GROWTH AND HUMAN DEVELOPMENT IN INDIA (1980-2008):

A PRELIMINARY ANALYSIS

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IN

ECONOMICS

BY

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LIST OF ABBREVIATIONS USED

HDR	Human Development Report
UNDP	United Nations Development Programme
IHDR	India Human Development Report
NHDR	National Human Development Report
HD	Human Development
EG	Economic Growth
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
HDI	Human Development Index
GDI	Gender related Development Index
IHDI	Inequality Adjusted Human Development Index
HPI	Human Poverty Index
MPI	Multidimensional Poverty Index
GEM	Gender Empowerment Measure
CAGR	Compound Annual Growth Rate
PCNSDP	Per Capita Net State Domestic Product
GDP	Gross Domestic Product
GNP	Gross National Product
UNDP	United Nations Development Programme

CHAPTER I: INTRODUCTION

"Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services…" .

- (Article 25, Universal Declaration of Human Rights, UN, 1948)

1.1 Introduction

Over the years, social analysts have been concerned about the nature of the lives that people can lead. After placing emphasis on the economic growth aspect for a long time, now the attention has largely shifted to more direct measures of the well being of the people. Since its inception in 1990, the Human Development Report (HDR) series have been committed to end the problem of mis-measuring human progress solely by economic growth.

UNDP (1996) Report makes a very significant statement regarding the importance of viewing human development as the ultimate end of any development initiative. To quote the report:*"Human development is the end-economic growth is a means. So the purpose of growth should be to enrich people's lives. But far too often it does not. The recent decades show all too clearly that there is no automatic link between growth and human development. And even when links are established, they may gradually be eroded-unless regularly fortified by skillful and intelligent policy management"(UNDP,1996).*

Development economics emerged as a distinct branch of study in the post World War II period. It was initially viewed as a "bastard child of growth economics" (Sen,1995)[1] due to the fact that it had some features other than those of growth economics which was not distinctly clear. However, even development economics gives much importance to the "growth of real income per head"(Sen,1995).Ian Little wrote about development economics in the Fontana Dictionary of Modern Thought as comprising of "all work on the growth of incomes per head , including that

[1] Dreze and Sen(1995).India-Economic Development and Social Opportunity, Oxford University Press,Delhi.

of the classical economic theorists from Smith to Mill"(Sen,1995).Thus, growth of income was considered as the crux of development economics.

However, it is also to be noted that even Smith and Mill viewed income essentially as one among the several means to achieve important ends. Moreover, these scholars were also of the view that human beings value several things other than income. Most of the classical political economists regarded "freedom to lead valuable lives as intrinsically important"(Sen,1995).Development literature gradually came to realize the fact that the ultimate goal of development was the expansion of capabilities of human beings, although much attention went to the generation of economic growth(increasing GNP etc).

In fact, the very idea of human development is not new-it has been there since the ancient times. For example, Aristotle, the ancient Greek philosopher, had stated that wealth is only sought for the sake of obtaining something else, which points to the role of income or wealth as just a means to achieve something else.

1.2 Economic Growth, Economic Development and Human Development

Generally, **economic growth** is understood as an increase in the output of goods and services. Milton Friedman defined economic growth as an expansion of the system without any structural transformation in the economy, whereas, **development** is an innovative process leading to structural transformation. As noted by Kapila (2013) until the 1960s, the terms economic growth and economic development were used almost as synonyms. A rise in real per capita GNP was the measure of economic development. Referring to Kindleberger, she also draws upon the distinction between economic growth and economic development. To quote Kindleberger[2], "*Whereas economic growth merely refers to a rise in output, economic development implies changes in technological and institutional organizations of production as well as distributive pattern of income".* It was also stressed by Uma Kapila (2013) that economic development is a broader concept than economic growth, which involves changes in the composition of output and allocation of productive resources to attain the goal of social justice. **Human development** on

[2] Kindleberger,C.P.(1965).Economic Development(2nd edtn)ch.1 as cited in Uma Kapila(2013,pp26)

the other hand is defined as a process of expanding the choices of people. With the visionary works of Mahbub-ul-Haq and Amartya Sen, the idea of human development took centre stage by the late 1980s. The long lost focus of economics on the real concerns of the people as well as the ethical and humane aspects of the subject was restored with the thought provoking works of Sen. Thus, economic growth and wealth came to be considered as the 'means' through which one can attain the 'end' of better human development. Aristotle said that "wealth is evidently not the good we are seeking for it is merely useful and for the sake of something else". Capability Approach of Sen draws from Aristotle's works.

The basic idea of HD approach is that the ultimate goal of development is to enlarge the "range of things that a person can be and can do, such as be healthy and well nourished, be knowledgeable, and to participate in community life"(Pia,2010). The idea of development as freedom put forth by Sen becomes significant here. The removal of the various obstacles in having a better life such as "lack of income, illiteracy, ill-health, lack of access to resources" etc forms the ultimate objective of development.

The Human Development approach "differs from the conventional approaches to Economic Growth, Human Capital formation ,human welfare, or basic human needs"(UNDP1990 [3]) because of its belief in the idea that that income is only necessary but not sufficient to achieve HD. It considers people as the 'ends' instead of 'means', and as participants in the process of development instead of just being the beneficiaries.(Srinivasan 1994).Above all, the distinguishing feature of HD approach is that it "focuses on human choices rather than on the provision of goods and services that deprived groups need".(Srinivasan 1994).The Human Development Index(HDI) which was introduced in the first Human Development Report (HDR) published in 1990,covers three main components which are essential in human life- "longevity, knowledge, and basic income for a decent living standard". Longevity and knowledge "refer to the formation of human capabilities", whereas income serves as a "proxy measure for the choices people have in putting their capabilities to use", as cited in Srinivasan (1994).

[3] As cited in "Srinivasan,T.N(1994).Human Development:A New Paradigm or Reinvention of the Wheel?, *The American Economic Review,* Vol. 84, No. 2, Papers and Proceedings of the Hundred and Sixth Annual Meeting of the American Economic Association ,pp. 238-243."

Recently, C.Rangarajan(2014) [4] also has discussed the **evolution of thinking on growth.** According to him, there are five stages in the evolution of thought on economic growth. Rangarajan(2014) explains these stages as follows:-

In the **first stage** the acceleration of economic growth was the main concern. Faster economic growth was expected to address the problems of poverty. Economic growth was identified with a rise in the availability of material goods and services. It was believed that a rise in growth could be achieved through higher savings and higher capital formation. In the **second stage**, unlike the long held view that equated enhanced production of goods and services with better life, a distinction was made between growth and development. Income distribution was emphasized. 'Development' was recognised to be equitable, more than a mere rise in growth, to include structural changes in the economy. Concern for the equitable distribution of the fruits of economic growth as well as balanced regional development became the major issues during this stage, especially in India, notes C.Rangarajan(2014). The **third stage** placed importance to the idea of the provision of basic needs ,or the minimum requirements of life, such as food, safe drinking water, education, sanitation and health services.(As cited in Rangarajan(2014) from (Jolly,1976)[5].The national development policy of several nations adopted this concept. The idea of sustainable development gained ground during the **fourth stage**. The damages inflicted upon the environment in the course of economic growth and the need for judicious use of natural resources to ensure intergenerational equity also became the centre of concern. In the latest and the **fifth stage**, the focus is on the core concept of human development. The ultimate objective of growth was recognized to be human development, which places emphasis directly on the quality of life of the people. Economic growth was considered as only one aspect of human development, which is essentially a multidimensional concept. The enhancement of capabilities of the people through education and health, as well as the opportunities to make use of those capabilities, became the major concerns in this stage. Human rights and freedom of choice for the people were understood as integral parts of the process of human development.

[4] In a CESS foundation day lecture delivered at Centre for Economic and Social Studies,Hyderabad in April 2014.The topic of the lecture was 'Economic Growth and Social Development - Synergic or Contradictory?'.

[5] Jolly, Richard (1976): "The World Employment Conference: The Enthronement of Basic Needs", Development Policy Review, Vol. A9, United States.

Moreover Ghosh(2011) reiterates the argument that a mere increase in GDP (which represents the production of goods and services) would increase per capita incomes, but it does not ensure an improvement in human well being. This is because income forms only one aspect of the overall wellbeing of people. Other factors include accessibility to "basic necessities required for leading a productive and socially meaningful life"(Ghosh2011).However, the question is not of different stages of growth, but it is related to the nature of growth, i.e., whether it is narrow or broad based.

1.3 The concept of Human Development

The UNDP(1990) in the HDR, refers to the need to focus on human development rather than a mere concentration on economic growth as such. To quote, "*economic growth became the main focus after the second World War-and the growth rate of per capita GDP became the sole measure of development-as GNP became the goal of development in the 1950s and 1960s, the question of promoting individual wellbeing receded-in time, distribution was altogether forgotten, and the argument of " trickle down was made to defend such neglect"(UNDP,1990)* **.**

It was the publication of the first global HDR by the UNDP in 1990 that marked the emergence of the human development concept as a major area of concern. Even after 25 years of the publication of the first HDR, the relevance of the concept of human development has not faded. UNDP (1990) defines human development as "a process of enlarging people's choices". As per UNDP (1990) the most important of these wide ranging choices are to be able to lead a long and healthy life, be educated and to have resources for a decent standard of living. Through the process of development, such choices should become available to people. Human development (HD) concerns with both the formation as well as the use of human capabilities (UNDP,1990). Human development is much beyond mere economic growth. UNDP [6] explains 'Human Development' as a development paradigm that is much more than an increase or decrease in national income. People were recognized as the real wealth of a nation in the very first HDR

[6] As cited in HDR of Ernakulam 2009

itself. The crux of the human development paradigm has been presented in five points in a report published by the Kerala State Planning Board[7].They are quoted below:

i) "Development must put people at the centre of its concerns

ii) Purpose of development is to enlarge all human choices, not just income

iii) The Human Development paradigm is concerned with both building up human capabilities (investment in people) and with using those human capabilities fully (through enabling and enabling framework for growth and empowerment)

iv) Human Development has four essential pillars: equity, sustainability, production and empowerment

v) The 'Human Development paradigm defines the ends of development and analyses sensible options for achieving them."(Ernakulam District Human Development Report 2009).

Moreover, the human development deserves a primary place in policy formulation and implementation matters as it forms the ultimate end of any development strategy. "Strengthening State Planning for Human Development (2004-2009)" was an initiative by the UNDP and the Indian Planning Commission to bring out the importance of human development and to devise policies for human development improvement from the grassroots level. Several reports[8] on human development have come out as part of this initiative, which throws light on the real picture of human development in India- at state, district, panchayat levels as well.

1.4 The Human Development Index

In this framework, the HDI was constructed under the leadership of the visionary development economist **Mahbub-ul-Haq** ,to measure and rank the performance of nations on the basis of the three dimensions of human well being i.e., longevity, knowledge and standard of living(or income). UNDP (2014)[9] defines the HDI as a summary measure of the achievements in the three basic dimensions of human development-i.e., "long and healthy life, access to knowledge and a decent standard of living". The indicators for these three dimensions of health, education and

[7] In the Ernakulam District Human Development Report 2009,pp2

[8] Like Kottathara HDR, Ernakulam HDR,Wayanad,Kannur,Kottayam HDRs

[9] "UNDP(2014)HDR- Sustaining Human Progress:Reducing Vulnerabilities and Building Resilience.Technical notes."

standard of living are measured using life expectancy(years),expected years of schooling and mean years of schooling, and Gross National Income per capita (PPP 2011 $) respectively. Each of these dimensions's normalized indices are measured. The geometric mean of these normalized indices forms the HDI.

The maximum value and minimum value of each indicator (goal posts) are set for the purpose of expressing the indicators with different units into indices ranging from 0 to 1. "These goalposts act as the 'natural zeroes' and 'aspirational goals', respectively, from which component indicators are standardized", notes UNDP 2014.The maximum and minimum values assigned to each indicator as per the 2014 HDR is presented below:

Table1.1:Maximum and Minimum Values of the Indicators

DIMENSION	INDICATOR	MINIMUM	MAXIMUM
Health	Life Expectancy (years)	20	85
Education	Expected years of schooling	0	18
	Mean years of schooling	0	15
Standard of living	Gross national income per capita (PPP 2011 $)	100	75,000

Source: UNDP(2014) HDR 2014 , technical notes,pp.2.

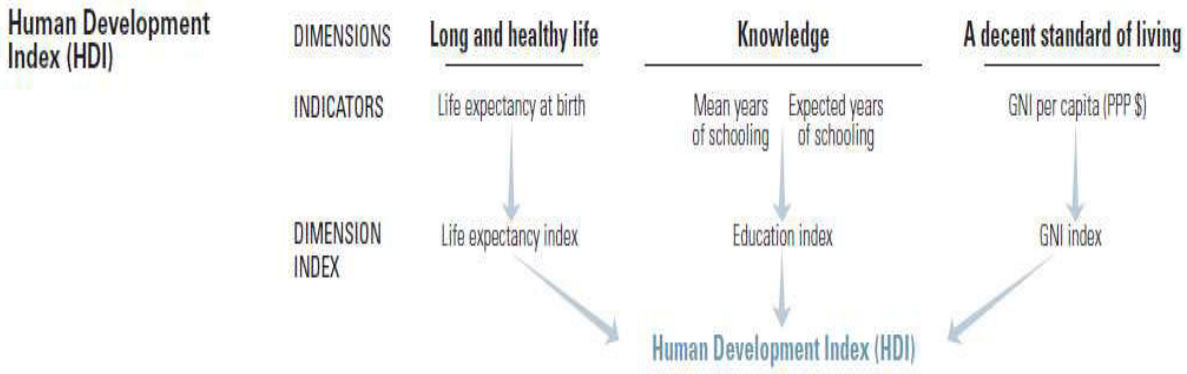
Note: The rationale and justification for setting these values as maximum and minimum are given in the Technical Notes of UNDP(2014).

On aggregating these dimension indices, the HDI can be obtained. Since the HDI is the geometrical mean of these dimensional indices, it can be obtained by the formula

$HDI = (I\_Health \,.\, I\_Education \,.\, I\_Income)\ 1/3.$

UNDP(2014)[10] defines the "*Human Development Index (HDI) as a composite index measuring average achievement in three basic dimensions of human development—a long and healthy life, knowledge and a decent standard of living.*""*Human development classification HDI classifications are based on HDI fixed cut-off points, which are derived from the quartiles of distributions of component indicators. The cut-off points are HDI of less than 0.550 for low human development, 0.550–0.699 for medium human development, 0.700–0.799 for high human development and 0.800 or greater for very high human development*." Figure1 gives a graphical representation of HDI.

Fig.1:HDI



Source: UNDP(2014),Technical Note of HDR 2014.

Measures of human development other than the HDI include the Gender related Development Index(GDI),Gender Empowerment Measure(GEM),Inequality adjusted Human Development Index(IHDI), Human Poverty Index(HPI), Multidimensional Poverty Index (MPI), etc, each of which deals with a particular aspect of human development. In 1995 in order to incorporate the gender aspects in the measurement of human development, the GDI and GEM were introduced by the UNDP.

[10] UNDP(2014)Human Development Report

1.5 ANALYTICAL FRAMEWORK

Economic Growth-Human Development Linkages

Human development and economic growth are integral aspects of the development process. Of late, there is a general view that economic growth is to be seen as a means to achieve the ultimate aim of development, i.e., enhanced human welfare**(Ranis,2004).** Such broader views of development ,such as those propounded by Amartya Sen, Mahbub-ul-Haq, etc are enriching and more people centred. It is important to remember that higher growth figures need not always mean better life to the people. However, it would also be interesting to see how these two aspects of development, i.e., economic growth and human development, are related, especially in India, which is the second most populous country in the world.

Ranis(2004) pointed out that ,as enhancement of freedom and capabilities will increase economic performance, human development (HD) will affect economic growth (EG).On the other hand, increased income will increase the range of capabilities and choices available to the people and thus EG will enhance HD. Such kind of inter relations and the two way linkages between EG and HD were explored in Ranis(2004).It is also interesting to analyse such inter relations in a context in which many countries like Sri Lanka, China ,Costa Rica and the Indian state of Kerala were able to achieve better levels of human development than could be expected from their GNP or real income per head performance (Anand and Sen (2000).

The joint HD-EG linkages is worth examining because the success of a development path followed by a state or country, depends on how strong these linkages are. Ranis(2004) describes the various possible states that the inter-relations between EG and HD could result in. As he points out nations may enter into a vicious cycle, virtuous cycle or a lopsided state.

If there is high growth and high human development levels, then the nation could be in a '**virtuous cycle'**. A nation is said to be in a **vicious cycle**, if there exists low growth and low rates of improvement in HD. In these states EG and HD reinforce each other and there exists a mutual relationship, which will either lead to an upward spiral of development or result in a poverty trap, depending on the strength of the linkage between EG and HD. The **lopsidedness**

can be of two types-one, with relatively good growth and relatively poor HD or vice versa(Ranis2004).They are the lopsided –EG and lopsided HD situations.

Sen's Capability Approach

Although much attention was paid to economic growth as such for quite some time, there is a recent consensus on the need to use more direct indicators of the well being of people.

Amartya Sen developed his concept of entitlements and capabilities taking inspiration from the ideas of Gaulet[11]'s core values of development. An understanding of these core values are essential to have a holistic view of the development process. The three core values of development suggested by him include life sustenance, self esteem and freedom. Entitlements give life sustenance and self esteem, whereas capabilities give freedom. Thus, economic development must lead to the expansion of entitlements and capabilities.

1.6 Objectives

1. To understand the relationship between human development and economic growth in India in the last three decades.
2. To trace the trends and patterns of India's human development in the last three decades and to classify the states on the basis of their development conditions.
3. To observe the human development conditions of India's selected states and to identify the possible reasons for regional disparities in human development.

1.7 Data source & Methodology

Secondary data is used for this study. The per capita net state domestic product(PCNSDP) data is taken from RBI handbook of Indian Economy.HDI components data for Indian states are taken from India Human Development Report(IHDR) 2011. HDI values are taken from both National Human Development Report 2001 and IHDR 2011.The HDRs of the UNDP provides detailed data of HDI of the various nations of the world. The national ,state and district level HDRs are also referred for this study. Census reports, Economic Survey, Economic review, various reports and journals etc have also been referred to.

[11] Gaulet,Denis(1971)The Cruel Choice:A New Concept in the Theory of Development.NewYork:Autheneum.pp.87-94 ;as refered to by Uma Kapila 2013.pp.28.

In the light of the classification done by Ranis(2004),and following the methodology similar to that of Ghosh(2006),this study tries to classify Indian states using the latest available data.

1.8 Motivation and Significance of the Study

The UN Millennium Declaration was adopted by leaders of the world's nations, in September 2000.By this declaration they committed themselves to work to achieve the targets set to reduce poverty and other such impediments to human wellbeing. Specific targets were set to be achieved within a given time ,i.e., by 2015.This came to be known as the Millennium Development Goals(MDG).Progress in these goals lead to better human development conditions. Having reached the deadline year of 2015 to achieve these goals, global attention has turned to human development concerns. In this context, it is important to see that the people of our nation has the opportunity to lead a life they have reason to value and to ensure that no one is deprived of such basic rights which entraps them in a state of 'unfreedom'. Thus, as Amartya Sen conceptualized, development should involve the removal of various types of 'unfreedoms' which act as obstacles to the full development of the people and their capabilities.

This becomes all the more significant as India is projected to be the world's youngest nation by 2020 with the average age of population at 29 years(Economic Survey 2014-15).This presents both challenges and opportunities. When the world economy will face a shortage of young population of almost 56 million by the year 2020,India will be having a youth surplus of 47 million. As per the Sample Registration System (SRS) data for 2013 there was an increase in the share of population in the economically active age(15-59) from 57.7 percentage during 1991 to 63.3 per cent in 2013. To reap the advantages of having such a demographic profile , the nation will have to ensure that the people are healthy, educated and adequately skilled to contribute to the economy.(Economic Survey 2014-15).

Thus the present study proposes to understand the dynamics of the human development experiences of India, a nation situated in the global south, which has emerged as one of the fastest growing economies in the world. The Human Development Index (HDI) developed by the UNDP in the framework of Sen's Capability Approach is used as a general proxy for human development conditions of nations. The regional disparity in human development conditions

require further study to figure out the possible reasons for some states performing well while the others are not.

1.9 Limitations of the Study

The present study is a preliminary enquiry about the state of economic growth and human development in India and their relations and contrasts if any. A more comprehensive analysis is required to analyse the nature of growth and human development and its causes. Due to lack of state level data on the HDI and its components for all the years, observations are made using the available data, which is available mostly with a ten year gap. The latest HDI and component indices values that is available is for the year 2007-08, published in the 2011 India Human Development Report. The study used HDI and PCNSDP at factor cost (at 1999-2000 base) of India and its states to reflect human development and economic growth respectively, although PCNSDP of states are not strictly comparable due to variations in methodology of compilation across states. Moreover the development experience of the selected states would require a more comprehensive appraisal of the historical, social as well as economic aspects-this study is only a preliminary observation.

1.10 Chapter Scheme

The first chapter is the introductory chapter which sets the ground for the study. It gives the analytical framework, data sources and methodology ,objectives, significance as well as the limitations of the study. Second chapter reviews the related literature. The third chapter discusses the human development conditions of India and its states in contrast to its economic growth performance. It also briefly looks at the developmental experiences of two selected Indian states to understand the disparities between them in terms of human development. The final chapter, chapter four, presents the summary and conclusions of the study.

CHAPTER II: REVIEW OF LITERATURE

This chapter presents the review of related literature. It is divided into two sections. Section I broadly presents the international/global picture, including the review of works on the concepts of growth, development, human development, economic growth-human development relationship/linkages and the idea of human capital.

Section II presents the works on India's human development experiences. Studies on India, relating to the expenditure on education, health, social sectors and those dealing with the possible reasons for disparities in human development across states are covered in this section.

Section I:International Works

The study by **Atkinson and Marlier** (2011) concentrates on the significance of combating poverty and social exclusion to attain human development. They are concerned with national governments making policy in a global context such as the European Union (EU).This study examines the construction and use of social indicators.

Abraham(2011) studied the relationship between economic growth and human development in Nigeria with the aid of the error correction model. The results of his study found that there was a negative but insignificant relation with HD in the short run. However, the coefficient was found to be significant in the in the long run in Nigeria. This study suggests that although policies aimed at increasing growth could have an adverse impact on human development in the short run, in the long run, the equilibrium will be restored as the HDI adjusts to correct the equilibrium error. Thus, he suggests that policies aimed at achieving sustainable economic growth should be pursued as it would ultimately lead to human development.

Rout and Murthy(2010) presents a collection of scholarly articles in the area of human development and its various dimensions in India and provides practical recommendations in this context. Enhancement of the standard of living of the people of South Asia through increased economic cooperation among the member nations was an important objective in the formation of SAARC(South Asian Association for Regional Cooperation). Indira and Siddaraju in an article in the edited book by Rout and Murthy deals with the trends and variation in human development and gender aspects across the SAARC countries such as Bangladesh, Bhutan, India, Maldives,

Nepal, Pakistan and Sri Lanka. The period of study of this work was ten years from 1998.They observed that these nations fared low in human development as is reflected in their low ranks in human development and GDI. It was also noted that among these nations, Sri Lanka and Maldives had performed better than others in terms of human development.

Enhancement of social welfare is one among the important roles that any welfare oriented government aims to achieve and "the importance of public expenditure in the process is well recognized" as it helps "overcome the market failures that exacerbate poverty notes Ranjeeta(2010)**. Ranjeeta**(2010) attempted to make an international comparison of the trends and patterns of public expenditure on HD in India.

Yang and Hu(2008) investigated the regional disparity of human development in China. They adopted both one-dimensional and multi-dimensional cluster analysis to study the HDI data of China for 1982,1995,1999, and2003 and classified China's provinces into four tiers based on three basic aspects of development included in the HDI. Unlike the method adopted by international organizations like the UNDP for classification, the cluster analysis depends on the similarities of the observations with respect to clustering variable(s) as the basis of classification.

Lai(2000) employed the weighted principal component method on the HD indicators with the objective of measuring and analyzing the progress of HD in the world. He used the main principal component to quantify the temporal changes of HD of various selected countries by the proposed Z test. The trends of HD in china and Russia during the phase of market transition in these countries were analysed "in terms of the impact of public health as well as economic development". Spearman's rank correlation coefficient was used to estimate the association of the main principal component obtained from their study and the HDI published by the UNDP. The main **purpose** of this article is to use a multivariate statistical procedure to summarise the indicators of the three basic dimensions of HD as well as to "improve the comparability of HD of each country across space and time". For temporal analysis they used the Principal component analysis on China and India (as the two most populous developing countries),USA(as the largest developed country) and Russia (a large scale industrial nation).They performed the PCA on the 3 indicators of HD (Life expectancy at birth, adult literacy rate and the GDP per capita in

PPP$).The data for the study was obtained from the HDRs(1990-98).His observation is that the standard deviation of life expectancy at birth and the adult literacy rate have generally decreased over time, whereas the SD of GDP per capita has increased steadily. This suggests that since 1990,the quality of life expectancy at birth and the adult literacy rate have improved. But the inequality of standard of living among countries has increased. This study claims that the HD of the world as a whole has been stable over the period of 1990-98.He had also ranked the countries by the Principal component and found that the rankings of the least developed countries by the Principal component and that by the HDI of the UNDP are very similar. The last 10 countries by both these methods were the same (based on HDR 1998).Lai's study used the population size of each country as the weights on the observations. From his statistical studies Lai found that the HD reflected through the main principal component for the US, China and India has been stable since 1990.However, China's case is different and contradicts the popular image of a progress in China after reforms.

Human development is now widely recognized as the ultimate goal of the development process and economic growth is described as an imperfect proxy for more general welfare or as a means towards enhanced human development. Recent literature in this area involves discussions on the contrasts between economic growth and human development. Such discussions have broadened the definitions and goals of development. **Ranis(2004**) has studied the two way linkages between economic and human development as well as examined the policy implications of these linkages. Ranis has also reviewed some of the theoretical debates on EG/HD linkages and the conclusions suggested by empirical analysis. While examining the two way relationship between economic growth and human development, he points out four possible types of states in which the countries could be in. They are the 'virtuous cycle', 'vicious cycle', 'lopsided human development and 'lopsided economic growth' situations. Ranis' argument is that a high level of HD in the initial stages can help a nation move on to a virtuous cycle. Ranis(2004) notes that "in 50% of the favourable cases, early progress in HD meant that they were able to take advantage of policy reforms to generate growth". An important conclusion emerges from this study regarding development sequencing ,i.e., human development seems to be a necessary prerequisite for long term sustainable growth.

Boozer, Ranis et al(2003) explored the two way relationship between Economic Growth(EG)and Human Development(HD),based on an earlier work by Ranis, Stewart, and Ramirez(2000) who explored the dual causation between HD and EG. The connection between EG and HD is explained as two chains-Chain A running from EG to HD and Chain B running from HD to EG. They show that HD is not only a product of economic growth but also an important input to it. They found that HD plays an important role in explaining growth trajectories. The issue of sequencing is also dealt with. A strong sequencing implication of the study's findings is that HD must be given priority for the achievement of both higher EG and HD.

Abbas and Nasir(2002) tried to determine the effect of human capital on economic growth during the period 1970 to 1994 for Pakistan and Sri Lanka. Empirical evidence from their study also supports the idea that human capital plays a significant role in the growth of the economies for developing countries, especially for the two countries studied by them.

The effectiveness of government spending on education and health care in developing and transition economies was studied by **Gupta et al**(2002).They used cross sectional data for 50 countries to show that 'increased public expenditure on education and health care is associated with improvements in both access to and attainment in schools, and reduces mortality rates for infants and children'.

Literature on the concept of human development deals with its definition, measurement etc. **Sagar and Najam (1999**) deals with the idea of human development and the need to evolve improved conception of HD that would better reflect the current global realities and the future global aspirations. This implies that development itself is to be regarded as an open ended process of evolution and change.

Mundle(1998) deals with the interesting question of financing human development and analyses the public expenditure policies adopted by the advanced Asian economies(AAE).Such a study is of much relevance as the experiences of the AAEs with health ,education etc hold useful lessons for the developing countries in their pursuit for better quality of life. This study is based on the experiences of four AAEs-Japan, the Republic of Korea, Singapore and Taipei, China.This work looked into the aspects of public expenditure policies ,education and health strategies etc and

draws lessons from their experiences. He observes that on the whole, the policies of the AAEs for human resource financing turned out to be successful. The appropriate allocation of public expenditure, higher priority entrusted upon primary education(Mundle 1998) etc serve as useful lessons one could learn from the experience of East Asian countries**.** An important lesson is that the AAEs gave much emphasis on basic education at a very early stage of development, much more than the other countries in Asia. This study has attempted to throw light on the policies for financing human development by looking at what policies made the difference in East Asia-which ranged from fiscal prudence, the appropriate allocation of public expenditure, appropriate stage and sequence of introducing social health insurance etc. However, mechanically replicating policies adopted by one country by another is not desirable, as each country has its own circumstances, history, and culture.

Ravallion(1997) reviews what the HDRs have said about economic growth and human development. The 1996 HDR(UNDP ,1996) deals with economic growth and human development and stresses the 'diversity of country performance in improving human development indicators at given rates of growth. This work by Ravallion examines how compelling are the messages given in the HDRs for public action. It is observed that the HDRs are correct in arguing that "there is no guarantee that economic growth will benefit the large numbers of people in the world who lack the access to market and non-market goods needed to lead enjoyable and fulfilling lives". He also states that such observations should not deflect attention from the fact that economic growth plays an important role in reducing absolute poverty and in promoting human development.

Omkarnath(1997)examines the concept of capabilities developed by Amartya Sen, which is rooted in welfare theory. It is a comprehensive study of the idea of capabilities and it points to the importance of it being 'followed by a framework for studying development as a process-the process of expanding capabilities of people'.

Studies during the last three decades reveals the significant relationship between human capital and growth and role of public expenditure on education and healthcare. The concept of development itself is undergoing changes ,especially with reference to the context of Asian economies. Many of these studies highlight the need for financing human capital/development

for establishing human welfare. Sen's Capability Approach was in fact a breakthrough in extending the meaning of the concept of human development.

Section II: Economic Growth and Human Development in India

Mukherjee,Sacchindra(2014) in a working paper entitled "Three Decades of Human Development Across Indian States: Inclusive Growth or Perpetual Disparity?" stress the importance of the relationship between economic growth and human development and the importance of investment in human capital formation. He opines that cutting down expenditure on human development may seriously jeopardize long run economic growth opportunities. Government initiatives for human development in the present (such as SSA ,NRHM etc) would generate positive externalities for economic growth in the future. However there is a need to explore how and why human development achievements vary across Indian states.

Atmakuri et al (2014) studied the links between EG and HD in India during the period 1993-94 to 2004-05.The 15 major states were studied and the regression technique was adopted to test these links. The 'level wise analysis' and the 'change analysis' was done to explore the link for the starting and ending points of the study period and for the total study period respectively. For the level wise analysis per capita income values and HDI values for the starting point(1993-94)and ending point (2004-05) were used, whereas for the change analysis the growth rates of per capita income and HDI for the entire period of study were used. "The dummy variable model results of per capita income as dummy variable points out that there are significant differences between low and high growth group states for the level-wise analysis and the absence of differences between these groups for change analysis. On the contrary, the dummy variable model results of human development index as dummy variable shows that there are no significant differences between low and high human development group states for both level-wise and change analysis."

Hooda(2013) dealt with the changing pattern of public expenditure on health in India and examined the major issues and challenges. He claims that the public fund in health sector matters for better health outcomes. To understand the reasons for the unsatisfactory performance of health outcomes, there is a need to check whether India spends sizeable amount of public funds in health and whether the funds are allocated properly. He recommends an increase in health spending in India.

Goswami and Bezbaruah (2011) examined the impact of public expenditure on social sectors in India and its impact on human development during the post reform period .Their analysis revealed that variations in human development across states have more to do with their growth attainments than with the public expenditure on social sectors. The paper suggests the twin strategies of growth oriented economic reforms and improvements in the delivery mechanism for facilitating a more effective deployment of expenditures in the social sectors. Such a recommendation is based on their finding that the improvement in human development in India has been generally driven by the increase in per capita income. They did a regression analysis and their results show that "while the per capita income has a highly significant(significant at 1% level of significance) and positive coefficient, the CPCSSE(coefficient of per capita social sector expenditure) is statistically insignificant".

Ghosh(2011) evaluated the performance of 15 selected states of India with regard to health and education. This was done in the context of the commitments of the Indian Government for achieving the goals of 'inclusive growth', 'balanced regional development' and MDGs. The association of human development with per capita income and per capita social sector expenditure was studied by the author. The main finding of his study was that instead of relying on growth in per capita income to increase human development, a more effective way is to increase the per capita social sector expenditure on human development. The results of this study also points out that expenditure in social sector has stronger effects on human development than per capita income increase.

Another study on the interdependence between economic growth and human development was made **by Mukherjee and Chakraborty in 2011.**Their study analyses the evolving relationship between economic growth and human development for 28 major states in India during four time periods i.e.,1983,1993,1999-2000 and 2004-2005.It examines if per capita income (as an

indicator of economic growth) is influenced by human development and vice versa. The results of their study indicates that per capita income is not strictly being translated into human wellbeing. This raises a concern for the policy makers. Their results also indicates the rising influence of other variables such as development expenditures, in the determination of the human development achievements of a state.

India has made several national as well as sub national level studies on Human Development. UNDP(2010)[12] presents a very comprehensive report of the human development in of India and the various impacts the HD Reports could make in bringing about real impacts.

As noted by **Desai et al(2010)**[13] India is one of the first among the world's nations to put effort towards collecting information on various indicators of development through household surveys. As they point out, this information still remains the only available source since the past century. However, as suggested by Desai et al(2010) there is still a huge demand for data that addresses multiple aspects of development within a framework that is consistent. Such data will embolden the efforts of the researchers undertaking analytical studies to deal with the various aspects of development, notes Desai et al(2010).

The Indian state of Kerala was successful in obtaining remarkable achievements in human development, which **Chakraborty(2009)**points out, was largely the result of the active intervention of the government in the social sector. The state had given a high priority to social sector expenditure, which also resulted in large fiscal imbalances. However, he also highlights the fact that Kerala is now facing second generation problems of its much acclaimed model of development .Kerala had introduced decentralization in the 1990s as a step towards ensuring the path of its development so as to incorporate the needs and preferences of people from the grassroots level via the local level planning processes.

Sarala(2009)'s work examined whether increased public expenditure increase social sector outcomes for which it analysed whether education and health expenditure has impact on their

[12] UNDP India(2010)Human Development in India-Analysis to Action,compiled and edited by-Pia Lindstrom.
[13] "Desai, Sonalde B.., Dubey, Amaresh . Joshi, Brij Lal ., Sen, Mitali ., Sharif, Abusaleh.,and Vanneman , Reeve .(2010)HumanDevelopment in India-Challenges for a Society in Transition,Oxford University Press,New Delhi."

outcomes. It uses both theoretical and empirical tools for the study. It estimated a model for a panel of 15 states for a period of 25 years for the purpose of studying the long run relation between public expenditure and social services.

Tilak (2007)has made a comprehensive study of the Kothari Commission and its recommendations on financing education in India. A review of the current relevance ,the premises of the recommendations and the visionary approach adopted by the Commission is made by the author. The most significant recommendation of the commission was to increase the proportion of GNP allocated to education to 6 %.The National Policy on Education(1968) also reiterated the need and importance of investing in education to attain the target of 6% of the national income at the earliest.(Tilak 2007).However though the importance of education as an essential investment for the future has been recognized, the implementation of the recommendation has not yet been properly executed.

In 'Evolution of Social Security in the Lap of Public Action: Recounting the Experience of Kerala' (MPRA Paper No. 9691), and 'In the Vacuum of Public Action Social Security in Orissa: A Long Way to Go'(MPRA Paper No.9692), **K P, Kannan and Pillai N. Vijayamohanan** (2007) have made a critical appraisal of the historical development and experience of social security initiatives in Orissa and Kerala. These works provide insights into the role of public action in the development process in both states.

A study on similar lines as that of Boozer,Ranis et al(2003) was conducted by **Ghosh(2006**) on the two way nexus between economic growth and human development in 15 major states in India. The estimates of the cross sectional regressions provided strong evidence of regional convergence in human development despite considerable divergence in real per capita income. The results of their study suggests that the sequencing of policy should be such that the HD induced growth process is strengthened in order to uplift states from the vicious to virtuous cycle category.

"Human Development in India: Regional Pattern and Policy Issues", a **2005** study by **Rajarshi Majumdar** attempts to trace the reasons for the regional disparity in human development in

India. It is suggested that human development in the states are positively associated with the infrastructure availability indices.

P Mohanan Pillai, and N Shanta in an article published in 2005 focused on Kerala's development experience and reexamined whether there was a structural change in the economy. They highlighted the factors other than remittances which could have led to the growth turnaround of the state of Kerala. The early development of banking as well as the high levels of literacy are highlighted. Of these the role of credit Kerala's growth process as reflected in the high contribution by the banking and insurance sector to growth is also stressed. They analysed the NSDP trends of Kerala for the period 1970-71 to 1999-00 (at 1980-81 prices).

Chakraborty(2005) tried to analyse the development narrative of Kerala with special emphasis on the "emerging narrative of growth and its linkages with past human development". He noted that there are two major narratives of Kerala's development experience; a pessimistic narrative of unsustainability and crisis, and another one celebrating the achievement of the model. However, of these two, the pessimistic narrative was emerging as the dominant one. The interesting observation which Chakraborty(2005) makes is that a new narrative is in the making. He based such an argument on two prominent observations-First, Kerala has done well in terms of human development even though the economic growth was slow for a long period in the past. Second, "the growth in SDP in the past 15 years has been no less than the all India average".Moreover, his observation that on comparing in terms of its per capita income Kerala to the all India average, it is no longer a "relatively poor state" is significant. As noted in his work, several other studies like Subramanian and Azeez (2000), Ahluwalia 2002,Pushpangadan (2003) and Jeromi (2003) etc have supported the argument that Kerala had been experiencing fairly good growth since the end of the 1980s.

Dholakia(2003) studied the trends and regional disparity in economic and human development in India for the last two decades. It claims that the Indian regional data suggests two-way causality between human and economic development. The claim is that it takes about eight years for HDI's to influence PCI, but PCI affects the HDI's in two years. The paper concludes by

suggesting that high economic growth would address other concerns. However it would be relevant to review the situation in the latest decade.

Joseph(2003) undertook a comparative study of the performance the southern states in India. The performance of Kerala, Andhra Pradesh and Karnataka in economic as well as social sectors during the past decade were studied. Comparisons and contrasts of the states were made with each other and the all india average figures in these sectors. The suggestion made in this article is that to attain higher growth, these states need the deepen reforms and design strategies depending on their particular circumstances.

Shand,Ric and Bhide, S.(2000) examined the structural characteristics, income and size of Indian states. Their period of study was 1970-71 to 1995-96.The total and per capita NSDP for this period was analysed. They observed that growth in agriculture sector is positively relatedto the overall growth and hence reform in this sector will bring forth benefits. They mention that infrastructure and human development are also important determinants.

In their work 'Indian Development-Selected Regional Perspectives' (1996) Jean Dreze and Amartya Sen focuses on the lessons that India can learn from its own regional diversity and experiences. With its extremely heterogeneous character, the achievements and failures of the Indian economy and society needs to be examined in adequate detail. The regional perspectives have been extensively explored in this book and it provides stimulating and radiant insights about the lessons to be learned from both successes and failures in the development experiences of different Indian states.

In 'India Economic Development and Social Opportunity'(1995),Jean Dreze and Amartya Sen have made interesting observations based on the case studies of Kerala (by V.K.Ramachandran),Uttar Pradesh (by Jean Dreze and Haris Gazdar) and West Bengal(by Sunil Sengupta and Haris Gazdar). V.K.Ramachandran's case study investigates Kerala's experience in improving the living conditions at an early stage of economic development. This study traces the role of public action in promoting a range of social opportunities relating to elementary education, the widespread and equitable provision of health care and other public services. On the other hand, Jean Dreze and Haris Gazdar in their case study on Uttar Pradesh, points out to the public neglect of the very same opportunities in the state as the main reason for its failures.

Indrayan et al(1991) studied the trend of India's HDI for three decades. The HDIs are obtained for the years 1971,1981,and 1991.One of their main findings was that only 3 states in India(Kerala, Maharashtra, and Punjab) reached a medium level of HD in the year 1991 with HDI greater than or equal to 0.5.All the other 13 major states had either low or very low levels of HDI. The most striking aspect is that these 3 more developed states comprise only 15.3 per cent of India's population. Yet another finding was that there exists noticeable disparities between the states-the lowest HDI in 1991 was for Bihar(0.332) and the highest was for Kerala(0.558).They suggest that region specific programmes are required to overcome such disparities.

Extensive studies have been done in India in addressing the regional disparities in development, in defining the scope and limitations of HDI as well as in public expenditure on social sectors. These studies on regional disparities help to design strategies to achieve balanced development and inclusive growth. However, enquiries on the factors leading to such development conditions would aid in policy formulations.

CHAPTER III: TRENDS AND PATTERNS OF HUMAN DEVELOPMENT IN INDIA

This chapter is divided into **two** sections. S**ection I** reviews the state of human development in India and its states using the HDI as a proxy for human development and tries to classify states on the basis of its development path. It also takes a more closer look at the human development condition in India by examining the individual components of the HDI, focusing on the education index, and the health index. These are viewed in contrast to the economic growth performance as well. **Section II** attempts to review the human development experience of selected Indian states representing the best and worst performers in HDI ranking, to identify the possible factors causing such conditions.

Section I: The State of Human Development in India-A Review

3.1.1 Introduction

The world we live in is filled with staggering contradictions. The contrasts between the developed and developing countries and their state of economic growth and human development presents a challenging scenario. At one extreme there are countries like USA with per capita GNI of $46730(2009) and on the other end, there are countries like Liberia with per capita GNI of $290.(As cited by Kapila, Uma(2013)from the World Bank Report (2011)).[14] Interestingly, as Kapila(2013) noted from the World Development Report2011,only around 16.5 percent of world population lives in the high income developed countries such as USA, Canada, Australia, countries of Western Europe, New Zealand and some of the Asian nations like Japan, Singapore, Hong Kong. At the same time, around 83.5% of the population lives in countries which are in the low and middle income developing economy category.

As per the latest HDR[15] of the UNDP, there are 49 countries in the 'very high human development' category, with Norway having an HDI value of 0.944 down to Argentina with HDI value of 0.808.[16]In the high human development category, there are 53 countries starting from

[14] The World Bank(2011)World Development Report.
[15] UNDP(2014).Human Development Report2014-'Sustaining Human Preogress: ReducingVulnerabilities and Building Resilience'.
[16] UNDP(2014)HDR gives HDI values of the year 2013.

Uruguay with an HDI of 0.790 till Dominican Republic with HDI value of 0.700.Starting with Maldives ranked 103rd with an HDI value of 0.698, to Equatorial Guinea ranked 144th in HDI and with an HDI value of 0.556,there are 42 countries in the medium human development category. The low human development category includes 43 countries. Nepal(HDI=0.540) with an HDI rank of 145 to Niger(HDI =0.337) with an HDI rank of 187 comes in this category of 'low human development' countries. **India** figures towards the bottom of countries in the **medium human development** category, with just 9 countries after it in the list(HDR2014).In terms of income category, as per the 2014 WDR, India falls in the **lower middle income group**.

Moreover, it would be interesting to look at the World Bank's classification of countries based on GNI per capita as well. It classifies each country as

i) low income,
ii) middle income(sub divided into lower middle and upper middle), or
iii) high income economies.

As per the world development report 2014[17] of the World Bank, the classification of countries into low middle and high income is done based on the following criteria:

Low income economies: Low income economies are those economies with a GNI per capita of $1,035 or less in 2012.

Middle income economies:Those which have a GNI per capita of more than $1035 but less than$12,616 are grouped as middle income economies.

"Lower middle income and upper middle income economies are separated at a GNI per capita of $4086"(World Bank,2014).

High income economies: Those with a GNI per capita of $12,616 or more are grouped as high income economies.

Based on this criteria, the World Development Report 2014 has listed the countries that fall in each group. The details are as follows:

[17] World Bank(2014)World Development Report 2014.Income classification are set every year on July1.
If any change is made in the classification, "aggregates based on new income classifications are recalculated for all past periods to ensure that a consistent time series id maintained"(pp.293).

Under the **low income** group there are 32 countries including Afghanistan, Bangladesh, Ethiopia, Myanmar, Nepal, Niger, Somalia, Togo, Uganda, Zimbabwe etc.

The lower middle income and upper middle income countries together include 66 countries forming the **middle income group**. **India,** Sri Lanka, Nigeria, Pakistan, Indonesia, Armenia etc fall in the 'lower middle income' group , while countries like China, Brazil, Ecuador, Malasia, South Africa, Thailand etc come under upper middle income group.

35 countries including US, UK, Sweden, UAE, France, Germany, Australia, Norway, Singapore, Saudi Arabia etc are classified as '**high income' economies**.

A list of a few selected countries in terms of HDI scores in each human development category and the corresponding income category into which they fall has been shown in Table 3.1.

Table 3.1: High, Medium, Low HD countries and Income Group of these Countries, 2014

High HD countries	**Income classification**
Norway	High income
Australia	High income
Switzerland	High income
Netherlands	High income
US	High income
France	High income
Germany	High income
United Kingdom	High income
Singapore	High income
Saudi Arabia.	High income
Sri Lanka	Lower middle income
China	Upper middle income
Medium HD countries	**Income classification**
Maldives	High income
Turkmenistan	Upper middle income
Samoa	High income

INDIA	Lower middle income
Bangladesh	Low income
Low HD	**Income classification**
Nepal	Low income
Pakistan	Lower middle income
Kenya	Low income
Angola	Upper middle income
Myanmar	Low income
Central African Republic	Low income

Source-Human Development Report2014,WDR2014;Note:Under high HD group we consider very high HD and high HD countries together. Note:UNDP(2014)gives HDI values of 2013.

It may be generally observed from Table 3.1 that most of the top, high HD countries are also in high income group and most of the low HD countries are in the low income group. However, among these, Sri Lanka seems to be an exception , being in the high HD and lower middle income categories. India is having medium HD and is in the lower middle income group of countries as per the World Bank classification in 2014.

From Tables3.2 and 3.3 given below also, it was seen that the relative rankings of these selected countries in terms of human development and GDP per capita, most of these countries do not show much difference in their rankings in these two aspects. Those having high GDP per capita ranks were also having high HD ranks. In 1980, India had a better relative HDI rank (14) than its relative GDP per capita rank(15).By 2011,India's relative rank among these nations in terms of GDP improved to 14,while its relative position in HDI rank still remained the same as in 1980 ,with a rank of 14 among these countries. Does this show that India performed better on the economic growh front than on the human development front over these years? Given such a global context, it would be relevant to look at the case of India's performance in human development over the years.

Table 3.2: GDP per capita and HDI of countries, 1980

Countries	**HDI**	**GDP per capita (2005 PPP)**
INDIA	0.345(14)	879 (15)
Norway	0.804(4)	26205(3)
Australia	0.857(1)	19770(8)
US	0.843(2)	25510(4)
Netherlands	0.799(5)	22271(5)
Germany	0.738 (8)	20861(6)
Switzerland	0.818(3)	28493(2)
Japan	0.788(6)	17835(9)
France	0.728(9)	20264(7)
United kingdom	0.748(7)	17382(10)
Saudi Arabia	0.575(10)	33903(1)
Brazil	0.522(12)	7567(11)
Sri Lanka	0.557(11)	1553(12)
China	0.407(13)	524(18)
Pakistan	0.337(15)	1224(13)
Bangladesh	0.312(16)	677(16)
Nepal	0.234(18)	567(17)
Central African Republic	0.285(17)	955(14)

Source: Compiled from UNDP(2013)HDR data. Note:In brackets are given the relative position of countries within these 18 selected countries-GDP per capita and HDI

Table 3.3: GDP per capita and HDI of countries, 2011

Countries	HDI	**GDP per capita (2005 PPP)**
INDIA	0.551(14)	3203(14)
Norway	0.953(1)	46982(1)
Australia	0.936(2)	34548(5)
US	0.936(2)	42486(2)
Netherlands	0.921(4)	37251(4)

Germany	0.919(5)	34437(6)
Switzerland	0.912(6)	37979(3)
Japan	0.91(7)	30660(8)
France	0.893(8)	29819(9)
United kingdom	0.875(9)	32474(7)
Saudi Arabia	0.78(10)	21430(10)
Brazil	0.728(11)	10278(11)
Sri Lanka	0.711((12)	4929(13)
China	0.695(13)	7418(12)
Pakistan	0.513(15)	2424(15)
Bangladesh	0.511(16)	1568(16)
Nepal	0.46(17)	1102(17)
Central African Republic	0.348(18)	716(18)

Source: Compiled from UNDP(2013)HDR.

3.1. 2 Human Development in India

Being the second most populous country in the world, second only to China, as well as one of the fastest growing economies of the world, India's experience with human development deserves significant attention. It would be interesting to look at the experience of India and its states in terms of human development to understand where we stand.

Moreover**,** the India Human Development Report(IHDR)2011 [18]notes that the levels of human development in India have been low largely due to the social, economic, and other inequalities that persist in this country**.** It claims that, ever since independence several efforts were made whose results have gradually and definitively, begun to be visible. At the same time, it also admits that advancing human development in the country entails several challenges and obstacles. An important suggestion put forward by the IHDR2011 is that there is an imperative need to devise key policy initiatives to increase inputs in social and physical infrastructure to strengthen human attainments. (Planning Commission2011).

[18] Published by the Planning Commission,Govt of India

Since the Human Development Index (HDI) is generally used as a proxy for human development, the HDI performance of India over the years is presented in Table 2:India's HDI values(1980-2013).

Table 3.4:India's HDI values(1980-2013)

Year	India's HDI Value
1980	0.369
1990	0.431
2000	0.483
2005	0.527
2006	0.537
2007	0.547
2008	0.554
2009	0.560
2010	0.570
2011	0.581
2012	0.583
2013	0.586

Source:UNDP 2014 HDR.

It is clear that in absolute terms, India's HDI value has increased from 0.369 to 0.586 in 2013.Moreover,the average annual HDI growth (%) during 1980-1990 was 1.58 ,during 1990-2000 it was 1.15 and during 2000-2013 it was 1.49(UNDP HDR 2014).However, it is to be noted that India is still in the group of medium hd countries after graduating from the low human development category. India's global ranking in HDI is 135 out of 187 countries[19].The IHDR 2011 claims that there has been a 21% increase in HDI during the period 1999-2000 to 2007-08.

[19] As per UNDP(2014)HDR 2014

It attributes this increase in HDI to the improvement in the education index by around 28% during this period.

It would be interesting to see the difference in the growth rates of India in terms of HDI and GDP per capita, reflecting the human development and economic growth performances over the years. The following table3.5 shows the growth rates of HDI and GDP of India during the last three decades.

Table 3.5 : Growth rates of HDI and GDP per capita

Time period	GDP per capita	HDI
1980-81 to 1990-91	3.0	1.58
1990-91 to2000-01	4.0	1.15
2000-01 to 2010-11	6.0	1.49

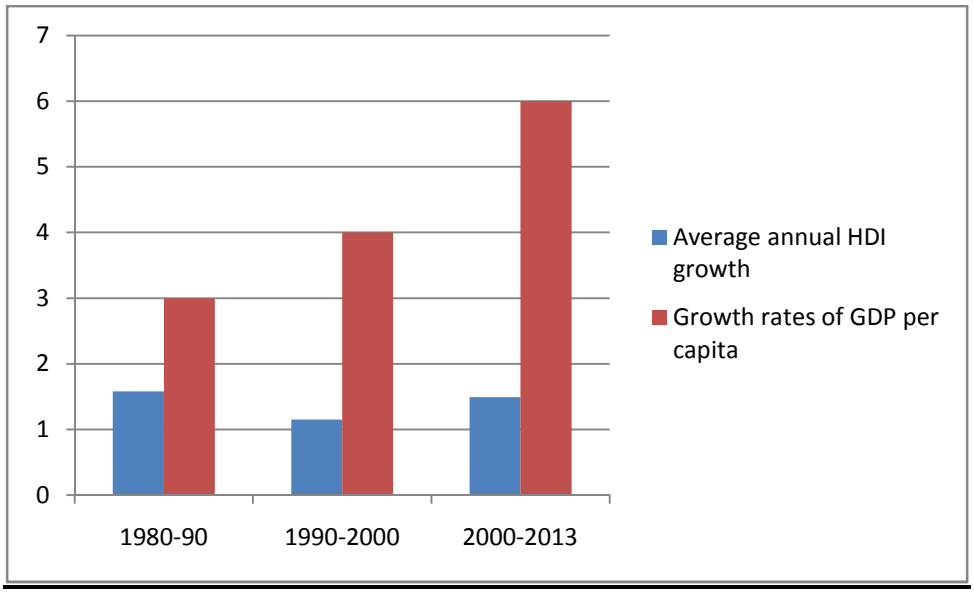
Source: UNDP(2014)HDR2014 and Sen (2013,pp.23 table 2.1).[20]

Figure 2 shows the growth rates of HDI and per capita GDP of India on the basis of Table 3.5. It can be seen that the growth rate of GDP per capita has increased over the years, whereas the annual average HDI growth rates are far less than that of GDP per capita. No much significant change can be seen in the growth rate of HDI of India over the years. It was 1.58 in 1980-90 and even in the latest decade it is 1.49. This directs attention to the contrasting picture and highlights

[20] Note: GDP per capita figures are from Sen (2013,pp.23 table 2.1),which gives the rate of growth of GDP per capita corresponding to 1980-81to 1990-91,1990-91 to 2000-2001 and 2000-2001 to 2010-2011.GDP per capita is at constant 2004-05 prices, which is calculated by subtracting population growth rate from GDP growth rate. Average annual HDI growth in percentage for 1980-90,1990-2000 and 2000-2013 from UNDP 2014 is given in this table.

the need to put more emphasis on enhancing the rate of improvement of the human development conditions along with the achievements in economic growth.

Fig 2:Growth rates of GDP per capita and HDI of India-1980-2013



Source: UNDP(2014)HDR for HDI ,GDP per capita data is from Sen(2013).Note: HDI values correspond to 1980-90,1990-2000,2000-2013 and GDP pc values correspond to 1980-81to 1990-91,1990-91 to2000-01,2000-01 to 2010-11.

Human development in India-A sub-national profile

However it is also important to look at the state-level HDI of India in detail to have a better understanding of the human development(HD) condition in India. The IHDR2011 defines and calculates the HDI for India as follows :

"The Human Development Index (HDI) is a composite index of outcome indicators in three dimensions:

a. A long and healthy life, as reflected in life expectancy at birth.

b. The acquisition of education and knowledge, as reflected in the mean years of schooling (adjusted for out of school children) and literacy rate (age 7 years and above).

c. The standard of living and command over resources, as reflected in the monthly per capita expenditure adjusted for inflation and inequality."(pp 2).

Table 3.6 presents the HDI value and ranks of Indian states in the last three decades.

Table 3.6: HDI Value & Rank of 15 Selected Indian States for 1981, 1991, 1999-2000 and 2001, 2007-8

States/UT	1981 value	1981 rank	1991 value	1991 rank	2001 value	2001 rank	1999-2000 value	1999-2000 rank	2007-8 value	2007-8 Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10	0.368	10	0.473	9
Assam	0.272	10	0.348	10	0.386	14	0.336	11	0.444	10
Bihar	0.237	15	0.308	15	0.367	15	0.292	13	0.367	14
Gujarat	0.360	4	0.431	6	0.479	6	0.466	6	0.527	6
Haryana	0.360	5	0.443	5	0.509	5	0.501	3	0.552	5
Karnataka	0.346	6	0.412	7	0.478	7	0.432	7	0.519	7
Kerala	0.500	1	0.591	1	0.638	1	0.677	1	0.79	1
M.P	0.245	14	0.328	13	0.394	12	0.285	14	0.375	13
Maharashtra	0.363	3	0.452	4	0.523	4	0.501	4	0.572	3
Orissa	0.267	11	0.345	12	0.404	11	0.275	15	0.362	15
Punjab	0.411	2	0.475	2	0.537	2	0.543	2	0.605	2
Rajastan	0.256	12	0.347	11	0.424	9	0.387	9	0.434	11
TN	0.343	7	0.466	3	0.531	3	0.480	5	0.570	4
UP	0.255	13	0.314	14	0.388	13	0.316	12	0.380	12
W. Bengal	0.305	8	0.404	8	0.472	8	0.422	8	0.492	8
All India	0.302		0.381		0.472		0.387		0.467	

Source: Compiled from NHDR 2011 and IHDR2011. (Data from 1981 to 2001 is taken from NHDR 2001. 1999-00 and 2007-8 data is obtained from India HDR 2011,which gives HDI 2007-8 values)

It can be observed from table 3.6 that the relative positions of the Indian states in terms of HDI has remained almost the same throughout the last 3 decades. Kerala is the state that topped the HDI ranking list in all these years and has consistently maintained the lead in HD outcomes. On the other hand, among these selected 15 major states of India, Bihar has had the lowest ranking in HDI from 1981 to 2001.In 1999-2000 and 2007-8 it was Orissa which came in the last rank among these selected states.

The difference between the scores of lowest HDI state (0.237 Bihar) and highest HDI(0.500 Kerala) in 1981 was 0.263. In 1991 the difference between the top and bottom rank states (Kerala with .591 and Bihar with HDI of 0.308) was 0.283 and in 2001, it was 0.428 (Kerala 0.79 and Orissa 0.362).The difference between the highest and lowest HDI values seems to be on the rise, which might be indicative of the inter state disparities in human development among the Indian states.

The following table 3.7 shows the descriptive statistics of states' HDI in each of the time points taken for the study (i.e., period 1981 to 2007-08.).

Table 3.7: Descriptive statistics of states' HDI(1981 to 2007-08)

	N	Minimum	Maximum	Mean	SD
HDI_1981	16	0.237(Bihar)	0.500(Kerala)	0.320	0.070198
HDI_1991	16	0.308(Bihar)	0.591(Kerala)	0.40138	0.074197
HDI_2001	16	0.367(Bihar)	0.638(Kerala)	0.46362	0.072947
HDI_1999-00	16	0.275(Orissa)	0.677(Kerala)	0.41675	0.109051
HDI_2007-08	16	0.362(Orissa)	0.790(Kerala)	0.49556	0.0111001

Source: Computed from NHDR and IHDR data on HDI. Note:N=16 because it includes All India value as well.

From Table3.7 it may be observed that in absolute terms the HDI score of India's states have been increasing. The minimum ,maximum as well as the mean of HDI values of the states have

increased in this 3 decade period.(except in1999-00 where the minimum and mean HDI declined. However , it is also seen that the Standard Deviation of HDI values have been showing a rising trend over the years. It was 0.070 in 1981,which increased to 0.111 by 2007-08.This indicates that the inter state HDI performance of states show much difference.

Following the method of arbitrary division of index values used by **Indrayan et al(1999),** here an attempt is made to classify the Indian states into very low, low and medium categories on the basis of their HDI values.. The arbitrary division followed by Indrayan et al(1999) is as follows. If Index value is in the range 0.00-0.30 it may be called the 'very low' category, (0.30-0.50) is low and (0.50-0.80) is medium category.[21]Table 3.8 shows the states in each of these HDI categories during 1981,1991,2001,and 2007-8.

Table 3.8 :Classification of States

State	1981	1991	2001	2007-08
Andhra Pradesh	Very low HDI	Low HDI	Low HDI	Low HDI
Assam	Very low HDI	Low HDI	Low HDI	Low HDI
Bihar	Very low HDI	Low HDI	Low HDI	Low HDI
Gujarat	Low HDI	Low HDI	Low HDI	Medium HDI
Haryana	Low HDI	Low HDI	Medium HDI	Medium HDI
Karnataka	Low HDI	Low HDI	Low HDI	Medium HDI
Kerala	Medium HDI	Medium HDI	Medium HDI	Medium HDI
M.P	Very low HDI	Low HDI	Low HDI	Low HDI
Maharashtra	Low HDI	Low HDI	Medium HDI	Medium HDI
Orissa	Very low HDI	Low HDI	Low HDI	Low HDI
Punjab	Low HDI	Low HDI	Medium HDI	Medium HDI

[21] As per the UNDP[2014] classification scheme, the range is different. As per the 2014 HDR methodology of classifying the countries on the basis of HDI performance, countries with an HDI of less than 0.550 are low HD countries. Medium HD countries are those with HDI of 0.550-0.699.Those falling in the HDI range of 0.700-0.799 for high human development group, and those with 0.800 or greater has very high hd.(HDR2014,pp.156).

Rajastan	Very low HDI	Low HDI	Low HDI	Low HDI
TN	Low HDI	Low HDI	Medium HDI	Medium HDI
UP	Very low HDI	Low HDI	Low HDI	Low HDI
W. Bengal	Low HDI	Low HDI	Low HDI	Low HDI
All India	Low HDI	Low HDI	Low HDI	Low HDI

Source: Compiled using HDI data from NHDR,IHDR .

It can be seen that in 1981 and 1991, Kerala was the only State in the medium HDI category (following the classification criteria used by Indrayan et al(1999). Haryana(0.509), Along with Kerala(0.638),three more states, namely, Maharashtra(0.523),Punjab(0.537),TN(0.531) joined this group in 2001.By 2007-08, the states in medium HDI group include Gujarat(0.527), Haryana(0.552), Karnataka(0.519), Kerala(0.79), Maharashtra(0.572), Punjab(0.605), TN(0.570).The number of states in the medium HDI group seems to have increased from just one in 1981 and 1991 to 5 in 2001 and 7 in 2007-08.It seems that certain states are improving their HDI scores and moving to the category of medium HDI. However, the low performers in HDI such as Assam, Bihar, Orissa, Rajastan etc still remained in the low HDI group which points out to the need to make concerted efforts to uplift these states.

Also, it would be interesting to examine the performance of the 15 selected states in India in terms of their development condition and to classify them accordingly.

3.1.3 Human Development and Economic Growth :Experience of Indian States

It is observed from literature (like Ranis 2004) on the relationship between economic growth and human development that those countries which followed a path of development starting from emphasizing on human development were more successful in moving onto virtuous cycles, rather than those which took an economic growth first strategy. In such a context it would be relevant to examine how India's experience has been over the last decades.

Human development and economic growth are integral aspects of the development process. Of late, there is a general view that economic growth is to be seen as a means to achieve the ultimate aim of development, i.e., enhanced human welfare.(Ranis,2004). Such broader views of development, such as those propounded by Amartya Sen, Mahbub-ul-Haq, etc are enriching and more people centred. It is important to remember that higher growth figures need not always

mean better life to the people. However, it would also be interesting to see how these two aspects of development, i.e., economic growth and human development are related, especially in India, which is the second most populous country in the world. Ranis(2004) pointed out that ,as enhancement of freedom and capabilities will increase economic performance, HD will affect economic growth (EG).On the other hand, increased income will increase the range of capabilities and choices available to the people and thus EG will enhance HD. Such kind of inter relations and the two way linkages between EG and HD were explored in Ranis(2004).It is also interesting to analyse such inter relations in a context in which many countries like Sri Lanka, China ,Costa Rica and the Indian state of Kerala were able to achieve better levels of human development than could be expected from their GNP or real income per head performance (Anand and Sen,2000).

The joint HD-EG linkages is worth examining because the success of a development path followed by a state or country, depends on how strong these linkages are. Ranis (2004) describes the various possible states that inter-relations between EG and HD could result in. As he points out nations may enter into a vicious cycle, virtuous cycle or a lopsided state.

If there is high growth and high human development levels, then the nation could be in a '**virtuous cycle'**. A nation is said to be in a **vicious cycle**, if there exists low growth and low rates of improvement in HD. In these states EG and HD reinforce each other and there exists a mutual relationship, which will either lead to an **upward spiral of development** or result in a **poverty trap**, depending on the strength of the linkage between EG and HD.The **lopsidedness** can be of two types-one,with relatively good growth and relatively poor HD or vice versa(Ranis2004).

To categorise the Indian states on this basis into vicious, virtuous, lopsided HD/EG state, the methodology similar to the one used by Ghosh(2006) is adopted. The HDI and Per Capita Net State Domestic Product at factor cost (PCNSDP at Factor Cost) values of each of the 15 major states are taken. HDI values are obtained from NHDR 2001 and IHDR 2011.PCNSDP at factor cost at constant prices are obtained from RBI Handbook on Indian economy.The following graphs compare the states 'performance on HD and EG with all India average HDI and PCNDP

at 1999-00 prices. The horizontal line represents the all India HDI value while the vertical line is the per capita NDP of India at 1999-2000 prices of the year under study.

As **Ghosh (2006**) describes, the virtuous cycle is represented in the North East quadrant, and the vicious cycle by the South West quadrant. The south east and north west represent lopsided EG and lopsided HD categories respectively as shown in Fig.3. By observing the movement of the states over quadrants one may trace the direction of development process in these states.

Figure 3: EG-HD classification

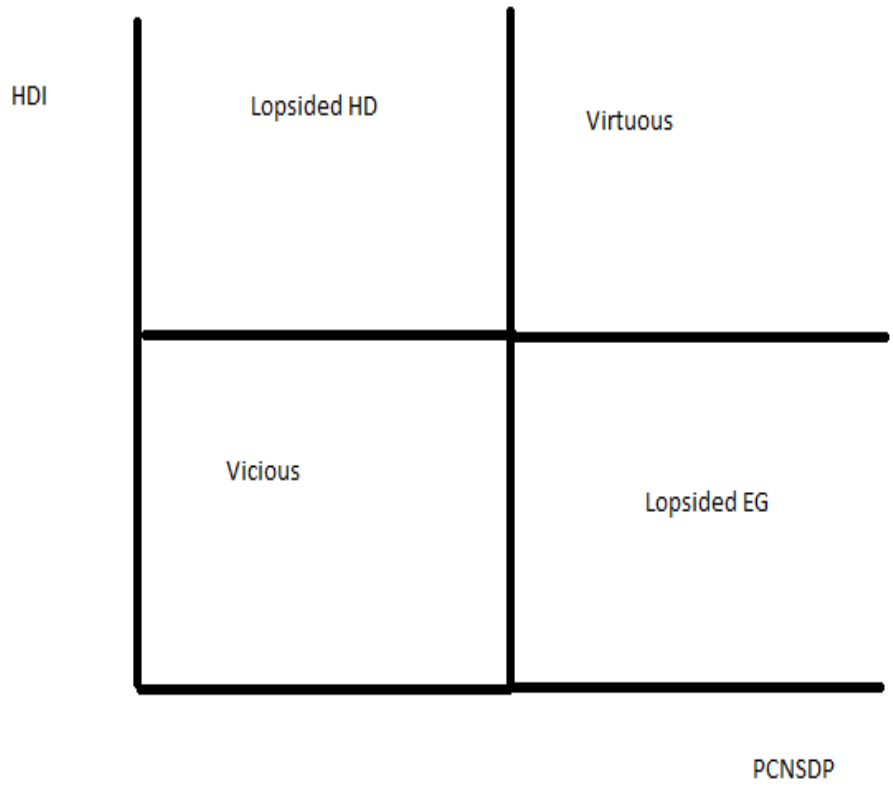
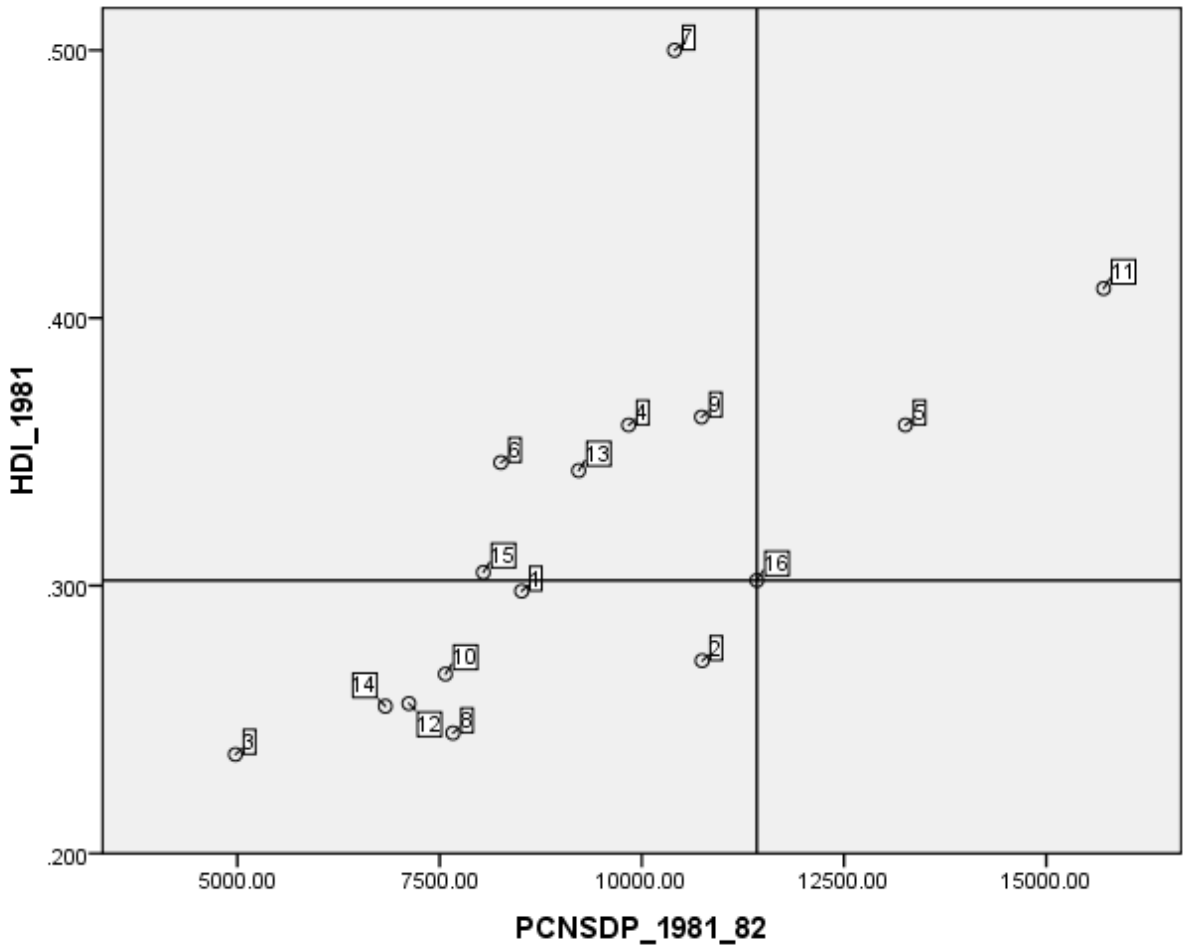


Figure4: HDI vs PCNSDP 1981



In Figure4, the reference lines are the HDI value for all India and and per capita NDP for the year 1981-82. PCNSDP and PCNDP are at 1999-2000 base year prices. All India HDI is 0.302 and PCNSDP is 11423.16.

It can be seen that in 1981, there were six states in the lopsided human development category. It includes Kerala, Karnataka, Tamil Nadu, Maharashtra, West Bengal, Gujarat. States in this category have higher than all India human development indicators score, but lower than national NDP per capita.

On the other hand states like Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh, Orissa, Andhra Pradesh and Assam were in the low human development, low economic growth quadrant known as the vicious catrgory. Seven states out of the fifteen selected states of India fall into this group

in 1981.While none figured in the lopsided economic growth category, just two states, Haryana and Punjab were in the Virtuous cycle category in 1981 as seen from Fig.4.

Figure5: HDI Vs PCNSDP 1991

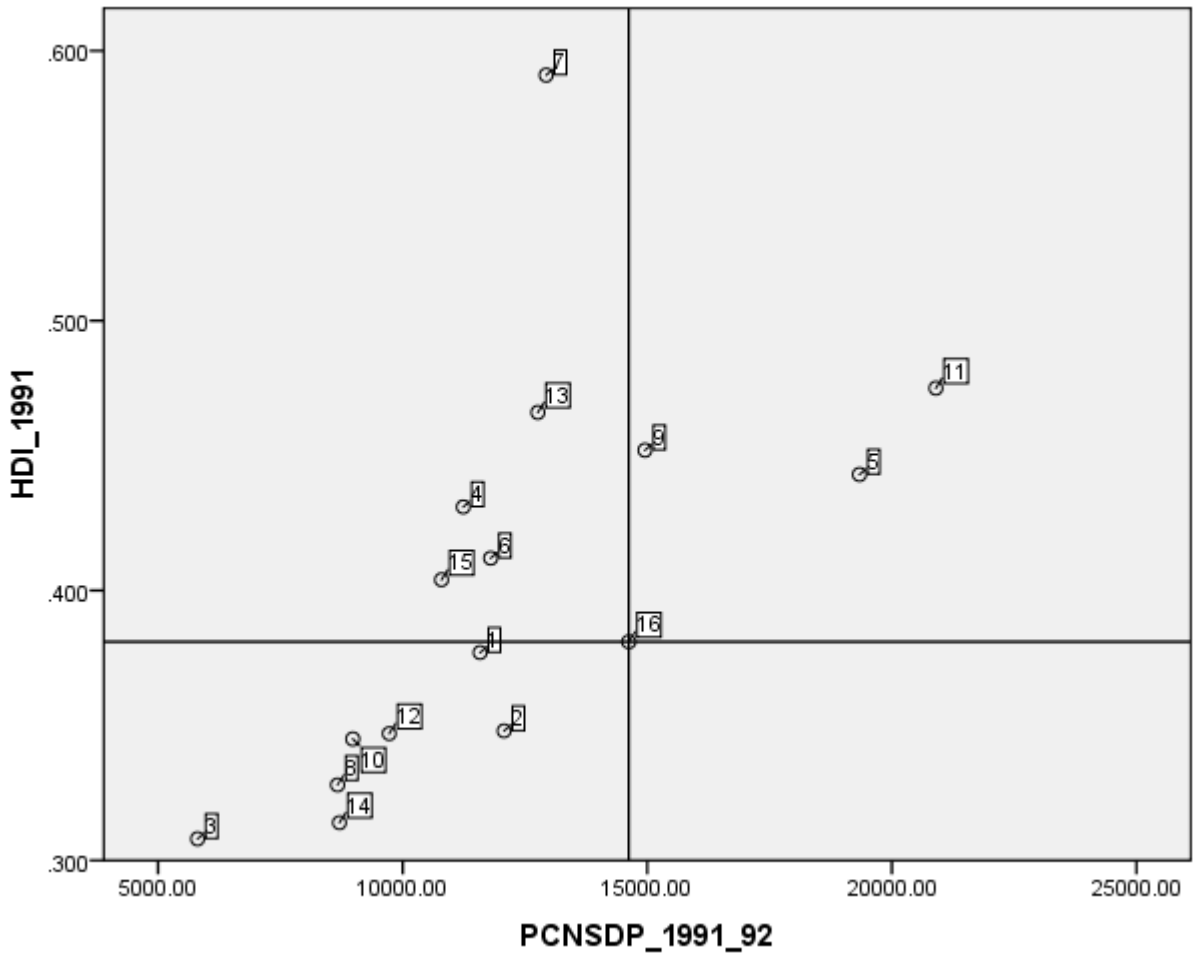


Fig.5 has All India HDI of 0.381 for 1991 as the reference line (horizontal line).The vertical line is the PCNDP of 14621.39 for 1991-92 at 1999-00 prices. In 1991 also Kerala, T.N, Gujarat, West Bengal and Karnataka were in the lopsided human development group. Maharastra moved out of the group to the virtuous category, making the number of states in lopsided HD as five. In vicious category there were seven states such as Bihar, Orissa, UP, MP, Rajastan, Andhra and

Assam. No state was in the category of ecomonic growth lopsidedness. However, Punjab, Haryana and Maharashtra were seen to be in the virtuous category.

Figure 6:HDI Vs PCNSDP 1999-2000

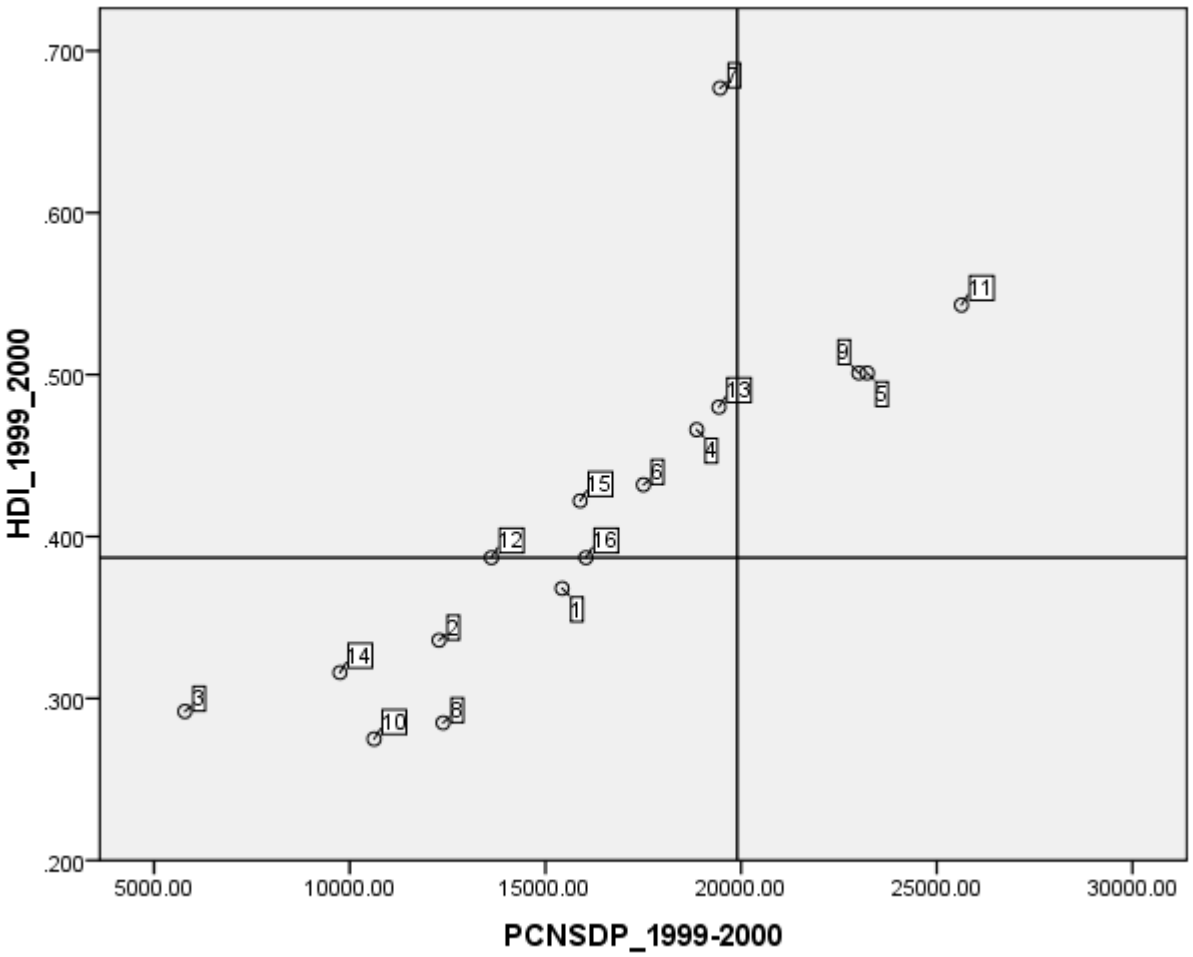


Fig6 shows HDI 1999-00 Vs PCNSDP 99-00 at 99-00 base year and has all India HDI of 0.387 and PCNDP of 19901.31 as reference lines. Here five states were in lopsided HD, six and three respectively in vicious and virtouos categories.

Fig.7:HDI Vs PCNSDP 2001

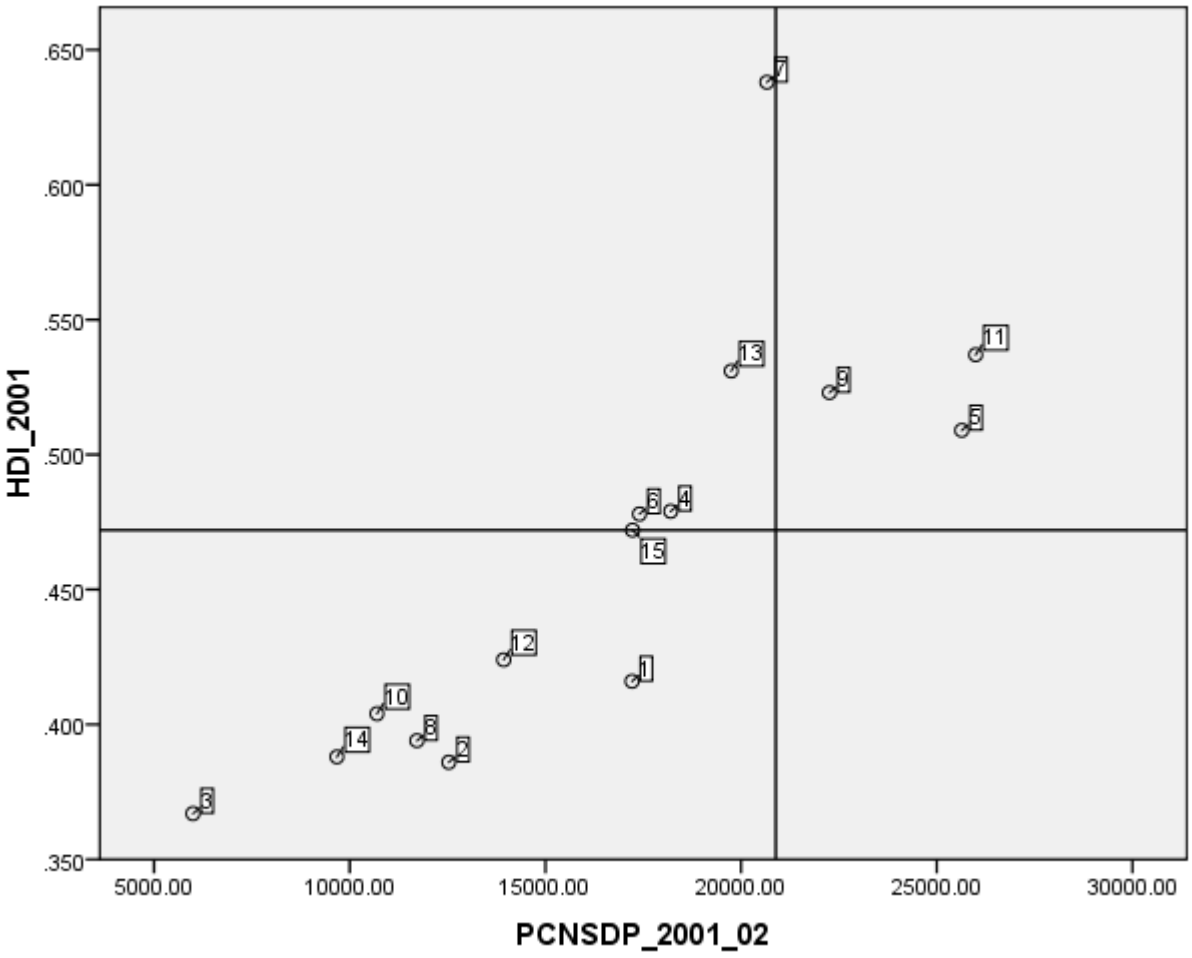


Fig.7 shows HDI 2001 vs PCNSDP 2001-02 and has all India HDI of 0.472 and PCNDP of 20887.66 as reference lines. By this time, only four states remained in lopsided human development but seven states still seems to be locked up in the vicious category. Punjab, Maharashtra, and Haryana were in the high human development and economic growth group.

Fig.8:HDI Vs PCNSDP 2007-08

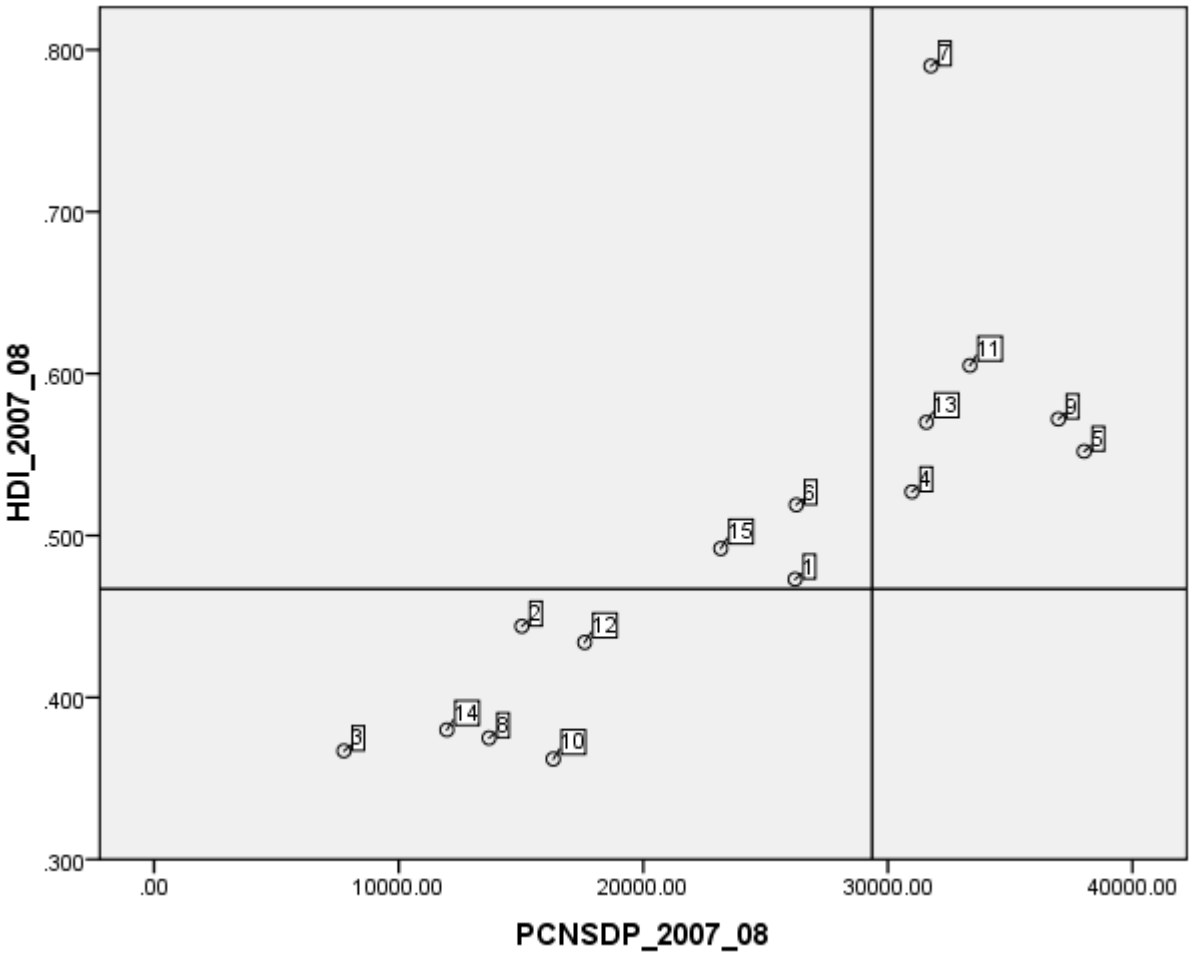


Fig.8 shows HDI 2007-08 vs PCNSDP 2007-8 has HDI of 0.467 and PCNDP of 29357.86 as reference lines dividing the states into different groups. The state of Kerala has moved out of the lopsided human development condition to the virtuous category,which is an interesting change. After having long years of high human development ,the state has now started picking up on the economic growth front as well.On the other hand the states like Orissa,Bihar,Rajasthan,Madhya Pradesh still continue to be below national average in terms of both economic growth and human development.

Human Development Seen Through Individual Indicators

The HDI has three components-health index, education index and income index. Data for these individual components of HDI for two time points, 1999-00 and 2007-08 provided in the IHDR2011 is used to examine the human development of Indian states in more detail. It gives the state wise Health index for the years 2000 and 2008, Income index 1999-2000 and 2007-08, Education Index 1999- 2000 and 2007-08.The following table gives the values and ranks of Indian states in terms of the individual component indicators of human development. The details of how these indicators are measured is given in the Appendix1. In order to analyse the performance of states in terms of human development it is important to understand the trends in HDI and its components, especially the health and education indices.

Table 3.9 : HDI's components by states 1999-2000 and 2007-08

States	Health Index 2000	Health index 2008	Income Index 1999-2000	Income Index 2007-08	Education. Index 1999-2000	Education Index 2007-08
Andhra Pradesh	0.521 (9)	0.58 (10)	0.197 (10)	0.287 (9)	0.385(11)	0.553 (10)
Assam	0.339 (15)	0.407 (15)	0.152 (12)	0.228 (8)	0.516(5)	0.636 (5)
Bihar	0.506 (11)	0.563 (11)	0.100 (14)	0.127 (15)	0.271(15)	0.409 (15)
Gujarat	0.562 (8)	0.627 (6)	0.417 (4)	0.408 (4)	0.512(6)	0.622 (8)
Haryana	0.576 (6)	0.627 (7)	0.417 (3)	0.408 (3)	0.512((6)	0.622 (6)
Karnataka	0.567 (7)	0.627 (7)	0.260 (8)	0.326 (7)	0.468(8)	0.605 (7)
Kerala	0.782 (1)	0.817 (1)	0.458 (1)	0.629 (1)	0.789(1)	0.924 (1)
M.P.	0.363 (14)	0.43 (15)	0.127 (13)	0.173 (13)	0.365(13)	0.522 (11)
Maharashtra	0.601 (3)	0.650 (3)	0.297 (5)	0.351 (6)	0.606(2)	0.715 (3)
Orissa	0.376 (13)	0.45 (14)	0.076 (15)	0.139 (14)	0.372(11)	0.499 (12)
Punjab	0.632 (2)	0.667 (2)	0.455 (2)	0.495 (2)	0.542(4)	0.654 (4)
Rajasthan	0.52 (10)	0.587 (9)	0.293 (6)	0.253 (10)	0.348(14)	0.462(14)
T.N.	0.586 (5)	0.637 (5)	0.285 (7)	0.355 (5)	0.57(3)	0.719 (2)

U.P	0.398 (12)	0.473 (13)	0.179 (11)	0.175 (12)	0.371(12)	0.492 (13)
W. Bengal	0.600 (4)	0.650 (3)	0.210 (9)	0.252 (11)	0.455(9)	0.575 (9)
All India	0.497	0.563	0.223	0.271	0.442	0.568

Source:India Human Development Report 2011; only the selected 15 Indian states data is considered here.Note:The relative ranks of these in each component index of the selected 15 states are given in the brackets.

Table 3.10: Descriptive statistics of HDI of 15 Indian states 1999-2000 and 2007-08

	N	**Minimum**	**Maximum**	**Mean**	**Standard Deviation**
HDI 1999- 2000	15	0.275 (Orissa)	0.667 (Kerala)	0.418733	0.11258
HDI 2007-08	15	0.362 (Orissa)	0.790 (Kerala)	0.497467	0.114627

Source:(Data taken from India HDR 2011)

From Table 3.10, it can be observed that during the last decade, on an average, the HDI of Indian states have improved. But there still exists stark variations among the states. Kerala maintains the top position in both time points, while Orissa continued to remain the last among the fifteen states being observed. The standard deviation of HDI values of these states have slightly increased.

Education Index

Table 3.11:Descriptive statistics of education index 1999- 2000 and 2007-2008

	N	Minimum	Maximum	Mean	Standard Deviation
Education Index 1999- 2000	15	0.271 (Bihar)	0.789 (Kerala)	0.472133	0.129114
Education Index 2007-08	15	0.409 (Bihar)	0.924 (Kerala)	0.5976	0.126444

Source: Computed on the basis of table 3. 9

The education index of states indicate that the minimum and maximum index values have increased from 1999-2000 to 2007-08. The education index was minimum in Bihar (0.271) and maximum in Kerala (0.789) in the year 1999-2000. The mean value increased from 0.472133 to 0.59976, but the S.D. seems to remain more or less the same with only a very minute change from 0.129114 to 0.126444 in 1999-2000 and 2007-08 respectively. In 2007-08 also, it was Bihar (0.409) and Kerala (0.924) which had the minimum and maximum education index among the states being studied. Although on an average the education index is on the rise among these states, one cannot observe any significant change in their relative positions during the period of analysis.

Health Index

Table 3.12: Descriptive statistics of health index 1999- 2000 and 2007-2008

	N	Minimum	Maximum	Mean	Standard Deviation
Health Index 2000	15	0.339 (Assam)	0.782 (Kerala)	0.528	0.118843
Health Index 2008	15	0.407 (Assam)	0.817 (Kerala)	0.586	0.108221

Source:Computed from Table 3.9

In terms of health also Kerala has maintained the top place with the highest health index scores. Assam has been the last among the selected states, with the lowest health index values during this period. The standard deviation seems to have come down a bit by 2008,which is not a very significant change. Here also no much change has happened in the relative positions of the states over the years.

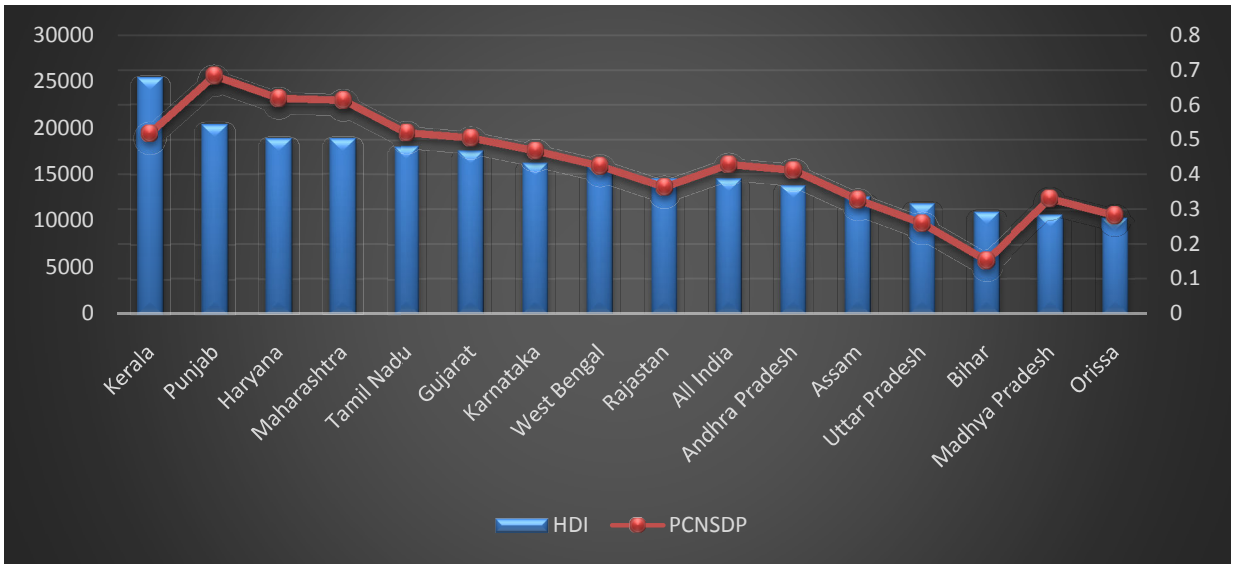
Human Development and Economic Growth –An Inter State Comparison

HDI is taken as a proxy for human development and PCNSDP is taken as a proxy for economic growth. The levels of HDI and its component indices for India and its states in contrast with the Per capita Net State Domestic Product (PCNSDP) at 1999-00 base year value for the years 1999-00 and 2007-08 are presented here.

Then we look at the growth rates of these variables during the last decade which was also the high growth phase of the Indian economy. Did the growth rates of human development and economic growth move in the same direction? What trends and patterns could be seen in this period? An attempt is made here to observe the trends of human development in India and its states in contrast with their economic growth performance.

Fig. 9 shows the levels of HDI and PCNSDP for India and the states for the year 1999-2000. It can be observed from this figure that in terms of the levels of HDI and PCNSDP, the states with high HDI also seems to have high level of PCNSDP and vice versa. States like Punjab, Haryana,Maharashtra have higher levels of PCNSDP than their HDI levels; they are also among the top ranks in terms of HDI. It may also be seen that the state of like Kerala had higher HDI although they had lower PCNSDP levels. In 1999-00, of the selected 15 states,9 states were above all India HDI level while the rest were below national average.

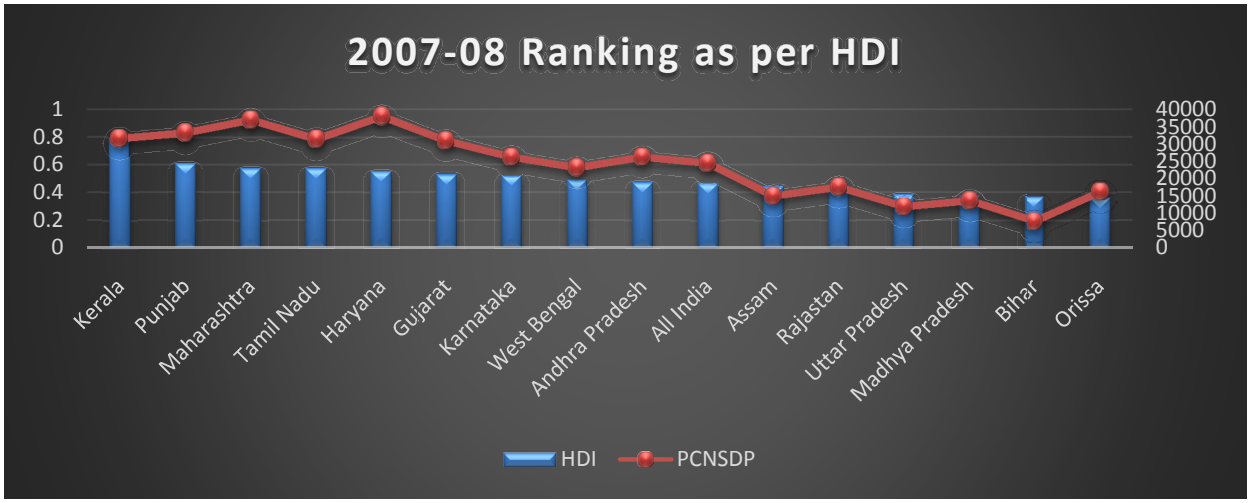
Fig 9:HDI Vs PCNSDP for the year 1999-2000-level comparison



Source:Compiled on the basis of data from IHDR2011 and RBI handbook on Indian Economy2014.

The relative positions of the states in terms of HDI and PCNSDP in 2007-08 is shown in Fig.10. Here also the number of states above all India was 9 and those below national average was 6. In 2007-08 also the low PCNSDP level states also had low HDI ranks and vice versa.

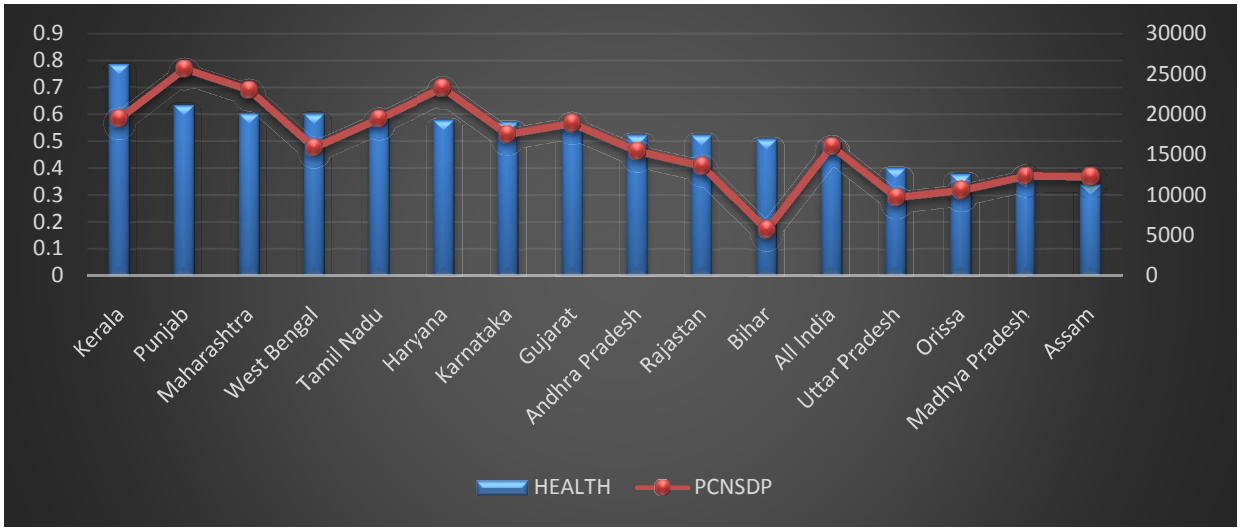
Figure10: HDI Vs PCNSDP (at 1999-00 base) for 2007-8.



Source: Same as that of Fig..9.

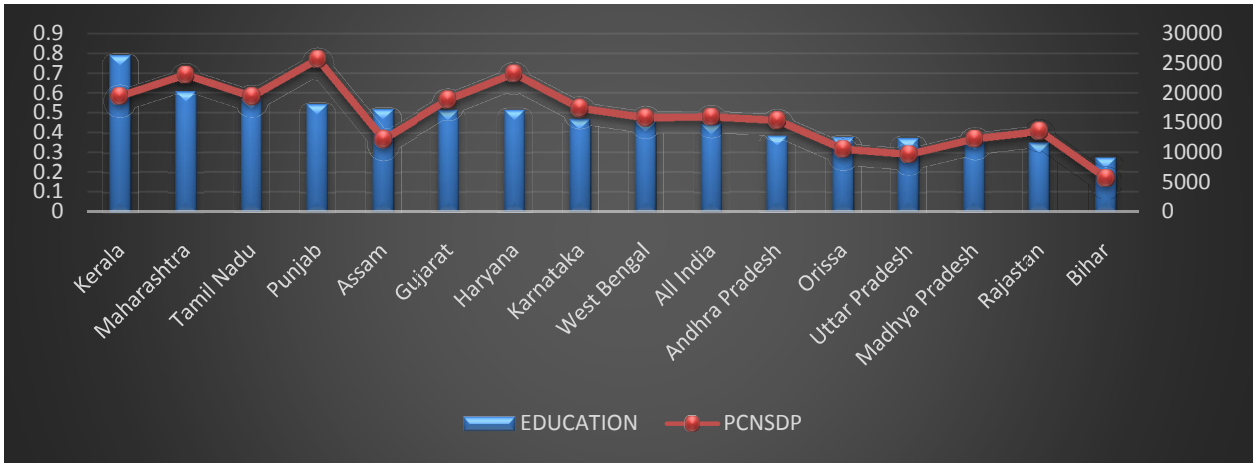
Similarly, for the health index and education indices in 1999-00 and 2007-08 the graphs are shown below. In terms of heath index ranks in 2000 also, it is seen that high ranking states are also high in PCNSDP levels.

Fig11: Health Index2000 Vs PCNSDP for1999-00(at 1999-00 prices).



Source:Compiled on the basis of data from IHDR2011 and RBI handbook on Indian Economy2014.

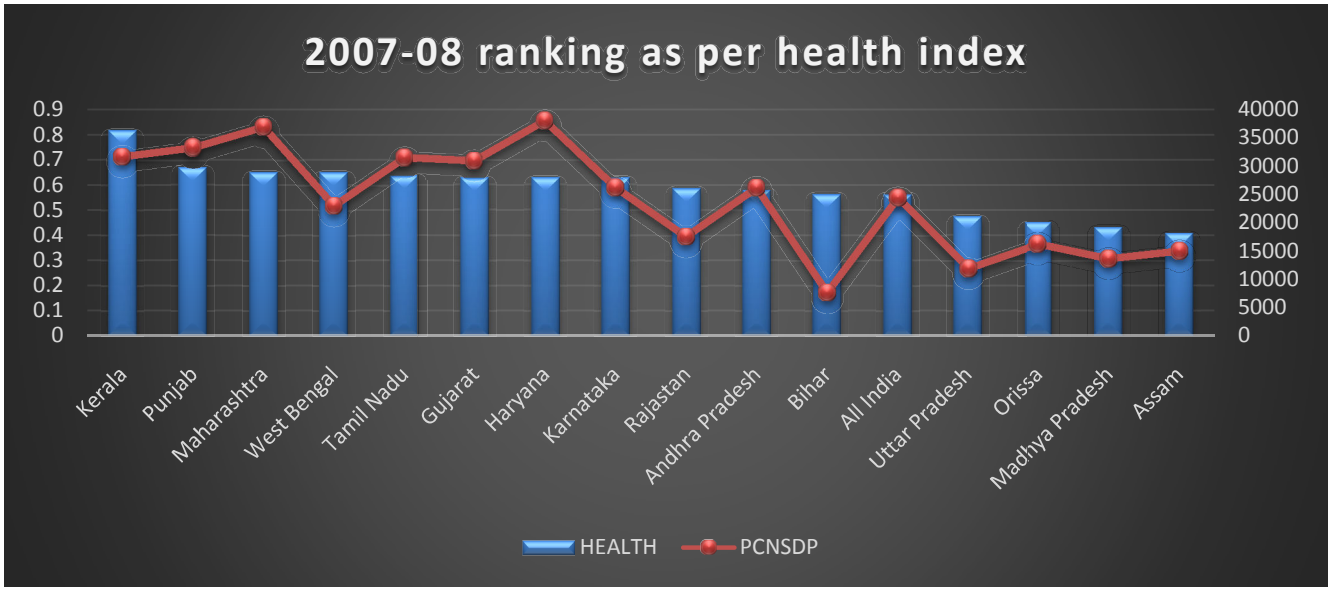
Fig12:Education Index 1999-00 Vs PCNSDP 1999-00



Source: Compiled on the basis of data from IHDR2011 and RBI handbook on Indian Economy2014

As seen from Fig. 12,the levels of Education Index and PCNSDP in 1999-00 seems to be close. Largely, the states that were above all India level in terms of PCNSDP ranks and education index ranks were the same.

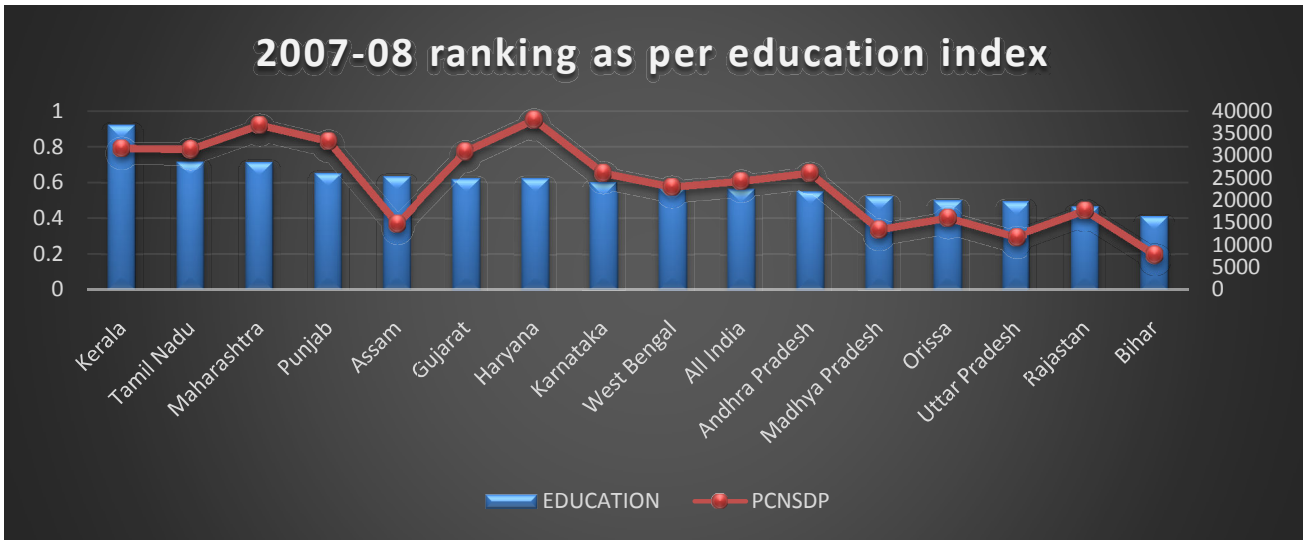
Fig13:Health Index 2008 Vs PCNSDP 2007-8(at 1999-00 prices).



Source: Compiled on the basis of data from IHDR2011 and RBI handbook on Indian Economy2014

In 2008, 11 states were above all India level in terms of health index as shown in Fig.13. Here also the states having higher health index values also seems to be having higher PCNSDP values.

Fig14:Education index 2007-8 Vs PCNSDP 2007-8



Compiled on the basis of data from IHDR2011 and RBI handbook on Indian Economy2014

With respect to education index in 2007-8 also the states above the national average also seems to have higher PCNSDP levels and vice versa.

However, it would also be interesting to look at the rate of growth of HDI and its component indices along with that of per capita NSDP. For this purpose the Compound annual growth rates (CAGR) of HDI and its components as well as that of PCNSDP at 1999-00 base year was estimated using the formula

CAGR=(end value/initial value)^(1/n-1)-1, where n is the number of years.

The growth rates of these indices and PCNSDP were estimated for the period 1999-2000 to 2007-8.This period was selected due to the non-availability of indicator wise data for other time points.

The graphs showing the growth rates of these indicators are given below:

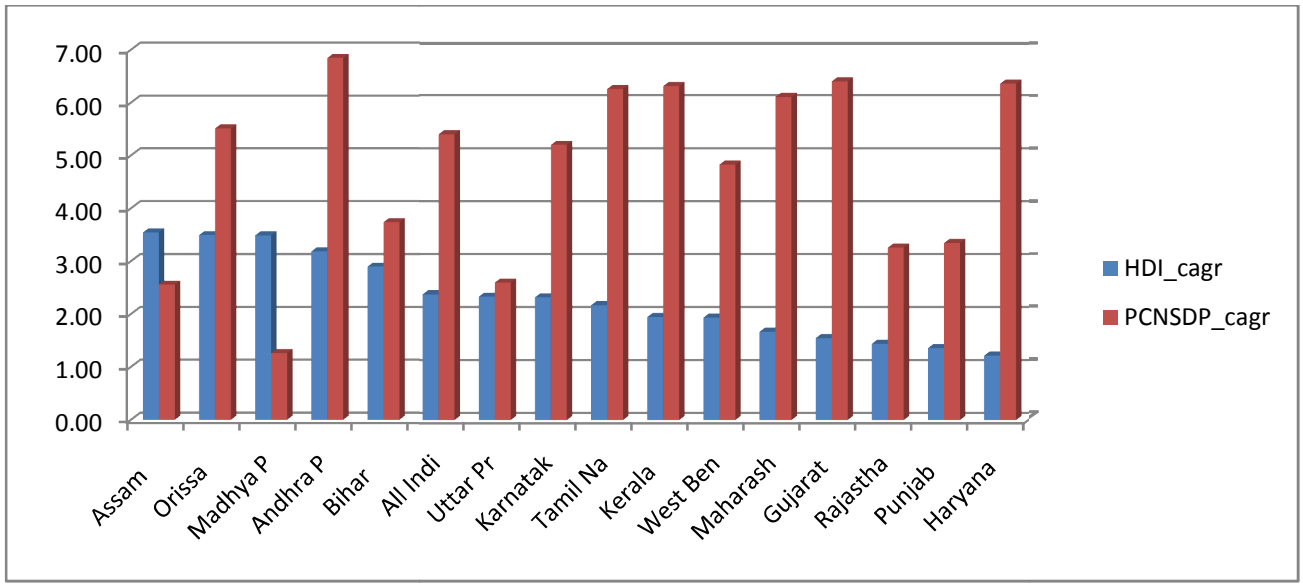


Fig.15: HDI CAGR_1999-2000 to 2007-08 and CAGR_PCNSDP1999-00 to 2007-08 .

Note: The CAGR of HDI,PCNSDP,Health,Education indices are given in Appendix2.

The Compound Annual Growth Rate of HDI of states like Assam, Orissa, Madhya Pradesh, Andhra Pradesh and Bihar were above the all India figure during the period 1999-2000 to 2007-08.Thus, it is seen that the low HDI states had higher rates of growth of HDI compared to Kerala, Punjab, Maharashtra, Gujarat etc which have higher ranks but lower than national average growth rate of HDI.

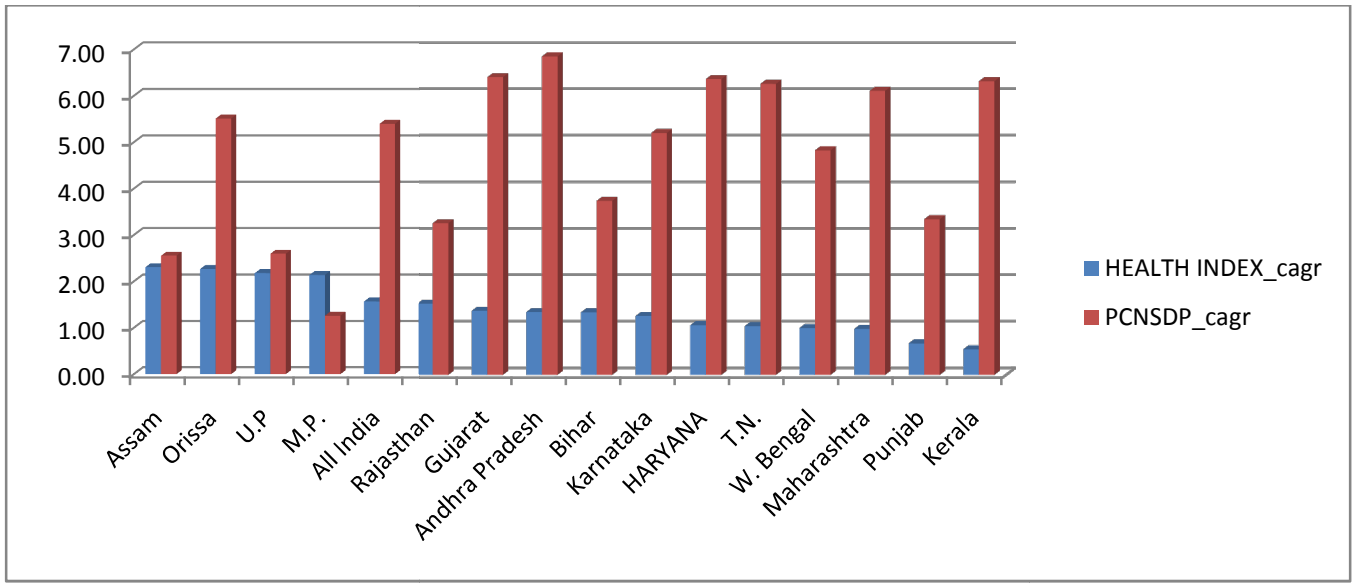


Fig.16 Health Index CAGR 2000-2008 and PCNSDP CAGR1999-00 to 2007-08

In health index also the growth rates are lower for states having higher levels of health index values. Kerala which has the first rank in terms of health index has the lowest CAGR of health index, while of Orissa which has low ranking in terms of health index, has higher growth rate in health index.

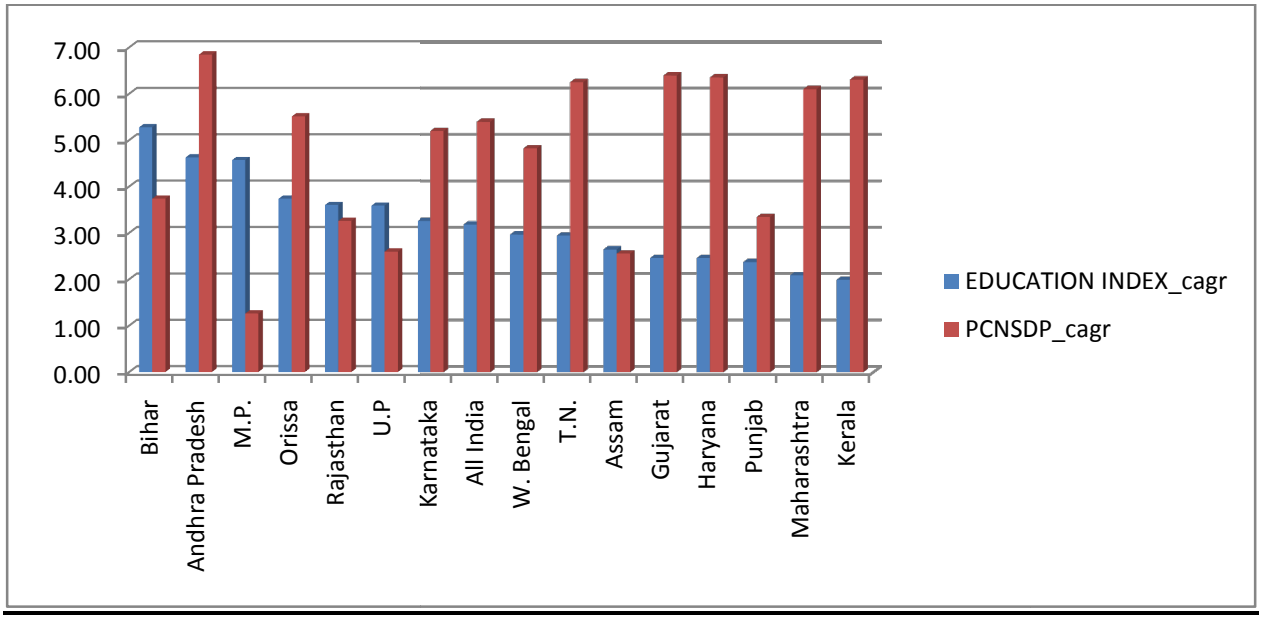


Fig.17:Education Index CAGR 1999-00 to 2007-08 and PCNSDP CAGR 1999-00 to 2007-08

The CAGR of education index is also high for the states like Bihar, Orissa, Rajasthan, Uttar Pradesh .These states are above the all India level in terms of Health index CAGR. Kerala ,Punjab, Maharashtra etc which already have higher levels of health achievements have a lower rate of growth.

It could be observed from the Fig13 to15 that when the rate of growth is considered there seems to unveil a different picture from that of the levels as such. States having high ranks in PCNSDP still have high growth rates, while the states with high HD have lower growth rates. So there seems to be a converging trend in human development with the low performing states having higher growth and vice versa. But in terms of economic growth no such trend is seen as the high PCNSDP states also grew at higher rates.

Section II:The Human Development Experience of Kerala and Orissa:A Contrasting Picture

3.2.1 Introduction

Analysis of state level experiences in development would help in learning from the successes as well as failures of each other, so as to be able to emulate the positive aspects of each experience suitable to oneself. Other than the empirical relation/contrasts between EG and HD, the history of the region, the Govt. policies etc also play an imp role in shaping the development pattern of a region.

While celebrating 25 years of the publication of the 1st HDR by the UNDP in 1990 as well as in the urge to meet the MDGs, there is a renewed focus on issues pertaining to the social sectors across the world .Under the social sectors come “education, health, safe drinking water, sanitation, development of the marginalized groups and backward regions” (Odisha Economic Survey2014-15).

More than half a century since independence, India has made improvements in its social sector performance, but still much more remains to be done. Mainly as a result of government initiatives and programmes , there has been improvements in education and health indicators ever since the 1980s(Joshi,2006.)

Generally per capita GDP is employed to analyse the development of a country (Kaliranjan,2009).However, now it has been recognized that GDP alone does not cover the income distribution aspect. Since 'people are the real wealth of a nation' ,it is necessary to study how they live and under what conditions. The fact that the real wealth of a nation is its people and not just the material resources was once again highlighted by the experience of the "miracle economies" of South East Asia (Joshi,2006). It is generally expected that expenditure on social sector would augment human capital formation and in turn result in better human development.

Since balanced regional development has been an important objective of national policy in India, it would be interesting to enquire if this has been achieved in human development as well, along with the discussions on economic performance of the nation and its states. Certain states have done exceptionally well in human development as reflected in HDI scores(For eg., Kerala, Punjab), and at the same time there are states like Orissa, Bihar etc which have been consistently at the bottom of the HDI ranking among the 15 major Indian states being studied.

In this context it is relevant to identify the policies that would help the low performers to achieve better human development outcomes. It is generally expected that expenditure on social sector would augment human capital formation and in turn result in better human development.

In this section, a state each, from the virtuous and vicious category, representing the positive and negative relationship between economic growth and human development , is made to look at the possible reasons for the huge disparity between these two Indian states in terms of human development in contrast with their economic growth, as much could be learned from the internal diversity among the Indian states. An attempt is made to examine the human development experience of selected states in India-like Kerala and Orissa**,** representing high and low performing states on the basis of HDI ranking, and to examine the possible factors that cause such wide disparities between these two states' performance in the human development front.

As observed in the previous section, Kerala has now entered the virtuous category with both economic growth and human development being high and both reinforcing each other. On the other hand, the state of Orissa has remained in the vicious cycle categoty with low human development and low economic growth achievements. Gaining insights from the works of K P,

Kannan and Pillai N. Vijayamohanan (2007a,2007b) an attempt is made to review the best performer and worst performer in HDI in India. As Sen(1995) [22]had examined the experiences of Kerala and Uttar Pradesh to draw lessons from experiences within the nation, here the experiences of Kerala and Orissa are briefly reviewed. The state level HDRs of Kerala and Orissa provide useful insights regarding the human development conditions in these states.

3.2.2 KERALA

Kerala's experience and record in the field of human development, widely known as the Kerala model of development is discussed among scholars due to its uniqueness. The performance of Kerala is remarkable not only by national standards but also by international standards. The achievements of the state is comparable to those of the developed countries of the world.(State Human Development Report,Kerala 2005).

Consistently for the last three decades the state of Kerala has maintained the first rank with respect to HDI values. In 1981, its HDI score was 0.5.Not a single state among the selected Indian states had a score of 0.5 except Kerala. The lowest score in 1981 was for Bihar (0.237).The difference between the highest and lowest scores is quite high. In 1991,Kerala's HDI was 0.591,which increased to 0.638 by 2001.(NHDR2001).As per the latest publication of the Planning Commission(2011),the IHDR2011, Kerala had an HDI score of 0.677 in 1999-2000, which increased to 0.790 by 2007-2008.

As mentioned in the first human development report of Kerala[23], the Kerala Model is often referred to as a paradox of social development and economic backwardness. Kerala economy is led by the service sector. Remittances from abroad also plays a significant role in the state's economy. The role played by the state government in achieving high levels of human development through its active interventions in the social sectors has been significant(Chakraborty,2009).Although such expenditures have caused fiscal imbalances, it has

[22] Dreze and Sen(1995) have pointed out that unlike Kerala, there was a neglect of the provisioning of social opportunities in Uttar Pradesh. This could point out the possible factors that resulted in the "success" of one and the 'failure" of the other.

[23] State Human Development Report 2005 of Kerala

done much to create a better human development condition in the state. There were also critics who pointed out to the unsustainability of the model.

There are both admirers as well as critics for the Kerala Model. Chakraborty(2009) had observed that, the admirers of the Kerala Model have generally been the western scholars. Whereas, the scholars from Kerala have been highly critical and questioned the sustainability of such a pattern of development, rather than merely celebrating the achievements of Kerala in the field of human development. This could broadly be viewed as the pessimistic narrative.

The narrative that takes an optimistic view of the development experience of Kerala is as follows. The state has achieved substantial gains in terms of human development in spite of its poor performance on the per capita income front. This provides a role model for the other countries as well as states to formulate better policies to attain better human development even with low economic expansion. On the other hand, the other narrative on Kerala model is the pessimistic one ,that claims low economic growth and high levels of unemployment will stall further progress of human development. Stagnation in the economy's productive sectors will pose a challenge and the state will find it difficult to get enough revenue to finance its high social sector expenditure.

Literature on Kerala's development experience points out to the role that public policy has played in shaping its human development outcomes. The high priority that the state government gave to the expenditure on social sectors have played an important role in the state's development trajectory (Chakraborty 2009).It is interesting to see that Kerala has made significant progress in basic dimensions of human development in spite of its low economic progress. Much is to be learnt from the unique development experience of Kerala, so that its positive aspects may be adopted to aid the development process in the other states as well.

Kerala is a state which was much ahead of other states in the nation in achieving the goal of universalizing elementary education, which is clear from the high literacy rate of over 90 percent. It also has very low dropout rates at primary as well as middle level .Works like Chakraborty(2005) explains that from early 1960s till the end of 1980s, in every sub period, the growth rate in NSDP of Kerala was lesser than all India average. Also Kerala's NSDP(at 1970-71 prices) during the period 1970-71 and 1980-81 grew at 2.27 percent per annum.

Moreover, a major ingredient of Kerala's success story is constituted by the active role of public action in the promotion of human development aspects in the state. This has been significant, especially in the education and health sectors. Elementary education, role of women in the society etc have had much role in augmenting the human development condition in the state.[24].Historically, the state has had the advantage of welfare oriented rulers. The Travancore kings had invested much towards the development of education and health by establishing educational institutions and hospitals.

Kerala experienced a wave of change during the 19th and 20th centuries with several social reforms. Social reform movements in the state deserves mention in this context since it influenced the lives of many, especially the sections of lower caste population in the state like "Ezhavas", "Pulayas"etc .The Christian Missionaries and their works in the field of education and health has played an important role in Kerala's commendable achievements in the social sectors as well as in opening the doors of education to the lower castes as well. The "Sree Narayana Dharma Paripalana Yogam" or in short the SNDP had played a significant role in providing and empowering the sections of the society which didn't have access/opportunity to such services before. Ayyankali also considered education as a key weapon of empowerment. The NSS and other such organizations have given much emphasis on education.All these have helped Kerala to have better human development outcomes.

3.2.3 ODISHA

Moreover, Odisha, a state with a total population of 42 million (in 2011), and forming 3.47 percentage of the national population is on the other extreme of human development index performance. Odisha has been placed towards the bottom of the HDI rank list as Odisha has had one of the lowest HDI values among the Indian states over the years. In 1981 its HDI was 0.267, which increased to 0.345 and 0.404 in 1991 and 2001 respectively. In 1999-00 its position dipped to the last rank among the 15 selected states, with a score of 0.275.In 2007-8 its HDI was 0.362, still in the last place.

[24] The case study by V.K.Ramachandran gives much insight to the development experience of the Indian state of Kerala.

In 2014-15, about 15.4 percent, 33.4 percent and 51.2 percent were the contribution of agriculture, industry and service sectors respectively, of GSDP of the economy of Orissa(Govt. of Odisha,2015). The Odisha economy during the 10th and 11th Plan periods "in real terms at 2004-05 prices" had average annual growth rates of 8.82 and 7.05 respectively, mainly due to the increased growth in the industrial and service sectors. The economy of Odisha changed over time from an agriculture based economy to one driven by the industry and service sectors, with a decline in the share of agriculture sector and a rise in the other two sectors.(Govt. of Odisha,2015).

However, Odisha has been a state with high poverty rates and even on the economic growth front, the reform era did not seem to have helped the state improve, unlike other states which benefited from the reforms, observed Kannan and Vijayamohanan(2007).They attribute the absence of determination and "welfare-state perspective" among those in power as one of the weaknesses of the state. In their work, they also point out that unlike Kerala which had a historical advantage with its princely rulers who followed policies rooted in welfare objective, the "unfavourable dynamics of historical… economic, social and institutional conditions in Orissa" has been an impediment for progress in the state.

The following table 3.13shows the performance of Kerala and Orissa in different aspects of human development. It shows the wide differences between Kerala and Orissa in terms of female literacy, IMR, MMR etc. It can be seen that Kerala is performing far better, whereas Orissa needs more efforts to better its position.

Table 3.13:A Few Indicators-Kerala,Odisha and All India

Indicator	Kerala		Odisha		All India	
Literary Rate(% Female)(7 years and above)	2001	2011	2001	2011	2001	2011
	87.86	93.91	50.97	73.45	54.28	74.04
Population(in '000)	31,841	33,388	36,805	41,947	1,028,610	1,210,193

IMR		12		53		44
U5MR	14		84		64	
MMR	81		258		212	
TFR	2008	2010	2008	2010	2008	2010
	1.7	1.8	2.4	2.3	2.6	2.5

Source:Databook for Planning Commission(2014). Note:U5MR (Under Five Mortality Rate)is for the year 2009.Maternal Mortality Ratio(MMR) is for (2007-09)

Thus, although in absolute terms the HDI value of India and its states have increased over the years, much more improvements are required, especially in those states which have been in the vicious cycle category since long. Compared to the rate at which the EG is progressing, HD performance needs much more attention, and this becomes much more significant because it directly affects the life of the people residing in this country. The rate of improvement in HDI in India needs to be speeded up which might require active Govt. intervention to promote better opportunities and access to health and education .

Early investments in education, health etc along with a favourable social environment including social sector reform movements have helped Kerala to attain high human development outcomes. The absense of the very same opportunities and public action ,as Kannan and Vijayamohanan(2007) pointed out it was observed in Orissa, which has very low HD outcomes. Thus, the broad reasons for such disparities in human development outcomes in these two states are interconnected factors including historical, social, and economic.

In conformity with the finding of Ranis(2004) that initial investments in HD made it easier for countries to graduate to the virtuous cycle category, among the Indian states it was seen that Kerala which had made initial strides in HD graduated to the virtuous category. On the other hand ,Orissa , which unlike Kerala, had no much strong historical or social factors in favour of

HD in the initial years still remains a state in the vicious cycle category. However, the state of Orissa has started to pick up on the economic growth front of late, with 8.78 percent anticipated economic growth rates for the year 2014-15(Govt. of Odisha,2015)[25]. Moreover, as noted in the HDR(1996) of the UNDP, enhancement of economic growth becomes augmented when human capabilities are expanded.

[25] Government of Odisha Economic Survey 2014-2015,Directorate of Economics and Statistics.

CHAPTER IV: SUMMARY AND CONCLUSIONS

This chapter presents the summary and main conclusions of the study.

Chapter I, the introductory chapter ,gives the context in which the study becomes relevant. It also discusses the conceptual framework of the study which is the idea of human development anchored in Sen's capability approach. The objectives, methodology , data sources, and limitations are outlined in this chapter.

Chapter II reviews the related literature. The national as well as international works were reviewed. Although many studies have been done in this field, a study on the condition of human development in India and its states using the latest available data would throw more light on the present state of human development in the country.

Chapter III is a review of India's human development trajectory over the years in contrast with economic growth performance. It was observed that India has been able to increase its HDI value over these years, but its relative position when compared to other countries remains low. In terms of HDI ranking of the selected Indian states, it was observed that Kerala maintained the top position in HDI performance consistently in the last 3 decades. Bihar was in the last rank with very low HDI from 1981 till 2001.Howvever in 2007-8 ,the latest year for which state level HDI data is available, among the 15 major states, Orissa was in the last position.

It was seen that in the last decade those states with high levels of HDI had a lower rate of growth in HDI, while the states having high levels of PCNSDP were also having higher growth rates. Observations from this study suggest that effective policies are needed to ensure that the benefits of growth reaches all.

The experience of the best and worst HDI performing states, Kerala and Orissa, shows the importance of special attention needed to improve human development conditions. Implications of policy sequencing can be drawn from the experiences of states. In Kerala, the presence of favourable public policies as well as a favourable historical and social background enabled its people to enjoy better living conditions. On the other hand, in one of the worst HDI performing state, Orissa, there was a lack such favourable conditions. This implies that human development

requires special attention .One cannot wait until economic growth picks up to uplift the human development conditions of the common people. Initial investments in social sectors like education and health in Kerala helped it in the long run as it even graduated from a lopsided human development category to the virtuous category. Thus, special attention is needed to uplift states caught up in the vicious cycle of low economic growth and human development.

Important policy implication for sequencing can be understood from such analysis exploring the economic growth and human development relations in a country. Policies for the betterment of the living conditions of human beings need to be formulated and implemented with more vigour. Economic growth alone need not ensure better living conditions. Its distribution has to be spread among the masses and not concentrated with a few. Although growth is essential for HD,Human Development improvements to be sustainable and equitable needs to be supported by the active Govt. intervention in ensuring access to basic necessities of life, capability expansion means like education and health. Policy implications for development sequencing suggested in literature is that HD lopsided strategy is able to lead to a virtuous growth path in the long run. The experience of Kerala in the recent past is supportive of this statement. Most of the Indian states still remain in the vicious group and needs more concerted efforts to uplift themselves out of the poor conditions of HD and EG.

Although the HDI values of states have improved over the years, their relative positions have not undergone any significant changes. Wide disparities in terms of achievements in HD outcomes still persists among the states of India. It could be observed from the analysis in chapter 3 that when the rate of growth is considered there seems to unveil a different picture from that of the levels as such. States having high ranks in PCNSDP still have high growth rates, while the states with high HD have lower growth rates. So there seems to be a converging trend in human development with the low performing states having higher growth and vice versa. But in terms of economic growth no such trend is seen as the high PCNSDP states also grew at higher rates.

Chapter IV presents the summary and conclusions. Brief summary of each chapter and the main conclusions from these are presented in this chapter.

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APPENDIX

Appendix1: An index for a single variable is calculated from cross sectional data, pertaining to either countries or regions within the country.

$$\text{Dimension Index of } X_i = \frac{\text{Observed Value of } X_i - \text{Min } X_i}{\text{Max } X_i - \text{Min } X_i}$$

Eq.(1)

The minimum and maximum values of these indicators are derived by scaling down or up the observed minimum and maximum by 25%. This is done in order to prevent a situation where the state having the observed maximum and minimum values having a value of zero and one.

For analysis we used the data obtained from India HDR 2011. The meaning of and calculation of income, education and health indices as per this Report is given below.

Income Index

The India Human Development Report 2011 described income index computation as follows:

"The monthly per capita Expenditure (MPCE) adjusted for inflation and inequality, substitutes for measuring the income, keeping in view the exact reality that per capita income is not too accurate a measure of the standard of living. The Gini Coefficient (G) of inequality of MPCE is calculated for each state to capture inequality in income (consumption) and each of the 4 variation in eq (1) is then multiplied by corresponding equality coefficient (1-G).

Thus, for calculating the income index, the formula used is

$$\text{Income Index of state}_i = \frac{MPCE_1\,(1\text{-}G) - MPCE_{min}\,(1\text{-}G)}{MPCE_{max}\,(1\text{-}G) - MPCE_{min}\,(1\text{-}G)}$$

Where the minimum (and maximum) MPCE adjusted for inequality is the average of inequality and inflation adjusted observed minimum (and maximum) MPCE in 2007-08 and inequality adjusted observed minimum (and maximum) MPCE in 1999-2000". (IHDR 2011)

Education Index

The Report employed two main variables to measure the education index, the 'literacy 7+' and mean years of schooling. An index of each of these has been separately calculated as per the formula mentioned above in eq.(1). The two (unit-less) numbers are then added, with literacy having a weight of 1/3, and mean years of schooling having of weight of 2/3 .

Moreover, 'literacy' is defined as the (shelf) reported literacy for the population of age 7 years and more. The 'mean years of schooling' is the average number of years of school education of population aged 7 years and above, adjusted for out of school children in the school going age 6-17 years by multiplying mean years of schooling with one minus the proportion of out of school children (IHDR 2011).

Health Index

To measure the health status, life expectancy at birth is used as the measure. Using the maximum and minimum life expectancy at birth, the health index is calculated using eq. (1)

The following table shows the scaling norms used in the India HDR 2011 Report for computing the component indices for both points of time.

Table A: Scaling Norms for HDI Computation

Indicator	**Minimum**	**Maximum**
Life expectancy at birth	50 years	80 years
Literacy 7 +	0%	100 %
Adjusted Mean Years of schooling	0	7
Per capita real consumption expenditure adjusted for inequality	Rs.255	Rs. 1091

Source: India Human Development Report 2011, Technical Appendix P. 250

Appendix2: CAGR of HDI and its components and PCNSDP:

Table: Health index CAGR

states	cagr_health index00-08
Andhra Pradesh	1.350007
Assam	2.311473
Bihar	1.343228
Gujarat	1.377459
Haryana	1.066129
Karnataka	1.265278
Kerala	0.548805
Madhya Pradesh	2.139853
Maharashtra	0.984533
Orissa	2.271137
Punjab	0.676033
Rajastan	1.526484
Tamil Nadu	1.048583
Uttar Pradesh	2.181496
West Bengal	1.005556
All India	1.57083

Table:CAGR_EDUCATION INDEX

states	CAGR_EDU_INDEX99-00_07-8
Andhra Pradesh	4.63044
Assam	2.648103
Bihar	5.279606
Gujarat	2.462525
Haryana	2.462525
Karnataka	3.261562
Kerala	1.993941
Madhya Pradesh	4.573635

Maharashtra	2.089053
Orissa	3.739631
Punjab	2.3758
Rajastan	3.605507
Tamil Nadu	2.945355
Uttar Pradesh	3.591447
West Bengal	2.969133
All India	3.184808

Table:HDI CAGR(1999-00 to 2007-08) -
RANK WISE :-

States	HDI_cagr
Assam	3.55
Orissa	3.50
Madhya Pradesh	3.49
Andhra Pradesh	3.19
Bihar	2.90
All Indi	2.38
Uttar Pradesh	2.33
Karnataka	2.32
Tamil Nadu	2.17
Kerala	1.95
West Bengal	1.94
Maharashtra	1.67
Gujarat	1.55
Rajasthan	1.44
Punjab	1.36
Haryana	1.22

PCNSDP CAGR-Rank wise(99-00 to 07-08):	pcnsdp_99-07_cagr
Andhra Pradesh	6.85
Gujarat	6.40
Haryana	6.36
Kerala	6.31
Tamilnadu	6.26
Maharashtra	6.11
Orissa	5.51
India	5.40
Karnataka	5.20
West Bengal	4.83
Bihar	3.74
Punjab	3.35
Rajasthan	3.26
Uttarpradesh	2.60
Assam	2.56
Madhyapradesh	1.26