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Poverty, Growth and Redistribution in India: An Empirical Investigation[1]

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Abstract

This paper attempts to measure the contributions of growth and income distribution to the changes in poverty in India during the post reform period. The analysis is carried out separately for the rural and urban sectors; and also for some major occupational subgroups at both national and state level to unearth the most affected or deprived sections of the population. Various types of poverty decomposition have been introduced in the paper. One is Shapely-value decomposition (Shorrocks 1999, Baye 2005), developed regarding game theoretic concepts to find out the actual contribution of income growth and redistribution in poverty reduction. Other decomposition is subgroup poverty decomposition i.e in other words, weighted decomposition. The growth components for both rural and urban sectors are found to be negative implying the decline in poverty over this period. It is also found that, there are large variations of poverty across states and across various household types. Rural poverty, as expected, gets mostly concentrated in the households engaged in agricultural labor; and urban poverty is strongly present in households categorized as casual labor.

Key Words: Poverty, Growth and Redistribution.

AMS Subject Classification: 90A04.

1. Introduction

The conventional wisdom is that continued growth would reduce the incidence of poverty and would lead to the improvement of the living conditions of the poor. Yet, in reality, continued economic growth might increase inequality and offset gains of the poor from the economic growth creating social tension and thus

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leading to unsustainable growth. Identification of a relative contribution of growth and distribution[2] components to the changes in poverty is essential to designing poverty reduction policies. In India the trend of economic growth was low and stable for a considerable period up to 1990 during which India's Gross Domestic Product (GDP) grew by an average of a little under 4% per year, known as "Hindu Rate of Growth"[3]. But after the economic reforms (through trade and investment liberalization) that began in 1991 a break in the trend has been achieved. Now the question arises as to how much such economic growth has affected the levels of poverty and inequality in India. To seek a conclusive answer to this question, decomposition analysis of poverty may be a remedy. Changes in poverty directly depend on changes in the mean and the variance parameters in the income or consumption distribution data. So, the data could be decomposed into growth and redistribution components. Ravallion and Datt (1992,1996) carried out such decomposition on India's data since early 1950's. It revealed that growth in mean consumption accounted for about 80 percent of cumulative decline in poverty, while redistribution contributed remaining 20 percent. So, it is obvious that the poor have benefited from both growth and distribution effects on a long-term basis. Next, decomposing growth by output sectors, they found that growth in the primary and tertiary sectors reduced poverty in both urban and rural areas but that secondary sector-growth did not reduce poverty in both areas. According to the study, the rural growth has benefited both rural and urban poor while urban growth has no effect on rural poverty. It had adverse distributional effects which worked against the gains to the urban poor. In spite of introducing such famous controversial results, further it is very much interesting whether Indian economy is on course of inclusive growth after the huge economic reforms. So, the present study investigates the temporal changes in poverty in rural and urban sectors in India across the various states over a period of thirteen years of economic liberalization (from 1993-94 to 2004-05). In particular we analyze the relative contributions of growth and redistribution factors to the changes in poverty during

[2] Consumption expenditure is used as proxy for income distribution as NSSO gives consumption data and it is of more interest that growth and inequality variables both relate to the same measure of well-being at the house-hold level, rather than looking at relationships between income growth and income inequality.

3 Prof. Raj Krishna popularized the phrase of "Hindu Rate of Growth" in the seventies during the period of increasing controls and slowing growth rate.

this period. Our study is based on unit level household consumption expenditure survey (50^{th} and 61^{st} rounds) data conducted by the National Sample Survey Organization (N.S.S.O), Government of India for fourteen major states[4] relating to the two years 1993-94 and 2004-05. These two years are related to the economic reforms and the rapid growth of Indian economy. These two surveys are also comparable because the uniform recall period of 30 days is same in the two surveys. Our analysis of poverty based on these survey data might not provide any causality between the government development policies and change in the poverty. It would at least indicate how growth and redistribution factors contribute to the observed changes to the poverty during economic reforms. We have also studied the decomposition property of the poverty measures to investigate the relative contributions of different occupations and regions to aggregate poverty. In our study we have considered five occupational types of households in the rural sector namely, (i) self-employed in non-agriculture, (ii) agricultural labours, (iii) other labours, (iv) self-employed in agriculture and (v) others. In the urban sector we have considered four occupational types of household – (i) self-employed, (ii) regular wage/salaried employment, (iii) casual labours and (iv) others. Since India is a large country, the aggregate indicators may conceal considerable diversity in regional experiences. This has dictated us to have a more disaggregated analysis of trends in inequality and poverty. The results of such disaggregated analysis might help the government in setting policy for poverty alleviation for the targeted/deprived/needed group.

In the backdrop of such study, a large number of relevant studies have been done to seek the actual factor responsible for the change in the incidence of poverty in such a large democracy, India. Bhanumurthy and Mitra (2004, 2006) used two decomposition exercises to assess the relative contributions of the factors in reducing (or raising) the poverty incidence in the eighties and nineties. Earlier there were huge number of attempts to assess the impact of growth and inequality separately on poverty (kakwani, 2000; Jain & Tendulkar, 1990). But, some serious issues can be mentioned in this context. Following Kuznets (1966), in the process

[4] The 14 states are Andhra Pradesh (A.P), Assam, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh (M.P), Maharastra, Orissa, Punjab, Rajasthan, Tamil Nadu (T.N), Uttar Pradesh (U.P) and West Bengal (W.B).

of economic development intra-sector inequality increases at the initial stage and consequently only growth may not be sufficient for poverty reduction or in other words, growth can happen completely bypassing the poor. Besides, over-urbanization (Hoselitz, 1957) enhances the urban poverty but overall poverty may decline due to a population shift from rural to urban areas. It is also note worthy that a rise in industrial productivity transmitting a rise in the income of the workers/labourers certainly reduce poverty (Mitra, 1992). To challenge some of these results, the decomposition exercises have been introduced. The first one following Kakwani (2000) and Mazumdar and Son (2002) decompose the change in poverty incidence into growth effect, inequality effect and population shift effect. The second one decomposes poverty in terms of per-capita income, share of industry in GDP, manufacturing labor productivity and the ratio of poor to manufacturing employment. These exercises have been carried out for both pre- and post reform periods broadly classified as 1983 to 1993-94 and 1993-94 to 1999-2000 for rural, urban and whole India respectively. Their results also supported that growth effect dominated inequality effect and this caused poverty to decline. The availability of infrastructure including information and technology and improved access to health and literacy can be responsible for productive employment which reduced the adverse inequality effect in urban areas. The net effect of population movement from rural to urban areas also implies a fall in the incidence of poverty (rural and urban combined). The change in the composition of economic growth, that is, the shift towards industry and tertiary activities, seems to bring about a larger decline in the incidence of poverty in the nineties compared to the eighties. Dhongde. S (2000) also examined the impact of growth and income distribution on poverty using the same household survey data to assess the impact of economic reforms of the early 1990s. He obtained the same result too. The changes in the distribution of income adversely affected the poor. He used the decomposition methodology with a different approach from Datt & Ravallion (1992). Taking average of the decomposition terms to get rid of residual has been introduced in the formula (Kakwani 2000, Mc Culloch et al. 2000, Shorrocks & Kolenikov 2001). Besides, Dhongde.S (2003) conducted for the first time a spatial decomposition of poverty levels for the year 1999-2000. The total differences between state and national poverty levels has been decomposed into the differences between state and national mean income levels and differences between state and national distribution of income. The results prove that the differences are larger due

to differences in their mean income levels compared to differences in distribution of income. Mutatkar, R. (2005) did an exercise elaborately to make a profile of poverty in India including social group disparities to unearth the underlying factors, which cause differences in levels of living between the groups and for each group separately. Dubey, A. and Thorat, S. (2012) have found that i) growth has been more poverty reducing at an aggregate level during 2004-05 and 2009-10 as compared to 1993-94 and 2004-05. ii) Some groups benefitted more than the others from poverty reduction because inequality began to adversely affect poverty reduction, particularly in the urban sector. An analysis done by Mishra,S (2015,2016) of poverty change between 2004-05 and 2009-10 has been decomposed into the within group effects of growth, inequality and population components and the other between group effect on account of changes in population shares. Karthikeya Naraparaju and S. Chandrasekhar (2021) have assessed the relative importance of factors contributing to poverty reduction in rural India between 2004-05 and 2011-12. They found no statistically significant population shift effect. But they found that growth in intra land consumption would be dominant factor in reducing poverty at state as well as national levels.

The present study has been set up on the basis of a serious economic issue of economic reform effects in the context of Indian economy. This study is organized as follows. Section 2 presents a brief discussion on the construction of poverty line; section 3 describes on the issues involved in measuring poverty; section 4 investigates temporal changes in the levels of poverty in the rural and urban sectors in India; section 5 decomposes the temporal changes in the components associated with growth and redistribution factors; section 6 gives an idea on profile of poverty under our study; both for regional and occupational differences in levels of poverty respectively; section 7 summarizes and brings together the main findings.

2. Construction of Poverty lines

The rural and urban poverty lines used are those defined by the Planning Commission. These lines are defined at the per capita monthly expenditure levels of Rs 49 for rural areas and Rs 57 for urban areas (rounded to the nearest rupee) at October 1973-June 1974 all-India prices. They correspond to a norm of per capita intake of 2,400 calories per day in rural areas and 2,100 calories per day in urban areas. The Planning Commission followed the “food-energy method” in deriving

the rural and urban lines. These correspond to the levels of per capita total expenditure at which the caloric norms are typically attained in the rural and urban sectors. The nominal consumption distributions for each survey period were converted to constant prices using spatial (cross-state) price indices linked to the consumption pattern of households near the poverty line, and consumer price indices for urban and rural sectors adjusted for consumption patterns of low-income workers. The nominal state-level distributions were further normalized for inter-state cost of living differentials estimated separately for urban and rural areas. The state-wise rural and urban poverty lines for the years 1993-94 and 2004-05 are estimated using the original state-specific poverty lines identified by the Expert Group under the Planning Commission, Government of India and updating them to respectively 1993-94 and 2004-05 prices using the Consumer Price Index of Agricultural Laborers (CPIAL) for rural poverty lines and Consumer Price Index for Industrial Workers (CPIIW) for urban poverty line with adjustments made to take into account interstate price differentials.

3. The Choice of poverty measures

For our empirical exercise, we choose three widely used measures (belonging to FGT(1984)), namely head-count index (HCI), poverty gap index (PG) and squared poverty gap index (SPG) indicating incidence of absolute poverty, the depth of poverty and severity of poverty, respectively. HCI=q/n where q is the number of persons whose incomes lie below poverty line z and n is the total population. The poverty gap index (PG) is defined as:

$$PG = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - x_i}{z}\right) = HI = \frac{q}{n}\left(\frac{z - \mu}{z}\right),$$

where μ is the mean income of the poor, I measures the average proportional shortfall of income below the poverty line and H is abbreviated for HCI. The PG has a useful interpretation is that it indicates the fraction of the poverty line income that would have to be generated in the economy in order to eradicate poverty under the assumption of perfect targeting. Foster, Greer and Thorbecke (1984) class of poverty measures is given by

$$FGT(\alpha) = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - x_i}{z}\right)^{\alpha}$$

where α is a parameter. Later we have also used $P(z,\alpha)$ for $FGT(\alpha)$ in this paper. The larger is the value of α, the grater the weight given to the severity of poverty. We may note that for $\alpha=0$, the FGT index reduces to H[FGT(0)] and for $\alpha=1$ to PG[FGT(1)]. H and PG are not sensitive to income transfers among the poor, whereas FGT(2) i.e. SPG index is. Sensitivity to income transfers among the poor is a very desirable property of a poverty measure. It may further be noted that all the three measures are additively decomposable. This enables us to examine the relative contributions of different population subgroup to overall poverty.

4. Extent of poverty in India, 1993-94 and 2004-05

The study utilizes unit record data relating to the Household consumption and Expenditure Surveys conducted by N.S.S.O, Government of India in 1993-94 and 2004-05. Each survey relates to the entire rural and urban sectors. Table1 gives the sample size and some summary statistics such as mean per capita consumption expenditure at 1973-74 prices and the Gini coefficient of the per capita household consumption distribution among persons. The per capita expenditure in the urban sector was higher than that in the rural sector as one would expect. During the span of thirteen years of economic liberalization the gap between the levels of living in the urban and the rural sectors had greatly increased. The percentage increase (12.4%) in real per capita expenditure in the urban sector had risen comparably low as against the percentage increase (23%) in the rural sector. Also there had been an increase in inequality (measured in terms of Gini coefficient) in each sector over the period.

Table 1: Basic Statistics of sample Household Consumption Expenditure survey data

	1993-94 Survey (50^{th} Round)	**2004-05 Survey (61^{st} Round)**
Rural Sector		
Sample size	3,56,289	2,90,425
Mean per capita consumption expenditure (Rs.) at 1973-74 prices	75.49	92.85
Gini coefficient	0.277	0.297
Urban Sector		
Sample size	1,75,825	1,52,055
Mean per capita consumption expenditure (Rs.) at 1973-74 prices	95.2	107.02
Gini coefficient	0.339	0.373

Table 2 presents the estimates of head count index (HCI), poverty gap index (PG) and squared poverty gap index (SPG) separately for the rural and urban sectors. It can be seen from this table, the level of poverty in the rural sector was more severe than the urban sector in 1993-94. About 37 percent of the rural population lived in poverty. The corresponding figure for the urban sector was 32 percent. The estimates of PG and SPG indices for the urban sector were less than those of rural sector in 1993-94. Both the sectors experienced a decline in the extent of poverty during the period from 1993-94 to 2004-05. In the rural sector the HCI, PG and SPG decreased by 24.3%, 44.4% and 33.3% respectively during this period. The corresponding changes for the urban sector had been 18.75%, 14% and 50% respectively.

Table 2: The estimates of poverty in India in 1993-94 and 2004-05

	Rural sector			**Urban sector**		
Year	**HCI**	**PG**	**SPG**	**HCI**	**PG**	**SPG**
1993-94	.37	.09	.03	.32	.07	.02
2004-05	.28	.05	.02	.26	.06	.01
Percentage reduction in poverty measures						
1993-94 to 2004-05.	24.3	44.4	33.3	18.75	14	50

The estimates of PG provide some useful guidance for designing policy interventions aimed at alleviating poverty. The minimum cost of eliminating poverty using targeted transfers is the sum of all poverty gaps. The cost would be

$$\sum_{i=1}^{q}(Z - X_i) = n.Z.PG$$

We provide here an empirical illustration for 2004-05. For the rural sector, PG = 5.0%. This when multiplied with the rural population (n=7,42,490,639) and the poverty line (z = Rs.356.30) provides an amount of 1,38,100 crore rupees required for alleviating poverty by targeting transfers to the poor. This amount represents 1.6 percent of India's GDP in 2004-05. Similarly, given n = 2,86,119,689, the poverty line z = 538.60, the required amount would be 1,04,321 crore rupees to eliminate poverty under perfect targeting transfers in the urban sector. This amount is 1.4 percent of India's GDP in 2004-05.

5. Growth and redistribution components of poverty

Poverty level(P) can be considered as a parametric function of mean level of income/consumption(μ) and distribution depicted by Lorenz curve(l). So, P is simply written as P = p(z,μ,l). If z is given, then P = p(μ,l) only. Now, it would be very much essential to determine whether it is mean income growth or changes in the relative income share accruing to different sections of the population that are responsible for the evolution of poverty over time. It is also important to observe that whether the two factors, mean income changes and inequality changes, move in the same or opposite direction for such evolution of aggregate poverty. There are several ways to do this. In general we compare two distributions X and Y to evaluate if it is due to difference in mean income or the difference in income inequality. The common feature of growth-redistribution decomposition is

(i) to scale two distributions x and y such that they have the same mean, and interpret the differences in poverty across these two scaled distributions as the impact on poverty of their difference in inequality,

(ii) to interpret the differences in poverty between one of the two distributions (say, x) and the same distribution scaled to the mean income of the other distribution (say, y) as impact on poverty of their differences in mean income.

From this point of view, the precise growth-redistribution decomposition procedure that are chosen differ by the solution which can be applied to a basic problem known generally in the national-accounts literature as the "index problem". In order to see how growth and redistribution policies have affected poverty during the period of study we decompose the changes in poverty into components associated with growth and redistribution (due to Shapley, 1953). Zero and negative values are no topic in poverty decomposition because they either do not occur or they do not pose any problem in the methods currently applied. The residuals presented in some classical approach to poverty decomposition (Datt and Ravallion, 1992) usually give somewhat vague interpretation of interaction effects. So, this interpretation is often criticized and consequently the absence of a residual term in this newer approach related to the Shapley value is seen as an actual advantage (Bay 2004, 2005). In the growth-redistribution decomposition of poverty differences, first Datt and Ravallion (1992) used initial distribution as the reference "anchor point". Later on, Kakwani(2000) and Shorrocks, A. F (1999) used such type of decomposition and applied for their studies. The change in poverty between x and y is expressed as a sum of a "growth" (difference in mean income) effect and of a "redistributive" (difference in relative income shares) effect, plus an error term. This gives,

$$Py(z;\alpha) - Px(z;\alpha) = (Px(z\mu x/\mu y;\alpha) - Px(z;\alpha)) + (Py(z\mu y/\mu x;\alpha) - Px(z;\alpha)) \quad + \text{error term} \tag{1}$$

An alternative decomposition uses the distribution y as the reference distribution for assessing the growth and redistribution effects. It yields:

$$Py(z;\alpha) - Px(z;\alpha) = (Py(z;\alpha) - Py(z\mu y/\mu x;\alpha)) + (Py(z;\alpha) - Px(z\mu x/\mu y;\alpha)) \quad + \text{error term} \tag{2}$$

The first expression in the first term on the left of (1), $(z\mu x/\mu y;\alpha)$, is poverty in x after x's incomes have been scaled by μ_y/μ_x to yield a distribution with mean μ_y and inequality unchanged. $(Px(z\mu x/\mu y;\alpha) - Px(z;\alpha))$ is thus the difference between two distributions with the same relative income shares but with (possibly) different mean incomes. When $\mu_y > \mu_x$, this growth term is negative. The first expression in the second term, $Py(z\mu y/\mu x;\alpha)$ is poverty in y after y's incomes have been scaled by μ_x/μ_y to yield a distribution with mean μ_x . $(Py(z\mu y/\mu x;\alpha) - Px(z;\alpha))$ is thus the difference between two distributions with

identical mean incomes but with (possibly) different inequality. In each of the formulae the decomposition in equations (1) and (2) is partial in the sense that the two components do not add to the total change and each equation contains a residual. Intuitively, if the total change in poverty can be explained fully by the change in income level and inequality there is no reason, why the decomposition should have any residual. Thus, we adopt an alternative decomposition using shapley's method which has the advantage of eliminating the error term in poverty decomposition, since the error terms in each of the alternative decompositions sum to zero. This leads to the following growth-redistribution decomposition:

$$Py(z;\alpha) - Px(z;\alpha) = 1/2[(Px(z\mu x/\mu y;\alpha) - Px(z;\alpha)) + (Py(z;\alpha) - Py(z\mu y/\mu x;\alpha))] \\ +1/2[(Py(z\mu y/\mu x;\alpha) - Px(z;\alpha)) + (Py(z;\alpha) - Px(z\mu x/\mu y;\alpha))] \quad (3)$$

The advantage of this decomposition method used in equation (3) becomes not only free of the sequence in which the different components are calculated (i.e path independence) but it also becomes complete.

Now, we turn to our decomposition analysis. First, we apply the formula on Indian data in the rural and urban sectors respectively. The table3 gives the results and also cumulative effects of growth components and redistribution components in declining absolute poverty are shown in Figures 1(a) and 1(b).

Table 3: Decomposition of poverty into growth and redistribution components between- 1993-94 and 2004-05(National level)

Sector	HCI			PG			SPG		
	Growth	**Redistri bution**	**Total**	**Growth**	**Redistribution**	**Total**	**Growth**	**Redistribution**	**Total**
RURAL	-0.3804	0.0093	-0.3711	-0.0891	0.0012	-0.0879	-0.0296	-0.0001	-0.0297
URBAN	-0.3937	0.0339	-0.3598	-0.1102	0.0149	-0.0952	-0.0421	0.0070	-0.0351

Fig. 1(a): RURAL population: Cumulative effect on poverty reduction

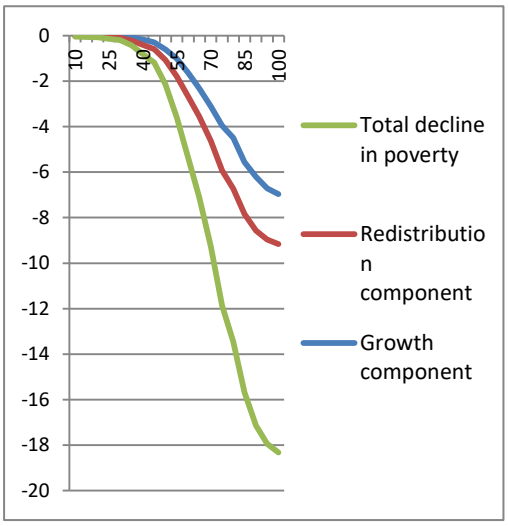
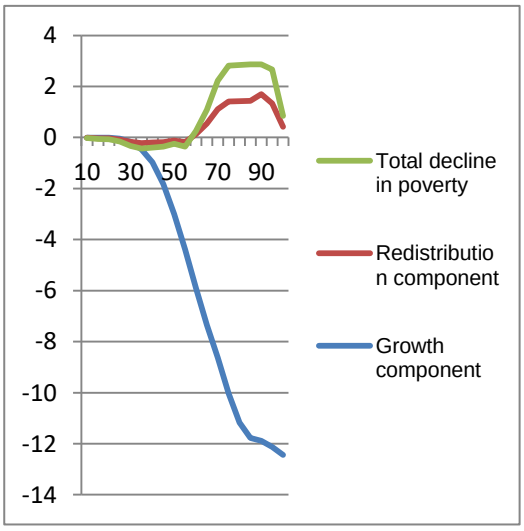


Fig. 1(b): URBAN population: Cumulative effect on poverty reduction



The table 3 clearly shows that in the rural sector, the decline in poverty would be more than 2% if redistribution would be favorable to the poor. But the result of urban sector is too much serious. Here, the decline in poverty would be more than 9% if the redistribution would be favorable. So, in the urban sector the growth contribution would provide for about a 7% points larger decline in poverty headcount relative to rural sector, if redistribution would be neutral. This adverse effect of redistribution is really harmful to the urban poor households. The figures 1(a) and 1(b) also support the point. The contributions of growth and redistribution components are shown in decline of total poverty in terms of cumulative. The distribution shifts contribute positively to poverty

reduction among rural households, while it works against poverty reduction among urban households. We also look for state level decomposition to reach a firm conclusion either it corroborates national level scenario or not. The detailed results of decomposition at state level are given in Table4 for rural and urban sectors together.

Table 4: Decomposition of poverty into growth and redistribution components between- 1993-94 and 2004-05(State level)

States	HCI			PG			SPG		
	Growth	Redistribution	Total	Growth	Redistribution	Total	Growth	Redistribution	Total
RURAL									
AP	-0.192	0.011	-0.181	-0.034	0.002	-0.033	-0.010	0.000	-0.010
Assam	-0.467	-0.002	-0.469	-0.096	0.009	-0.088	-0.028	0.004	-0.024
Bihar	-0.567	-0.015	-0.582	-0.143	-0.008	-0.152	-0.048	-0.005	-0.052
Gujrata	-0.264	0.023	-0.241	-0.053	0.007	-0.046	-0.015	0.002	-0.013
Karnataka	-0.305	-0.024	-0.330	-0.056	-0.014	-0.07	-0.016	-0.007	-0.023
Kerala	-0.343	0.063	-0.279	-0.087	0.022	-0.065	-0.032	0.010	-0.023
MP	-0.363	-0.015	-0.379	-0.088	-0.005	-0.093	-0.030	-0.003	-0.033
Maharastra	-0.385	0.007	-0.378	-0.097	-0.00	-0.097	-0.034	-0.002	-0.036
Orissa	-0.459	0.043	-0.416	-0.130	0.020	-0.109	-0.044	0.010	-0.039
Punjab	-0.150	0.022	-0.127	-0.024	0.003	-0.022	-0.006	0.000	-0.006
Rajasthan	-0.264	-0.016	-0.280	-0.051	-0.008	-0.058	-0.015	-0.003	-0.018
TN	-0.350	-0.007	-0.358	-0.075	-0.006	-0.081	-0.024	-0.004	-0.027
UP	-0.425	0.008	-0.417	-0.103	-0.001	-0.104	-0.034	-0.001	-0.036
WB	-0.427	0.014	-0.413	-0.093	0.008	-0.084	-0.029	0.004	-0.025
URBAN									
AP	-0.444	0.022	-0.422	-0.115	0.012	-0.103	-0.041	0.005	-0.036
Assam	-0.120	0.024	-0.097	-0.017	0.005	-0.012	-0.004	0.001	-0.003
Bihar	-0.406	0.038	-0.368	-0.089	0.001	-0.088	-0.030	0.000	-0.030
Gujrata	-0.350	0.023	-0.327	-0.078	0.004	-0.074	-0.025	0.002	-0.024
Karnataka	-0.440	0.033	-0.406	-0.142	0.017	-0.125	-0.059	0.009	-0.050
Kerala	-0.337	0.085	-0.252	-0.094	0.031	-0.062	-0.036	0.014	-0.022
MP	-0.491	0.054	-0.437	-0.171	0.031	-0.140	-0.073	0.017	-0.056
Maharastra	-0.355	0.00	-0.355	-0.113	0.00	-0.113	-0.049	0.000	-0.049
Orissa	-0.395	0.069	-0.326	-0.132	0.026	-0.106	-0.056	0.014	-0.042
Punjab	-0.192	0.058	-0.135	-0.034	0.014	-0.02	-0.009	0.004	-0.005
Rajasthan	-0.392	0.056	-0.336	-0.097	0.016	-0.081	-0.033	0.006	-0.027
TN	-0.434	0.024	-0.410	-0.116	0.008	-0.108	-0.043	0.002	-0.041
UP	-0.399	0.042	-0.357	-0.113	0.014	-0.110	-0.043	0.006	-0.037
WB	-0.308	0.028	-0.280	-0.071	0.014	-0.057	-0.023	0.005	-0.018

Since we are interested in the redistribution effect on poverty, it would be more appropriate to rely on the transfer-sensitive measure, SPG. However, for the sake of comparison, we present in Table-4 the contributions of growth and redistribution to changes in poverty using all the three measures. The Table 4 shows that in the rural sector of India between 1993-94 and 2004-05 the growth components for all the states have become negative but the redistribution components have become positive in such states as AP, Assam, Gujrat, West Bengal (W.B), Kerala, Orissa and Punjab. This suggests that the growth of income during this period of economic reforms would have reduced poverty much more than what had been observed, if the redistribution had been favorable to the poor in the rural sector of AP, Assam, Gujrat, W.B, Kerala, Orissa and Punjab. In the urban sector, however, the results given in Table4 suggest worsening in the distribution in all states. This implies that in all such states distributional neutral growth would have enhanced the rate of poverty alleviation during the liberalization period in the urban sector. It is worth mentioning that signs of growth components are invariant to the choice of poverty measures. The signs of redistribution components based on H and PG are different from those of SPG in only two cases- i) Uttar Pradesh (U.P) and ii) West Bengal (W.B) in the rural sector. This may be taken as natural because H and PG measures are insensitive to income transfers. The results are invariant with respect to all three poverty measures (HCI, PG and SPG) in the urban sector.

6. Regional and Occupational Profile of poverty

We make use of the decomposition property of the poverty measures to investigate the relative contributions of different occupations and regions to the aggregate poverty. If we classify the households into mutually exclusive subgroups, then an aggregate measure of poverty can be written as the weighted sum of subgroup poverty measures. That is, if an aggregate poverty measure is denoted by P, the subgroup specific measures by P_j (j=1,2,..,….m), and the share of jth group in total population by W_j, then $P = \Sigma W_j P_j$, where $W_j P_j$ denotes the contribution of jth group to aggregate poverty. For the regional profile, the sample households in each sector are classified into fourteen states.

For the occupational profile, in each state the sample households are classified based on occupation of household head into five mutually exclusive occupational

categories, namely, self-employed in non-agriculture, agricultural labours, other labours, self-employed in agriculture, and others occupations in the rural sector and four mutually exclusive occupatuional categories, namely, self-employed, regular wage/salaried employed, casual labours and others occupations in the urban sector.

Subgroup decomposability is useful because it implies that an improvement in well-being in one of the subgroups will necessarily improve aggregate poverty if incomes in other groups have not changed. Moreover, it also needs that optimal design of social safety net and benefit targeting within any group can be computed independently of the income distribution in the other groups.

6.1. Regional Profile of Poverty

For the regional profile, the sample households in each sector are classified into fourteen states. The top panel in Table 5 presents the regional profile of poverty in the rural sector and the lower panel in the same Table displays the percentage contribution of each state to total poverty. The top panel in Table 6 represents the regional profile of poverty in the urban sector and the lower panel in the same Table presents the percentage contribution of each state to total poverty.

Rural Sector Results

The Table 5 shows that the incidence of poverty in the rural sector varies a great deal across different states. In both the years the states of Orissa, Bihar and M.P were the poorest states in terms of all the poverty indices. In 1993-94, the percentages of poor persons were 58% in Orissa, 58% in Bihar followed by 48% in MP, 44% in Maharastra, 42% in Karnataka, 41% in UP, 39% in A.P and 35% in W.B. Punjab (7%) and Kerala (18%) had the lowest number of poor persons. In 2004-05, the percentages of poor persons were 55% in Orissa followed by 46% in Bihar and in MP, 34% in UP, 33% in Karnataka, 27% in T.N, 26% in WB while in Punjab (4%) and Kerala (8%) had the lowest number of poor persons. It is clear that there had been considerable reduction in poverty in AP, Assam, Bihar, Karnataka, Kerala, Maharastra, TN and also poverty has decreased in Gujarat, Rajasthan, Punjab, U.P and W.B. This might be accounted for by the favorable impact of economic liberalization. Poverty in Orissa and M.P is constantly and considerably high over the both time periods and there is no notable progress. In 1993-94 the percentages contribution to overall poverty were 22%, 16%, 11%,

8%, 8%, 7% by U.P, Bihar, M.P, Maharastra, W.B and Orissa respectively while such contributions were 26%, 16%, 11%, 8%, 7% and 8% by U.P, Bihar, M.P, Maharastra, W.B and Orissa respectively in 2004-05. From what has been said above, one may say strongly that in this matter of poverty reduction the impact of liberalization has been failed to somewhat lower extent in such states as Orissa and MP while, there have been substantial favourable impacts of liberalization on some other states as AP, Kerala,

Table 5: Regional breakdown of the extent of poverty in rural sector in 1993-94 and 2004-05

Survey Year	Poverty Index	AP	Assam	Bihar	Gujarat	Karnatak	Kerala	MP	Maha rastra	Orissa	Punjab	Rajas than	TN	UP	WB	All
1993-94	HCI	0.39	0.31	0.58	0.27	0.42	0.18	0.48	0.44	0.58	0.07	0.24	0.40	0.41	0.35	0.41
	PG	0.09	0.05	0.14	0.05	0.10	0.04	0.12	0.12	0.15	0.01	0.05	0.10	0.10	0.06	0.10
	SPG	0.03	0.01	0.05	0.01	0.03	0.01	0.04	0.04	0.05	0.01	0.01	0.03	0.03	0.02	0.03
2004-05	HCI	0.26	0.17	0.46	0.23	0.33	0.08	0.46	0.31	0.55	0.04	0.16	0.27	0.34	0.26	0.31
	PG	0.05	0.03	0.09	0.04	0.05	0.02	0.11	0.07	0.16	0.01	0.03	0.05	0.06	0.05	0.06
	SPG	0.01	0.01	0.02	0.01	0.01	0.01	0.04	0.02	0.06	0.01	0.01	0.01	0.02	0.01	0.02
Percentages (%) contributions to poverty																
1993-94	HCI	7	2	16	3	6	1	11	8	7	1	3	5	22	8	100
	PG	6	2	17	3	6	1	12	10	7	1	3	5	21	6	100
	SPG	6	1	17	2	6	1	13	10	8	1	3	5	22	5	100
2004-05	HCI	6	2	16	3	5	1	11	8	8	1	4	2	26	7	100
	PG	5	1	15	3	4	1	14	8	12	1	2	3	24	6	100
	SPG	5	1	14	3	3	1	15	9	15	1	1	2	23	5	100

T.N., Assam, Punjab, Rajasthan and Maharastra. In these states absolute poverty has decreased by above 30%.

Urban Sector results

In the urban sector, Bihar was the poorest state during the two years (56 and 59 percent of population are poor in 1993-94 and 2004-05 respectively). In 1993-94, Bihar (56%), U.P(46%), M.P(45%), A.P(45%), Orissa (41%), Karnataka (41%), T.N(38%), W.B(38%), Rajasthan (35%), Assam (30%), Maharastra (30%), Gujarat (29%) and even Kerala (28%) were relatively poor regions. Only Punjab (20%) had relatively low number of poor people. The lower panel of the Table displays the contribution of each state to the aggregate urban poverty. The states

such as U.P, M.P, Maharastra, Bihar, A.P., and T.N contributed in percentage most to the overall poverty, while in 2004-05, the percentage of poor persons are 59% in Bihar, 47% in Orissa, 44% in M.P and also in U.P. The other states are somewhat lower poverty stricken. Now let us observe the percentage contributions to total poverty. In 2004-05, the states such as Punjab and Kerala consistently contributed low to the overall poverty. Hence, economic liberalization has helped in reducing poverty in the states of AP, Assam, Gujarat, Kerala, Maharastra, Punjab, W.B, TN, Rajasthan, Karnataka over the period from 1993-94 to 2004-05. Again, the percentages of poor persons have either increased to some extent or have become almost same large in Bihar, Orissa, MP, UP respectively. Since the percentage contributions to poverty have increased over this period, so, economic liberalization has bypassed the poor in the states of Orissa, MP, UP and Bihar.

Both the tables (Table 5 and Table 6) clearly show that percentage contribution of poverty in terms of HCI, PG and SPG are maximum in the state of U.P in both rural and urban sectors. The reason is quite clear that there are maximum number of poor people, i.e the share of population in contribution to poverty is highest in this state.

Table 6: Regional breakdown of the extent of poverty in urban sector in 1993-94 and 2004-05

Survey Year	Poverty Index	AP	Assam	Bihar	Gujarat	Karnatak	Kerala	MP	Maharastra	Orissa	Punjab	Rajasthan	TN	UP	WB	All
1993-94	HCI	0.45	0.30	0.56	0.29	0.41	0.28	0.45	0.30	0.41	0.20	0.35	0.38	0.46	0.38	0.39
	PG	0.11	0.05	0.15	0.06	0.11	0.07	0.11	0.08	0.11	0.03	0.08	0.09	0.13	0.09	0.10
	SPG	0.04	0.01	0.06	0.02	0.04	0.02	0.04	0.03	0.04	0.01	0.03	0.03	0.05	0.03	0.04
2004-05	HCI	0.30	0.24	0.59	0.15	0.33	0.24	0.44	0.25	0.47	0.17	0.34	0.24	0.44	0.31	0.32
	PG	0.06	0.04	0.17	0.03	0.08	0.06	0.12	0.06	0.15	0.02	0.07	0.05	0.12	0.07	0.08
	SPG	0.02	0.01	0.06	0.01	0.03	0.02	0.05	0.02	0.06	0.01	0.02	0.02	0.04	0.02	0.03
Percentages (%) contribution to poverty																
1993-94	HCI	10	1	8	5	7	2	11	11	2	1	5	9	20	8	100
	PG	9	1	8	4	7	2	10	12	2	2	5	9	22	7	100
	SPG	9	1	8	4	8	2	10	13	2	1	4	9	22	7	100
2004-05	HCI	7	1	7	3	7	2	10	13	4	2	6	6	24	8	100
	PG	6	1	7	3	7	2	11	13	4	1	6	5	27	7	100
	SPG	5	1	7	2	7	2	12	13	5	1	5	4	28	6	100

6.2. Occupational profile of poverty

Rural Sector Results:

In the rural sector, the incidence, depth and severity of poverty were the highest among agricultural labor households, closely followed by other labor type households and the lowest among self-employed in non-agricultural type households in all the states in both 1993-94 and 2004-05. We describe in some detail the poverty situations prevailing among these two types of households since they constitute the poorest and most deprived sections of the society. Although during the liberalization period of thirteen years in all the states these two types of households had experienced considerable reduction in poverty, still, they remain highly poor. The table 7 describes the results of rural sector in detail. In 1993-94 the incidence of poverty in the agricultural labour households were the highest in Bihar(81%), followed by Assam(71%), Orissa(71%), U.P(68%), W.B(65%), M.P(64%), Maharastra(63%), T.N(56%), Karnatak(52%), Rajasthan(50%), Kerala(42%), Gujarat(38%), Punjab (33%) and A.P(27%). In 2004-05, the incidence of poverty in the same type of households remained the highest in Bihar(72%), followed by Orissa(67%), U.P(60%), M.P(60%), Maharastra(53%), WB(51%), Rajasthan(41%), Assam(38%), T.N(38%), Karnatak(37%), Gujarat(35%), Punjab(29%), Kerala(28%) and AP(21%). In the rural sector the percentage contributions to over all poverty are relatively very high for agricultural labor households and the other labour households in each state in both 1993-94 and 2004-05.

Urban Sector Results:

The table 8 describes the results of urban sector in detail. In the urban sector, the incidence, depth and severity of poverty were the highest among casual labour households and the lowest among other type households in all the states in both 1993-94 and 2004-05. We describe in some detail the poverty situations prevailing in casual labor households since this type of households constitute the poorest and most deprived section of the society in the urban sector. In 1993-94 the incidence of poverty in the casual labour type households was the highest in Maharastra(87%), followed by M.P(85%), Orissa(78%), Bihar(78%),

Karnataka(77%), T.N(72%), A.P(72%), UP(69%), W.B.(64%), Rajasthan(63%), Gujarat(62%), Assam(43%), Kerala(37%), and Punjab(36%). In 2004-2005, the incidence of poverty in the same type of households became the highest in Orissa(91%), Bihar(83%), Maharastra(82%), followed by Rajasthan(72%), Karnataka(70%), M.P(63%), U.P(61%), T.N(56%), A.P(55%), W.B(49%), Gujarat(48%), Kerala(40%), Punjab(29%) and Assam(25%). In the urban sector the percentage contributions to over all poverty are relatively very high for casual labour households in each state in both 1993-94 and 2004-05.

The implications of these results are that government can optimally design the social safetynet and benefit targeting and thus improvement of well-being in such types of families (two types in rural sector and one type in urban sector) will necessarily improve aggregate poverty provided incomes in other groups have not changed. In the construction of poverty indices which are decomposable across subgroups, the percentage contributions of self-employed and casual labor households were realtively high for all the states in both the years in the urban sector. There had not been any appreciable reduction in the percentage contributions over the two end years of the liberalization period. In Orissa, the increase in contribution of absolute poverty by casual labour households to aggregate poverty had been 17%, from 78% to 91% during the liberalization period. In most of the states the percentage contributions by casual labour households to decomposable poverty index had been lower than that of self-employed persons since in such states the percentage share of this type of households in the population were relatively low.

Table 7: Household Type Poverty Decomposition in Rural Sector

		Poverty Estimates							Percentage of contribution					
Survey Periods	Poverty index	Self-employed in non-agriculture	Agricultural labour	Other labour	Self-employed in agriculture	others	All types		Self-employed in non-agriculture	Agricultural labour	Other labour	Self-employed in agriculture	others	All types
Andhra Pradesh														
1993-1994	H	0.11	0.27	0.24	0.13	0.04	0.19		8	57	9	25	1	100
	PG	0.02	0.05	0.04	0.02	0.01	0.03		8	60	8	22	2	100
	SPG	0.01	0.02	0.01	0.01	0.01	0.01		7	63	7	21	2	100
2004-2005	H	0.05	0.21	0.08	0.11	0.04	0.13		8	58	5	27	2	100
	PG	0.01	0.03	0.01	0.02	0.01	0.02		8	58	5	23	6	100
	SPG	0.00	0.01	0.00	0.00	0.01	0.01		8	54	5	21	12	100
Assam														
1993-1994	H	0.40	0.71	0.73	0.44	0.23	0.48		10	26	14	44	6	100
	PG	0.07	0.16	0.18	0.06	0.04	0.09		10	32	18	34	6	100
	SPG	0.02	0.05	0.06	0.01	0.01	0.02		9	37	22	26	6	100
2004-2005	H	0.31	0.38	0.40	0.18	0.10	0.24		21	14	21	40	4	100
	PG	0.05	0.07	0.08	0.02	0.02	0.04		22	15	25	34	4	100
	SPG	0.01	0.02	0.02	0.01	0.01	0.01		21	17	30	28	4	100
Bihar														
1993-1994	H	0.59	0.81	0.71	0.51	0.43	0.61		12	41	3	38	6	100
	PG	0.13	0.24	0.18	0.11	0.10	0.15		10	48	4	3	5	100
	SPG	0.05	0.09	0.07	0.03	0.03	0.05		9	54	4	28	5	100
2004-2005	H	0.39	0.72	0.63	0.30	0.43	0.45		17	44	4	28	7	100
	PG	0.06	0.16	0.10	0.05	0.09	0.09		13	50	3	26	8	100
	SPG	0.02	0.05	0.03	0.01	0.03	0.02		12	53	3	24	8	100
Gujarat														
1993-1994	H	0.24	0.38	0.31	0.16	0.10	0.25		9	53	10	24	4	100
	PG	0.03	0.08	0.07	0.02	0.02	0.05		7	57	12	20	4	100
	SPG	0.01	0.02	0.02	0.01	0.01	0.01		5	55	15	19	6	100
	H	0.11	0.35	0.28	0.17	0.04	0.23		5	50	14	30	1	100

2004-2005	PG	0.02	0.06	0.06	0.03	0.01	0.04		4	48	16	31	1	100
	SPG	0.00	0.02	0.02	0.01	0.00	0.01		3	46	17	32	2	100
Karnatak														
1993-1994	H	0.34	0.52	0.35	0.24	0.07	0.33		14	48	4	33	1	100
	PG	0.07	0.12	0.08	0.04	0.01	0.07		13	55	4	27	1	100
	SPG	0.02	0.04	0.02	0.01	0.00	0.02		15	57	3	24	1	100
2004-2005	H	0.15	0.37	0.11	0.15	0.10	0.22		8	58	3	29	2	100
	PG	0.02	0.06	0.02	0.02	0.01	0.03		8	64	5	22	1	100
	SPG	0.00	0.01	0.01	0.00	0.00	0.01		8	69	6	16	1	100
Kearala														
1993-1994	H	0.28	0.42	0.37	0.16	0.15	0.29		18	37	26	13	6	100
	PG	0.06	0.10	0.08	0.03	0.04	0.07		16	41	26	11	6	100
	SPG	0.02	0.04	0.03	0.01	0.01	0.02		16	43	25	10	6	100
2004-2005	H	0.11	0.28	0.21	0.07	0.12	0.16		14	27	41	7	11	100
	PG	0.02	0.06	0.05	0.01	0.02	0.03		12	28	47	3	10	100
	SPG	0.01	0.02	0.02	0.00	0.01	0.01		9	28	52	1	9	100
M.P														
1993-1994	H	0.36	0.64	0.46	0.34	0.16	0.42		5	41	4	48	2	100
	PG	0.08	0.17	0.12	0.07	0.03	0.10		5	46	4	44	1	100
	SPG	0.03	0.06	0.04	0.02	0.01	0.03		4	48	5	42	1	100
2004-2005	H	0.31	0.60	0.52	0.30	0.12	0.39		8	40	8	43	1	100
	PG	0.07	0.15	0.12	0.06	0.02	0.09		8	46	8	37	1	100
	SPG	0.02	0.05	0.04	0.02	0.01	0.03		8	51	8	31	1	100
Maharastra														
1993-1994	H	0.29	0.63	0.37	0.27	0.06	0.39		7	57	8	27	1	100
	PG	0.07	0.16	0.07	0.06	0.02	0.10		7	60	6	25	2	100
	SPG	0.03	0.06	0.02	0.02	0.01	0.03		7	62	5	25	1	100
2004-2005	H	0.26	0.53	0.37	0.21	0.09	0.33		10	55	9	24	2	100
	PG	0.04	0.12	0.07	0.05	0.02	0.07		7	58	9	24	2	100
	SPG	0.01	0.04	0.02	0.02	0.01	0.02		6	57	8	26	2	100
Orissa														
	H	0.51	0.71	0.64	0.40	0.27	0.51		15	42	5	34	4	100

1993-1994	PG	0.10	0.20	0.17	0.10	0.05	0.12		12	48	6	31	3	100
	SPG	0.03	0.07	0.06	0.03	0.02	0.04		11	51	6	29	3	100
2004-2005	H	0.33	0.67	0.52	0.47	0.18	0.47		14	35	11	36	3	100
	PG	0.08	0.19	0.15	0.11	0.03	0.12		12	39	12	34	2	100
	SPG	0.02	0.07	0.06	0.04	0.01	0.04		11	41	14	32	2	100
Punjab														
1993-1994	H	0.10	0.33	0.22	0.03	0.04	0.13		13	64	11	8	4	100
	PG	0.02	0.06	0.03	0.01	0.01	0.02		15	69	8	5	3	100
	SPG	0.01	0.02	0.01	0.00	0.00	0.01		15	71	5	3	6	100
2004-2005	H	0.07	0.29	0.12	0.01	0.02	0.10		13	61	20	4	2	100
	PG	0.01	0.04	0.02	0.00	0.00	0.01		15	57	26	1	1	100
	SPG	0.00	0.01	0.01	0.00	0.00	0.00		16	55	29	0	0	100
Rajasthan														
1993-1994	H	0.26	0.50	0.57	0.21	0.21	0.29		10	13	27	45	5	100
	PG	0.05	0.15	0.12	0.04	0.04	0.06		10	18	29	38	5	100
	SPG	0.01	0.06	0.04	0.01	0.01	0.02		9	24	28	34	5	100
2004-2005	H	0.16	0.41	0.39	0.15	0.07	0.20		14	11	30	43	2	100
	PG	0.03	0.07	0.06	0.03	0.01	0.03		13	12	30	44	1	100
	SPG	0.01	0.02	0.02	0.01	0.00	0.01		11	11	29	47	2	100
Tamil Nadu														
1993-1994	H	0.21	0.56	0.27	0.26	0.16	0.36		8	60	9	19	4	100
	PG	0.05	0.14	0.05	0.05	0.03	0.08		8	64	7	17	4	100
	SPG	0.02	0.05	0.01	0.02	0.01	0.03		8	67	6	15	4	100
2004-2005	H	0.15	0.38	0.24	0.18	0.06	0.26		8	60	16	14	2	100
	PG	0.02	0.07	0.04	0.02	0.01	0.04		7	65	16	19	2	100
	SPG	0.01	0.02	0.01	0.00	0.01	0.01		7	68	15	6	4	100
U.P														
1993-1994	H	0.47	0.68	0.58	0.38	0.27	0.44		14	23	6	54	3	100
	PG	0.12	0.20	0.14	0.08	0.07	0.11		14	27	6	49	4	100
	SPG	0.04	0.08	0.05	0.03	0.02	0.04		14	31	6	46	3	100
2004-2005	H	0.38	0.60	0.54	0.29	0.22	0.36		21	20	12	43	4	100
	PG	0.07	0.13	0.11	0.05	0.04	0.07		20	22	14	40	4	100

	SPG	0.02	0.04	0.04	0.01	0.01	0.02		19	26	15	37	3	100
W.B														
1993-1994	H	0.39	0.65	0.63	0.31	0.12	0.43		19	41	13	25	2	100
	PG	0.07	0.16	0.13	0.04	0.02	0.09		17	50	13	18	2	100
	SPG	0.02	0.05	0.04	0.01	0.01	0.03		16	56	12	14	2	100
2004-2005	H	0.27	0.51	0.34	0.23	0.13	0.32		19	47	8	23	3	100
	PG	0.05	0.11	0.07	0.04	0.03	0.06		17	50	8	21	3	100
	SPG	0.01	0.03	0.03	0.01	0.01	0.02		15	52	10	19	4	100

Table 8: Household Type Poverty Decomposition in Urban Sector

POVERTY ESTIMATES								Percentage of contribution				
Survey Periods	Poverty index	Self-employed	Regular wage/salary earning	Casual labour	Others	All types		Self-employed	Regular wage/salary earning	Casual labour	Others	All types
Andhra Pradesh												
1993-1994	H	0.46	0.29	0.72	0.33	0.43		42	28	27	3	100
	PG	0.11	0. 06	0. 22	0. 08	0. 10		40	23	34	3	100
	SPG	0.04	0.02	0.09	0.03	0.04		39	19	39	3	100
2004-2005	H	0.35	0. 21	0.55	0.10	0.31		46	27	26	1	100
	PG	0.07	0.04	0.13	0.03	0.07		43	26	30	1	100
	SPG	0.02	0.01	0.04	0.01	0.02		41	24	32	3	100
Assam												
1993-1994	H	0.07	0. 09	0. 43	0. 04	0. 10		34	39	25	2	100
	PG	0.01	0.01	0.11	0.01	0.01		13	32	54	1	100
	SPG	0.01	0.01	0.04	0.01	0.01		9	23	68	0	100
2004-2005	H	0.05	0. 01	0. 25	0. 06	0. 05		45	10	28	17	100
	PG	0.01	0.01	0.04	0.01	0.01		48	4	31	17	100

	SPG	0.01	0. 01	0. 01	0. 01	0. 01		49	2	36	13	100
Bihar												
1993-1994	H	0.45	0.24	0.78	0.31	0.39		49	23	22	6	100
	PG	0.10	0. 05	0. 22	0. 07	0. 09		49	19	26	6	100
	SPG	0.04	0.01	0.08	0.02	0.03		50	17	28	5	100
2004-2005	H	0.45	0.32	0.83	0.30	0.44		63	15	16	6	100
	PG	0.08	0.05	0.24	0.07	0.09		57	12	23	8	100
	SPG	0.02	0.01	0.09	0.03	0.03		54	10	28	8	100
Gujarat												
1993-1994	H	0.27	0. 25	0. 62	0. 31	0. 30		36	36	25	3	100
	PG	0.05	0.05	0.17	0.06	0.07		33	34	31	2	100
	SPG	0.02	0.01	0.06	0.02	0.02		32	30	36	2	100
2004-2005	H	0.15	0.09	0. 48	0. 02	0. 15		54	22	23	1	100
	PG	0.03	0.02	0.09	0.01	0.03		55	21	23	1	100
	SPG	0.01	0. 01	0. 03	0. 01	0. 01		54	20	25	1	100
Karnatak												
1993-1994	H	0.47	0.32	0.77	0.33	0.45		42	27	27	4	100
	PG	0.14	0. 08	0. 25	0. 10	0. 13		43	23	30	4	100
	SPG	0.06	0.02	0.11	0.04	0.05		45	20	31	4	100
2004-2005	H	0.40	0.26	0.70	0.41	0.40		45	23	29	3	100
	PG	0.11	0.06	0.24	0.11	0.11		42	20	35	3	100
	SPG	0.04	0.02	0.10	0.03	0.04		40	17	40	3	100
Kearala												
1993-1994	H	0.24	0. 23	0. 37	0. 09	0. 27		31	23	45	1	100
	PG	0.06	0.05	0.09	0.02	0.07		32	21	46	1	100
	SPG	0.02	0.02	0.03	0.01	0.02		31	22	46	1	100
2004-2005	H	0.21	0.19	0.40	0.28	0.27		26	18	48	8	100
	PG	0.05	0.05	0.11	0.03	0.07		26	18	53	3	100
	SPG	0.02	0.02	0. 04	0.01	0. 02		27	17	54	2	100

M.P												
1993 -1994	H	0.58	0.43	0.85	0.46	0.54		44	35	18	3	100
	PG	0.17	0. 11	0.31	0. 12	0. 16		43	31	23	3	100
	SPG	0.06	0.04	0.14	0.04	0.06		41	29	27	3	100
2004 -2005	H	0.52	0.31	0.63	0.36	0.48		49	23	24	4	100
	PG	0.15	0.07	0.31	0.12	0.14		48	17	30	5	100
	SPG	0.06	0. 02	0.14	0.05	0.06		46	15	34	5	100
Maharastra												
1993 -1994	H	0.46	0.30	0. 87	0. 35	0. 42		41	37	21	1	100
	PG	0.13	0.08	0.34	0.08	0.12		39	32	27	2	100
	SPG	0.05	0.03	0.16	0.03	0.05		38	29	31	2	100
2004 -2005	H	0.39	0.30	0. 82	0. 16	0. 39		41	35	23	1	100
	PG	0.11	0.07	0.29	0.06	0.11		41	29	28	2	100
	SPG	0.04	0. 02	0. 13	0. 03	0.04		40	26	32	2	100
Orissa												
1993 -1994	H	0.56	0. 31	0.78	0.41	0.45		42	33	17	8	100
	PG	0.17	0.08	0. 29	0. 10	0. 13		44	28	22	6	100
	SPG	0.06	0.03	0.13	0.03	0.05		43	25	27	5	100
2004 -2005	H	0.50	0.24	0.91	0.41	0.47		54	17	25	4	100
	PG	0.16	0.05	0.31	0.11	0.14		58	11	28	3	100
	SPG	0.07	0.01	0.13	0.05	0.06		59	7	30	4	100
Punjab												
1993 -1994	H	0.13	0. 10	0. 36	0. 10	0. 13		52	26	20	2	100
	PG	0.02	0. 01	0.07	0.03	0.02		47	23	26	4	100
	SPG	0.01	0.01	0.02	0.01	0.01		46	18	31	5	100
2004 -2005	H	0.05	0. 06	0. 29	0. 13	0. 07		41	27	26	6	100
	PG	0.01	0.01	0.03	0.01	0.01		46	25	25	4	100
	SPG	0.01	0. 01	0. 01	0. 01	0. 01		48	22	26	4	100

Rajasthan												
1993 -1994	H	0.38	0.27	0.63	0.37	0.35		52	31	11	6	100
	PG	0.10	0. 06	0. 15	0.07	0. 08		57	27	11	5	100
	SPG	0.03	0.02	0.05	0.02	0.03		57	28	11	4	100
2004 -2005	H	0.43	0.23	0.72	0.17	0.38		56	21	21	2	100
	PG	0.08	0.05	0.22	0.03	0.08		48	20	30	2	100
	SPG	0.02	0.01	0.09	0.01	0.03		42	18	38	2	100
Tamil Nadu												
1993 -1994	H	0.39	0. 32	0. 72	0. 45	0.43		32	31	33	4	100
	PG	0.10	0.07	0.21	0.13	0.11		33	26	37	4	100
	SPG	0.04	0.02	0.08	0.06	0.04		33	23	38	6	100
2004 -2005	H	0.22	0. 18	0. 56	0. 10	0. 25		36	30	32	2	100
	PG	0.05	0.04	0.13	0.03	0.05		35	28	35	2	100
	SPG	0.01	0. 01	0. 04	0. 01	0. 02		34	26	38	2	100
U.P												
1993 -1994	H	0.42	0.21	0.69	0.40	0.39		64	15	18	3	100
	PG	0.10	0. 05	0. 25	0. 14	0. 10		59	12	24	5	100
	SPG	0.04	0.01	0.11	0.06	0.04		55	10	29	6	100
2004 -2005	H	0.37	0.28	0.61	0.30	0.37		58	23	14	5	100
	PG	0.09	0.05	0.19	0.09	0.09		59	18	19	4	100
	SPG	0.03	0. 01	0. 07	0. 03	0. 03		60	14	20	6	100
W.B												
1993 -1994	H	0.35	0. 15	0. 64	0. 20	0. 28		49	25	23	3	100
	PG	0.07	0.03	0.14	0.05	0.06		47	24	26	3	100
	SPG	0.02	0.01	0.05	0.02	0.02		46	24	26	4	100
2004 -2005	H	0.20	0.05	0.49	0.06	0.18		54	11	34	1	100
	PG	0.04	0.01	0.09	0.02	0.03		56	9	33	2	100
	SPG	0.01	0.01	0.02	0.01	0.01		56	10	32	2	100

7. Conclusions

The paper has analysed the changes in the extent of poverty in rural and urban sectors of various Indian states between 1993-94 and 2004-05. The analysis has been carried out on the basis of unit level household data relating to consumer expenditure surveys conducted in 1993-94 and 2004-05. The 1993-94 relates to the beginning period of economic liberalization. The major findings from our analysis may be stated as follows. In both the sectors in all states the extent of poverty declined from 1993-94 to 2004-05. This might be attributed to the positive impact of economic reform policies initiated by the government that induced rapid economic growth. For both the sectors the decomposition of temporal changes in poverty into growth and redistribution components indicates that the redistribution component had been negative implying that redistributions had become favourable for decline in poverty. In the urban sector of most of the states, however, the redistribution component corresponding to HCI (absolute poverty), PG (depth of poverty) and SPG (intensity of poverty) measure had been found to be positive. This implies that decline in poverty in urban sector of all states would have been more had there been distributionally neutral growth. There are large variations in the levels of poverty across states and different household types corresponding to different occupations. Group decomposition of poverty clearly brings out that rural poverty in each state got mostly concentrated in the agricultural labour and other labour households and urban poverty in each state in casual labour households. The policy implication is quite clear that government should provide the optimal design of socil safetynet and benefit targetting for such groups of households.

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