.00

Source: As in table 3.1

Table 3.3: State-Wise Consumer Price Index for Industrial Workers (CPIIW) and Middle Urban (CPIMU) Population for 1987-88 1993-94 and 2004-05, (1987-88=100)

Sl No.	States/UT	SVIU 1987-88		1993-94		2004-05	
		CPIIW	CPIMU	CPIIW	CPIMU	CPIIW	CPIMU
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	91.62	90.29	184.13	187.81	370.51	368.39
2	Assam	81.01	84.61	204.5	198.75	364.37	356.68
3	Bihar	96.59	97.60	165.31	167.35	317.55	310.78
4	Gujarat	102.20	101.46	172.54	175.34	321.98	330.03
5	Haryana	104.49	101.24	156.22	162.81	327.9	322.39
6	Himachal Pradesh	71.40	75.79	234.58	222.33	456.69	423.32
7	Jammu and Kashmir	109.97	112.30	153.35	155.04	367	355.53
8	Karnataka	102.87	102.24	166.74	166.96	336.61	335.71
9	Kerala	101.97	101.73	170.91	172.14	347.38	346.03
10	Madhya Pradesh	90.69	92.19	194.84	193.68	360.13	341.58
11	Maharashtra	102.58	102.59	179.51	175.09	361.78	348.29
12	Meghalaya*	81.01	83.70	204.5	202.10	364.37	355.64
13	Orissa	87.42	89.43	187.86	185.20	346.98	338.57
14	Punjab	101.20	100.71	161.85	166.62	310.76	310.71
15	Rajasthan	90.38	91.71	191.43	189.95	368.4	360.29
16	Tamil Nadu	104.75	102.03	167.55	171.28	324.06	327.07
17	Uttar Pradesh	103.28	104.94	165.51	164.17	326.76	309.70
18	West Bengal	90.06	93.32	188.8	182.38	382.73	352.76
19	Chandigarh	101.20	100.61	167.03	165.63	380.44	339.71
20	Delhi	107.83	105.85	171.59	176.14	379.62	358.83
21	All India	100.00	100.00	173.12	173.87	343.57	336.68

Sources: Indian Labour Journal 1987, 1988, 1993, 1994; <http://www.labourbureau.nic.in>; authors' calculations from unit records 43rd CES data and CPIIW data 1987, 1988, 1993, 1994, 2004, 2005

Table 3.4: State-Wise Consumer Price Index for Agricultural Labourers (CPIAL) and Middle Rural (CPIMR) Population for 1987-88 1993-94 and 2004-05 (1987-88=100)

Sl No.	States/UT	SVIR 1987-88		1993-94		2004-05	
		CPIAL	CPIMR	CPIAL	CPIMR	CPIAL	CPIMR
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	82.25	82.76	177.83	175.39	322.82	319.36
2	Assam	101.69	103.12	182.22	182.00	307.40	308.32
3	Bihar	105.68	105.60	184.95	175.89	293.50	296.89
4	Gujarat	91.58	91.46	175.56	175.04	313.32	316.45
5	Haryana	104.52	102.62	191.15	187.23	332.86	343.06
6	Himachal Pradesh	104.52	101.74	191.15	187.43	332.86	351.86
7	Jammu and Kashmir	105.02	105.58	171.94	172.22	304.95	310.32
8	Karnataka	94.82	96.93	179.22	178.86	320.53	320.62
9	Kerala	108.49	110.26	186.51	186.23	326.37	325.60
10	Madhya Pradesh	100.03	100.22	180.40	180.16	306.53	307.20
11	Maharashtra	97.08	97.04	169.00	169.09	324.27	334.11
12	Meghalaya	101.69	103.57	182.22	182.22	307.40	309.66
13	Orissa	109.63	109.43	161.06	159.84	271.07	273.47
14	Punjab	104.52	102.58	191.15	186.87	332.86	348.15
15	Rajasthan	101.51	100.07	187.04	182.76	322.29	329.08
16	Tamil Nadu	97.68	99.37	167.52	166.83	309.83	310.60
17	Uttar Pradesh	108.05	107.13	186.49	183.30	322.45	333.15
18	West Bengal	99.56	101.14	170.92	170.49	294.43	292.32
19	Delhi	104.52	102.56	191.15	184.12	332.86	365.73
20	All India	100.00	100.00	176.31	175.37	309.63	312.60

Sources: Indian Labour Journal 1987, 1988, 1993, 1994; <http://www.labourbureau.nic.in>; authors' calculations from unit records 43rd CES data and CPIAL data 1987, 1988, 1993, 1994, 2004, 2005

Table 3.5: State-Specific Price Indices (Relative to All-India) for Middle Population for 1987-88, 1993-94 and 2004-05: Rural and Urban areas (1987-88=100)

Sl No.	States/UT	RURAL (SVIR)			URBAN (SVIU)		
		CPIMR			CPIMU		
		1987-88	1993-94	2004-05	1987-88	1993-94	2004-05
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	82.76	82.76	84.55	90.29	97.53	98.80
2	Assam	103.12	107.01	101.71	84.61	96.72	89.64
3	Bihar	105.60	105.91	100.30	97.60	93.94	90.09
4	Gujarat	91.46	91.29	92.59	101.46	102.31	99.45
5	Haryana	102.62	109.56	112.62	101.24	94.80	96.94
6	Himachal Pradesh	101.74	108.73	114.51	75.79	96.91	95.29
7	Jammu and Kashmir	105.58	103.69	104.82	112.30	100.14	118.59
8	Karnataka	96.93	98.86	99.42	102.24	98.18	101.94
9	Kerala	110.26	117.09	114.85	101.73	100.72	104.56
10	Madhya Pradesh	100.22	102.96	98.49	92.19	102.70	93.53
11	Maharashtra	97.04	93.57	103.72	102.59	103.31	106.13
12	Meghalaya	103.57	107.62	102.60	83.70	97.29	88.42
13	Orissa	109.43	99.74	95.73	89.43	95.26	89.93
14	Punjab	102.58	109.30	114.24	100.71	96.51	92.94
15	Rajasthan	100.07	104.28	105.34	91.71	100.19	98.14
16	Tamil Nadu	99.37	94.53	98.74	102.03	100.52	99.12
17	Uttar Pradesh	107.13	111.97	114.17	104.94	99.09	96.53
18	West Bengal	101.14	98.32	94.58	93.32	97.89	97.77
19	Chandigarh				100.61	95.85	101.52
20	Delhi	102.56	107.67	119.99	105.85	107.23	112.81
21	All India	100.00	100.00	100.00	100.00	100.00	100.00

Sources: Same as in table 3.3 and 3.4

Table 3.6: State-Wise Consumer Price Indices for Middle Rural (CPIMR) and Urban (CPIMU) Population and Tornqvist Index and Adjusted CPI for Non-Unit Values for 1993-94 (1987-88=100)

SI No.	States/UT	1993-94		Deaton ²⁶		Dubey and Palmer-Jones ²⁷	
		CPIMR	CPIMU	RURAL	URBAN	RURAL	URBAN
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	175.39	187.81	175.9	177.2	184.94	235.1
2	Assam	182	198.75	173.7	177.7	226.52	212.28
3	Bihar	175.89	167.35	159.7	165.2	187.39	231.44
4	Gujarat	175.04	175.34	170.6	165.4	249.2	219.78
5	Haryana	187.23	162.81	174.2	177.6	219.95	233.44
6	Himachal Pradesh	187.43	222.33	167.1	175.2		234.48
7	Jammu and Kashmir	172.22	155.04	181.5	178.5	216.84	
8	Karnataka	178.86	166.96	175.1	177.1	216.75	214.87
9	Kerala	186.23	172.14	172.3	173.5	257.25	227.1
10	Madhya Pradesh	180.16	193.68	171.9	170.9	173.15	231.87
11	Maharashtra	169.09	175.09	172.6	181.1	218.72	221.42
12	Meghalaya	182.22	202.10				
13	Orissa	159.84	185.20	164.6	167.8	165.74	251.85
14	Punjab	186.87	166.62	190.7	187.1	226.61	211.26
15	Rajasthan	182.76	189.95	166.9	171.8	221.22	229.18
16	Tamil Nadu	166.83	171.28	167.7	170.5	220.38	232.23
17	Uttar Pradesh	183.3	164.17	167.9	165.4	176.22	228.63
18	West Bengal	170.49	182.38	166.5	170.6	189.37	221.47
19	Chandigarh		165.63				
20	Delhi	184.12	176.14		175.7		226.72
21	All India	175.37	173.87	169.8	173.8	200.67	

Sources: Deaton 2003; Dubey and Palmer-Jones 2005; authors' calculations from unit records 43rd CES data and CPIIW and CPIAL data 1993 and 1994 from Indian Labour Journal.

²⁶ Although Deaton calculated Laspeyres, Paasche Index, Fisher Ideal and Tornqvist Indices from CES data of NSSO but his main point of concern was superlative indices i.e. Tornqvist which he used to calculate poverty.

²⁷ In table 3.6 columns 6 and 7 show adjusted CPI for non-unit values constructed by Dubey and Palmer-Jones with the help of CPIAL and CPIIW which CES survey does not cover.

Table 3.7: Annual Inflation Rate over the Period for Middle Population (percent)

SI No.	States/UT	URBAN SECTOR 1987-88=100			RURAL SECTOR 1987-88=100		
		period1	period2	period3	period1	period2	period3
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	11.08	6.32	7.97	9.82	5.60	7.07
2	Assam	12.13	5.46	7.77	10.50	4.91	6.85
3	Bihar	8.96	5.79	6.90	9.87	4.87	6.61
4	Gujarat	9.81	5.92	7.28	9.78	5.53	7.01
5	Haryana	8.46	6.41	7.13	11.02	5.66	7.52
6	Himachal Pradesh	14.24	6.03	8.86	11.04	5.89	7.68
7	Jammu and Kashmir	7.58	7.84	7.75	9.48	5.50	6.89
8	Karnataka	8.92	6.56	7.38	10.18	5.45	7.09
9	Kerala	9.47	6.55	7.58	10.92	5.21	7.19
10	Madhya Pradesh	11.65	5.29	7.49	10.31	4.97	6.82
11	Maharashtra	9.79	6.45	7.62	9.15	6.39	7.35
12	Meghalaya	12.44	5.27	7.75	10.52	4.94	6.87
13	Orissa	10.82	5.64	7.44	8.13	5.00	6.10
14	Punjab	8.88	5.83	6.90	10.98	5.82	7.61
15	Rajasthan	11.29	5.99	7.83	10.57	5.49	7.26
16	Tamil Nadu	9.38	6.06	7.22	8.90	5.81	6.89
17	Uttar Pradesh	8.61	5.94	6.88	10.63	5.58	7.34
18	West Bengal	10.53	6.18	7.70	9.30	5.02	6.51
19	Chandigarh	8.77	6.75	7.46			
20	Delhi	9.89	6.68	7.81	10.71	6.44	7.93
21	All India	9.66	6.19	7.40	9.81	5.40	6.93
period1= 1987-88 to 1993-94, period2 =1993-94 to 2004-05, period3 = 1987-88 to 2004-05							

Source: Authors' calculation from CPIMR and CPIMU indices, given as in table 3.3 and 3.4

APPENDIX 3A

**Table A 3.1: State-Wise Consumer Price Index for Middle Rural Population
(CPIMR) for the Year 1987-88, 1987-88=100**

SI No.	States/UT	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	398.11	16.34	11.51	105.57	531.54
2	Assam	564.34	14.51	14.24	69.22	662.31
3	Bihar	562.73	15.84	20.45	79.25	678.26
4	Gujarat	477.01	17.09	9.15	84.18	587.44
5	Haryana	506.78	15.48	28.24	108.61	659.11
6	Himachal Pradesh	518.17	18.81	26.00	90.44	653.43
7	Jammu and Kashmir	550.79	15.96	19.65	91.76	678.15
8	Karnataka	453.20	20.47	1.78	147.13	622.57
9	Kerala	541.71	17.01	2.27	147.21	708.19
10	Madhya Pradesh	529.26	13.52	28.22	72.73	643.72
11	Maharashtra	482.71	18.61	19.87	102.08	623.27
12	Meghalaya	558.73	12.24	15.99	78.27	665.22
13	Orissa	582.72	16.15	27.05	76.96	702.87
14	Punjab	522.41	16.71	16.11	103.60	658.83
15	Rajasthan	503.66	13.81	31.39	93.85	642.71
16	Tamil Nadu	488.47	15.12	15.47	119.18	638.25
17	Uttar Pradesh	529.76	18.26	24.14	115.90	688.06
18	West Bengal	530.11	26.12	19.51	73.84	649.58
19	Delhi	468.06	11.36	3.39	175.90	658.72
20	All India	510.67	17.94	18.30	95.38	642.28

Sources: Authors' calculations from unit records 43rd CES data and CPIAL data 1987 and 1988 from Indian Labour Journal.

Table A 3.2: State-Wise Consumer Price Index for Middle Urban Population (CPIMU) for the Year 1987-88, 1987-88=100

Sl No.	States/UT	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	267.17	19.70	33.63	13.02	12.04	64.58	410.13
2	Assam	288.41	11.77	24.00	2.55	10.36	47.25	384.34
3	Bihar	326.64	11.73	37.82	3.99	16.03	47.09	443.31
4	Gujarat	323.16	12.68	37.43	5.33	9.70	72.52	460.84
5	Haryana	282.32	19.91	44.92	13.58	11.97	87.14	459.85
6	Himachal Pradesh	222.18	16.01	36.50	2.73	15.01	51.82	344.25
7	Jammu and Kashmir	345.46	9.05	53.14	2.08	12.28	88.09	510.11
8	Karnataka	302.08	17.01	58.13	7.65	12.09	67.43	464.39
9	Kerala	315.39	17.03	42.46	2.27	13.73	71.19	462.08
10	Madhya Pradesh	271.13	15.60	43.62	6.46	19.56	62.38	418.76
11	Maharashtra	316.96	13.76	46.28	6.22	15.37	67.39	465.98
12	Meghalaya	277.69	19.00	22.20	6.21	12.33	42.76	380.20
13	Orissa	258.72	15.21	55.10	6.36	20.08	50.74	406.20
14	Punjab	297.27	14.97	52.84	5.33	15.49	71.55	457.45
15	Rajasthan	284.54	16.57	36.76	5.50	17.68	55.50	416.55
16	Tamil Nadu	303.62	12.75	42.89	24.41	14.10	65.69	463.46
17	Uttar Pradesh	305.84	14.99	67.90	4.56	19.10	64.29	476.67
18	West Bengal	284.77	12.81	55.07	4.09	14.66	52.46	423.86
19	Chandigarh	296.08	14.70	46.90	14.02	20.89	64.42	457.01
20	Delhi	303.72	15.05	40.78	11.36	14.26	95.63	480.79
21	All India	309.67	14.89	47.61	7.30	13.61	61.15	454.23

Sources: Authors' calculations from unit records 43rd CES data and CPIIW data 1987 and 1988 from Indian Labour Journal

Table A 3.3: State-Wise Consumer Price Index for Middle Rural Population (CPIMR) for the Year 1993-94, 1987-88=100

SI No.	States/UT	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	714.13	18.47	21.81	177.84	932.25
2	Assam	1036.45	16.69	23.16	129.11	1205.41
3	Bihar	998.41	17.06	34.67	142.88	1193.01
4	Gujarat	845.48	18.83	15.93	148.04	1028.28
5	Haryana	977.01	16.68	60.73	179.63	1234.04
6	Himachal Pradesh	998.97	20.27	55.91	149.58	1224.73
7	Jammu and Kashmir	939.61	17.20	37.22	173.88	1167.91
8	Karnataka	807.93	22.46	3.28	279.87	1113.53
9	Kerala	1012.52	19.29	4.76	282.29	1318.86
10	Madhya Pradesh	958.39	14.28	52.58	134.49	1159.74
11	Maharashtra	811.36	22.08	35.70	184.77	1053.92
12	Meghalaya	1026.15	14.08	26.00	145.98	1212.20
13	Orissa	927.77	17.62	57.28	120.81	1123.48
14	Punjab	1007.15	18.01	34.64	171.34	1231.13
15	Rajasthan	930.92	14.84	67.76	161.11	1174.62
16	Tamil Nadu	805.89	17.28	31.25	210.34	1064.76
17	Uttar Pradesh	1002.36	20.47	43.44	194.97	1261.25
18	West Bengal	900.95	35.19	43.16	128.17	1107.48
19	Delhi	902.38	12.24	7.29	290.92	1212.82
20	All India	902.29	20.55	34.76	168.79	1126.40

Sources: Authors' calculations from unit records 43rd CES data and CPIAL data 1993 and 1994 from Indian Labour Journal.

Table A 3.4: State-Wise Consumer Price Index for Middle Urban Population (CPIMU) for the Year 1993-94, 1987-88=100

Sl No.	States/UT	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	519.88	38.96	67.11	14.67	19.47	110.18	770.26
2	Assam	575.49	37.37	60.99	4.53	19.95	65.53	763.86
3	Bihar	521.22	18.88	82.84	10.28	31.01	77.64	741.87
4	Gujarat	572.77	22.89	77.16	8.61	14.74	111.86	808.03
5	Haryana	503.73	26.34	62.82	9.12	21.56	125.10	748.67
6	H.P.	524.92	25.02	81.84	6.57	32.52	94.50	765.38
7	Jammu and Kashmir	568.07	31.68	84.64	3.04	23.35	80.07	790.86
8	Karnataka	535.48	29.54	71.30	17.59	19.98	101.47	775.36
9	Kerala	560.39	29.97	60.39	3.73	23.13	117.84	795.44
10	M.P.	526.48	28.42	92.86	11.28	37.57	114.45	811.06
11	Maharashtra	553.11	29.66	64.27	13.04	27.44	128.38	815.90
12	Meghalaya	558.81	59.70	57.03	11.09	23.39	58.36	768.39
13	Orissa	517.28	29.80	74.67	9.11	39.06	82.38	752.30
14	Punjab	522.30	21.85	76.79	6.39	24.64	110.22	762.18
15	Rajasthan	540.91	29.20	68.00	6.79	33.65	112.67	791.22
16	Tamil Nadu	546.20	26.73	61.51	24.34	24.28	110.76	793.82
17	U.P.	511.44	24.84	89.82	7.68	31.73	117.04	782.55
18	West Bengal	535.89	28.91	84.67	7.84	26.78	88.96	773.06
19	Chandigarh	500.06	20.25	72.39	23.00	35.84	105.42	756.96
20	Delhi	577.95	24.19	52.97	11.19	25.09	155.50	846.89
21	All India	547.39	28.56	75.10	10.88	23.15	104.69	789.75

Sources: Authors' calculations from unit records 43rd CES data and CPIIW data 1993 and 1994 from Indian Labour Journal.

**Table A 3.5: State-Wise Consumer Price Index for Middle Rural Population
(CPIMR) for the Year 2004-05, 1987-88=100**

SI No.	States/UT	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	1303.68	35.66	39.48	318.72	1697.53
2	Assam	1687.40	39.05	56.30	259.31	2042.06
3	Bihar	1587.40	36.90	78.31	311.09	2013.70
4	Gujarat	1473.38	29.51	28.27	327.76	1858.92
5	Haryana	1661.67	43.67	83.71	472.13	2261.18
6	Himachal Pradesh	1699.02	30.90	72.38	496.86	2299.16
7	Jammu and Kashmir	1627.58	31.43	69.73	375.72	2104.46
8	Karnataka	1416.90	42.95	5.68	530.58	1996.11
9	Kerala	1740.37	34.94	7.53	523.04	2305.88
10	Madhya Pradesh	1591.76	37.47	95.33	252.94	1977.50
11	Maharashtra	1555.26	37.89	62.34	426.95	2082.44
12	Meghalaya	1670.63	32.94	63.19	293.20	2059.96
13	Orissa	1499.68	44.82	110.71	266.91	1922.11
14	Punjab	1712.93	46.07	43.57	491.13	2293.70
15	Rajasthan	1553.68	40.77	109.90	410.69	2115.04
16	Tamil Nadu	1392.01	34.55	50.60	505.23	1982.39
17	Uttar Pradesh	1703.42	36.89	84.45	467.54	2292.31
18	West Bengal	1478.63	38.50	84.44	297.29	1898.86
19	Delhi	1534.74	31.31	9.17	833.89	2409.10
20	All India	1543.51	38.46	62.77	363.03	2007.77

Sources: Authors' calculations from unit records 43rd CES data and CPIAL data 2004 and 2005 from <http://www.labourbureau.nic.in>.

Table A 3.6: State-Wise Consumer Price Index for Middle Urban Population (CPIMU) for the Year 2004-05, 1987-88=100

SI No.	States/UT	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Miscellaneous Index	General Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	953.73	79.03	156.20	46.52	32.52	242.87	1510.87
2	Assam	994.03	64.32	131.45	9.89	37.18	133.98	1370.85
3	Bihar	908.99	38.42	194.63	25.98	52.64	157.07	1377.73
4	Gujarat	1010.61	47.68	198.30	17.48	23.79	223.05	1520.91
5	Haryana	905.26	51.69	188.63	29.26	41.36	266.31	1482.51
6	Himachal Pradesh	943.86	53.15	184.27	15.31	55.50	205.19	1457.28
7	Jammu and Kashmir	1249.53	65.94	220.07	9.14	36.36	232.56	1813.59
8	Karnataka	1010.59	54.06	203.50	42.76	34.27	213.82	1559.00
9	Kerala	1066.36	67.45	150.31	8.46	37.39	268.98	1598.94
10	Madhya Pradesh	892.12	52.57	176.48	31.67	62.01	215.56	1430.40
11	Maharashtra	1007.73	54.03	211.25	40.46	46.80	262.70	1622.97
12	Meghalaya	956.65	102.93	107.75	25.61	42.35	116.86	1352.15
13	Orissa	881.53	66.34	185.95	24.23	64.62	152.61	1375.28
14	Punjab	895.41	44.09	222.46	17.14	38.43	203.78	1421.32
15	Rajasthan	985.95	61.22	159.01	16.02	59.67	218.91	1500.77
16	Tamil Nadu	956.07	56.06	150.50	72.11	38.73	242.36	1515.83
17	Uttar Pradesh	928.65	52.18	191.95	23.83	52.15	227.52	1476.28
18	West Bengal	995.62	60.66	179.26	23.39	49.48	186.82	1495.23
19	Chandigarh	984.94	36.99	174.45	83.95	64.72	207.48	1552.54
20	Delhi	1042.96	53.54	157.96	40.96	44.18	385.62	1725.22
21	All India	989.92	56.73	194.85	31.14	39.34	217.28	1529.27

Sources: Authors' calculations from unit records 43rd CES data and CPIW data 2004 and 2005 from <http://www.labourbureau.nic.in>.

CHAPTER 4

INCIDENCE OF POVERTY

4.1 Methodology to Calculate Head Count Ratio (HCR)

This chapter is related to incidence of poverty. It aims to describe the poverty rate at state level sector wise (rural and urban) for the period 1993-94 and 2004-05 with base year 1987-88. To show the incidence of poverty, the Head Count Ratio (HCR) approach is used, which is also used by the Planning Commission and other researchers as well. We know HCR is the ratio of number of persons below the poverty line to the total population. So to generate poverty line for the period 1993-94 and 2004-05, we are taking state-wise poverty of 1987-88 as base. And then with the help of CPIMR and CPIMU state-wise poverty line will be obtained²⁸ for this period.

To find out the households below the poverty line in 1993-94 and 2004-05, these households are arranged in ascending order according to their Monthly Per Capita Total Expenditure (MPCTE) along with their multipliers²⁹. And then by using poverty line in MPCTE term we calculated the households below the poverty line for both the periods. Once we apply population weight to households below the poverty line, we are able to identify the number of persons below the poverty line. When we sum up all the poor persons, we obtain total number of persons below the poverty line (poor persons). To calculate total population including both poor and non-poor, we have to apply population weight to the entire household surveyed, and then sum over it. Now, the ratio of above two i.e. poor persons to the total population gives us HCR.

²⁸ CPIMR and CPIMU for the period 1993-94 and 2004-05 are in relative term with 1987-88 CPIMR and CPIMU.

²⁹ We are using raw data of CES, therefore to find out person below the poverty line we have to use household size with the multiplier to calculate total number of person below the poverty line.

To obtain proportion of poor people at all India level, there are two methods: *First*, fix the all India poverty line and then count the number of persons below the poverty line. *Second*, is to sum over the poor persons (sector-wise or state-wise) to get the total number of poor persons, at all India level. Similarly sum over all the population (poor and non-poor) sector-wise or state-wise to get the all- India population. The ratio of these two i.e. total poor persons to total population will give us the all- India HCR³⁰. In our study, we have followed the second method.

4.2 Comparison of Poverty Line

Table 4.1 shows state-wise poverty line for the years 1993-94 and 2004-05 with base year 1987-88 as calculated by us in the columns 2 to 5, official poverty line in columns 6 to 9 for the same period and by other researchers Deaton, Dubey and Palmer-Jones in columns 10 to 14³¹ for the period 1993-94.

On comparing our result with the official poverty line we found that in 1993-94 our rural sector poverty line is very much close to the official poverty line. The states where differences are not more than one rupee are Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Tamil Nadu and West Bengal, while the rest of the states differ for more than one rupee. Our result for most of states is lesser than the official poverty line except Karnataka, Maharashtra and Orissa. But at all-India level our poverty line i.e. Rs.227.92 is higher than the official poverty line of Rs.205.84. Highest poverty line as per official method in rural sector is for Kerala being Rs.243.84 and lowest for Andhra Pradesh being Rs.163.02. We have also obtained highest and lowest poverty lines for the same states of Rs.243.23 and Rs.161.25, and the figures are also similar to the official one in case of Kerala but lower in case of Andhra Pradesh.

For 2004-05 our rural poverty line is higher than the official poverty line for most of the states except J and K, Kerala and West Bengal. As per our calculation highest poverty line is for Delhi being Rs.449.48 followed by HP where it is Rs.432.44 and lowest for Andhra Pradesh with Rs.293.62, whereas in case of official poverty line it is

³⁰ Dubey, A. and S. Gangopadhyay (1998): counting the poor: where are the poor in India? pp.22-23.

³¹ These poverty lines have been calculated by constructing superlatives indices from unit level data of NSSO CES.

highest for Kerala Rs.430.12 followed by Haryana Rs.414.76 and lowest for Andhra Pradesh Rs.292.95 (AP figure is very much close to the official one). Our all India figure is Rs. 421.72 which is higher than the Planning Commission with Rs.356.3.

Whereas for urban sector in 1993-94 our poverty line is higher than the official line for almost every state except Haryana, J and K, Karnataka, Maharashtra, Punjab, Uttar Pradesh and Chandigarh. There is huge variation in the values between our poverty line and the official poverty line for the urban sector. As per our calculation highest poverty line is for Madhya Pradesh with Rs.345.60 followed by Maharashtra Rs.322.96 and lowest for J and K Rs.225.15, whereas, as per official poverty line, highest is for Maharashtra Rs.328.56 followed by Madhya Pradesh Rs.317.16 and lowest for Assam Rs.212.42. At all-India level our poverty line of Rs.335.22 is higher than the official poverty line of 281.35.

Similarly, for the year 2004-05 our urban sector poverty line is higher than the official poverty line for many states except Haryana, J and K, Karnataka, Maharashtra, Punjab and Uttar Pradesh. Again, there is huge variation in the values between our poverty line and the official poverty for the urban sector. In both the calculations i.e. our and the official, Maharashtra has the highest poverty line followed by Delhi. But our poverty line is less than the official poverty line for Maharashtra and higher for the Delhi. At all- India level our poverty line of Rs. 547.70 is higher than the official poverty line of Rs.538.6.

We can also see our calculated poverty lines for both the sectors for the years 1993-94 and 2004-05 with the help of all- India sector-wise maps, namely map 4.1 to 4.4 as given below. As per our calculation in rural sector Himachal Pradesh, Kerala, Punjab, have poverty lines higher than the all- India poverty line whereas Andhra Pradesh, Bihar, Gujarat, J and K, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal have poverty lines lower than the all- India poverty line, in both the years. The rest of states have poverty lines fluctuating around the all-India poverty line.

For urban sector only Madhya Pradesh has poverty line higher than the all- India poverty line in both the years while Assam, Bihar, Haryana, J and K, Meghalaya, Punjab, Uttar Pradesh, West Bengal and Chandigarh have poverty lines lower than the all- India

urban poverty line in both the years. The rest of states have poverty lines fluctuating around the all- India poverty line.

Deaton (2003) and Dubey and Palmer-Jones (2005) have also calculated poverty lines for rural and urban sector for the 50th round. But they have calculated poverty lines with the help of indices and average budget share which has been worked out from CES data of NSSO^{32,33}.

In the 50th round in rural sector our poverty line is higher than the Deaton and Dubey and Palmer-Jones for the states: Assam, Bihar, Haryana, HP, J and K, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal, and lower for the rest of the states³⁴. Our calculated all- India poverty line is Rs. 227.92 which is higher than the Deaton's poverty line of Rs.195.61 and Dubey and Palmer-Jones' poverty line of Rs.197.16.

Whereas in urban sector our poverty line is higher than the Deaton's poverty line for every state except Haryana. Even at all- India level our calculated result shows higher value than the Deaton's value in the 50th round. On comparing our result with the Dubey and Palmer-Jones whether it is urban or urban1, it is higher for the states namely, Andhra Pradesh, Bihar, Gujarat, HP, Karnataka, Kerala, MP, Maharashtra, Orissa, Rajasthan, Tamil Nadu, UP, West Bengal and Delhi. But for the rest of states it is either lower or higher in comparison to urban and urban1.

Table 4.1 also shows the Coefficient of Variation (CV) of the poverty lines within the states in the 50th round. Deaton's and Dubey and Palmer-Jones' CV are lesser than the CV obtained in this study and that of Planning Commission. On comparing our CV with the Planning Commissions' CV in the 50th round of rural sector it is 0.49 percent point

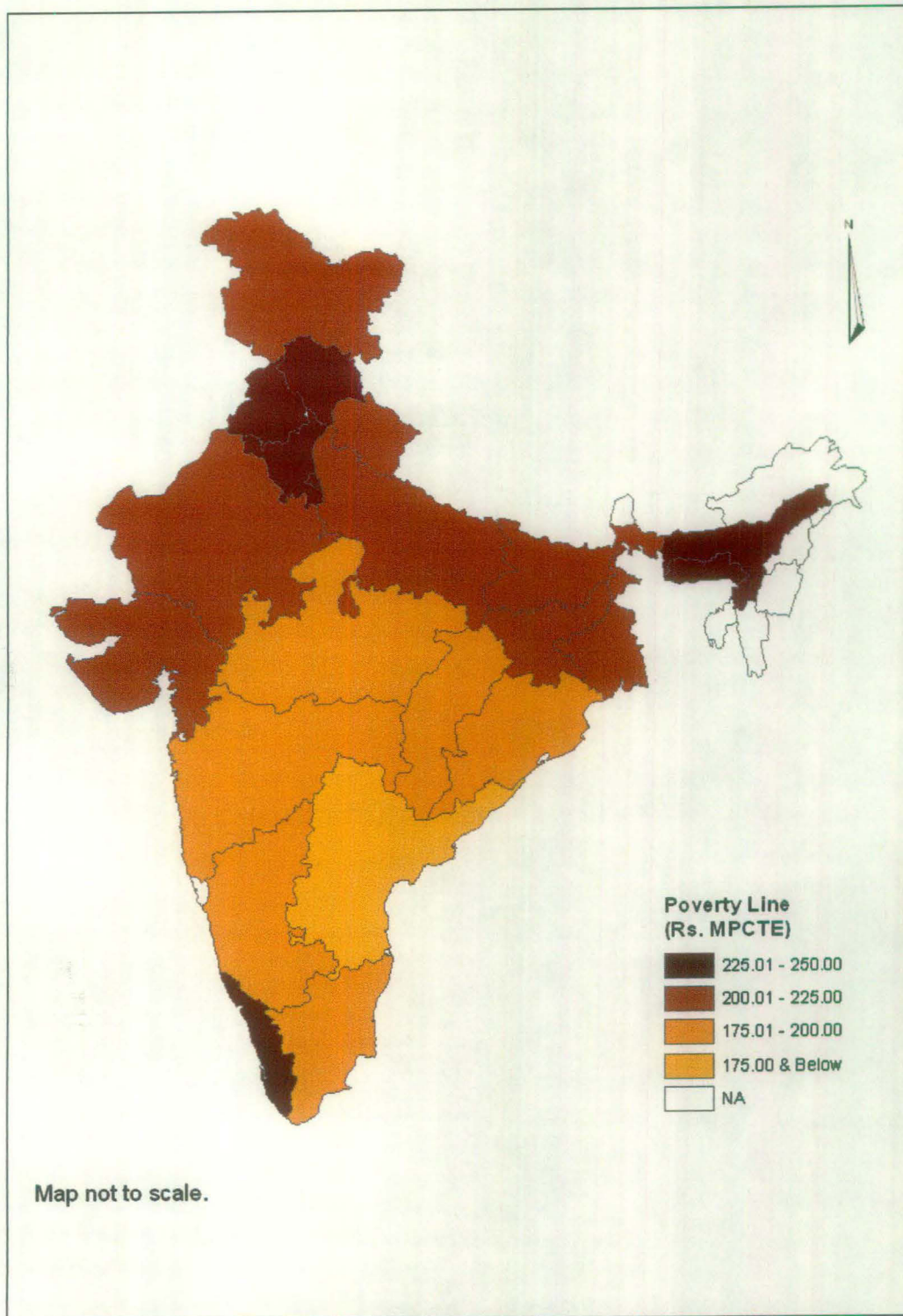
³² Deaton calculated poverty line for the period 1993-94 and 1999-2000 with relative chain base 1987-88 for 1993-94 and 1993-94 relative base for 1999-2000 for indices, but we can not compare 1999-00 Round with the previous Rounds of NSSO due to change in reference period from Uniform Recall period (URP) to Mix Recall Period (MRP). Therefore, we are presented his result only for the period 1993-94, and we are also working for 1993-94 and 2004-05. According to Deaton variation between rural and urban poverty line in the 1999-00 increase to 40 percent as per planning commission methodology and as per his methodology its only 15 percent.

³³ Dubey and Palmer-Jones replicated Deaton methodology using their own variation on Deaton method for four quinquennial rounds (1983, 1987-88, 1993-94 and 2004-05)

³⁴ We are doing comparison only for those states for which they both calculated poverty lines for e.g. Deaton didn't calculated poverty line for Delhi But Dubey and Palmer-Jones did, so we are not considering these states for the comparisons with them (although Dubey and Palmer-Jones poverty line in case of Delhi is higher than our value).

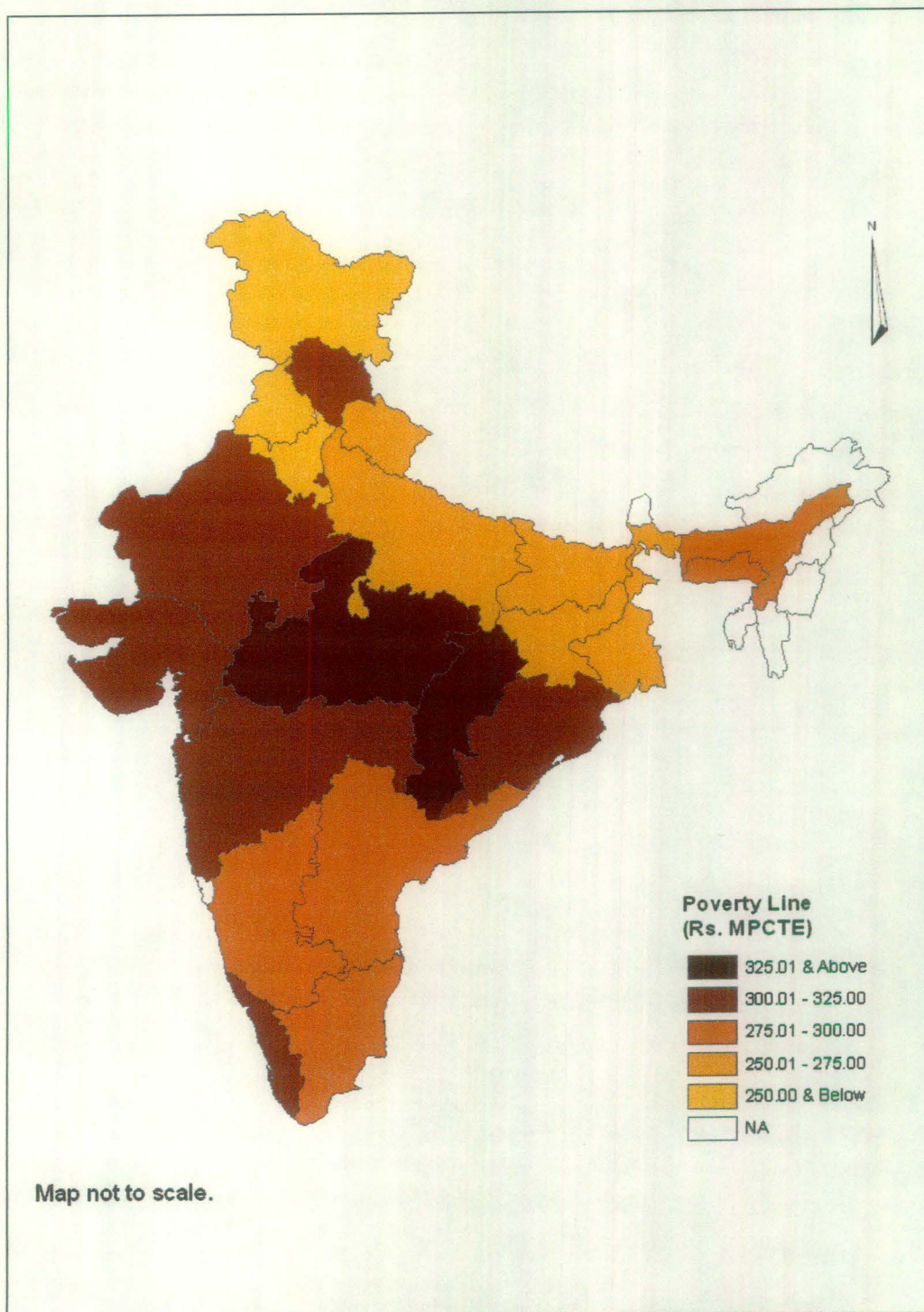
less than the official ones, whereas in the 61st round it is 0.87 percent points higher. In case of urban sector in 1993-94, it is exactly same and in the 61st round it is 0.92 percent points lower than the official one.

Map 4.1: Poverty Line in Rural India 1993-94



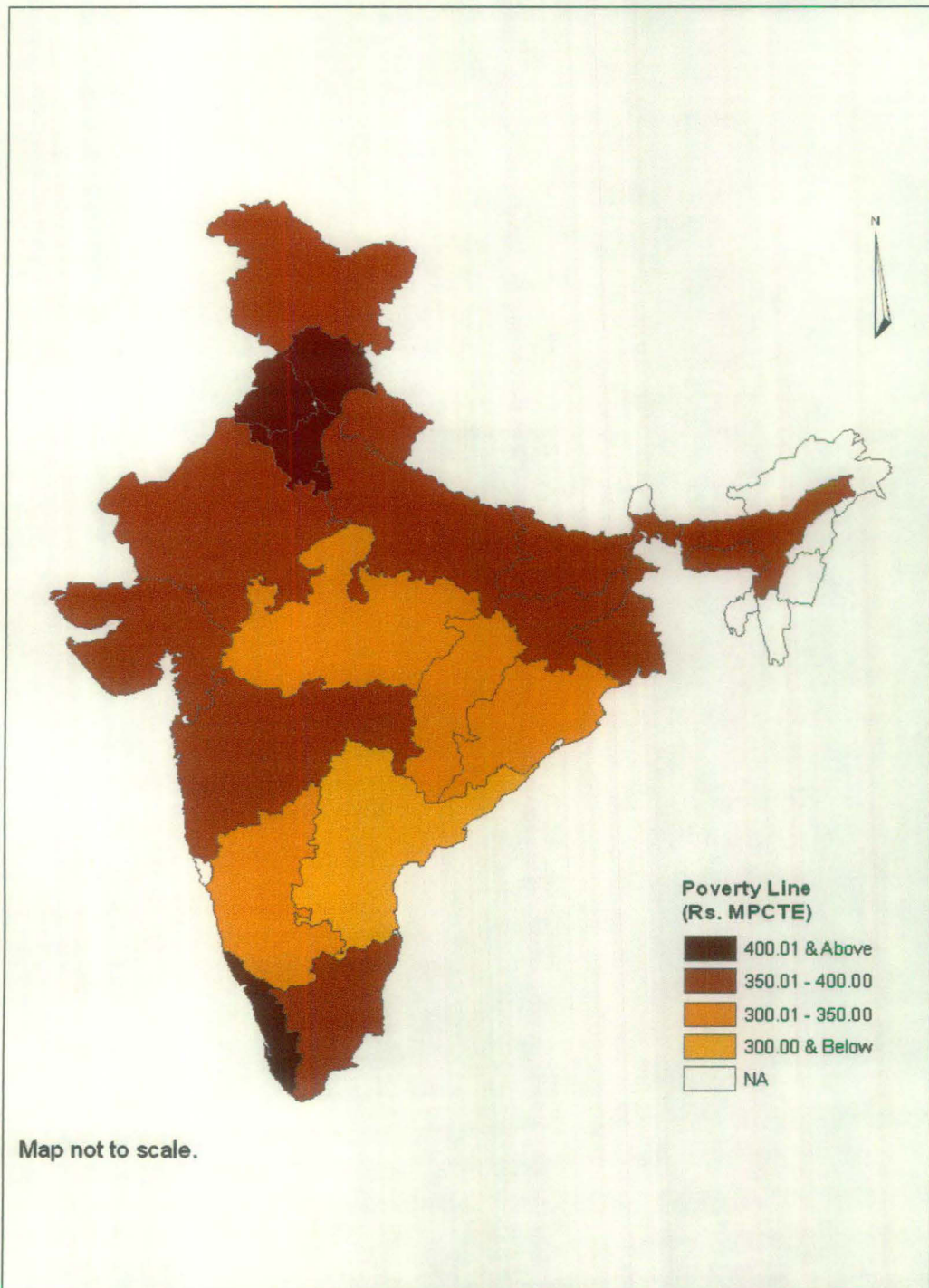
Source: NSSO 50th Round Unit level data on CES, 1993-94; Labour Bureau Price Index CPIAL

Map 4.2: Poverty Line in Urban India 1993-94



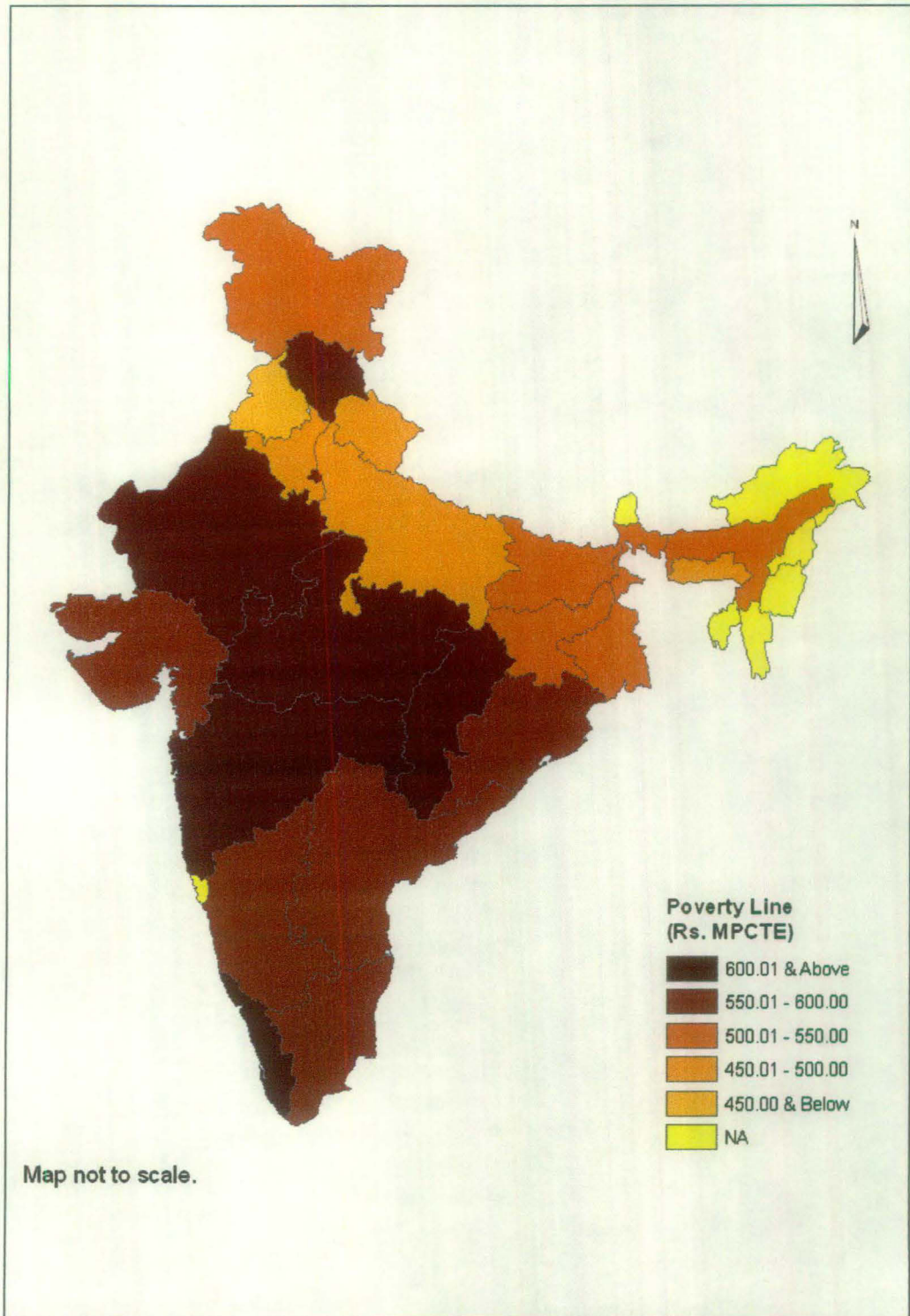
Source: NSSO 50th Round Unit level data on CES, 1993-94; Labour Bureau Price Index CPIIW; and CSO CPI-UNME

Map 4.3: Poverty Line in Rural India 2004-05



Source: NSSO 61st Round Unit level data on CES, 2004-05; Labour Bureau Price Index CPIAL

Map 4.4: Poverty Line in Urban India 2004-05



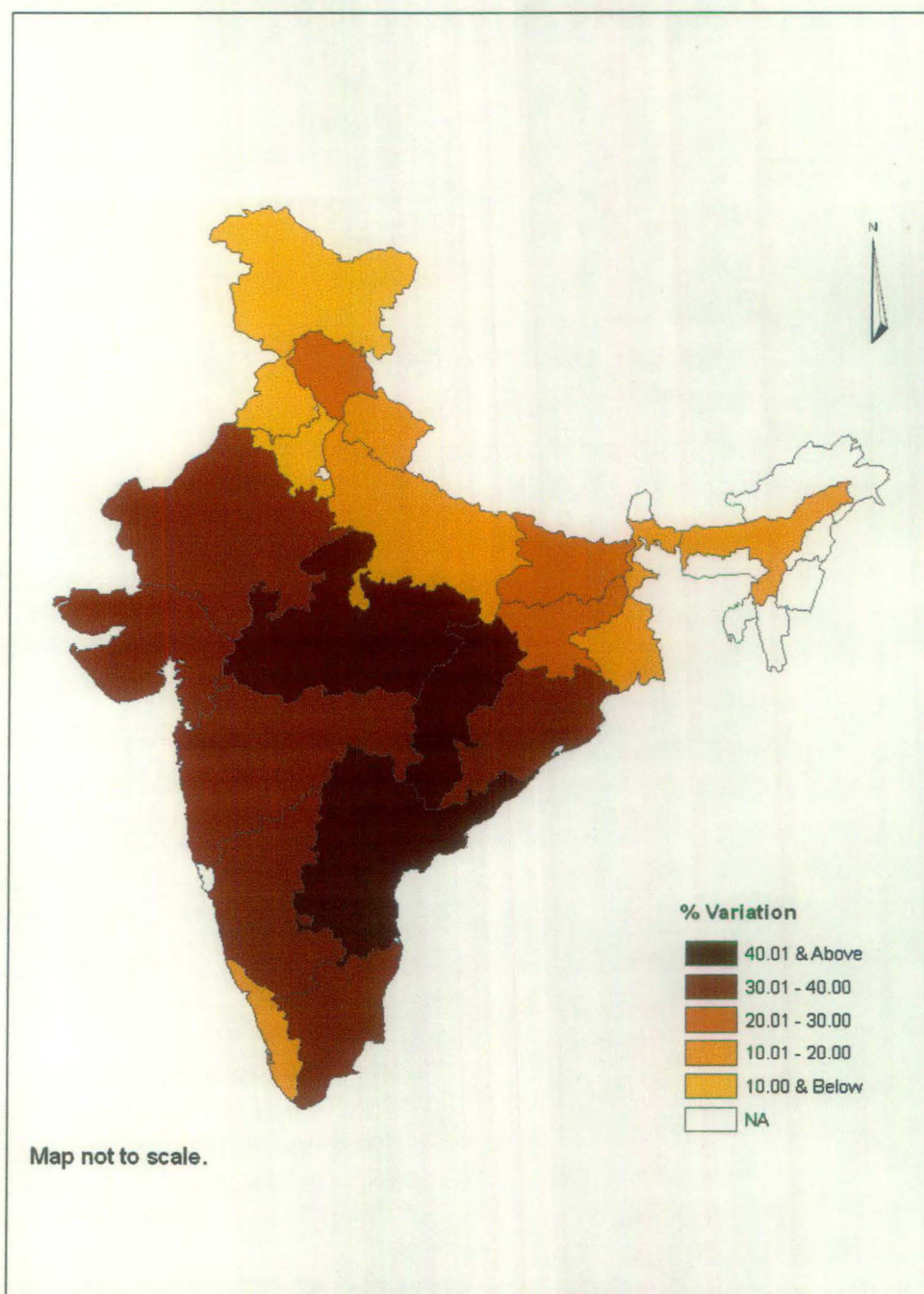
Source: NSSO 61st Round Unit level data on CES, 2004-05; Labour Bureau Price Index CPIIW; and CSO CPI-UNME

Table 4.2 and map 4.5 and 4.6 show state-wise variation in poverty lines between urban and rural sector in percentage term. In 1993-94, Andhra Pradesh has the maximum variation in poverty line of 46.17 percent and Haryana has the least variation of 0.57 percent. If we divide all the states into five deciles groups of 0-10, 10-20, 20-30, 30-40 and 40-50 on the basis of their variations in poverty lines then we can see that Haryana, J and K and Punjab lie in 0-10 deciles group, Assam, Kerala, UP and West Bengal lie in 10-20 deciles group, Bihar and HP in 20-30 deciles group, Gujarat, Karnataka, Maharashtra, Orissa, Rajasthan and Tamil Nadu lie in 30-40 deciles group and Andhra Pradesh and Madhya Pradesh lie in 40-50 deciles group.

Similarly, in 61st round we can divide states into various deciles group, but our point of concern is whether disparity between the poverty lines has increased or not. We can see from the tables that in all the states there is increasing tendency of disparity in poverty lines. Maximum variation between 50th and 61st round is shown by the J and K of more than 20 percent and minimum by Punjab i.e. less than 0.10 percent. In 61st round again Andhra Pradesh shows maximum variation of 50.03 percent and now Punjab shows minimum variation.

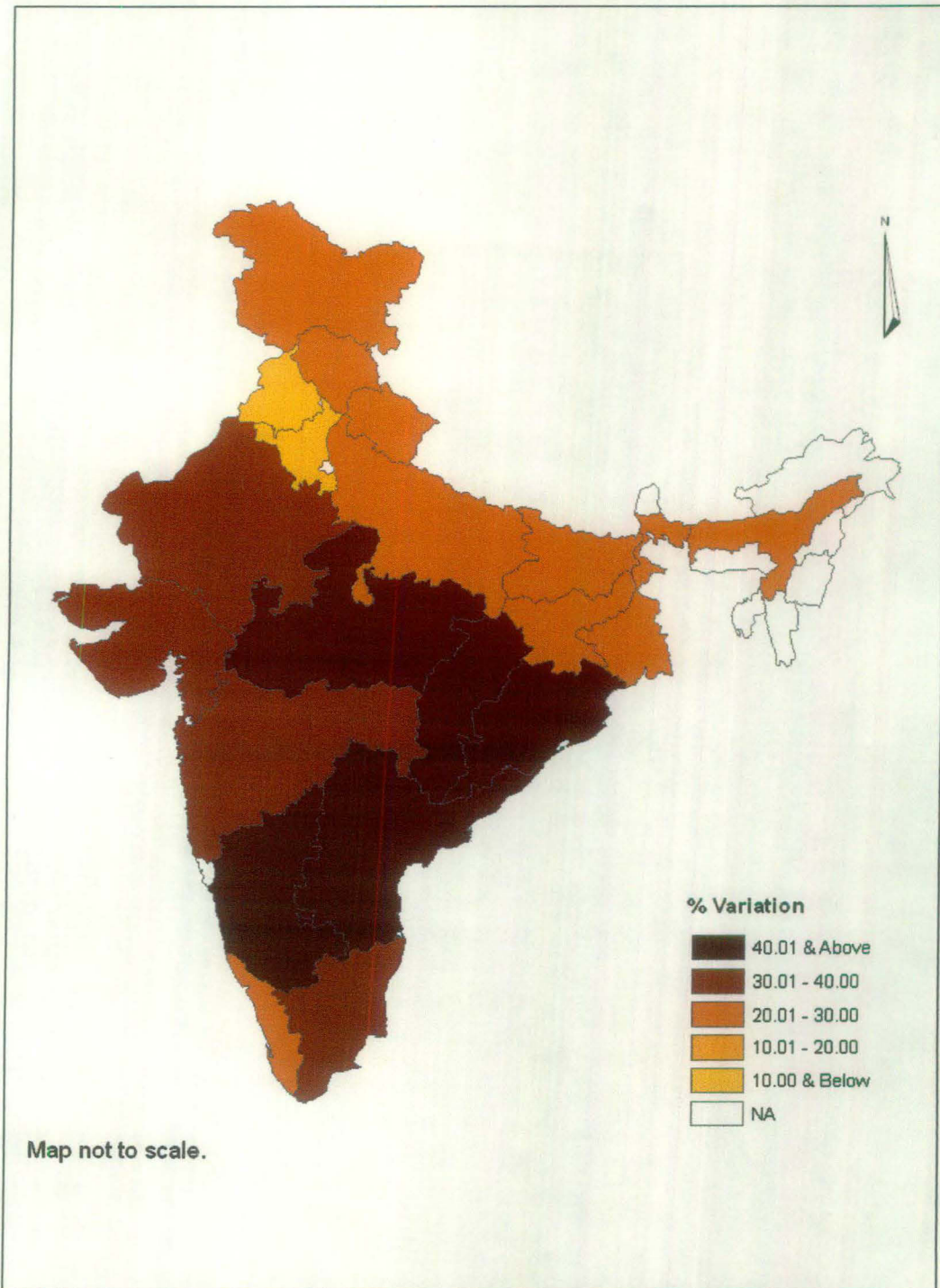
But, at all-India level, variation in urban and rural poverty lines has decreased from 32.01 to 23 percent in the above mentioned period.

Map 4.5: Variation in Poverty Line between Urban and Rural Sector
India
1993-94



Source: NSSO 50th Round Unit level data on CES, 1993-94; Labour Bureau Price Indices (CPIAL and CPIIW); and CSO (CPI-UNME)

Map 4.6: Variation in Poverty Line between Urban and Rural Sector
India
2004-05



Source: NSSO 61st Round Unit level data on CES, 2004-05; Labour Bureau Price Indices (CPIAL and CPIIW); and CSO (CPI-UNME)

4.3 Head Count Ratio and Number of Poor

Table 4.3 shows state-wise number and percentage of poor population for the 50th round for rural, urban and combined. In rural sector Bihar has the highest poverty ratio of 57.79 percent followed by Orissa with 49.81 percent and Punjab has the lowest poverty ratio of 10.51 percent followed by J and K with 13.66 percent³⁵. On comparing all- India rural poverty ratio of 36.68 percent with the states we find that except Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, J and K, Karnataka, Kerala, Meghalaya, Punjab, Rajasthan, Tamil Nadu and Delhi rest of the states have higher poverty ratio than the all-India poverty ratio. As far as total number of persons below the poverty line are concerned in the major states (except Meghalaya, Chandigarh and Delhi), Uttar Pradesh has the highest of 44.01 million people and J and K has the least of 0.13million people below the poverty line.

Whereas in urban sector Madhya Pradesh has the highest poverty ratio of 55.29 percent followed by Bihar with 46.51 percent and J and K has the lowest poverty ratio of 3.40 percent followed by Punjab with 7.99 percent. On comparing all- India urban poverty ratio of 35.37 percent with the states, we find that many states have lower poverty ratio except Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa, Rajasthan and Tamil Nadu. As far as the total number of persons below the poverty line in urban sector is concerned, Maharashtra has the highest number of 9.03million and J and K has the lowest number of 0.02million.

Table 4.3 also shows combined poverty ratio and number of poor persons; where combined poverty ratio is the weighted average of rural and urban poverty ratio and state-wise poor population being the weight. It shows that the Punjab has the lowest poverty ratio of 9.92 percent and Bihar has the highest poverty ratio of 56.66 percent. On comparing all- India combined poverty ratio of 36.37 percent with the states, many have lower poverty ratio except Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, J and K, Karnataka, Kerala, Meghalaya, Punjab, Rajasthan, Tamil Nadu and Delhi. Column 7 of the table shows that Uttar Pradesh has the highest number of persons of 52.74 million

³⁵ Although in rural sector Delhi has lowest poverty ratio 2 percent but we can't compare metropolitan and small states with major states like Punjab, Haryana etc. we can compare Delhi with other metropolitan like Bombay, Madras, Kolkata.

and J and K has the lowest number of 0.15 million persons below the poverty line. At all-India level, 211.57 million people in rural sector, 67.52 million people in urban and 279.08 million people combined have been living below the poverty line.

Table 4.4 shows state-wise number and percentage of poor population for the 61st round for rural, urban and combined. In rural sector, Orissa has the highest poverty ratio 48.76 percent followed by Bihar with 43.81 percent, and J and K has lowest poverty ratio of 3.90 percent followed by Punjab with 11.62 percent. On comparing all-India rural poverty ratio of 29.89 percent with the states, many states have poverty ratio of less than the all-India rural poverty ratio except Bihar, Madhya Pradesh, Maharashtra, Orissa and Uttar Pradesh. In rural sector Uttar Pradesh has the highest number of poor persons of 49.72 million and J and K has the lowest of 0.2 million persons below the poverty lines.

Whereas, in urban sector Orissa has the highest poverty ratio of 49.69 percent followed by Madhya Pradesh with 46.78 percent, and Punjab has the lowest poverty ratio of 4.98 percent followed by HP with 5.14 percent. On comparing all-India urban poverty ratio of 28.30 percent with the states, many states have less poverty ratio than the all-India urban poverty ratio except Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and Uttar Pradesh. In urban sector, Maharashtra has the highest number of persons of 11.3 million below the poverty line and HP has the lowest number of persons of 0.03 million below the poverty line.

Table 4.4 also shows combined poverty ratio and number of poor persons; where combined poverty ratio is the weighted average of rural and urban poverty ratio and state-wise poor population being the weight. It also shows that J and K has the lowest poverty ratio of 4.88 percent and Orissa has the highest poverty ratio of 48.89 percent. At combined level, Uttar Pradesh has the highest number of poor persons of 59.67 million and J and K has the least number of poor persons of 0.31 million. At all-India level, 216.70 million people in rural sector, 69.55 million people in urban and combined 286.20 million people have been living below the poverty line.

It depicts that on comparing table 4.3 and 4.4, even if percentage of poverty has reduced from 36.68 percent to 29.89 percent (rural), 35.37 percent to 28.30 percent (urban) and 36.37 percent to 29.51 percent (combined), the absolute number of poor has

increased from 211.57 million to 216.70 million (rural), 67.52 million to 69.55 million (urban) and 279.08 million to 286.20million (combined).

4.4 Comparison of Head Count Ratio

Table 4.5 shows state-wise HCR in rural and urban sector from columns 2 to 5 calculated by us for the periods 1993-94 and 2004-05. The official HCR is shown in columns 6 to 9 for the same period. The HCR of other researchers namely Deaton, Dubey and Palmer-Jones are shown in columns 10 to 14 for the periods 1993-94 and 2004-05 in case of Deaton and 1993-94 in case of Dubey and Palmer-Jones. In 1993-94, the calculated values for most of the states in rural sector are closer to the official values except Haryana, HP and J and K, Meghalaya, Punjab, Rajasthan and UP where it is lower and Maharashtra and Tamil Nadu where it is higher. Similarly in 2004-05 our values are higher than the official one except for Andhra Pradesh, J and K, Kerala, Meghalaya and west Bengal. On comparing our result with the results of Deaton, Dubey and Palmer-Jones, our result is closer to the official one in the rural sector.

Whereas, in urban sector our values in both 50th and 61st round are higher than the official one for most of the states except Haryana, J and K, Karnataka, Maharashtra, Meghalaya, Punjab, UP and Chandigarh.

On comparing our result with the result of Deaton in urban sector our values are higher for every state except Haryana. Similarly on comparing our values with Dubey and Palmer-Jones', our values are higher for every state except Assam, Haryana, J and K and Punjab.

At all- India level our rural poverty ratio for 50th round is lower by 0.62 percent points and for 61st round it is higher by 1.62 percent points in comparison with the official poverty ratio. For urban sector it is higher by 2.97 and 2.59 percentage points in 50th and 61st round, respectively.

At all- India level in rural sector for the 50th round our poverty ratio is higher than Deaton and Dubey and Palmer-Jones' by 4.18 and 3.08 percent points, respectively and in urban sector it is higher by 17.67 and 8.77 percent points, respectively. For the year 2004-05 in rural sector our poverty ratio is lower than the Deaton by 0.11 percent points.

4.5 Spatial Variations in Incidence of Poverty

From table 4.6 we can see that in 1993-94 among seventeen major states, Punjab has the minimum and Bihar has the maximum HCR for rural and combined population whereas in urban sector J and K has the minimum and MP has the maximum HCR. In 2004-05 J and K has the minimum HCR for rural and combined population and Punjab has the minimum HCR for urban population and Orissa has maximum HCR for rural, urban and combined.

Column 3 of table 4.6 shows weighted averages of HCR for 17 major states. It shows that between 50th and 61st round HCR has a decreasing trend, i.e. in rural sector HCR has reduced by 6.58 percent points, in urban sector it has reduced by 6.92 percent points and for combined it has reduced by 6.40 percent points.

Column 6 of table 4.6 shows inter-state relative disparity in the HCR which is measured by Coefficient of Variation (CV). It also shows rising tendency of variation in the HCR between 50th and 61st round in rural, urban and combined. In rural sector, disparity in HCR has increased by 10.58 percent points, in urban sector by 8.14 percent points and for combined by 9.99 percent points. Increasing trends in CV shows that declining HCR was not evenly shared by all the states between the periods.

Table 4.1: State-Wise Poverty Line for the Period 1993-94 and 2004-05 (1987-88=100) Rs. Monthly Per Capita

Sl. No.	STATES/UT	State-Specific Poverty Line 1993-94(Rs MPCTE)		State-Specific Poverty Line 2004-05(Rs MPCTE) ³⁶		Official Poverty Line 1993-94 (Rs MPCTE)		Official Poverty line 2004-05 (Rs MPCTE)		Deaton 1993-94		Dubey and Palmer-Jones 1993-94		
		RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN	URBAN1 ³⁷
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Andhra Pradesh	161.25	299.55	293.62	587.58	163.02	278.14	292.95	542.89	191.61	211.61	192.68	214.29	241.51
2	Assam	231.94	279.14	392.93	500.96	232.05	212.42	387.64	378.84	213.80	238.60	217.22	244.02	297.77
3	Bihar*	211.70	269.75	357.34	500.95	212.16	238.49	354.36	435	191.89	215.88	191.89	214.38	236.97
4	Gujarat	201.30	307.84	363.91	579.43	202.11	297.22	353.93	541.16	227.89	239.74	229.50	237.06	275.76
5	Haryana	230.10	231.43	421.63	458.28	233.79	258.23	414.76	504.49	202.06	233.59	204.54	233.86	266.27
6	Himachal Pradesh	230.35	317.12	432.44	603.78	233.79	253.61	394.28	504.49	204.41	220.97	208.88	225.78	278.52
7	Jammu and Kashmir	214.12	225.15	385.82	516.30	233.79	253.61	391.26	553.77	203.63	217.88	205.27	218.08	250.11
8	Karnataka	186.84	285.89	334.92	574.83	186.63	302.89	324.17	599.66	202.46	223.92	201.87	225.78	251.70
9	Kerala	243.23	301.44	425.27	605.93	243.84	280.54	430.12	559.39	220.45	229.71	224.20	234.02	249.46
10	Madhya Pradesh*	192.77	345.60	328.70	609.51	193.10	317.16	327.78	570.15	184.26	213.38	186.20	213.99	248.67
11	Maharashtra	195.49	322.96	386.27	642.43	194.94	328.56	362.25	665.9	206.76	244.39	211.01	248.81	288.09
12	Meghalaya	232.23	283.85	394.64	499.50	232.05	212.42	387.64	378.84					
13	Orissa	194.08	316.01	332.04	577.70	194.03	298.22	325.79	528.49	181.53	200.59	179.12	203.19	242.50
14	Punjab	229.66	238.44	427.87	444.65	233.79	253.61	410.38	466.16	205.39	234.56	208.00	238.38	265.94
15	Rajasthan	214.78	316.68	386.73	600.67	215.89	280.85	374.57	559.63	206.37	229.69	208.06	227.34	260.43
16	Tamil Nadu	197.24	299.44	367.22	571.79	196.53	296.63	351.86	547.42	209.30	229.60	207.53	228.09	253.29
17	Uttar Pradesh*	210.01	254.10	381.69	479.36	213.01	258.65	365.84	483.26	179.57	209.20	185.01	210.28	233.55
18	West Bengal	220.29	271.66	377.71	525.44	220.74	247.53	382.82	449.32	188.96	222.03	191.37	224.11	262.93
19	Chandigarh		237.04		486.16		253.61		466.16					
20	Delhi	226.28	314.38	449.48	640.44	233.79	309.48	410.38	612.91		240.37	246.62	243.18	312.39
21	All India	227.92	335.22	421.72	547.70	205.84	281.35	356.3	538.6	195.61	226.12	197.16	230.35	264.76
22	CV	9.41	11.73	10.34	10.80	9.90	11.72	9.47	13.96	6.46	5.30	8.00	5.48	7.99

Sources: Planning Commission; Deaton 2003; Dubey and Palmer-Jones 2005; Authors' calculation from Official Poverty Line 1987-88, CES unit level data, 1993-94, 2004-05 and CPIMR and CPIMU.

³⁶ * Implies Bihar includes Jharkhand, Madhya Pradesh includes Chhattisgarh and Uttar Pradesh includes Uttaranchal populations.

³⁷ Urban1 implies when urban poverty lines computed for town of different size.

Table 4.2: State-Wise Variation in Poverty Line between Urban and Rural Sector in India, 1987-88=100 (Percent)

SI No.	States/UT	1993-94	2004-05
(0)	(1)	(2)	(3)
1	Andhra Pradesh	46.17	50.03
2	Assam	16.91	21.56
3	Bihar*	21.52	28.67
4	Gujarat	34.61	37.20
5	Haryana	0.57	8.00
6	Himachal Pradesh	27.36	28.38
7	Jammu and Kashmir	4.90	25.27
8	Karnataka	34.65	41.74
9	Kerala	19.31	29.82
10	Madhya Pradesh*	44.22	46.07
11	Maharashtra	39.47	39.87
12	Orissa	38.58	42.52
13	Punjab	3.68	3.77
14	Rajasthan	32.18	35.62
15	Tamil Nadu	34.13	35.78
16	Uttar Pradesh*	17.35	20.37
17	West Bengal	18.91	28.12
18	All India	32.01	23.00

Source: authors' calculation from table 4.1.

Table 4.3: Number and Percentage of Population below Poverty Line by States - 1993-94 (1987-88=100)

Sl No.	STATES/UT	RURAL		URBAN		COMBINED	
		%age of persons	No. of persons (Lakhs)	%age of persons	No. of persons (Lakhs)	%age of persons	No. of persons (Lakhs)
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	15.39	70.67	44.54	72.20	30.12	142.87
2	Assam	45.14	81.58	23.94	4.91	43.94	86.49
3	Bihar*	57.79	356.33	46.51	39.60	56.66	395.93
4	Gujarat	22.06	57.32	30.51	38.19	25.44	95.52
5	Haryana	26.63	33.88	9.78	4.32	24.73	38.20
6	Himachal Pradesh	29.12	13.33	21.01	0.89	28.62	14.22
7	Jammu and Kashmir	13.66	1.27	3.40	0.19	12.33	1.46
8	Karnataka	30.11	88.78	36.67	43.21	32.26	131.99
9	Kerala	25.35	45.13	29.38	16.94	26.45	62.06
10	Madhya Pradesh*	40.69	195.04	55.29	81.74	45.00	276.78
11	Maharashtra	38.31	173.32	33.62	90.28	36.70	263.60
12	Meghalaya	24.51	3.08	6.69	0.13	23.77	3.22
13	Orissa	49.81	139.59	45.54	18.64	49.30	158.23
14	Punjab	10.51	13.89	7.99	4.29	9.92	18.17
15	Rajasthan	25.75	77.70	40.03	35.98	30.27	113.68
16	Tamil Nadu	33.23	120.02	40.91	80.37	36.31	200.39
17	Uttar Pradesh*	41.15	440.12	33.42	87.25	39.87	527.36
18	West Bengal	41.04	204.50	28.91	43.64	38.91	248.13
19	Chandigarh			2.08	0.10		
20	Delhi	2.00	0.17	17.47	12.32	17.26	12.49
21	All India	36.68	2115.71	35.37	675.19	36.37	2790.80

Sources: Authors' calculation from table 4.1 and CES unit level data 1993-94.

**Table 4.4: Number and Percentage of Population below Poverty Line by States -
2004-05 (1987-88=100)**

Sl No.	STATES/UT	RURAL		URBAN		COMBINED	
		%age of persons	No. of persons (Lakhs)	%age of persons	No. of persons (Lakhs)	%age of persons	No. of persons (Lakhs)
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Andhra Pradesh	10.53	57.12	33.19	61.88	22.31	119.00
2	Assam	23.23	53.22	15.95	3.73	22.75	56.94
3	Bihar*	43.81	381.60	37.37	40.06	43.20	421.66
4	Gujarat	20.77	64.25	16.07	26.16	19.41	90.42
5	Haryana	14.16	22.41	11.20	6.43	13.50	28.84
6	Himachal Pradesh	16.03	8.91	5.14	0.30	15.68	9.21
7	Jammu and Kashmir	3.90	1.98	6.59	1.12	4.88	3.10
8	Karnataka	24.63	84.01	30.18	45.78	26.59	129.79
9	Kerala	12.88	30.35	24.63	17.81	17.22	48.15
10	Madhya Pradesh*	38.90	249.77	46.78	81.21	40.83	330.98
11	Maharashtra	35.12	193.56	30.35	112.95	33.36	306.51
12	Meghalaya	3.77	0.68	1.87	0.05	3.64	0.73
13	Orissa	48.76	156.57	49.69	25.26	48.89	181.82
14	Punjab	11.62	18.26	4.98	3.71	10.50	21.97
15	Rajasthan	21.38	91.88	38.28	47.15	27.11	139.03
16	Tamil Nadu	26.61	91.83	25.18	54.31	26.08	146.14
17	Uttar Pradesh*	35.80	497.24	28.94	99.45	34.65	596.69
18	West Bengal	27.27	162.56	24.03	46.43	26.55	208.99
19	Chandigarh			5.57	0.44		
20	Delhi	10.05	0.84	18.33	21.22	18.01	22.07
21	All India	29.89	2167.03	28.30	695.45	29.51	2862.04

Sources: Authors' calculation from table 4.1 and CES unit level data 2004-05.

TABLE 4.5: Head Count Ratio (HCR) for the period 1993-94 and 2004-05, 1987-88= 100

Sl No.	States/UT	State-Wise 1993-94		State-Wise 2004-05		Official 1993-94		Official 2004-05		Deaton			Dubey and Palmer-Jones 1993-94	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	1993-94	1993-94	2004-05	Rural	Urban
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Andhra Pradesh	15.39	44.54	10.53	33.19	15.90	38.30	11.17	27.99	28.90	17.60	10.30	30.60	29.10
2	Assam	45.14	23.94	23.23	15.95	45.20	7.90	22.33	3.30	34.90	12.30	25.10	35.90	24.10
3	Bihar	57.79	46.51	43.81	37.37	57.70	35.00	42.14	34.64	48.00	26.60	47.00	49.00	39.60
4	Gujarat	22.06	30.51	20.77	16.07	22.20	26.20	19.08	13.03	32.40	12.90	23.10	32.00	22.50
5	Haryana	26.63	9.78	14.16	11.20	28.30	16.50	13.57	15.06	16.90	10.40	14.30	16.50	18.80
6	Himachal Pradesh	29.12	21.01	16.03	5.14	30.40	9.30	10.72	3.37	17.20	3.40	13.40	19.40	9.80
7	Jammu and Kashmir	13.66	3.40	3.90	6.59	18.10	5.00	4.57	7.93	10.00	2.80	6.40	10.40	5.60
8	Karnataka	30.11	36.67	24.63	30.18	30.20	39.80	20.85	32.57	37.50	21.20	26.80	38.60	29.70
9	Kerala	25.35	29.38	12.88	24.63	25.10	24.30	13.25	20.18	19.30	13.80	10.10	21.60	19.00
10	Madhya Pradesh	40.69	55.29	38.90	46.78	40.80	48.20	36.87	42.14	36.40	18.10	40.70	39.30	30.20
11	Maharashtra	38.31	33.62	35.12	30.35	37.40	35.80	29.58	32.24	41.90	18.70	31.60	43.30	25.60
12	Meghalaya	24.51	6.69	3.77	1.87	45.20	7.90	22.33	3.30					
13	Orissa	49.81	45.54	48.76	49.69	49.90	40.80	46.76	44.31	43.30	15.20	51.00	43.00	25.90
14	Punjab	10.51	7.99	11.62	4.98	11.70	10.80	9.15	7.07	6.10	7.60	9.30	6.60	13.50
15	Rajasthan	25.75	40.03	21.38	38.28	26.30	31.20	18.71	32.94	22.70	18.30	19.20	23.10	25.30
16	Tamil Nadu	33.23	40.91	26.61	25.18	32.80	40.10	22.85	22.20	37.90	20.40	23.60	38.10	28.70
17	Uttar Pradesh	41.15	33.42	35.80	28.94	42.20	35.20	33.40	30.64	28.20	21.30	36.70	29.60	30.30
18	West Bengal	41.04	28.91	27.27	24.03	41.20	23.10	28.62	14.80	24.80	15.30	32.60	25.90	26.00
19	Chandigarh		2.08		5.57		10.80		7.07					
20	Delhi	2.00	17.47	10.05	18.33	2.00	16.50	6.93	15.21	0.00	7.90		9.70	12.80
21	All India	36.68	35.37	29.89	28.30	37.30	32.40	28.27	25.71	32.50	17.70	30.00	33.60	26.60

Source: Planning Commission; Deaton 2003; Dubey and Palmer-Jones; authors' calculation from table 4.1, CFS unit level data 1993-94 and 2004-05

Table 4.6: Weighted Average, Minimum and Maximum Head Count Ratio and Inter-State Coefficient of Variation for 1993-94 and 2004-05 - Rural, Urban and Combined Population³⁸ (Percent)

SL NO.	SECTORS	YEAR	AVERAGE	MINIMUM	MAXIMUM	CV
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	1987-88=100					
2	Rural	1993-94	40.67	10.51(Punjab)	57.79(Bihar)	39.50
3	Urban	1993-94	38.98	3.40(J and K)	55.29(MP)	44.89
4	Combined	1993-94	39.48	9.78(Punjab)	56.42(Bihar)	38.03
5	Rural	2004-05	34.09	3.90(J and K)	48.76(Orissa)	50.08
6	Urban	2004-05	32.06	4.98(Punjab)	49.69(Orissa)	53.03
7	Combined	2004-05	33.08	4.58(J and K)	48.89(Orissa)	48.02

Sources: Authors' calculation from table 4.3 and 4.4

³⁸ Table 4.6 is made up with the seventeen major states of India; it excludes Meghalaya, Chandigarh and Delhi.

CHAPTER 5

SUMMARY AND CONCLUSIONS

In this study we have tried to examine the measurement of the cost of living in urban and rural sectors and incidence of poverty in India for 20 states and UTs. Firstly, the study tried to explore why it is necessary to capture true cost of living of the people and incidence of poverty which is helpful for the policy. This study also shows some of the lacunae in the methodology of Planning Commission and issues raised by many researchers time to time.

Although Indian economy has huge data system but it is very difficult to construct any true cost of living index by an individual researcher within a short span of time that too with ample availability of types of data. Notwithstanding with the problems raised, this study tried to construct cost of living indices for the middle rural and urban population from the available data sources. Chapter two describes the present availability of the data price indices from different Government institutions like Labour Bureau and CSO, their methodology, their coverage and their limitation.

The chapter three of the study explains weighting diagram and its role in construction of general index. As we know that due to rise in income there is a change in the consumer preference, so construction of weighting diagram with the help of latest CES data helped in capturing latest consumer preference and their spending pattern on goods and services. In the study, we have constructed weighting diagram from the 43rd CES round for middle rural and urban population (20 to 30 percent population around the poverty line in 1987-88). Then with the help of existing indices, CPIAL, CPIIW, CPI-UNME and middle population weighting diagram we have constructed CPIMR and CPIMU indices for rural and urban population of India for the period 1993-94 and 2004-05. In the analysis carried out we found that the middle rural population has higher expenditure on food item groups than the urban middle population. Most of states in rural sector have expenditure on food item groups between 65 to 75 percent, whereas in urban sector it lies between 60 and 70 percent. On comparing our result with Planning Commission, it is observed that CPIMU values are higher than the CPIIW for many

states except Assam, HP, MP, Maharashtra, Meghalaya, Orissa, Rajasthan, UP, West Bengal and Chandigarh, in the 50th round. While in the 61st round CPIMU values are lower than CPIIW for most of the states except Gujarat and Tamil Nadu. At all-India level, CPIMU is higher than CPIIW, but very close to each other in the 50th round and CPIMU values are lower than CPIIW in the 61st round. Whereas in rural sector in 1993-94 CPIMR values are lower than CPIAL for many states except J and K and Maharashtra. But for many states CPIMR values are very much close to CPIAL. While in 2004-05 CPIMR values are higher than CPIAL for most of the states except AP, Kerala and West Bengal. At all-India level CPIMR is lower than CPIAL in 1993-94, but higher in 2004-05. On comparing our result with other researchers it is found that in the 50th round both CPIMR and CPIMU have higher values than the Deaton's values for most of the states and all-India values as well; and with Dubey and Palmer-Jones' result CPIMR values are lower for most of the states except Maharashtra and Uttar Pradesh and in urban sector CPIMU values are lower for all the states. Our result also shows state-specific price indices relative to all-India that describes price differential trends. In rural sector Andhra Pradesh has minimum and Kerala has Maximum SVIR in 50th and 61st round, while other states SVIR vary from period to period. Whereas in the urban sector Assam has minimum SVIU in 1993-94 and Meghalaya has minimum in 2004-05, and Madhya Pradesh has maximum SVIU value in 1993-94 and J and K has maximum value in 2004-05. The rest of states SVIU values vary from period to period. Annual rate of inflation over the three periods (period1= 1987-88 to 1993-94, period2 =1993-94 to 2004-05, period3 = 1987-88 to 2004-05) show that in urban sector Andhra Pradesh, Maharashtra and Delhi have higher rate of inflation than the all-India urban rate of inflation in all the periods; Bihar, Punjab, Tamil Nadu and Uttar Pradesh have lower rate of inflation than the all-India urban rate of inflation in all the periods while rest of states have fluctuating pattern of inflation around the all-India urban rate of inflation in all the periods. Whereas in rural sector Andhra Pradesh, Haryana, Himachal Pradesh, Karnataka, Kerala, Punjab, Rajasthan, Uttar Pradesh and Delhi have higher inflation rate, and Orissa and West Bengal have lower inflation rate than the all-India rural inflation rate in rural sector in all the three periods and rest of states have fluctuating pattern of inflation around the all-India rural rate of inflation in all the periods.

We have observed that application of different methodologies and data sources produce different incidence of poverty and HCR, which remains the point of contention among the researchers and policy makers. In the chapter four the study deals with the incidence of poverty in 50th and 61st round. In our results we found in the 50th round in rural sector our poverty line results is very much closer to the official poverty line and differences is not more than one rupee for many states (Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Tamil Nadu and West Bengal). Poverty line for most of states is lesser than the official poverty line except Karnataka, Maharashtra and Orissa. But at all- India level the projected poverty line is higher than the official poverty line i.e. Rs.227.92 whereas official Rs.205.84. Highest poverty line as per official in rural sector is for Kerala and lowest is for Andhra Pradesh. We have also obtained poverty line for the same states and the figures are also similar to the official poverty line in case of Kerala but lower in case of Andhra Pradesh. For 2004-05 our rural poverty line is higher than the official poverty line for most of the states except J and K, Kerala and West Bengal. As per our calculation highest poverty line is for Delhi followed by HP and lower for Andhra Pradesh. While official poverty line shows highest for Kerala followed by Haryana and lowest for Andhra Pradesh (AP figure is very much close to the official one). Our all India figure is Rs. 421.72 and Planning Commission has 356.3. Whereas for urban sector in 1993-94 our poverty line is higher than the official line for every state except Haryana, J and K, Karnataka, Maharashtra, Punjab, Uttar Pradesh and Chandigarh. There is huge variation between our results and official results in urban poverty line for most of the states. As per our calculation highest poverty line in urban sector is for Madhya Pradesh for Rs.345.60 followed by Maharashtra for Rs. 322.96 and lowest for J and K Rs225.15. While the official poverty line is highest for the Maharashtra i.e. Rs.328.56 followed by Madhya Pradesh Rs.317.16 and lowest for Assam Rs.212.42. At all- India level our poverty line is higher than the official poverty line i.e. RS.335.22 and Planning Commission has Rs.281.35. Similarly, for the year 2004-05 our urban sector poverty line is higher for all the states except Haryana, J and K, Karnataka, Maharashtra, Punjab and Uttar Pradesh. Again there is huge variation between our results and official results for the urban poverty lines. In our finding and the official, Maharashtra has the highest poverty line followed by Delhi but our poverty line is less

than the official one for Maharashtra and higher for the Delhi. At all- India level our poverty line Rs. 547.70 is higher than the official one i.e. RS.538.60. On comparing our results with Deaton and Dubey and Palmer-Jones we found in the 50th round in rural sector our poverty line is higher than the Deaton and Dubey and Palmer-Jones for the states: Assam, Bihar, Haryana, HP, J and K, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal, and lower for the rest of the states. At all- India our poverty line is Rs. 227.92 which is higher than the Deaton's Rs. 195.61 and Dubey and Palmer-Jones's Rs. 197.16. Whereas in urban sector our poverty line is higher than the Deaton's poverty line for every state and all-India except Haryana in the 50th round. On comparing our result with the Dubey and Palmer-Jones whether it is urban or urban1, it is higher for the states namely, Andhra Pradesh, Bihar, Gujarat, HP, Karnataka, Kerala, MP, Maharashtra, Orissa, Rajasthan, Tamil Nadu, UP, West Bengal and Delhi and for the rest of states either lower with comparison urban or higher with urban1 and vice-versa. According to our results variation between urban and rural poverty line in percentage terms in the 50th round varies from Haryana minimum 0.57 percent to Andhra Pradesh 46.17 percent. In the 61st round it varies from Punjab with minimum of 3.77 percent to Andhra Pradesh maximum 50.03 percent. Between 50th and 61st round disparity of poverty line has increased in all the states. But at all-India level it has reduced from 32.01 percent to 23 percent. The HCR result shows that in the 50th round our values for most of the states in rural sector are closer to the official values except Haryana, HP and J and K, Meghalaya, Punjab, Rajasthan and UP which are lower; and Maharashtra and Tamil Nadu have higher. Similarly in 2004-05 our values are higher than the official ones except Andhra Pradesh, J and K, Kerala, Meghalaya and west Bengal. On comparing the results of Deaton, and Dubey and Palmer-Jones and ours, our result is closer to the official ones in the rural sector. Whereas, in urban sector our values in both 50th and 61st round are higher than the official one for most of the states except Haryana, JandK, Karnataka, Maharashtra, Meghalaya, Punjab, UP and Chandigarh. At all-India level our rural poverty ratio in 50th round is lower by 0.62 percentage points and in 61st round is higher by 1.62 percentage points with official poverty ratio. For urban sector it is higher by 2.97 and 2.59 percentage points in 50th and 61st round respectively.

At all- India level in rural sector for the 50th round our poverty ratio is higher than Deaton and Dubey and Palmer-Jones by 4.18 and 3.08 percentage points respectively and in urban sector it is higher by 17.67 and 8.77 percentage points respectively. For the year 2004-05 in rural sector our poverty ratio is lower than the Deaton by 0.11 percentage points. Our results show that even if percentage of poverty has reduced from 36.68 percent to 29.89 percent (rural), 35.37 percent to 28.30 percent (urban) and 36.37 percent to 29.51 percent (combined) in the period 1993-94 to 2004-05, the absolute number of poor has increased from 211.57 million to 216.70 million (rural), 67.52 million to 69.55 million (urban), and 279.08 million to 286.20million (combined).

The analysis carried out in this study shows that the use of CPIMR and CPIMU provide us the proportionate changes in the price of goods and services over time faced by the population around the poverty line. We observed that CPIMR and CPIMU indices are better representatives than the indices obtained from CES data. We found, calculation of urban poverty line with the help of CPIMU shows quite different values than the poverty line computed from CPIIW for most of the states. The uses of above indices show that there is a decrease in poverty ratio in the 50th and the 61st round but the number of poor has increased. There is a huge variation in the poverty line between rural and urban sector of Indian states. This disparity has increased between 50th and 61st round. Use of latest and middle population weighting diagram helped to capture true cost of living and incidence of poverty within the states and across the sector.

APPENDIX TABLES

Table-A.1: State-Wise Annual Average Consumer Price Index for Agricultural Labourers (CPIAL) for the Year 1987-88, 1960-61=100

SI No.	States/UT	General Index	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	535.00	560.08	190.42	568.67	576.50
2	Assam	661.42	740.42	179.58	571.25	524.17
3	Bihar	687.33	754.50	186.67	531.33	605.75
4	Gujarat	595.67	647.08	186.58	580.75	541.50
5	Jammu and Kashmir	683.08	754.67	152.25	565.33	702.25
6	Karnataka	616.75	647.42	195.92	580.83	764.50
7	Kerala	705.67	775.58	206.42	570.83	684.08
8	MP	650.58	737.83	150.08	549.33	514.58
9	Maharashtra	631.42	693.00	193.58	545.92	597.00
10	Orissa	713.08	794.58	163.25	544.67	651.33
11	Punjab	679.83	750.00	168.83	622.00	580.17
12	Rajasthan	660.25	727.33	152.00	559.83	584.17
13	Tamil Nadu	635.33	680.33	192.83	579.92	673.67
14	Uttar Pradesh	702.75	769.25	198.00	561.33	658.17
15	West Bengal	647.58	692.58	316.00	557.08	631.67
16	All India	650.42	706.42	196.33	563.00	622.08

Source: Indian Labour Journal 1987, 1988.

Table-A.2: State-Wise Annual Average Consumer Price Index for Agricultural Labourers (CPIAL) for the Year 1993-94, 1960-61=100

Sl. No	States/UT	General Index	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	951.42	1004.67	215.25	1078.00	971.08
2	Assam	1205.25	1359.83	206.50	928.92	977.67
3	Bihar	1271.25	1338.67	201.00	900.83	1092.08
4	Gujarat	1045.75	1146.92	205.58	1010.92	952.25
5	Jammu and Kashmir	1174.50	1287.42	164.08	1071.00	1330.75
6	Karnataka	1105.33	1154.17	215.00	1070.50	1454.25
7	Kerala	1316.17	1449.67	234.17	1196.00	1311.83
8	Madhya Pradesh	1173.67	1336.08	158.58	1023.67	951.50
9	Maharashtra	1067.08	1164.83	229.58	981.00	1080.58
10	Orissa	1148.50	1265.08	178.17	1153.58	1022.42
11	Punjab	1299.50	1445.92	181.92	1337.33	959.50
12	Rajasthan	1234.92	1344.33	163.25	1208.42	1002.83
13	Tamil Nadu	1064.33	1122.42	220.42	1171.42	1188.92
14	Uttar Pradesh	1310.58	1455.50	222.00	1009.92	1107.25
15	West Bengal	1106.83	1177.08	425.67	1232.33	1096.50
16	All India	1146.75	1248.17	224.92	1069.42	1100.92

Source: Indian Labour Journal 1993, 1994.

Table-A.3: State-Wise Annual Average Consumer Price Index for Agricultural Labourers (CPIAL) for the Year 2004-05, 1986-87=100

Sl. No.	States/UT	General Index	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Miscellaneous Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	356.83	361.75	340.58	364.67	341.95
2	Assam	346.83	331.83	396.08	422.00	365.00
3	Bihar	324.33	311.17	356.42	380.33	366.26
4	Gujarat	349.50	353.75	264.08	335.33	378.98
5	Haryana	359.33	367.25	390.42	344.58	327.20
6	Himachal Pradesh	325.33	327.92	227.33	323.58	386.51
7	Jammu and Kashmir	348.33	353.42	245.75	375.00	387.38
8	Karnataka	340.25	337.92	336.92	346.75	347.37
9	Kerala	351.08	344.17	347.67	353.83	375.01
10	Madhya Pradesh	330.17	326.33	341.00	346.92	335.02
11	Maharashtra	350.00	357.25	323.00	320.17	351.48
12	Meghalaya	360.42	350.75	366.00	409.25	393.39
13	Orissa	319.50	301.17	371.42	416.75	380.60
14	Punjab	354.67	362.83	381.50	314.42	338.75
15	Rajasthan	346.00	341.50	367.75	366.33	339.10
16	Tamil Nadu	347.17	324.75	361.17	354.50	429.65
17	Uttar Pradesh	343.33	338.83	327.92	367.00	358.95
18	West Bengal	332.75	310.08	381.75	450.58	417.71
19	All India	341.92	334.67	345.00	360.92	365.64

Source: <http://www.labourbureau.nic.in>.

Table-A.4: State-Wise Annual Average Consumer Price Index for Industrial Workers (CPIIW) for the Year 1987-88, 1960-61=100

Sl. No.	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	689.65	691.60	848.73	769.17	495.75	690.13	622.65
2	Assam	609.80	641.58	515.30	422.65	175.80	697.63	877.47
3	Bihar	727.12	778.85	958.43	837.68	230.70	634.98	651.72
4	Gujarat	769.33	803.88	852.75	711.46	358.75	750.88	779.21
5	Haryana	786.58	722.92	1234.75	994.00	1113.00	701.75	802.17
6	Himachal Pradesh	537.50	525.17	958.42	590.75	252.50	558.42	616.00
7	Jammu and Kashmir	827.83	826.92	531.17	1079.25	310.00	789.25	1169.42
8	Karnataka	774.35	787.17	883.69	1175.83	220.25	671.81	746.85
9	Kerala	767.58	811.75	862.94	975.33	337.83	701.56	684.11
10	Madhya Pradesh	682.67	704.47	862.29	974.10	355.50	593.40	604.90
11	Maharashtra	772.19	836.75	847.97	1005.78	348.67	677.47	643.25
12	Orissa	658.03	634.50	792.36	1135.06	420.67	581.89	680.92
13	Punjab	761.75	776.58	1069.67	973.42	463.50	746.42	703.75
14	Rajasthan	680.31	705.14	865.89	779.69	575.67	686.31	565.00
15	Tamil Nadu	788.52	810.88	846.13	1031.08	683.38	665.77	668.69
16	Uttar Pradesh	777.42	810.08	894.19	1334.39	384.33	731.03	615.69
17	West Bengal	677.90	693.35	659.29	1071.03	261.42	700.67	676.00
18	Chandigarh*	761.75	776.58	1069.67	973.42	463.50	746.42	703.75
19	Delhi	811.67	810.25	984.67	984.00	717.50	758.92	801.17
20	All India	752.75	785.75	829.17	982.17	425.50	701.25	663.17

Source: Indian Labour Journal 1987, 1988.

**Table-A.5: State-Wise Annual Average Consumer Price Index for Industrial
Workers (CPIIW) for the Year 1993-94, 1982=100**

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	257.57	276.19	371.04	241.71	175.58	192.50	239.75
2	Assam	252.95	267.22	401.02	180.62	128.93	235.95	263.52
3	Bihar	243.81	247.15	316.76	283.57	251.33	218.10	237.38
4	Gujarat	269.25	289.73	332.40	235.33	218.70	195.33	266.00
5	Haryana	249.25	260.29	335.79	209.38	224.75	221.50	251.79
6	Himachal Pradesh	255.75	268.58	316.33	217.33	231.00	222.50	257.33
7	Jammu and Kashmir	257.50	279.67	470.25	268.58	168.00	272.58	225.83
8	Karnataka	261.90	283.00	328.75	215.29	221.75	193.83	248.17
9	Kerala	266.10	291.17	327.71	194.73	205.38	206.56	254.63
10	Madhya Pradesh	269.81	281.36	339.38	327.13	230.97	203.90	252.75
11	Maharashtra	281.17	294.08	403.45	210.58	284.60	211.02	279.68
12	Orissa	250.75	263.13	344.92	232.42	210.75	204.13	249.92
13	Punjab	250.08	276.54	323.38	215.67	187.25	209.50	243.13
14	Rajasthan	264.17	276.64	332.36	227.03	234.22	223.83	266.94
15	Tamil Nadu	267.99	293.69	387.90	223.29	215.00	197.58	251.97
16	Uttar Pradesh	261.00	272.30	309.08	265.23	245.60	207.58	256.30
17	West Bengal	259.60	266.79	336.41	248.61	199.13	221.36	255.23
18	Chandigarh	258.08	262.50	293.00	223.42	262.50	218.67	257.67
19	Delhi	282.50	314.58	335.50	188.92	240.00	228.67	287.08
20	All India	264.33	280.75	346.75	236.25	227.00	206.00	255.33

Source: Indian Labour Journal 1993, 1994.

Table-A.6: State-Wise Annual Average Consumer Price Index for Industrial Workers (CPIIW) for the year 2004-05, 1982=100

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	518.29	507.88	756.76	553.86	614.25	319.31	533.85
2	Assam	450.70	458.70	675.92	333.70	274.60	438.45	538.20
3	Bihar	468.35	430.50	615.85	668.83	645.50	374.68	489.52
4	Gujarat	502.45	511.03	695.38	595.02	463.10	312.17	528.27
5	Haryana	523.17	469.75	666.08	639.46	752.50	413.54	542.75
6	Himachal Pradesh	497.92	480.83	663.75	480.00	580.00	368.25	562.83
7	Jammu and Kashmir	616.25	613.42	944.67	665.83	588.00	414.25	667.75
8	Karnataka	528.71	536.65	594.69	621.63	535.63	330.67	517.81
9	Kerala	540.85	557.90	765.94	498.17	438.38	319.21	595.58
10	Madhya Pradesh	498.68	475.38	617.44	592.92	719.92	342.14	473.36
11	Maharashtra	566.67	535.95	723.15	698.35	934.70	353.78	571.00
12	Orissa	463.13	445.29	792.50	584.21	576.25	339.29	452.92
13	Punjab	480.17	469.92	645.54	619.29	568.25	332.63	446.04
14	Rajasthan	508.36	506.11	678.28	513.97	590.50	395.33	516.67
15	Tamil Nadu	518.31	512.32	802.90	549.69	616.67	309.57	554.17
16	Uttar Pradesh	515.27	493.55	651.98	558.17	802.40	340.92	487.08
17	West Bengal	526.28	498.63	695.22	516.77	639.00	407.56	533.11
18	Chandigarh	587.83	521.33	515.33	521.75	982.50	384.17	498.58
19	Delhi	625.00	566.50	720.58	550.08	944.50	396.08	729.58
20	All India	524.58	508.25	677.83	610.50	682.00	348.08	529.83

Source: <http://www.labourbureau.nic.in>.

Table-A.7: State-Wise Annual Average Consumer Price Index for Industrial Workers (CPIIW), by Groups/ Sub- Group for the Year 1993-94 (Base Shifted from 1982 to 1960=100)

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	1269.82	1375.45	1699.37	1590.44	489.88	1108.80	1071.68
2	Assam	1247.04	1330.74	1836.66	1188.46	359.72	1359.07	1177.92
3	Bihar	1201.96	1230.82	1450.78	1865.89	701.22	1256.24	1061.07
4	Gujarat	1327.40	1442.87	1522.39	1548.49	610.17	1125.12	1189.02
5	Haryana	1228.80	1296.25	1537.93	1377.69	627.05	1275.84	1125.51
6	H.P.	1260.85	1337.55	1448.81	1430.05	644.49	1281.60	1150.28
7	J and K	1269.48	1392.74	2153.75	1767.28	468.72	1570.08	1009.48
8	Karnataka	1291.15	1409.34	1505.68	1416.62	618.68	1116.48	1109.31
9	Kerala	1311.89	1450.01	1500.90	1281.32	573.00	1189.80	1138.17
10	M.P.	1330.14	1401.18	1554.34	2152.48	644.41	1174.48	1129.79
11	Maharashtra	1386.15	1464.54	1847.80	1385.64	794.03	1215.46	1250.18
12	Orissa	1236.20	1310.36	1579.72	1529.30	587.99	1175.76	1117.13
13	Punjab	1232.91	1377.18	1481.06	1419.09	522.43	1206.72	1086.77
14	Rajasthan	1302.34	1377.66	1522.21	1493.84	653.48	1289.28	1193.24
15	Tamil Nadu	1321.17	1462.60	1776.59	1469.26	599.85	1138.08	1126.32
16	U.P.	1286.73	1356.05	1415.60	1745.24	685.22	1195.68	1145.66
17	West Bengal	1279.85	1328.62	1540.74	1635.88	555.56	1275.06	1140.87
18	Chandigarh	1272.35	1307.25	1341.94	1470.08	732.38	1259.52	1151.77
19	Delhi	1392.73	1566.63	1536.59	1243.07	669.60	1317.12	1283.26
20	All India	1303.16	1398.14	1588.12	1554.53	633.33	1186.56	1141.34

Source: Indian Labour Journal 1993, 1994; <http://www.labourbureau.nic.in>.

Table-A.8: State-Wise Annual Average Consumer Price Index for Industrial Workers (CPIIW), by Groups/ Sub- Group for the Year 2004-05 (Base Shifted from 1982 to 1960=100)

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	2555.18	2529.22	3465.98	3644.41	1713.76	1839.20	2386.30
2	Assam	2221.95	2284.33	3095.70	2195.75	766.13	2525.47	2405.75
3	Bihar	2308.95	2143.89	2820.58	4400.92	1800.95	2158.16	2187.26
4	Gujarat	2477.08	2544.95	3184.86	3915.21	1292.05	1798.08	2361.35
5	Haryana	2579.21	2339.36	3050.66	4207.64	2099.48	2382.00	2426.09
6	H.P.	2454.73	2394.55	3039.98	3158.40	1618.20	2121.12	2515.87
7	J and K	3038.11	3054.82	4326.57	4381.18	1640.52	2386.08	2984.84
8	Karnataka	2606.53	2672.50	2723.67	4090.29	1494.39	1904.64	2314.62
9	Kerala	2666.41	2778.32	3507.99	3277.94	1223.07	1838.64	2662.26
10	M.P.	2458.50	2367.37	2827.90	3901.39	2008.57	1970.72	2115.92
11	Maharashtra	2793.67	2669.03	3312.03	4595.14	2607.81	2037.79	2552.37
12	Orissa	2283.21	2217.55	3629.65	3844.09	1607.74	1954.32	2024.54
13	Punjab	2367.22	2340.19	2956.58	4074.94	1585.42	1915.92	1993.81
14	Rajasthan	2506.22	2520.43	3106.51	3381.94	1647.50	2277.12	2309.50
15	Tamil Nadu	2555.25	2551.35	3677.29	3616.99	1720.50	1783.12	2477.13
16	U.P.	2540.26	2457.88	2986.08	3672.74	2238.70	1963.68	2177.26
17	West Bengal	2594.57	2483.15	3184.10	3400.35	1782.81	2347.56	2383.02
18	Chandigarh	2898.02	2596.24	2360.23	3433.12	2741.18	2212.80	2228.67
19	Delhi	3081.25	2821.17	3300.27	3619.55	2635.16	2281.44	3261.24
20	All India	2586.20	2531.09	3104.48	4017.09	1902.78	2004.96	2368.36

Source: <http://www.labourbureau.nic.in>.

Table-A.9: State-Wise Annual Average Consumer Price Index for Agricultural Labourers (CPIAL), by Groups/ Sub- Group for the Year 2004-05 (Base Shifted from 1986-87 to 1960-61=100)

Sl. No	States/UT	General Index	Food Index	Fuel and Light Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)
1	Andhra Pradesh	1727	1834	416	1951	1740
2	Assam	2033	2214	483	2258	1964
3	Bihar	2017	2128	435	2035	2378
4	Gujarat	1866	1999	322	1794	2108
5	Haryana	2263	2459	476	1844	2522
6	H.P.	2263	2459	277	1731	3187
7	J and K	2083	2230	300	2006	2875
8	Karnataka	1977	2024	411	1855	2757
9	Kerala	2303	2492	424	1893	2431
10	MP	1994	2219	416	1856	1790
11	Maharashtra	2048	2233	394	1713	2497
12	Meghalaya	2033	2214	483	2258	1964
13	Orissa	1933	2045	453	2230	2259
14	Punjab	2263	2459	465	1682	2750
15	Rajasthan	2128	2244	449	1960	2556
16	Tamil Nadu	1968	1939	441	1897	2856
17	Uttar Pradesh	2266	2473	400	1963	2655
18	West Bengal	1907	1932	466	2411	2543
19	Delhi	2263	2459	465	1682	2750
20	All India	2014	2135	421	1931	2368

Source: <http://www.labourbureau.nic.in>.

Table-A.10: State-Wise Annual Average Consumer Price Index for Urban Non-Manual Employees (CPI-UNME), by Groups/ Sub- Group for the Year 1988, 1984-85=100

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	137.85	136.12	170.73	122.27	153.45	137.53	131.68
2	Assam	130.08	135.72	156.42	123.67	121.00	143.58	136.58
3	Bihar	129.14	135.18	145.97	124.53	116.06	145.44	125.11
4	Gujarat	134.46	143.97	145.98	133.79	119.00	133.83	127.75
5	Haryana	135.75	141.55	166.92	114.92	130.00	148.83	127.83
6	H.P.	133.33	134.80	160.17	118.17	126.00	136.42	137.92
7	J and K	136.63	141.02	152.67	120.83	135.04	134.79	132.96
8	Karnataka	135.92	140.10	146.13	128.08	138.77	128.21	132.02
9	Kerala	127.83	126.81	165.67	124.58	127.58	125.00	131.58
10	M.P.	138.21	142.36	149.67	125.48	149.73	139.56	126.77
11	Maharashtra	130.65	136.38	146.55	131.27	125.33	128.97	126.08
12	Meghalaya	144.17	136.28	156.67	125.50	189.00	137.17	130.50
13	Orissa	129.67	131.28	151.79	126.38	128.21	123.88	132.88
14	Punjab	127.83	135.61	155.08	118.83	117.50	120.67	124.25
15	Rajasthan	138.36	147.14	143.03	119.19	131.22	136.89	132.56
16	Tamil Nadu	136.10	135.93	149.37	118.42	145.80	127.07	132.55
17	U.P.	132.22	139.33	147.77	129.75	120.80	133.73	131.65
18	West Bengal	129.04	132.08	166.54	118.23	119.00	136.40	131.69
19	Chandigarh	139.00	144.59	112.25	114.50	129.83	135.25	147.50
20	Delhi	132.33	143.52	158.92	114.92	116.42	143.25	137.08
21	All India	133.42	137.70	155.50	125.00	129.50	133.58	130.08

Source: MOSPI statistical wing R.K. Puram sector-1, New Delhi.

Table-A.11: State-Wise Annual Average Consumer Price Index for Urban Non-Manual Employees (CPI-UNME), by Groups/ Sub-Group for the year 1993-94, 1984-85=100

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	229.53	235.18	316.63	188.43	241.70	229.97	215.30
2	Assam	212.17	220.32	296.83	199.58	166.00	261.33	228.50
3	Bihar	220.75	227.68	326.28	241.58	191.94	253.78	219.61
4	Gujarat	211.00	237.07	280.48	193.73	161.13	219.00	209.79
5	Haryana	231.42	246.17	316.67	172.92	208.00	256.00	209.58
6	H.P.	225.58	221.65	299.83	159.67	268.33	223.58	224.50
7	J and K	186.42	198.91	240.67	144.04	181.25	186.33	174.42
8	Karnataka	220.60	234.36	282.96	182.67	206.17	205.42	213.33
9	Kerala	215.75	217.65	309.04	282.88	190.25	202.58	211.96
10	M.P.	228.88	243.17	288.75	188.44	237.63	233.42	212.50
11	Maharashtra	220.37	233.65	295.43	193.48	198.82	224.75	215.43
12	Meghalaya	238.00	234.58	274.33	219.58	291.50	224.58	197.92
13	Orissa	206.58	220.74	269.88	180.21	198.00	197.38	204.17
14	Punjab	200.58	225.52	307.08	168.17	173.25	173.08	188.67
15	Rajasthan	230.81	242.53	255.25	168.94	218.83	277.83	222.81
16	Tamil Nadu	231.57	240.67	311.30	179.17	227.12	227.42	224.62
17	U.P.	214.42	231.60	310.67	191.75	164.92	241.13	214.92
18	West Bengal	219.00	224.71	322.56	192.54	173.88	254.35	228.79
19	Chandigarh	241.00	248.56	286.00	209.25	241.00	252.92	241.17
20	Delhi	214.83	248.33	301.75	184.33	151.50	270.42	242.42
21	All India	220.83	234.23	300.33	191.75	193.58	233.42	216.75

Source: MOSPI statistical wing R.K. Puram sector-1, New Delhi.

Table-A.12: State-Wise Annual Average Consumer Price Index for Urban Non-Manual Employees (CPI-UNME), by Groups/ Sub- Group for the Year 2004-05, 1984-85=100

Sl. No	States/UT	General Index	Food Index	Pan, Supari, Tobacco and Intoxicants Index	Fuel and Light Index	Housing Index	Clothing, Bedding and Footwear Index	Misc. Index
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhra Pradesh	462.23	425.51	623.85	495.87	606.48	396.97	450.72
2	Assam	431.75	394.76	576.75	795.92	383.33	494.00	469.67
3	Bihar	414.92	399.69	795.63	550.46	456.92	405.21	403.54
4	Gujarat	395.23	419.18	570.29	562.21	273.88	371.17	428.04
5	Haryana	465.33	432.57	587.92	448.58	579.25	555.92	416.08
6	H.P.	447.00	409.03	673.75	421.00	507.58	447.42	469.33
7	J and K	435.08	446.19	656.63	588.42	310.29	349.04	453.63
8	Karnataka	454.65	429.60	549.13	474.50	510.88	363.10	472.52
9	Kerala	435.38	395.05	565.63	615.33	510.29	411.71	419.50
10	M.P.	422.33	418.97	581.56	547.42	467.77	352.90	412.23
11	Maharashtra	444.08	424.94	592.02	595.38	473.55	418.42	446.58
12	Meghalaya	448.42	395.42	543.75	464.42	737.50	342.33	349.08
13	Orissa	402.33	391.69	488.08	413.21	482.42	317.33	423.13
14	Punjab	371.08	407.44	651.17	523.50	282.00	235.92	364.42
15	Rajasthan	433.53	432.76	620.19	506.61	411.33	501.36	441.75
16	Tamil Nadu	491.43	430.06	701.33	416.37	729.08	395.18	478.93
17	U.P.	431.07	424.90	640.80	466.62	399.70	397.82	467.62
18	West Bengal	435.96	402.73	726.25	470.67	392.38	477.88	493.27
19	Chandigarh	571.50	468.17	613.08	613.83	811.00	518.67	512.92
20	Delhi	453.50	454.06	768.33	637.17	371.50	514.67	522.17
21	All India	439.92	420.96	647.00	514.00	464.50	408.33	450.42

Source: MOSPI statistical wing R.K. Puram sector-1, New Delhi.

Table-A.13: Group-Wise Linking Factors Between New Series of All-India Consumer Price Index for Agricultural Labourers on Base 1986-87=100 and the Old Series on Base 1960-61=100

Group	Linking Factor
(0)	(1)
Food Index	6.38
Fuel and Light Index	1.22
Clothing, Bedding and Footwear Index	5.35
GENERAL	5.89

NOTE:

- (i) The conversion factors for linking the new series of CPI Numbers for Agricultural Labourers (Base: 1986-87=100) with the old series of CPI Numbers for Agricultural Labourers (Base: 1960-61=100) have been worked out for Food, Fuel and Light, Clothing, Bedding and Footwear and General Index only as Pan, Supari, Tobacco and Intoxicants Group was merged with Miscellaneous Group in old series (Base: 1960-61=100).
- (ii) The indices on old base (1960-61=100) can be obtained by multiplying the index number on new base (1986-87=100) by the relevant linking factor given above and rounding off to the nearest whole number.

Source: <http://www.labourbureau.nic.in>.

Table-A.14: State-Wise Linking Factors Between New Series of the Consumer Price Index for Agricultural Labourers on Base 1986-87=100 and the Old Series on Base 1960-61=100 (General and Food index)

State	Linking Factors	
	General Index	Food Index
(0)	(1)	(2)
Andhra Pradesh	4.84	5.07
Assam	B	b
Bihar	6.22	6.84
Gujarat	5.34	5.65
Haryana	*	*
Himachal Pradesh	*	*
Jammu and Kashmir	5.98	6.31
Karnataka	5.81	5.99
Kerala	6.56	7.24
Madhya Pradesh	6.04	6.8
Maharashtra	5.85	6.25
Manipur	*	*
Meghalaya	*	*
Orissa	6.05	6.79
Punjab	C	c
Rajasthan	6.15	6.57
Tamil Nadu	5.67	5.97
Tripura	*	*
Uttar Pradesh	6.6	7.3
West Bengal	5.73	6.23
All-India	5.89	6.38

Source: <http://www.labourbureau.nic.in>.

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