CHAPTER II

INEQUALITY AND GROWTH: THEORY AND EVIDENCE

2.1 Introduction

The phenomenon of income inequality has been a source of worldwide economic and social upheaval. It has become a weapon in the hands of social reformers and a point of intellectual debate among academicians. There has been innumerable empirical research, attempting to measure the relationship between inequality and growth, both within and across nations. Yet the relation between inequality and process of economic growth is far from being well understood. To have a real meaning these theoretical and empirical researches should imply not only a starting point but also a finishing point. And, the finishing point must be some ideal standard of inequality against which the movement can be measured.

It is often argued that the mechanisms, which promote economic growth, also promote economic concentration and a worsening of the relative and perhaps the absolute position of the lower income groups (Tendulkar and Jain, 1995). So, there is a need to be more outspoken about the evils of inequality for the prosperity and the well being of our universe, our nation and our society. The present chapter is devoted to shed light on the various concepts and interrelations relating to inequality, growth and poverty.

2.2 Do we really want the inequalities to be leveled off?

Inequality is a relationship of domination by an individual, group or class over another (Mohanty, 1983). In the true sense, inequality is in itself an awkward word, used in connection with a number of awkward social and economic problems. It always suggests a departure from some idea of equality (Cowell, 1995).

The reason why income inequality exists is that people in an economy differ from each other in many ways that are relevant to their income. Difference occurs in human capital (both education and health), in where people live (different geographical regions of a country), in their ownership of physical capital, in the particular skills they have, and even in their luck (Weil, 2005). The main justification for inequality is that society is
organized in a number of pyramids and different levels. Each pyramid entails different degrees of responsibility. These different degrees of responsibility further require in their turn different degree of capability. It seems reasonable to say that to induce people to accept a higher degree of responsibility, they should be paid a higher reward. But that generalization does not tell us how much higher the reward should be. Much will depend on the ideological background from which the person comes. So each society will have its history and ideology stretching back some length in time (Philip, 1976).

Philosophically, equality is not what most people want. They just want to be better off. Therefore, removing inequality merely by reducing the perceived well-being of the better off, will not achieve equality. Moreover, it is difficult to see how a world will function if all the inequalities of income and esteem among its member are leveled out. In the true sense, most people are prepared to accept a degree of inequality as a part of existence in the real world. But, the question arises what is the acceptable degree of inequality. The great philosopher Rousseau however holds a different viewpoint. According to him,

“There is hardly any inequality in the state of nature, all the inequality which now prevails owes its strength and growth to the development of human mind and becomes at last permanent and legitimate by the establishment of property and laws” (Rousseau, 1950).

It is clear by now that inequality is not merely a subject of scholarly interest, rather it is a matter of everybody’s concern. There are inequalities between classes, between races, between men and women and between earning of individuals. On the one side, people try to find reason for the inequalities that exist, and on the other hand, they argue that existing inequalities are arbitrary or contingent and there is nothing in the nature of things that require their existence. Whether we consider inequalities in the distribution of income and wealth, we cannot move very far without examining the facts. The facts in each case are many and diverse. They are not directly available to the layman equipped with the resources of common sense only. Specialists in the various branches of social science have put together a body of material relating to different aspects of inequality (Beteille, 1983).
In terms of social welfare, income inequality is undesirable for a number of reasons. Inequality can hamper further growth, poverty reduction and can lead to increased political instability. In the long run inequality could threaten the stability of development. Such an unevenness of development extracts a high social cost that can lead to economic dislocation, social tension and political unrest (Clarke and Islam, 2004). Other reason and cost of inequality include an increasing gap between the rich and the poor, creation of imagined wants, negative impact on economic activity, an increase in crime and violence and an increase in suicides, anxiety and reduction of skills.

In spite of all the evils of inequality, it is quite sure that removal of inequality from this earth will not provide any solution; rather it will surely exaggerate the existing problem. Moreover, it is very difficult to imagine a world without inequalities in income, nor it is possible in the very nature of things. So, what required is that each society should set its own acceptable degrees of inequality and strive hard to attain it.

2.3 Constitutional Remedies against Inequality

Since the early nineteenth century, the increasing salience of the value of equality and movement against inequality has been visible in the Hindu reform movement of Brahma Smaj, Ramakrishna Mission and Arya Smaj where the equality of social groups in the eyes of God is put forward (Beteille, 1983).

It was also a part of pledge given to the people of India during the struggle for independence that not only equal opportunities must be given to all, but special opportunities for education, economic and cultural growth must be given to backward groups so as to enable them to catch up to those who are ahead of them (Nehru, 1961). The adoption of constitution in 1950 makes a watershed in the progress towards inequality in India.

The preamble to and the directive principle of state policy, enshrined in the constitution mention that social, economic and political justice shall be secured for all the people. In a similar vein Article 38, states that the state shall promote the welfare of people by securing, as effectively as it may, a social order in which social, economic and
political justice shall inform all the institution of national life. In the same way, Article 16 guaranteed equality of opportunity.

The Directive Principles, though not enforceable through court of law, are regarded as fundamental in the governance of the country. According to them, the state is to direct its policy in a manner as to secure the distribution and control of the material resources of the community to sub serve the common good and to ensure that the operation of the economic system does not result in the concentration of wealth and means of production to common detriment. Among other things, these principles direct the state to serve the right of all to an adequate means of livelihood, assistance in case of unemployment, old age and sickness (Srinivasan, 1974).

Sivaramayya (1983) found that the concepts of equality which find reflection in the constitution are varied and there is a collection of at least three major principles of equality namely, egalitarian, the meritarian and the proportional. The first principle seeks to give benefit to all irrespective of need or merit. The second principle is applicable where distribution of scarce resources and position is involved. The third and last principle is applied for individuals belonging to the disadvantaged section, who are not in a position to compete on an equal footing.

2.4 Inequality and Economic Growth: Theoretical Framework

The early literature on the evolution of income inequality over the process of economic growth used to be dominated by the Kuznets hypothesis, suggested by Kuznets (1955) in his presidential address to the American Economic Association. According to this hypothesis, income tend to be distributed relatively equally in the poorest countries. As these countries begin to undergo economic development, their income distribution becomes more unequal. This deterioration in equality is likely to be arrested and reversed again after these countries reach a certain threshold of economic development and aggregate affluence (the so-called trickle down effect). Thus, both mature industrialized economies and pre industrial societies are postulated to have more egalitarian income distribution than countries at intermediate levels of economic development.
Using both the cross-country and time series data, Simon Kuznets (1963) found an inverted U-shaped relation between income inequality and GNP per head. Kuznets inverted U curve had two segments. The first segment comprises initially rising arm of curve and second segment, declining arm of the curve. The former is based on the presumption that at the early stage of development there was dualism in rural-urban, traditional-modern and agriculture and non-agriculture activities. The benefits of economic growth remain concentrated among those who were directly involved in those comparatively modern sectors and activities. But with the continuation of growth, during the later stage, dualistic forces became weaker. The spread of education, access to more remunerable income earning opportunities and increased female labour participation resulting from the spread of human capital contributed to declining wage differential and hence income inequality. All this ultimately resulted in declining right of inverted U-curve.

However, this is not always the case, as the process of industrialization unfolds the distribution of income will improve. For example, Brazil experienced a J-shaped transition in the period of rapid economic growth in the late 1960s and early 1970s. Korea, Taiwan and Japan (in the post Meiji period) followed the U-shaped pattern of growth. So, whether inequality does or does not decrease in the later stage of transition depends upon the policies followed by the countries. Adelman and Morris (1973) taking the sample of 44 less developed countries found that cross-country relationship between inequality and growth can be either U-shaped or J-shaped.

Anand and Kanbur (1986) argued that location of the minimum point of U is very much sensitive to composition of sample and specific functional form. Such sensitivity is to be expected in the underlying relationship (either U or J shaped) in specific countries depending on their policy choice.

Sinha (2004) studied the relationship between the inequality and per-capita income to examine the validity of Kuznets hypothesis of economic growth (KHEG) during the period 1980-81 through 1997-98 for the Indian economy. The author found that relation between growth has been neither U-shaped nor inverted U-shaped (as postulated by Kuznets), but it is S-shaped, an extension of U-curve. Economic reforms
resulted in turning point due to shift from manufacturing to service (MTS) resulting from economic restructuring including trade liberalization and globalization. The study also concluded that reasons for increase in inequality lies in social and political restructuring taking place in Indian economy and for these economic reforms cannot be held responsible.

So the relationship between the inequality and growth can take any form of U-shaped, inverted U-shaped (∩), J-shaped and even S-shaped depending upon sample size, methodology used, time period and regions covered.

2.5 Is Inequality Good or Harmful For Growth?

2.5.1 Case I: Inequality is harmful for Growth

It is generally recognized that the factors which determine the pace of economic growth in any country influence and are influenced by the manner in which the national income is distributed over population. In that way, relative equality or inequality of income indirectly acts upon the relative incidence of growth to the extent it influences the factors which alter per capita income over time.

Persson and Tabellini (1994) examined the question of ‘Is inequality harmful for economic growth?’ Drawing on the theories of endogenous economic growth and endogenous economic policy, they formulated a model that relates equilibrium growth to income inequality and political institutions. The authors summarized their conclusion in a simple aphorism: Inequality is harmful for growth. The reason being that it leads to policies that do not protect property rights and full private appropriation of returns from investment. This implication is strongly supported by the historical evidence of narrow cross section of countries and by the postwar evidence from a broad cross section of countries.

Perotti (1996) summarized four main arguments in the literature as to why income inequality will be harmful for growth. The first argument is that an unequal distribution of income will lead to pressure for redistribution of income through distortionary taxes and distortionary government spending, and hence growth. The second argument is that inequality may lead to sociopolitical instability, which will in turn reduce investment and
hence growth. According to third argument, in the presence of imperfect capital markets, inequality will reduce investment in human capital, which will in turn reduce growth. The fourth and final argument is that as inequality increases fertility is likely to rise and human capital investment fall, resulting in reducing growth.

2.5.2 Case II: Inequality is good for Growth

Early thinking about the notion: “Is inequality good for growth” suggested that greater inequality might be good for growth. This view implied a trade off where more growth could be brought for the price of more inequality with ambiguous effects on poor people. The conventional text book approach is that inequality is good for growth, even though incentive and growth consideration might sometimes be traded off against the goal of equity (Aghion, Caroli and Penalosa, 1999).

Some models predict that inequality is likely to be growth enhancing. According to Kaldor’s hypothesis, the marginal propensity to save of rich is higher than that of poor people. As investment rate is positively related to the saving rate and growth is positively related to investment, economies that are more unequal can be expected to grow faster. Saving which leads to the accumulation of physical capital can significantly affect economic growth. Inequality is related to the saving rate for the simple reason that saving rate tends to rise with income, i.e., the higher is a person’s income; the higher his savings rate likely to be. The total amount of saving in any country is the sum total of saving by people in all different income groups. So, the more unequal is the income, higher the fraction of total income earned by richer people—the higher will be total savings.

Observers from all parts of the political spectrum, ranging from Karl Marx to Ronald Regan, have shared the view that more inequality would lead to a higher level of capital accumulation. Even Keynes in his writings of late 19th and early 20th centuries, argued that income inequality, which put money in the hands of those least likely to spend it on consumption was an essential, through distasteful, prerequisite for economic development (Weil, 2005).
Therefore, it is clear that we are faced with a dilemma. Inequality can prove both harmful and good for economic growth. On the one hand, the inequalities resulting from the manner in which society now operates are not accepted. On the other hand, we seem to be drifting blindly towards equality, which could be equally rejected as unreasonable. But, of course there is a way to come out from this dilemma and that rests on pattern of economic growth. Hopefully, the ultimate aim of economic growth should be the betterment of living condition of the people and optimum distribution of fruits of economic growth to each and all.

2.6 Effects of Income Inequality on Growth

It is really hard to tease out the effect of income inequality on economic growth. This effect may depend on a country’s stage of growth and other numerous factors. Empirical studies on income inequality have been addressing the issue of identification of factors responsible for an observed pattern and magnitude of inequality and the direction whether negative or positive of the effect of inequality on economic growth. However, there is as yet no consensus throughout the economic profession on the relationship between income inequality and growth. The literature has found mixed result relating to negative or positive impact of income inequality on economic growth.

The classical approach (Kaldor 1957 and Bourguignon 1981) suggests that the marginal propensity to save of the rich is higher than that of the poor. This implies that a higher degree of initial inequality will yield higher aggregate saving, capital accumulation and growth. On the other end, modern approaches emphasized the main four channels through which income inequality lowers growth: (i) the impact of inequality on rent seeking activities that reduce the security of property rights, (ii) unequal societies are more prone to difficulties in collective action reflected in political instability, (iii) the median voter in a more unequal society is relatively poorer and faces a higher tax burden, and (iv) if the inequalities in income or assets coexist with imperfect credit markets, poorer people may be unable to invest in their human and physical capital resulting in adverse consequences for long run growth (Iradian, 2005).

Galor and Moav (1999) argued that inequality has positive effect on capital accumulation but negative effect on human capital accumulation in the presence of credit
constraint. In the early stages of development, the positive effect of inequality on aggregate saving more than offsets the negative effect of investment in human capital. On the later stages of development, however, the positive effect of inequality on saving is offsetted by the negative effect on investment.

Khoo and Dennis (1999) found in a cross-country national study of countries between 1960 and 1985 that, income inequality has a negative effect on economic growth. They argued that this negative effect is due to inequality’s positive effect on fertility. Poor parents are likely to have a more children to increase the probabilities that they will receive a financial payoff from at least some of their offspring. This payoff is less important for wealthy parents who will therefore, have fewer children.

Aghion, Caroli and Penalosa (1999) analyzed the relationship between inequality and economic growth from two directions. The first part of their study examined the effect of inequality on growth, showing that when capital markets are imperfect there is not necessarily trade off between equity and efficiency. It, therefore, provides a theoretical framework which explain two recent empirical findings, namely, the negative impact of inequality and positive effect of redistribution upon growth. The authors give three reasons for why inequality may have a direct negative effect on growth, (i) inequality reduces investment opportunities, (ii) inequality worsens borrower’s incentives, and (iii) inequality generate macro-economic volatility. In the second part they analysed several mechanisms whereby growth may increase wage inequality, both across and within education cohorts. They argued that technical change, and in particular the implementation of ‘General Purpose Technologies’ stands as a crucial factor in explaining the recent upsurge in wage inequality.

Zweimuller (1999) investigated the impact of income inequality on economic growth when technical progress is driven by innovations and consumers have hierarchic preferences. When consumers have hierarchic preferences, the structure of demand is affected by the distribution of income. When demand is affected by the income distribution, inequality may be an important determinant to innovation and growth. The long run growth rate depends on the distribution of income because it affects the time path of demand faced by innovator.
Forbes (2000) found positive effect of income inequality on growth. She argued that country-specific effects and omitted variables are the cause of a significant negative bias in the estimation of the effect of inequality on growth. She also concluded that fixed effect estimations yields the consistent results of positive short and medium term correlation between inequality and growth.

Odedokun and Round (2001) investigated in the context of African countries, the effect of inequality on economic growth and channels through which inequality affects growth. They used data for 35 countries over different periods in the last four decades. Factors identified as having affected income distribution include the level of economic development attained, regional factors, size of the government budget and amount of it devoted to subsidies and transfer, phase of economic cycle and share of agriculture sector in total labour force. They also found that channels through which inequality affect growth are found to be through reduction in secondary and tertiary education, investment, reduction in political stability and increase in fertility rate.

Ghosh and Pal (2004) examined the effect of inequality on growth among the sub-national states in India by using state level data for the period 1960-1994. In their model, growth of the regional economy is driven by productive public investment in the provision of health and education services, financed by a linear output tax. The study found an ambiguous relationship between initial inequality and subsequent economic growth. Initial inequality in the distribution of income leads to the optimum rate of taxation (determined by the median voter) being different from the rate that maximizes the economy’s growth rate. However, the precise relationship remains ambiguous and depends on the net effect of the output tax on labour and capital income of the median voter. Further empirical estimates of the author from the Indian states suggest that rural inequality is more important to explain growth of output per capita and there is negative relationship between the two.

Iradian (2005) challenged the belief that income inequality has a negative effect on growth and confirm the validity of Kuznets curve. The author examined the empirical relationship between inequality and growth and analysed the impact of growth, inequality and government spending on poverty reduction by assembling panel dataset on income
and poverty for 82 countries during the period 1965-2003. Credit market imperfection in low and medium-income countries were identified as the likely reason for the positive link between inequality and growth over the short to medium term. The author also argued that in the long run inequality may have an adverse impact on growth.

Weil (2005) identified four different channels through which inequality has been hypothesized to affect economic growth for both good and ill. These four channels are (i) effect on accumulation of physical capital (+ve impact on growth) (ii) effect of accumulation of human capital (-ve impact on growth) (iii) sociopolitical unrest in response to income inequality (-ve impact on growth) and (iv) government redistribution policy (+ve impact on growth).

In short, like the theoretical literature, the empirical results are not unanimous on the existence of a casual link from inequality to growth.

2.7 Effect of Growth on Inequality

The starting point for the effect of growth on inequality is the Kuznets hypothesis. This hypothesis suggests that the distribution of income would deteriorate over the initial stages of development as an economy transforms from rural to urban and from agriculture to industrial. Subsequently, inequality would decrease as the labour force in the industrial sector expands and that of agriculture sector falls (www.worldbank.com, August 2007).

Kurian (2002) holds the view that the very nature of inequality is dependent upon pattern of growth. Growth can reduce poverty and inequality; growth can increase inequality and reduce poverty and growth can increase both inequality and poverty. These diverse patterns are possible because growth is not a uniform numerical addition. It is a process of change that not only affects the volume of output but also the composition of that output, the manner of production, relative values of specific goods, the participation of different sectors of the population in productive activities and the purchasing power of different sections of society.

The modernization school tends to emphasize the relative differences as a key determinant of difference in the degree to which income is distributed equally within
nations. According to the thoughts of modernization school, rapid economic growth is unlikely to provide solution to the severe problem of inequality in the third world; it is actually likely to compound this problem, at least initially (Chan, 1989).

Recent research on economic growth, focuses particularly on innovation as a source of economic growth, and the spread of technology as an important determinant for the extent of inequality between countries. Research in this area suggests that multinational corporations contribute positively to the international diffusion of technology, but only under the precondition that the receiving country has a certain minimum standard in terms of education technology and a certain “absorptive capacity” (Norwegian report, 2000).

2.8 Interrelations between Inequality, Poverty and Growth

T.S. Schultz in his noble lecture accepted the fact that:

“Most of the people in the world are poor, so if we know the economics of being poor, we would know much of the economics that really matters” (Schultz, 1980.)

Poverty and inequality are nothing but the two sides of the same coin better known as growth. This is because the problem of poverty is primarily caused by unequal distribution of the benefits from economic growth. These three (Economic Growth, Income Inequality and Poverty) phenomenon are very much sensitive to the occurring in either of the three. Moreover, the perceived relationship between growth and inequality has significant implications for reduction in poverty during the process of growth being associated with structural transformation.

A good number of empirical studies attempted to examine the interrelations between inequality, poverty and growth. Yao (1999) assessed the relationship between economic growth, income inequality and poverty by using both secondary and household survey data in order to produce a clear picture of inequality and poverty in China. The principle methodology used is the calculation of Gini coefficient and its decomposition by class and income source. The main findings of the study are (i) urban-rural divide and spatial inequality are the two major factors accounting for overall income inequality (ii) non wage and non farm income are more unequally distributed than wage and farm
income; and (iii) the incidence of poverty is very sensitive to the changes in per-capita income and inequality.

Jha (2000) examines the empirical relationships among inequality, poverty and economic growth in India using data on consumption from the 13th to the 53rd rounds of the National Sample Survey. The study revealed that rise in inequality has been the result of three factors (i) a shift in earning from capital to labour income (ii) the rapid growth of the service sector particularly the banking, financial institutions, insurance and real estate sector, and (iii) a drop in the rate of labour absorption during the reform period. The author suggested that although rapid economic growth remains the best bet for reducing India’s immense problem of inequality and poverty, along with this effort must be made to see that distribution of consumption does not become further skewed.

Son (2003) attempted to explain the interrelations between growth, inequality and poverty through an idea of poverty decomposition. For this purpose, the author decompose the incidence of poverty in four elements. First one reflects shifts in population between segments that have different degrees of poverty; second, measure the impact of overall growth, third one takes into account the fact that different segments experienced different growth rates and fourth one reflecting changes in the distribution of income within each segment. The author concluded in his findings that the first component would always be negative if there is a positive growth in the economy. The second component can be either negative or positive. If it is negative, then the difference in growth rate of different groups has contributed to decrease in total poverty and vice versa. Similarly, the third component can be either negative or positive. If it is negative, then it indicates that a change in inequality within group has contributed to decrease in the total poverty incidence and vice versa.

Pramanik (2003) examined the interrelations of growth, inequality and poverty by revising the inverted ‘U’ hypothesis. The author used both pooled and disaggregated micro level data from Malaysia for three decades from 1970-1997. The author demonstrated that phenomenon of increasing inequality with poverty is associated with higher illiteracy, lower percentage of household belonging to more dynamic age group, lower percentage of economically active labour force, higher percentage of dependence,
predominance of female headed household and greater dependence on farming and related activities. On the other hand, positive effect of educational expansion and higher rate of urbanization through factor mobility contributed to positive effect of distribution effects in terms of lowering inequality and increasing growth.

2.9 Evidence of Cross Country differentials in Income Inequality and Economic Growth

Gupta and Singh (1984) examined the measurement of extent of income inequality and changes in income inequality across countries, factor responsible for the income inequality and identification of the shape of kuznets curve. Whole study was for the two time periods (one for the 1960s and the other for 1970s) for the 27 selected countries. The study concluded that income inequality varies widely among countries in the world. Countries with comparatively low-income inequality are Korea, Netherlands, Sweden, U.K. and Yugoslavia. Brazil and Mexico witnessed rather high degree of income inequality, while it was moderate in Argentina. However, nothing unambiguously can be stated about the other countries in the sample of 27 countries. The findings of authors also supported the Kuznets hypothesis of inverted U-shaped curve between income inequality and the per capita income.

Chan (1989) summarized and compared empirically several leading alternative explanations of a cross-national differences in income inequality among a sample of 63 less developed countries (LDCs). The author found substantial evidence relating the stock of foreign capital and rate of economic growth to income distribution in the manner predicted by the newer dependency school and the modernization school, respectively. The study revealed that trade dependency, state strength and regime democracy alone are unable to account for very much of the cross-LDCs variance in income distribution. Further, the size of country’s armed forces is negatively related to the income share of the wealthy and positively related to that of the poor.

Castello and Domenech (2000) provided new measure of human capital inequality and examined their influence on the economic growth process by using data set which includes 108 countries from 1980 to 2000, classified into seven different groups. To
construct the indicators of human capital, the authors, distributed school levels by quintiles and calculated human capital Gini coefficient. The study obtained two main findings using new indicators relating to human capital. Firstly, the variability of human capital inequality indicators is greater across countries than within each country. Secondly, the cross country and pool regression suggest that there is a negative effect of human capital inequality on economic growth rates, whereas the negative effect of income inequality on economic growth is not robust.

Knowles (2005) found evidence of a significant negative correlation between consistently measured inequality of expenditure data and economic growth for a sample of 27 developing countries. The author argued that almost all the recent empirical work on the relationship between income inequality and economic growth has used inequality data that are not consistently measured. So, these studies need to be interpreted with a great deal of caution, as they measure inequality in an inconsistent manner.

Ravallion (2005) examined the possibility of trade off between poverty and inequality by using estimates of poverty and inequality measures for 70 developing countries during 1990s. The result of the study indicated that there is no systematic trade off between absolute poverty incidence and relative inequality. Lower poverty tends to come hand in hand with lower relative inequality. On the other hand, results are quite different by taking absolute inequality instead of relative inequality. In this case, the rising inequality is associated with falling poverty and vice versa. Therefore, whether one thinks about inequality in relative or absolute terms is crucial to the position one takes on the trade off between poverty and inequality.

Edward (2006) analyzed the global consumption distribution to study the interactions of poverty, inequality and growth at the global level. The author used data for 147 countries covering the period 1993 to 2001. The findings of this study indicate that world Gini rise from 0.652 in 1993 to 0.657 in 2001. On poverty count, this analysis broadly confirms the World Bank’s finding that overall the number of people living in $1-a-day poverty fell from around 1.2 billion in 1993 to around 1.1 billion in 2001. At the $2-a-day level, there was no significant change in the global poverty. The author concluded that growth did help the poor; but it was much better for the rich. The analysis
suggests that relying on growth to reduce poverty is rather insufficient and more direct state intervention seems more effective.

So debate on whether global inequality has risen or fallen in recent times may be unresolved, the amount of inequality is staggering. The hiatus between the richest and the poorest people is becoming large and large.

2.10 Poverty Reduction: Evidence from Indian States

Despite India’s recent strong growth performance, there is a growing concern that benefits of growth have been concentrated in India’s richer states, leaving the poorer states lagging further and further behind. As India’s poorest states are also most populous, the concern is that as these states begin to share in the benefits of growth, an increasing proportion of the population will be left in poverty and rising inequality will lead to social, political and economic difficulties. These concerns gain even greater attention when one consider that about 60 per cent of the forecasted 620 million increase in Indian population between now and 2051 will occur in three of its poorest states; Bihar, Madhya Pradesh and Uttar Pradesh (Visaria and Visaria, 2003).

Mitra (1992) made an attempt to link the income growth in the urban sector to urban poverty in order to explain the possible linkages that may exist between income growth and people below the poverty line in urban areas in India. The author took the head count ratio of urban poverty as a function of urban sector income per capita including income per capita from manufacturing, trade and services. The study demonstrated that ‘trickle’ down mechanism of growth is not functioning and not benefiting the urban poor. Also income growth in tertiary sector seem to have accrued mainly to those belonging to the top deciles of the income and expenditure classes, thus keeping the urban poor virtually unaffected by growth. In most of the states (excluding Andhra Pradesh), per capita income in organized manufacturing does not seem to have affected urban poverty negatively and significantly. On the other hand, trade and service income per capita have not reduced urban poverty except in the Gujarat, Karnataka, Kerala and Rajasthan.
Datt and Ravallion (2000) assessed whether economic growth has been such that poor have been left behind. The author argued that India has probably maintained its 1980s rate of poverty reduction in the 1990s, falling at a rate less than one percentage point over the post-reform period. However, there is considerable diversity in performance across states, which hold some important clues for understanding why economic growth has not done more for India’s poor. The study demonstrated that India’s economic growth has not been occurring in the states where it would have the most impact on poverty nationally. States with relatively low levels of initial rural development and human capital development were not well suited to reduce poverty in response to economic growth.

Sundaram and Tendulkar (2003) examined the poverty situation in 15 major states for the period 1993-94 to 1999-2000 using NSSO data. The author took four dimensions of headcount ratio; size of poor population; the poverty gap index (PGI); and the square poverty gap, for rural, urban and the total (rural plus urban) population separately. The findings revealed that Assam, Madya Pradesh and Orrisa are the three states where the poverty situation worsened over the six years, 1993-94 to 1999-2000. In the remaining 12 states, there was a distinct improvement in terms of the most visible indicators, namely the absolute size of poor population. Overall, the author noticed that despite diversity across poverty indicators across states, the overwhelming impression is one of greater improvement in poverty situation in the 1990s than in the previous period.

Sen and Himanshu (2004) examined the changes in poverty and inequality during the 1990s by re-estimating 43rd and 55th round poverty counts and inequality measures with the mixed 30/365 day recall (MRP) used in 55th round, rather than the uniform 30-day recall (URP) used earlier. The study has examined available data not only for states but also at the levels of NSS regions. A main conclusion of this paper is that although adjusted 55th round results are quite robust at the all-India level, this translate less clearly to states. Poverty numbers were found sensitive to patterns of inequality increase and demographic change, muting the link between growth and poverty reduction. Apart from the low growth in already poor regions, the other disturbing feature noticed by the
authors is that although urban growth was not only associated with urban inequality but also many urban areas failed to offer either linkage to their rural hinterlands.

Bhanumurthy and Mitra (2004) made an attempt to decompose the changes in poverty over the two time periods (i) 1983 to 1993-94 and (ii) 1993-94 to 1999-2000, in terms of pure growth effect (holding inequality constant), inequality effect (holding growth constant), and population shift effect. The authors exploited the data from National Sample Survey, covering rural and urban areas of 15 major states and at the all India level. The study found that growth effect had been dominant and resulted in decline in the incidence of poverty in both periods. The adverse inequality effect also fell in magnitude in the reform period. The authors concluded that both economic growth and its ability to reduce poverty were achieved in the reform period.

Chattopadhyay and Ghosal (2004) examined the nature of changes in the degree of inequalities in consumption across the states in rural India. The authors have examined inequalities in consumption while dividing the whole period of globalization in comparison with the pre-globalization period. The main findings of the study include: Firstly, it has been found that degree of inequality in the distribution of rural consumption expenditure has indeed declined both at the national and state levels. However, the relative position of the states has undergone remarkable change. Secondly, while the percentage of people living below the poverty line has declined, the relative share of the bottom 20 per cent of the rural population in the aggregate consumption has declined in some states during the post globalization period.

2.11 Inter-State differentials in Growth performance: Evidence from India

India accounts for a meager 2.4 per cent of the world surface area yet it sustain a whooping 16.7 per cent of the world population, a little over 1 billion people residing in 29 states and 6 union territories. The variation across these states and territories is enormous in regard to physical geography, culture and economic condition. Some states have achieved rapid economic growth in recent years, while others have languished.
Mathur (1983) investigated the pattern of spatial economic condition in India from the period spanning 1950-51 to 1975-76. The study find that there is sufficient evidence of narrowing down of regional income disparities, in the first half of the total 25-year period studied, while the later half was characterized by a reverse trend, suggesting a broadly U-shaped curve for regional inequality. From sectoral point of view, primary and tertiary sector had displayed U-shaped behaviour of regional disparities. But secondary sector disparities revealed an inverted U shaped movement. During the first period in the 1950s, the convergence in the agriculture and tertiary sector was powerful enough to swamp the divergence tendencies in the secondary sector. While in the second period, convergence tendencies in the secondary sector were strong. This explains the overall U-shaped pattern of regional inequality. The author also revealed that the future course of disparities in the tertiary sector is likely to depend more and more on secondary sector. With a rising level of development, the proportion of national income accruing from the secondary sector is expected to increase.

Alhuwalia (2000) assessed the economic performance of 14 major states in post reform period by using CSO data. The author calculated Gini coffecient, a measure of inequality by taking the entire population of 14 major states and assuming that all individuals within states have a gross income equal to per capita SDP. The study revealed that while inter-state inequality has clearly increased, the common perception that the rich states got richer and the poor states got poorer is not entirely accurate. As Punjab and Haryana were the two richest of 14 states in 1990-91, the growth rates of per capita SDP of these two states in the 1990s were not only lower than in the 1980s, but in both cases actually fell below the national average. On the other hand, Maharashtra and Gujarat, which were just below Punjab and Haryana, in terms of per capita income accelerated very significantly in the 1990s and grew at rates much higher than the national average. But three of the poorest states- Bihar, Uttar Pradesh and Orrisa, which together account for over a third of the population of the country, did fare very poorly in 1990s.

Shand and Bhide (2000) pointed to some regularities in the growth at the state level during the period spanning 70s to 90s. A common feature that was observed by the authors is the decrease in the share of agriculture in overall output for 15 major states
considered in the study. Moreover, the rise in industry and service sector has not been sustained across all of the major states. The pattern also suggested more rapid growth of service than industry. The authors revealed that in terms of pattern of growth performance across states, Haryana, Punjab and Maharashtra, achieved the higher growth rates during the 1970s. In the 1980s, Rajasthan, Haryana and Maharashtra were the top three performers with Gujarat and Tamil Nadu close behind. In the period of 1991-92 and 1994-95, the top performers were Maharashtra, Kerala and Gujarat, with West Bengal close behind. In this way, new states emerged among the high performers in the 1980s and 1990s although Gujarat and Maharashtra appeared more often in this category.

Bhattacharya and Sakthivel (2004) analysed the growth and disparity of major states in the pre and post reform decade by examining their growth rates of aggregate and sectoral domestic product. The authors used the CSO data for pre reform period (1980-81 to 1989-90) and the post reform period (1990-91 through 1999-2000). They also assessed the relationship between SDP growth and population growth. The results indicated that while the growth rates of gross domestic product has improved only marginally in the post reform decade, regional disparity in state domestic product has widened much more drastically. Industrial states are now growing much faster than backward states and there is no evidence of convergence of growth rates among states. The study demonstrated that there is now an inverse relationship between population growth and SDP growth. This has serious implication for employment and for the political economy of India.

Purified (2006) examined, why the poorer states have fallen further behind richer states and certain states performed better than others over the past 30 years. The study revealed that (i) the gap in real per capita income between rich and poor states has widened over time; (ii) rich and fast growing states have generally been more effective in reducing poverty, (iii) poor and slow growing states have achieved very little success in generating private sector jobs; (iv) labour and capital flows appear to do little to close the gap in income between poor and rich states; and (v) lastly, the poor states experienced the greatest volatility in economic growth.
2.12 Possibility of Convergence or Divergence: Evidences from Indian States

There is a rich literature using regional data to test whether growth in regions within India has converged or diverged over time. Bajpai and Sachs (1996) made an attempt to examine the tendency towards convergence of income levels among the 19 states of India over the period 1961-71, 1972-82 and 1983-93. The author finds convergence of per capita income levels only during the first sub period, i.e. 1961-71. For the remaining two sub-periods, 1972-82 and 1983-93, they find evidence for per capita income levels to be diverging. According to the authors, the main reason for the convergence during the period 1961-71 was primarily due to impressive growth in the agriculture sector as a result of the green revolution. During the 1970s, the slowing down of the industrial growth and the emergence of a city based pattern of industrial development strategy characterized by planning and state-led industrialization failed to reduce regional disparities in any meaningful manner. The authors argued that with the launching of economic reforms in 1991 it may be reasonable to expect some states to ahead rapidly.

Rao, Shand and Kalirajan (1999) showed that the pattern of economic growth in India since mid-1960s did not confirm to the predictions of neo-classical growth theory. Per capita income across states over the last three and a half decade displayed divergence and further dispersion had been much sharper in the initial stages of liberalization. The determinant of difference in growth rates among states also confirmed the divergence. The states with high initial levels of income grew faster than those with lower income, leading to divergence in per capita income over time. The authors also revealed that pattern of private investment is a major determinant of economic growth and divergence in income levels has been mainly caused by allocation of private investment, which in turn has been influenced by the inequitable spread of infrastructure.

Jha (2000) inquired about how the economic growth has affected the levels of inequality and poverty in the Indian economy. To know about any long run convergence in states’s performance with respect to growth, inequality and poverty, the author carried out test of convergence by using Kendall’s index of rank concordance. The result indicates that the rank concordance index across states does not usually show
convergence, however, there is conditional convergence in terms of levels in inequality and poverty across states. At the other end, the coefficient of variation does not show any tendency to fall over time. The surprising thing is that, coefficient of variation of rural headcount ratio seems to be rising over time, indicating greater dispersion in rural poverty across states.

Sinha and Sinha (2000) analysed the convergence of per capita income across states in India. The authors find that results from India regarding convergence are in contrast with results from developed countries and other selected developing countries. In India neither beta convergence nor conditional beta convergence holds. Four states are clearly ahead of the rest: Gujarat, Haryana, Maharashtra and Punjab. These states had an advantage over the other states from the start of race. On the other hand West Bengal did start out with a similar advantage but is gradually pulling back with other states. But more concern is about Bihar. It is in a class of its own. The pattern from rest of the states showed that there is some tendency for the states that started at a lower level, growing at a rate higher than the states that started at a higher level.

Sachs, Bajpai and Ramiah (2002) analyzed the differential economic performance of India’s 14 major states for the period covering 1980-98. They used two measures of convergence (β convergence and σ convergence) for the purpose of analysis and divide the states into two groups based on GSDP per capita and examined convergence within these two sub group of high and low income states. The results indicate that by both standards of convergence, India demonstrated overall divergence during the period 1980-98, as well as during both the pre-reform and post-reform sub periods from 1980-90 and 1992-98. The divergence was most notable within the poorer groups of states. The author expected that India’s growth will continue to be urban led favouring those states where urbanization is already high due to coastal access or to relatively high productivity of agriculture. There is little to ensure that growth will equalize across regions.

Bandyopadhyay (2003) examined the convergence of growth and income with reference to the Indian states using an empirical model of dynamically evolving distribution. This model revealed ‘twin peak’ dynamics, or polarization across the Indian states over 1965-98. The results indicate that there exist strong polarization tendencies
and income exhibit twin peaked dynamics. In fact, there exists two-convergence club, a high-income club at around 125 per cent of the national average and another at 60 per cent of the national average. Moreover, the author observed some tendencies of convergence over the period 1965-70, which gradually dissipate over the following decade of the 1970s, 1980s and the 1990s. The observed polarization is strongly explained by some macroeconomic and infrastructural indicators of which fiscal deficit, capital expenditure and education are found to explain some of the observed dynamics.

Adabar (2004) makes an attempt to examine the issue of convergence and economic growth by focusing on the difference in the steady state of 14 major states of India from 1976-77 to 2000-01. The study used dataset of investment (saving) rate, population growth rate, human capital and initial level of per capita income in the theoretical line of neo-classical growth model to observe convergence. The study revealed that absolute divergence is consistent with conditional convergence in the context of India. Once per capita investment, population growth rate and human capital along with state specific effects are controlled for, then, there has been evidence of conditional convergence at the rate of 12 per cent for five year period. These variables alone explain around 93 per cent variation in the growth rate of per capita real income across 14 major states from 1976-2000.

2.13 Identified Gaps in Literature

It seems very much clear by now that economic growth that does not lead to sharp and sustained reductions in poverty may create more problems than it solves. Similarly, if rapid growth is achieved at the expense of a worsening in the distribution of resources, it ultimately becomes unsustainable. Despite more than six decades of development planning in India to reduce the income disparities among regions, inequality in income and growth between regions has been rising over time.

In spite of considerable research made on the subject, much more remain to be done to explore the extent of differences in growth among states in order to calibrate appropriate policies to achieve balanced regional growth and also to combat poverty by spreading the benefits of growth process more equally. From the review of literature concerning with the subject we came across several gaps:
A good number of studies have analysed the performance of states by taking the growth variable only. On the other hand, a quite large number of studies have taken the poverty variable only. But one cannot reach on a solid solution until and unless both variables are taken together. Poverty and inequality are nothing but the two sides of the same coin better known as growth. This is because the problem of poverty is primarily caused by unequal distribution of the benefits from economic growth. These three (inequality, poverty and growth) phenomenon are very much sensitive to the occurring in any of the three. In India, studies describing these interrelations are few and that too in post reform period. The present study made a modest attempt to fill this gap in the literature by examining the data on Inequality, Economic Growth and Poverty.

There is so far no study covering the twelve year period after reforms by utilizing the data from the large three quinquennial rounds of NSSO (50th, 55th, and 61st) for studying the interrelations among growth, inequality and poverty. It is in the fitness of thing to determine what happen to inequality and growth after reforms as there is already good number of studies analyzing pre reform scene. Research in this area is really lacking.

Most of the studies have used only macro economic indicators (GSDP, NSDP etc.) to study the growth pattern across states. However, to study the pattern of growth in real sense, it becomes very necessary to pay attention to structural transformation also, i.e., a shift from primary to secondary sector and from secondary to tertiary sector. The present study will determine the sectoral composition of growth and changes therein over time and across states to give a complete picture for further analysis.

Another point that differentiates the present study from the earlier ones is the concept of public policy included in an explicit manner. It is futile to study the relation between growth and inequality without discussing the role of public policy in accelerating or reducing these Inter-State inequalities. In fact, a full chapter “Pro-Poor Growth and Public Policy” is proposed in the present study to fill this gap in the literature.

One other considerable gap in the literature reviewed is using only the conventional ‘Gini Coefficient’ for estimating the inequality. But ‘Gini Coefficient’ has its own
limitations too, that are mostly overlooked. The present study will use along with ‘Gini Coefficient’ other measures of inequality belonging to Generalized entropy class and normative measure of inequality (Atkinson Index) for a complete analysis, not done so far.

♦ In the present study for estimating inter state Consumption inequality, the consumption expenditure has been classified into food and non food items. Most of the earlier studies provided the combined results for consumption inequality.

♦ The present study will utilize the Econometric and descriptive software like, ‘DAD’ (a software for distributive analysis), ‘STATA’ (interactive data analysis program), E-VIEWS, DAGUM Decomposition Tool, SPSS, LIMDEP and other online calculator like WEESA net, etc for estimating the Interstate inequality and poverty and decomposing the same at regional and sector level. A few studies have used such software to Indian data. The present study will fill this literature gap also.

♦ There is ample research attempting to examine the relation between growth and inequality, but hardly any attention has been given to study the relation between changes in income inequality and poverty in relation to individual states. The relation between growth and poverty is complex and depends largely, on the relationship between growth and inequality. The present study will fill this gap in literature, as specified in objectives.

2.14 Conclusion

In short, the present study is quite comprehensive in nature in which relation between growth and income inequality across Indian States will be found out that is only possible by including other relating concepts like nature of poverty, pro-poor growth, sectoral composition of growth, and public policy. In this way, this will be a modest attempt not done in the past so far. Last but not the least; our best effort would be not to give only a starting point but also a finishing point.