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ABSTRACT

The relation between growth, inequality and poverty is the central theme of the paper. While the fast economic growth under the neo-liberal policy regime helps reduce poverty, it increases inequality in income distribution in a way that retards the progress in poverty-reduction. The empirical validity of this proposition is examined by tracing trends in per capita income (NSDP) growth and Gini coefficients, estimated from the data on household consumer expenditure (taken as a proxy for income) of NSS surveys, in Kerala as compared to the pattern at all-India and major states during pre and post reform periods. The comparative scenarios of growth and inequality did not give clear evidence of any systematic pattern of association between growth and inequality in the case of Indian States. The focused study of growth-inequality nexus in Kerala underlined the level of sacrifice on inequality made to achieve the current high levels of economic growth through excessive liberalization and globalization policies. A decomposition exercise of total poverty reduction into (1) growth effect and (2) distribution (inequality) effect revealed that the rising inequality retarded progress in poverty reduction. The results of growth and distributional elasticity of poverty, inequality growth trade off index, and other statistical tests showed that economic growth of Kerala is not "pro-poor" in nature. In short, findings emerging from the analysis of rising inequality with high growth signal some worrisome trends and send out a note of caution on the celebration of high growth rate with a blind eye on inequality, and also on meeting the goal of achieving the newly jostled "inclusive growth".

Key words: poverty, inequality, pro-poor growth, inclusive growth, economic growth

JEL Classification:: I3, I32, I38

1. Introduction

The relation between growth and inequality is a topic of old debate traceable to Kuznet's empirical finding of inverted-U shaped pattern between per capita income and inequality across countries and the hypothesis that as income rises, first inequality rises then improves (Kuznets 1955). A number of studies then supported the hypothesis. However, some recent empirical studies (e.g. Deininger and Squire, 1996) covering larger number of observations did not find evidence of inverted-U curve pattern in individual countries. Studies also showed that since mid-eighties most developing countries following neo-liberal policies experienced fast growth but accompanied by increasing inequality, which hindered the progress in poverty reduction. Presumably, the type of growth under their neo-liberal economic regime enabled the 'non poor' to appropriate disproproately and exclude the poor from, the benefits of fast economic growths. Therefore, recent literature on growth and distribution has begun to challenge the old notions and has put forth a number of alternative propositions (e.g. high growth trajectories affect income distribution adversely; countries can moderate inequality and still achieve reasonable growth rate; the high level of inequality the less impact the economic growth has for reducing poverty for any given level of growth, and so on) for empirical scrutiny.

A number of policy questions have also been raised. Granted some degree of interrelationship between growth and inequality, how much growth is required to offset the adverse effect of increasing inequality on poverty? That is to say, what is the inequality-growth trade off index (Kakwani, 1993) for a given country or region? What are the basic causes of sharply rising inequality along with fast rate of economic growth? Can policy solutions be woven around removing some conventional causes (like highly skewed land and asset distribution and inequality in education) or new causes (like trade liberalisation, technological change, labour market and uneven sectoral growth process) linked to the regime of neo-liberal policies are to be tackled to moderate inequality? (Giovanni Cornia and Julius Court, 2001).

Interestingly, it has become now fashionable to talk of seeking the goal of "inclusive growth" – this is a confession on the adverse effect of sharply increasing inequality with economic growth in a neo-liberal policy regime - and design re-distributive policies. How successful would be a country/state region in seeking the goal of inclusive growth with re-distribution policies based on fiscal transfer? Answers to such questions in a federal country would depend upon the specificities of its state-regions also? Obviously, region-focused studies on trends in economic growth and inequality during the period of economic reforms based on market-orientation and globalisation are instructive to design appropriate policies for achieving "pro-poor" or "inclusive" growth. We consider both "pro-poor" and "inclusive" growth as development goals are different in scope but have same analytical core revolving around inequality and poverty.

The present paper traces trends in per capita income growth and inequality in per capita consumer expenditure (proxy for income) in Kerala as compared to the pattern at all-India and major states during pre and post reform periods. The study has a novelty. For, the Indian literature has neglected the issue of increasing inequality and available studies have only shown some concern with all-India pattern. The choice of Kerala for a region-focussed study is guided by the consideration that its development experience has always received attention at national and international levels. The discussions and debates on the so-called " *Kerala Model of Development,*" which in a nut shell stressed that the state could achieve high levels of physical quality of life and distributive justice with radical legislations (e.g. Land Reforms), progressive social sector policies (e.g. larger and growing government expenditure on education, health etc.) and public action, despite its slow economic growth during the pre-reform era, illustrate the point. However, some concerns on sustaining the progress achieved in health, education and other social welfare fronts were raised, as the success in achieving economic growth was limited. And, the successive coalition governments, which alternated between the Right wing and Left wing political parties voted to power through democratic elections more or less every five years, gave differential emphasis on growth vis-à-vis distribution in economic policies and practices.

In any case, under India's constitutional set-up a state government has limited autonomy to pursue its own independent economic policies. Every state is to follow "perforce" the national government's basic economic policies irrespective of their adverse impact on specific conditions of given state regions. It is, therefore, of academic interest and policy relevance to trace trends in economic growth and inequality in Kerala after the Central government began to bring in a paradigm shift in its basic economic policies in favour of pro-market liberalisation and globalisation and introduce economic reforms. The analysis of economic growth and inequality in Kerala during the post-reform period in particular is important in itself and also to the re-emerging debate on the relation between rising inequality and faster economic growth under neo-liberal regime.

2. Growth Trajectories

Kerala was born as a state on linguistic basis in November 1956. The first democratically elected government, which interestingly was under the control of the Marxist party, came to power in April 1957. The state was then a typical underdeveloped region with low per capita income, consumption, savings and investment – all much below all-India averages. Today, conditions are different with high rate of economic growth and level of per capita income measured in terms of per capita Net State Domestic Product (PCNSDP) higher than the national average. Indeed, it is unrealistic to think that a long period of five decades will witness a constant growth rate; there are bound to have temporal variations. Naturally, the performance of Kerala economy through time is marked by different growth trajectories or phases of the macro economy and its constituent sectors caused by certain exogenous as well as endogenous factors and their differential (at least in emphasis) influence on policies of particular governments voted to power in assembly elections at more or less regular intervals of five years. We therefore begin the analysis with the identification of growth trajectories (or phases) of Kerala economy since the sixties.

While the analysis of fifty years of growth history of Kerala into some distinct phases (sub-periods) is necessary, there is no universally accepted way of dividing the long period into distinct sub-periods. A method commonly adopted and useful for policy evaluation is to divide the long period into different sub-periods based on some exogenous factors (e.g. change in policy paradigm, massive out migration of workers and the subsequent inward remittances) that alter the trend in economic growth. However such a procedure has a limitation of biases in the identification of sub-periods and estimates of their growth rates. A more statistically sound method is to derive sub-periods endogenously based on estimated break-points of the regression models used for tracing the growth trend.

We have opted for the second methodological procedure and estimated growth trend in per capita income (PCNSDP) by using exponential growth function and identified the following three distinct sub-periods (see the Table 1) in the trend in per capita income based on break-points (on the lines of Pushpangadan and Parameswaran, 2006) in Kerala economy since 1961.

Table 1. Three distinct phases (sub-periods) in the long-term trend in per capita NSDP

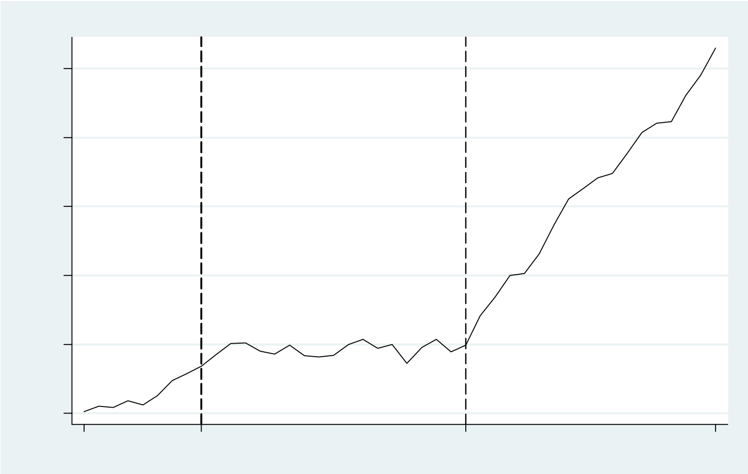
Character of the phase	Length of the phase	Annual growth rate
Slow growth phase	1961-62 to 1969-70	2.2 per cent
Stagnation phase	1970-71 to 1987-88	0.40 per cent
High growth phase	1988-89 onwards (2004-05)	4.80 per cent

Source: calculation based on NSDP data reported in State Planning Board, *Economic Review* (various issues.)

We have also plotted the long-term trend of per capita NSDP in Figure 1. To elaborate, we converted the data on per capita NSDP into a single series at 1999-2000 prices and constructed an index keeping 1960-61 as the base. The log value of the index was plotted on a graph to depict the trend. Clearly, three distinct phases roughly corresponding to the break points could be identified as marked in the Figure 1. Interestingly, within the high growth phase there have been points of sharper upward shift in the growth trajectory. Clearly, per capita NSDP of Kerala has been witnessing sharper upward turns in mid-nineties and in early 2000.

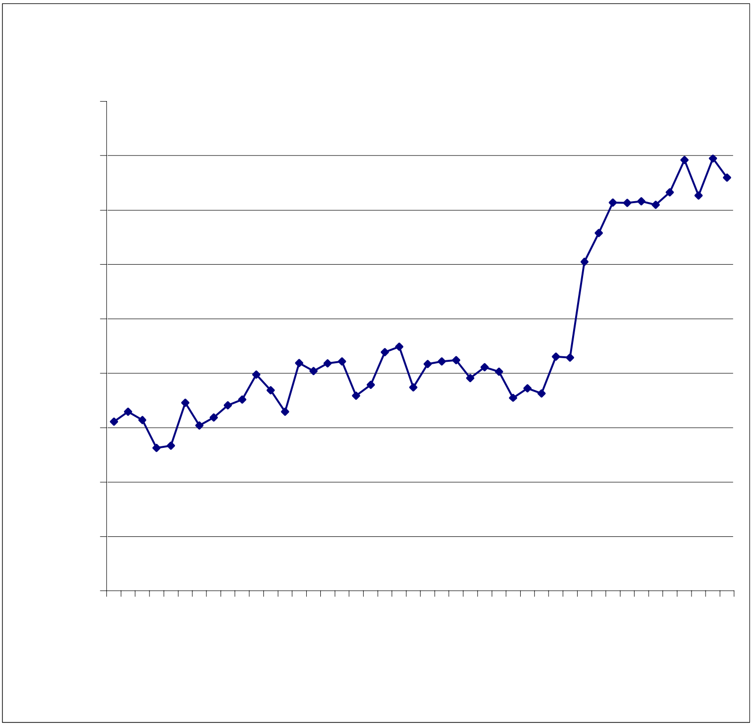
Overall, Kerala has been witnessing consistently faster growth rates in per capita income for more than a decade since the late eighties. Our findings are in conformity with the findings of earlier studies (eg. Kannan, 2005; Pillai and Shanta, 2005; Subramanian, 2006; CDS 2006) The period coincides with the paradigm shift in the Central government's growth strategies and basic policies in favour of market oriented liberalisation and globalisation. It then stands to reason that neo-liberal regime when

Figure 1



extended to Kerala has resulted in putting the economic growth of the state on higher growth trajectories. In other words, the national government's paradigm shift in its basic economic policy in a federal polity seems to have put some of its constituent states on higher growth trajectories and enabled achieving faster growth consistently. In the case of Kerala, the level of per capita income (at current prices) which remained below all-India average throughout sixties, seventies and eighties, crossed the national level of Rs.7940 in 1993-94 and remained above the national average since then (see the Figure 2). In 2004-05, PCNSDP of Kerala was Rs.27048 as compared to Rs.22946 for all-India.

An interesting feature of the fast growth process during the post-reform era in Kerala has been the uneven growth of sub-sectors of the macro-economy in a manner different from the conventional type of sequence in structural diversification. This is clear from the Table 2, which gives annual average growth rates and relative contributions of sub-sectors. Indeed, Kerala economy did grow fast and moved on



high growth trajectories during the neo-liberal regime. However, the high growth was contributed by disproportionately faster growth of 'unproductive' service sector. On an average, the service sector recorded a growth rate of 7.76 per cent as against 1.66 per cent of the agriculture and 4.93 per cent of manufacturing, and contributed around 70 per cent to the total NSDP growth that on an average recorded 6 per cent annual growth rate during period under review. It is instructive to note that the contribution of manufacturing has been low and in particular, the unregistered (unorganised) manufacturing sector has been growing slow (4%) and contributing very little (just above 3 per cent) to the growth of NSDP. The slow growth rates of agriculture and unregistered manufacturing sectors during the neo-liberal regime imply

Table 2. Share, Growth rate, and Contribution of sub-sectors to NSDP at 1993-94 prices Average for 1994-95 to 2004-05 in Kerala

(Percentages)

	Sectors	Share	Annual Growth rate	Contri-bution to NSDP growth
I	**PRIMARY**	**25.90**	**1.75**	**7.83**
1	Agriculture	21.27	1.66	6.27
2	Forestry and Logging	2.39	3.35	1.18
3	Fishing	2.06	1.14	0.22
4	Mining and quarrying	0.18	6.20	0.16
II	**SECONDARY**	**20.78**	**7.17**	**24.27**
5	Manufacturing	10.44	4.93	8.71
5.1	Registered	5.44	5.74	5..54
5.2	Unregistered	5.00	4.06	3.17
6	Construction	9.08	6.90	11.84
7.	Electricity, Gas, Water supply	1.26	18.45	3.72
III	**TERTIARY**	**53.32**	**7.76**	**67.89**
8	Transport, storage & communication	7.50	10.58	12.79
8.1	Railways	0.29	9.81	0.44
8.2	Transport of Other means	5.05	7.14	5.34
8.3	Communication	2.13	19.88	7.01
9	Trade, Hotels & Restaurants	20.4	6.93	23.45
10	Banking and Insurance	6.15	12.69	12.20
11	Real Estate, Ownership of Dwellings and Business services	6.42	5.92	6.58
12	Public Administration	4.52	6.68	5.03
13	Other service	8.28	5.77	7.85
	NSDP	100.00	6.06	100.00

Source: Calculation based on NSDP data reported in State Planning Board, *Economic Review* (various issues.)

that the fast growth process has been bypassing the labour absorbing sub-sectors with the result that the employment and earnings of a large segment of the population remained low and stagnant. It stands to reason that the rising inequality in income distribution with the fast pace of economic growth has tended to be inevitable under neo-liberal policy regime.

The next step in our analysis, therefore, is to trace the trend in inequality in Kerala during pre-reform and post-reform periods with a view to shed light on the effect of market-oriented reforms in influencing the trend in inequality in Kerala, when its economic growth is found moving on higher trajectories under neo-liberal policy regime.

3. Trends in Inequality

There is no secondary data source for tracing the trend in income inequality in India and its state-regions. Analysts, therefore, depend upon National Sample Survey Organisation (NSSO) quinquennial series of household consumption expenditure surveys to study trends in inequality in per capita expenditure (proxy for income) generally by estimating rural and urban Gini coefficients. These surveys, started in 1972-73 (27^{th} round), give detailed consumer expenditure data for 1983 (38^{th} round), 1987-88 (43^{rd} round) 1993-94 (50^{th} round) 1999-2000 (55^{th} round) and 2004-05 (61^{st} round). Incidentally, the data for 1983 can be taken to represent the slow growth phase and 1987-88 the growth recovery phase, in Kerala. These two time points can be regarded reasonably representing the pre-reform distribution pattern. The data for other time points (viz., 1993-94, 1999-2000 and 2004-05) represent the consumption level (proxy for income distribution) during the post-reform period.

Studies based on NSS expenditure surveys (thick as well as thin samples) have come out with mixed evidence on the trend in inequality in India and its states during the post-reform period. To illustrate, while Bhalla (2003) showed a decline in urban and rural Gini ratios between 1993-1994 and 1999-2000, Jha (2004) gave evidence of an increase in both rural and urban Gini ratios in 1993-94 and 1997 followed by a decline between 1997 and 1999-2000. It must be noted that the use of NSS consumption expenditure survey data for comparison over time has a limitation as the methodology used for data collection in the 55^{th} round (1999-2000) is different from the one used earlier. To illustrate, the reference periods in the 55^{th} round Consumer Expenditure Survey were changed from the uniform 30-day recall period (URP) used till then to a mixed reference period (MRP) method. To elaborate, the NSS 55^{th} round collected the data on expenditure on food and intoxicants for seven and 30 days recall respectively. For items of clothing, footwear, education etc, information sought was for 365 days. The change to MRP did effect the estimation results. As Deaton and Dreze (2002) have attributed, the change from 30 to 365 days in the reporting period for low frequency items resulted in lower poverty and inequality estimates. To make comparison over time of the trend in inequality therefore the analyst has to adjust the data of NSS 55^{th} round using an appropriate correction factor for mixed reference (MRP) methodology on the lines of Deaton and Dreze (2002) or others. Alternatively, omitting the NSS 55th round and using those NSS rounds that have adopted uniform reference period (URP) for collection of expenditure data, a comparison is made (as Dev & C.Ravi, 2007 did) to trace trends in inequality over time and in particular for comparing the differential pattern of post-reform era with that of pre-reform period.

We have chosen the first option in the present study and traced trends in monthly per capita consumer expenditure (used as a proxy for income) by estimating the value of Gini Coefficient in 1983, 1987-88, 1993-94, 1999-2000 and 2004-05. A caveat must be added here. The estimates of per capita income for each Indian states are made by dividing the state's NSDP by its population. There is an inherent problem of under-reporting of NSDP because of the exclusion of migrants' remittances. The problem is complex in the case of Kerala, where migrants' remittances as a phenomenon has been assuming importance since the eighties. According some scholars the inward remittance has been equivalent to around 25 per cent of NSDP in 1999 (e.g. Zacharia and Rajan, 2004) though it declined to 23 per cent in 2003. The point for emphasis is that the actual per capita income in Kerala must have been larger than the official data on per capita NSDP. Interestingly, Kerala today ranks at the top among Indian states in per capita consumption expenditure though its rank in terms of per capita NSDP is relatively lower! Obviously, distribution pattern in monthly per capita consumption expenditure cannot be strictly taken as a proxy for per capita income distribution in the case of Kerala due to its unique distinction over most other states in relation to migrants' remittances.

Reverting to the trends in inequality, we first look (see the Table 3) at the distribution pattern of total consumption expenditure (per cent share in total) by deciles in Kerala in 1993-94 and 2004-05 and note the changes before attempting trends in Gini coefficients. It appears that share of the 1st decile (poorest housholds) marginally declined from 2.81 per cent in 1993-94 to 2.41 in 2004-05 whereas that of last decile (richest) increased from 29.90 per cent to 34.31 per cent in rural Kerala. The corresponding figures for urban Kerala were 3.11, 2.15 and 24.05, 31.37 respectively. In fact, the increase in the shares in 2004-05 over 1993-94 in total expenditure was confined only to the last decile (richest) both in the rural as well as urban Kerala. The popular perception of disproportionately increasing share of the middle class in total consumption in Kerala has no empirical support.

Table 3. MPCE decile-wise distribution of total consumption expenditure (%)

Deciles	1993-94		2004-05	
	Rural	Urban	Rural	Urban
1	2.81	3.11	2.41	2.15
2	4.56	4.75	3.95	3.94
3	5.59	5.84	4.90	5.07
4	6.56	6.90	5.82	6.11
5	7.37	7.96	6.72	7.16
6	8.52	9.15	7.77	8.27
7	9.82	10.50	9.03	9.61
8	11.53	12.38	11.05	11.55
9	14.35	15.37	14.04	14.76
10	28.90	24.05	34.31	31.37
All deciles	100.00	100.00	100.00	100.00

Source: Estimated from NSS (thick sample) of household consumer expenditure surveys

Contrarily, the change in the distribution pattern of total consumption expenditure in 2004-05 over 1993-94 is indicative of the trend of rising inequality in consumer expenditure (proxy for income) during the period 1993-94 and 2004-05 under the neo-liberal policy regime.

We now turn to work out GINI coefficients based on deciles distribution of consumer expenditure (used as a proxy for income) for Kerala and all-India to get a comparative picture of the levels of inequality at different time points representing different phases in the economic growth (see the Table 4).

Table 4. Trends in Consumption Inequality (Gini coefficient) in Kerala and India

	38th round	43rd round	50th round	55th round	61st round
	1983	1987-88	1993-94	1999 -2000	2004-05
Kerala Urban area	0.390	0.381	0.343	0.374	0.410
Kerala Rural area	0.320	0.312	0.301	0.329	0.382
Kerala (U+R) combined	0.352	0.343	0.319	0.348	0.392
India Urban area	0.341	0.332	0.343	0.374	0.375
India Rural area	0.308	0.300	0.286	0.311	0.305
India(U+R) combined	0.321	0.313	0.311	0.339	0.336

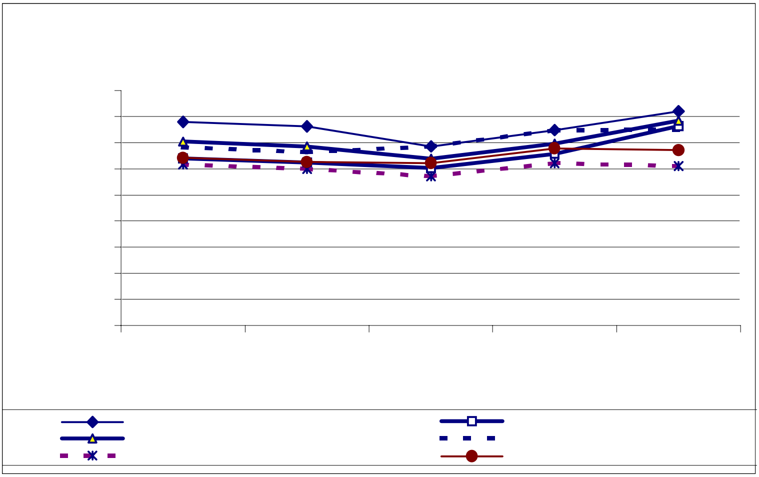
Source: Estimated from NSS (thick sample) of household consumer expenditure surveys

It is instructive to note that the value of Gini coefficient has declined marginally in rural as well as urban areas and thus the overall pattern of inequality improved between 1983 and 1987-88, a period of growth recovery in PCNSDP, in Kerala. The trend of falling value in Gini ratio is seen to have continued till 1993-94, the year, which signals the impact of the paradigm shift in India's growth strategy and in the case of Kerala the sharp upward movement in the growth rate of the macro economy along the high growth trajectory. The all-India pattern is also found to be similar to that of Kerala except that there is an increase in the urban Gini value at the national level. The overall pattern of inequality in Kerala has followed the all-India pattern marked by a fall in the Gini ratio during the period of initial growth momentum (rather recovery) of the post-reform period. If one were to venture drawing an inference, the fact that level of inequality is seen reduced during the periods of growth recovery and the initial shift to a high growth trajectory in Kerala, implies that a moderate growth rate of an economy can be achieved with moderated inequality even under the regime of market-oriented reforms.

The situation, however, is seen to be different with the intensification of economic reforms to achieve higher rate of growth, ignoring the distributional impact. As Kerala economy is made to move up onto higher growth trajectories through a process and structure of growth based on “excessive” liberalisation and globalisation policies of neo-liberal regime, the level of inequality is worsened as manifested in the higher values of Gini coefficients in 1999-2000 and 2004-05 as compared to those in 1993-94. Indeed, it is disturbing to note that urban Gini ratio takes a value higher than 0.4, a value internationally considered as representing excessive inequality. In fact, Gini coefficients in urban areas, rural areas and overall pattern (rural and urban combined) in 2004-05 are much higher in values than in 1993-94 in Kerala. The pattern is more or less same at all-India. To put it differently, the level of inequality in Kerala after one decade is much higher than what it was at the initial years, of economic reforms. Clearly, the level of inequality in Kerala has been rising along with the higher growth rate of the economy under the neo-liberal regime. And, Kerala exhibits the same pattern as seen at the national level.

In other words, the quest for higher growth rate through neo-liberal policy regime has resulted in the rising inequality both at the national level as well as in Kerala. More disturbingly, the level of inequality is of higher magnitude in Kerala in comparison with the national level. To put it rhetorically, Kerala, which had the tradition of pursuing progressive legislations (e.g. Land Reforms), policies (like increased budgetary allocation on education, health and other social sector activities) and public action for distributive causes when adopted unbridled market-oriented policies, ended with the rising inequality along with higher growth rate.

When values of Gini coefficients are estimated for different NSS thick sample survey points and plotted on a graph, the picture of rising inequality during the post-reform period is vividly seen (see Figure 3) in Kerala. Interestingly, the levels of inequality in urban as well as rural areas in Kerala are higher than at all-India! An obvious inference is that inequality in Kerala has been rising at a rate higher than all-India average during the post-reform era.



The position is clearer when we compare compound annual growth rates (CARG) of Gini ratios in Kerala with all-India figures during 1993-94 to 2004-05 (see the table 5) in urban as well as rural areas. It is significant to note that CARG of rural Gini ratio in Kerala is four times higher than the national figure. Interestingly, CARG of Gini ratio in urban area is lower compared with the rural area in Kerala while a similar comparison is reverse at the national level during the post reform period of 1993-94 to 2004-05.

Table 5. Compound Growth Rate (% PA) of Gini of per capita consumption expenditure

	1983 to 1987-88	1987-88 to 1993-94	1993-94 to 1999-2000	1999-2000 to 2004-05	1993-94 to 2004-05
Kerala Urban area	-0.52	-1.74	1.45	1.86	1.62
Kerala Rural area	-0.56	-0.60	1.49	3.03	2.17
Kerala (U+R) combined	-0.57	-1.20	1.46	2.41	1.87
India Urban area	-0.59	0.54	1.45	0.05	0.81
India Rural area	-0.58	-0.79	1.41	-0.39	0.58
India(U+R) combined	-0.56	-0.11	1.45	-0.18	0.70

Source: Estimated from NSS (thick sample) of household consumer expenditure surveys.

It is also worth noting that CARG in Kerala are reasonably higher compared with the national scene during the sub-periods 1993-94 to 1999-2000 and 1999-2000 to 2004-05. In other words, inequality has been rising consistently in Kerala at a rate higher than all-India average during the post-reform period under review.

Clearly, the neo-liberal regime has turned to be extremely unfavourable to Kerala with regard to the income (expenditure used as a proxy) distribution though it has helped the state economy to move on higher growth trajectories. Indeed, inequality has increased at all India level also during the post-reform era that witnessed macro economic growth at a rate higher than the pre-reform era and comparable with other industrialising countries (e.g. China). Surprisingly, the increase in inequality in one of its constituent states namely Kerala, which had followed progressive policies and public action to achieve distributive justice and social welfare and thus high quality of life during its slow growth phase during the pre-reform period turned to be significantly higher than all-India average during its high growth phase in the post-reform period under the neo-liberal policy regime.

It would be interesting to compare the trend in inequality in Kerala with that in other major Indian states. We therefore estimated Gini coefficients at different intervals of time based on the NSSO' rounds of quinquennial consumer expenditure surveys for urban area, rural area and urban-rural combined area for 16 major Indian states and found that Kerala has the highest level of inequality, as indicated in Gini ratios, in urban, rural and combined area in 2004-05 (see the Table 6).

Table 6 Trends in inequality (Gini coefficients) in major states

States	URBAN		RURAL		COMBINED	
	1993-94	2004-05	1993-94	2004-05	1993-94	2004-05
Andhra Pradesh	0.323	0.374	0.289	0.294	0.303	0.331
Assam	0.288	0.321	0.179	0.199	0.231	0.257
Bihar	0.311	0.341	0.225	0.213	0.265	0.274
Gujarat	0.291	0.31	0.24	0.272	0.263	0.288
Haryana	0.283	0.364	0.313	0.339	0.295	0.348
Jammu & Kashmir	0.288	0.252	0.243	0.248	0.263	0.247
Karnataka	0.318	0.368	0.27	0.265	0.291	0.314
Kerala	0.343	0.410	0.301	0.382	0.319	0.392
Madhya Pradesh	0.33	0.406	0.28	0.277	0.302	0.338
Maharashtra	0.357	0.378	0.306	0.311	0.328	0.341
Orissa	0.307	0.353	0.247	0.285	0.274	0.316
Punjab	0.28	0.402	0.283	0.296	0.279	0.345
Rajasthan	0.293	0.372	0.265	0.251	0.276	0.308
Tamilnadu	0.347	0.358	0.312	0.321	0.326	0.336
Uttar Pradesh	0.326	0.366	0.281	0.29	0.301	0.325
West Bengal	0.338	0.383	0.254	0.273	0.293	0.325

Source: Estimated from NSS (thick sample) of household consumer expenditure surveys.

Incidentally, Kerala, which has the highest value of Urban, Rural and Combined (urban + rural) Gini Coefficients, has also the largest level of average MPCE, in both rural and urban areas. There may be a temptation to infer that a state with highest size of average consumption is ought to have the highest degree of inequality in consumer expenditure (proxy for income). We therefore ranked the 16 major states in ascending order of the average MPCE and also in terms of the value of Gini ratio in rural and urban areas separately to find out whether there is any strong rank correlation. The result was not encouraging in the sense that Spearman's rank correlation coefficients were not found statistically significant.

We have also worked out (see the Table 7) normalised values of Gini ratio, which inform us on the mutual distance in inequality between states given the range of variations in inequality. It is observed that with respect to rural inequality, the state of Punjab that enjoyed the farthest distance as regards inequality from the worst level in 1993-94 has become closer to the state of Kerala. These instances also confirm on the inequality convergence across states as many of the states have narrowed their distance as regards inequality from the worse-off level (with normalised value of 1). This however does not seem to be true of urban areas where dispersion in inequality has widened.

A clearer picture of the trends in inequality can be seen from the compound annual rate of growth (CARG) of Gini ratios between 1993-94 and 2004-05 among the major states (see the Table 8). While Punjab recorded the highest growth rate of 1.93 per cent, Kerala followed closely and recorded the next highest growth rate of 1.87 per cent in the overall (urban and rural combined) Gini ratio among the states considered. Interestingly, the CARG of PCNSDP is not the highest either for Punjab or Kerala. It is West Bengal, which has recorded the highest CARG (5.57%) in PCNSDP followed by Andhra Pradesh (5.33) and Karnataka (5.29) in that order. These top performing

Table 7. Normalised Values of Gini Co-efficient

States	Rural		Urban		Combined	
	1993-94	2004-05	1993-94	2004-05	1993-94	2004-05
Andhra Pradesh	0.559	0.776	0.821	0.518	0.559	0.578
Assam	0.098	0.437	0.000	0.000	0.098	0.070
Bihar	0.399	0.567	0.342	0.073	0.399	0.186
Gujarat	0.138	0.368	0.456	0.395	0.138	0.280
Haryana	0.039	0.709	1.000	0.767	0.039	0.697
Jammu & Kashmir	0.106	0.000	0.476	0.265	0.106	0.000
Karnataka	0.498	0.738	0.675	0.362	0.498	0.459
Kerala	0.817	1.000	0.911	1.000	0.817	1.000
Madhya Pradesh	0.649	0.977	0.749	0.424	0.649	0.627
Maharashtra	1.000	0.798	0.949	0.613	1.000	0.649
Orissa	0.346	0.642	0.503	0.469	0.346	0.474
Punjab	0.000	0.950	0.774	0.527	0.000	0.677
Rajasthan	0.168	0.759	0.641	0.281	0.168	0.420
Tamilnadu	0.876	0.676	0.990	0.666	0.876	0.616
Uttar Pradesh	0.597	0.726	0.761	0.496	0.597	0.537
West Bengal	0.750	0.833	0.559	0.403	0.750	0.536

Source: Calculation based on Table 6.

states in PCNSDP have relatively lower rate of growth in overall Gini ratio. It then stands to reason that higher rate of increase in inequality is not necessary to achieve higher rate of economic growth. In other words, inequality can be moderated substantially and yet the states can achieve higher growth rate.

Table 8. Compound Annual Growth Rates between 1993-94 and 2004-05

State	GINI		PCNSDP	
	CARG %	Rank	CARG %	Rank
Andhra Pradesh	0.80	10	5.33	2
Assam	0.96	7	1.89	13
Bihar	0.30	14	1.61	15
Gujart	0.82	9	5.07	4
Haryana	1.50	3	3.90	8
Jammu & Kashmir	-0.56	16	2.19	11
Karnataka	0.69	12	5.29	3
Kerala	1.87	2	4.78	5
Madhya Pradesh	1.02	5	2.19	12
Maharastra	0.35	13	3.55	10
Orissa	1.29	4	3.88	9
Punjab	1.93	1	1.37	16
Rajasthan	0.99	6	4.68	6
Tamil Nadu	0.27	15	4.14	7
Uttar Pradesh	0.69	11	1.76	14
West Bengal	0.94	8	5.57	1

Source: Calculation based on data in the Table 6 and CSO data on PCNSDP

Spearman rank Gini rank PCNSDP

Number of obs = 16

Spearman's rho = - 0.0245

Test of Ho: rank gini and rank PCNSDP are independent

Prob > |t| = 0.8056

To inquire if there is any statistical correlation between inequality (Gini ratio) and economic growth (per capita NSDP), we ranked the states in descending order of their CARGs in Gini ratio and PCNSDP during 1993-94 to 2004-05. The Spearman rank correlation was not found statistically significant. Perhaps, a more rigours statistical test is needed to comment on the inter-relationship between growth and inequality. Yet it may not be wrong to say on the basis of the preliminary evidence that rising inequality is not inevitable to faster rate of growth of the economy of the states in India. And, Kerala state is no exception. On the contrary, it is rather surprising that given the historical background of progressive policies and concerns for distributive justice, Kerala state has the highest level of inequality in per capita consumption expenditure (used as a proxy for income) today under neo-liberal regime! Isn't the current trend of rising inequality accompanying high economic growth worrisome?

4. Impact of Rising Inequality on Pro-poor growth

Prima facie, increasing inequality is undesirable in itself. Apart from the moral aspect, excessive inequality impedes the progress in poverty reduction expected of increased income growth. Granted that there is some interrelationship between growth and inequality, there still remains the question of the unfavourable impact of excessive inequality on poverty and deprivation. The point for emphasis is that growth reduces poverty, but when it is associated with rising inequality, the favourable impact of growth on poverty reduction is retarded.

There are now a number of inter-country studies to show that poverty reduction is slower in countries that experience rising inequality. The question in the context of the present study is this. Today, if Kerala is seen to have the highest degree of inequality in the country when its economy is on fast growth trajectories possibly triggered by neo-liberal policy regime, what has been the impact of such a growth process on reducing poverty and deprivation. If the impact has been one of retarding the progress in poverty reduction then the trend of rising inequality is worrisome. For, there is no greater crime than poverty! If the faster growth is leading to rising inequality that impedes poverty reduction, then some degree of income equalization is desirable even if it slows down the growth rate. The question here is not merely of taxing the rich and giving to the poor through fiscal redistribution. There is wisdom in the old saying that the impoverished can benefit more from gift of a fishing pole than they can from the presentation of a meal of fish. Thus viewed, the trend of rising inequality accompanying faster growth is not a moral but a growth strategy question. That is to say, it is a question of designing strategies of growth, even at a slower rate, but accompanied by declining inequality and reducing poverty. We therefore now turn to examine the ''pro-poor'' or ''poverty reducing growth strategy'' in Kerala context by decomposing change in poverty profile into (a) growth effect and (b) inequality effect. We also make an attempt at estimating "Inequality-growth trade off Index (IGTI)" using the methodology developed by Kakwani (1993).

The measurement of poverty in Kerala has always remained a controversial issue. The most common method adopted is identification of a poverty line based on normative calorie requirements. On practical consideration the Central government settles for a uniform consumption basket at base level and updates poverty lines with consumer prices for subsequent years though there are important inter-State differences in terms of population structures, activity status, climatic and topological considerations and so on, which need to be accommodated while fixing calorie requirements. Indeed, the consumption basket fixed by the Expert Committee in 1973-74 does not reflect the present day realities. Besides, the official poverty line may not be capturing the cost of basic necessities particularly non-food components such as health, education, shelter etc. The government of Kerala and a few independent scholars, therefore, take the view that the incidence of poverty in the state of Kerala always remains underestimated and needs to be reviewed taking into consideration the state-specific characteristics, and the Central assistance to the state is enhanced appropriately. Clearly, there is a need to revisit the official methodology in estimating poverty but that question is beyond the scope of the present paper.

If we use the Central government's official head-count method (percentage of people below the poverty line) it would appear that the progress in poverty reduction in Kerala has been relatively better than many other states (e.g. Andhra Pradesh, Orissa, West Bengal), which were equally poor as Kerala some few decades ago. To illustrate, in terms of head-count method, Kerala moved from having the second highest incidence of rural poverty around 1960 to having the fifth lowest by about 1990 (Datt and Ravllion, 1998). It appeared that the progress in poverty reduction during the pre-reform period with slower growth was impressive in Kerala. The reduction in poverty during the post-reform period is also impressive as seen from the Table 9, which shows progressive reduction in headcount ratio of poor in Kerala over time. Strikingly, Kerala has made remarkable progress in reducing incidence of poverty during the post-reform era.

Table 9. Head count ratio of poor (People below poverty line) in Kerala and all India

	Rural			Urban		
	1983	1993-94	2004-05	1983	1993-94	2004-05
Kerala	38.48	26.49	12.27	45.11	25.45	20.86
India	45.76	37.26	29.18	42.27	32.56	26.02
Kerala's rank*	9	12	13	6	11	10

* rank in descending order among major states.

Source: Based on Table 8 of Dev and Ravi (2007)

Today, (2004-05) the percentage of rural poor in Kerala is only 12.27 as against all-India average of 29.18 based on head count ratio or official poverty lines. The corresponding numbers for urban areas are

20.86 and 26.02 respectively. The rank of Kerala among 16 major states in 2004-05 by official poverty count is 6 in rural poverty and 10 in urban poverty. In terms of PCNSDP at 1993-94 constant prices, the rank of Kerala moved down from 6^{th} position in 1993-94 to 8^{th} position in 2004-05. Clearly, Kerala has made impressive progress in improving economic growth rate as well as reducing the poverty during the post reform period.

The question in the context of the present paper is this: has the rate of reduction in poverty in Kerala retarded due to rising inequality during the high growth phases under the neo-liberal policy regime. Growth in income reduces the incidence of poverty but the rising inequality in income-distribution tends to retard the progress in poverty reduction. To designate the adverse role of inequality in a perspective we decompose the change in poverty (measured by official estimates of head-count ratio) between two points of time, say 1993-94 and 2004-05, in Kerala into (1) growth effect and (2) distribution effect. This is done by assuming that poverty at a given time depends on the mean income and its distribution. We can decompose the change in poverty (head count ratio) between two points of time into growth effect and distribution (inequality) effect where change in poverty due to change in the mean income keeping distribution constant (income effect) and change in poverty due to change in distribution keeping income level constant (distribution effect).

There are different ways of estimating decomposition (see Jain and Tendulkar, 1990 Datt and Ravallion, 1992,). Our decomposition exercise of reduction in Head Count Ratio (HCR) of poor in Kerala between 1993-94 and 2004-05 using Jain and Tendulkar methodology showed the following pattern:

Total change in HCR	(-) 10.430 %
Change in HCR due to change in mean income (growth effect)	(-) 11.623 %
Change in HCR due to inequality (distribution effect)	(+) 1.198 %

It appeared that the rising inequality tended to retard the progress in poverty reduction.

We also estimated growth and distributional elasticity of poverty in Kerala and found that growth elasticity (GEL) took the value of (-) 1.12 and distributional elasticity (DEL) the value of (+) 0.223. The total elasticity (TEF) took the value of (-) 0.897. The pro-poor index (TEF/GEL) took the value of 0.800892857 and showed that the economic growth of Kerala is not pro-poor in nature, as $0<PPI<1$

We have also looked into the question of Inequality-Growth Trade-off in the context of Kerala. Using the methodology developed by Kakwani (1993) we estimated Inequality-Growth Trade-off Index (IGTI) for Kerala. The value of IGTI for Kerala is found to be 5.02. This means that if inequality (Gini ratio) rises by one per cent, we can manage it without increasing poverty level with an income growth rate of 5.02 per cent. The fact however remains that the compound growth rate of Gini ratio (rural-urban combined) has been more than 2 per cent per annum with a growth rate of around 5 per cent per annum in per capita income during the last one decade's of neo-liberal policy regime. The scope to trade off inequality with growth rate is thus limited in Kerala though the state has been moving on higher growth trajectories during the neo-liberal regime.

The foregoing analysis of consumer expenditure (proxy for income) in Kerala confirms the trend of rising inequality with high economic growth rate and further, the rise is beyond tolerable levels to ensure pro-poor growth during one decade of ongoing neo-liberal policy regime. This is a worrisome trend and a challenge to development policy. It would be interesting to inquire if inequality of asset ownership has followed the above pattern; but no analytical study of Kerala situation in this regard has been done so far. It is beyond the scope and space of the present paper to get into the question of inequality of asset-ownership. We, therefore, close the discussion by offering some concluding observations on Kerala experience with rising inequality in consumption (proxy for income) and their implications on the ongoing debate on the relationship between growth and inequality under neo-liberal policy regime.

5. Concluding Observations

Granted that certain degree of inequality is bound to develop in a growing economy, the Kerala experience with high growth under neo-liberal regime raises apprehensions due to lack of balance between the two as well as the sustainability of a growth rate which is distribution blind. This leads to numerous questions as regards the nature and source of growth as well as its inclusive/exclusive character at large. The inequality has to be such tolerable level that will not adversely affect the pro-poor or inclusive growth of the economy. The comparative scenario of growth and inequality in pre and post reform era drawn in the present study did not give clear evidence of any systematic pattern of association between growth and inequality at-least in the case of Indian states. The focussed study of growth-inequality nexus in Kerala underlined the level of sacrifice on inequality made to celebrate the current high levels of growth through intensification of neo-liberal policies. As expected, growth-led poverty decline is compromised to some extent due to rising inequality levels although in comparison with other states Kerala has registered a notable decline in poverty levels defined in terms of Central government's official norms. The inequality-growth trade off (which ideally should be 1 per cent growth in GINI coefficient to be accomplished with 5.02 per cent income growth in Kerala context) is found to be less impressive with a nearly 2 per cent rise in the value of GINI coefficient accompanied with only a per capita income growth of around 5 per cent per annum. These and other findings emerging from our analysis of Kerala experience with rising inequality along with high growth point at some worrisome trends and hence call for introspection among celebrators of fast economic growth. The findings signal the need of a new vision of development for Kerala in which, as remarked by Isaac, "the government is expected to play the role of a catalyst and a moderator of rapid growth with a fair degree of employment practices and re-distributive justice" (Isaac, 2007)

The policy implications of the findings on Kerala experience are clear: high growth alone would not be sufficient for reducing poverty; policies that reduce inequality are also critical for reducing incidence of poverty. What should be the basic features of policies for reducing inequality? Should redistribution policies be based on the conventional paths of land and asset reforms or income transfer from the rich to the poor through fiscal policies? Or should the policies be based on redefining and remoulding the neo-liberal reforms and the manner of their implementation for faster growth suiting the specificities of individual states? These are too complex questions to be addressed here. The aim of the present paper is modest: it is to emphasise in the light of Kerala experience that one cannot ignore or be indifferent to, the current trend of rising inequality that accompanies the high growth trajectories under neo-liberal policy regime. This sends out a note of caution regarding celebration of growth with a blind eye on inequality. This should be a matter of serious concern to policy makers, who have now fashionably coined the slogan of meeting the goal of achieving ''inclusive growth''. One thing seems clear from Kerala experience, simultaneous policies of achieving growth rate and reduced level of inequality are necessary (ie. growth with equity) for achieving "pro-poor" or "inclusive" growth in the context of Indian states.

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