CHAPTER II

REVIEW OF LITERATURE
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2.1 Introduction

Economic Development, in its connotation, has evolved from being understood in the traditional context, strictly in economic terms, as a sustained annual increase in Gross National Product (GNP) at rates varying between 5 to 7 per cent together with the structure of the economy changing from being predominantly agricultural to prominence of manufacturing and services, to being understood in the context of the new welfare oriented approach which emphasises that reduction of elimination of poverty has to be the indispensable indicator of development (Viner, 1953) 'Redistribution with Growth' became the popular slogan of the time (Kindleberger and Herrick, 1977). Seers (1972) reiterated this further by saying that if poverty, unemployment and inequalities have been growing, then it would be strange to call the result "development" even if per capita incomes doubled. Thus, the content of GNP, and not so much its rate of increase, became the focal point (Mahbub-Ul-Haq, 1971). Modern Economists went a step further and emphasised that economic development implied, a multi-dimensional change towards a condition of life that was regarded as "materially and spiritually better" (Todaro, 2000).

Understood as above, we can observe a development gap between nations, within-nations and even within sub-regions (States) of nations.
In terms of Gross National Income (GNI) per capita, the extent of inequalities between nations measured as Purchasing Power Parity (PPP) showed a stark contrast, with $27,450 in developed countries as against an appallingly low $1990 in developing countries in 2000 (World Bank, 2002). There is also vast economic distance within the developing nations themselves, as seen in the case of China, with a GNI per capita of only $840 as against Mexico on the one hand, with a GNI per capita as high as $5080 and countries such as India and Ethiopia, on the other hand, with GNI per capita as low as $460 and $100 respectively.

Inequalities within the constituent regions (States) of the nations have also been the focus of several studies. Padoshi (1995) has compared the performance of 17 individual States in India, in the growth of Net State Domestic Product (NSDP) and found that only 6 States had growth in NSDP above the overall average (i.e. 53 percent) and that the remaining had growth in NSDP less than the overall average, indicating significant disparities within the constituent regions (States) of India.

However, difference in incomes can indicate difference only in economic growth and not economic development, which led Morris (1979) to develop the Physical Quality of Life Index (PQLI) and paved the way for the construction of the Human Development Index (HDI) by the United Nations Development Programme (UNDP) in its first Human Development Report (HDR). Economic Development which has now come to be considered as being synonymous with Human Development is "a process of widening peoples' choices as well as raising the level of well-being achieved" (UNDP, 1997).
Mahbub-ul-Haq (1996) clarifies that "the defining difference between the economic growth and the human development schools is that the first focuses exclusively on the expansion of only one choice, income; while the second embraces the enlargement of all human choices, whether economic, social cultural or political”.

The argument that the expansion of income can enlarge all other choices as well is belied by a comparison of HDI rankings of developed and developing countries as against the GDP per capita rankings of the respective countries. The differences are substantial in the case of a number of countries. Eleven countries have an HDI rank at least 20 places higher than their GDP rankings. On the other hand, for 18 countries the GDP rank is at least 20 places higher than their HDI ranks.

Attempts have also been made at the national level, to rank States in order of Human Development, a prominent study conducted by Debroy and Bhandari (2001) evaluated 19 States on the basis of 46 parameters across 8 categories for 1991 and 2001 and ranked their performances.

Therefore, assessed on the basis of income as well as Human Development, it is quite evident that inequalities exist not only among nations, but within them, and within the constituent regions of these nations as well.
It is in order to understand the nature and extent of inequalities that exist across countries and within them that the researcher has undertaken a review of related literature and for the purpose of convenience has classified the same into:

I. Inequalities in Economic Development Across-Countries (Global Studies)
II. Inequalities in Economic Development Within-Countries (Global Studies)
III. Inequalities in Economic Development Within-Nation (Inter-State Studies in India)
IV. Inequalities in Economic Development Within States in India (Intra-State and Intra-District Studies).

2.2 Inequalities in Economic Development Across-Countries (Global Studies)

Historically, all countries, including the modern industrial ones in the West, were once at subsistence level. In fact, till the Industrial Revolution there were little regional (across-countries) inequalities. It was the Industrial Revolution accompanied by rapid technological development that caused wide regional (across-countries) disparities in development, which were further accentuated by the addition of wealth to the western countries by the riches they drained off from their respective colonies.

Bairoch (1981), examined historically the main trends in economic disparities across-countries, grouped into Developed and Third World countries, on the basis of secondary data from the (former) System of National Accounts (SNA) for the period 1750-1977. He reiterated the knowledge that differences in the international levels of income were limited before the Industrial Revolution. A significant gap emerged between the
developed countries of the industrialised world and the third World countries. Using data of Real GNP per capita, the study estimated that the gap in the ratios of Developed countries and Third World countries, widened from 1.0: 2.0 in 1830s to 1.0 : 7.0 in 1913. Even within the Developed countries, the gap between the three poorest and the three richest countries in 1800 was only 1.0 : 1.5, but by 1860 it reached 2.9 and by 1913 to 4.0 (and by this time the United States had sixteen times the physiological minimum per capita GNP). The First World War saw the gaps between the countries widening considerably. The United Kingdom (U.K.) in fact, lost its supremacy. The Second World War further widened the across-countries disparities. The 30 year after the II World War saw rapid development of the poorer developed countries and thus there was a notable bridging of the gap in ratios to 1.0: 3.0. In the Third World countries, however, the situation of inequalities was more severe. On a continental basis (for lack of country wise date) Bairoch estimated the disparities in national levels of income are greater in the Third World, the ratios being as wide as 1.0 (poorest):12.0 (richest) less developed countries. He also identified certain other factors which influenced long-term inequalities in economic growth across-countries such as (a) differences in human resource endowments, (b) effects of localisation of production activities (c) the social environment and (d) historical accidents which could play a crucial part in affecting the countries growth pattern.

Adelman and Morris (1973) conducted an important study to measure economic growth and social equity in income distribution. The study based on secondary data for the late 1950s and 60s analyses income distribution in terms of the percentage of income
received by distinct size (quintile) groups in the population for 43 countries. The findings of the study have been used most frequently in discussions of regional imbalances in economic development. The study, which combined the first two quintiles and split the last quintile to give the share of income of the top 5% of population found that, of the 43 countries included in the study, in 41 countries, the share of the top 5% of the population, in income, was greater than that of the lowest 40% of the population. In 26 countries (of the 43) the share of the top 5 percent of population was more than the lowest 60 percent of the population. Only in 2 countries, the share of the lowest 40 per cent of the population, in income, was greater than the top 5 percent. In an alarming finding, the study estimates that in all the 43 countries, the top 20 per cent of the population shares 50 per cent or more of National Income. Therefore, this study corroborated the fact that severe inequalities existed across countries in terms of distribution of income.

Ahluwalia (1975) studied the problem of income inequalities for the period 1960s and 70s on the basis of secondary data pertaining to percentage of income received by distinct size (quintiles) groups over 66 countries. By evaluating the GNP per capita in the various countries, the study classified the countries into (i) those in which there was an incidence of 'High' inequality of incomes, where less than 12 per cent of GNP per capita accrues to the lowest 40 per cent of the population (ii) those in which there was 'moderate' inequality where 12 to 17 percent of GNP per capita accrues to the lowest 40 per cent of the population and (iii) those in which there was 'low' inequality, where more than 17 per cent GNP per capita accrues to the lowest 40 per cent of the population. The study
observed that the extent of inequalities vary considerably not only across-countries, but also within-countries (globally). The developed countries were evenly distributed between categories of low and moderate inequality, the average share of the lowest 40 per cent being approximately 16 per cent of the GNP per capita. Most of the underdeveloped countries showed up greater relative inequality than developed countries. Notably the socialist countries had the highest degree of equality with average income share of the lowest 40 percent of the population being almost 25 per cent of GNP per capita. The disparities within-countries was significant in the underdeveloped countries where in half the underdeveloped countries, the lowest 40 percent of the population share around 18 per cent of GNP per capita while in the other half, the share of the lowest 40 percent of population is only 9 percent of the GNP per capita.

The Royal Commission on the Distribution of Income and Wealth (1980) conducted a study to compare the distribution of income in the United Kingdom (U.K.) and eight selected countries, that is, Australia, Canada, France, West Germany, the Republic of Ireland, Japan, Sweden and the United States (U.S.) in order to determine the levels of inequality and changes in the level of inequality. The study for the time period 1950-1973 relied on secondary data from 50 different data sources classified into income tax based data, census of population data, large scale labour force surveys, budget surveys, specific employee surveys and 'Model' estimates. The study evaluated total personal income and taxable income of distinct size (quintile) groups (percentages), inner families, households, consumer units and individuals (as defined) and with the help of Gini coefficients found that inequalities of incomes were more unequal in the United States
than in United Kingdom and in the Republic of Ireland. The degree of inequality was marginally less in Canada, though the 70s, saw a reversal in this trend, however, the degree of inequality increased more in the U.S. than in the U.K. and was least in the Republic of Ireland. While comparing the distribution of incomes by consumer units, the study revealed lesser disparities in U.K. than in the U.S. and Canada. A comparison of pre-tax personal incomes between the mid 60s and the mid 70s showed lesser level of inequality in Australia and the U.K. as compared to any of the other countries, France displayed the highest inequalities of incomes during this period.

Jantti (1977) undertook a comparative study of five countries, namely, Canada, the Netherlands, Sweden, the U.K. and the U.S. to examine income inequalities amongst them in 1980s and to identify the causes for such inequalities. Relying on secondary data from the Luxembourg Income Study (LIS) tables for two years, that is, in early 1980s and mid-80s, the study examined percentages of unemployment, inflation and Real GNP growth, disposable incomes, income sources by factor shares and income sources by population groups by using (i) decomposition methods by using squared coefficient of variation i.e. $CV^2 = \sigma^2 / \mu^2$ where $\sigma^2$ is variance and $\mu$ is the mean of income (ii) decomposition of factor shares and levels of income inequality of the various income sources and (iii) decomposition of levels of inequality by population groups and changes in inequality by population groups. The study revealed that inequalities increased between early 1980s and mid 80s in Sweden, the U.K. and the U.S. and remained more or less stable in Canada and the Netherlands, what is interesting to note is that the rise in inequalities were due to increased labour earnings, and due to earnings inequality
between household heads and spouses. The study pointed out that taxes and transfer policies, contrary to expectations, were in fact responsible for a decreasing effect on income inequality. The study also concluded that demographic shifts were not found to have any major impact on the rising inequalities.

Summers et. al. (1981) examined the consequences of the differential growth rates, which are investigated, for their implications on the world distribution of income over the period 1950-1975. Making use of secondary data on real GDP comparisons reported in their earlier publication (Kravis, Heston and Summers, 1978b) and on data made available in the World Bank Real Product Series of the International comparison project of the United Nations, 106 industrialised and developing countries are evaluated in a time series between 1950-1975 with the help of Gini coefficient and Lorenz Curve by taking into account the Real GDP, Purchasing Power Parity (PPP) and Real Gross Domestic Income (GDI). The findings of this study summarize the findings of earlier studies in that, the world income increased significantly during the 25 year period over all countries, however, notably, the share of increase has not been the same in all the countries. Equalities increased considerably among the developed countries and decreased sharply within developing countries. The "between group" differences in incomes, as found in earlier studies as well, produced relatively high world Gini coefficients in 1975.

Ever since Nobel Laureate Simon Kuznets (1955) initiated the debate on economic growth and income inequalities, innumerable investigations have been carried out to
study regional imbalances in income inequalities, across-countries and within them (globally) The Kuznets 'U' hypothesis has been confirmed by several studies, however, Anand and Kanbur (1997) have investigated the empirical and economic basis for Montek S. Ahluwalia's estimation of the inequality development relationship as considered in his articles Ahluwalia (1976b) and Ahluwalia, Carter and Chenery (1979) as they have been used for two important purposes, that is, (i) to 'confirm' Kuznets 'U' hypothesis and (ii) for projections of inequality and poverty by the World Bank in its World Development Reports (1978, 1979, 1980). Relying on secondary data for 60 developed and developing countries and rigorous statistical methodology and using non-tested functional forms, Anand and Kanbur come to the highly debatable finding that Ahluwalia's estimates lack robustness with respect to variations in functional form and data set. They point out that alternative forms which are equally well supported by the data, imply very different shapes for the inequality development relationship. Inequality projections of Ahluwalia, Carter and Chenery (1979) are also very sensitive to the choice of functional form. In fact an alternative minimally consistent data set from the original sample of 60 countries reject the log quadratic form in favour of a straight quadratic form. What is even more alarming is that this form displays a reversal of the commonly accepted 'U' hypothesis.

In fact, Adelman and Fuwa (1992) took up a study pertaining to 1980, to reinvestigate whether there is a trade-off between income inequalities and growth. Relying on secondary data available in World Bank Reports for 41 countries, made up of 20 developing, 3 East-European and 18 Organisation of Economic Co-operation and
Development (OECD) countries, the study examines decile shares of income (percentage), per capita GNP, Initial condition variables such as population, population density, per capita natural resource abundance etc., structural variables such as share of primary exports in total exports, share of agricultural employment in total employment, share of value added in GDP, the extent of productivity differentials among sectors, share of government expenditures in total GNP as an indicator of government involvement in the economy, government social expenditures in total government expenditures as an indicator of re-distributive government policies, Primary and Secondary schooling, a communism dummy, extent of socialist influence on government policy in the previous ten years, ranging from none (e.g. Brazil and Hong Kong) to significant (e.g. India) and Macro economic variables such as inflation rate, outstanding foreign debt, cumulative net foreign investment in the preceding 10 years and a Latin American dummy variable, to find that, in the 1980's the Kuznets 'U' becomes a Kuznets 'J' curve, because income shares of the poor decline very steeply in the early stages of development, reaching a minimum around income levels characteristic of semi-industrial countries, and continue to remain there, for all practical purposes. The study points out that recovery towards pre-development shares is very slow and is not achieved until well after countries become fully developed, moreover, the structural adjustment policies and financing methods used to support growth in the 1980's have exacerbated the growth equality trade-offs for the poor; an even more disturbing finding is that the prospects of the bulk of the poor in developing countries can hardly be considered satisfactory. The study has led to the conclusion that in lowest income countries merely accelerating the countries growth rates
will not do much for the poor, but rather, the countries, in fact, need a change in the structure of assets of the poor.

The structural adjustment policies of the '80s led to the era of liberalisation, privatisation and globalisation, which according to several studies have accentuated inequalities across-countries and within-countries, particularly among the developing ones.

An interesting study by **Williamson (1977)** reviews the historical debate about the first globalisation boom in the late 19th century and attempts to relate it to the globalisation boom in the late 20th century, where inequalities rose in resource-rich, labour-scarce countries such as Argentina, Australia, Canada and the United States, and fell in resource poor, labour abundant agrarian economies such as Ireland, Italy, Portugal, Scandinavia and Spain and remained stable in industrially leading countries of Europe. The study relies on secondary data from published works and examines countries across the globe, in three time periods, that is 1850-1913, 1913-1950 and 1950-2000, with regard to real wages, land values and the migration impact on labour force, and uses statistical techniques such as coefficient of Variations, Dispersion and Ratios to show that there was a strong correlation between inequalities and globalisation which was broken during the inter-world war period which gave rise to the assumption that it was rising inequality trends in rich countries during globalisation that led to the inter-world war retreat from globalisation. Notably, the study observes that inequalities in rich countries stopped exactly when immigration was choked off by quotas, global capital markets collapsed and international communities retreated behind high trade barriers. The all important
questions that the study asks is whether there is a lesson to be learnt from history? Will history repeat itself? Will the world economy retreat from commitment to globalisation due to rising inequalities.

Post-globalisation, several important studies have analysed across-country inequalities in the light of the evolved understanding of economic development, which included not just a widening of economic choices, but equally, social, cultural and political ones as well.

Li, et al (1998) took up one of most comprehensive studies to explain international and intertemporal variation in income inequality, across-countries, in the post globalisation era. They relied on secondary data from National Household Surveys of the respective countries, although they started out with construction of Gini Coefficients for 112 developed and underdeveloped countries, their rigorous methods to cleanse data from possible errors, left them with a set of 573 observations of per capita expenditure and income for 47 countries. The study which evaluates the data for four points in time between 1947-97 points out that higher levels of inequalities are due to inequalities in land distribution and lower levels of civil liberties. Further, the study concludes that educational advancement and financial development serve to reduce inequalities.

We can note here that, there is now an emerging emphasis on the non-economic factors that contribute to economic development. Rao (2003) also explores across-countries variation in income inequalities using Gini ratios, constructed however, on the basis of more comparable data than national and sub national surveys, that is on per person and
per household income distribution and income and expenditure distributions. His across-
countries study relies on secondary data pertaining to world development indicators such
as level of per capita income at purchasing power parity (PPP 1990-97) literacy
(secondary school enrolment 1980) educational achievement, export orientation, extent of
land concentration, indicators of financial depth and index of civil liberties (i.e. freedom
index) for 1999. The study identifies globalisation, with the free flow of trade and
investments on the one hand and the not so free, flow of manpower on the other, as being
the cause of inequalities. To further aggravate the situation, free market economies do
nothing to reduce the disparities, moreover as has already been shown in previous
studies, Rao also points out that economic growth does not automatically reduce
inequalities. Socialism, according to the study, is the remedy as it makes for greater
equality, however as acceptance of socialism is on the decline, the study suggests that the
mindsets of the people have to evolve in the direction of welfarism in order to bring about
a reduction in inequalities and highlights the important role that public policy needs to
play for this purpose.

The World Bank publishes annually the World Development Report (WDR) to take stock
of the relative performances of various countries in the different development indicators.

The World Development Report (2002) presents data for 133 countries (reproduced in
Table 2.1) to highlight inequalities in basic indicators across-countries for the year 2002,
which is indicative of inequalities in other areas as well. Regional disparities having been
established beyond doubt, both across-countries and within countries, recent studies have
concentrated on trying to analyse the causes for inequalities and in establishing evidence
Table 2.1 Basic Indicators

<table>
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<th>Population (million) 2000</th>
<th>GNI per capita Dollars 2000</th>
<th>GDP per capita % growth 1999-2000</th>
<th>PPP estimates of GNI per capita Dollars 2000</th>
<th>Poverty % of people living on less than $1 a day (PPP) 1990s</th>
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Note: 'S' means sums of data available; 'W' means weighted average.
between inequality and non-economic choices that are necessary to ensure human development.

Deaton (2003) in his study attempts to explore the theoretical basis and empirical evidence for a connection between inequality and health among poor as well as rich countries. Deaton uses secondary data from World Development Reports, the Luxembourg Income Studies (LIS), the Klaus Deninger and Lyn Squire (DS) (1996) data set available on the World Bank web site, National Longitudinal Mortality Studies, U.S. (NLMS) and the National Death Index (NDI) to conduct an across-countries study by evaluating GDP and life expectancy, world development indicators with the help of Preston Curve (life expectancy versus GDP per capita) and Gini coefficients, to establish a positive relation between income inequality and mortality. According to Deaton Income inequalities deserve the attention of policy makers, not per se, but rather for the adverse impact that they have on the health of the people, narrowing an essential "choice" for a better quality of life.

Acemoglu (2003) undertakes a study to account for the differential trends in wage inequalities across the U.S., U.K. and Europe by making use of the two most common explanations, which are that (i) relative supply of skills increased faster in Europe, and more important that (ii) labour market institutions prevented inequalities from increasing. Relying on secondary data available from the database of the Luxembourg Income Studies (LIS) for the 20 year period from 1980-2000, Acemoglu studies the supply of and demand for skills with the help of differential inequality trends to point out that the U.S.
is faced with greater inequalities as compared to the U.K., and European countries, because labour market institutions in Europe encourage more investment in technologies which increase the productivity of the less skilled workers, resulting in a less skill-biased technical change in Europe than in the U.S. This study is specially cited in this review of literature as it offers important lessons that can be learnt by developing countries having abundant supply of less-skilled workers in order to reduce disparities within them.

To conclude this section, a relatively new area is examined in context of regional inequalities in a recent study by Iyigun and Owen (2004). They examine whether income inequality is associated with the short run volatility of consumption and output growth. Making use of secondary data on Real GDP per capita and consumption available in Penn World Tables, Mark 5.6, Deninger and Squire (1996)DS income inequality, measures and a country's price level data available from International Financial Statistics (1969-1992) of IMF, the study compares (i) a set of 14 low and high income countries between 1969-71 and 1981-83 (i.e. after 9 years), and (ii) a set of 27 countries with relaxed data between 1967-73 and 1979-1983 (i.e. after 6 years). The study relies on real GDP per capita and consumption per capita and price levels for these countries and with the help of Gini coefficient, quintiles percentage share in income and standard deviation of annual growth rates to show that in low income countries higher levels of inequality appear to be associated with less fluctuations in consumption growth and in higher income countries, greater income inequalities are associated with greater fluctuations; variability in GDP growth also appear to be related to economic inequality in the same way.
2.3 Inequalities in Economic Development Within-Nations (Global Studies)

In this section, it is once again pertinent to begin with an examination of the historical belief that the industrial revolution has caused an increase in relative inequality among all income groups within a region (Great Britain). In a study conducted by Soltow (1980) on the basis of secondary data prepared by two separate investigations, income distribution, income-tax data and land ownership data are examined with the help of Arithmetic mean concentration, coefficient and cumulative frequency distribution over eight time periods 1688, 1801-3, 1812, 1867, 1880, 1913 and 1962-63. The study emphatically states that there was no change in the position of relative inequalities between 1688-1801-3. In fact, some data available does prove that income inequalities in 1436 was marginally greater than in 1801. Again, relative income inequalities in 1867-1880 were similar to that in 1801. Inequalities in 1911 and 1913 were also found to be not greater than in 1867-1880, actually, they could be considered 10 per cent less, corroborating the findings of across-countries studies in the earlier section which found inequalities in the U.K. less than elsewhere. The study also shows a substantial decrease in inequalities over a period 1911-13 to 1962-3. Income tax data also shows evidence of continuous decline in relative inequalities among all income groups based on various data for the eight time periods.

The above study concentrated on relative inequalities of incomes, however an analyses of distribution of incomes in the United Kingdom to estimate inequalities of incomes in absolute terms was conducted by the Royal Commission on the Distribution of Income and Wealth (1979) on the basis of secondary data from the National Income and
Expenditure Blue Book prepared by the Controller of Her Majesty's Stationery Officer (CSO) for the period 1949-1976-77. The study considered data for income distribution before and after tax and with use of percentage share of income by distinct size (quintile) groups in population and Gini coefficients, showed that 60 percent of the population in the U.K. had income levels below the average incomes of the region. It was also evident from the study that a majority of the population were concentrated in a relatively narrow band of income, while a minority of the population, who were recipients of higher incomes, were spread over a much wider income band. The study also showed that the post-tax incomes were less dispersed. In the context of the previous study, this study accounts for a decrease in the over all inequalities as being on account of a fall in share of incomes of the top 10% of the population, the lowest income units within the region, however, did not register a rise in their shares in incomes.

Yet another study which attempts to analyse inequalities in the U.K. by assessing eight explanations for income inequality trends between 1971 and 1986 also tries to determine the causes for the changing trends. This study by Jenkins (1995) examines secondary data of the Family Expenditure Surveys (FES) for the years 1971, 1976, 1981 and 1981 to conduct a 15 year analyses of family income and expenditure data with the use of decomposition methods to cover (i) income recipient influences and (ii) income package influences. The study is able to divide the 15 year period into 3 sub-periods on the basis of the trends that were observed in income inequalities, that is (a) Pre-1977 – where inequalities were falling (please note the conformity with earlier studies) (b) 1977-1984 – where inequalities started rising and (c) Post 1984 – where inequality growth increased.
The study found that secular changes in age distribution, secular changes in household consumption, changes in distribution of cash social security benefits, income tax payments, employee national insurance contributions and changes in industrial structure have influenced regional inequalities of incomes whereas, aggregate inequalities were influenced more by changes in earning inequalities, employment structure and unemployment.

Among the early studies of regional inequalities conducted in the United States, the one that attracts greater attention is the one conducted by Bowles (1973) because he attempts to understand the degree of economic inequality, not so much in terms of inequalities in the distribution of incomes (as so many studies have done in the previous section) but more in terms of the processes by which inequalities arise, that is, inequality of opportunity (the significance of this study is all the more important as it concerns a country which is recognised as the land of opportunity!). The study is based on secondary data available in the Current Population Survey (CPS) and National Opinion Research Centre for the year 1962. The study analyses data regarding socio-economic backgrounds and incomes with the help of a statistical model of intergenerational mobility, decomposition methods and regression coefficients. The study helped to establish early enough that genetic inheritance of IQ in intergenerational transmission of economic status had a very trivial role. Surprising though it may seem, Bowles attributes inequality of educational opportunity also, as accounting for less than even half of the correlation between the socio-economic background and incomes. It is inequality of opportunity, that Bowles feels, is deeply rooted in social relations of production and which is a cause of
inequalities. In a way, this study could well be considered a fore-runner to studies of the human development school of economists, who believe that economic development is all about widening the 'choices' that are available to individuals. Way back in 1973 itself Bowles had emphatically concluded that as long as there is hierarchical division of labour, there can neither be equality of opportunity nor equality of incomes.

Moving across to southern Europe, a study of Tsakloglou (1993) aims to identify the sources of inequality in Greece and also to examine how inequality in Greece changes between 1974 and 1982. On the basis of secondary data, that is, published Household Expenditure Surveys in 1974 and 1981/82 by the National Statistical Survey of Greece (NSSG), the study analyses consumption expenditure with the help of Two Theil indices (T and N), variance of the Logarithms (L) and Decomposition Methods – by region, by sub groups (age of head of household) and by education (education level of head of household head) to arrive at the finding that aggregate inequalities declined quite significantly between 1974 and 1982. Inequalities in Greece declined both 'within' and between population sub groups. This reduction in inequalities was on account of a considerable proportional increase in the relative expenditure share of poorest population decile and substantial decrease in expenditure share of top population decile. The study also found a close positive relation between education and equalities in Greece for the period under consideration.

In the middle-east, Achdut (1996) examines income inequality trends in Israel during 1979-93. The study relies on secondary data compiled by the Central Bureau of Statistics
(CBS) Israel, that is, the IS-Income Survey Data Compiled annually since 1965 and FES-Family Expenditure Survey conducted every 5-6 years. The study analyses data of wages and salaries for each household member aged 15 and over, Incomes, from other sources for each household, demographic and employment characteristics of household members and expenditure patterns of households with the use of Gini coefficients (G), Extended Gini coefficients (EG) [as formulated by Yitzhaki (1983)] Coefficient of variation (CV), Atkinson measure (A) and Lorenz Curve / ratios and by carrying out decomposition of Gini coefficient and time series regression on macro-economic variables. The study identifies 1979-84 to be an inflation period and 1985-93 to be a period of stabilisation. A slight increase in inequalities was found during the entire period due to opposing forces of inequality, that is, reducing effect of direct taxes increasing in the period 1979-84 and decreasing between 1985-93. Unemployment was found to have a regressive impact on inequality whereas, inflation was found to act as a progressive tax during the first period.

A study with reference to a sub-group of population of Israel carried out by Amiel, et al (1996) has been included in this review, as there is an attempt to examine economic inequality among the group known as the "Kibbutzim", but more relevant is the emphasis on the study of the distribution of well-being among the 'Kibbutzim' and changes in the distribution of well-being among this particular group during 1989-90. The study relies on secondary data available from the annual financial reports (inclusive of balance sheets and profit and loss reports) submitted to the Audit Union of the Workers' agricultural co-operative societies to derive 20 variables from the raw variables representing (i) consumption (ii) income and (iii) wealth. To study 185 Kibbutzim (however data
available for only 106 in the United Kibbutz movement and 63 in the National Kibbutz movement) with the use of statistical techniques such as mean, standard deviation, absolute Gini, absolute mean deviation, Coefficient of variation, Gini coefficient, relative mean deviation, standard equivalence scale and the Lorenz Curve. The study reveals that the 'Kibbutzim' is an economically interesting sub-population within the State of Israel. The end of the 1980s was an economically traumatic time for the 'Kibbutzim' although there was low inequality of living standards as measured by consumption per equivalent adult, yet substantial inequality of income and wealth existed (as per definitions). The 'Kibbutzim' also faced a peculiar problem of negative incomes and negative net worth (as per definition) in both the years under consideration. What is worth noting however, is that though the Kibbutz arrangement was supposed to decrease inequalities, the net result during 1989 and 1990 was an ambiguous change in income inequality among the members, which probably would have been higher without this arrangement.

A study with pertinent implications for economies implementing the economic liberalisation guidelines of the World Bank and International Monetary Fund (IMF) is the one conducted by Glewwe (1986) in which he aims to identify the characteristics of distribution of incomes in Sri Lanka and to determine the changes in distribution of income in Sri Lanka from 1969-70 to 1980-81 (consequent to the implementation of WB's and IMF's restructuring programme). The study relies on secondary data gathered from social economic surveys undertaken by the Sri Lankan Department of Census and Statistics in 1969-70 and 1980-81. The study uses decomposition methods by groups, by income sources and by shared household earnings and also the Thiel entropy measure.
(T), the second Thiel entropy measure (L), the Variance of logarithm of income (LV), the Variance of untransformed per-capita income (V) and the Gini coefficient to analyse income and expenditure data in the specified years. The Expenditure data reveals a decline in inequality in the decade in question. Interestingly, income data however displays opposite movement, most probably due to under reporting which came more from non-wage income earners than wage earners, due to which the result can not be relied on. The study however indicates that the reduction in inequality was quite broad-based, that is inequalities fell in all three sectors of the economy, for all the three ethnic groups. It is concluded that the reduction in inequality of shared household earnings was mainly due to the reduction in the inequality of earnings per worker on account of the implementation of economic liberalisation guidelines of the World Bank and the IMF.

The last study in this section has also been reviewed with the particular intention of drawing a parallel between it and the topic of research at hand. Mayer (1981) examines the evolution of regional disparities in Portugal with reference to demographic and socio-economic indicators. The study also analyses the plan documents to establish an industrial bias towards the two urban metropolises of the well-off coastal regions. The study also aims to suggest a reversal of trend and adoption of a radically different development strategy for more balanced regional development. The study relies on secondary data from the publication of Joao Evangelista, 'Population of Portugal over a century' pertaining to the period 1929-1977 to make a comparative analysis on the basis of population data and sectoral contributions to GDP in terms of percentages. The study reveals an excessive concentration of population in the coastal regions of almost upto 80
percent. The production structures are also excessively concentrated in the coastal regions, together accounting for 86 per cent of GDP (with one region alone accounting for 48%). Notably, the interiors received only 20% investments under the programmes of Public Administration (PIAP) and only 32% under the programme of Sector of State Enterprises (PISEE). This was apparently due to deeply rooted administrative practices (which can be seen replicated in Goa, very clearly, right until the time of liberation, in 1961, from Portugal, having been its colony for more than 450 years). In 1977 the PISEE programme did not provide any investment in agriculture for three of the backward regions and neither for industry in two of the less developed regions. Disparities in productivity are also evident with contribution to GDP per person employed, being twice as high in the most developed region as compared to the less developed regions put together. Productivities between the more developed regions as compared to the less developed regions are also two extremes. What is evident is a systematic regional bias. The Interior regions were grossly neglected with very little efforts to distribute the fruits of progress. It is the democratisation of economic and social life since April 1974 that has made it constitutionally mandatory for regions to be able to participate in decision planning and development and it is through this and the initiation of the medium term plan of 1977-80 that the study anticipates development of the backward regions and a halt to the increasing marginalisation of neglected regions and social groups.

2.4 Inequalities In Economic Development Within-Nation (Inter-State Studies in India)

Regional disparities in India have always been a sensitive topic of debate between policy makers at the Centre and the governments in the States, whether India should follow a
balanced growth approach as proposed by Ragnar Nurkse (1986) and others, on account of paucity of resources, it would be more judicious to adopt the strategy of unbalanced growth, advocated by A.O. Hirshman, Hans Singer, Paul Streeten and other (Streeten, Paul 1961). The debate remains unresolved, yet several studies have been undertaken to test the validity of each of the schools of thought. Kumar and Krishnamurthy (1981) examine historically the Indian data on national and regional incomes and other indicators of levels of living to see whether it conforms to the theory that (a) regional disparities increase within a country in the early stages of development since the process of growth starts in a few areas and in time spreads, causing regional incomes to converge, or that (b) the process of increasing disparity is cumulative and that differentials widen over time. The study relies on secondary data of the National Statistical Survey Organisation (NSSO) and the National Council of applied Economic Research (NCAER) and other sources, for 14 states between the time period 1860-1960 in terms of per capita incomes, Net State Domestic Product (NSDP), shares of broad sectors in the male working force of the Indian States and levels of development. The study points out that Indian data for the period after 1860 does not validate the theory that growth in other parts of the world economy or even in international trade will lead to the growth of Low Development Countries (LDCs). In fact, the Indian experience shows that the development gap between India and the advanced countries (U.S. and U.K.) widened significantly. It is pertinent to note that upon 1960, the study finds that regional disparities in India were relatively low, and that there was no marked growth of regional disparities in overall terms.
Ever since, several studies have been undertaken within the country, to assess the performance of the States / Regions within India in comparison to one another, to establish their individual performance in terms of economic development as also to establish, both the level and extent of disparities (if any) between the States / Regions. Some studies go beyond and aim to suggest measures that would help in reducing regional disparities.

Padoshi (1995) assesses the performance of the 17 States in India with reference to economic growth in each of them by studying the Net State Development Product (NSDP) of each of them. The study relies on NSDP data, considering it a more reliable indicator of productivity than Net State Domestic Income (NSDI), particularly in a developing economy like India. The study compares the performance of the 17 States in two time periods, that is 1975-76 and 1986-87 to determine disparity levels with the help of simple ratios of share of NSDP : share in population, i.e.

\[
\frac{\text{Share in NSDP}}{\text{Share in Population}}
\]

whose results can be either = 1, >1 or <1, that is growth in population in a State could be proportionate to its contribution to growth in NSDP or it could be more than proportionate (>1, i.e. favourable) of less than proportionate (<1, i.e. unfavourable). The findings of the study reveal that 6 States exhibit Growth in NSDP higher than that of the average National Growth (i.e. 53 percent in the period under study) and therefore are considered to be More Developed States (MDS) and 11 States exhibit growth less than the national average and are therefore considered to be Less Developed States (LDS).
The study on the basis of its findings concludes that there is considerable disparity in economic growth in India.

Another study that examines how the contribution of each State in India towards economic growth compares with its contribution to population growth is by Devi (1995). This study is based on secondary data made available by the Central Statistical Organisation (CSO) pertaining to Net Domestic Product (NDP) and State Domestic Product (SDP) for 15 States for 3 time periods, that is 1961, 1971 and 1981. The study employs the Hauser (1958) Method ratio showing in percentage terms whether the State is contributing more to NDP or population.

The equation is written as:

\[
IRG = \left( \frac{\frac{y_i}{\sum y} - \frac{P_i}{P}}{100-100} \right) 
\]

IRG = Index of Relative Growth, \( y_i \) = SDP of State, \( y = \) Summation of all States in the study, \( P_i = \) Population of State and \( P = \) Population of all States in study. The formula gives deviation from 100, where contribution to NDP and population are considered to be in balance. The study concludes that only one-third of the 15 States under the study contribute more to NDP than to population. These states which are identified as the positive States, are (i) Punjab, (ii) Haryana, (iii) Maharashtra, (iv) Gujarat and (v) West Bengal. The contribution of all these States has been more to NDP than population in all the 3 years under consideration, over a span of three decades. All the other States except Karnataka and Rajasthan were considered negative States as their contribution to NDP
was less than their contribution to population. Karnataka became a positive State in both 1971 and 1981, however Rajasthan which became a positive State in 1971 went back to being a negative State in 1981. The study noted that there was a considerable and continuous deterioration in the Status of States like Bihar, Madhya Pradesh and Uttar Pradesh.

Some studies have tried to establish disparities among the States / Regions in India by comparing the share of sectoral income to the NSDP of the respective regions. Reddy (1995) attempts to identify the backward States / Regions in India on the basis of the share of sectoral income to NSDP with the aim of enabling removal of regional unbalances. The study relies on NSDP data published by the Centre for Monitoring Indian Economy (CMIE) Reports for the 15 States under consideration over two time periods, that is 1981 (during the 5th five year Plan) and 1989 (during the 6th five year plan). The study examines the ratio of share of sectoral income in the NSDP of the respective States. The study arrives at the disconcerting finding that the Tertiary Sector Share in NSDP, which is expected to be greater in developed States was only so in two States, that is, Haryana and Maharashtra. While it is a well known fact that the share of the Primary Sector (or more so, the non-tertiary sector) in NSDP is greater in the less developed States, the Study found that in 12 of the 15 States under study, this was so, and therefore 75 percent of the States were identified as 'backward'. The study points out that as share of sectoral contribution to NSDP may not be estimated accurately in developing countries (due to lack of exhaustive and authentic data because of the presence of a large unorganised sector) this method, which is suitable to identify 'backwardness' in the
developed countries of the world, may not be able to give reliable results in developing countries, which is why the study has suggested that the total rank score method is more suitable for identification of 'backwardness' in developing nations.

Accordingly, Gupta et. al. (2000) have attempted an analytical description of the manner in which Indian States have behaved in comparison with one another over the period 1960-61 to 1995-96 and to offer an explanation for the observed discrepancies or the absence of them, in terms of inter-sectoral comparisons. The study also aims to provide guidance to policy makers. Relying on secondary data pertaining to NSDP per capita and percentage growth rates therein, and on the shares of the respective sectors in NSDP, the study uses a rank correlation matrix, arithmetic averages, standard deviations, coefficient of variations, arithmetic means, medians and geometric means, the linear regression of growth rates and multi-annual and binary versions of Index of Rank Concordance to show that the rank structure among States has been almost the same. In fact, the correlation between States was close to unity for any pair of years. The intersectoral findings are quite revealing, in that the structural parameters show convergence over all States, that is, the share of manufacturing sector has remained the same or has marginally increased for all States, similarly, the share of the primary sector has fallen in all States and in all States, the Tertiary Sector has overtaken the primary sector. Be this as it may be, the undeniable fact is that States have diverged, or have gone apart, with considerable disparities creeping in within them while comparing SDPs of the respective States. The study therefore suggests addressing the issue of reducing the disparities in the SDPs by facilitating development of infrastructure, conducive investment conditions and
development of human resources in the States that are lagging behind and the study also suggests the need to frame suitable policies on the basis of the findings for each State.

Yet another comprehensive attempt to make out disparities among States in India by reviewing information on several aspects of living of the Indian Population based on data collected by the NSSO and supplemented by the results of the Population Census, the Sample Registration System and the two round of the National Family Health Survey (NFHS) and observing whether there was any discernible shift in the Lorenz Curve over the NSS Rounds was made by Bhattacharya (2000). The study relies on secondary data from round 4 to round 55 of NSSO as well as all the other sources mentioned above, pertaining to Household income, average per capita consumption expenditure, literacy, education, mortality rates (child and infant) maternity and child health, nutritional health of children, housing conditions, primary source of energy, household durables and slum population and uses the Lorenz Curve / ratios technique to make out if there are any changes in inequalities. In a somewhat exceptional finding, the study reports a marginal fall in Lorenz ratios from 0.33 to 0.34 in the 50's and from 0.28 to 0.30 in the 60s and thereafter, which in turn implied that the share of the bottom 50% of population in per capita expenditure had actually risen (marginally, no doubt) from 27 per cent to 30%. The study, however does emphatically conclude that inspite of such observations, India has definitely fallen way behind many Asian neighbours thereby reiterating regional disparities in development.
A highly significant study after the period of structural re-adjustments recommended by the World Bank and IMF was undertaken by Dholakia (1994) in which an attempt was made to identify the regions which triggered the overall growth rate in the Indian Economy over the period 1960-61 and 1989-90. The study was interested in determining whether acceleration in the Indian Growth Rate is on account of the economically better of States or the economically backward (poorer) States. The study also aimed at determining whether the phenomenon of acceleration is confined only to a small geographical region or covers a large region and whether growth is concentrated in specific parts of the country only or whether it is geographically widespread. The study relies on secondary data obtained from the various volumes of the CSO publication on the estimates of State Domestic Product (SDP). The study across twenty states pertains to the period 1960-61 to 1989-90 (Time-series) with 1980-81 prices as constant. The study relies on trend rates of growth and possible shifts in total SDP and the total product of the Primary, Secondary and Tertiary sector and uses the kinked trend line with the regression equation $\ln Y_t = a + bt + C (t - t^*) D + u_t$ where $\ln Y_t$ represents the natural logarithm of income in the year $t$, $t^*$ is the chosen year of shift in the trend, $D$ is the dummy variable, which takes value 1 for years after $t^*$ and zero otherwise $u_t$ is the error term $a$, $b$ and $c$ are the coefficients to be estimated. The study also applies the switching regression technique after correcting for the first order auto correlation through the Cochrane-orrrett iterative method. It was observed that a sharp increase in the long term growth rate of the Indian economy was achieved in 1981-82 itself, but this was restricted to only 6-8 states. Notably, these States were spread in all the 5 zones of the country, therefore no regional concentration was evident, on the contrary, there was a dispersal of high growth States all
over the country. Yet another finding that is worthy of consideration is that the high growth States emerged from among the economically poorer States, for example, Maharashtra, Gujarat and Uttar Pradesh turned into high growth States in the 3 years from 1972-73 to 1974-75 and it was these States that triggered the acceleration of growth in the rest of the Indian economy, contrary to the expectation that it would be the economically better-off States which would do so. Another important observation of the study was that, the Growth Strategy in each of the States was completely different from the other suggesting that there can not be a common prescription for growth. Each State would have to devise its own blue print for growth based on region specific strengths and weaknesses.

The interest in whether regional disparities conform to the predictions of the neo-classical growth theory (Sen, 1970) that inter-state differences in income levels tend to reduce as they approach the steady state equilibrium, continued among researchers particularly in the context of liberalisation. Rao et. al (1999) attempted to examine the trends in inter-state inequalities in levels of income since 1960s in view of the above. The study examines secondary data pertaining to per capita State Domestic Product compiled by Statistical Bureaus of each of the States. In their study covering 14 major States over the years 1965-1995 they rely on per capita SDP for the entire country and in the three sectors, the per capita Government expenditure, the per capita assistance by All India Financial Institutions, the SBI long term lending rate and the average interest rates on States' borrowings and by using Standard deviation of the logarithm of per capita incomes and regression equalities on convergence they arrive at the conclusion that the
pattern of economic growth in India since the mid 60s does not conform to the predictions of the neo-classical growth theory. The study finds that (i) incomes across-states have shown divergence, (ii) inter-state disparities have been accentuated and that (iii) inequalities have been much sharper after the initial years of liberalisation. The study analyses, in depth, the cause for the above findings as being the fact that States with high initial levels of incomes grew faster than those with lower incomes, because they were the ones that could generate higher investments leading to growth as private investment was a major determinant of economic growth. Public investment was also critical, because it was through this public expenditure that social and economic infrastructure could be developed, which in turn would attract further private investment and therefore result in the affluence of the region. The study also identified States with higher literacy rates (representative of human capital) as being the more progressive ones. The study has sounded a word of caution that unless significant affirmative measures are taken to correct imbalances in the spread of infrastructure through regional and inter-governmental transfers, divergence across States would continue to widen, with serious economic and political ramifications.

The neo-classical theory prompts another study by Marjit and Mitra (1996) who present a summary and critique of the "convergence hypothesis" (that inter-state differences will tend to reduce as they approach the 'steady state' equilibrium) in endogenous growth theory. The study relies on secondary data on SDP published by the CSO and the CMIE manual. The study which covers all States in India for the period 1961-62 to 1989-90 onwards takes into consideration the per capita Net State Domestic Product converted in
terms of 1970-71 general price level and uses logarithms of per capita Net State Domestic Product and average SDP for each State and standard deviation techniques to show that there is no evidence that Indian States have been converging (bridging the gap) in terms of the per capita Net State Domestic Product (PCNSDP). The study shows that in fact the strong States are growing stronger and causing inter-state divergence to widen. While it may be true that poorer States are also growing, they are doing so at a much slower rate than the richer ones and so even if it is taken for granted (as the neo-classical growth theory suggests) that each State is proceeding to its own "Steady State", yet there does not seem to be any possibility of convergence, as each State's 'steady state' itself seems to be vastly different from that of the other.

While all the above studies have accepted for the purpose of convenience, the political divisions of a State as a region to study disparities within them, Pradhan et. al. (2000) aim to establish pertinent issues with regard to Rural-Urban disparities in India by determining (i) whether there is any disparity in income and consumption levels between rural and urban areas? and if there is, then the extent of such disparities (ii) the basic source of income and the distribution of income (iii) whether inequalities in income distribution have decreased in rural and urban India (iv) the magnitude of poverty by across occupational groups and whether it is increasing or decreasing (v) the pattern of consumption expenditure and (vi) the social indicators of poor compared to non-poor. The study is different also in that it makes use of primary household data [collected as part of project : Micro Impact of Macro and Adjustment Policies (MIMAP)]. The study is inter-sectoral (rural vs. urban) for the year 1994-95 (compared with data for 1975-76)
using a three-stage (district, village, household) stratified design for a sample of 5000 houses (3,364 rural and 1,492 urban). The study relies on (i) percentage distribution of households and their share in income by (a) income groups, (b) by occupation groups (c) monthly per capita income groups, (ii) per capita annual expenditure by items of expenditure (iii) per capita consumption expenditures and (iv) social sector indicators such as literacy, health, access to basic amenities and access to potable water, and uses a structured close-ended questionnaire for income expenditure survey, the Gini coefficient of inequality, the Gini coefficient of equality in income among the poor and the FGT index of poverty (which was developed by Foster, Greer and Thorbecke, 1984) written as:

\[ 1 \lambda = \frac{1}{n_0} \sum_{i=1}^{n_0} = 1 \]

\[ [(y^* - y_1)/y^*]^2, \quad y_1 < y^*, \quad 2 \geq 0 \]

it is similar to Sen's index, as it considers incidence, intensity and inequality dimensions of poverty. The study emphasised on the basis of its findings that inter-sectoral (rural vs. urban) inequalities exist. The households in both these sectors can be categorized into 'above poverty line' (APL) households and 'below poverty line' (BPL) households. The study found that social indicators (of health, literacy, immunisation, enrolment, and dropouts) were extremely low in the BPL households of both sectors. The study also concluded that the all India distribution of income inequalities have marginally increased with urban households having at least 2 times the incomes of rural households. Amongst the rural households, it was the agricultural wage earning households that had the least share of income. The study pointed out that although the inequalities in per capita consumption expenditure are less than in per capita income distribution, yet the pattern of consumption varied widely between the rural and urban households. Of the 325 million
people who lived below the poverty line, (national estimate of 36.4%) 39.4% (higher) were in the rural areas and 28.4% (lower) were in the urban areas. The study highlighted the fact the 80% of India's poor are to be found in the rural areas, out of which 52% belong to the class of agricultural wage earners. An optimistic conclusion of the study however was that there were positive returns to the educational levels of the heads of households.

Before the picture begins to appear too dismal, Singh et. al. (2003) suggest that the concern that regional inequalities in India have increased after economic reforms, may not be as bad as suggested by State Domestic Product (SDP) data. The study attempts to show that conclusions of findings are sensitive to what measures of attainment are used. The study proves this by showing that Human Development Index (HDIS) do not show the same increase of regional inequalities as SDP data. The study relies on SDP and consumption measure data from the publication of the Planning Commission (2002) and the National Human Development Report, 2001 (NHDR). The study takes into consideration 14 States for the years 1965-1999. Using Gini coefficients and quintile distribution of income shares, the study finds that this set of data does not indicate any prominent increase in regional inequalities after 1991 (i.e. liberalisation). The study does admit that at Sub-State level greater disparities do appear to be emerging, the reasons for that are put down to differences in governance, geographical and social mobility of labour and not so much due to central transfer of resources. The study emphasises that government policy has a vital role to play in providing infrastructure to backward States so that they can attract investment. It is suggested that Central assistance can be increased
to upgrade infrastructure. The study emphasis that India's record with respect to inequality in the post reform period is not bad. The potential problems of growing regional disparities, are more a matter of judicious management of inequalities than a matter of alarm needing any backpedaling.

One such study which did not look at SDPs of the States, but rather at the development index to statistically evaluate the socio-economic development of the four eastern States, namely Assam, Bihar, Orissa and West Bengal and identify where a given State stands in relation to the others in the region was conducted by Rai and Sarup (1995). The study aims at constructing a composite index of development for each State, based on a large number of socio-economic indicators of development. The study further aims to evaluate and examine economic development of each State in relation to the annual plan outlays and to suggest strategies to effect improvement in the level of socio-economic development of the region. The comparative study of the four States for 1988-89 uses the total rank score method and standard deviation from best value to assess the 41 socio-economic indicators taken to develop a composite index of development, which is constructed by standardising variables in respect of different indicators as 

\[ C_i = \sqrt{\frac{\sum (Z_{ij} - Z_{oj})^2}{j=1}} \]

pattern of development for \( i^{th} \) State, then value of \( C_i \) is obtained as:
were $K =$ number of indicators, the composite index of Development is then obtained by:

$$D_j = \frac{C_i}{C}$$

where $C$ is the mean of $C_i$ plus two times the standard deviation of $C_i$. The value of the composite index of development is non-negative, between 0 and 1. Value closer to 0 indicates higher level of development and value closer to 1 indicates lower level of development. The study ranked the four states as follows: West Bengal (1), Assam (2), Bihar (3) and Orissa (4). The study finds that West Bengal ranks better than others over all and in agriculture and industrial sectors. The study observes a positive correlation in development of the agricultural and industrial sector. The study finds greater poverty in rural population than urban, in all the four states, however, Bihar and Orissa were worse off than the other two States in the study. It is suggested that allocation of resources in these States be need-based. The study also emphasises the need to increase formal and non-formal education. An important suggestion made by the study was to introduce special programmes to enhance technology in agriculture to improve productivity.

Carrying on the trend of examining inequalities across-States in India by taking into consideration other than SDP indicators, an important study was conducted by Murthi, et. al.(1997). The study aims to examine inter-regional and inter-temporal variations in the demographic outcomes in India and to study the determinants of such outcomes and establish relevant relationships based on cross-sectional analysis of district level data on child mortality rate, the total fertility rate and the relative survival chances of male and female children (to estimate the gender bias). The study relies on district–level data published from the census of India 1981. This inter-state study covering a sample of 296
districts from 14 of the 15 most populous States for which detailed data is available (Assam is excluded for lack of relevant data), makes use of Mean, Standard Deviation and regression equations to study the demographic indicators pertinent to mortality, fertility and gender bias. The Study found that districts with higher female literacy had a (statistically significant) –ve impact on child mortality. Such districts also had lesser extent of female disadvantage or gender bias. Similarly, districts with a higher female labour force participation had reduced extent of gender bias in child survival. Urbanisation also showed up a negative and statistically significant effect on child mortality. An interesting finding of the study is that in districts with a higher proportion of scheduled tribes in the population there was a reduced extent of anti-female bias in child survival. The districts in the southern region exhibited considerably lower levels of child mortality. Another crucial finding was with regard to female literacy and female labour force participation having a positive and statistically significant effect on the fertility rate. The study, therefore, concluded that women’s agency and economic empowerment plays a significant role in reducing mortality, fertility and gender, inequality and thus promotes improved human development.

**Dutta et. al. (1997)** describe the development experience of India during the 1980s and 1990s from the perspective of human development. They explore the implications of the human development experience in India for its development policy. They also aim to examine whether the Indian experience highlights the need to radically restructure development policies because of likely conflicts between the various ends. The study relies on secondary data from the Sample Registration System (SRS) supervised by the
Registrar General of India, School enrolment data published by the Ministry of Human Resource Development, Government of India and State Gross Domestic Product data published by Central Statistical Organisation to study 17 states in Time Series from 1970 to 1990, by dividing the period into 4 sub-periods. The study examines per capita incomes, health and education indicators by calculating the country's extent of deprivation for the 3 indicators and by defining the overall index of development for the country and using them to construct the HDI with the help of Regression analysis. The study found that achievement levels in health and education have increased significantly since 1970. Among the 17 states, the study found Kerela occupying a predominant position in achievement of health and education even though it is poorest in terms of incomes. The study also found Kerela doing well in terms of change, especially in health. A matter of concern highlighted by the study is that the relative position of the various states indicates almost a stagnant pattern of human development at inter-state level. The study also found that the correlation between per capita incomes and achievements in health and education is low. The time series regression analysis also indicates that expenditure in the health and education sectors is an important determinant of levels achievement in these sectors. The study underlines the need for reorientation of development policies in India, where social sector spending is much lower as compared to many other countries at a similar stage of development. The study constructed a Human Development Index and ranked the States accordingly.

A major and comprehensive study conducted by Kurian (2000) arises out of the ongoing debate of whether inequalities in development widened in the post-economic
reform period and the need to emphatically highlight emerging trends of divergence with respect to key socio-economic indicators of development. The study carries out a comparative analysis of emerging trends in 15 major States in respect of certain key parameters which have an intrinsic bearing on the social and economic development of the States. The study relies on secondary data gathered from the Census Hand Book 1991, the National Accounting Statistics published by CSO, the 9th Five Year Plan document (1997-2002), the Planning Commission Annual Report 1998-99, the Ministry of Information, Government of India, the Reserve Bank of India report on Currency and Finance 1997-98 Vol.1 to compare 15 States, 8 of which are, from what the study identifies as, the 'forward group' of States and 7 of which are, from what are identified as, the 'backward group' of States. The comparison is made in terms of percentages of Development indicators, social characteristics, NSDP per capita, the Development and non-development revenue expenditure of State Governments, Plan outlays, sectoral distributions, investment proposals, disbursal of financial assistance for investment, Bank branches, bank credit deposits and level of infrastructure. The study finds considerable disparities in socio-economic development across Indian States. The study observes that efforts through the planning process during the first three decades after independence have only partially succeeded in reducing regional disparities. The study finds that the accelerated economic growth since 1980s with increased participation by private sector appears to have aggravated regional disparities. Further, the study also emphasised that the ongoing economic reforms since 1991 with stabilisation and deregulation policies as their prime instruments have further aggravated inter-state disparities. The study concluded that there was a marked dichotomy between the two categories of States
identified by it, that is the 'forward' group and the 'backward' group. The States in the 'forward group' characteristically exhibit better demographic and social development, higher per capita incomes, more developed economies, lower levels of poverty, higher levels of revenue receipts and plan and non plan expenditure, higher per capita resources flows and private investment and significantly better infrastructural facilities, whereas the states in the 'backward' group exhibit a characteristic absence of all the above. The study therefore suggests that there is an urgent need for more investment in backward states. The study reiterates that the quality of governance in a state influences the speed of socio-economic progress. The study brings to the fore, a thus far, in admitted fact that the Private sector finds even political and bureaucratic corruption tolerable if the states are well governed. The study cautions that if the present trends continue inequalities are bound to accentuate further and therefore suggests that it in imperative to arrest the trends if not reverse them.

In a later study Kurian (2002) reiterates the "disturbing" trend of widening socio-economic disparities across the Indian States by relying this time on secondary data from the publication of the National Commission on population Government of India, taking into consideration the 15 States again, consisting of 8 'forward group' States and 7 'backward group' States, the study adopts a multi-level stratified random sampling technique to select 569 districts, 190 from the 'forward group' and 299 from the 'backward group' to compare the composite index of socio-demographic trends and the quality of life indicators. The study once again concluded confirming a widening regional
dichotomy and an ever increasing gap between per capita incomes of the richer and the poorer states.

A study by Bhattacharya and Sakthivel (2004) probes whether regional disparity widened in the post-reform period by analysing growth rates of aggregate and sectoral domestic product of major States in the pre and post reform period. The study obtains secondary data from various issues of CSO for revised SDP series with 1993-94 base prices. The study pertains to 17 major states for two time periods i.e. 1980-90 (pre-reform) and 1990-2000 (post reform). The study compares aggregate growth rates, per capita SDP growth rates and sectoral shares composition and growth rates of SDP in terms of percentages and finds that the development process has been uneven across states. It was the advanced industrial States, which further developed in leaps and bounds in the post-reform period, while others remained behind. The study found that the regional disparities in growth rates became sharper in terms of per capita incomes. The study observes that the poorer States have not only performed poorly, but have also not been able to stem population growth which has further worsened the situation. The study concludes on the basis of its findings that in the post-reform period, it is the tertiary sector that has become the engine of growth rather than the industrial sector (as in the pre-reform period). The study suggests a need for pro-active public policy to stem the tide of widening disparities.
2.5 Inequalities in Economic Development Within States in India (Intra-State and Intra-District Studies)

From an Inter-State analysis of inequalities, the evidence of imbalances within the constituent regions and sub-regions (in the Indian context, within the States and Districts) necessitates a review of studies pertaining to regional disparities at the sub-state level.

Heston (1978) examines the generality of the "historical pattern" as stated by A.O. Hirshman that "polarisation effects initially dominate and are in turn, dominated by the "trickle-down" effect. The study relies on secondary data on district incomes computed by the NCAER. The study, which is intra-state in nature, studies 288 districts divided into 34 areas, roughly corresponding to Thorner's classification of India's agrarian regions. The study which takes into account area (in 000 sq. miles), population (in millions) and per capita incomes and uses regression equalities, correlation and coefficient of variation to show that regional imbalances arise more from inequalities in the types of industry rather than from variation between agriculture and industry, as industrialisation progresses. The study observes that when industrial variations are less, variations in regional inequalities are also less. The findings of the study also lead to the conclusion that the size of a region plays lesser role in regional imbalances than the homogeneity of the region. The more heterogeneous the region, the greater are the regional variations that are likely to occur. Sub-regional studies therefore can be reviewed on the basis of the observations made in the above study.

Siva Ram (2004) attempts to study the nature and extent of disparities among the various regions of Andhra Pradesh, on the basis of secondary data collected from the publication
of the census pool as well as from the annual surveys of industry. The study compares the percentages and ratios of the socio-economic and demographic indicators (used in the census study, 2001) for the time-period 2001. The study on the basis of its findings divides the State broadly into 3 regions (i) coastal Andhra (ii) Rayalseema and (iii) Telangana. It is found that coastal Andhra is rich compared to the other two regions both in the primary and secondary sectors. The study found that unemployment, being the acute problem in Telangana, caused wide disparities between this region and the others. The observation made in the earlier section that disparities, if uncontrolled could have serious social and political ramifications is found correct on the ground level in Telangana, with the demand for a separate state, to meet the aspirations of the people. The study therefore, emphasises the need for planners to adopt suitable policies to arrest the growing disparity levels in Andhra Pradesh.

Interestingly, innumerable studies are found on regional disparities in Bihar, a State which is infamous for leading the list of 'BIMARU' States, and one which has been ranked lowest in economic performance (in the recently published "State of States" survey). In a study which invites considerable interest in evaluating and explaining the reasons for the state of affairs in Bihar, Sinha (1985) attempts to study the regional imbalances in North Bihar with reference to the inter-district variation in the levels of development. The study relies on secondary data from state statistical surveys. The intra-state study, focusing on North Bihar, relies on data with regard to rural density, literacy, net area sown, area sown more than once, total working population, distribution of the working population, distribution of the working population, different industries and
sectors and levels of infrastructure and uses the index of inter-sub-regional variation, in relation to each indicator calculated by:

\[ I = \sqrt{\frac{n(R_i - S)^2}{n S}} \]

where \( I \) = Index of inter sub-regional variation

\( R_i \) = Value of the indicator for the district

\( n \) = No. of districts in a sub-region

\( S \) = value of the indicator for the sub-region.

If value of index ranges below 0.1, variation is not so significant; If value of index is more than 0.1 disparities are significant. The higher the value of the index, the more pronounced is the imbalance.

The study ranks the districts of North Bihar on the basis of the above index into the better off districts which are: Begusarai (1), Katihar (2) Samastipur (3) Dharbangha (4) Saran (5) Muzaffarpur (6) Vaishali (7) Sitamarhi (8) and Siwan (9) (with North Bihar region as a whole ranking (10), the worse off districts are Gopalganj (16), East Champaran (15) Madhubani (14) Purnea (13) West Champaran (12) and Saharsa (11). The study classifies districts into 3 sub-regions on the basis of watersheds into (i) Bagmati (ii) Gandhak and (iii) Kosi. The study indicates that Bagmati and Kosi sub-regions indicate greater constraints in development. These sub-regions also exhibit greater poverty and exploitation. The study points out that the situation in Bihar gives rise to the need of specifically addressing development demands of these sub-regions to ensue a more balanced development.
Atmanand (1995) attempts to find out inter-district differences in levels of growth and development of Bihar on the basis of secondary data available in the district level data for key economic indicators prepared by CMIE, Bombay. The intra-state study uses district data for 3 areas (i) minerals (ii) agriculture and (iii) industry for the year 1982 and relies on the percentage levels of minerals deposits, agricultural productivity and industrial development. The study observes severe structural imbalances in Bihar arising out of unevenly distributed minerals and mining. The study found that only the south-western part of Chotanagpur area is richly endowed with mineral deposits. The study also finds that only 3 districts have higher agricultural production than the national average. The industrial sector also shows a significant district level imbalance, out of the 31 districts, the study finds 21 districts industrially backward. Once again, the study highlights the need for planning, which has to take place from below, in order to ensure more balanced regional development.

Prakasam (1995) studies regional balances in the demographic characteristics of Karnataka. The study groups the State's twenty districts into 4 regions, as classified by the National Sample Survey Organisation (NSSO), on the basis of agro-economic conditions, population density and cropping pattern. The intra-state study is based on secondary data prepared in the Census of India and concentrates on four time periods 1961, 1971, 1981 and 1991. Taking into consideration population growth rate, sex ratio, female literacy, total literacy and infant deaths and using percentages and tools of coefficient variation, the study finds that the coastal regions are more developed followed
by the eastern inland region, the least developed is the eastern hinterland of the State. Among the demographic indicators, the sex ratio shows the lowest variation across the regions, with the highest variation existing in the Infant Death rate. The need for reducing regional imbalance is recognised as essential for the socio-economic well-being of the State.

Poverty studies in Karnataka have also found vast regional variation across the State. Rinku Murgal et. al. (2003) have attempted to estimate poverty incidence at district level in Karnataka from pooled Central and State sample data and have examined regional variations in poverty across the States. The study relies on secondary data obtained from the NSSO (55th round) and from the Central and State sample data, pooled to arrive at regional poverty estimates. This intra-state study for the year 1999-2000 examines monthly per capita expenditures (MPCE) by using Head Count Ratio (PO) i.e. proportion of people living below the official Government of India, urban and rural poverty lines, poverty Gap (PI) and the Lorenz Curve of MPCE. The study finds considerable heterogeneity in the extent and depth of poverty. Higher levels of poverty are found in the northern districts, particularly of Gulbarga and Belgaum divisions. These two regions also account for the highest concentration of poor (i.e. a staggering 60%). An analysis of the intra-division variation of poverty reveals strong intra-division variations, as well; for instance, the Kolar district in the Bangalore rural division is as poor as the northern districts of Karnataka.
A more intensive attempt to estimate the degree of inequalities of incomes and poverty in urban and rural areas of Karnataka was made by Thimmaiah (1978). The study estimates the degree of inequalities of incomes and poverty in urban and rural areas of 19 districts of Karnataka and also among the various religions and caste groups of the population of the State. The study is important in that it is based on primary data collected and published by Institute of Social and Economic Change (ISEC) Bangalore for a two stage stratified sample covering the 19 districts in Karnataka, identifying 31 urban units and 76 villages in all, from where 2946 households were selected as a sample using random numbers, for the year 1974-75. The study relies on data of per capita income and expenditure and makes use of the Lorenz Curve, Gini Coefficient and the coefficient of variation to analyse the results. The study found that the degree of inequality of income was very high in the urban areas. The degree of inequality of income was greater in the economically and socially backward classes. The study also found that the degree of inequality of income and incidence of absolute poverty were positively associated. The study also concluded that the socially backward classes exhibited high incidence of absolute poverty.

The State of Kerela is held up as a model of high levels of achievements as far as human development indicators are concerned. However, an in-depth analyses of development attained by Kerela reveals vast inequalities, regional and sectoral. Luckose and Raju (1995) attempt to reveal "the real picture" (Disaggregated) of the nature of development attained by the State of Kerela as a result of implementation of plan policies during the 16 year period, between 1970-71 and 1985-86. From secondary data published by the
Directorate of Economics and Statistics, Govt. of Kerela, (Trivandrum, Kerela) the study examines data relating to NSDP, contribution of various sectors, allocation of State Plan outlay and per capita income and uses percentages and coefficient of variation for its analyses. The study observes high levels of sectoral inequalities, on account of an increase in the share of the service sector, and a decrease in the share of the primary sector. The secondary or industry sector also showed evidence to decline or at best of remaining stagnant. In an alarming finding, the inter-district per capita variation is found to have widened, more than double (in 16 years) from 10.02% to 20.17%. The study concludes, therefore, that despite of satisfactory overall achievements, intra-state or sub-region analysis shows a different picture, with prominence of inequalities, both sectoral and regional.

Another study for Kerela by Suresh (1995) attempts also to determine if there exist any disparities in the development of different regions in Kerela, and if disparities do exist, then the study aims to identify the reasons for the same. This intra-state study also relies on secondary data published by the Directorate of Economics and statistics, Govt. of Kerela, however, it focuses on the time period 1970-71 to 1986-87 and then subsequently carries out a comparative analyses for the 2 time periods 1970-80 and 1980-87. The study relies on SDP at current prices and 8 variables to compare development, which are (i) population (ii) cropped area, (iii) industrial enterprises, (iv) road length, (v) educational institutions, (vi) Medical institutions (vii) Financial institutions and (viii) credit disbursed. The study found that not only did regional disparities exist, but that they widened over the two time periods mainly on account of natural differences in factor
endowments and man made differences in infrastructural facilities. The study suggests reframing of development policies in such a way so as to minimise or eliminate the man made differences, in order to reduce regional disparities in development.

Man-made differences account for regional disparities in almost all the States. In Punjab, the Green Revolution was said to be an agricultural boon which not only changed the face of development in Punjab but also caused a 'U'-turn in the food grain position of the entire country. However, this man made revolution was not without its share of critics for having contributed to the regional disparities and income inequalities in Punjab. Saini (1976) studies the concentration of farm business incomes among sampled farms in Ferozepur district, Punjab. The study is based on primary data collected from a randomly selected sample of farms in Ferozepur district, Punjab. This intra-district (sub-region) study compares data of farm business incomes for two time periods 1955-57 (prior to the Green Revolution) and 1967-69 (post-Green Revolution) by using the percentage distribution of income among distinct size (decile) groups of farm households and the Lorenz Curve / ratios to show that the top 20 percent of farm households enjoyed 40 percent of the farm business incomes and bottom 40% of the farm households had only 20% of the farm business incomes. The study found that although there were inequalities in the distribution of farm incomes in both periods 1955-57 and 1967-69 yet the inequalities in the distribution increased in the period 1967-69 as compared to the earlier period of 1957-59. Therefore the study concluded that it was the Green Revolution that generated gross inequalities of income and created a concentration of farm business incomes.
**Ibrahim and Hari Ku (1995)** studied Mahe district / region (Pondicherry) and highlighted the development problems with reference to the rest of the constituent units (districts / regions) of Pondicherry. The study based on secondary data derived from the Census Reports of 1981 and the Annual Action Plan, Pondicherry (1989-90) for the time period 1971-1981, to show a decadel variation relies on development indicators of population density, regional sector-wise distribution of workers, agricultural development and industrial development and shows that Mahe is a distinctly underdeveloped district / region of Pondicherry as compared to the other three regions (i) Pondicherry (district), (ii) Karaikal and (iii) Yonam. The study requires that a major thrust in employment be given in Mahe to correct the regional disparities. The study suggests that in order to improve development, industries based on marine resources are to be encouraged.

With almost every study recommending the need for State policy to make necessary steps to correct regional unbalances, an interesting study is taken up by **Durai Raj and Bharathan (1995)** to highlight the existence of regional disparities in industrial activities (and thereby development) of Tamil Nadu and assess the impact of the States Industrial Policy on the reduction of regional unbalances. The study relies on secondary data from the Department of Statistics, Madras and studies 15 districts over a seven year period from 1978-79 to 1985-86. The study observes vital characteristics of the factory sector in terms of employees, production capital and total output and makes use of the Lorenz Curve and the Gini coefficient for measurement of existence of regional unbalances and the HH index i.e. the Hirschmann-Herfindahl index for measurement of the degree of regional concentration of industries. The HH index calculated for two periods indicates
whether regional disparities have reduced or not. The HH index = \( \frac{P_i^2}{100} \), where \( P_i \) is the percentage share of a region in total industrial employment. The maximum value of the HH index is 100, when the entire manufacturing sector is in one region. The minimum value is 0 when there is equal distribution in all regions. Therefore, the value of index = \( \frac{100}{N} \) where 'N' is number of regions. The study reiterated existence of regional disparities of industrial development in Tamil Nadu. The study finds that over the 7 year period, after implementation of the State's Industrial Policy, the regional disparities of industrial development reduced only marginally from 12.09 to 11.23, as shown by the HH index. Therefore, the study concluded on the pessimistic note, that State policy has been able to do very little to correct regional imbalances.

An attempt to analyse the existing disparity in the level of economic activities in eastern and western Uttar Pradesh (U.P.) and to highlight some determinants of economic disparity in the two regions has been made by Mistra and Bajpai (1995). Obtaining secondary data from various sources such as the Year books of statistical abstract, U.P., Economic Survey of U.P. the annual Survey of Industries of U.P. (1983-84) and the agricultural data of U.P. (1985-86) a study is made of the 5 regions of U.P. namely, Western, Eastern, Central, Bundelkhand and Hill regions. The study analyses growth indicators such as gross commodity product, food production and the value of industrial productivity by making use of the modified version of SOPHER’S index:

\[
D = \log \left( \frac{X_2}{X_1} \right) + \log \left( \frac{2-X_1}{Q-X_2} \right)
\]

where, \( D = \frac{X_2}{X_1} \) and \( Q = 200 \) where \( X_1 \) and \( X_2 \) representing respective percentage values of the variable in region 1 (eastern) and region 2 (western), \( D \) shows value of Disparity index. State average is taken as 1, value of
various indices worked out for various regions, average of indices for economic and non-economic determinants are computed;

Regression equation is formed as $y = F(Xe)$, $y$ = per capita industrial production, $Xe =$ Indices for economic factors.

In linear form:

$$Y = \alpha + B_1 Xe \ldots \ldots 1$$

where $\alpha$ is intercept and $B_1$ regression co-efficient, likewise:

$$Y = f(Xe, Xn), \text{ where } Xn \text{ represents indices for non-economic factors.}$$

In linear form:

$$Y = \alpha + B_1 Xe + B_2 Xn \ldots 2$$

The study finds that more economic activities are undertaken in western U.P. than eastern U.P. The study observes noticeable disparity in industrial activities and negligible disparity in agricultural activities. It was found that the western U.P. region was more developed. The Disparity index is higher for industrial activity (0.6724) than for agricultural activities (0.1239). The low disparity in agricultural is found to be on account of crops under irrigation and the use of chemical fertilizers. It was also found that better physical infrastructural facilities such as surfaced roads, telephone connections, electricity and bank advances in western U.P. gave momentum to industrial development of this region. The study also drew an important conclusion that there is a significant role of non-economic factors in industrial development from the finding that the value of $R^2 = 0.9165$ without including non-economic factors and that the value of $R^2 = 0.9463$ after including non-economic factorisation. Therefore, a study taking into consideration only economic factors reveals higher disparities and with the inclusion of non-economic
factors, the levels of disparities are lowered. An interesting conclusion of the study is that labour militancy, low levels of literacy, egoism, the non-enterprising nature of the people and the high level of 'Chauraha' politics in eastern U.P. are important determinants of low level of industrial development in eastern U.P.

The hill regions of U.P. have been a interesting case study for understanding (intra-state) regional disparities. **Nauriyal and Nauniyal** attempted to measure the extent of inequality in the distribution of income in the Pauri Garhwal region, one of the eight hill districts of U.P. The study is based on primary data, collected with the help of an Interview schedule. The intra-state, sub-region study covers 15 development blocks including 3237 villages; the study selects, through a process of multi-stage stratified random sampling, 232 households in 15 villages and analyses the incomes of these households collected under the different heads of agricultural services, livestock, money orders, rentals from houses, forestry, poultry and from business and self-employment over the one year period 1990-1991. The study establishes income inequalities to be very high in rural hill regions. The study finds a number of socio-economic factors to be responsible for this, prominent among which are (i) income differentials within different occupations and same occupation (ii) migration of educated people from rural areas to urban areas (iii) significant age differences among heads of households (iv) Inequalities in family earnings and (v) differences in the levels of education.

While analysing sub-region inequalities, rather than restricting oneself to the political boundaries of a State in the Indian federal Structure, **Bhandare and Khare (2002)** go
beyond and delineate regions, extending beyond the political boundaries of 'States' to analyse how each region performs in terms of share of the overall economy. Towards this objective, the study relies on the secondary data available at the level of regions of NSSO (78 agro-economic regions) and compares 5 variables that is petrol sales, diesel sales, bank credit, bank deposits and cereal production by constructing an Economic Performance Index for the two time periods 1991-92 and 1998-99. The findings reveal a clear west-east divide, however there is no obvious north-south or coastal-inland divide that is evident from the study. What is important is that the study finds the urban areas acting as growth poles around which development takes place, and the areas which lag behind and the least developed are the agricultural areas. The performance of Punjab, Haryana and Kerela in this analyses, is much better than their performances in SDP analyses. The study finds that Karnataka, Kerela, Punjab and Haryana exhibit greater regional equalities whereas Andhra Pradesh, Madhya Pradesh and Maharashtra show evidence of greater regional disparities. The study also emphasises that there was no significant increase in inequality observed on account of economic reforms.

To conclude, a sub-region study is taken up, which is the only one 'taluka' level study that the researcher came across in the review of intra-state studies on regional imbalances. The study holds particular significance to the researcher as the intended research for which literature is being presently reviewed is to be taken up at the taluka level. The study undertaken by Rao (1984) aims to identify backward talukas, both at sectoral and aggregate levels of development, in terms of various physical indicators of development, by combining them together, after assigning their proper weights, so as to
develop a composite measure of development. The study also aims to identify the
typology of backwardness / development and to delineate homogeneous talukas. The
study relied on secondary data collected by governmental and other agencies. The study
covered 19 districts divided into 175 talukas between 1974-75 and 1979-80. The analysis
however, is a static one, as time-series data is unavailable at taluka level and therefore
does not enable analyses of changes over time. The study considers indicators of land
utilisation pattern, cropping pattern and industrialisation pattern to construct a composite
index of development on the basis of factor analyses. The findings of the study suggest
that out of 175 talukas, 106 talukas are below average or backward. Alarmingly, only 15
talukas can be considered average and 54 talukas can be considered developed, out of
which also only 21 can be considered as really developed. The overall development is
found to be concentrated in and around a few metropolitan and urban talukas in
Karnataka. The study establishes lop-sided development of the State while also
establishing statistically significant disparities. The most developed taluka, Bangalore
North had an index of 196.120 whereas the most backward, Jewergi had an index value
of −19.648. The study found that the intra-category disparities are also significant, for
example, within the 54 developed talukas, the most developed, Bangalore North, with an
index of 196.120 is way ahead of the 54th taluka in the category Madhugiri, whose index
value is 1.029. It is interesting to note that the dispersion range of less developed talukas
was not so great, with Anekal obtaining an index value of 1.435 and Jewergi obtaining a
value of −19.645. The study also finds that the sectoral development pattern exhibiting
congestion of economic activities in the 54 developed talukas, which had better
infrastructural facilities and therefore attracted entrepreneurial ability. The backward
talukas, mostly in Gulbarga and Raichur districts were found to be disadvantaged in terms of natural resources, topography and sectoral development. These backward areas were also the 'dry' regions of Karnataka facing famines and droughts. The study concludes by pointing out that the backward talukas form a homogeneous group requiring the special attention of the planners and policy makers.

2.6 Observations

The review of literature undertaken by the researcher enables her to make the following observations pertaining to regional imbalances of economic development:

2.6.1 Global Studies

Regional disparities increased the world over prominently after the industrial revolution. Initially however, most studies analysing regional inequalities focused on inequalities of incomes, both of households as well as of the economies. A possible explanation for this would be (i) the identification of economic growth with a rise in incomes and an understanding that a rise in income would automatically translate into economic development or (ii) another possible explanation of course, would have to do with the availability of data; as NDP, SDP and per capita income data was easily available, most studies attempted to understand regional inequalities in terms of income inequalities.

Approximately 30 years after the II World War, inequalities amongst the developed nations began to be bridged, but inequalities between the developed and the developing
countries began to widen, and continue to do so, and so did the disparities within the developing countries, begin to diverge and drastically so.

The Kuznets 'U' hypothesis of the 1950s is observed to have been proven wrong by experiences around the world, and it has become more a Kuznets 'J' curve, where the share in incomes, of the bulk of the poor falls with initial growth, and then rather than rising with further development, remains at the same low level for a very long period of time, making the prospects of the poor of world quite dismal.

Globalisation and its implications may be widely responsible for the observed phenomena. In fact, free market economies appear to be the ones where the problem of disparities is the most severe.

Socialist countries exhibiting lower within-nation disparities of incomes seem to suggest that socialism makes for lesser inequalities. An effective antidote to regional disparities therefore appears to be the evolution of the mind sets of the people towards welfarism.

With the growing understanding of economic development in terms of human development there is a growing emphasis on the non-economic factors in identifying the causes of inequalities.

This new understanding views inequality as a very serious problem as it severely restricts access to wider 'choices' or 'freedoms' for the people.
2.6.2 Inter-State Studies

Inter-state studies have belied the neo-classical theory that growth in some areas would then percolate down to other areas resulting in a "trickle-down effect".

Study after study revealed that although some pockets of the country have developed, they have not resulted in development of the other areas within the country, because of which regional disparities are widening.

Initial studies have concentrated on assessing inequalities by considering only SDPs of States. However, knowing that high SDPs are not, an automatic guarantee of 'wider choices' for the people, so necessary for human development, inequality studies have been concentrating on comparing development indicators to assess disparities in development. Similarly, sectoral shares in SDP also have been ruled out as a reliable indicator of development.

The post-economic reforms era has seen a further widening of the disparities with the already 'strong' States becoming 'Stronger' and the 'poor' States worsening in their situations. Disparities are evident regionally as well, particularly across the rural / urban divide.

Alarmingy, there appears to be no evidence of convergence across States / regions however strong evidence seems to be emerging showing up increasing divergences.
There is a school of thought that is optimistic and holds that inequalities may not be as bad as SDP data suggest and that looking at HDI would not make disparities look so bad; be that as it may, there is no denying regional disparities.

These disparities therefore, need to be addressed otherwise drastic inequalities could lead to serious economic, social and even political ramifications. However, there can not be any common prescription for balanced growth for all States / regions which are lagging behind. Each State must have a development blue-print for itself.

There is need for a pro-active public policy to correct disparities through affirmative measures which would result in spreading infrastructure through effective regional policies which are formulated from bottom upward rather than imposed from above.

There is a very significant role earmarked for womens' agency and empowerment in enhancing development by reducing mortality, fertility and gender inequality. Development policies need to be reoriented with greater emphasis on the social sector in order to address the problem of regional disparities.

2.6.3 Intra-State Studies

Sectoral and regional disparities are established. There exists widening inequalities in incomes and development indicators. Regional disparities are on account of natural differences in factor-endowments and man-made differences in infrastructure, both physical and social.