

**ANALYSIS OF MULTIDIMENSIONAL POVERTY AND HUMAN
DEVELOPMENT IN INDIA**

By

MANIMEKALAI. L

20PEC006

A Dissertation Submitted to Avinashilingam Institute For Home Science And

Higher Education For Women

Coimbatore – 641043

In Partial Fulfillment of the Requirement for the Degree of

Master of Arts in Economics

May-2022

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CERTIFIED AS BONAFIED RESEARCH WORK


Signature of the Head of the Department


Signature of the Supervisor

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INTRODUCTION

CHAPTER I

INTRODUCTION

Poverty is a state or condition in which a person or community lacks the financial resources and essentials for a minimum standard of living. Poverty means that the income level from employment is so low that basic human needs can't be met. As this decade comes to an end, the world has seen progress on many fronts. The poorest countries have greater access to water, electricity, and sanitation (i.e., a toilet). Poverty and child mortality have fallen. Technology has spread far and wide so that there are now more mobile phones than people. But we've also broken some of the wrong kinds of records. In 2019, more people were forcibly displaced than any other time in history. Carbon dioxide in the atmosphere hit an all-time high and biodiversity is declining at an accelerating rate. More than a third of the world lived in extreme poverty 30 years ago. Today, less than 10 percent of people live on \$1.90 a day or less. Between 2000 and 2015, 15 countries lifted 802.1 million people out of extreme poverty, according to the World Bank poverty in 2019. To live in poverty is to lack the resources needed to meet basic needs. One way to measure poverty is to consider a person's economic resources, either the amount of money a person receives (income), the amount they spend (expenditure), or the amount they have saved or the value of their assets (wealth). Poverty defined in this way is economic poverty; other measures of poverty exist, including multidimensional, social, nutritional and cultural. People living in poverty are the most vulnerable in society: as well as a lack of resources, the poorest families on average also see higher infant mortality, higher stunting in children and lower educational attainment. Ending poverty and improving the livelihoods of the poorest people requires that policymakers are able to access accurate information regarding who is impoverished, where and why. Tracking poverty globally, regionally and nationally is paramount to achieving this goal.

Poverty can be defined by a fixed value (absolute poverty) or by a value in relation to the rest of the population (relative poverty). Absolute poverty is measured by a minimum amount of money required to meet basic needs, known as a poverty line. A person is considered to be living in poverty if their income, expenditure or wealth falls below this line. In contrast, relative poverty is determined in relation to others: a person is in poverty if their income, expenditure or wealth places them in a poorest share of the population. The international standard for measuring poverty is the extreme poverty line, a measure of absolute poverty with a threshold equivalent to US\$1.90 per person per day. The extreme poverty threshold is considered as the minimum income or expenditure required to meet very basic

needs. Two more poverty lines, which reflect the costs of higher basic needs in more developed countries, are also used internationally: US\$3.20 and US\$5.50 per person per day. The extreme poverty line of \$1.90 is standardized across countries using purchasing power parity (PPP) currency conversions. PPP conversions reflect the real buying power of a currency, so that the value of the \$1.90 line reflects the same local value of goods and services in different countries at different times. International poverty is measured using data available from national household surveys, which capture population income and/or expenditure data. The World Bank's, a global repository for poverty data, contains data from over two million household surveys, for 164 economies, for the period 1981–2015. Data from Local Net and national sources is used to generate international, regional and national poverty measures, and track poverty over time.

Reducing global poverty was a key aim of the Millennium Development Goals (MDGs). The target for the MDGs was to reduce the number of people living in extreme poverty by half between 1990 and 2015. Ending poverty now stands at the core of the Sustainable Development Goals (SDGs), launched in 2015; the first of its seventeen goals is 'no poverty by 2030'. Tracking global progress on international poverty tells us how close the world is to achieving this aim. The global share of people in extreme poverty those living on less than \$1.90 a day have decreased consistently since 1990. In 1990, it was estimated that 1.9 billion people were living below the extreme poverty line 36 percent of the world population at the time. In 2015 (the most recent year for which global estimates are available), 735 million people were living in extreme poverty 10 percent of the world population. Poverty reduced during the MDG era (post-2000 especially), demonstrating the power of concentrated global efforts; in fact, the goal (to reduce extreme poverty by half) was achieved in 2012, three years ahead of schedule.

POVERTY LEVEL AT WORLD LEVEL, 2015

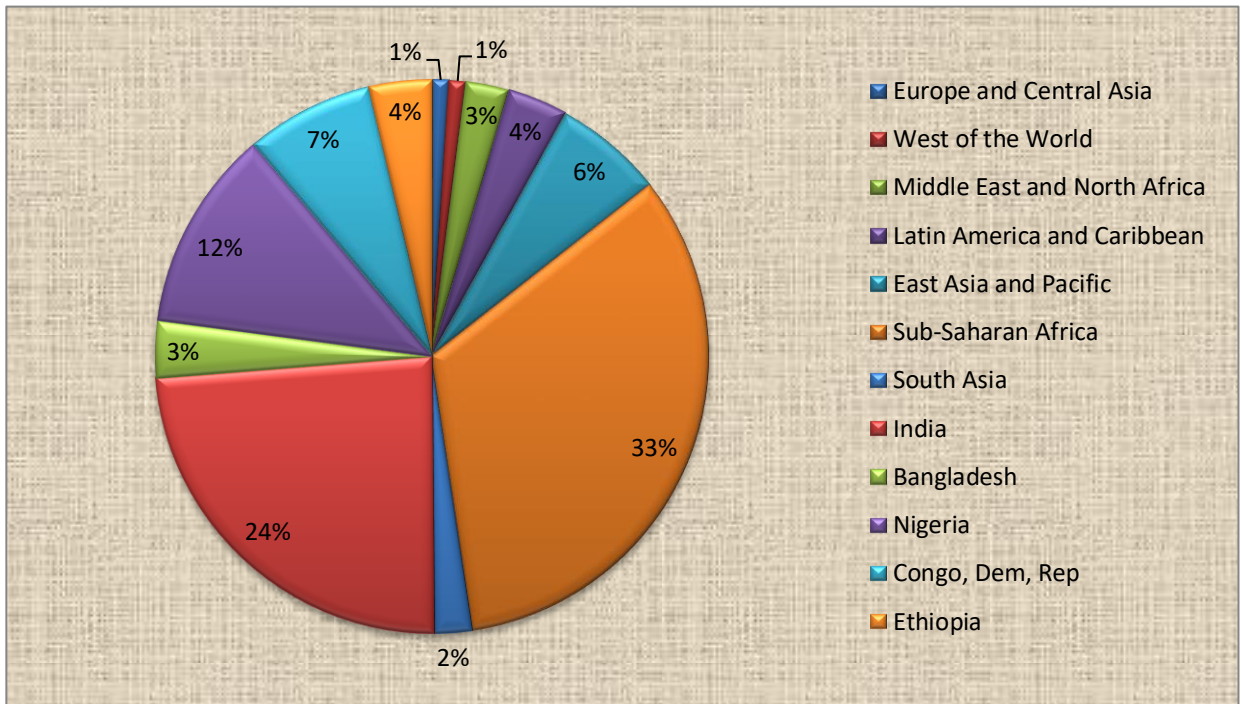


Figure: 1

Poverty and human development are the two widely discussed concepts, which are closely associated with the life of people across the world. It is pointed out that development is not only the income matters but also removal of poverty and under nutrition (Ray, 1998). Alleviation of poverty and improvement in the quality of life of people become the prime concern of governments and governance. According to World Bank, the main challenge of government especially the poor countries of the world are to improve the quality of life of people (World Bank, 1991). Better quality of the life of people is not only associated with their income, but it involves higher standards of education, health and living conditions (UNDP, 2010). The Millennium Development Goals and Sustainable Development Goals recognized the importance of poverty reduction to ensure sustainable development. The ‘2030 Agenda for Sustainable Development’ aims to improve the lives of people by freeing them from poverty. As per the estimation of United Nations, 76.7 million people used to live in poverty in 2013 which was 1.7 billion people in 1999 (UN, 2017). In this backdrop, the first ‘Sustainable Development Goal’ of United Nations aims to end poverty in all its form everywhere. The policy makers redefined economic development in terms of reduction in the incidence of poverty and inequality. It pinpoints the provision of basic amenities to the people, which is essential to lead a meaningful life and build up their capabilities.

CONSEQUENCES OF POVERTY IN INDIA

Poverty entails more than the lack of income and productive resources to ensure sustainable livelihoods. Its manifestations include hunger and malnutrition, limited access to education and other basic services, social discrimination and exclusion as well as the lack of participation in decision-making.

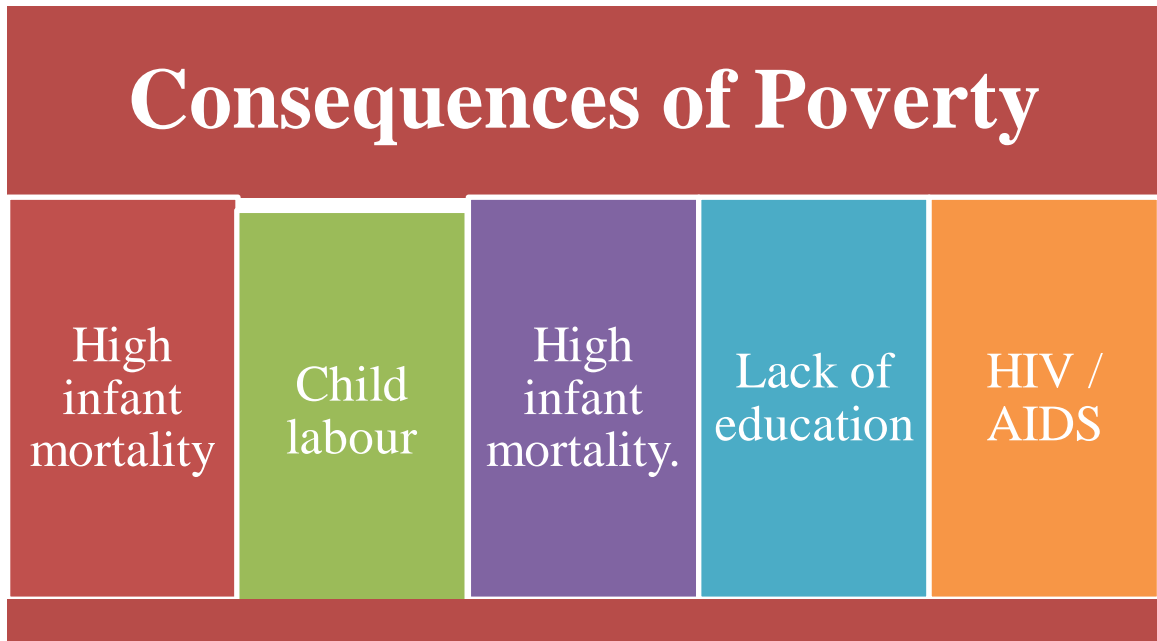


Figure:2

The majority of poor live in India where 60 percent of the poor still reside in the states of Bihar, Jharkhand, Odisha, Madhya Pradesh, Chattisgarh, Uttar Pradesh and Uttarakhand. The reason for these states to be in the category of the poorest state is because 85 percent of tribal people live there. Also, most of these regions are either flood-prone or suffer from calamities. These conditions hamper agriculture to a great extent, on which the household income of these groups depends. According to the Global Hunger Index Report 2018 by the International Food Research Institute, India ranks 103 in the Global Hunger Index (GHI). Though there is no shortage of food production in India, our nation still has 35.8 percent of children under five in the underweight category. India is working hard to become a superpower in 2020, but such statistics are worrisome, as our nation still lags behind in improving GHI. At the same time, India seems to have achieved commendable success towards poverty eradication, because it is no longer the country with the largest number of poor people.

In 2018, for the first time in decades, Nigeria piped India to the top slot in terms of the total number of people living in extreme poverty. As per World Poverty Clock, India's figure of 70.6 million was surpassed by Nigeria's 87 million people living in extreme poverty.

Moreover, according to a Sustainable Development Goals Report of the United Nations Development Program released in 2018, India has made significant progress: “Between 2005-06 and 2015-16, the incidence of multidimensional poverty in India was almost halved, climbing down to 27.5 percent from 54.7 percent as per the 2018 Global Multidimensional Poverty Index report. Within ten years, the number of poor people in India fell by more than 271 million (from 635 million to 364 million). This MPI index measures progress across 3 key dimensions of health, education and living standards, and uses 10 indicators – nutrition, child mortality, years of schooling, school attendance, sanitation, cooking fuel, drinking water, electricity, housing and assets. People who lag behind in at least a third of the MPI’s components are defined as multidimensional poor.

CAUSES OF POVERTY IN INDIA

The high population growth rate is one of the major reasons of poverty in India. This further leads to a high level of illiteracy, poor health care facilities and lack of access to financial resources. Also, high population growth affects the per capita income and makes per capita income even lower. It is expected that the population in India will reach 1.5 billion by 2026 and then India will be the largest nation in the world. But India’s economy is not growing at the same pace. This means a shortage of jobs. For this much population, near about 20 million new jobs would be required. The number of poor will keep on increasing if such a big number of jobs won’t be created. The ever-increasing price of even basic commodities is another reason for poverty. A person below the poverty line finds it difficult to survive. The caste system and unequal distribution of income and resources is another reason for poverty in India.

CAUSES OF POVERTY



Figure:3

Apart from all these, unskilled workers are paid very low in spite of the hard work they put in daily. The problem lies with the unorganized sector as owners do not bother with the way their workers live and the amount they earn. Their area of concern is just cost-cutting and more profit. Because of the number of workers looking for a job is higher than the jobs available, unskilled workers have no other option but to work for less money. The government should really find a way to impose minimum wage standards for these workers. At the same time, the government should ensure that this is implemented well.

ERADICATION OF POVERTY IN INDIA

Defining poverty within a uniform framework is very difficult because poverty is a multi-faceted phenomenon, which undergoes changes with respect to geographical distances and social stratification across the states within the same territory. In poverty analysis authorities and policy makers give lesser emphasis on prioritizing number of factors like education, health, and public services which can directly or indirectly influence in resolving issues pertaining to the well-being of people despite the draining of money as considerable expenditure from the public exchequer. Further, measuring income of households, at a point of time to assess their deprivation does not suffice enough to give a comprehensive picture of their poverty as the conventional income measure of poverty does not capture the larger proportion of people who lie just above the poverty line consequent on their incidence of socio economic deprivation. Thus, an alternative measure, the 'Multidimensional Poverty Index' overcomes the same, making it a comprehensive one. Each dimension index of

multidimensional poverty is closely connected with human development where, the former measures the deprivation in the basic dimensions of human development such as ‘a long and healthy life’ , ‘access to knowledge’, and ‘decent standard of living’. The latter measures the average achievement over these basic dimensions. It has altered the perception of poverty and made an impact on poverty measurement that resulted in the multidimensional analysis of poverty within the human development framework.

THE SOCIAL INDICATORS OF POVERTY

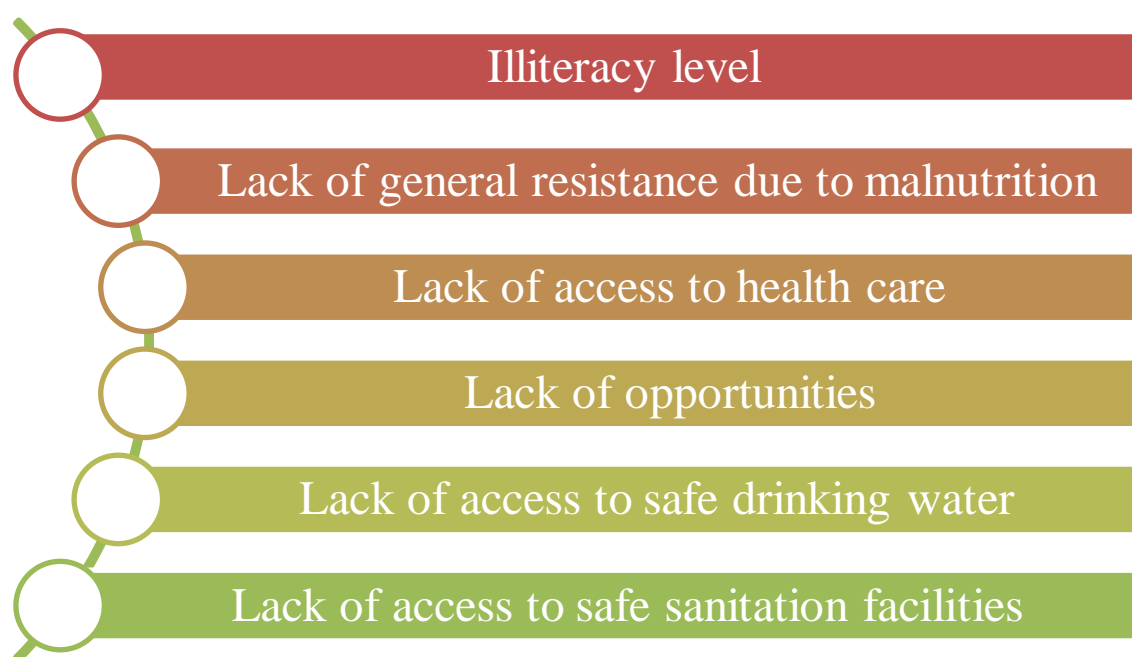


Figure:4

Poverty is a global problem. According to the World Bank in 2015, over 700 million people were living on less than \$1.90 a day. While that represents a milestone (in 1990, it was over one billion) that’s still way too many people. That number also includes extreme poverty that is defined by the UN as “a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services.

POVERTY IN INDIA

After 70 years of independence, today India is the fastest growing economy of the world. It is evident from this fact that India’s economy has shown tremendous growth in these 70 years. India’s GDP has reached \$2.65 trillion in 2017 from a mere \$93.7 billion in 1950. But amidst of all these developments, the state of poverty in India has always remained a matter of concern and a major problem in the country, the reason being India’s lopsided

development. The problem with India's development can be clearly observed i.e. certain parts of the country and the society enjoy all the benefits of development whereas the other parts largely remain untouched. As a result, India witnesses chronic and widespread poverty. Joseph E. Stiglitz had rightly opined that, "If economic growth is not shared throughout the society, the development will be failed." It is not that India is having the same level of poverty what it used to have at the time of independence. The country has definitely shown growth in poverty alleviation rate, but the growth is not what it should have been after so many years of independence with so many policies and programmes being in existence to serve this purpose. The difference among the opinions of economists and intellectuals regarding poverty estimation has also led to chaos in the country several times. India lacks a uniform methodology of estimating poverty which adds to the misery. However, Government's efforts towards poverty alleviation through financial inclusion programmes is a clear indication that India wants to have increases standard of living and quality of life for one and all, and not only for the privileged few.

CURRENT STATE OF POVERTY IN INDIA

As we have come to know so far in this study, India doesn't have an uniform poverty estimation for all the years. Previously Planning Commission was responsible for estimating poverty officially. The Tendulkar Committee and Rangarajan Committee have put forth different estimations of poverty based on different methodologies. Similarly World Bank also estimates poverty of India using MDPI. In 2012, the Indian government stated 22 percent of its population is below its official poverty limit.

The World Bank, in 2011 based on 2005's PPPs International Comparison Program, estimated 23.6 percent of Indian population, or about 276 million people living below \$1.25 per day on purchasing power parity. The Socio- Economic Caste Census, 2011 revealed several worrying details on India's poverty. The highlights of the SECC were as below:

- There were 24.39 crore (243.9 million) households in India, of which 17.91 (179.1 million) crore were living in villages. Of those, 10.69 crore households were considered as deprived.
- 0.37 crore (29.97 percent) households in rural areas were "landless deriving a major part of their income from manual labour".
- 21.53 percent, or 3.86 crore, families living in villages belong to SC/ST categories.

- 56 percent of India's rural households lacked agricultural land 36percent of 884 million people in rural India was non-literate.
- Of the 64percent literate rural Indians, more than a fifth have not completed primary school.
- 60 percent of the 17.91 crore rural households were deprived or poor.
- 35 percent of urban Indian households qualified as poor.
- 74.5 percent (13.34 crore) of rural households used to survive on a monthly income of Rs 5,000 for their highest earner.
- 5.4 percent of rural India had completed high school.
- 3.4 percent of rural households had a family member who is a graduate.
- 4.6 percent of all rural households in India were paying income tax.
- 14 percent of rural households were employed either with the government or the private sector.
- 1,80,657 households were engaged in manual scavenging for a livelihood. Maharashtra, with 63,713, topped the list of the largest number of manual scavenger households, followed by Madhya Pradesh, Uttar Pradesh, Tripura and Karnataka.

There are many ways of defining and estimating poverty in a country, such as India. For example, the Tendulkar Committee in India based its calculations of subsistence level on the requirement of cereal, pulses, milk, edible oil, non-vegetarian items, vegetables, fresh fruits, dry fruits, sugar, salt and spices, other food, fuel, clothing, footwear, education, medical (non-institutional and institutional), entertainment, personal and toilet goods, other goods, other services and durables. Hence, as per Tendulkar Committee methodology, the national poverty line (in Rs per capita per month) for the year 2011-12 was calculated at Rs 816 for rural areas and Rs 1000 for urban areas. Using this methodology, the National Sample Survey Organization estimated poverty at 21.9 percent of the population (269 million) in 2011-12. That means in the category of poor fell the people whose daily income was less than Rs 27 a day in villages and Rs 33 a day in cities. On the other hand, the subsequent Rangarajan Committee pegged the poverty line at Rs 32 in rural areas and Rs 47 in urban areas. On this basis, the number of poor living below the poverty line in India in 2011-2012 was revised to 29.5 percent of the population (363 million).

In contrast, the international poverty line as updated in October 2015 by the World Bank stands at US\$1.90 per day (2011 PPP). In 2011, 21.2 percent of the total population in India was estimated to be living below this poverty line, as per the World Bank data.

Household expenditure is considered for calculating the poverty count in India. In this method, the purchasing power of people for buying food and some essential non-food items is taken into account. In the last few years, though the condition in cities continues to be more or less the same, the government welfare programmes have really helped reduce the incidence of poverty in rural India. Schemes such as MGNREGS have resulted in a decrease in poverty in rural areas at a faster pace than their urban counterparts.

But in spite of all the attempts, the overall number of poor in India is still increasing and becoming a hurdle. Poverty is just like a disease to which many other problems such as crime, low-paced development, etc are associated. There are a number of people in India who still live on the streets and beg for the whole day to eat a meal. Underprivileged children are unable to attend school and, and those have the opportunity to drop out after a year or so. People below the poverty line live in unhygienic conditions and are so prone to many health problems. With this, the vicious cycle of poor health, lack of education and more poverty keeps on increasing.

RESEARCH GAP

Empirical studies on poverty deal with various aspects of poverty, that include measurement of poverty (Deaton, 2008), extent of shift in poverty (Dholakia, 2003), identification of poor (Cohen, 2010), and inconsistency between official and other estimates of poverty (Suryanarayana, 2006). Studies also pinpointed that caste discrimination is one of the enabling factors of ‘intensity’ of poverty in India (Ray and Lancaster, 2005). Poverty statistics of India underlines this fact because the incidence of poverty is very high among the households belonging to scheduled castes, scheduled tribes and other backward communities in India (GoI, 2011). Another important observation is that a few people in India hold major portion of the wealth of the country.

Almost 20 per cent of people at the bottom in India get only 8.1 per cent of national income whereas top 20 percent of people get 45.3 per cent of national income (HDR, 2008).Oxfam data on inequality reveals the shocking fact that 73 percent of the GDP of India holds by one percentage of people in India (OXFAM, 2018). Unfortunately, the major proportion of the bottom 20 percent of people constitutes socially and economically backward

communities especially, Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Caste (OBC). Hence, the social group wise examination of poverty is very much essential for identifying the real target groups and the effective implementation of the poverty alleviation programmes.

In the context of India, several economists like Ojha (1970), Minhas (1970), Dandekar and Rath (1971), Ahulwalia (1978), Tendulkar and Jain (1995), and Planning Commission of India have estimated the incidence of poverty in India. These studies claimed that incidence of poverty is declining in India but they are keeping silence about the 'intensity of poverty'. Even though the relative proportion of poor households is declining, the real number of poor households remains high in absolute terms in India due to the increase in the size of population. Not only that, the states across India differ from one another under several grounds viz. social, economic, and cultural dimensions. Therefore, inter-state analysis of poverty provides sufficient inputs to the policy makers to formulate state specific poverty alleviation programmes. However, the conventional income based poverty measures do not provide sufficient inputs to policy makers for identifying and instrumentalising the targeted interventions on the issue with priority setting and impact assessment of target specific programmes of poverty alleviation. The conventional measure fails to replenish a universal measuring tool to assess the incidence of poverty and human development because of its built in methodological lacuna. This distinguishes the need for alternative conceptual approaches on 'development and deprivation', and corresponding strategies encompassing alternative forms of policy interventions and collective action.

Income and consumption expenditure are the important variables that is widely used to assess poverty in India by various researchers and agencies of the government. The Expert Group of Planning Commission (1962) used these variables in their assessment whereas the Task Force, 1977 recommended calorie criteria to measure poverty. Various studies including Dandekar and Rath (1971), Burdhan (1973) and Ahluwalia (1978) defined poverty on the basis of 'calorie criteria'. In their study, Ravallion and Datt (1996) used 'Head Count Ratio', 'Poverty Gap Index' and 'Squared Poverty Gap Index' to estimate poverty in India for the period 1950 – 90. The same approach has been followed by Sundaram and Tendulkar (2003) in their study which measures the change in poverty ratio during 1994 – 2000. Sen and Chakarborty (2005) have computed 'Human Poverty Index' and 'Capability Poverty Index of India for the period 1993 – 2000. Gupta (2005) also had used 'Human Poverty Index' and

‘Capability Poverty Index’ to estimate poverty. These studies have highlighted and stressed the need to develop a poverty index based on income and non – income variables.

The income-based poverty line enables us to simply divide the population into two mutually exclusive segments such as ‘Below Poverty Line’ (BPL) households and ‘Above Poverty Line’ (APL) households. However, the given classification ignores ‘diversities’ and ‘entitlements’ of people for instance, social identity, spatial variations, educational and occupational differences. Hence, it failed to provide database to dimension specific and socio-ethnic specific policy interventions to address poverty. Moreover, another drawback of monetary-based poverty line approach is that, it is confined to the income aspect of individual and households rather than looking into their overall endowments, entitlements and its disparities. It ignores the large share of population that lies just above the poverty line, who are more prone towards or vulnerable to poverty. It is also quite evident to see that many households are included and excluded intermittently in the ambit of poverty, as defined by poverty line, several times within a year due to their endogenous and exogenous circumstances and fluctuations in their fortune, which closely associate with their ‘deprivation status’. This warrants the need for re-configuration of the measures of poverty eliciting ‘incidence’, ‘intensity’ and ‘vulnerability’ of poverty along with its determinants and socio-economic characteristics of households.

STATEMENT OF THE PROBLEM

Identification of poor households is very important in the estimation of poverty and thereon the effective implementation of poverty alleviation programmes. However, the official estimation of poverty based income has excluded many of the poor households who are actually poor, from the category of ‘below poverty line’. It is well acclaimed that poverty is a multi-faceted phenomenon (Rao, 1998). Income based uni-dimensional methodology to estimate poverty would be giving misleading inferences or conclusion and hence it remains an unscientific measure of poverty estimation. This may further lead to misallocation of resources and benefits diverted to ineligible beneficiaries in the society aggravating further inequality and poverty. Hence, it is alleged that a number of non-poor households happened to enjoy and snatch the privileges of poverty alleviation programmes of India (Rudra, et.al., 1998). It demands a more comprehensive measure, which is capable to estimate multiple deprivations at household and state level in the basic dimensions of human life. The ‘incidence’ and ‘intensity’ of poverty among households belonging to various social groups would not be similar within the state and across the country. Further, major proportion of the ‘poor households’ in India

belong to backward communities namely SC, ST, OBC (Government of India, 2011). Even though, the governments at the centre and state had implemented a series of special programmes for these communities. SC/ST households are often unable to obtain access to various essential public services which are basic to maintain a decent standard of living, adequate education and health care. Theoretical postulates reveal that, better human development enabling environment could be helping to reduce incidence of multiple deprivations among households. Hence, the variation in the ‘incidence’ and ‘intensity’ of deprivation among the societal groups in the ‘better’, ‘moderate’, and ‘poor’ human development circumstances at state level within the same territory to emphasize its inter-state and inter-group variations of the same. Apart from the cross country comparison of multidimensional poverty by UNDP and Alkire (UNDP, 2010), an inter- state, inter-group and dimension-wise decomposition analysis of multidimensional poverty using the deprivations of human life in the basic dimensions of human development namely, education, health and standard of living is hard to find in the existing literature.

In the given backdrop, the present study adopts human development framework to explore the inter-state variations in the ‘determinants’ and ‘correlates’ of the ‘incidence’ and ‘intensity’ of poverty across the selected states of India.

Poverty, as stated, is not a single dimensional problem. Large number of factors directly or indirectly is associated with the incidence and intensity of poverty of a country. The incidence, intensity and determinants of poverty vary from place to place and household to household. The review of related studies evince that the major research conducted in this field so far focused mainly on the incidence of poverty by income dimensional one. The human development framework enables one to proceed with multidimensional analysis of poverty. The present study aims at examining the ‘determinants’ and ‘correlates’ of multidimensional poverty among the social groups across the states of within the human development framework.

OBJECTIVES

1. To find out the poverty in India (from 1993-2012)
2. To analyse the poverty and economic development in India
3. To examine multidimensional poverty index and human development index in India
4. To find out the disparities on socio-economic parameters in India

5. To suggest the policy implications

HYPOTHESIS

The following hypotheses were tested in the course of the study

1. There is no significant difference in performance between poverty and economic development
2. There is a positive relationship between poverty and economic development.
3. There exist significant 'disparity' among the 'enabling variables of human development' across the states of India.

CONCLUSION

Poverty has always been a major constraint on the path of India's economic growth, which is a fact never to be ignored. The only way to fight with this deep and chronic poverty is to eliminate it, though easier said than done. But the country has been witnessing constant growth in poverty reduction scenario post 1991 era with several financial and social inclusion policies being designed and dedicated towards serving this purpose leading to upliftment of the poor section of the society.

DIMENSION OF POVERTY

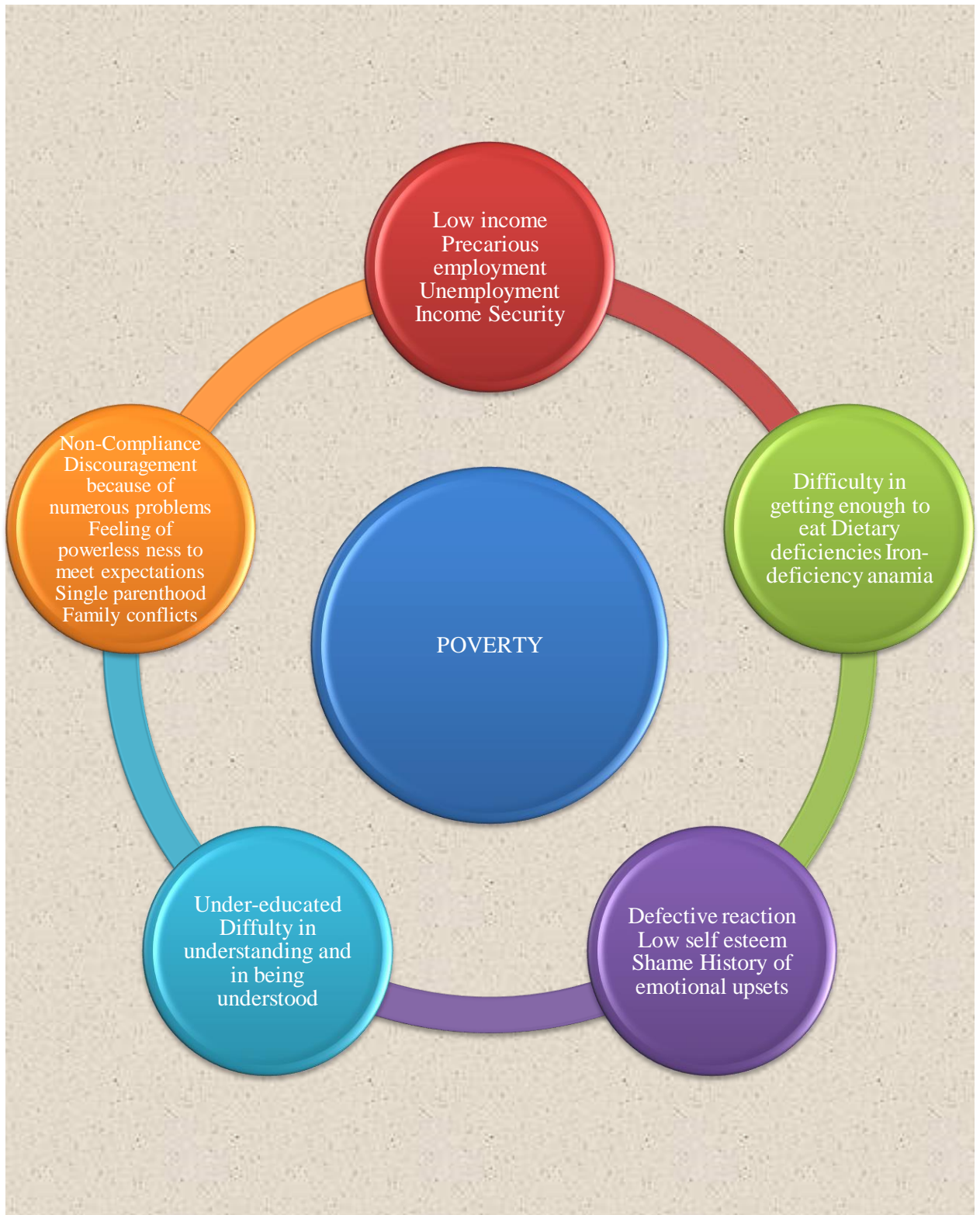


Figure:5

REVIEW OF LITERATURE

CHAPTER II

REVIEW OF LITERATURE

The review of literature relating to the present study on "**Analysis of Multidimensional Poverty and Human Development in India**" is discussed under the following heads:

- 2.1. Historical Background of the study
- 2.2. Poverty and Inequality
- 2.3. Impact of the Economic Reforms on Incidence of Poverty
- 2.4. Multidimensional Poverty
- 2.5. Other Related Studies

2.1. HISTORICAL BACKGROUND OF THE STUDY

Poverty as a public policy concern is now widely considered to be a multidimensional problem at the global, national and community level. However, these dimensions of poverty are more interrelated and complementary rather than substitutes. The concept of poverty has a very long and diverse history. Early studies on poverty in the 20th century can be traced back to Booth's (1892) pauperism and analysis of town life in Row tree's (1901) work who initially defined poverty in terms of "physical efficiency"—a physiological standard referring to a prescribed "basket of goods". Row tree's definition provides a framework for survey conducted by Bowley. Nevertheless by 1965, another philosopher, Townsend, contradicted Row tree's definition and adopted a relative rather than an absolute standard of poverty.

Townsend and Smith (1965) argued that individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diets, participate in the activities and have the living conditions which are customary or at least widely encouraged and approved in the societies to which they belong.

In **Harrington's (1962)** "the other American" and **Galbraith's (1958)** "the affluent society", much was said to arouse the attention of the public, the politicians, and especially academicians about the importance of poverty to economic development.

The 1964 report of the council of economic advisers set out a poverty line at \$3000, drawing heavily on the research of Orshansky (1965), with more emphasis on the level of

disposable income, which was reflected in macroeconomic indicators like Gross National Product (GNP) per capita and with an emphasis on precipitate income growth.

In the 1970's political debate especially within the World Bank and academic research in major universities, helped reshape the whole concept of poverty. Further emphasis on relative deprivation, inspired in the UK by Runciman, helped redefine Poverty as not just a failure to meet minimum nutrition or subsistence, but rather as a failure to keep up with the standards prevalent in a given society. Another important shift at this time was a broadening of the concept of income poverty to a wider set of basic needs, including those provided within the socio-economic environment. Following the international labor organizations (ILO) pioneering work in the mid 1970's poverty came to be defined not just as lack of income but also as a lack of access to health, education and basic social services deemed necessary for survival. The 1980's saw new layers of complexities added to the concept of poverty. Principle innovations included:

- ❖ The incorporation of non-monetary aspects, particularly as a result to Robert Chamber's work on powerlessness and isolation. This helped to inspire greater attention to participation.
- ❖ A renewed interest in vulnerability and its counterpart, security, associated with better understanding of reasonability and of the impact of shocks notably drought. These points to the importance of assets as buffers and social relations (The moral economy, social capital etc.) It also led to new work on coping strategies.
- ❖ A broadening of the concept of poverty to a wider construct livelihood, the Brundtland commission on sustainability and the environment which popularized the term "sustainable livelihood" adopted this line of thought.

Theoretical work by Amartya Sen (1985, 1987) emphasized that income was only valuable in so far as it increased the capabilities of individual and thereby permitted functioning in society. A growing interest in the study of gender and its relevance to poverty. Besides this, the debate moved from a focus on women alone (women in development-WID) to wider gender relative (Gender and development-GAD) policies followed to ascertain women empowerment.

On the other hand, the 1990's saw further development in the concept of poverty in terms of well-being and failure of social entitlements. The idea of well-being came to act as a metaphor for the absence of poverty with concomitant emphasis on how poor people

themselves view their own situation. This has been termed as the participatory paradigm. At the same time, inspired by Sen, United Nations (UNDP) developed the concept of human poverty within the sphere of human development and defined poverty as the denial of opportunities and choices and the objective of human development is to lead a long, healthy and creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem and the respect for others (UNDP, Human Development Report 1997). This opened up a development approach to qualitative and quantitative measurements regarding the incidence and depth of human condition of the poor.

2.2. POVERTY AND INEQUALITY

Poverty is the failure of basic capabilities to reach certain minimally acceptable levels. The functioning relevant to this can vary from such elementary physical ones as being well-nourished, being adequately clothed and sheltered, avoiding preventable morbidity etc to more complex social achievements such as taking part in the life of the community being able to appear in public without shame and so on (**Sen, 1996**).

Gupta (1973) examined the role of the public sector investment in reducing the regional income disparity during the Five Year Plans. The study concluded that public sector net investment which constituted nearly 70 percent of the total net investment over the Fourth plan period contributed to reduce the spatial income disparity in the country over the period 1950 to 1966 while in fact the influence of public sector in reducing income inequalities was notable.

Sarkar (1994) analyzed the link between regional disparities and plan outlays during the pre-reform period. The study found a strong link between plan outlays and per capita consumption of electricity, per capita expenditure on health, percentage of villages electrified and literacy rate, which further had strong link with regional imbalanced.

Nayyar R. (2004) highlighted relationship between state wise growth rate and reduction in poverty, during the post reforms period. The study found that there was no positive relationship between growth rate and poverty reduction. Many states where growth rate had remained very high, have not shown rapid reduction in poverty, while in the states where growth rate remained slow, have shown higher reduction in poverty, which clearly indicated towards the impact of other factors on incidence of poverty. Besides this, the study concluded that even in the high growth states, which have done well in poverty reduction,

backward regions and communities witnessed little poverty reduction. And a high positive correlation had been found between poverty reduction and physical infrastructure.

Besley et al. (2005) examined the relationship between poverty, growth and policies in India over the time period from 1958 to 2000 using state level panel data for sixteen major states of the country. The authors conclude that in India, poverty reduction has varied across states as well as across rural and urban areas. They show that heterogeneity in poverty reduction which Indian states have experienced depends on the policies adopted by the states in relation to the land reforms, rural bank branch expansion, labour deregulation and other policies and the initial conditions of the states e.g. land institutions, female literacy, female labour force participation etc. Besides this, difference in rate of growth among states also affects the ability of any particular state to reduce poverty.

Purfield (2006) used data for 15 largest Indian states during 1973-74 to 2002-03 analyzed the variation of growth across states in the form of income gap between rich and poor states. The study found that the faster growing states have remained more effective in reducing poverty. On the other hand, the poor states have not been much successful in reducing poverty. The study concluded that differences in policies adopted by states, failure of poor states in generating private sector jobs and failure of labour and capital flow to close income gap have remained the reasons behind inter-state imbalances in terms of growth.

Lanjouw, P. and Stern, N. (1991) analyzed the relationship between socio-economic conditions and incidence of poverty. The study concluded that incidence of poverty was more among low caste households and households that depend on agricultural labour. In addition, landless and widowheaded households were more likely to experience poverty. The study further concluded that the main reason behind more poverty among agricultural labour was a very low mobility of labour from agricultural to other sectors.

Datt, G. and Ravallion, M. (1996) analyzed the effects of sectorial pattern of economic growth on poverty in India through estimated a time series of head count ratio, the poverty gap and the squared poverty gap indices for rural and urban areas between 1951 to 1991, on the basis of the consumption distribution from thirty-three household surveys conducted by the NSSO (from 3rd round to 47th round). The study concluded that the growth of rural consumption contributed in poverty reduction in both rural and urban areas. On the other hand, urban growth brought some benefits to the urban poor but had no impact on rural poverty. Moreover, rural to urban population shift too had no significant impact on poverty.

Further, in regards to the growth by output sectors authors found that output growth in the primary and tertiary sectors reduced poverty in both the urban and rural areas, but, secondary sector had no poverty reducing effect.

Tendulkar, S.D., Sundaram, K. and Jain, L.R. (1996) identified the macro-level determinants of the rural and urban head count ratio on the basis of inter-temporal trends in poverty at the allIndia level. The study concluded that time series analysis of the rural head count ratio showed that it responds more than proportionately to short run variations in agricultural income per head of the rural population at constant prices. On the other hand, urban head count ratio respond less than proportionately to change in real nonagricultural income per head of urban population. As far as it concerns to the impact of relative food prices, the urban head count ratio is seen to be twice as sensitive to this variable as compared to the rural head count ratio. Moreover, the food prices from both rural and urban areas are positively related to the gross fiscal deficit and negatively related to government stocks of food-grains. However, the impact of gross fiscal deficit was somewhat higher and that of public stocks somewhat lower in absolute terms for urban food prices than their rural counterparts. The study estimated equation regarding policy variables affecting poverty and also found that the lower gross fiscal deficit would have a favorable influence on the rural and urban poverty through its moderate effects on food prices. However, the effect of this low deficit was bound to have its effect on general economic activity, employment and anti-poverty programmes.

Datt, Gaurav and Ravaliion, Martin (1997) analyzed the relative performance of fifteen major Indian states in terms of poverty reduction by considering three poverty measures namely- Head count index, the poverty gap index and the squared poverty gap index. The study revealed that where there was a trend decreased in poverty for all three measures (at five percent significant level or better) in 9 out of 15 states namely- Andhra Pradesh, Gujarat, Kerala, Maharashtra, Orissa, Punjab, Haryana, Tamil Nadu, U.P and W.B. The study resulted that a high correlation was found between the trend rates of consumption growth and poverty reduction and also find that the initial condition of physical and human resource development mortality significantly contribute to the rate of progress in reducing poverty. In the states with worse initial condition the rate of poverty decline was significantly lower. To the contrary in the states with good initial conditions the rate of poverty decline was high. However the differences in the initial conditions did not fully account to the difference in the rate of poverty reduction among the states. As in some states with higher initial poverty measured the rate of poverty reduction remained high. As some factors like trends rates of growth in agricultural

yields, per capita non- agricultural output and development spending, growth in average consumption also contribute to the difference in the rate of poverty declined among the state. Thus both the initial conditions and time dependent variables contributed to the differences in poverty reduction among states.

Bhanumurthy, N.R and Mitra, Anup (2003) used the data from NSS examined the relative contribution of various factors namely- growth effect, inequality effect, population shift effect, per capita income, shift in value added mix towards tertiary activities, manufacturing labor productivity and the ratio of poor to manufacturing employment in reducing and raising the poverty incidence for the time periods from 1983 to 1993-94 and 1993-94 to 2000. The study revealed that economic growth was accompanied by an adverse inequality effect in both the rural and urban areas during the first period of time and in rural area during the second period of time. However, the adverse effects of rise in inequality were less effective than the beneficial effects of growth. Population shift effect i.e. rural to urban migration also helped in reducing poverty by enabling the rural migrant poor to participate in urban based activities. The study found that there was more beneficial effects of growth and population shift than the adverse effect of rise in inequality resulted the decline in poverty by 19.17 percent during 1983 to 1993-94 and by 27.42 percent during 1993-94 to 2000. Furthermore, the declining share of agriculture and industry and expansion of tertiary sector which had possibly generated more employment opportunities for the poor also contributed in poverty reduction in both the periods of time. The study concluded that the rise in manufacturing labour productivity and employment growth in the organized industry also played crucial role in poverty reduction. However, the magnitude of contribution of these factors and rate of decline in poverty increased during the second period of time (1993-94 to 2000) as compared to first period of time (1983 to 1993-94).

Hansda, Sanjay K and Ray, Partha (2006) attempted to throw light on the inverse relation between poverty and unemployment in India from the data as obtained in the 1990s at the aggregate level as well as at various cross-sections, such as urban-rural, male-female, different expenditure classes, regional and cross country level. The study resulted that the poverty ratio steadily declined over the years from as high as 51.3 percent in 1977-78 to 26.1 percent in 1999-2000. Contrary to this, the unemployment rate declined between 1987-88 and 1993-94, but increased during the period of 1999-94 to 1999-2000. Moreover, while the urban unemployment rate was consistently higher than the rural rate, the urban poverty ratio was lower than the rural poverty ratio. Similarly a lower female unemployment rate was

accompanied by higher female poverty ratio. The study also evidenced that lower consumption groups had a much lower unemployment rates both in rural and urban areas as the poor could not wait for appropriate work and instead, take up any work even of sporadic nature. The relation of poverty and unemployment continued to be a paradoxical across the states also. Moreover, where India's unemployment rate was lower than those in several countries such as Australia, Brazil, Indonesia, Korea, Pakistan, Philippines, Sri Lanka and U.K, its poverty ratio was much higher than these countries. On the other hand, India's unemployment rate was higher than Bangladesh's but its poverty ratio was lower than the same country. The study concluded that the growth of employment remained higher for the unorganized sector as compare to the organized sector and heavy expenditure on various employment programmes led to lower poverty but failed in generating sufficient man days.

In a developing country like India, with low level of income and high incidence of poverty, poverty has an impact on all aspects of development (social as well as economic). Poverty affects social development directly. In this paper an attempt has been made to analyze the poverty trends in India.

2.3. IMPACT OF THE ECONOMIC REFORMS ON INCIDENCE OF POVERTY

Nowadays, the entire world is making enormous steps in overwhelming worldwide poverty. Earlier more than 20 per cent of the population in the world is under the extreme poverty, and it is a huge issue for the whole world, since a large number of individuals die every year because of this big issue (Rusitha et.al., 2021). Further, it hinders the economic growth of a nation that a segment of the people has been financially vulnerable. It has become a social, political, and economic issue all over the world especially in the developing and third-world nations, and has been influencing on individuals, who are living with the minimum level of standards.

Vyas V.S. (1993) analyzed the possible effects of reforms on the poor section of India. The study revealed that the major programmes of new economic policy were stabilization programme and structural adjustment programme. The study focused on stabilization policy was towards curtailment of public expenditure on health, education, infrastructure and prospects for employment for the purpose of reduction in budgetary deficit and towards the withdrawal of subsidies for agricultural and poor section which were perhaps the reasons behind reduction in social welfare, production and employment. The study concluded that structural adjustment programme was towards the greater play of market forces which had

nothing for the poor section as most of the poor were unskilled and had only their physical labor to sell.

Gupta, S.P. (1995) examined the impact of new economic policy on poverty ratio, employment and inequality of consumption during the period of 1989 to 1992. The study pointed out the poverty ratio and inequality of consumption increased during this period of time. The poverty ratio increased from 33.7 percent in 1989-90 to 41.7 percent in rural area and from 36.0 percent in 1989-90 to 37.8 percent in 1992 in urban area. Inequality in consumption increased from .278 percent to .286 percent in rural area and from .350 percent to .399 percent in urban area during 1989-90 to 1992. Further in regards to the unemployment rate the study revealed that it first declined during 1989 to 1990-91 for both the males and females in rural as well as urban area and then it went up during 1990 to 1992 in all cases.

Dev, S.Mahendra. (1995) traced the impact of economic reforms on rural poverty using head count ratio and FGT index. The study highlighted that rural poverty increased during the post reforms period due to reduced subsidies on fertilizers, public expenditure on non-rural activities, which led to reduction in agricultural production and increase in unemployment. The study concluded that head count ratio significantly increased from 68.27 percent in 1990-91 to 74.6 percent in 1992. In regards to FGT an increase was from 56.77 percent in 1990-91 to 59.17 percent in 1992.

Tendulkar, Suresh D. and Jain, L.R. (1995) analyzed the impact of economic reforms on poverty in India during the first two years (1991-1992) of reforms and measured the head count ratio, the poverty gap index and FGT index from the household's consumer expenditure surveys conducted by National Sample Survey Organization (NSSO). The study explained that values of all the indicators of poverty increased during these two years both for the rural and urban areas, which was an evidence of increase in poverty during these years. The study initiated that the reasons for this increase in urban India were drastic fiscal contraction, import compression and devaluation of Indian currency which adversely affected primarily the urban organized sector. The study concluded that however, in regards to the rural poverty the reforms related actions were not directly responsible. Rural poverty increased due to the large decline in the output of food grains which adversely affected the income generation and prices of food grains. Thus the economic reforms contributed to the rural poverty indirectly rather than being the only and main cause of increase in rural poverty.

Pant and Patra (1998) used 1993-94 rural income data analyzed the impact of economic reforms on rural poverty. The study found that the initial phase of reforms process, rise in procurement and issue prices of rice and wheat, increased fertilizer prices, stagnant investment in agriculture led to decline in real wage rate of rural agricultural laborers. The study resulted that rural poverty increased in 1992 in most of the states. Real per capita expenditure on rural development programme showed a declining trend during first two years of reforms (1991-92 to 1992-93) in most of the states. Intensity of poverty was estimated to be highest among agricultural laborer class followed by non-agricultural labor class. However, in Andhra Pradesh, Bihar, Haryana, Kerala, Madhya Pradesh and Punjab, intensity of poverty among non-agriculture occupation classes (self-employed in non-agriculture, non-agriculture laborers, salaried and others) was estimated to be higher than agriculture occupation classes (self-employed in agriculture and agriculture laborers). The study concluded that rural poverty was inversely related to real per capita income and real per capita expenditure on rural development programmes. Government expenditure on rural development programmes had poverty alleviation effect but not very significant, confirming to the doubt raised on effectiveness of these programmes.

While Sen (1997) estimated the state wise head count ratio for the rural poor on the basis of the data available from NSSO rounds covering the period 1973-74 - 1993- 94. The study estimated for 1973-74, 1977-78, 1983 and 1987-88 were directly taken from the Expert Group (1993). For the remaining years, these were calculated from the NSSO data on consumption expenditure used the methodology of the Expert Group. The study also indicated that poverty fell almost continuously till 1989-90 but increased sharply in 1991 and 1992 in almost every state. Furthermore in 1993- 94 poverty falls from the levels in 1992, but increased significantly from the levels in years 1989-90 or 1990-91. Further the study concluded that the generally advocated agricultural output inflation story was not enough to explain rural poverty. Factors such as non-agricultural employment, government expenditure etc. was important in determining poverty in rural India.

Datt, Gaurav (1999) focused on head count ratio, the poverty gap index and squared poverty gap index based on the data on consumption expenditure published by NSS (53rd round) in 1997 examined absolute poverty in rural and urban India during the seven years (1991-1997) of reforms. The study resulted that rural poverty remained unchanged during this time period due to lack of rural growth and lack of change in the rural real mean consumption.

Conversely, in urban area poverty declined due to the increase in growth and urban real mean consumption (about 10 percent).

D. Narayana (2001) attempted to trace the trends in poverty in relation to per capita income growth by comparing the results from NSSO based estimates and MISH (market information survey of households). The study concluded that any single database was not good enough to analyzed trends in both rural and urban poverty. The study estimated of poverty seem more reliable than MISH- based estimates, MISH- based of poverty seem more reliable for analyzed the urban poverty. The reason for such divergence between estimates from MISH and NSSO was that MISH had 70 percent of its sample from the urban areas and collects data on income. On the other hand, NSSO had 60 percent of its sample from rural areas and the information was collected on household consumption. The study concluded that poverty has been declining in the 1990s, with a fairly close relationship with income growth.

Meenakshi, J .V and Ray, Ranjan (2002) analyzed poverty and inequality in India at the all India and state levels between the two large scale NSS consumer expenditure surveys (50th and 55th rounds) and give special attention to two disadvantaged groups in India, i.e., the scheduled castes and scheduled tribes and female headed households. The study revealed that poverty declined at all India level between 50th and 55th round for all household groups but both the disadvantaged household groups registered higher poverty rates than the general population. The SC/ST households registered higher poverty rates than the female headed households. The study further resulted that inequality also decreased at all Indian level for the same time period and for all the household groups but whereas the female headed households exhibit higher inequality, SC/ST households' record lower inequality than the rest of the population.

Deaton, Angus and Dreze, Jean (2002) examined the poverty ratio during 90s by measuring head count ratio and poverty gap index based on the data from the consumption expenditure survey of NSS, the CSO's National Accounts Statistics, the Employment-Unemployment surveys' of NSS and data on agricultural wages and inequality for the time period during 1993-94 to 1999-2000. The study found that 54th round survey based results reveal no change in poverty during 1993-94 to 1998, but, the official counts based on 55th round reveal that head count ratio declined from 36 to 26 percent during 1993-94 to 1999-2000. On the other end, the adjusted estimates for head count index reveal around two third declines in the official counts based poverty in rural area and about 90 percent decline in urban area. The poverty gap index based measurement of poverty also revealed decline in poverty in

both the rural and urban areas. The study concluded that inter-state inequality it was clear from that it increased during 1993-94 to 1999-2000 due to the increase in divergence of per capita expenditure across states (expenditure was more in the states from southern and western regions). Further more rural urban disparities of per capita expenditure also rose. Thus the study indicated towards a continuous decline in poverty and a significant increase in inter-state inequality during the nineties.

Datt, Gaurav, Kozel, Valerie and Ravallion, Martin (2002) measured an econometric model on state level poverty based on the data of NSS rounds examined the rates of poverty reduction over the period 1994-2000. The study found that incidence of poverty declined from 39 percent in 1993-94 to 34 percent in 1999- 2000 or at the rate of about 0.8 percentage point per year. The study concluded that state specific elasticities of poverty to nonfarm output growth, yield per hectare, per capita development spending and rate of inflation. They find that higher farm yields, higher development spending and higher non-farm output significantly contributed to the poverty reduction. On the other hand, higher inflation rate significantly contributed to the increase in incidence of poverty.

Deaton, Angus (2003) estimated poverty for 1999-2000 by adjusting the poverty estimate of the 55th round to make them comparable with earlier large rounds. The study used the expenditure data on six broad categories namely- fuel and light, miscellaneous goods, miscellaneous services, non-institutional medical services, rent and consumer cases and taxes to get an idea of poverty. The study found that the adjusted rural poverty estimates were somewhat higher than the official estimate of 27.1 percent. Most of states show a similar pattern, though in cases of Madhya Pradesh, Orissa, Punjab and Tamil Nadu, the adjusted estimates were lower than the official numbers. The study estimated that urban sector, adjusted were very close to the official estimates revealed that the official poverty counts based on the 30-day recall period questionnaire are not seriously misleading in urban area, though in the rural sector it appears that out of total decline measured by the official estimates only around two-thirds decline in poverty is real. The study also highlighted the trends on poverty for the period of 1987 to 2000 calculating his own price indexes and making use of these price indexes to calculate a new set of poverty lines. His calculated inflation rates were somewhat lower than those used by the planning commission; as a result, his rural poverty lines were also lower than the official ones. Moreover his urban poverty lines were on an average 15 percent higher than his rural poverty lines which were nearly 40 percent higher in the official liens. Further the results of the study reveal that head count ratios showed a rapid decline in poverty

rates, by 1 percentage point a year from 1987-88 to 1993-94 and by 1.9 percentage points a year from 1993-94 to 1999-2000. On the other hand urban head count ratio fell by 0.8 percentage points a year from 1987-88 to 1993-94 and by 1.4 percentage points a year from 1993-2000, which resulted to the persistent decline in poverty in both the rural and urban areas.

Bhalla, Surjit S. (2003) made an attempt to estimate poverty in India for the time period 1983-99 on the basis of the estimates provided by growth in real wages of the poorest of the poor- unskilled workers in rural agriculture and a very lower-bound conservative estimate of their wage growth, supplied by NSS data. He concludes that poverty in India in 1999-2000 was no more than 15 percent and was strikingly lower than the official estimate of 26.1 percent.

Sundaram, K. and Tendulkar, Suresh D. (2003) analyzed poverty in India partly on the basis of published result and partly on the basis of the unit-level records of the 50th and 55th rounds of NSS using five indicators namely- Head Count Ratio (HCR), Poverty Gap Index (PGI), Squared Poverty Gap Index (SPG, denoted asFGT*), Sen Index (SI) and Number of Poor People. They also compare the 50th round with the 55th round by recalculating 50th round with MRP (mixed reference period). They trace that in the case of rural India, over the six -year period from January 1,1994 to January 1,2000 the Head Count Ratio declined by close to 9 percentage points which was significantly higher than the average annual decline in HCR , of 0.9 percentage points, between 1983 and 1994. Further the authors conclude that the number of poor people declined by a average annual rate of 6.5 million during January 1,1994 to January 1,2000, which was 10 times more than the decline during Julyl, 1983 to January1, 1994. The decline in terms of PGI, FGT* and Sen Index was also more during January 1,1994 to January 1,2000 as compared to during Julyl, 1983 to January1, 1994. Same trends were recorded in case ofurban area.

Sundarm, K. and Tendulkar, Suresh D. (2003) highlighted the change in poverty during 1990s for 15 major Indian states using the head count index, size of poor population, the poverty gap index and squared poverty index. The results conclude that in terms of head count ratio except from Assam in all other states poverty declined and weighted head count ratio declined by 8 percentage points. The size of poor population declined by around 45 million at an average rate, per annum weighted average PGI and FGT also declined by 28 and 35 percent, respectively. Except from Orissa, Madhya Pradesh and Assam in all remaining 12 states reduction in head count ratio, the size of poor population, the poverty gap index and

squared poverty gap index remained more during 1990s as compared to 1980s. Thus a significant reduction in poverty took place during 1990s.

Sen, Abijit and Himanshu (2005) examined the poverty and inequality in India during 1990s and compared the results of the 55th round of NSS with earlier rounds. Authors conclude that poverty reduced very slowly during 1990s and the reason was the increase in inequality during this time period. Results from unadjusted 55th round based on the official poverty line reveal a fall of 8 and 11 percentage points in rural and urban poverty. Moreover the 55th round poverty ratio was lower than the ratio of the earlier rounds. However, the number of poor increased in 29 rural and 42 urban regions out of 58 NSS regions in major states. Quinquennial comparison suggests that urban poverty reduced very rapidly in the late 1980s but very slowly during 1990s. Pace of reduction in rural poverty also declined from 1-1.5 percentage per annum during 1970s and 1980s to 0.5 percentage points in the 1990s and the reason was an increase in inequality during 1990s. Furthermore the Urban Rural gap increased as increase in cereal prices led to transfer of income from the poor to the rich for most of the 1990s.

Jha, Raghendra, Gaiha, Raghav and Sharma, Anurag (2006) estimated mean consumption, poverty and inequality at three levels - national, state and at 63 NSS regions using National Sample Survey data for the 60th round. The authors conclude that there was considerable state wise variation in the values of all the measures of poverty namely- Head Count Ratio, Poverty Gap Index and Squared Poverty Gap Index. Further, it is evident from the results that some of the poorest states namely 36 Bihar, Uttar Pradesh, Orissa and Madhya Pradesh continuously exhibited high incidence of poverty.

Dev, S. Mahendra and Ravi, C. (2007) traced the trends of poverty during the pre reforms period and two sub reforms periods (1993-94 to 1999-2000 and 1999 to 2005) using head count ratio, the poverty gap index and squared poverty gap index and inequality using Gini co-efficient for 17 major states of India. Authors conclude that poverty and per annum poverty declined in both the pre and post reforms periods but the decline in pre reforms period was more than the decline in post reforms period. However a very large decline in the share of very poor in total poor took place during 1983 to 2004-05. Further in regards to the inequality measured by Gini co-efficient the study concludes that it increased for both rural and urban areas in the post reforms period. The reason behind this increase was the fact that the rate of decline in inequality was slower in 13 out of 17 states in the post reforms period as compared to the pre reforms period which, further, results to the more decline in poverty in some states

namely- Kerala, Himachal Pradesh and Haryana which had high income and Gini elasticities than other states namely- Bihar, Orissa, Uttar Pradesh and Madhya Pradesh which had low income and Gini elasticities. Beyond these points it is found that poverty and inequality in second sub reforms period (1999-2005) declined by a high rate than in first sub reforms period (1993-2000) and this decline was more for rural area as compared to urban area.

Hintanshi (2007) traced the trends in poverty and inequality based on comparable uniform reference period for major states and all India for the 38th, 43rd, 50th and 61st rounds of NSSO using Head Count Ratio, Poverty Gap Index, Squared Poverty Gap Index and Gini Ratios. It is evident from the study that although poverty did reduce between 1993-94 and 2004-05, the pace of poverty reduction was lower than in the previous two decades. The pace of poverty reduction fell from 1.1 percent point per annum during 1973-88 to only 0.6 percent point per annum during 1987-2005 and 0.7 percent point per annum during 1993-2005. Further Himanshu analyzes inequality using Gini ratios. Results highlighted that inequality increased between 1993-94 and 2004-05 in both the rural and urban areas as well as at the all India level. However in rural areas reverse trend is seen in case of Bihar, Jharkhand, Karnataka, Madhya Pradesh and Rajasthan where inequality declined during the same period of time. Furthermore it has been established by the results of the study that most of the poverty reduction between 1993-94 and 2004-05 had occurred in the period after 1999-2000, despite lower growth of wage rate and agricultural output during 1999-2000 to 2004-05. The reason as explained was the high food price increase between 1993-94 and 1999-2000, which nullified much of the poverty reduction that could be expected from the improvements in wages and agricultural productivity. On the other hand, food price growth decelerated sharply between 1999-2000 and 2004-05 which resulted in the rapid poverty reduction despite lower growth of wage rates and agricultural output during this period of time.

Sundaram, K. (2007) has made an attempt to examine the trends of poverty in India using head count ratios based on the 61st round consumer expenditure survey of the National Sample Survey (NSS) for the time period from 1994 to 2000 and 2000 to 2005. The study concludes that head count ratio of households below the poverty line declined in both the rural and urban areas during both the time periods. The decline was more in urban area during the first time period i.e. 1994 to 2000 and in rural area during the second time period i.e. 2000 to 2005. Moreover in rural area the rate of decline was higher during 2000 to 2005 as compared to first time period i.e. 1994 to 2000. On the other hand, in urban area the rate of decline in poverty was lower in the second period of time as compared to the first period of time.

Kurian, N.J (2000) examined the state wise disparities in terms of socio-economic development for fifteen major Indian states by dividing the states into two groups namely- Forward group and backward group. The forward group consist eight states i.e. Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu. The backward group consist seven states namely- Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and West Bengal. The results of the study reveal that there exists a considerable disparity in socio- economic development across the Indian states. Where in the states of forward group the sex ratio, percentage share of urban population, female literacy, rural female literacy, life expectancy at birth for females, per capita NSDP, per capita development expenditure and private expenditure were high, in backward states the value of all these indicators were comparatively low. Contrary to this, percentage of poor population and growth rate of population were high in the backward states, but were low in the forward states. Moreover, these disparities between the states of forward and backward groups further increased due to the adoption of economic reforms and increasing role of private investment in the development. Where the forward states have attracted more private investment due to the better social services, improved infrastructure facilities and good governance, the backward states have failed to attract private investment due to the lack of these facilities. Thus the more flow of private investment to the forward states as compared to the backward states has led to the further increase in the socio- economic disparities among the Indian states. Moreover the policies of deregulation and privatization have reduced the scope of central investments which reduced the possibilities of economic and social development through interfere of central government in the backward states.

Dholakia, Ravindra H. in 2003 and 2005; in 2003 the author examined the trends in regional disparity in the economic and human development in India using the regression analysis and t- test. The result of the study reveals that the regional disparity in terms of per capita state domestic product (used as an indicator of economic development) neither increased nor declined over the time period. Contrary to this, with regards to the human development index, regional disparity significantly declined during 1981-91 and 1991-01, as seven out of nine indicators of human development displayed a declining trend. Furthermore in regards to the social and equality of life indicators also, a significant reduction in regional disparity was recorded during 1980s. In term of 12 out of 16 social and quality of life indicators regional disparity declined during this period of time. Thus where regional disparity in terms of per capita SDP did not declined, a significant declined in regional disparity in relation to the indicators of human development and social and quality of life indicators was recorded by the

author. In 2005 he examined the trends in regional disparity in terms of human and social development in India during 1980s and 1990s by using the regression analysis and standard two-tailed t-test. The author divides the various indicators of social and human development into two parts to serve the purpose of the study in a better way. One includes the output indicators and the other one includes input indicators. The author concludes that in terms of all the output indicators except for two the regional disparities either declined or remained the same over the time period. However, for the two indicators namely- sex ratio for the ages 0-4 and dropout rates for standards 1 to 10 among boys and girls disparity increased over time. Further in relation to the input indicators the study reveals that in none of the indicators disparity increased over time. In fact in most of the indicators disparity declined and only in a few indicators disparity remained the same. The author concludes that perhaps the efforts of the state government remained the reason behind the declining trends in regional disparity.

Ahluwalia, Montek S. (2000) judged the growth performance of fourteen major states of India for the time period 1980-81 to 1997-98. The results of the study reveal that the range of variation in the growth rate of SDP in the 1980s was from 6.6 percent per year in Rajasthan to 3.6 percent per year in Kerala. In the 1990s the variation was much larger, from 9.6 percent per year in Gujarat to 2.7 percent per year in Bihar. On the other hand the variation in growth rates of per capita SDP ranged from 4.0 percent per year for Rajasthan to 2.1 percent per year for Madhya Pradesh in the 1980s and from 7.6 percent per year in Gujarat to 1.1 percent per year in Bihar. The author concludes that interstate Gini Co-efficient was fairly stable up to about 1986-87, but began to increase in the 1980s and this trend continued through the 1990s. It increased from 0.16 in 1986-87 to 0.23 in 1997-98. All states experienced a decline in poverty over the 10 years period with only two exceptions, Bihar and Haryana, both of which showed an increase. The percentage of state plan expenditure to SDP declined from an average of 5.7 percent in the 1980s to 4.5 percent in the 1990s. Moreover, this decline occurred in both the better performing as well as the worse performing states. But there was a considerable variation across states in the ratio of state plan expenditure to SDP and this variation increased in the 1990s in comparison to the 1980s. Orissa had the highest ratio of state plan expenditure to GDP at 7.1 percent and West Bengal had the lowest of 2.7 percent in the 1990s. Literacy rates have risen over time in all states, including the slow growing states of Bihar, U P and Orissa but in terms of quality of infrastructure the poorer performing states definitely remained behind as some of these infrastructure needs could be met by the private sector, but the scope for private investment in infrastructure was limited in the less developed states.

Singh, Nirvikar, Bhandari, Laveesh, Ayyuchen and Khare, Arti (2003) examined regional inequality in India for the period 1993 - 2000 by measuring Gini co-efficient for per capita consumption expenditure, HDI based on National Human Development Report (planning commission of India, 2002) and intra state inequality by deriving economic performance index based on five variables namely- petrol sales, diesel sales, bank credit, bank deposits and cereal production for 14 major states. The results explain that in half of the states consumption inequality in urban area increased but consumption inequality did not increase in any of the states in rural area. Further, the study reveals that coefficient of variation in case of Human Development Index fell from 0.185 in 1991 to 0.155 in 2001. Out of the five variables of economic performance index, consumption of diesel and credit displayed absolute divergence. On the other hand, consumption of petrol displayed evidence of conditional convergence. Thus, the study reveals that in post reform period the situation was not very bad in relation to inequality and specially inequality in Human Development Indicators as Human Development Indicators did not show any trends of increase in inequality during the post reforms period.

Bhattacharya and Saktivel, S. (2004) drew attention to the regional inequality among 17 states of India using the growth rate of SDP and per capita SDP for these states for the years 1980-81 to 1989-90 (Pre reforms period) and 1990-91 to 1999- 2000 (Post reforms period). The study concludes that there existed large regional disparities in both the pre and post reforms period. However, the disparities were wider in post reforms period as compared to pre reforms period. The states with adequate infrastructure and natural resources namely- Andhra Pradesh, Goa, Gujarat, Haryana, Himachal Pradesh, Maharashtra, Tamil Nadu, Rajasthan, West Bengal recorded a high growth during the post reforms period than the pre reforms period and even more than the national growth rate as these states attracted more investment through market mechanism especially in the form of foreign capital. On the other hand, poor states like Bihar, Orissa, Assam and Uttar Pradesh attracted less foreign capital and also probably domestic and performed badly with SDP and per capita SDP growth.

Pal, Parthapratim and Ghosh, Jayati (2007) analysed the causes and nature of the patterns of inequality in India, since the economic liberalization in the early 1990s. The results based on the data of the comparable estimates of the 50th (1993-94) and 55th (1999-2000) rounds of NSS reveal that inequality increased both in rural and urban India. Further the authors find that rural urban income disparity also increased at both the national and state level. Moreover, urban inequality was much higher than rural inequality for most of the states.

In fact, in 31 of the 32 states the urban Gini increased during 1983 to 1999-2000. Further they conclude that in five states both urban and rural inequalities increased and all these five states were located in the North-Eastern part of India. It is also clear from the results that inequality alarmingly increased in the North-Eastern part of the country, where all the states experienced increased rural and urban poverty during the same period of time. The result further reveals that for these trends of inequality some macroeconomic policies like fiscal tightening, regressive tax policies and expenditure cuts, financial sector reform that reduced institutional credit flow to small producers and agriculturalist, liberalization of rules for foreign and domestic investment, leading more regional imbalances and skewed investment patterns and trade liberalization, which has effected livelihoods and employment generation were responsible.

Kar, Sabyasachi and Saktivel, S. (2007) examined the regional inequality among 17 major states of India and the comparative contribution of agriculture, industrial and service sector in this regard for the time period of 1980-81 to 1999-2000. Study is based on the results of variation of per capita income among different states. The results conclude that aggregate inequality and contribution of each sector in aggregate inequality remained almost unchanged during the 1980s. But after the reforms, the aggregate inequality rose (from 0.28 to 0.37). The contribution of agriculture remained almost stable. However, the contribution of industry and service sector showed an increase from 0.11 to 0.13 and from 0.12 to 0.19, respectively. The increase in inequality in the industrial and service sector occurred due to the greater freedom and importance to the private sector and export oriented production which led to more competitiveness and shift of the production base to the metropolitan areas of richer state and remained the main reason of sharp increase in aggregate inequality.

Ramaswamy, K.V. (2007) examined aspects of regional employment growth in 14 major states of India for the time period from 1983 to 2004-05 used the NSS quinquennial employment and unemployment surveys. The study concluded that regional growth was comparatively balanced in the 1980s but, in the 1990s, growth rates become unbalanced. Values of Gini coefficient and coefficient of variation in terms of per capita GSDP had risen during the period of 1993-94 to 2004-05. However no relation was found between the growth rates of SDP and share in employment, as bottom five states recorded more share in employment in comparison to middle four and top five states. To the contrary, significant relation was found between growth rates of SDP and employment. Growth rate of employment in bottom states was less than the growth rate in top states. However, the same was higher than the growth rates

in middle states. Besides this, it was also evident from the results of this study that one of the reasons behind the variation in the SDPs was the relative share of states in different sectors namely- Agriculture, Manufacturing and Services. The share of top five states in services was high, and the rapid increase in labour productivity in the services sector due to growth in skill intensive services resulted to high SDPs in these states. On the other hand, the bottom five states had high share in agriculture and low share in Manufacturing and services sector. Inter-state variation in educational attainment also supported to other inter-state variations. Relatively better development of education took place in middle and high income states. The discussion above points out that the studies on poverty and inequality focused on issues namely- role of the public sector investment in reducing the regional income disparity, relationship between state wise growth rate and reduction in poverty, relationship between poverty ratio and other factors and state wise performance terms of poverty reduction, impact of economic reforms on incidence of poverty and state wise trends in poverty and inequality. Keeping in view the different perspectives provided by the authors discussed above, the present work is an attempt to examine state wise, social group wise and household's type wise incidence of poverty, to find out the relationship between state wise poverty ratio and indicators of development, to find out the influence of various indicators of development on movement of poverty and to analyze the inter-state inequalities in Indian economy.

2.4. MULTIDIMENSIONAL POVERTY

Poverty can be perceived as social deprivation from a decent quality of life, which has both qualitative and quantitative dimensions. It has been interpreted in several ways in the literature, based on calorie, income, consumption, expenditure and entitlements. Everyone in our society may have some idea about poverty but seems to be complicated while interpreting it. As poverty and human development are inversely related diverging phenomena, the focus on poverty reduction and promotion of human development seems to be moving in the same direction. It demands a meaningful innovative strategy for strengthening human development and reducing human deprivation. The strategy need to be focused upon the basic dimensions of human life namely, education, health and standard of living. The present study is an attempt to explore determinants and correlates of multidimensional poverty among social groups in India. As a prelude to the investigation, literature related to poverty and human developments are reviewed to get a better insight into the conceptual issues and the intricacies inherent with the measurement of poverty and human development. Eradication of human deprivation has been visualized as a prime goal of development in almost all countries of the world. Hence, the

outcomes of all research related to poverty must be capable enough to bring out the real incidence and intensity of human deprivation among all sections of the society. Reviewed literature for this study are enlisted under the subtitles of books, reports, studies related to international, national and regional levels.

Rowntree (1901), in his study of town life explains poverty as social deprivation. He developed a poverty standard for individual families, based on estimates of nutritional and other requirements required for meaningful social life. He viewed poverty in absolute terms, which refers to the subsistence below a minimum, socially acceptable living condition, nutritional requirements and other essential goods. It was expressed in simple absolute terms as the equivalent sum of money required to attain minimum desired nutrition. Rowntree distinguished the difference between primary and secondary poverty. He explains 'primary poverty' as the families with too low income to provide minimum necessities in their life. Those families with income marginally above the 'poverty line' was referred to as 'secondary poverty'. He used normative approach in the assessment of basic human needs and maintaining physical health. Such an approach was concerned for establishing the quality and amount of food, clothing, and shelter required for a healthy life. Rowntree changed and upgraded his assessment in later investigations and considered poverty as a concept with social dimension as it is socially constructed. Thus, Rowntree included cultural needs of the family in his poverty analysis. Based on his contribution, it is now upheld that discussion on poverty makes no sense if it is confined only to definitions of physical well-being. He highlights the importance of incorporating more social variables along with income in the assessment of poverty and acclaimed that poverty has more social dimensions rather than income.

Townsend (1979), in his study argues that, individuals, families and social groups can be said to be in poverty when they lack the resources to obtain the type of diets, participate in the activities and have the living condition which are customary and approved in the societies to which they belong. So, the relative poverty used to be measured in terms of judgments by members of a particular society by reasonable and acceptable standard of living. Townsend presents his definition of relative poverty in two perspectives such as 'low-income poverty' and poverty as 'deprived life' style. He concludes with an argument that, defining poverty solely based on income was grossly inadequate. In addition to income, items such as quality of housing, nature of working conditions and support from friends and relatives must be included in poverty assessment as these components share much to maintain a decent lifestyle. In his

arguments, poverty creates exclusion from the accepted life style of a community. Social exclusion is closely associated to relative deprivation and combination of linked problems, such as unemployment, low income, poor housing, poor health and low educational standards. One could see that, the United Nations Development Programme (UNDP) uses the components of education, health and living conditions as the important dimensions of assessing multidimensional poverty among people across the countries of the world.

Streeten (1981), on the other hand defines poverty in terms of basic needs. He interpreted basic needs in terms of minimum specified quantities of food, clothing, shelter, water and sanitation, which are necessary to prevent ill health and undernourishment. This approach accords primacy to basic physiological deprivation. According to him, deprivation can be perceived as inadequate fulfillment of a number of different basic needs relating to nutrition, health, education, shelter, water and sanitation. He approaches poverty as the deprivation of requirements, mainly material for meeting basic human needs. This approach attempts to address some of the limitations of the income indicator, which is used commonly for poverty assessment by distinguishing between private income, public services and different forms of non – monetary income. The basic needs approach to poverty measurement includes access to such necessities as food, shelter, schooling, health services, water and sanitation, employment opportunities, and even touches on opportunities for community participation. Basic needs indicators add a wide range of dimensions to income measures. He argued that the non – income basic needs indicators are capable to measure goods and services directly in terms of human welfare. The UNDP (1997) has observed the built in difficulties associated with complexity of the measure, viz. basic needs approach as it is given in aggregation of indicators. There is no way of aggregating them meaningfully for purpose of intercountry analysis and they are usually expressed in terms that do not trigger the same kind of familiarity. UNDP accepted multidimensional framework of poverty measurement developed by the Oxford Poverty and Human development Initiative (OPHI) in 2010. The Multidimensional Poverty Index (MPI) uses wide range of indicators related to basic needs of the human life which is aggregated under three dimensions such as education, health, and living conditions to assess multidimensional poverty among people which could be used for inter - country and intra - country comparisons.

Sen (1982), in his ‘theory of entitlement’ explains why some groups suffer from deprivation, which leads people succumb to starvation deaths. Sen not only proposes a ‘theory of entitlements’ but also tests it out in cases of famine conditions - Bengal famine of 1943,

Bangladesh famine of 1973 – 74, Ethiopian famine of 1972 -74, and Sahel famine of 1973 -74. According to Sen, each person has some endowments. They may consist of personal attributes such as age, sex, race etc. In terms of economic measures every person has their capacity to work unless too young or too old. Some persons may have additional endowments such as land, money, durable goods and financial assets. There are certain legal rules, which define what can and what cannot be owned. Given the endowments, there are various ways of converting them into goods and services, which constitute consumption baskets. Labour power has a dual status in this scheme. It can be directly sold for wages, which can be converted into consumption goods. It can also be engaged into a production process along with other inputs, which will yield output, which again can be sold. All these exchanges presume a market and they all are mediated via money in almost all modern economies. Given one's endowments, there are various ways of converting them into goods. In normal times, the wage of the worker will be enough to provide subsistence. That means, the 'subsistence bundle' is within his 'exchange entitlement'. If the prices of grain go up during abnormal times of drought and war, some of the participants will find their entitlements shrinking. This may be so drastic when they may not even get a subsistence bundle consumption goods, which make them, starve. Sen spends a considerable part of his essay trying to combat the Food Availability Decline (FAD) explanation of why famines and starvation death occur. Sen points out that, food shortage can arise without food supplies decline. This is because decline in per capita food availability not only hides the usual income inequalities but very significantly it also ignores uneven changes in entitlements. Thus, Sen argues that whatever the macroeconomic dimensions of food shortage, the microeconomic incidence of starvation would depend on how individual households are placed in terms of their endowments and through these endowments in their exchange entitlements.

Sen (1985), proposed the capability approach to the measurement of well-being of human functioning and the concept has gained valid application in the human development reports of UNDP. According to Sen, functioning indicates 'what we can do' and 'what we can be'. Functionings are the various things that a person may value doing. The valued functions may vary from elementary level such as being adequately nourished, free from preventable diseases, avoiding premature mortality, adequately educated, having essential non-food consumption goods and being well-sheltered to complex level such as being happy, taking part in the community life, having self-respect, improving intellectual standard, and promoting cultural identity. The set of functionings is called capability. Capability contains all achievable human functionings, which include not only the achieved functionings but also those

functionings that are achievable and not achieved as a result of the person's choice. Capability shows the range of what a person can do and therefore reflects the freedom of people. People's well-being usually tends to be measured by their achieved functionings but this neglects people's freedom to choose. The human capability approach attempts to measure poverty in terms of outcomes and not in terms of material means. It defines and interprets poverty as absence of basic human capabilities to function at a minimally acceptable level within a society.

Sen (1985), examined a society peopled with characters whose entire welfare can no longer be captured in a unique real number, characters that have distinct notions of well-being, happiness and desire-fulfillment. Sen sets out to make a special case for the use of social data such as life expectancy, morbidity, malnutrition and literacy for evaluating the welfare and standard of living of individuals or groups in society. According to Sen, well-being must not be equated with utility. In modern economic theory, utility is often treated as a mere calibration system which reflects choice. Sen argues that, utility cannot be equated with well-being because the motivation underlying a person's choice could be diverse and need not be consonant with his perception of his own well-being. Moreover, a person's preference may depend on his current condition and the state he happens to be in. Sen defines a person's 'being' as the vector of functionings a person achieves and his well-being' as a valuation of his being. In the case of comparison of living standards of people across countries with regard to per capita income, mortality, literacy and life expectancy, Sen found that more literate people have the 'capability' of more diverse functionings than a fewer literate people. This justifies looking at social data for assessing well-being of people. The crux of these findings is that a society's well-being cannot be captured by simply looking at income levels. Income measures are totally devoid of registering improvements which lie beyond the realm of economics.

Chotikapanich (1994), emphasizes the measurement of poverty using household income as an indicator of welfare. He argued that consumption can be a more appropriate indicator of poverty from the welfare perspective. Consumption directly measures the flow of 'utility-producing inputs. Income measures the ability to purchase those inputs. It is argued that a better measure of permanent economic position is the present value of life time income. It is also highlighted that the prices of commodities may differ across regions and goods may not be available at the prevailing price. This approach to measuring poverty assumes that individuals and households are poor if their consumption falls below certain threshold, usually defined as a minimum, socially acceptable well-being in terms of calories per day. In India,

after independence, Planning Commission (now NITI Aayog) appointed an Expert Group under the chairmanship of Prof. Lakdawala in 1989 to estimate the number of poor in India. The poverty line was worked out on the basis of a minimum calorie intake of 2400 calories per person per day in rural areas and 2100 calories per day in urban areas. The emphasis in this approach is placed on material well-being, and income is only viewed as a 'means' indicator to consumption 'ends'.

Ul Haq, (1995) defines human development as the process of expanding people's choices. The purpose of development must improve human lives, and that meant expanding the range of things that a person could 'be' and 'do'. From this point of view, human development becomes the process of removing the obstacles to the things that a person can do in life such as illiteracy, ill health, lack of access to resources, and lack of civil and political freedoms. The most critical elements of people's choices, the crux of human development approach, are the ability to lead a long and healthy life, to be educated and to enjoy a decent standard of living. Therefore, human development is a process of widening people's choices as well as raising the level of well-being achieved. The contrast between human development and human poverty reflects two ways of evaluating development. In 'conglomerate perspective', development evaluates on the basis of advances made by all social groups in each community. This contrasts with the 'derivational perspective', in which development is judged by the way poor and deprived fare in each community. The human development perspective on poverty contains 'evaluative aspect' and 'the agency aspect'. The evaluative aspect is concerned with improving human lives as an explicit development objective with understanding of the way improvements are to be made. The agency aspect is concerned with what human beings can do to achieve improvements particularly through policy and political changes.

UNDP (1996), explored the complex relationship between growth and human development and tried to establish long term linkage between economic growth and development. To quote the report 'human development is treated as the end, growth as a means. It identified, categorically three parameters such as equality of opportunity, sustainability of opportunity, and empowerment of people as essential though not exhaustive for choices at all levels of development but the links are forced. With policy determination, they can be mutually reinforcing an economic growth will effectively and rapidly improve human development. The Report also made recommendations in favour of the responsibilities that countries can do to improve the nature and quality of economic growth.

UNDP, (1997) draws attention towards human poverty reflecting not merely on low income but on poor health and education, deprivation in knowledge and communication, inability to exercise human and political rights and absence of dignity, confidence and self-respect. The report introduced Human Poverty Index (HPI) to measure poverty by the denial of choices and opportunities. The HPI used indicators of the most basic dimensions of deprivation, a short life, lack of basic education and lack of access to public and private resources. Though the HPI had weakness in concept, it made a useful addition to the measurement of poverty. The Report also suggests strategies for poverty reduction and considered denial of human right, opportunities and choices as the fundamental causes of human development.

UNDP (1998), notified consumption as means to human development whereas significance of consumption lies in enlarging people's capabilities to live long. Consumption opens opportunities without which a person could be left in human poverty. UNDP acclaims that consumption contributes to human development as it helping to enlarge the capability of people without adversely affecting the well-being of others. The Report concluded that, in many countries more than a billion people lacked the opportunities to consume in ways that would allow them to meet their most basic needs. Human Poverty Index-I was evolved in 1997 and Human Poverty Index-II evolved in 1998. HDR reported inequalities in consumption requirement as an explicit policy objective in all countries.

UNDP (1999), states that the establishment of measurement tools for evaluating human achievements was central to introducing human development as an alternative paradigm and to gaining the attention of policy makers. Mahbub ul Haq was convinced that, a simple combined measure of human development was essential for convincing the public, academia and policy makers. He suggests that, development of the country needs to be evaluated through the advancement in human well-being. Although Sen initially opposed this idea, he went on to help Haq in developing the 'Human Development Index'(HDI), a composite index of achievements in human development. Sen was concerned by the difficulties of capturing the full complexity of human capabilities in a single number which could shift the attention of policy-makers from material output to human wellbeing as a real measure of progress.

UNDP (2000), analyzed the relationship between poverty, inequality, and human development. The report reveals that, poverty and inequality disempowered people and discriminate them in many aspects of life, and violation of their rights. Eradication of poverty was treated as more than a major development challenge - it is a human right challenge. A

decent standard of living, adequate nutrition, health care and other social and economic achievements were not regarded as just development goals. These were treated as human rights inherent in human freedom and dignity. The Report pointed out certain key elements in policy decisions that were central to accelerating poverty eradication and realizing human rights.

UNDP (2003), aimed at putting an end to human poverty as Millennium Development Goal. It suggested a policy approach to eradication of extreme poverty and hunger, achieving universal primary education, providing gender quality and empowerment of women, reducing child mortality, maternal health, and environmental sustainability, and developing a global partnership for development purposes. These were accorded as priority challenges in meeting human development goals. The Report also touched the issue of social investment, private financing and mobilizing grass root support in achieving its goal.

UNDP (2010), stated that, poverty status must include certain non-income dimensions like approachability towards education, health and sanitation facilities to incorporate a decent standard of living. According to the Report, basic purposes of human development is to go beyond mere income resource such as inadequate nutrition, low education and skills, bad housing and sanitation conditions, inadequate livelihoods, social exclusion and lack of participation. Hence, Human Development Reports have been measuring poverty in ways differing from traditional income-based measures since its evolution. The Report stated that, a focus on deprivation is fundamental to human development and pinpoints that poverty is multifaceted and thus multidimensional. The deprivation in different dimensions other than income and their overlap also need to be considered, especially households facing multiple deprivations are likely to be in worse situation than what income poverty measures suggest. The Report introduced a new composite Index called MPI that grounded in the capability approach to measure poverty. This new measure replaced the Human Poverty Index (HPI), Published since 1997. The multidimensional poverty index addresses the shortcomings of HPI by capturing how many people experience overlapping deprivation and intensity of deprivations they face on average. It can be broken down by dimension to show how the composition of multidimensional poverty changes in incidence and intensity for different states, and ethnic groups with useful implications for policy.

UNDP (2011), stated that, interventions in human capital and expansion of human functionings are key requirements for economic growth to be more successful in reducing income poverty and calls for an integration of social and economic policies. The Report stated that, human development outcomes are a function of economic growth, social policy and

poverty reduction measures at the macro-level. Faster and more sustainable economic growth can be attained only through reducing poverty by direct policies and the enhancement of health, and educational status accompanied with the question whether the social indicators of excluded groups are converging or diverging with the rest of the population.

Gustafsson (1995), observes that, the economics of poverty is a lively field of research, stimulated by policy concern that can be made on different levels and affect different territories. Therefore, the framework for poverty assessments is not fixed. The standard assumption is that, resources are equally shared among people live in households and families. He states that, if a country adopts an official poverty line, choices of updating it will affect how the development and poverty are perceived and thus can affect the political agenda. The extent of poverty is not only how many people are affected by poverty but also how poor they are. He observes that, several developing countries are waiting for accurate household survey data which will make it possible to say something about its poverty profile in a single cross section. It is an unsatisfactory paradox that, where problems of low standards are most alarming there reliable data is often not available. This has led to important new insights and made it possible to add new questions to poverty research. Such new questions concern the durability of poverty and events at the household level which lead to entering and existing poverty.

Pradhan and Ravallion (2000), show that, subjective poverty lines could be derived using simple qualitative assessments of perceived consumption adequacy based on household survey. They implemented the method using survey data for Jamaica and Nepal. Respondents were asked whether their consumption of food, housing and clothing were adequate for their family needs. The authors observe that, the common practice in drawing a poverty line starts with a predetermined set of basic needs for good health and a meaningful life. The poverty line is the value of a monetary measure of individual economic welfare, such as expenditure on all goods and services, and the basic needs are met at given prices. People are deemed to be poor if and only their expenditure is below this poverty line, and a poverty measure is estimated on the censored distribution. They argue that, method of poverty analysis has differed radically between the 'objective quantitative' and the 'subjective - qualitative' methods. In this context, they suggested a hybrid approach, building on past methods of subjective welfare measurement. They found that the aggregate poverty measures implied by their subjective poverty line quite closely with the existing quantitative methods for the selected countries. The aggregate measures are also reasonably robust whereas one uses a single question on the

perceived adequacy of food consumption, while other asked a fuller set of consumption components. They assume more notable differences emerge in the geographic and demographic poverty profile. The poverty measures by state are more sensitive than the aggregate to the choice of method. They argue that, their subjective - qualitative approach to poverty does not tend to narrow the differentials in poverty measures between rich and poor areas.

Wigley and Akkoynulu-Wigley (2006), defend the view that education should be evaluated in terms of the capability to achieve valued functionings, rather than mental satisfaction or resources. They argue that mental satisfaction provides an inaccurate metric of well being because of the phenomenon of adaptive preferences. Resources cannot be used as a metric of well-being because of inequalities in the ability to convert income and commodities into valued functionings. They acclaim that interpreting education as a means to create human capital is also improvised because it evaluates education solely in terms of the accumulation of resources. In order to provide evidence in support of the human capabilities approach they statistically examined the channels through which educational attainment affects the health functionings implied by life expectancy with the help of panel data analysis. They analyzed the data of 35 developing countries for the years 1990, 1995, and 2000 and compared the health functionings that are achieved by the income growth generated by educational attainment, with the total health functionings. They found that, educational attainment has a significant effect on life expectancy independently of its effect by way of income growth. One per cent increase in per capita income increases life expectancy by 0.074 per cent, while one per cent increase in average years of schooling directly increases life expectancy by 0.055 per cent. Their findings show that income underestimates the health functionings achieved by educational attainment. Their empirical findings lend support to the claim that the value of education should be measured in terms of the capability for functioning, rather than resources as underscored by Amartya Sen.

Mberu (2007), examined household structure and living conditions in Nigeria. The study finds significant disadvantage in living conditions of single-adult, male-headed households' relative into two – parent households. But male-headed households show better living conditions relative to two-parent households. Mberu found that, both singleadult, male-headed and single-adult, female-headed households are negatively associated with living conditions in Nigeria. Single-adult, female-headed households are generally worse off than single-adult, male-headed households. Despite the advantage of maleheaded households over

female-headed households, a profound dimension of the results is the consistent negative association between single-adult households and living conditions in his analysis. The 'extended households' consistently show positive association with living conditions, with outcomes similar to that of households headed by women. The study also shows that the social and demographic factors such as education, age, place and region of residence are significant predictors of living conditions in Nigeria. Education is a central force in producing better living conditions and a crucial instrument in poverty alleviation. The study found that the gap in living conditions between those with no education and those with higher education is significant and very large. The study underscores the living disadvantage associated with early transition to household headship by young adults. Another interesting finding of this study is that the most vulnerable to poverty are those who live in rent-free housing. It indicates that free housing for the very poor may not pull them out of poor living conditions. The study suggests that, pursuing research and policies which seek to understand and enhance the conditions of life in rural and urban areas as the incidence of rural-urban differentials are more important than the differentials associated with the various states of the country.

Sumner (2007), evaluates the apparent contradiction between the consensus over the meaning of poverty and the choice of methods to measure poverty in practice. Sumner argues that, poverty is multidimensional and beyond purely economic dimensions such as income, expenditure, and other monetary factors. It covers gender equality, education, health, shelter, water, sanitation, risk, vulnerability, participation and social rights. The author observes that, poverty measures based on 'economic' well-being have a higher status than 'non-economic' indicators because of their perceived objectivity due to assumptions about their tangible, quantifiable and universal nature. Indicators are the product of a lengthy social process, which at every stage is shaped by the bias of the agents involved. Errors are virtually certain to occur in both the sampling and nonsampling aspect of research. Bias may appear in the choice of survey questions, and the interviewer may influence a respondent's answer. There may be chances of inaccurate reporting of consumption, due to recall difficulties or concern over the use of the information. Under-representation of some groups in socio-economic surveys will happen because sample frames are often based on incomplete official records that hide those without full legal status such as the homeless people and slum dwellers. It is also likely that a disproportionate number of the hidden households will be poor and there will be a downward bias in the absolute number of poor as calculated. In the stage when the data are collected, processed, and interpreted, bias and further errors are committed while defining how the raw data fit the definition of a specific indicator. In this context, author argues that, the selection of

indicators and its treatment in the analysis are highly important. These arguments underscore the need of assessing poverty in a multidimensional framework with both economic and non-economic indicators.

Dewilde (2008), tested the independent effect of a range of domain-specific welfare state arrangements on the risk of multidimensional poverty. Dewilde tested several multinomial logit models estimating the effect of the indicators on a categorical poverty measure distinguishing the ‘poor on one domain’ from the ‘cumulatively deprived’, controlling for both individual-level characteristics and the level of economic affluence. Control of individual-level characteristics is to ensure that ‘institutional effect’ explaining between-country variation is not due to compositional differences and control of the level of economic affluences is to standardize the between-country differences in multidimensional poverty arising from overall differences in the standard of living. Dewilde found that, the chances of being confronted with multidimensional poverty can be explained by policy context, when taking compositional differences between countries into account. It is also found that, even though benefits levels are generally higher than in the more elaborate welfare states, it seems that they have not always kept pace with the overall increase of living standards in these societies. With regard to the social assistance and the financial support for female with children, the effect appears to be faded. The author suggests that, taking this while the benefits of economic growth into an increased economic wellbeing for all population groups, and more in the case of poor. The findings pin points that the policy makers find it difficult to balance between either providing minimal benefits to avoid some absolute notion of poverty or instead to make sure that people depend on social transfers can actually participate in the activities and have the living conditions and amenities which are customary. The author suggests more empirical research for more types of transfers and on the public opinion on benefit levels in countries with different levels of economic affluence.

Gandjour (2008), analyzed the relationship between capabilities and functionings in the capability approach. His findings reveal that some functionings are not only the result of capabilities, but also their prerequisites. Some functionings have dual role such as ‘ends’ and ‘instruments’, which result in a mutual dependency between capabilities and functionings. The author says that functionings may be a direct requirement for capabilities and indirectly they ensure the absence of mental disorders and negative thoughts, both of which are relevant constrains of freedom. It reveals that health and capabilities are reinforcing each other. This mutual dependence exists because some functionings are not only the result of capabilities but

also the pre - requisites for functionings. Gandjour argues that both capabilities and functionings have intrinsic and instrumental values. The author opines that the capability approach in its current form does not account for the interaction between capabilities and functionings and the importance of moods and emotions in making free choices concerning health and other functionings. The freedom to choose upon the level of functionings is not sufficient to achieve justice. An initial endowment of mental health, physical health, education and other functionings with a direct or indirect impact on capabilities needs to be ensured for everyone. Even though such an arrangement reduces the freedom of people because the set of functionings, which is open to choose, becomes smaller but its level of functionings is required for freedom of choice. Given the need for mental health, the capability approach indirectly supports a policy that aims at offering more treatment to people with mental disorder and their caretakers.

Cohen (2010), introduced a multidimensional poverty assessment tool (MPAT) to measure fundamental dimensions of poverty in order to support poverty alleviation initiatives in the less developed countries. It is survey-based thematic indicator primarily designed to assist monitoring, evaluating, designing, targeting and prioritization of poverty alleviation programmes at local level. Cohen argues that, poverty is a multidimensional phenomenon with highly complex causes and consequences. To address rural poverty effectively, the governments must understand its underlying causes and the constraints that the rural poor face. The priority must be given to create an enabling environment within which people can build the type of life that they choose. It requires providing essential social services, infrastructure, and access to information and training so that people can make their own decisions about their livelihood. The multidimensional poverty assessment tool shares similarities with Sen's capabilities approach and try to move away from income/consumption-based poverty measurement. MPAT defines a concrete list of dimensions to be assessed, pragmatically drawing a line at fundamental domains of rural poverty. He explains the limitations of contemporary assessment approaches to rural poverty. These approaches are either too simplistic to produce data that are immediately useful for well-targeted, local-level, sector-specific interventions, or so complex and in-depth that resulting data sets are unwieldy. The MPAT framework seeks a middle ground which assesses the core dimensions of rural poverty by addressing universal human needs and other essential domains relevant to the reduction of rural poverty. The components of MPAT such as food and nutrition, domestic water supply, health, sanitation, education, housing, clothing and energy are closely related to the Basic Needs Theory of Streeten.

Dholakia (2003), examined the trends in regional disparity in India's economic and human development over the two decades (1981 – 2001). The study found two-way causality between human development and economic development. The author argues that the Planning Commission and the Finance Commission need not be unduly concerned about regional imbalance in human or economic development. Emphasis on economic growth is likely to address the issue of disparities in income and human development speedily. The study underscored the concept and measurement problems involved in Indian data on state domestic product. The author applied an intuitively appealing and robust method to examine trends in regional disparity in the average per capita State Domestic Product (PCI) and human development indicators. The PCI does not show any significant trend in regional disparity during the period of study but the human development indicators show a declining trend which shows a marked decline in regional disparity during 1981-91. Given the emphasis on reducing regional imbalances in economic and human development by the Finance Commission and the Planning Commission (now NITI Aayog), the author examined the question of the discussion of causality between economic development and human development. In a cross-sectional setting, the Granger causality is tested by considering lags in the independent variable and interchanging the variables. The study underscored that the structure of the relationship varies over time when human development indicators are the cause and PCI is the effect, but in the reverse causality case, the structure of the equations is stable over time. Moreover, human development indicators positively influence PCI with a lag of about eight years, whereas PCI affect the human development indicators within two years. The study suggests that emphasis on economic growth as per the national priority is likely to address the issue of twin disparities in income and human development in the shortest time.

Gosh (2006), evaluated relative performance of fifteen major states of India in human development during 1981 to 2001 and examined the two-way nexus between economic growth and human development. The estimates of cross-sectional growth regressions provide strong evidence of regional convergence in human development despite considerable divergence in real per capita income, indicating that the poor states that have failed to catch up in terms of human development. The poor states that failed to catch up with the rich states in terms of per capita income but managed to catch up in terms of the indicators of human development. The social sector expenditure appears to have been an important factor in achieving regional convergence in human development through education and health. The study provides ample evidence in favour of the two way causality between economic growth and human development giving rise to the possibilities of virtuous cycle, vicious cycles, lopsided

economic growth, and lopsided human development categories of development. The classification of the states based on their actual performance on human development and economic growth reveals that seven states (Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh, Andhra Pradesh, Orissa, and Assam) have been in the vicious cycle category during the whole period. Three states (Kerala, Karnataka, and Tamil Nadu) followed lopsided human development growth path. But no state followed lopsided economic growth path. The author argues that since the movement directly from vicious to virtuous cycle category is far from reality, the sequencing of policy should be such that human development is strengthened before a virtuous cycle can be attained. The human development induced growth process have to be strengthened by allocating more resources to social sectors like education, health services, sanitation and drinking water with the ultimate objective of lifting the states from vicious cycle category. Improved human development is most likely to ensure high economic growth, which would eventually move the states from the vicious to virtuous cycle of development.

Tilak (2007), critically examined the attention paid to education and the strategies proposed for education in the Eleventh Plan. The author criticized that there is nothing significantly new with regard to education in the approach of Planning Commission (now NITI Aayog) to the Eleventh Plan, and the overall vision of the approach seems to be very much limited, skewed and faulty. There is not any reference to the role of higher education in building a knowledge society. There is not any reference to the internationalization of higher education, which is related to the growth of the private sector, and on which the government has already initiated several efforts even to the extent of making a commitment to the WTO under GATS. There is an overall preference towards promoting privatization of education at all levels, through various mechanisms such as public-private participation, enabling parental choice to choose between public and private schools, student loans, and rising of fees levels. The author criticized that these measures will not help to ensure inclusive growth in the country. The author opines that private schools produce dualism in education, social inequalities and imbalanced development of education. But the Commission underscored the role of private sector in achieving the objective of faster and more inclusive growth. Public-private partnership in most cases leads to reduced role of the state and tend to tilt the balance in favour of privatization. Once the private sector becomes dominant, the government cannot promote social security through education. According to the author, the approach paper of the Eleventh Plan is full of contradictions, lack of vision for development of education, and lacks a critical outlook of the strategies required in educational sector.

Suryanarayana, (2008) gives conceptual clarity to the strategy of ‘inclusive growth’, the approach to the Eleventh Five-Year Plan. The author defines inclusion for an outcome scenario on broad-based growth from three different perspectives such as production, income, and consumption and distribution. The co-variation of production and income has been examined in the analysis. Given the methodological inadequacies of verifying the presence of a broad-based growth process in terms of log mean-based averages of income and absolute-norm based measures of deprivation, the study proposes order-based averages for verifying broad-based growth and the extent of inclusion of the poor in terms of the consumer expenditure distribution. To facilitate verification and comparison of both inter and intra group inclusion in a plural society, normalized measure with reference to both mainstream and subgroup averages are worked out. The study provides empirical evidence to show that mean-based estimates exaggerate disparities across social groups in India. The study reveals that the growth process between 1993-94 and 2004-05 has bypassed the majority and was not inclusive. At the national level, the inclusion coefficient is higher for the rural sector than for the urban. The association between median consumption and the inclusion coefficient across states is weak, which indicates that there is no cross-sectional evidence to believe that growth in India is inclusive. In the rural sector, the inclusive coefficient is lowest in Kerala which is contradictory to what one would expect given the progressive policies pursued in the state. It is one of the highest in Bihar and Karnataka. The extent of inclusion in the mainstream in rural all-India is the least for the Scheduled Tribes, followed by Scheduled Castes and Other Backward Castes. In the urban sector, inclusion is the highest in Bihar and lowest in Chhattisgarh and Jharkhand.

Deaton (2008), compared the behavior over time of the food components of the official Indian price indexes, the Consumer Price Index for Agricultural Labours (CPIAL) and the Consumer Price Index for Industrial Workers (CPIIW) with food price indexes based on the unit values of foods collected in the various rounds of the National Sample Survey (NSS) to check the official estimates of CPIAL and CPIIW, and to trace out the strengths and weakness of using the unit value data to construct price indexes. Deaton found that over the five years from 1999-2000 to 2004-05; the food components of the CPIAL understated the rate of food price inflation. The author argues that this understatement can be attributed to the use of long outdated weights, and the resultant over-weighting of cereals, whose prices fell relative to other foods. The overall weight of food in the CPIAL is also too large, so that the growth in the general CPIAL was understated during the reference period when food prices fell relative to non-food prices. The author calculated the five-year growth in the reported CPIAL of 10.6 per cent and reported that it should have been 14.3 per cent. The estimation of nominal poverty

line also committed this kind of error. According to Deaton the official poverty ratio of 28.3 per cent for rural India in 2004 -05 should be closer to 31 percent. The findings of Deaton underscored that the rate of inflation in food prices from 1999-2000 to 2004-05 was almost 70 per cent higher than the food component of CPIAL as it attributed to overweighting of cereal within the CPIAL, food index. Any errors in the components of the CPIAL or CPIIW would carry over to the estimation of poverty rates. The official rate of poverty is 28 percent lower than the estimation of the author. Deaton criticizes the method followed in estimation of poverty in India in this background. According to him, India's measures face the threat of the effects of the long unresolved and still increasing discrepancy in the surveys and the national accounts. The author also highlights the special problems with the use of 55th round NSS data which used two reporting periods for many items of expenditure.

Thorat (2010), examined the extent of deprivation suffering by ethnic, religious, and caste minorities from chronic impoverishment in rural India. Results indicate that poverty levels for members of various religious groups are not uniform in India and are seen to vary significantly across ethnic and caste-based identities of group members. The pattern observed for the level of poverty for the Scheduled Tribes (ST), Scheduled Castes (SC), Other Backward Castes (OBC), and Others (OTH) at the aggregate national level is more or less seen to be repeated across religious groups. The pattern of poverty, being the highest among the STs, followed by the SCs, the OBCs, lastly OTH, is seen repeating across different religious groups. Though the STs might show the highest incidence across most religious groups, the poverty incidence of the Hindu STs would be much higher than that of the Christian STs and lower for the Buddhist STs. The author argues that, the initial unequal and discriminatory access to skill and education, land and capital endowments, and unfree occupational mobility are the major reasons for this poverty differential across social groups within religious communities. Traditional denial of the right to knowledge has kept STs and SCs out of the sphere of the educated and skilled workforce. The land endowment of OBCs helped them to maintain their social status. The categories other than SCs, STs, OBCs, enjoy all rights such as right to education, land ownership, and access to capital which helped them to attain high levels of education and access to physical and capital endowments. The religious and social identity is highly important in determining final level of well beings of people in economic terms. The author underscored that, lack of access to information, education, skill, land and capital endowments are the cause of impoverishment which is the function of one's socio-religious belongings.

Suryanarayana and Das (2014), examined inclusive outcomes in terms of relative distributional measures based on estimates of per capita nominal consumption distribution using NSS data for 17 major states from 1993-94 to 2011-12. Given the contemporary public concern about the worsening relative deprivation of the masses and the need for appropriate policies to address the social cost of the reform programme, the Government of India has declared its commitment to the poorest of the poor. The authors examine how far the government has been successful in realizing its objective of inclusive growth. The different measures used for comparison are the elasticity of mean consumption with reference to mean consumption, inclusive coefficient and the PGT index computed with respect to 60 per cent of the median. The study reveals that, at the all-India level the relatively deprived groups, STs and SCs, have been left out of the growth process and the other social groups perform the best. The same pattern follows for both the rural and urban sectors at the all-India level with a decline in the extent of exclusive growth. Analysis across states and social groups show that the growth process was uneven during the reform period. Among the deprived social groups, the Other Backward castes (OBCs) are found to perform the best across almost all states and sectors. The post-reform growth has not led to a relative betterment of the deprived sections of the society. Bihar and Gujarat, the focus states, retain their positions at the lower and higher ends of the growth trajectory with the state of Gujarat witnessing better inclusive growth. The authors suggest that, inclusiveness of the poorest in the Indian mainstream growth process is still a forlorn hope.

Kannan, et.al. (2009) analyzed the incidence of rural poverty in Kerala and argues that there was a decline in rural poverty in the 1980's even though the economic growth of the state was slow during this period. He detailed various poverty alleviation programmes adopted by the state and the trend in poverty in Kerala during the reference period. He found that incidence of rural poverty in Kerala declined significantly during the reference period. The author observed that, interventions of state and Public Distribution System of the state helped to decline the incidence of poverty in Kerala. The author observes that the 'trickle-down theory' is not able to explain the co-existence of both slow economic growth of the state and declining trend of rural poverty. The author used the money equivalent of the benefits given by the government among rural households of the state. The state initiatives of the state since the early 1980 have made a positive impact in the incidence of rural poverty in Kerala. The experience of Kerala in terms of Poverty alleviation shows two important issues of growth and social justice. The experience of Kerala underpins that with or without growth poverty alleviation is possible by well-designed programmes of the state but what is very important in

this context is targeting the most vulnerable among the poor. The lesson from Kerala experience highlights that the state intervention should help the poor households to meet their basic consumption requirements and growth strategy of the state should provide adequate employment to all those who are in the labour force from the poor sections of the society.

Discussion on poverty and human development has been progressively going on for last few decades not only in the field of economics but also in other social science disciplines. It shows the wider ramification of the issue on different spheres of the society and in the development trajectory. Still the academia and policy makers have not taken that much concern to evolve an effective mechanism to reduce the negative spill over of poverty through accelerating the process of human development.

2.5. OTHER RELATED STUDIES

Aasha Kapur Mehta and Amita Shah (2000) examined the extent and nature of chronic poverty within the spatial poverty traps or remote rural areas. Two sets of remote rural regions are considered: dry land regions characterized by frequent failure of crops and employment opportunities leading to high level of unprotected risks of livelihood security among the poor; and secondly, the 'forest based' economies, especially in hilly regions with predominance of tribal population with limited access to natural resources on the one hand, and information as well as markets on the other. Factors affecting chronic poverty in these regions are analyzed, the relationship between chronic poverty and agro-climatic conditions, agronomic features, human capabilities, social structure and infrastructure studied and variations in the dynamics of poverty across the two sets of regions are identified. The study briefly looks at policy interventions in the context of poverty reduction as also attempts by communities to demand accountability and transparency in government spending in the name of the poor. It concludes with a summary of the key findings and agenda for further research.

Angus Deaton and Jean Dreze (2002) estimated were broadly consistent with independent evidence on per capita expenditure, state domestic product and real agricultural wages. The study showed that poverty decline in the 1990s preceded more or less in line with earlier trends. Regional disparities increased in the 1990s, with the southern and western regions doing much better than the northern and eastern regions. Economic inequality also increased within states, especially within urban areas, and between urban and rural areas. The study briefly examined other development indicators, relating for instance to health and education. Most indicators have continued to improve in the nineties, but social progress has

followed very diverse patterns, ranging from accelerated progress in some fields to slow down and even regression in others. The study also found no support for sweeping claims that the nineties have been a period of ‘unprecedented improvement’ or ‘widespread impoverishment’.

Nidhi Dhamija and Shashanka Bhide (2010) examined the incidence and dynamics of poverty over a period of three decades from 1970 to the end of the 1990s. We use a national rural panel household data set, based on household surveys conducted by the National Council of Applied Economic Research in three rounds in 1970, 1981 and 1998. It examines the trends in the incidence of poverty in India from a longitudinal perspective. The study corroborates the view that the period of 1990s experienced a slower decline in poverty compared to the previous decade, although the incidence of chronic poverty declined even in the latter period. It also examines the pattern of growth in consumption expenditure to understand how it tracks trends in poverty.

Partha Roy, (2018) attended to the effects of poverty on children’s education. As a teacher, one is continuously made aware of the educational disadvantages and disruptions poor students suffer due to lack of economic stability and social security. Unless we have a strong and universally available state welfare apparatus, the education of the working class children will continue to be sacrificed. In all this, cultural values and pressures also take a particularly severe toll. The wilful complicity of the ruling castes and classes is amply evident as their domination is derived from maintaining economic and cultural status quo. So the implications of all these studies for formulation of effective anti-poverty policies and proper education system in India were also emphasized.

The divergence of views regarding the relationship between poverty and inequality is largely due to the fact that there are different conception of poverty and different kind of inequality. Suffice it to say here that there is a relative and an absolute concept of poverty, and that there are many kinds of inequality, besides those of income and expenditure. Those who use an absolute concept of poverty find it easier to delink poverty and inequality, particularly, when their concern is mainly with inequalities of income and expenditure. On the other hand, those who adopt a relative concept of poverty tend to argue that there is a close if not inextricable relationship between multidimensional, inequality and poverty.

METHODOLOGY

CHAPTER III

METHODOLOGY

The methodology adopted in the current study on “**Analysis of Multidimensional Poverty and Human Development in India**” is presented and discussed under following heads.

3.1. Selection of the problem

3.2. Need for the study

3.3. Collection of data

3.4 Tools were used

3.4.1 Trend Analysis

3.4.2 Regression Analysis

3.4.3 Correlation Analysis, and

3.4.4 Theoretical framework

3.4.5 Multidimensional poverty Index

3.5. Figures and graphs

3.6. Terms and definitions and

3.7. Limitation of the study

3.1. STATEMENT OF THE PROBLEM

The incidence of poverty in India is a matter of key concern for policy analysts and academic researchers both because of its scope and intensity. National poverty line estimates indicated a poverty incidence of 27.5 percent in 2004-2005, implying that over one quarter of the population in India lives below the poverty line. Also, in absolute numbers, India still has 301.7 million poor persons with a significant percentage of them being substantially or severely poor in terms of the norms identified as being necessary for survival. If one considers the international poverty line of \$1 per day (measured at 1993 purchasing power parity exchange rates), then the percentage of poor people in India is even higher, at around 34 percent. This percentage is pushed up to an alarming level of 80 percent if one uses the \$2 per day as a poverty threshold. The significance of India in the context of world poverty is apparent given the fact that around half of the world's poor live in South Asia and of the 534

million people in South Asia who lived on less than \$1 per day in 2003, over 300 million lived in India. The Suresh Tendulkar Committee estimated over 430 million (37.2 percent) below the poverty line based on a bundle of deprivations. The recently introduced multidimensional deprivation index (MPI) also places about 645 million (55.4 percent) Indians below the poverty line. In terms of non-income dimensions of poverty too, such as infant and maternal mortality rates, literacy levels and gender inequalities, India continues to display 'intense poverty'.

While economic growth is a powerful tool for poverty reduction, the impact of higher growth on poverty reduction depends significantly on the pattern of growth and levels of inequality. Owing to rapid growth in recent years, the Indian economy has also undergone significant structural changes. Inclusive growth has therefore become a major policy priority and is defined as a process whereby the benefits of growth are shared by a vast proportion of the population. Hegel used to say that “poverty is a social phenomenon”. Mahatma Gandhi thought that poverty was the worst crime to be committed by any civil society. Poverty in India has two facets, one, social and another socio-economic. Those who are poor socially are generally poor educationally and economically. Poverty in India is mostly counted in absolute terms. According to Damien and Rafi, poverty in India is visible to the naked eye of anyone who tries to understand it. According to them a poor cannot afford even to send his children to the government funded school where primary education provided free of any fees. He also could not afford to get his children treated in a primary health care centre run by the government. Incidence of poverty in India has been highlighted by several economists a few of them consist of Sen et.al., (1986). According to them around 25 percent populations still live in abject poverty. Even the government of India has conceded that around 20 crore people in India live in a state of abject poverty with no access to portable drinking water, sanitation, and two square meals.

3.2. NEED FOR THE STUDY

Poverty lines as determined during the British Raj were flawed an initio simply because most of such lines were dependent upon a contextual sense of adequacy. In 1979, subsistence needs were systematically linked to nutritional needs and household spending patterns. Calorie norms of 2,400 per capita per day for rural India and 2,100 for urban India were adopted, and the expenditure equivalents of these norms were identified through the empirical distribution of consumer expenditure from the NSS survey of 1973–1974. Poverty lines for both rural and

urban areas in India (Ahluwalia, and Gadgil, 1990). Most of these studies assumed that per capita consumption expenditure or household expenses generally a period of one month or one year, was the right statistical choice for calculating poverty in India. Implicitly, subsistence was defined as the bundle consumed by households at these calorie levels.

Poverty alleviation has been on the national policy agenda for more than seventy years. During the National movement the Congress was also working hard to spell out a future plan for adopting the strategy of planned development once India got independence. Accordingly, in 1938, the Indian National Congress set up a National Planning Committee (NPC) headed by Jawaharlal Nehru, which made a declaration that the social objective of the Indian government should be ‘to ensure an adequate standard of living for the general masses, in other words, to get rid of the appalling poverty of the people’. The importance of reduction in poverty and provision of other basic needs has been emphasized in all the five-year plans since independence particularly since the Fifth Five-Year Plan. The government concerned had adopted a two-pronged strategy, one, promoting economic growth and another direct action for alleviating poverty.

Inclusive growth needs to be achieved to reduce poverty and other disparities and raise economic growth. Over the recent past, three critical strategies and policy interventions for poverty reduction have emerged, which are aimed at enhancing availability and access to the following three types of infrastructure:

- Physical infrastructure (roads, electricity, irrigation);
- Economic infrastructure (financial services); and
- Social infrastructure (education and health).

Poverty in India in view of the ongoing national and global efforts toward ensuring inclusive growth and bringing poverty levels down. This poverty profile will enable academics and policy makers to reassess and improve on the existing methodologies in estimating poverty rates, evaluate the effectiveness of existing poverty programs, and suggest alternative and complementary options for strategic intervention based on the lessons drawn from program implementation both at the state and national levels.

3.3. COLLECTION OF DATA

This study was based on secondary data resources. Secondary data was collected for the latest census availability (2011). The National, State and District level data on water resource availability and utilization of water resources were collected from the Reserve Bank of India, National Sample Survey Office and Census of India 2011. Statistical tools like, regression, correlation, multidimensional poverty index were used to achieve the stipulated objectives.. The study period were analysed for the water year census 1983-2011. Three types of water demand in agriculture sector were calculated, namely,

- Trend analysis of poverty 1983-2011(All India Level),
- Poverty and economic development from 1983-2011 (All India Level),
- Multidimensional index on poverty and socio economic indicators (All India Level).

3.4.TOOLS WERE USED

The data collected were arranged and tabulated for giving precise and concise information. Further, the following tools were applied to analyze the data. The following statistical tools were used for this analysis.

3.4.1 Trend Analysis

3.4.2 Regression Analysis

3.4.3 Correlation Analysis, and

3.4.4 Theoretical framework

3.4.5 Multidimensional poverty Index

3.4.1. TREND ANALYSIS

Trend analysis is a technique used in technical analysis that attempts to predict future stock price movements based on recently observed trend data. Trend analysis uses historical data, such as price movements and trade volume, to forecast the long-term direction of market sentiment. The formula for trend analysis (percentage change) can be derived by dividing the difference between the current year amount and the base year amount by the base year amount. Mathematically, it is represented as,

Percentage Change = [(Current Year Amount – Base Year Amount) / Base Year Amount]

3.4.2. REGRESSION ANALYSIS

Regression is the determination of a statistical relationship between two variable inputs used and output. Simple regression model one variable (defined as independent) is the cause of behaviour of another one (defined as dependent) variable. Independent variable output (x) and the dependent variable input (y). The basic relationship between X and Y is given by

$$\hat{Y} = a + bX$$

Using SPSS 16.0 we calculate the values simple regression model.

3.4.3. CORRELATION ANALYSIS

Correlation analysis was a process of statistical valuation used to study the strength of a relationship between two numerically measured, continuous between variables. Pearson's Correlation coefficient is a measure of the strength of the association between the two variables.

The basic formula to determine the correlation coefficient (r) is:

Where X_i is the i th observation of the variable X ; Y_i the i th observation of the variable Y ; \bar{X} , The mean of the observation variable X ; \bar{Y} , the mean of the observation of the variable Y ; n , the number of pairs of observation of X and Y ; σ_x , the standard deviation of the variable X ; and σ_y is the standard deviation of the variable Y .

The above formula may be presented in the following form:

$$r = \frac{\sum((x-\bar{x})(y-\bar{y}))}{\sqrt{\sum(x-\bar{x})^2} \sqrt{\sum(y-\bar{y})^2}}$$

3.4.4. THEORETICAL FRAMEWORK

Human development framework, provides an internationally acknowledged framework for poverty analysis using non- income dimensions of human life namely, education, health and standard of living. Hence, human development-based approach is a contested field in poverty discourses. This framework has been constructed upon the 'capability theory' of Amartya Sen which is duly supplemented by Nussbaum and Clark. The theory reveals that the people should be at the center of all development initiatives. That means, all the developmental programmes should be 'people-centric' and enlarge all choices of people in addition to income. Human capabilities need to be enlarged to achieve valuable 'functionings' of individuals namely education, health and better standard of living. Moreover, the human capabilities should be utilized for the economic growth and

employment through an 'enabling framework'. The capability theory provides an appropriate theoretical dimension for the present study. As elucidated in the previous chapters, the study mainly focuses on the 'determinants' and 'correlates' of 'multidimensional poverty' among the households belonging to different 'social groups' in the study area.

The capability theory is rooted in the conceptual framework of 'development', expansion of 'human choices' where enlargement of people's choices can be seen through greater freedoms and the arrangements for the same. The outcome is reflected in capability of each individual to lead the life they value. Freedom enhances the ability of persons to help them and to influence the society with which they interact (Sen, 1999). The capability theory is highly interdisciplinary in manner which scattered among wide range of discipline including philosophy, sociology and economics. It is a normative framework which can be applied in the evaluation and assessments of the well-being of people, social arrangements and designing of policies. It can be also used to evaluate different aspects of the well-being of the people such as poverty and inequality. It has provided theoretical framework for human development paradigm (Fukuda-Parr and Kumar, 2003). This approach mainly focuses on the capabilities of people, not on income, consumption and expenditure of people. The evaluation and policies should be focused on the capabilities of people as well as the quality of their life and on removing obstacles in their lives.

Development is the 'process of enlarging people choices' (UNDP, 1990). The most critical choices of people are 'to lead a long and healthy life', 'to be educated' and 'to enjoy a decent standard of living'. Therefore, human development could be observed through the process of widening people's choices and raising the level of well-being achieved. In this context, poverty can be perceived as the denial of opportunities and choices namely 'to lead a long and healthy life', 'to be educated', and 'to enjoy decent standard of living' which are mandatory for meaningful life. In human development framework, reduction in poverty is assessed through the changes of disadvantages of the deprived people belonging to all groups in each community.

In the 'income perspective', an individual is said to be poor if his income level is below the defined poverty-line. Many countries including India follow income poverty line to monitor the progress in the reduction of poverty. Even though, income is an important dimension of human life, shortfall of income gives only a partial picture of the human deprivation. Normally, the 'cut-off' of poverty line in income perspective is defined in terms of specified consumption basket. In 'basic needs perspective', poverty is the deprivation of material requirements essential for minimally acceptable fulfillment of human needs

including food. This approach focuses on the need for basic requirements of human life including health, education and essential services to prevent them from falling into poverty. In the 'Capability Theory', poverty represents the absence of basic capabilities to function. These basic functions include the basic dimensions of human life such as education, health and standard of living. Hence, in the 'capability approach' the enlargement of the choices of people with regard to these basic 'functionings' is considered as development, and deprivation of human capabilities is considered as poverty.

Enlargement of choices of people includes the provision of adequate social opportunities through which individuals can shape their own destiny and help each other (Sen, 1999). It provides the role of multiple agents who are obliged to provide opportunities and the real agency of each individual is responsible for proper use of all opportunities. The theory establishes a two-way relationship between the social, economic and political arrangements that expand freedoms and the use of individual freedom not only to improve the respective lives, but also to enable these arrangements, making them appropriate and effective. The outcomes of development are relative to the 'process' involved (Sen, 1985).

Capability theory of Sen states that, human developments involve 'freedom from' and 'freedom to'. Sen defines 'capability' as the individual freedom to achieve 'functionings' such as good nourishment, good health, education, self-respect and social integration (Sen, 1997). To ensure 'freedom to choice', resources such as income, education and food along with abilities to use these commodities and resources are needed. The type of freedom Sen envisages is positive freedom, i.e., the capacity to 'do this' or 'be that', in contrast to negative freedom or 'freedom from constraints'. The multiple agents involved in this process should not only refrain from interferences that generate harmful consequences, but also act positively to create, provide and expand freedom, enhancing opportunities qualitatively (Sen, 2002).

The outcome of human development process is the continuous expansion of agency of each individual. An expanded agency is capable of exerting informed choices. (Sen, 2004). The capabilities theory distinguishes between the 'means' and 'ends' of well-being of people and developments. In this approach, the 'ends' have only intrinsic importance whereas 'means' are instrumental to realize better well-being and development. The 'ends' of well-being and development should be conceptualized in terms of the capabilities of people to 'function'. It implies the effective opportunities of people to understand the action and activities that they want to engage. Sen calls these 'beings' and 'doings' as 'functionings'. That include working, being educated, being healthy, being part of the society, and being respected. These

‘functionings’ together makes the life of an individual valuable. According to Sen, people have the freedom or capabilities to live the kind of life they want to lead, to do what they want to do and be the person they want to be. Once the individuals effectively have these substantive opportunities, they can choose those options that they value the most.

The Capability Theory is the theory within the Liberal School of Thought, that values individual freedom and evaluates policies according to the impact on the capabilities of the people. It looks into the different dimensions of human life such as education, health and resources necessary for building of their capabilities. The resources include clean drinking water, access to doctors, basic knowledge on health issues, nutrition standards, food entitlements and access to quality education. Thus, the capability theory includes all the basic dimensions of the human life. The formulated research problem also looks into the disparities and magnitudes of the variables, which constitute these basic dimensions of human life across the regions of India and trace out of endogenous and exogenous variables of multidimensional poverty among different social groups of India. Therefore, the capability theory becomes the most appropriate one for the present study. In the evaluation of development in India, Dreze and Sen stressed that, working within capability approach do not exclude the integration of resources, social institutions, economic growth and technical advancement (Dreze & Sen, 1995). Hence, the capability theory gives a multidimensional framework to all the means of well-being and stressed the point that all that means of well-being such as ‘commodities’ and social infrastructure are not the ultimate ‘ends’ of well-being.

Proponents of Capability theory claim that human capability should be used to monitor developmental progress instead of Gross Domestic Product (Nussbaum and Sen, 1993). They argue that, values, interests, preferences and needs of the people are different. Hence, their ability to expand human capabilities constitutes universally acceptable and comparable progress (Sen, 1999). Capabilities of the people are the major determinants of their well-being. People cannot become better-off without expanding their fundamental capabilities even though better social, cultural and technological accomplishments are made for them. As discussed before, ‘capability’ is the ability of individuals to achieve ‘functionings’ or the things they value and have reasons to value. ‘Functionings’ are the ‘beings’ or ‘doings’ or the ends in human lives with the capabilities (Sen, 1987). Therefore, ‘functionings’ are the outcomes which have constitutive values whereas ‘capabilities are the means which have instrumental value to make such ‘functionings’ happen.

The capability theory entails a critique of other evaluative approaches such as utilitarian theories and income-based theories. Sen rejects these critiques and argues that these

approaches rely exclusively on ‘utility’ and exclude ‘non-utility’ information from moral judgments of individuals (Sen, 1976). According to capability theory, the relation between a ‘good’ and the ‘functionings’ to achieve certain ‘beings’ and ‘doings’ influenced by personal, social and environmental factors. The personal factors include metabolism, physical condition, sex, skills and intelligence that influence a person to convert the characteristics of the commodity into ‘functionings’. Similarly the social conversion factors such as public policies, social norms, discriminating practices, social hierarchies and power relations along with environmental conversion factors play a significant role in the conversion from characteristics of the ‘goods’ to the individual ‘functionings’.

3.4.5. MULTIDIMENSIONAL POVERTY INDEX

The MPI value summarizes information on multiple deprivations into a single number. It is calculated by multiplying the poverty headcount by the intensity of poverty. The global Multidimensional Poverty Index (MPI) is an international measure of acute multidimensional poverty covering over 100 developing countries. It complements traditional monetary poverty measures by capturing the acute deprivations in health, education, and living standards that a person faces simultaneously.

Multidimensional Poverty Index (MPI) can be expressed as the product of two intuitive measures: the (multidimensional) head count ratio (H) and the average deprivation share among the poor (A). ‘H’ is the proportion of people that are poor. That is,

$$‘H = q / n$$

’ where ‘q’ is the number of poor people; it represents the incidence of multi-dimensional poverty.

$$‘C_i(k)/d’$$

Indicates the fraction of weighted indicators in which the poor person i is deprived. The average of that fraction among those who are poor (q), is precisely ‘A’, where its expression is given by

$$A = \sum_{i \in q} C_i(k) / d = dq.$$

A represents the intensity of multi-dimensional poverty. The MPI reflects on the number of deprivations a poor household experiences at the same time. Having only one

deprivation alone may not represent poverty. A household, that has many but not all of these basic deprivations should be considered poor. Thus, the MPI requires a household to be deprived in a few indicators at the same time. The variable 'k' reflects the sum of weighted indicators in which a household is said to be deprived in order to be considered multidimensional poor, where 'k' is a policy variable that governs the range of simultaneous deprivations each poor household necessarily must have. As 'k' goes up, the number of households who will be considered poor goes down, but the intensity of deprivation in any poor household goes up (Alkire and Foster, 2011). Incidence of Poverty (H) Estimation of both 'incidence' and 'intensity' of poverty becomes important as it helps to measure the real magnitude and dimensions of poverty thereby helping indicator specific policy recommendations. Whereas, the conventional estimates of poverty is used income or consumption expenditure-based methods to calculate Head Count Ratio. In the multidimensional framework, the Head Count Ratio 'H' is the number of people who are multidimensional poor. As the head count ratio is the proportion of population who is multidimensional poor and is expressed as:

$$H = q / n$$

where, 'q' is the number of people who are multidimensional poor and 'n' is the total population. 4.4.5 Intensity of Poverty (A) The conventional methods of poverty estimation are not able to provide the intensity of poverty of households as such. The methodology of OPHI enables the investigator to estimate the intensity of poverty. The formula used to calculate intensity of poverty 'A' is:

$$A = c / q$$

Where, 'c' is the deprivation score of households and 'q' is the number of people who are multidimensional poor. State wise and social group wise intensity of poverty has been estimated to make social group wise comparisons of the intensity of poverty. Estimation of Multidimensional Poverty Index (MPI) The multidimensional poverty index value is the product of the intensity of poverty and the multidimensional head count ratio. Hence, the MPI is expressed as:

$$MPI = H \times A$$

Decomposition of Multidimensional Poverty In the decomposition analysis, the multidimensional poverty of social groups and states are analyzed with regard to its dimensions and indicators that enable to pinpoint existent determinants of deprivation among social groups and states. Education, health and standard of living are the three dimensions in the multidimensional framework where deprivation of these primary ‘functionings’ of human life is called multidimensional poverty, which is based of household deprivation score.

$$\text{Household Deprivation (C)} = f(\text{DE, DH, DSL})$$

Where, ‘C’ stands for deprivation score of the household, ‘DE’ stands for educational deprivation, ‘DH’ stands for health deprivation and ‘DSL’ stands for deprivation of standard of living. Hence, overall deprivation of the society is the function of aggregate deprivation corresponding to three dimensions and ten indicators. It can either be estimated by states or social groups.

$$\text{Deprivation of the Society (S)} = f(DE q 1 , DH q 1 , DSL q 1)$$

Educational deprivation (DE) is the function of the deprivation of two weighted indicators namely ‘years of schooling’ (DSS) and ‘school attendance’ (DSA).

$$\text{Educational Deprivation (DE)} = f(\text{DSS, DSA})$$

Health deprivation (DH) is the function of the deprivation of two weighted indicators namely ‘child mortality’ (DM) and ‘Nutrition’ (DN).

$$\text{Health Deprivation (DH)} = f(\text{DM, DN})$$

Deprivation of standard of living (DSL) is the function of the deprivation of six weighted indicators namely ‘electricity’ (DEL), ‘improved sanitation’ (DSN), ‘improved drinking water’ (DDW), ‘housing’ (DFL), ‘cooking fuel’ (DCF), and ‘ownership of asset’ (DOA). Deprivation of Standard of Living (DSL) =f (DEL, DSN, DDW, DFL, DCF, DOA) Therefore, deprivation of household could be decomposed as;

$$\text{Household Deprivation (C)} = f(\text{DSS, DSA, DM, DN, DEL, DSN, DDW, DFL, DCF, DOA})$$

The decomposition analysis enables to identify ‘determinants’ of multidimensional poverty among social groups and states under study.

3.5. FIGURES AND GRAPHS

The analysis of the statistical data, the data collected was represented in the form of graphs.

3.5.TERMS AND DEFINITIONS

POVERTY

Poverty is a state or condition in which a person or community lacks the financial resources and essentials for a minimum standard of living.

HUMAN DEVELOPMENT

Human development is defined as the process of enlarging people's freedoms and opportunities and improving their well-being.

EDUCATION

Education is the process of facilitating learning, or the acquisition of knowledge, skills, values, morals, beliefs, habits, and personal development.

STANDARD OF LIVING

Standard of living generally refers to wealth, comfort, material goods, and necessities of certain classes in certain areas—or more objective characteristics—whereas quality of life is more subjective and intangible, such as personal liberty or environmental quality.

LIFE EXPECTANCY RATE

The term “life expectancy” refers to the number of years a person can expect to live. By definition, life expectancy is based on an estimate of the average age that members of a particular population group will be when they die.

DEMOGRAPHY

Demography is the statistical study of human populations especially with reference to size and density, distribution, and vital statistics.

LITERACY RATE

The proportion of the adult population aged 15 years and over which is literate, expressed as a percentage of the corresponding population, total or for a given sex, in a given country, territory, or geographic area, at a specific point in time, usually mid-year.

INFANT MORTALITY RATE

The infant mortality rate is the number of infant deaths for every 1,000 live births.

DISPARITY

The meaning of DISPARITY is a noticeable and usually significant difference or dissimilarity.

3.7. LIMITATIONS OF THE STUDY

1. It is a macro level study. Thus the findings of this study may not be applicable to the micro level.
2. The study has used the RBI data on poverty and other related variables are collected from the census 2011 by government of India. If monthly or annually data have been available the results might have been different.

RESULTS AND DISCUSSION

CHAPTER IV

RESULTS AND DISCUSSION

The results of the undertaken on study " **Analysis of Multidimensional Poverty and Human Development in India**" was presented and discussed under the following heads.

4.1. Trend Analysis of State Wise Poverty In India

4.2. Analysis of Rank of Poverty In India

4.3. Change in Poverty

4.4. Analysis of Poverty and Economic Development

4.5. Theoretical Frame Work

4.5.1. Human Development Index in India

4.5.2. Variation of Income and Non Income Group under Poverty

4.5.3. Demographic Parameters of India

4.5.4. Health and Human Development

4.5.5. Education and Human Development

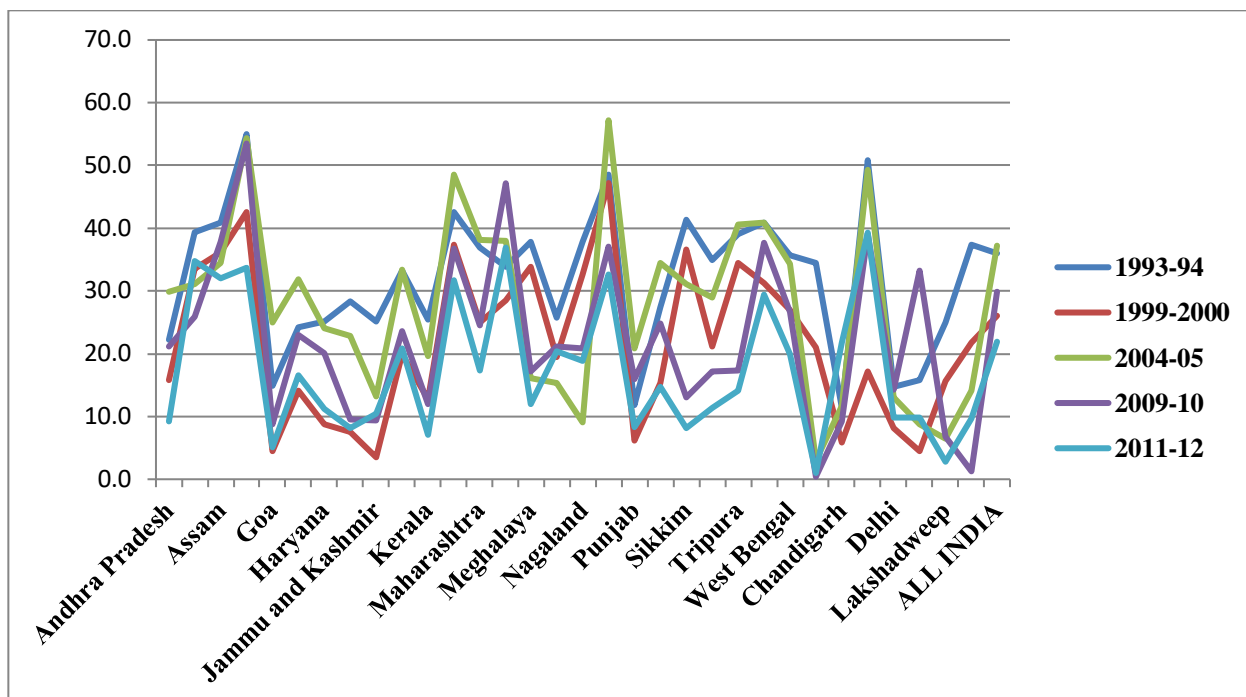
4.5.6. Human Development and Facilitating Variables

4.1. TREND ANALYSIS OF STATE WISE POVERTY IN INDIA

Poverty trends in India in the nineties have been a matter of intense controversy (Acharya and Sarthi ,1989). It has been often generated more heat than light, and confusion still remains about the extent to which poverty has declined during the period. In the absence of conclusive evidence, widely divergent claims have flourished. The nineties have been a period of unprecedented improvement in living standards. Others have claimed that it has been a time of widespread impoverishment (Ahluwalia and Montek 2000).

TREND ANALYSIS OF STATE WISE POVERTY IN INDIA

(in per cent)



Source: Reserve Bank of India, (data from different years, 1990-2011).

Figure: 6

Poverty alleviation has been a primary goal of Indian development strategy since independence, and the prevalence of poverty in India has decreased from 54.7 percent to 21.3 percent between 1973-74 and 2004-05. However, the fact that poverty is unevenly spread across the country, with poverty concentrations in some areas, has failed to pique the interest of Indian policymakers. Six states account for 71.63 percent of India's impoverished and half of its population: Uttar Pradesh (including Uttaranchal), Bihar (including Jharkhand), Madhya Pradesh (including Chhattisgarh), Maharashtra, West Bengal, and Orissa. In 1973-74, between 50 and 66 percent of the population of seven states (the six stated above plus Assam) lived below the poverty line. After, thirty years, in 2004-05, 35 to 55 percent of their population was still poor. For numerous decades, chronically high levels of poverty (above 30 percent) have occurred in Bihar, Orissa, Madhya Pradesh, Assam, and Uttar Pradesh. Poverty remains a major issue in Orissa, Bihar, Assam, Madhya Pradesh, Tripura, and Uttar Pradesh. With poverty rates of roughly 46 and 42 percent, respectively, Orissa and Bihar remain the two poorest states. Poverty has decreased significantly in Kerala, Jammu and Kashmir, Andhra Pradesh, Tamil Nadu, Haryana, and Punjab, on the other side. With the support of high

agricultural growth rates, Punjab and Haryana have typically succeeded in decreasing poverty. Kerala has done the same through rapid human development. Public distribution of food grains has aided development in Andhra Pradesh and Tamil Nadu. Thus, there is ample evidence to show that states that had high development experienced low poverty ratios, and that state-wise convergence in regard to development may have remained one of the key reasons for state-wide convergence in terms of poverty incidence. The reason for this could be that poverty has many dimensions and can be defined not only in terms of deprivation in terms of income and consumption, but also through other indicators of development such as literacy rate, lack of general resistance due to malnutrition, lack of access to health care, lack of job opportunities, lack of access to safe drinking water, sanitation, and so on. Variables representing multidimensional deprivation, such as child mortality, literacy, and access to infrastructure such as power, bathroom facilities, and postal and telegraphic links, are projected to be many times worse in high-poverty districts than in high-performing regions. As a result, both the state-by-state poverty ratio and state-by-state development have had a considerable impact on one another, and poverty studies based on socioeconomic and other dimensions of development are now required.

4.2. ANALYSIS OF RANK OF POVERTY IN INDIA

The incidence of poverty is concerned it is well recognized that because of the growth mediated strategy of development and later the inclusion of the direct public intervention programmes of the Government the magnitude of the incidence of poverty has declined not only at the national level across the states in varying degrees. The profile of the incidence of poverty across the states which are given in table-2 clearly reveals that almost all excepting Bihar experienced a declining trend in the incidence of poverty during 1973-74 to 1983 -84 in varying degrees. Similarly the period from 1983-84 to 1993-94 also records a declining trend in the incidence of poverty for almost all the states excepting Haryana and Himachal Pradesh. Almost all the states have experienced declining trend in the incidence of poverty in varying degrees over the period from 1993-94 to 2009-10 i.e. during the post reform period. However the poverty estimated by using Lakdawala methodology for the same two periods then we find almost all the states excepting M.P, Maharashtra, Punjab, Rajasthan, and Orissa have experienced falling trend in poverty (Ghosal, 2010). The relative positions of states in respect of their ability towards of poverty were ranked all the states such that the state having the lowest incidence of poverty has got rank one and so on.

TABLE-1**RANK ON POVERTY IN INDIA****(in per cent)**

States	1993-1994	Rank	1999-2000	Rank	2004-2005	Rank	2009-2010	Rank
Andhra Pradesh	22.19	2	21.3	7	29.6	6	21.2	6
Assam	40.86	12	36.09	13	34.4	11.5	37.9	15
Bihar	54.960	16	41.5	15	54.4	15	53.5	16
Gujarat	24.21	3	16.2	5	31.6	8	23	7
Haryana	25.05	4	11.1	2	24.6	4	20.1	5
Himachal Pradesh	28.44	7	11.7	3	22.9	3	9.5	1
Karnataka	33.16	8	25.6	25	33.3	10	23.6	8
Kerala	25.43	5	15.7	4	19.6	1	12	2
Madhya Pradesh	42.52	14	37.65	14	48.6	14	36.7	12
Maharashtra	36.86	11	28.65	11	30.2	7	24.5	9
Orissa	48.56	15	44.35	16	57.2	16	37	9
Punjab	11.77	1	6.15	1	20.9	2	15.9	3
Rajasthan	27.41	6	21.2	6	34.4	11.5	24.8	10
Tamil Nadu	35.03	9	22.15	8	29.4	5	17.1	4
Uttar Pradesh	40.85	12	32.04	12	40.9	13	37.7	14
West Bengal	35.66	10	28.3	10	34.2	9	26.7	11

Source: Reserve Bank of India, (2015).

4.3. CHANGE IN POVERTY

Now to judge the compatibility between the temporal behavior of average growth rates, and the relative change in the incidence of poverty across the states we have computed the percentage point changes in the incidence of poverty across the states and time, the estimates of which are given in the table-3.

TABLE-2
CHANGE IN POVERTY

States	1999 -2000 to 1993 - 1994	2004-2005 to 1999-2000	2009-2010 to 2004-2005
Andhra Pradesh	-4.01	36.96	-28.72
Assam	-11.67	-4.68	10.17
Bihar	-24.49	31.08	-1.47
Gujarat	-33.08	95.06	-37.39
Haryana	-55.68	121.62	-18.29
Himachal Pradesh	-58.86	95.73	-58.52
Karnataka	-22.80	30.87	-29.13
Kerala	-38.26	24.84	-38.77
Madhya Pradesh	-11.45	29.08	-24.49
Maharashtra	-22.27	5.41	-18.87
Orissa	-8.67	28.97	-54.59
Punjab	-47.75	23.83	-23.92
Rajasthan	-22.66	62.26	-27.91
Tamil Nadu	-36.77	32.73	-41.83
Uttar Pradesh	-21.54	27.61	-7.82
West Bengal	-20.64	20.84	-21.93

Source:NSSO,(2020)

It is evident from the table that during the periods between 1993-94 and 1999-00 where all the states have experienced negative percentage point changes in the incidence of poverty in varying degrees. The change of poverty in 1993-94 to 1999-2000 all the states are found to have experienced much faster fall in the extent of poverty. Further, during the between 1999-2000 and 2004-05 were relatively smaller rates of decline in the magnitude of poverty in some of the states if the comparison is made between poverty. However in such case a few states like Haryana, Maharashtra, Orissa, and Rajasthan are found to have experienced the increase in the extent of poverty in varying degrees. But if we consider the percentage point changes in the poverty across the states by comparing the poverty ratios for 2004-05 the poverty estimates of 1999-00 based on that all the states excepting Assam have experienced increase in poverty in varying degrees. In 2004-05 to 2009-10 that all the states excepting Assam have experienced

fall in the rate of poverty in different magnitude with Himachal Pradesh, Tamil Nadu, Gujarat, Orissa, and Kerala showing much faster rates of fall in poverty.

4.4. ANALYSIS OF POVERTY AND ECONOMIC DEVELOPMENT

Now to find out the proximate explanatory factors responsible for the cross state and cross time variations in the incidence of poverty we undertake panel regression by using five yearly Panel data following the linear model as specified in section. To analyse the poverty and the other variables include the Expenditure of social sector, Net State Domestic Product as proximate explanatory factors in our panel. The regression analysis carried out of intercepts and slope parameters across unit and time are unreasonable one has to allow the intercept term to vary over time and across units by using the fixed effect model (FEM). Since both the number of states (N) and the number of time periods (T) are small which are not drawn randomly in our case and further since it follows the residual sum of squares fall substantially in FEM over pooled model the use the fixed effect model is likely to be desirable. The results of our panel regression analysis are given below.

TABLE-3
PANEL REGRESSION ANALYSIS OF POVERTY IN INDIA

Variable	Coefficient	P-Values
Expenditure	-1.37874	0.000
Poverty	-1.39965	0.654
Net State Domestic Product	-0.129567	0.000
R ²	0.742	
Adjusted R ²	0.735	
F- Value	12.65	0.000
Log Value	-445.7864	

It follows that the three variables together explain about 65 percent of the cross-state and crosslime variations in the incidence of poverty over the period albeit the explanatory factor inequality is found to be statistically insignificant. The result indicates that the explanatory factors like expenditure of social sector and Net State Domestic Product are highly significant (as are indicated by their respective p-values) with their expected signs. Further the model test i.e. the F value and its probability and the log-likelihood ratio indicate that the regression result is robust. So from our panel regression analysis we can conclude that one percent point increase in social sector expenditure and growth rate of per-capita income has brought down the incidence of poverty by 1.39 and 1.37 percent respectively.

4.5. THEORITICAL FRME WORK

4.5.1. POVERTY AND HUMAN DEVELOPMENT

Present study is an attempt to analyze the determinants and correlates of multidimensional poverty across the regions of India. The study uses the Multidimensional Poverty Index (MPI) to analyze the stated objectives to bring out the solutions to the postulated research problem. The Multidimensional Poverty Index is constructed within the framework of human development which follows the 'Capability Theory'. Theoretically, Sen argues that, poverty is the deprivation of human capabilities (Sen, 1981). The 'functionings' of an individual depends on their capabilities, which in turn depends on the personal, social and environmental factors. The Multidimensional Poverty Index incorporates all these factors in the assessment of poverty in two ways, viz. 'incidence' and 'intensity'. The 'incidence' of Multidimensional poverty reveals the headcount of the individual who are multidimensional poor whereas the 'intensity' of multidimensional poverty reveals the profundity of deprivation that is experienced by the households who are multidimensional poor. Household deprivation score is used to estimate both incidence and intensity of multidimensional poverty of the regions and the country.

The study follows all the theoretical dimensions of capability theory namely, personal, social, and environmental which determine the capability of individuals. Sen explains the theory of development as an expansion of the capabilities of individuals which is the prime requisite for human development. The purpose of development is the improvement of human lives by expanding the range of things that a person can 'be' and 'do'. It includes the basic dimensions of human life namely, education, health and standard of living. In this perspective, development should remove the obstacles of human lives such as illiteracy, ill health and lack of access to resources. It emphasizes on assessing development by the expansion of capabilities of all people belonging to different socio-economic groups. It pinpoints that the monitoring of development not only limited through the national averages of income dimension but also through the measures of deprivation (Sen, 1992). Even though some capabilities require greater public intervention, the relative importance of capabilities varies with social and spatial context. Therefore, the present study chose basic dimensions of human life namely education, health and standard of living to explore the determinants and correlates of multidimensional poverty among the people belonging to different social groups (Social context) across the selected regions of India (Spatial context). The study incorporates ten 'indicators' corresponding to the three basic dimensions of human life namely, education, health and

standard of living. All indicators corresponding to each dimension are the proxies for human capabilities and its deprivation is termed as poverty. Human Development and Deprivation in India

Development is the process of socio- economic transformation that would expand the choices of people through improved education, skill, health and standard of living. In this process, employability of people and opportunities for employment are to be expanded simultaneously. Deprivations on the other hand, make an adverse impact upon real choices and freedom of people that make them unable to attain better education, health, and standard of living. It is assumed that both human development deprivation are the two mutually exclusive phenomenon where, deprivation can be effectively managed through capability building of people. Human development can be measured through HDI, which is a composite index of education, health and standard of living (UNDP, 2019). It helps to understand the relative position of the states in human development and average attainment of elementary value ‘functionings’ of people namely, education, health and standard of living that revealed through its corresponding indices. Higher ‘income index’ of the country indicates ability of people to lead better standard of living with the means of their income they earned. ‘Education index’, on the other hand, is the indicator of better literacy rate and schooling of individuals whereas, longer life expectancy and low mortality rate of the country is reflected as its higher health index.

4.5.1. HUMAN DEVELOPMENT INDEX IN INDIA

In terms of achievements in human development, India is placed among the medium level HDI countries of the world (UNDP, 2011) and it continues even in the HDR 2020. Incidence of HDI in India is 0.51 which is derived from its sub-indices namely income, health and education.

HUMAN DEVELOPMENT INDEX IN INDIA IN 2011

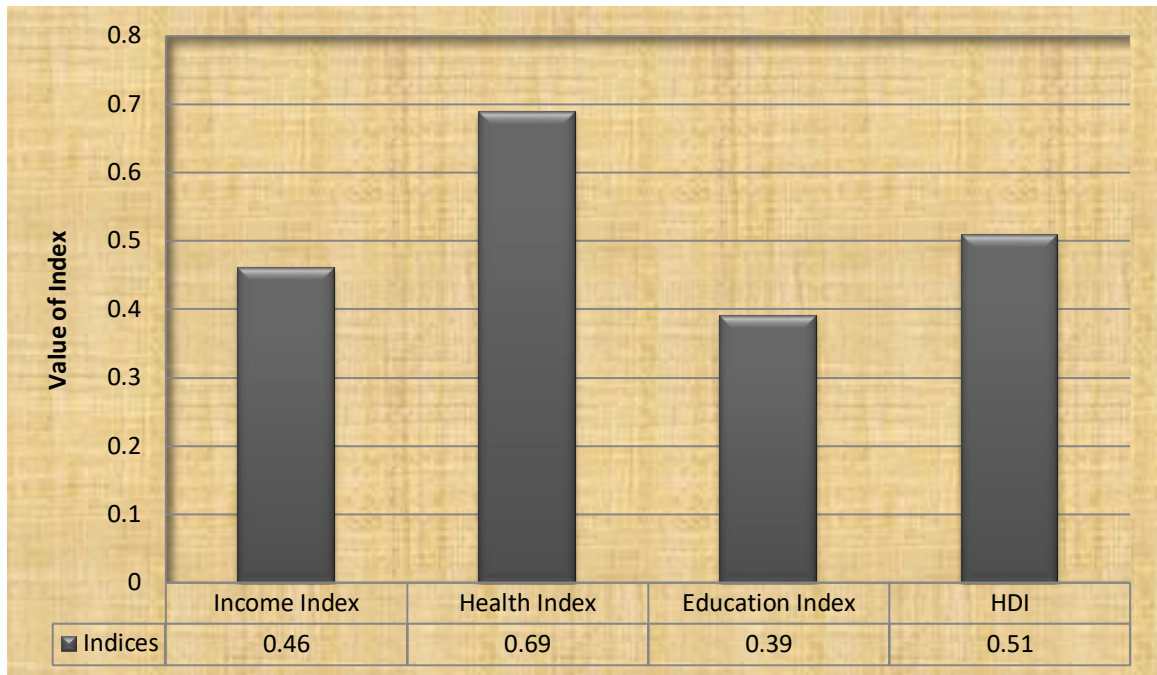


Figure:7

Health index (0.69) of India is better than that of the other two dimension indices of human development which reveals, the ‘achieved functionings’ of people in health is comparatively good to lead ‘long’ and ‘healthy life’ that emanates from availability, accessibility and affordability of health care services of the country. Even though India has better health index, its education index is the lowest (0.39) among other two- dimension indices of human development. Education index reveals achieved ‘functionings’ of people in education, acquisition of better knowledge and schooling. That indicates the ‘mean years of schooling’, the major determinant of education, would be expanded to make the society more knowledgeable and informed.

Income in human development framework is not an ‘end’ but ‘means’ to attain the ‘valued functionings’, education, health and standard of living. Income is used as proxy for standard of living of people in this framework.

The incidence of income index of India (0.46) is relatively lower than the other moderate human development countries of the world (UNDP, 2019) which further reveals the lower standard of living of people in India. The indices of human development reveal that, interventions in education sector across the states of India need to be strengthened to improve literacy rate and mean years of schooling in the country. Inadequate attainment of education makes education index (0.39) of the country the lowest among the other indices of human development in India.

The ‘index gap’ measured as deviation of index from its maximum value, ‘one’, reveals

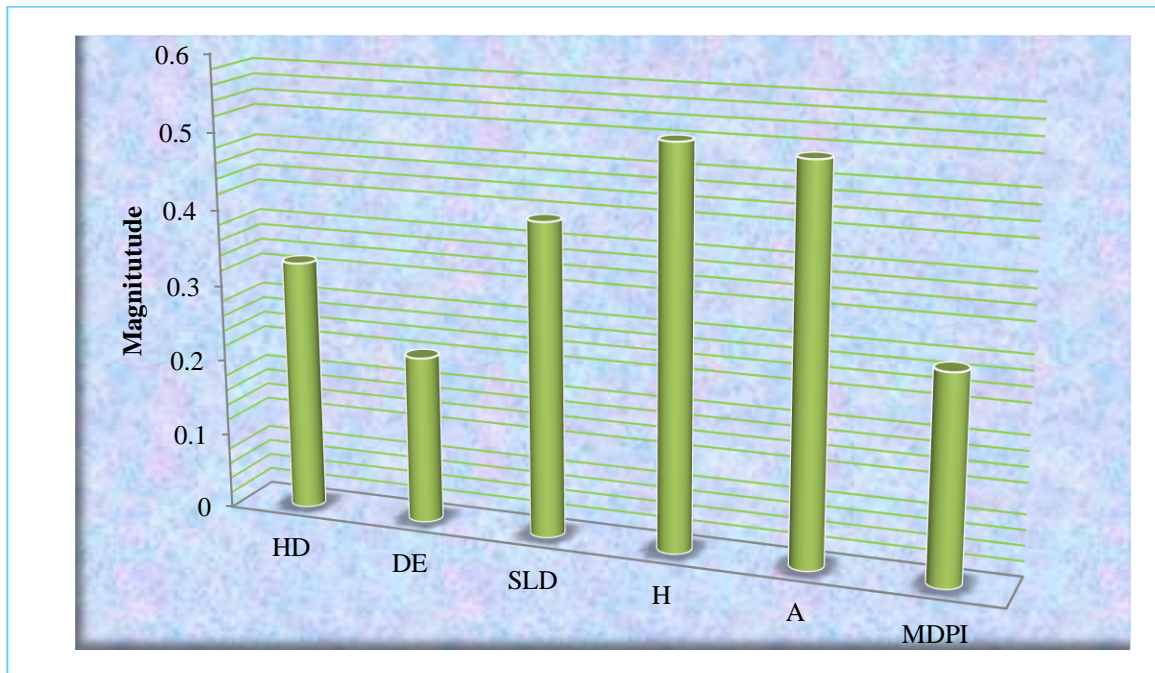
the deprived functionings of people in the domain of education, health and standard of living. The index gap in India is found the highest in the domain of education (0.61), implies higher incidence of deprived functionings of education than that in the other dimensions of human development. Lowest index gap (0.31) is registered in the domain of health and moderate gap (0.54) is found in income dimension.

4.5.2. HUMAN DEVELOPMENT INDEX AND DEPRIVATION IN INDIA

To measure the Human development Index in which the Multidimensional Poverty Index (MPI) measures the deprived functioning's of people and it helps to identify multiple deprivations of households in education, health and standard of living. All the ten indicators corresponding to three dimensions of MPI namely education, health and standard of living represent basic requirements of people to lead a meaningful life in the society where its deprivation is called multidimensional poverty. The analysis of multiple deprivations of households on the dimensions of human development would enable to reveal and identify indicators leading to the incidence of deprivation helping to emphasize dimension, indicator, group and state - specific intervention gaps for addressing poverty. For instance, deprived functionings of people is the highest in the domain of standard of living (0.41) in India whereas the corresponding deprivation in education (0.22) is registered at its lowest.

The highest incidence of deprivation in standard of living further points towards multiple deprivations of basic facilities such as, housing, electricity, clean drinking water, adequate sanitation, cooking fuel and minimum asset ownership. If a household is not able to lead a decent standard of living, their functionings with regard to standard of living become unattainable and it further deprived the households in the other two dimensions, education and health (Alkire, 2005). The unique advantage of multidimensional framework of poverty is that, it facilitates indicator and dimension wise decomposition of MPI. The highest incidence of deprivation in 'standard of living' in India pinpoints the magnitude of deprivation in the basic facilities which warrants the need for further micro specific analysis by states and social groups.

MULTIDIMENSION POVERTY INDEX IN INDIA IN 2011



Source: Estimated from NFHS-4 Data; DH-Deprivation of Health; DE Deprivation of Education; DSL-Deprivation of Standard of Living; H-Incidence of Poverty; A-Intensity of Poverty; MPI-Multidimensional Poverty Index

Figure: 8

Deprivation of education in India (0.22) seems to be the lowest among other dimensions of multidimensional poverty. It reveals that, people of India are getting proper provisions for the attainment of education which is considered to be an important 'valued functioning' of people. Deprivation of education reveals deprived functionings of people pertaining to the basic indicators of education namely 'years of schooling' and 'school enrollment'. If no one of the household has completed five years of schooling and school - aged child (6 years of old) is not enrolled in the school, they are considered as deprived in education. The lowest deprivation of education among the households of India reveals better schooling and school enrollment in the country. The lowest deprivation index of education in India gives a good sign of educational development and reflects the positive impact of the interventions through various educational programmes and policies initiated by the governments.

Lower deprivation index of health (0.33) in India reveals that, provision of health services within the accessible assortment of households enabling better health care that determines improved life expectancy of people with reduced mortality rate. A household is considered as deprived of health if it includes a malnourished member and there is occurrence of child mortality in the family. Age specific health parameters such as 'height for age' (stunted), 'weight for age' (underweight), 'height for weight' (wasted) are used to represent the

malnourishment in the study. Provision of preventive medicines, curative medicines and community medicine along with other health care services by the federal governments might have played an important role to ensure long and healthy life in turn lowering the incidence of health deprivation in the country. Prior to getting into a detailed discussion on the causality of ‘enabling variables of human development’, a preliminary deliberation on the ‘achieved’ and ‘deprived functionings’ in the respective domains of human development and multidimensional poverty in the India context is attempted.

LINK BETWEEN HUMAN DEVELOPMENT AND HUMAN DEPRIVATION

Human development and deprivation are said to be mutually diverging where, the variables education, health, and indicators of standard of living play dual role in the society - acceleration of human development and deceleration of human deprivation.

Index gap (0.24) between HDI and MPI and gap exist between its allied indices namely, health (0.36), and education (0.17) in India reveals mutual divergence between human development and deprivation in the county. The glaring difference between HDI and MPI in India expressed as the index gap (0.02) shows the incidence of divergence in value of achieved functionings vis - a - vis the deprived functionings. Similar divergence is found in the dimensions of human development viz. education (0.17) and health (0.36) with an exception in the standard of living (0.05).

The insignificant index gap (0.05) between development index of income (0.460 and deprivation index of standard of living (0.41) reveals the mismatch between the income and non-income based estimation of development and deprivation indices (see figure 5.3). In the estimation of HDI, per capita income is considered as proxy for decent standard of living of people where, deprivation of standard of living in MPI is measured in terms of non-income variables namely, electricity, drinking water, sanitation, housing, cooking fuel, and asset ownership. Income is considered as ‘means’ to achieve the ‘functionings’ of people namely education, health and standard of living, not an ‘end’ in itself.

LINK BETWEEN HUMAN DEVELOPMENT AND HUMAN DEPRIVATION

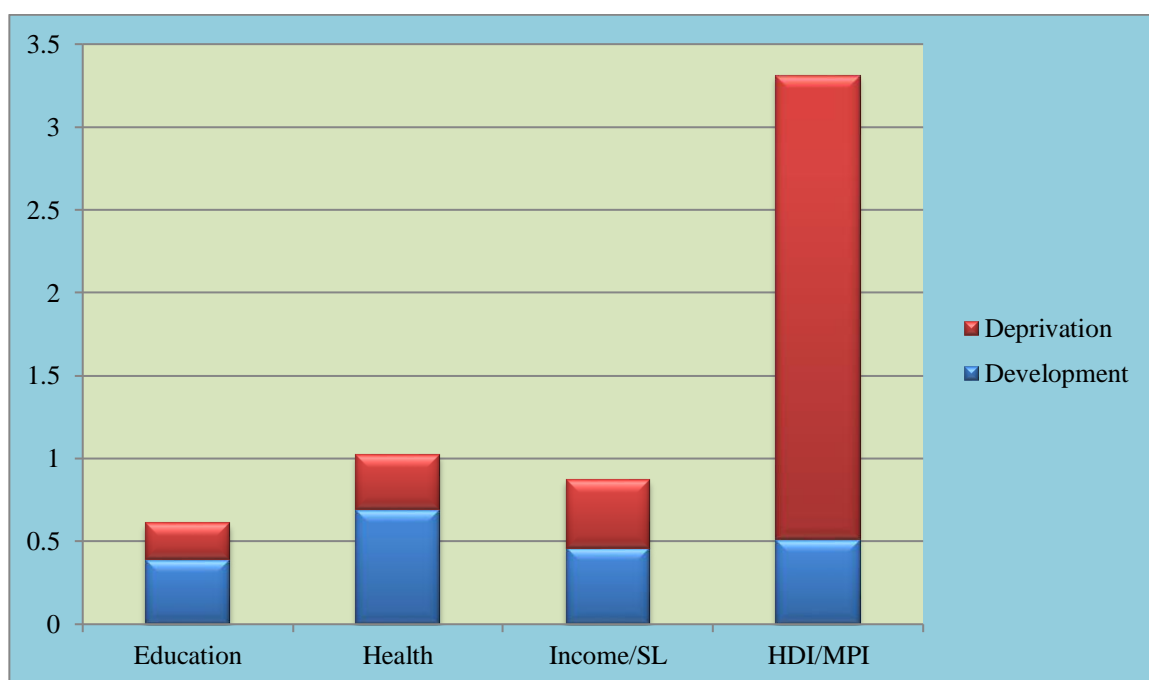


Figure:9

4.5.3. VARIATION OF INCOME AND NON INCOME GROUP UNDER POVERTY

The unique feature of multidimensional poverty assessment is that, it enables estimation of ‘incidence’ and ‘intensity’ of multidimensional poverty of the country where; the income-based measures facilitate estimation of head count ratio (incidence) only. The estimated ‘incidence’ of multidimensional poverty suggests that about 52 percent of people in India are multidimensional poor which is higher than that of the official income-based estimation of poverty (22 percent) of the country (GoI, 2011). It gives an important riddle between income and non-income poverty estimations and pinpoint towards the inconsistency between income and non-income estimation of poverty and expose the narrow outlook of income based measures of poverty.

The multidimensional framework of poverty is capable to estimate ‘intensity’ and ‘vulnerability’ of poverty which helps to understand the profundity of poverty in which the poor people are deprived in education, health and standard of living. The estimated magnitude of ‘intensity of poverty’ is 0.51. That means, the poor households in India are not able to attain 50 percent of basic facilities with regard to education, health and standard of living in India. In this context, the pertinent question is, whether all states and social groups of India are experiencing similar deprivation of education, health and standard of living as national average reveals, particularly the states having ‘better’, ‘moderate’, and ‘lower’ profile of human

development. If so, what would be its ‘incidence’ and ‘intensity’ of deprivation? To address these questions, an attempt is made to estimate the deprivation of education, health and standard of living among select states and social groups of the country which is and discussed it in the subsequent chapter. Prior to that, an attempt is initiated to comprehend ‘enabling variables of human development’ and examined by its ‘incidence’ and ‘disparity’ i.e. deviation from national average, across the states of India using state wise data base, where prime emphasis is given to non-income variables namely, demographic, education, employment/occupational, health and variables related to standard of living.

4.5.3. VARIABLES OF HUMAN DEVELOPMENT

The Human Development Index (HDI) is a composite measure of the important dimensions human development that measures average achievements in the domains of education, health and standard of living. Multidimensional Poverty Index (MPI), on the other hand, measures multiple deprivations of education, health and standard of living at the household level. As a measure of deprivation, MPI gives ‘incidence’ and ‘intensity’ of multidimensional poverty of the country. It provides information regarding the deprivation in education, health and standard of living of the people. Each dimension index of HDI is a proxy for capabilities in the corresponding dimensions, Education, Health and Standard of living.

VARIABLES OF HUMAN DEVELOPMENT



Source: Classified and categorized from the relevant literature, UNDP2010, GoI (2011).

Figure:10

Here, the variables which show significant positive association with HDI are considered as ‘enabling variables’ of human development. The association of ‘human development enabling variables’ with Multidimensional Poverty Index (MPI) is also tested to accomplish the interplay of the reinforcing variables of human development in reducing the incidence of human deprivation. The non-income variables examined for the analysis is identified as ‘enabling variables of human development’ enumerated in Table

Inter play of these non-income variables and its impact on the capabilities of people determines the echelon of human development and deprivation across the states of India. With the given array of variables, an attempt has been made to examine the degree of association of these variables with the incidence of human development and multidimensional poverty of the selected states of India by identifying them whether they belong to the category of enabling variables or otherwise.

4.5.4. DEMOGRAPHIC VARIABLES AND HUMAN DEVELOPMENT

In this section, discussion mainly focus on the ‘enabling variables of human development’ related to population parameters of India. As everyone knows, socio- political, economic, cultural, demographic and geographical features of states across India are heterogeneous that gives a unique identity to the country in the global scenario. Thus, the initiatives for advancing human development and poverty alleviation programmes need to incorporate the inter-state variations, if any, in the country. An attempt has been made to identify the variables as enabling one where it shows significant positive association with HDI using the measure of correlation coefficient (r). It is most often assumed that there exists positive association with HDI which in turn explains an inverse relationship with MPI. These variables are categorized as ‘enabling variables of human development’ in the study. Strategies to improve the strength of ‘human development enabling variables’ help across the states in the country for simultaneous advancement in human development coupled with reduction in incidence of multidimensional poverty.

Development is possible only with the expansion of education, skill development, employment status and health of the people, which make them more capable to achieve their valued ‘functionings’. Thus, the initiatives of development are helping to expand real choices of people in the realm of education, health and standard of living along with income. It is well acclaimed that; the human resources play a decisive role in the socio- economic development of the country. Capabilities of human resources depend upon the attainment of education and health status along with the associated amenities required to lead a decent

standard of living. Achievements of people in the dimensions of education, health and standard of living can be termed as human development.

The countries with small size of population are able to improve well-being of its people whereas those with large population face solemn issues of socio-economic transformation of the society. Being the second largest populated country of the world, India faces rigorous issues of development and deprivation, which ultimately reduce the 'choices' of people and their 'capabilities'. India experienced drastic changes in the size and composition of population during last few decades. The size of population in India increased from 0.361 billion to 1.21 billion during the last three decades. The projection of the United Nations reveals that, population of India will be 1.6 billion in the year 2050 (UNDP, 2009). Currently population of India is growing at a rate of 1.4 percent per year. During the past few decades, the rapid population growth in India had been accompanied by an unprecedented decline in mortality rate (UNDP, 2009). Unless the country controls the growth of population at a reasonable rate, the human development attainments won't be sustained.

Demographic variables are both determinants and outcomes of development of the country where, relative share of population and its distribution in rural and urban areas is a significant matter of concern in the discussion on human development and deprivation. Generally, urban households are getting better opportunities to attain their 'functionings' compared to rural households where, deprivation is deep rooted in the rural areas. Present investigation primarily relies upon the inter-connections of population parameters namely relative share of population, and its spatial variation, with HDI and MPI. The incidence of HDI in India is estimated as 0.51 and its standard deviation from the central tendency of the distribution is 0.05. It reveals incidence of HDI across the states of India lies between 0.56 and 0.46 (Mean + SD and Mean – SD) where, the states with HDI above 0.56 are considered as 'Better Performing States' (BPS) of India in human development that include Kerala (0.625), Punjab (0.569), and Himachal Pradesh (0.558). The states with HDI less than 0.46 are considered as 'Least Performing States' (LPS) it includes Bihar (0.447), Madhya Pradesh (0.451), Odisha (0.452), Jharkhand (0.457), and Chhattisgarh (0.458).

TABLE-4

DEMOGRAPHIC PARAMETERS, HDI AND MPI OF INDIA IN 2011

State	Population Parameters				HDI	MPI
	Relative Share	Rural Share	Urban Share	R/U		
Better Performing States						
Kerala	2.76	52.30	47.70	1.09	0.625	0.065
Punjab	2.29	62.52	37.48	1.66	0.569	0.12
Himachal Pradesh	0.57	89.97	10.03	8.97	0.558	0.131
Moderately Performing States						
Maharashtra	9.28	54.79	45.22	1.21	0.549	0.193
Haryana	2.09	65.12	34.88	1.86	0.545	0.199
Tamil Nadu	5.96	51.60	48.40	1.06	0.544	0.141
Gujarat	4.99	57.40	42.60	1.34	0.514	0.205
West Bengal	7.54	68.13	31.87	2.13	0.509	0.317
Karnataka	5.05	61.33	38.67	1.58	0.508	0.223
Andhra Pradesh	6.99	66.64	33.36	1.99	0.485	0.211
Assam	2.58	85.90	14.10	6.09	0.474	0.303
Rajasthan	5.66	75.13	24.87	3.02	0.468	0.351
Uttar Pradesh	16.50	77.73	22.27	3.49	0.468	0.386
Least Performing States						
Chhattisgarh	2.11	76.76	23.24	3.30	0.458	0.387
Jharkhand	2.72	75.95	24.05	3.15	0.457	0.463
Odisha	3.47	83.31	16.69	4.99	0.452	0.345
Madhya Pradesh	6.00	72.37	27.63	2.61	0.451	0.389
Bihar	8.60	88.71	11.29	7.85	0.447	0.499
Mean*	5.29	70.31	29.69	3.19	0.51	0.27
SD	0.88	12.28	12.28	0.55	0.05	0.13
Mean + SD	6.17	82.59	41.97	3.74	0.56	0.40
Mean - SD	4.41	58.03	17.41	2.64	0.46	0.14
CV %	16.64	17.47	41.36	17.2	8.77	48.2

Source: Compiled from; (1) India Census ,2011, (2) NFHS-4, (3) UNDP, 2011 & Computation of the Investigator; R/U – Rural Urban Ratio; MP- Multidimensional Poverty; *Geometric Mean; BPS-Better Performing States; MPS- Moderately Performing States; LPS-Least Performing States; SD-Standard Deviation, CV- Coefficients of Variation.

The states having value that lies between the 'Better Performing States' (BPS) and 'Least Performing States' (LPS) are termed as 'Moderately Performing States' (MPS). The state of West Bengal assumes an HDI (0.51) which is on par with the national average of India. The incidence of disparity in HDI (8.77) across the states of India is lower than that of MPI (48.2). The remarkable observation is that, all BPS have registered lower value MPI than that of the LPS and MPS. The highest MPI (0.499) is registered in Bihar, the state having lowest human development index (0.447) whereas, and the lowest MPI (0.065) is registered in Kerala, the state upholding the highest human development (0.625) in India. These two states, Kerala and Bihar, invite genuinely special attention in its human development studies as these states are placed in two extreme positions among the category of states they belong. Among the better performing states, Kerala placed in the top position whereas Bihar placed in the bottom position among the 'least performing states' of India. West Bengal is a MPS that assumes parity with national averages of development indicators

Relative share of state population across the states in India is about five per cent and its standard deviation (SD) is 0.88. It indicates that, the relative share of population across the states in India lies between four percent and six percent, where Maharashtra, Andhra Pradesh, West Bengal, Uttar Pradesh, and Bihar having more than 6 percent of population are listed as large populated states in India. The states namely Kerala, Punjab, Himachal Pradesh, Haryana, Assam, Odisha, Chhattisgarh, and Jharkhand are the least populated states in India. The proportion of population in these states constitutes less than 4 percent. It is observed that Himachal Pradesh, Assam, Odisha, and Bihar are the rural centric states with 'Rural – Urban Ratio' (R/U) is more than 3.6 where Kerala, Punjab, Tamil Nadu, Maharashtra, Haryana, Gujarat, Karnataka and West Bengal are enlisted as the urban centric states. Kerala is exceptional where the rural urban divide is very narrow and rural areas in Kerala are the continuum of urban areas. The urban areas normally provide better opportunities to the people for developing their capabilities to widen their choices. A remarkable fact needs to be underlined in this context is that, incidence of human development is high in Kerala, Punjab, and Himachal Pradesh, where the incidence of multidimensional poverty is very low within which the incidence (H) of multidimensional poverty is far less than that of the threshold value that determine the incidence of deprivation i.e. 0.33. The inter-connections between population and deprivation cannot be undermined as one finds the least populated states of India have registered higher incidence of human development with lower incidence of multidimensional poverty. It could not be considered as peculiar feature of India alone which could be observed

in the global scenario too which is well substantiated by UNDP, (2019). Further it is observed from the secondary data that, incidence of urban share of population is relatively higher among the states having higher incidence of HDI (Table 5.2). It is quite clear that, better amenities are essential for attaining 'functionings' of people where, households in rural areas of India face severe shortage of essential amenities. For instance, the MPI of rural centric states is higher than that of national average (0.27) except Himachal Pradesh whereas the HDI of these states are found lower than that of the national average (0.51) explaining the dichotomy that exist in the development trajectory of rural and urban centers.

DEMOGRAPHIC AND HUMAN DEVELOPMENT AND DEPRIVATION

Enabling demographic variables of human development have been identified based on its degree of association with incidence of HDI across the states in India. In the process, correlation coefficients between selected demographic variables and HDI are computed. The correlation coefficient (r) in respect of the proportion of urban population and their HDI registered significant positive value (0.63) whereas its corresponding correlation with MPI (-0.63) assumed a negative value revealing the fact that people in urban centre do have better indices of HDI along with lesser MPI. This is further reflected in the relative incidence of deprivation and intensity of the urban households explaining their better access to the basic amenities enriching their achieved functionings. Thus 'proportion of urban population' could be considered as enabling variable of human development. Provision of basic facilities including transportation, communication, education, and health infrastructure along with creation of more opportunities for employment through urbanization are reinforcing human development further helping to reduce incidence and intensity of multidimensional poverty.

The correlation coefficient (r) between the proportion of rural population of the states and the corresponding HDI shows significant negative value (-0.63) whereas its corresponding correlation with MPI assumed a positive value (0.63), revealing the fact that people in rural centre do have lower indices of HDI along with higher MPI. It reveals, households belong to rural areas across India are facing dearth of basic facilities for attaining their 'valued functionings' including education, health and standard of living. It would lead to an increase in the incidence and intensity of multidimensional poverty among rural households across the states of India.

TABLE-5**CORRELATION COEFFICIENTS ANALYSIS DEMOGRAPHIC
PARAMETERS AND HUMAN DEVELOPMENT**

Population Parameters	HDI	Incidence (H)	Intensity (A)	MPI
Population (Urban)	0.634**	-0.638*	-0.563*	-0.631*
Population (Rural)	-0.634**	0.638*	0.563*	0.631*
Population (RS)	-0.284	0.330	0.326	0.323
Population (R/U)	-0.355	0.363	0.296	0.371

Source: Estimation of the Investigator; RS-Relative Share; HDI-Human Development Index; MP-Multidimensional Poverty; R/U-Rural Urban Ratio; **Correlation is significant at the 0.01 level (2-tailed);*Correlation is significant at the 0.05 level (2-tailed).

The correlation coefficients with respect to relative share of state population (- 0.28) and rural urban ratio (R/U) of population (-0.35) with HDI and its corresponding correlation with MPI seem to be insignificant revealing negligible impact of relative size of state population and ratio of rural urban population on incidence of human development and multidimensional poverty across the states of India. Hence, these variables couldn't be considered as enabling variables of human development which are neither improving incidence of human development nor reducing human deprivation.

The magnitude of disparities that exist among 'relative share of state population', 'state share of rural population', and 'rural-urban ratio (R/U) of state population' in India appeared to be the same (17 percent) where, the magnitude of disparities in the distribution of urban population across the states of India is very high (41 percent). It reveals that population in urban areas across the states of India is deviating highly from its corresponding national average (29.69) compared to that of the selected parameters of population in India. It further indicates, majority of people across the states of India are residing in rural areas where dearth of basic amenities for adequate education, health care and decent standard of living has become a constraint to lead meaningful life. Rural development programmes appropriate to the needs of the 'least urbanized rural centric states' are to be implemented to make leverages in human development of the deprived. Special focus needs to be given for developing educational, health, transportation and communication infrastructure to reduce incidence of deprivation among households.

DISPARITY IN POPULATION PARAMETERS IN INDIA

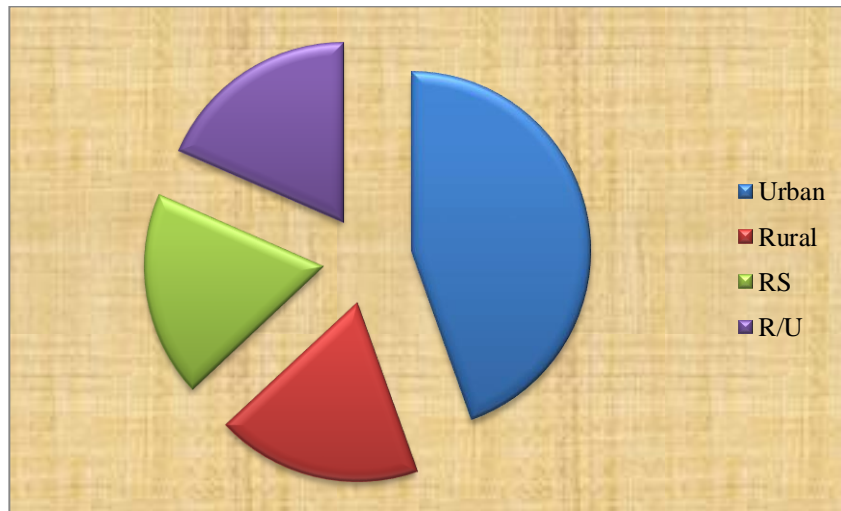


Figure: 11

The inter-linkages between population parameters and indices of human development and deprivation across the states of India, one could find that higher incidence of human development are registered among the states where relative share of its population is less than four percent. For instance, the states, Kerala and Bihar are placed in the two extreme positions in the ranking of human development and multidimensional poverty where, the relative share of population is less than four per cent in Kerala (2.76 percent) and it is greater than five per cent in Bihar (8.6 percent). No significant association could be found between the relative share of state population, human development (HDI) and multidimensional poverty (MPI). However, it is observed that, there exists significant relationship between human development and relative share of urban population with coefficient of correlation 0.63. Higher incidence of human development and lower incidence of multidimensional poverty are co - existing in all the state across India wherever proportion of urban population is higher than that of rural population. States with higher proportion of rural population registered higher incidence of multidimensional poverty and lower incidence of human development in India. Population parameters other than relative share of urban population across the states of India show insignificant positive correlation with HDI in India. This in turn brings forth the urgency of the provision of urban amenities in the rural areas as envisioned under PURA and hence it becomes an enabling variable of human development across the states of India. Generally, urban centers provide more opportunities to people for the development of their capabilities and choices to attain their ‘valued functionings’ such as education, health and standard of living.

4.5.4, EDUCATION AND HUMAN DEVELOPMENT

Education as the key dimension of human development perceives the long run investment in human resources primarily helping the requisite capabilities of people in achieving high human development (UNDP 2011). Human Development Index (HDI) uses combined gross enrollment ratio of schooling and adult literacy rate as indicators of educational development. Consequently, ‘mean years of schooling’ and ‘literacy rate’ are taken as enabling variables in the value judgment of human development framework. On the other hand, MPI measures ‘deprived functionings’ of people in ‘years of schooling’, and ‘school attendance’.

Deprivation of education plays a long term hindering factor in the achieved functionings of human development. In pursuance to this truism, National Education Policy (NEP), 2020 gives special emphasis to the importance of reducing educational deprivation by providing universal access to quality education for optimizing skills, talents and resources for the good of individuals, the society, and the country helping to reinvigorate the existing initiatives in the domain of education. India adopted the global education development agenda reflected in the Sustainable Development Goals (SDGs) 2030 of the Agenda for sustainable development which seeks to ensure ‘inclusive’ and ‘equitable quality education’ and promoting lifelong learning opportunities for all by 2030 (GoI, 2020). A contrasting analysis of the educational indicators along with its estimated values across the states in India pertaining to literacy rates, gender gaps in literacy, mean years of schooling, and educational index have been attempted to examine the level of performance of states in the domain of education and its deviation from the national average. Indicators of education that show strong positive association with HDI are taken as ‘enabling educational variables of human development’ in the study.

Education helps people to enhance their abilities to participate in the society and getting more opportunities for their well-being and development. In terms of achievement in education indicators, Kerala, Himachal Pradesh, and Maharashtra are placed at the top three positions which are also having higher HDI termed it as better performing states. Whereas those states Bihar, Madhya Pradesh, Odisha, Jharkhand, Chhattisgarh, Utter Pradesh, and Rajasthan, which are having literacy rate on an average less than that of national average (74 percent) experience lesser HDI and are grouped under least performing state in the domain of human development. Further as one looks into gender gap in literacy rate, gender difference in the achieved functioning of literacy rate of women (66 percent) seems too lower than that of men (81 percent) across the states of India.

It is observed that, states which are placed at the top positions in literacy rate, also

attained higher rate of female literacy. While the states Rajasthan (27.07 percent), Jharkhand (21.42 percent), Chhattisgarh (20.03 percent) and Uttar Pradesh (20.1 percent) which are having gender gaps in literacy rate more than 20 percent, further reveal that female literacy rate of these states is far less than that of men. The other major indicator of education viz. the ‘mean years of schooling’ in India (4 years) that is on an average, an individual in the country used to attend four years in the school, is reported to be lower than that of developed countries of world (UNDP, 2018). Whereas the states Kerala (6.2), Punjab (5.1), Himachal Pradesh (4.9), Maharashtra (5.1), and Tamil Nadu (4.8) did register better ‘mean years of schooling’ and are placed at the top positions.

TABLE 6
EDUCATIONAL INDICATORS ACROSS THE STATES OF INDIA

State	Literacy Rate	Literacy Rate (M)	Literacy Rate (F)	Gender Gap*	MYS	EI
Kerala	94.0	96.11	92.07	4.04	6.19	0.534
Punjab	75.84	80.44	70.73	9.71	5.12	0.452
Himachal Pradesh	82.8	89.56	75.93	13.62	4.88	0.468
Tamil Nadu	80.09	86.77	73.44	13.33	4.79	0.454
Maharashtra	82.34	88.38	75.87	12.51	5.12	0.453
Haryana	75.55	84.06	65.04	19.02	4.74	0.432
Gujarat	78.03	85.75	69.68	16.07	4.54	0.403
Andhra Pradesh	67.02	74.88	59.15	15.73	3.06	0.347
Karnataka	75.36	82.47	68.08	14.39	3.95	0.396
Assam	72.19	77.85	66.27	11.58	3.96	0.392
West Bengal	76.76	81.69	70.54	11.15	4.36	0.397
Odisha	72.87	81.59	64.01	17.58	3.34	0.345
Rajasthan	66.11	79.19	52.12	27.07	2.96	0.333
Uttar Pradesh	67.68	77.28	57.18	20.1	4.97	0.365
Chhattisgarh	70.28	80.27	60.24	20.03	3.39	0.358
Madhya Pradesh	69.32	78.73	59.24	19.49	3.37	0.355
Jharkhand	66.41	76.84	55.42	21.42	3.32	0.361
Bihar	61.8	71.2	51.5	19.7	2.97	0.34
Mean	74.14	81.84	65.92	15.92	4.16	0.39
SD	7.72	5.92	10.04	5.29	0.91	0.05
Mean + SD	81.86	87.76	75.96	21.21	5.07	0.44
Mean -SD	66.42	75.92	55.88	10.63	3.25	0.34
CV percent	10.41	7.23	15.23	33.23	21.88	12.82

Source: Census , 2011; NFHS – 4; UNDP, 2011; *Computation of Investigator, M-Male; F-Female; MYS-Meanyears of Schooling, EI-Education Index

The estimated 'mean years of schooling' in Rajasthan and Bihar are less than 3 years which is lower than the national average. Consequently these states have registered lower 'Education Indices' and are placed in the bottom ranking positions in human development. As far as the education system of the states across the country is concerned, transformation in the quality and outreach of education at par with the changing world order; the ensuing NEP 2020 shall be tuned in this direction. A cut off value 0.44 which is the sum of national average (Mean) and standard deviation (SD) of education Index (EI) across the states of India has been used to categorise states according to their performance in the domain of education. The states Kerala, Himachal Pradesh, Punjab, Tamil Nadu and Maharashtra which are having education index (EI) more than 0.44 could be considered as 'better performing states' in the domain of education. These states are also having higher literacy rates and lower gender gaps in literacy. Whereas the states, Rajasthan, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, and Bihar which are having lower education index i.e. less than 0.34, are considered as least performing states in education.

For identifying the enabling variables having positive association with HDI and negative association with MPI, correlation, i.e. relationship between the respective variables have been estimated. The magnitudes of correlation coefficients (r) show that, both 'literacy rate' and 'mean years of schooling' are positively associated with the 'educational index' of the states i.e. (0.9) and thereby human development (0.8) whereas, the gender gap in literacy (-0.84) shows an inverse relationship. Widening of 'gender gap' in literacy would hamper the advancement of human development that in turn reinforces the incidence of multidimensional poverty. Among the indicators, correlation coefficient value in respect of literacy rate (0.88) and mean years of schooling (0.87) are having higher positive correlation whereas the indicator, gender gap registered negative value leaving larger implications to empowering women centric education initiatives in the future for the improvement in human development. The inverse relationship between gender gap in literacy and human development reveals that, literacy of women has more influence in determining 'education index' and HDI of the state than that of men.

TABLE 7
CORRELATION ANALYSIS OF EDUCATIONAL INDICATORS AND HUMAN DEVELOPMENT

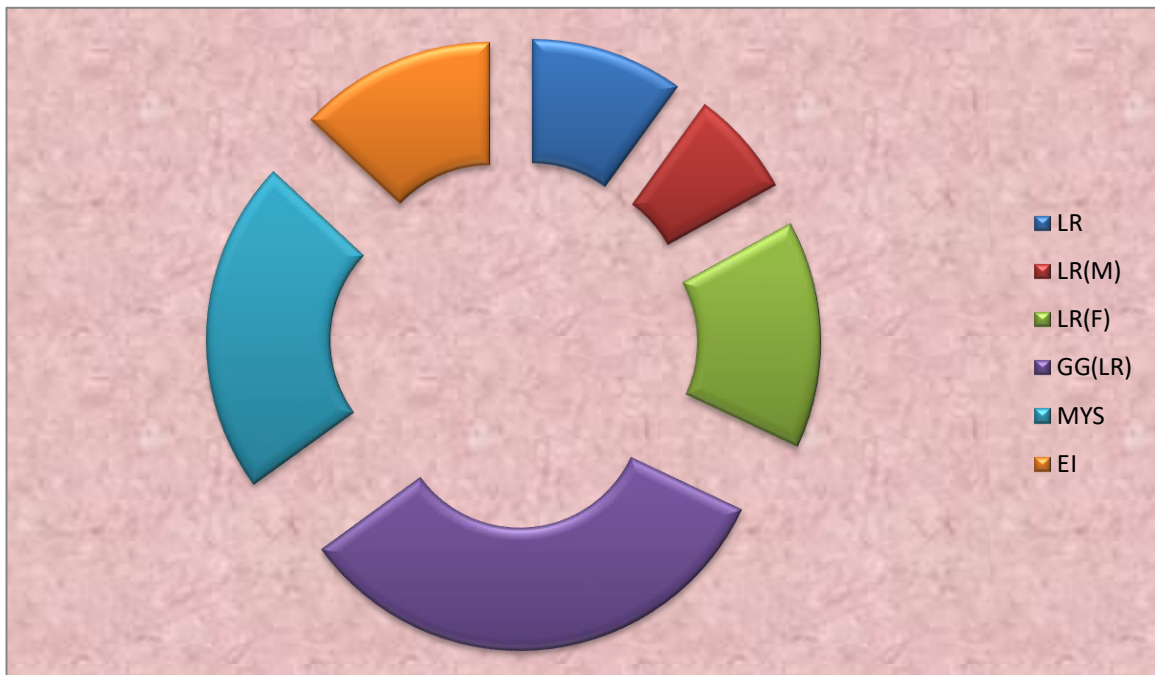
Indicators	HDI	Incidence (H)	Intensity (A)	MPI	EI
Literacy Rate	0.88**	-0.85**	-0.82**	-0.83**	0.93**
Literacy Rate (M)	0.82**	-0.78**	-0.78**	-0.78**	0.87**
Literacy Rate (F)	0.87**	-0.85**	-0.82**	-0.84**	0.93**
Gender Gap (LR)	-0.79**	0.81**	0.83**	0.76**	-0.84**
MYS	0.87**	-0.77**	-0.71**	-0.75**	0.91**

Source: Estimated from Census data; LR-Literacy Rate, M-male, F-Female, MYS-Mean Years of Schooling, MP-Multidimensional Poverty, EI-Education Index, DE- Deprivation of Education, *Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

The given negative correlation coefficient (r) between gender gap and HDI (-0.79) indicates a decline in the incidence of 'educational index' and thereby the achieved functionings in human development with higher incidence of gender gap across the states of India. One could see that those states which are having low incidence of HDI with high MPI are exhibiting larger incidence of gender gap. The table values further shows a positive association between gender gap and MPI (- 0.75) stating that higher incidence of gender gaps in literacy rate would cause further incidence and intensity of multidimensional poverty across the states of India. Mean years of schooling (MYS) on the other hand, positively associates with HDI where the correlation coefficient (r) between the two (0.87) reveals an increase in 'years of schooling' across the states in India which would help to improve its human development. Here one could infer from the table values that educational indicators are found positively helping the process of human development except the indicator 'gender gap' which might be attributing to the larger magnitude of deprivation.

Gender gap becomes the single most attributing indicator to the incidence of deprivation, where one could see higher values of coefficient of variation (33 percent) indicating significant level of disparity persist between the states in India which is followed by the mean years of schooling (22. percent) .

DISPARITY OF EDUCATION IN INDIA



Source: Estimations given in Table 5.4; LR-Literacy Rate; M-Male; F-Female; GG-Gender Gap; MYS-Mean Years of Schooling; EI-Education Index

Figure:12

Further the magnitude of disparity in the literacy rate of women (15.2 percent) is two-fold higher than that of men (7.2 percent). The foregoing discussion on the inter-linkages between educational indicators and the indices of human development further reveals that, those states which are having higher literacy rate and lower gender gap display high human development and low incidence of multidimensional poverty which is evinced by states like Kerala, Punjab, and Himachal Pradesh. The given postulate pinpoints the need for target specific interventions to reduce the gender gap in education through the promotion of girl child-focused education wherever the states required. It would be helping to reduce incidence and intensity of multidimensional poverty in the country. That means the association and disparity of the incidence in the level of education indicator could explain the incidence of human development and deprivation to a great extent especially in the case of low HDI states. The given discussion categorically proves that education is an important enabling variable of human development where, 'mean years of schooling' and literacy rate of the states get more significance in its determination and policy formulations. As NEP 2020 acclaims, education is a fundamental enabling variable for achieving full human potential and promoting national

development. In the present dynamic knowledge economy, acquisition of quality education, lifelong education and skill development are very much essential to explore opportunities for attaining ‘functionings’ of individuals in human development.

4.5.5. EMPLOYMENT AND HUMAN DEVELOPMENT IN INDIA

Generally, standard of living of people has been influenced by their employment and occupational status which is a function of their educational attainment, acquired skills sets, expertise, exposure and other entitlements of an individual. Basically, workers can be classified as ‘main workers’ and ‘marginal workers’ based on the number of days they engage in employment during a year. The cross section of employment distribution of a given population in a particular state would be eliciting to a great extent a larger picture of socio economic profile. The workers who engage in employment more than six months in an year are referred to as main workers where, those who engage in employment less than six months in an year is termed as ‘marginal workers’. The employment scenario of the major states in India by census 2011 shows that out of total working population (40.44 percent), the proportion of marginal workers constitute 10.85 percent where, 30.24 percent are main workers. The proportion of marginal workers is very high in Himachal Pradesh (21.81 percent) followed by Jharkhand (19.04 percent), Chhattisgarh (15.42) and Odisha (16.58 percent). These states except Himachal Pradesh are relatively lower performing states in the domain of human development in India. Generally, a household with an earning member as marginal worker has more chances to become multidimensional poor than that of a household with a main worker. This induces migration of marginal workers to other parts of the country in search of better livelihood. Another remarkable paradox that could be drawn from the secondary data analysis is that the proportion of ‘non workers’ in the country is estimated as 59 percent. When both category of states belonging to better performing state (Kerala) as well as least performing state (Bihar) do exhibit a co-incidence of higher proportion, more than 64 percent of non – workers, it warrants further introspection and research. The incidence of ‘non- workers’ of the country is estimated as 59 percent where, Kerala, Punjab, Haryana, Uttar Pradesh and Bihar registered higher proportion (>64 percent) of non-workers (see Table 5.6).

TABLE-8

EMPLOYMENT STATUS OF PEOPLE IN INDIA

State	(in percent)			
	Main Workers	Marginal Workers	Total Workers	Non-Workers
Kerala	27.93	6.85	34.78	65.22
Punjab	30.46	5.21	35.67	64.33
Himachal Pradesh	30.05	21.81	51.85	48.15
Tamil Nadu	38.73	6.85	45.58	54.42
Maharashtra	38.94	5.04	43.99	56.01
Haryana	27.97	7.5	35.17	64.83
Gujarat	33.7	7.28	40.98	59.02
Andhra Pradesh	39.06	7.65	46.61	53.39
Karnataka	38.3	7.33	45.62	54.38
Assam	27.84	10.52	27.84	61.64
West Bengal	28.14	9.94	38.08	61.92
Odisha	25.51	16.28	41.79	58.21
Rajasthan	30.72	12.88	43.6	56.4
Uttar Pradesh	22.3	10.6	32.14	67.06
Chhattisgarh	32.26	15.42	47.68	52.32
Madhya Pradesh	31.26	12.22	43.47	56.53
Jharkhand	20.67	19.04	39.71	60.29
Bihar	20.52	12.84	33.36	66.64
Mean	30.24	10.85	40.44	58.93
SD	5.94	4.81	6.31	5.42
Mean + SD	36.18	15.66	46.75	64.35
Mean - SD	24.3	6.04	34.13	53.51
CV percent	19.64	44.33	15.60	9.21

Source: India Census 2011

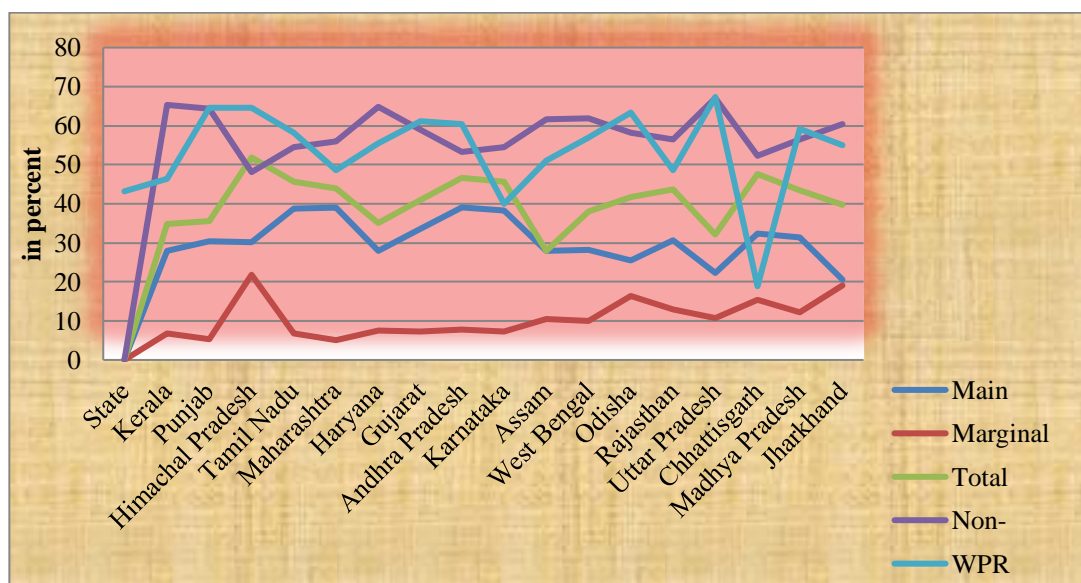
Moreover, total workers of the state can be stratified based on occupational categories as cultivators, Agricultural Labours (AL), Workers in Household Industries (WHI), and workers other than these categories that termed as 'Other Workers' (OW) (GoI,2011). Both 'main workers' and 'marginal workers' are visible in these categories.

Occupational distribution of working population in India reveals that majority of working population in India (54 percent) is engaged in agricultural sector where the proportion of agricultural labours (28 percent) is higher than that of cultivators (26 percent). The proportion of people working in both industrial sector and service sector constitute 46 per cent in which 3 percent of them are engaged in household industries.

The occupation wise distribution reveals that the proportion of cultivators is the highest in Himachal Pradesh (57.9 percent) followed by Rajasthan (45.5 percent), whereas, the proportion registered its lowest in Kerala (5.7 percent). The proportion of agricultural labours is the highest in Bihar (52.8 percent), followed by Andhra Pradesh (43 percent) and Chhattisgarh (41.6 percent), whereas the proportion of it is the lowest in Himachal Pradesh (4.9 percent) followed by Kerala (11.3 percent). It is further observed that proportion of both marginal workers and workers engaged in agricultural sector are relatively low in better performing states (BPS) and higher in least performing states (LPS). The proportion of workers engaged in household industries is the highest in West Bengal (7.9 percent) followed by Uttar Pradesh (5.9 percent), whereas it is lower in Himachal Pradesh, Gujarat, and Chhattisgarh.

In Kerala, great majority of workers (82.85 percent) are engaged in non-agriculture sector where majority of them are engaged in the service sector. Madhya Pradesh and Bihar are the states where the proportion of people working in non-agriculture sector is lower than other states of India and lower than that of the national average (46 percent) having larger ramification in the development discourse of states. 'Work Participation Rate' (WPR) indicates the rate of working population, between the age group of 16 and 64, currently employed or searching for employment. The estimated magnitude of WPR in India is 51 percent where Himachal Pradesh, Tamil Nadu, Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Odisha, Rajasthan, Chhattisgarh, Jharkhand and Bihar have registered higher WPR than that of the national average. WPR is the highest in Himachal Pradesh (46 percent) and Tamil Nadu (46 percent), whereas it is the lowest in Madhya Pradesh (18.8 percent). Work Participation Rate is the function of education, skill and employment opportunities of people where, the employment opportunities are determined by the socio-political and economic situation of the state that could indirectly explain the level of human development.

OCCUPATIONAL CATEGORY OF PEOPLE IN INDIA



Source: India Census 2011; AL-Agricultural Labours; WHI-Workers in Household Industries; OW-Other Workers; WPR-Worker participation Rate.

Figure: 13

Enabling variables in the domain of occupation have been identified based on its significant positive association with HDI. The estimated magnitude of correlation coefficients show that, proportion of ‘other workers’ of the states across India is positively associated with the HDI of the states i.e., (0.861) whereas, proportion of marginal workers show insignificant positive association with HDI and significant inverse relationship with MPI (0.503). The table value further reveals an increase in the proportion of ‘workers’ other than cultivators, agricultural labours and workers in household industries across the states helping to improve human development of the sates and reducing the incidence of multidimensional poverty.

TABLE-9

CORRELATION ANALYSIS OF EMPLOYMENT INDICATORS AND HDI ANDMPI

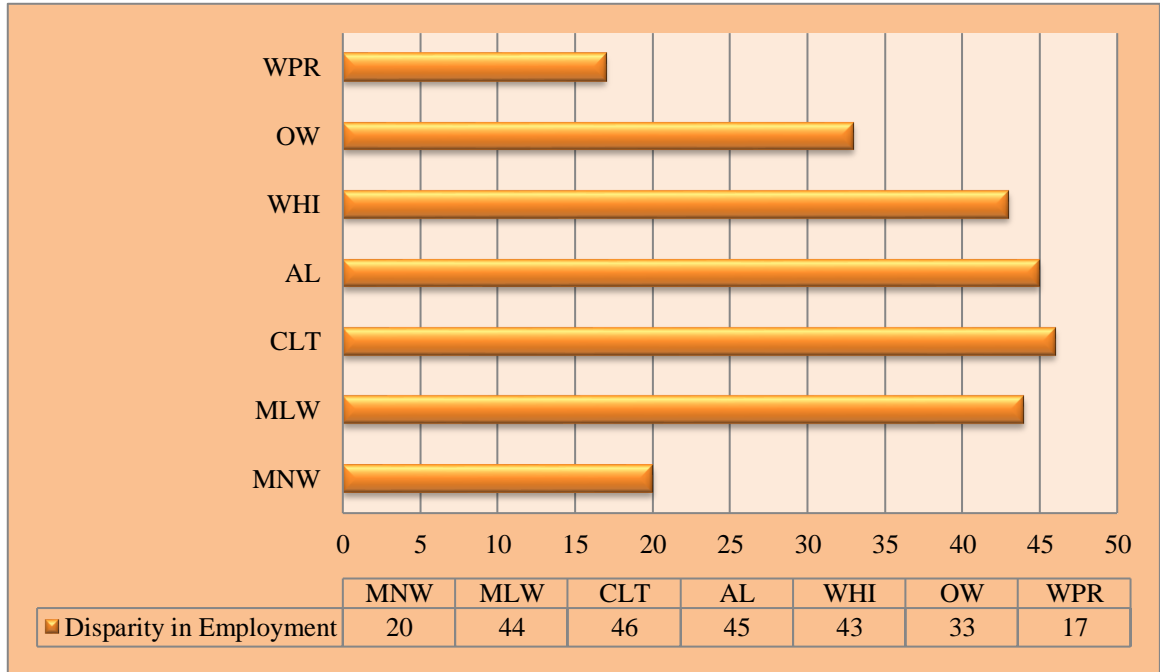
Indicators	HDI	Incidence (H)	Intensity (A)	MPI
Main Workers	0.314	-0.522*	-0.599**	-0.583*
Marginal Workers	-0.450	0.503*	0.406	0.503*
Cultivators	-0.271	0.253	0.147	0.214
Agricultural Labourers	-0.691**	0.669**	0.636**	0.667**
Workers in Household Industries	-0.238	0.282	0.333	0.288
Other Works	0.861**	-0.830**	-0.717**	-0.796**
WPR	0.016	-0.047	-0.135	0.074

Source: Computation of Investigator; MP-multidimensional Poverty; *Correlation is significant at the 0.05 level (2-tailed). **, Correlation is significant at the 0.01 level (2-tailed).

Even though the proportion of main workers and marginal workers show insignificant linear association with human development of the state, their association with deprivation indicators including MPI are found to be inverse and significant. Further, one could see significant positive relationship between the proportion of marginal workers and MPI, leaving the extent of vulnerability and lack of social security in their income, employment and ultimately human development. Meanwhile, the estimated magnitude of correlation coefficient shows significant high positive relationship between share of agricultural labourers and multidimensional poverty across Indian states, which implies the persistence of significant negative relationship with HDI. It implies that occupational status of people with regard to non-agricultural sector of the states across India could be treated as a significant enabling variable of human development, emphasizing the non-agricultural sector as the thrust areas of human development. Table-9 values of correlation coefficients further show the significance of employment status, as main worker, helping to reduce incidence of multidimensional poverty, as the association of these two variables show significant inverse relationship across the states of India.

The incidence of disparity in the distribution of cultivators (46 percent) across the states is the highest in India followed by agricultural labours (45 percent) and marginal workers (44 percent). Further one could see the disparity exist in the proportion of agricultural labours (45 percent) and distribution of cultivators (46 percent) across the state are close to each other. Another remarkable observation is that the magnitude of disparity existing in the distribution of marginal workers (44 percent) is more than that of main workers (20 percent). It reveals that seasonal unemployment is rampant among the states across the country. It further pinpoints, 'marginalization of labours' and higher concentration of labours in the agricultural sector that has to be reduced for improving human development across the states in India.

DISPARITY IN EMPLOYMENT IN INDIA



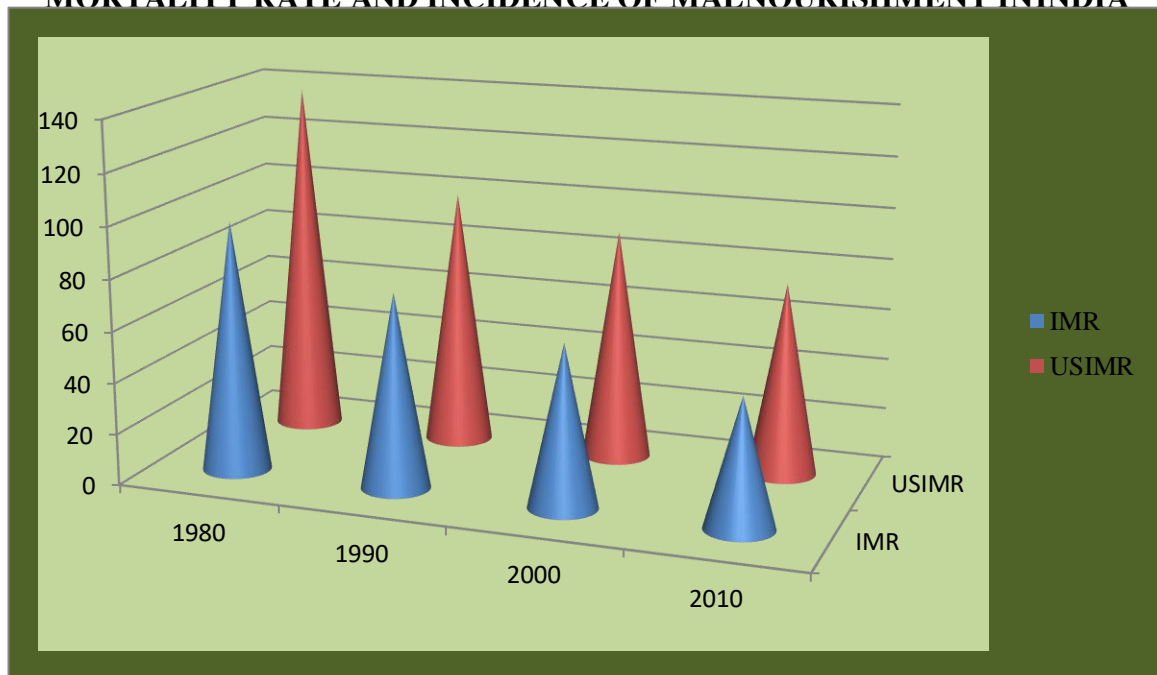
Source: India Census, (2011); MNW-Main Workers, MLW-Marginal Workers, CLT-cultivators, AL-Agricultural Labours, WHI-Workers of Household Industries, OW-Other Workers, WPR-Worker Participation Rate, CV- Coefficients of Variation.

Figure:14

Well-being of people with respect to their health and nutrition is the outcome of interactions of multiple determinants related to individual, institutional and environmental factors. In capability approach, health is considered as an important ‘valued functionings’ that determine human development and plays a crucial role in poverty alleviation. Healthier children tend to have better records of school attendance which induces them to stay longer in the school leading to the ultimate result of more educated work force in the country. Health is considered as a strong pivot for human development which is inversely associated with the incidents of multidimensional poverty. Thus, discussion on basic indicators related to health is very critical in the analysis and interpretation of poverty and human development. In the process, mortality rates (IMR, U5MR, and MR), life expectancy and malnourishment indicators of India have been examined.

India has experienced a 70 per cent decline in the infant mortality rate since 1950 as it has declined to 50 in 2010 as against 165 in 1950 (UNDP, 2009). Similarly, India’s ‘Under five Child Mortality Rate’ (U5MR) has also declined into 75, which was 138 per thousand in 1980 (GoI, 2011). These positive changes have been reflected in the demographic composition especially growth of population in India which was continuously declining ever since 1970 i.e. from 2.3 percent in 1970 to 1.4 percent in 2010 (GoI, 2014).

MORTALITY RATE AND INCIDENCE OF MALNOURISHMENT IN INDIA



Source: NFHS-4; *Data of U5MR for the years 1950, 1960, and 1970 not available

Figure:15

Declining trend of infant mortality rate and child mortality rate is a good sign to the country as it contributes to the human development and helps to reduce health deprivation of people in the country. Life expectancy of the people in India also improved over the period of time. It has increased at an average of 4.5 years per decade since 1950. Another striking observation is that the life expectancy at birth in India differs by sex. Life expectancy of female is higher than that of male in India (UNDP, 2009).

TABLE-10**MORTALITY RATE AND HUMAN DEVELOPMENT IN INDIA**

State	IMR	U5MR	MR	HI*
Kerala	8	7	4	0.853
Punjab	29	33	9	0.784
Tamil Nadu	21	27	11	0.731
Maharashtra	24	29	14	0.746
Haryana	33	41	15	0.732
Gujarat	34	43	17	0.692
Andhra Pradesh	35	41	16	0.701
Karnataka	28	32	17	0.712
Assam	48	56	19	0.612
West Bengal	27	32	19	0.702
Odisha	40	49	24	0.623
Rajasthan	41	51	28	0.664
Uttar Pradesh	64	78	37	0.631
Chhattisgarh	54	64	31	0.636
Madhya Pradesh	51	65	31	0.601
Jharkhand	44	54	30	0.673
Bihar	48	58	35	0.657
Mean	37	44.70	22.77	0.69
SD	13.85	17.32	13.01	0.05
Mean + SD	50.83	62.05	35.8	0.74
Mean - SD	23.14	27.36	9.73	0.62
CV percent	37.43	38.77	57.21	8.68

Source: NFHS – 4; and *UNDP,2011; IMR-Infant Mortality Rate; U5MR-Under FiveMortality Rate; MR-Mortality Rate; HI-health Index

It is observed that different mortality rates (Infant Mortality Rate, Under Five Mortality Rate, and Mortality rate) are very low in the high HDI states of India. The human development initiatives of these states would have helped them to reduce mortality rates that are quite reflected in its health index and human development. International organizations consider mortality indicators as yardstick to assess the progress in health initiatives of the countries viz. mortality rate of infants (IMR), mortality rate of children before age five (U5MR) and Mortality Rate (MR) in general. There exist inter-state variations in the level of mortality indicators in India. The state Uttar Pradesh has registered the highest mortality rate in India where ‘Infant Mortality Rate’ (IMR) is 51 and ‘Under five Mortality Rate’ (U5MR) is 78,

whereas the other BIMARU states also follow the mortality rates more or less the same. The stated facts itself show the fragile health care service delivery that exist in these state in its access to pre and post natal care in the broad realm of women and child care.

Among the states in India, Kerala has registered the lowest in mortality rate (4), infant mortality rate (8) and under 5 mortality rate (7) whereas, Punjab has registered the second lowest mortality rate (9) after Kerala and Tamil Nadu registered the second lowest infant mortality rate (21) across the states of India. It is important to note that Assam, Odisha, Rajasthan, Jharkhand, and Bihar are the states which have registered mortality rates more than that of the national average (22.7). These inter-state variations in mortality rates reveal inequality in access and availability of health services to the people across the states in India. It is observed that the incidence of MPI is very high among those states which are having mortality rate higher than that of national average, as seen in Bihar (0.49), Jharkhand (0.46), and Madhya Pradesh (0.38), Rajasthan (0.351) and Utter Pradesh (0.386). Kerala is the best performing state in health sector development and in the provision of better health services to people and registered the highest Health Index (HI) (0.85) in India. Assam, Odisha, Rajasthan, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, Jharkhand and Bihar are the least performing states in the domain of human development which have registered health indices lower than that of the national average (0.69). It is generally stated that, reduction in mortality rates of the states directly reflects as improvement of life expectancy of its people. Provision of adequate health services to the people need to be improved particularly in the states where human development indices are lower than that of national average.

Malnourishment among people deteriorates capabilities of people that reinforce the intensity of their deprivation. Its assessment seems to be a complicated task where, various criteria have been followed in this exercise. UNDP has been using age specific indicators to assess malnutrition of people like, height-for-age (Stunted), weight-for-age (Under Weight) and weight-for-height (Wasted). An inter-state variation in malnutrition among people across the states of India hampers its holistic human development. Life expectancy is a globally accepted health indicator that indicates the number of years a person is expected to live. Life expectancy in Kerala (74) is the highest whereas Punjab (69) registered the second position. These two states also have registered higher incidence of human development and lower incidence of multidimensional poverty. Himachal Pradesh, Tamil Nadu, Maharashtra, Haryana, Karnataka and West Bengal are the other states that registered higher life expectancy than that of National average (64). Assam is the only state where the life expectancy of people is the lowest (59).

If UNDP's parlance of malnutrition of people is followed one could see that the proportions of the 'stunted' and 'underweight' people are higher than that of the 'wasted' in India. The states Kerala, Punjab and Tamil Nadu have registered lower malnutrition indicators. While these states have been considered as better performers in the domain of health in India, the states like Bihar, Jharkhand, Uttar Pradesh, Maharashtra and Gujarat have registered higher malnutrition indicators making them the least performers in the realm of health. Health status of people of the states are closely associated with access to health care system, quality of health service of the state, initiatives to ensure nutritional standards of the target groups viz. children, adolescent girls, pregnant ladies and women.

TABLE-11

**INCIDENCE OF MALNUTRITION AND LIFE EXPECTANCY BY INDICATORS
IN INDIA**

(in percent)

State	Stunted	Wasted	Under Weight	LE
Kerala	22.7	24.1	20.9	74
Punjab	25.7	15.6	21.6	69
Himachal Pradesh	32.4	21.6	28.5	67
Tamil Nadu	27.1	19.7	23.8	66
Maharashtra	34.4	25.6	36	67
Haryana	34	21.2	29.4	66
Gujarat	38.5	26.4	39.3	64
Andhra Pradesh	31.4	17.2	31.9	64
Karnataka	36.2	26.1	35.2	65
Assam	36.4	17	29.8	59
West Bengal	32.5	20.3	31.6	65
Odisha	34.1	20.4	34.4	60
Rajasthan	39.1	23	36.7	62
Uttar Pradesh	46.3	17.9	39.5	64
Chhattisgarh	37.6	23.1	37.7	60
Madhya Pradesh	42	25.8	42.8	58
Jharkhand	45.3	29	47.8	63
Bihar	48.3	20.9	43.9	62
Mean	35.78	21.94	33.93	64
SD	6.93	3.74	7.51	3.85
Mean + SD	42.71	25.68	41.44	68
Mean - SD	28.85	18.2	26.42	60
CV percent	19.37	17.05	22.13	5.99

Source: NFHS – 4; H/A-Height to Age; W/H-Weight to height; W/A-Weight to Age; LE-Life Expectancy

Estimated magnitudes of correlation coefficients (r) show that, all health indicators except 'wasted' of the states across India are positively associated with its HDI whereas, proportion of 'wasted' shows insignificant negative correlation (-0.02) with HDI and positive correlation with MPI (0.17). The table values further reveal an increase in mortality rates and

malnourished people of the states across India which might have helped to deteriorate human development and reinforce incidence of multidimensional poverty in India.

TABLE-12
CORRELATION COEFFICIENTS BETWEEN HEALTH INDICATORS AND HUMAN DEVELOPMENT

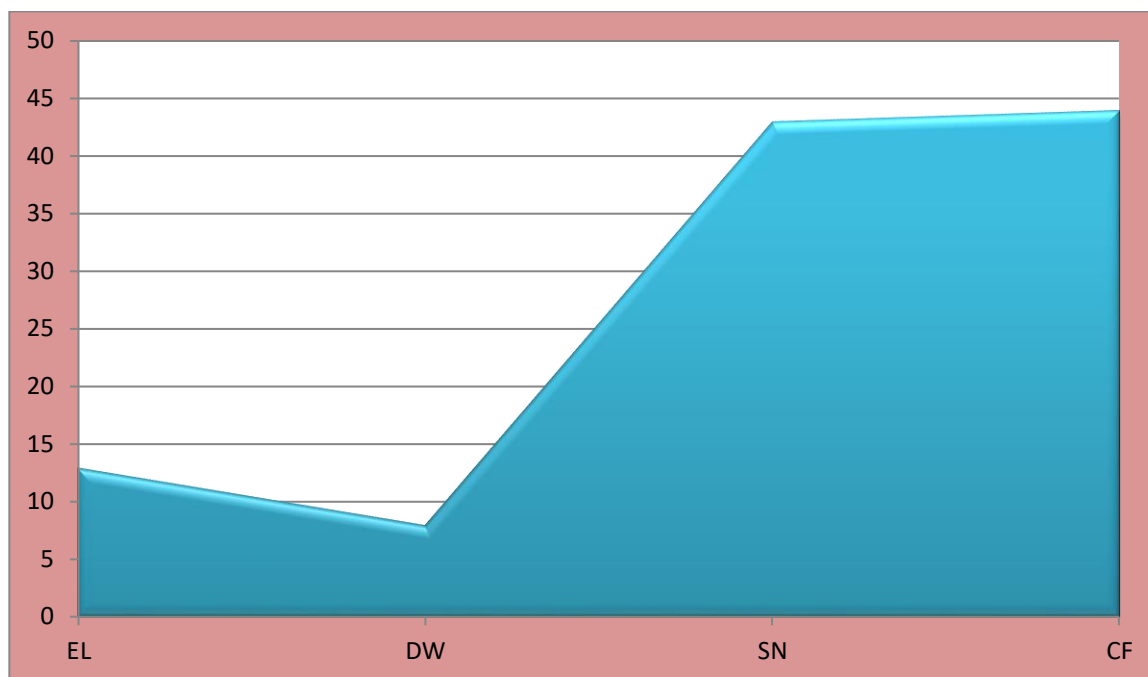
Indicators	HDI	Incidence (H)	Intensity (A)	MPI
IMR	-0.840**	0.850**	0.805**	0.826**
U5MR	-0.852**	0.821**	0.792**	0.808**
MR	-0.715**	0.626**	0.530*	0.595**
Stunted (H/A)	-0.775**	0.872**	0.850**	0.877**
Wasted(W/H)	-0.020	0.152	0.180	0.174
Under Weight (W/A)	-0.762**	0.844**	0.839**	0.847**
Life Expectancy (LE)	0.921**	-0.826**	-0.742**	-0.772**

Source: Computation of Investigator; IMR-Infant Mortality Rate;U5MR-Under Five Mortality Rate; MR-Mortality Rate; H/A-Height to Age; W/H-Weight to height; W/A-Weight to Age; *. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

The table-12 reveals the values of correlation coefficients also reveal that life expectancy of people across India is positively associated with human development (0.92) and is negatively associated with multidimensional poverty (-0.77).This indicates an increase in life expectancy of people which helps to improve human development and bring about a reduction in the incidence of deprivation of health among people thereby multidimensional poverty across the states of India. Life expectancy of people could be treated as a significant enabling variable of human development across the states of India. The given state of affairs and initiatives appropriate to the states for reducing mortality rates and malnourishment particularly among those states placed in the bottom positions have become significant pertaining to the overall improvement in the health indicators.

The incidence of disparity in mortality indicators seems to be higher than that of malnourishment indicators across the sates of India. The given analytical values upholds the view that among the health indicators, mortality rate has registered its highest (57) percent of disparity while it is compared with the corresponding values of different states which is followed by under 5 mortality rate (39) percent and infant mortality rate (37).

INCIDENCE OF DISPARITY AND HEALTH INDICATORS



Source: NFHS-4; IMR-Infant Mortality Rate; U5MR-Under Five mortality Rate; MR-Mortality Rate; H/A-Height to Age; W/H-Weight to height; W/A-Weight to Age; LE-Life Expectancy

Figure:16

High incidence of mortality rates of infants and children are most often the outcomes of inefficient health care system as well as deprivation in its access and availability including lack of proper nutritional standards of the women at their pregnancy and pre and post natal care. The given situation stresses the need for immediate attention of the concerned authorities in addressing the disparities in the service delivery questions with long term perspectives and multi pronged approaches.

4.5.6. STANDARD OF LIVING AND HUMAN DEVELOPMENT

Poverty occurs when people are denied the ability to lead a decent standard of living. Availability of electricity, safe drinking water, sanitation and quality of cooking fuel along with asset ownership and quality of house are considered key the indicators of assessment of 'standard of living' of an individual (UNDP, 2010). Deprivation of these basic facilities makes an individual deprived in standard of living thus making him/ her multidimensional poor.

To assess the one's standard of living the indicators of electricity (EL) drinking water

(DW), sanitation (SN) and cooking fuel (CF) are being estimated across the states in India as detailed in table-13. Meanwhile, more than 90 per cent of households, on an average, in India are having access and availability of electricity. The states, Bihar (59 percent), Uttar Pradesh (71 percent) and Assam (78 percent) are lagged behind in the provision of electricity to its people. In addition to these states, Odisha (86 percent), Madhya Pradesh (89 percent) and Jharkhand (80 percent) have registered lower availability of electricity than that of the national average (90.11). Similar to this, the states Andhra Pradesh (72.4) and Jharkhand (77.5) are lagged behind in the provision of safe drinking water to the households making larger implications on the prospects of their human development. More than 20 percent of households in these states are still out of accessible range of safe drinking water. It is not available to more than 10 percent of households in Karnataka, Assam, Odisha, Rajasthan and Madhya Pradesh. Lack of safe drinking water force the people to make use of contaminated water for their domestic use which in turn is detrimental to their health leading to deprivation of their given standard of living.

Another remarkable thing to notice is that some of the states of India, particularly those belonging to least performing states in human development stand far behind in the access and availability of sanitation facilities and in the provision of quality cooking fuel like 'liquid petroleum gas' to the households. More than 70 per cent of households in Bihar, Jharkhand and Odisha do not have proper sanitation facilities, whereas more than 40 per cent of households in Tamil Nadu, Maharashtra, Andhra Pradesh, West Bengal, Assam, Rajasthan, Uttar Pradesh, Chhattisgarh and Madhya Pradesh are denied of sanitation facilities. The given data analysis would help the investigator to have inquisitiveness on examining the corresponding estimated indices of human development in the respective states. To one's dismay, the aforementioned states have registered lower rates of human development (HDI) than that of the national average coupled with its highest ranks in their incidence of multidimensional poverty (MPI).

TABLE-13
DETAILS OF STANDARD OF LIVING IN INDIA

(in per cent)

States	Electricity	Drinking Water	Sanitation	Cooking Fuel
Kerala	98.6	92.2	97.7	51
Punjab	99.4	99.1	81.5	65.9
Himachal Pradesh	99.6	96.5	87	35.7
Tamil Nadu	98.4	90.6	52.2	73
Maharashtra	92.1	91.5	51.9	59.9
Haryana	98.5	91.7	79	52.2
Gujarat	96.1	90.9	84.3	52.6
Andhra Pradesh	98.2	72.7	53.6	62
Karnataka	97.7	89.3	57.8	54.7
Assam	78.1	83.8	47.7	25.1
West Bengal	93.2	94.6	50.9	27.9
Odisha	85.5	88.8	29.4	19.2
Rajasthan	91.0	85.5	45	31.8
Uttar Pradesh	70.3	96.4	35	32.7
Chattisgarh	95.5	91.1	32.7	22.8
Madhya Pradesh	89.8	84.7	33.7	29.6
Jharkhand	80.1	77.6	24.4	18.9
Bihar	58.4	98.2	25.2	17.8
Mean	90.20	89.74	53.81	40.69
SD	11.47	6.87	22.97	18.07
Mean + SD	101.71	96.61	76.80	58.77
Mean – SD	78.76	82.82	30.81	22.61
CV percent	12.71	7.67	42.70	44.40

Source: NFHS – 4

Estimated magnitudes of correlation coefficient reveal that, all indicators of standard of living except provision of drinking water of the states across India are positively associated with its HDI, whereas proportion of households with safe drinking water does not exhibit significant positive correlation (0.34) with HDI.

TABLE-14**CORRELATION ANALYSIS ON STANDARD OF LIVING INDICATORS AND HUMAN DEVELOPMENT INDICATORS**

Indicators	HDI	Incidence (H)	Intensity (A)	MPI
Electricity (EL)	0.609**	-0.726**	-0.768**	-0.765**
Drinking Water (DW)	0.353	-0.202	-0.159	-0.181
Sanitation (SN)	0.868**	-0.874**	-0.839**	-0.875**
Cooking Fuel (CF)	0.678**	-0.795**	-0.775**	-0.811**

Source: Estimation based on secondary data; *Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

The table-14 reveals the fact that wherever there is an increase in provision of electricity, facilities for sanitation and clean drinking water to the people of the states across India, these are positive evidences of an increase in human development and the reduction in the incidence of multidimensional poverty. The traced relationship emphasizes the access and availability of amenities like electricity, facilities for sanitation and provision of clean cooking fuel to the households are significant enabling variables of human development across the states of India.

The incidence of disparity in the provision of sanitation and clean cooking fuel seem to be more than 40 per cent which is higher than that of electricity and drinking water. There exists wide disparity in disposal of cooking fuel at household level across the states (43 percent) as well as in access to sanitation facilities. In contrast to this disparity, indices remains the lowest in the case of other variable is namely, access to electricity (12 percent), and safe drinking water (7 percent) emphasizing the need for special focus on enabling variables viz. cooking fuel and sanitation.

INCIDENCE OF DISPARITY AND STANDARD OF LIVING

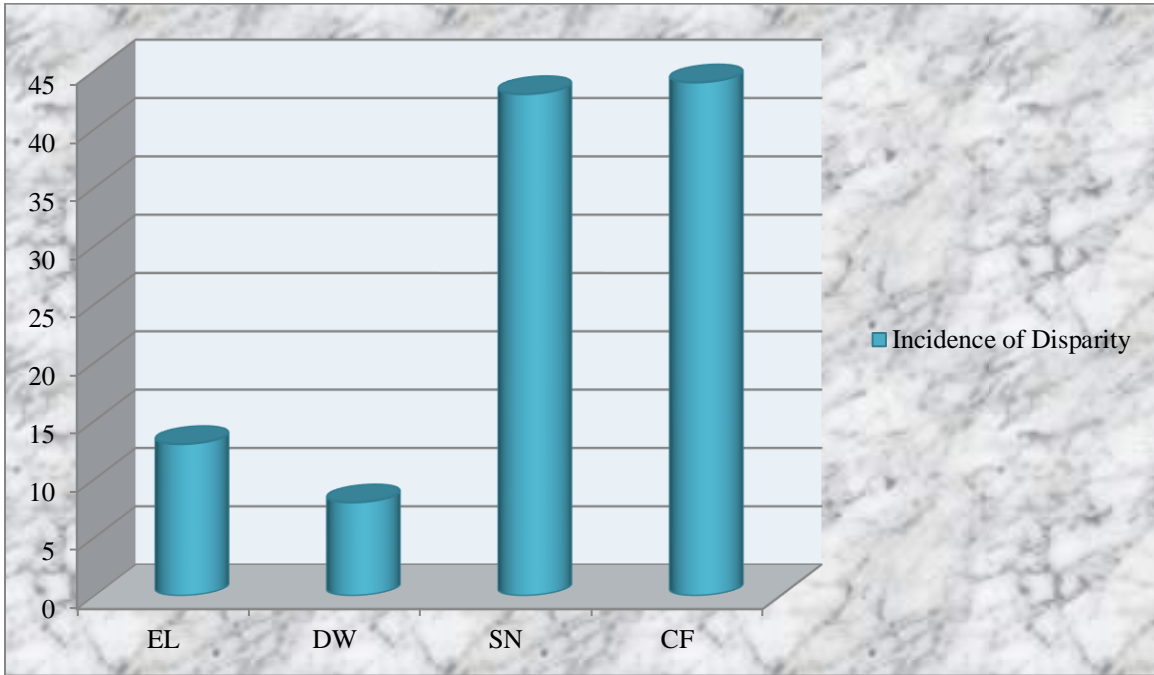


Figure: 17

4.5.6.HUMAN DEVELOPMENT AND FACILITATING VARIABLES

After analysis of data on the variables in the domain of demography, education, employment/occupation, health and standard of living across the states of India, ‘enabling variables of human development’ have been identified. The variables that exhibit significant positive correlation (r) with HDI and negative correlation with MPI across the states of India are chosen as ‘enabling variables of human development’. Incidence and magnitudes of disparities of identified ‘enabling variables’ are also examined, and its association along with respective disparity across the states in India have been traced using coefficient of correlation helping the researcher to identify the enabling variable of human development as detailed in table 15.

TABLE-15**HUMAN DEVELOPMENT AND FACILITATING VARIABLES IN INDIA**

Variables	Correlation Coefficients (r)		Mean	SD	CV percent
	HDI	MPI			
Population (Urban)	0.632**	-0.628*	70.28	12.25	17.36
Literacy Rate	0.87**	-0.81**	74.15	7.66	10.34
Literacy Rate (M)	0.819**	-0.76**	81.78	5.53	7.15
Literacy Rate (F)	0.869**	-0.82**	65.91	10.01	15.16
Mean Years of Schooling (MYS)	0.873**	-0.71**	4.11	0.88	21.75
Other Works	0.860**	-0.793**	42.51	14.24	33.38
Life Expectancy (LE)	0.926**	-0.778**	64.02	3.86	5.86
Electricity (EL)	0.610**	-0.771**	90.10	11.21	12.70
Sanitation (SN)	0.875**	-0.887**	53.83	22.99	18.08
Cooking Fuel (CF)	0.690**	-0.819**	40.7	18.08	44.41

Source: Estimation based on Secondary data; M-Male; F-Female; MYS-Mean Years of Schooling;

*Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).

The identified enabling variables show very high positive correlation with HDI of the states across India revealing its reinforcing power for the upgradation of human development in turn helping to reduce multidimensional poverty in the country. The magnitudes of disparity of these enabling variables are very high across the states in India where it is the highest in the provision of clean cooking fuel (44.41 percent) and lowest in life expectancy (5.86 percent), while its national averages are 40.7 percent and 64 years respectively.

SUMMARY AND CONCLUSION

CHAPTER V

SUMMARY AND CONCLUSION

Poverty is a state or condition in which a person or community lacks the financial resources and essentials for a minimum standard of living. Poverty means that the income level from employment is so low that basic human needs can't be met. As this decade comes to an end, the world has seen progress on many fronts. The poorest countries have greater access to water, electricity, and sanitation (i.e., a toilet). Poverty and child mortality have fallen. Technology has spread far and wide so that there are now more mobile phones than people. But we've also broken some of the wrong kinds of records. In 2019, more people were forcibly displaced than any other time in history. To live in poverty is to lack the resources needed to meet basic needs. One way to measure poverty is to consider a person's economic resources, either the amount of money a person receives (income), the amount they spend (expenditure), or the amount they have saved or the value of their assets (wealth). Poverty defined in this way is economic poverty; other measures of poverty exist, including multidimensional, social, nutritional and cultural. Reducing global poverty was a key aim of the Millennium Development Goals (MDGs). The target for the MDGs was to reduce the number of people living in extreme poverty by half between 1990 and 2015. Ending poverty now stands at the core of the Sustainable Development Goals (SDGs), launched in 2015; the first of its seventeen goals is 'no poverty by 2030'. Tracking global progress on international poverty tells us how close the world is to achieving this aim. The global share of people in extreme poverty those living on less than \$1.90 a day has decreased consistently since 1990. In 1990, it was estimated that 1.9 billion people were living below the extreme poverty line 36 percent of the world population at the time. In 2015 (the most recent year for which global estimates are available), 735 million people were living in extreme poverty 10 percent of the world population.

STATEMENT OF THE PROBLEM

Identification of poor households is very important in the estimation of poverty and thereon the effective implementation of poverty alleviation programmes. However, the official estimation of poverty based income has excluded many of the poor households who are actually

poor, from the category of 'below poverty line'. It is well acclaimed that poverty is a multi-faceted phenomenon (Rao, 1998). Income based uni-dimensional methodology to estimate poverty would be giving misleading inferences or conclusion and hence it remains an unscientific measure of poverty estimation. This may further lead to misallocation of resources and benefits diverted to ineligible beneficiaries in the society aggravating further inequality and poverty. Hence, it is alleged that a number of non-poor households happened to enjoy and snatch the privileges of poverty alleviation programmes of India (Rudra, et.al., 1998). It demands a more comprehensive measure, which is capable to estimate multiple deprivations at household and state level in the basic dimensions of human life. The 'incidence' and 'intensity' of poverty among households belonging to various social groups would not be similar within the state and across the country. Further, major proportion of the 'poor households' in India belong to backward communities namely SC, ST, OBC (Government of India, 2011). Even though, the governments at the centre and state had implemented a series of special programmes for these communities. SC/ST households are often unable to obtain access to various essential public services which are basic to maintain a decent standard of living, adequate education and health care. Theoretical postulates reveal that, better human development enabling environment could be helping to reduce incidence of multiple deprivations among households. Hence, the variation in the 'incidence' and 'intensity' of deprivation among the societal groups in the 'better', 'moderate', and 'poor' human development circumstances at state level within the same territory to emphasize its inter-state and inter-group variations of the same. Apart from the cross country comparison of multidimensional poverty by UNDP and Alkire (UNDP, 2010), an inter- state, inter-group and dimension-wise decomposition analysis of multidimensional poverty using the deprivations of human life in the basic dimensions of human development namely, education, health and standard of living is hard to find in the existing literature.

In the given backdrop, the present study adopts human development framework to explore the inter-state variations in the 'determinants' and 'correlates' of the 'incidence' and 'intensity' of poverty across the selected states of India.

Poverty, as stated, is not a single dimensional problem. Large number of factors directly or indirectly is associated with the incidence and intensity of poverty of a country. The incidence, intensity and determinants of poverty vary from place to place and household to

household. The review of related studies evince that the major research conducted in this field so far focused mainly on the incidence of poverty by income dimensional one. The human development framework enables one to proceed with multidimensional analysis of poverty. The present study aims at examining the ‘determinants’ and ‘correlates’ of multidimensional poverty among the social groups across the states of within the human development framework.

OBJECTIVES

1. To find out the poverty in India (from 1993-2012)
2. To analyse the poverty and economic development in India
3. To examine multidimensional poverty index and human development index in India
4. To find out the disparities on socio-economic parameters in India
5. To suggest the policy implications

HYPOTHESIS

The following hypotheses were tested in the course of the study

1. There is no significant difference in performance between poverty and economic development
2. There is a positive relationship between poverty and economic development.
3. There exist significant ‘disparity’ among the ‘enabling variables of human development’ across the states of India.

This study was based on secondary data resources. Secondary data was collected for the latest census availability (2011). The National, State and District level data on water resource availability and utilization of water resources were collected from the Reserve Bank of India, National Sample Survey Office and Census of India 2011. Statistical tools like, regression, correlation, multidimensional poverty index were used to achieve the stipulated objectives.. The study period were analysed for the water year census 1983-2011. Three types of water demand in agriculture sector were calculated, namely,

- Trend analysis of poverty 1983-2011(All India Level),
- Poverty and economic development from 1983-2011 (All India Level),
- Multidimensional index on poverty and socio economic indicators (All India Level).

MAJOR FINDINGS OF THE STUDY

Poverty alleviation has been a primary goal of Indian development strategy since independence, and the prevalence of poverty in India has decreased from 54.7 percent to 21.3 percent between 1973-74 and 2004-05.

The profile of the incidence of poverty across the states which clearly reveals that almost all excepting Bihar experienced a declining trend in the incidence of poverty during 1973-74 to 1983-84 in varying degrees. Similarly the period from 1983-84 to 1993-94 also records a declining trend in the incidence of poverty for almost all the states excepting Haryana and Himachal Pradesh. Almost all the states have experienced declining trend in the incidence of poverty in varying degrees over the period from 1993-94 to 2009-10 i.e. during the post reform

The change of poverty in 1993-94 to 1999-2000 all the states are found to have experienced much faster fall in the extent of poverty. Further, during the between 1999-2000 and 2004-05 were relatively smaller rates of decline in the magnitude of poverty in some of the states if the comparison is made between poverty.

The explanatory factors like expenditure of social sector and Net State Domestic Product are highly significant (as are indicated by their respective p-values) with their expected signs. Further the model test i.e. the F value and its probability and the log-likelihood ratio indicate that the regression result is robust. The increase in social sector expenditure and growth rate of per-capita income has brought down the incidence of poverty by 1.39 and 1.37 percent respectively.

Health index (0.69) of India is better than that of the other two dimension indices of human development which reveals, the 'achieved functionings' of people in health is comparatively good to lead 'long' and 'healthy life' that emanates from availability, accessibility and affordability of health care services of the country. Even though India has better health index, its education index is the lowest (0.39) among other two- dimension indices of human development. Education index reveals achieved 'functionings' of people in education, acquisition of better

knowledge and schooling. That indicates the 'mean years of schooling', the major determinant of education, would be expanded to make the society more knowledgeable and informed.

Deprivation of education in India (0.22) seems to be the lowest among other dimensions of multidimensional poverty. It reveals that, people of India are getting proper provisions for the attainment of education which is considered to be an important 'valued functioning' of people. Deprivation of education reveals deprived functionings of people pertaining to the basic indicators of education namely 'years of schooling' and 'school enrollment'

The multidimensional framework of poverty is capable to estimate 'intensity' and 'vulnerability' of poverty which helps to understand the profundity of poverty in which the poor people are deprived in education, health and standard of living. The estimated magnitude of 'intensity of poverty' is 0.51. That means, the poor households in India are not able to attain 50 percent of basic facilities with regard to education, health and standard of living in India

The incidence of HDI in India is estimated as 0.51 and its standard deviation from the central tendency of the distribution is 0.05. It reveals incidence of HDI across the states of India lies between 0.56 and 0.46 (Mean + SD and Mean – SD) where, the states with HDI above 0.56 are considered as 'Better Performing States' (BPS) of India in human development that include Kerala (0.625), Punjab (0.569), and Himachal Pradesh (0.558). The states with HDI less than 0.46 are considered as 'Least Performing States' (LPS) it includes Bihar (0.447), Madhya Pradesh (0.451), Odisha (0.452), Jharkhand (0.457), and Chhattisgarh (0.458).

The correlation coefficient (r) between the proportion of rural population of the states and the corresponding HDI shows significant negative value (-0.63) whereas its corresponding correlation with MPI assumed a positive value (0.63), revealing the fact that people in rural centre do have lower indices of HDI along with higher MPI. It reveals, households belong to rural areas across India are facing dearth of basic facilities for attaining their 'valued functionings' including education, health and standard of living.

The magnitude of disparities that exist among 'relative share of state population', 'state share of rural population', and 'rural-urban ratio (R/U) of state population' in India appeared to be the same (17 percent) where, the magnitude of disparities in the distribution of urban population across the states of India is very high (41 percent). It reveals that population in urban areas across the states of India is deviating highly from its corresponding national average (29.69)

compared to that of the selected parameters of population in India.

The education system of the states across the country is concerned, transformation in the quality and outreach of education at par with the changing world order; the ensuing NEP 2020 shall be tuned in this direction. A cut off value 0.44 which is the sum of national average (Mean) and standard deviation (SD) of education Index (EI) across the states of India has been used to categorise states according to their performance in the domain of education. The states Kerala, Himachal Pradesh, Punjab, Tamil Nadu and Maharashtra which are having education index (EI) more than 0.44 could be considered as 'better performing states' in the domain of education. These states are also having higher literacy rates and lower gender gaps in literacy. Whereas the states, Rajasthan, Uttar Pradesh, Chhattisgarh, Madhya Pradesh, and Bihar which are having lower education index i.e. less than 0.34, are considered as least performing states in education.

Further the magnitude of disparity in the literacy rate of women (15.2 percent) is two-fold higher than that of men (7.2 percent). The foregoing discussion on the inter-linkages between educational indicators and the indices of human development further reveals that, those states which are having higher literacy rate and lower gender gap display high human development and low incidence of multidimensional poverty which is evinced by states like Kerala, Punjab, and Himachal Pradesh. The given postulate pinpoints the need for target specific interventions to reduce the gender gap in education through the promotion of girl child-focused education wherever the states required. It would be helping to reduce incidence and intensity of multidimensional poverty in the country.

Occupational distribution of working population in India reveals that majority of working population in India (54 percent) is engaged in agricultural sector where the proportion of agricultural labours (28 percent) is higher than that of cultivators (26 percent). The proportion of people working in both industrial sector and service sector constitute 46 per cent in which 3 percent of them are engaged in household industries.

Enabling variables in the domain of occupation have been identified based on its significant positive association with HDI. The estimated magnitude of correlation coefficients show that, proportion of 'other workers' of the states across India is positively associated with the HDI of the states i.e., (0.861) whereas, proportion of marginal workers show insignificant positive

association with HDI and significant inverse relationship with MPI (0.503).

Estimated magnitudes of correlation coefficients (r) show that, all health indicators except 'wasted' of the states across India are positively associated with its HDI whereas, proportion of 'wasted' shows insignificant negative correlation (-0.02) with HDI and positive correlation with MPI (0.17). The table values further reveal an increase in mortality rates and malnourished people of the states across India which might have helped to deteriorate human development and reinforce incidence of multidimensional poverty in India.

Estimated magnitudes of correlation coefficient reveal that, all indicators of standard of living except provision of drinking water of the states across India are positively associated with its HDI, whereas proportion of households with safe drinking water does not exhibit significant positive correlation (0.34) with HDI.

The identified enabling variables show very high positive correlation with HDI of the states across India revealing its reinforcing power for the upgradation of human development in turn helping to reduce multidimensional poverty in the country. The magnitudes of disparity of these enabling variables are very high across the states in India where it is the highest in the provision of clean cooking fuel (44.41 percent) and lowest in life expectancy (5.86 percent), while its national averages are 40.7 percent and 64 years respectively.

CONCLUSION

If any individual country suffers with extreme poverty, it has developed in to a significant issue, a risk to the survival, stability, and improvement of the humankind and world. Nowadays, globalization can play a significant role to make a bridge for connecting nations thus, any nations' instability can legitimately and profoundly influence the steadiness of other nations. The global network has to hold hands to alleviate poverty with numerous governmental and non-governmental anti-poverty organizations that operate both regionally and internationally, including United Nations Development Programme (UNDP), World Health Organization (WHO), United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD), Food and Agriculture Organization (FAO), and Biosciences eastern and central Africa (BecA). The UNDP set eight Millennium Development Goals which contain major recommendations for addressing problems associate with poverty comprehensively (UNDP, 2017);

- “Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat AIDS, Malaria and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development”

Though, all of the above referenced recommendations performed straightforwardly by organizations, and nations not only emphasis on the roots of poverty, but also break its cycle. Moreover, the poor ought to have a feeling of their poverty, and must be accountable for their own destiny and effectively battle poverty as opposed to sitting tight for help (Rusitha et.al., 2021). It is obligatory a significant alteration from their very own praxis which could enable them to experience a procedure of solving problems, sharing, learning, and prompting to social developments. The individuals and the government of any nation have to understand better than any other individual clearly the characteristics and strengths of their countries. It pursues that they could productively contribute to avoid causes of poverty, solving consequences of the poverty, and preventing the return of poverty in their nations by numerous ways, for example, particularly through the proper education, awareness programmes.

In conclusion, the war against poverty is not simple to end and take time, money, human resources and energy. Once more, poor people and vulnerable groups ought to be educated to be completely mindful of their circumstance to that they can beat poverty themselves. At the point when entire world should grab hands in solving this global issue and then, the unending circle of poverty would be terminated certainly in near future. But, every nation ought to be liable for finding fitting approaches to beat poverty before getting supports from different nations.

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PER CAPITA NET STATE DOMESTIC PRODUCT

State/Union Territory	Base: 2004-05			
	1993-94	1999-2000	2004-2005	2009-10
Andaman and Nicobar Islands	40921	41645	47522	50629
Andhra Pradesh	25959	27179	29797	33217
Arunachal Pradesh	26721	26870	27675	30287
Assam	16782	17050	17579	18089
Bihar	7914	7588	8759	9070
Chandigarh	74173	78167	85372	86923
Chhattisgarh	18559	18530	21580	22929
Delhi	63877	69128	76243	83243
Goa	76968	80844	86257	87085
Gujarat	32021	36102	38568	42498
Haryana	37972	40627	44423	47046
Himachal Pradesh	33348	35806	38195	40143
Jammu and Kashmir	21734	22406	23375	24470
Jharkhand	18510	17406	17427	20996
Karnataka	26882	29295	31967	35574
Kerala	32351	35492	38113	41315
Madhya Pradesh	15442	15927	17073	17572
Maharashtra	36077	40671	45582	50138
Manipur	18547	19341	19250	19868
Meghalaya	23079	24278	25471	25633
Mizoram	24662	25826	26308	28467
Nagaland	30441	33072	35074	37317
Odisha	17650	18194	20194	21640
Puducherry	48302	60046	61142	64749
Punjab	33103	34096	37087	39567
Rajasthan	18565	19445	21342	21922
Sikkim	26690	29008	30293	31722
Tamil Nadu	30062	34126	39166	41314
Telangana	24409	27921	30562	33271
Tripura	24394	25688	27558	29022
Uttar Pradesh	12950	13445	14241	14875
Uttarakhand	24726	27781	30644	35444
West Bengal	22649	23808	25400	27094

TABLE 1: STATE-WISE TOTAL POPULATION

(Thousands)							
State/Union Territory	1951	1961	1971	1981	1991	2001	2011
Andaman and Nicobar Islands	31	64	115	189	281	356	381
Andhra Pradesh	31115	35983	43503	53551	66508	76210	84581
Arunachal Pradesh	-	337	468	632	865	1098	1384
Assam	8029	10837	14625	18041	22414	26656	31206
Bihar	29085	34841	42126	52303	64531	82999	104099
Chandigarh	24	120	257	452	642	901	1055
Chhattisgarh	7457	9154	11637	14010	17615	20834	25545
Dadra and Nagar Haveli	42	58	74	104	138	220	344
Daman and Diu	49	37	63	79	102	158	243
Delhi	1744	2659	4066	6220	9421	13851	16788
Goa	547	590	795	1008	1170	1348	1459
Gujarat	16263	20633	26697	34086	41310	50671	60440
Haryana	5674	7591	10036	12922	16464	21145	25351
Himachal Pradesh	2386	2812	3460	4281	5171	6078	6865
Jammu and Kashmir	3254	3561	4617	5987	7837	10144	12541
Jharkhand	9697	11606	14227	17612	21844	26946	32988
Karnataka	19402	23587	29299	37136	44977	52851	61095
Kerala	13549	16904	21347	25454	29099	31841	33406
Lakshadweep	21	24	32	40	52	61	64
Madhya Pradesh	18615	23218	30017	38169	48566	60348	72627
Maharashtra	32003	39554	50412	62783	78937	96879	112374
Manipur	578	780	1073	1421	1837	2294	2856
Meghalaya	606	769	1012	1336	1775	2319	2967
Mizoram	196	266	332	494	690	889	1097
Nagaland	213	369	516	775	1210	1990	1979
Odisha	14646	17549	21945	26370	31660	36805	41974
Puducherry	317	369	472	604	808	974	1248
Punjab	9161	11135	13551	16789	20282	24359	27743
Rajasthan	15971	20156	25766	34262	44006	56507	68548
Sikkim	138	162	210	316	406	541	611
Tamil Nadu	30119	33687	41199	48408	55859	62406	72147
Tripura	639	1142	1556	2053	2757	3199	3674
Uttar Pradesh	60274	70144	83849	105137	132062	166198	199812
Uttarakhand	2946	3611	4493	5726	7051	8489	10086
West Bengal	26300	34926	44312	54581	68078	80176	91276
ALL INDIA	361088	439235	548160	683329	846421	1028737	1210855
-: Not Available.							
Notes: 1. In Arunachal Pradesh, the census was conducted for the first time in 1961.							
2. The 1981 Census could not be held in Assam. Total Population for 1981 has been worked out by Interpolation.							
3. The 1991 Census could not be held in Jammu and Kashmir. Total Population for 1991 has been worked out by Interpolation.							
4. India and Manipur figures include estimated population for those of the three sub-divisions viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census result of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.							
5. Efforts have been made to cover newly created States, wherever possible.							
Source: Economic Survey, Government of India, various issues.							

STATE-WISE POVERTY RATE

(Person in Lakh)

State/Union Territory	1993-94 (30 day Recall Period)*		1999-00 (30 day Recall Period)*	
	No. of Persons	Percentage	No. of Persons	Percentage
Andhra Pradesh	154.0	22.2	119.0	15.8
Arunachal Pradesh	3.7	39.4	4.0	33.5
Assam	96.4	40.9	94.6	36.1
Bihar	493.4	55.0	425.6	42.6
Chhattisgarh	.	.	.	.
Goa	1.9	14.9	0.7	4.4
Gujarat	105.2	24.2	67.9	14.1
Haryana	43.9	25.1	17.3	8.7
Himachal Pradesh	15.9	28.4	5.1	7.6
Jammu and Kashmir	20.9	25.2	3.5	3.5
Jharkhand	.	.	.	.
Karnataka	156.5	33.2	104.4	20.0
Kerala	76.4	25.4	41.0	12.7
Madhya Pradesh	298.5	42.5	298.5	37.4
Maharashtra	305.2	36.9	228.0	25.0
Manipur	6.8	33.8	7.2	28.5
Meghalaya	7.4	37.9	8.2	33.9
Mizoram	1.9	25.7	1.9	19.5
Nagaland	5.1	37.9	5.5	32.7
Odisha	160.6	48.6	169.1	47.2
Punjab	25.1	11.8	14.5	6.2
Rajasthan	128.5	27.4	81.8	15.3
Sikkim	1.8	41.4	2.1	36.6
Tamil Nadu	202.1	35.0	130.5	21.1
Tripura	11.8	39.0	13.0	34.4
Uttarakhand	.	.	.	.
Uttar Pradesh	604.5	40.9	529.9	31.2
West Bengal	254.6	35.7	213.5	27.0
Andaman and Nicobar Islands	1.1	34.5	0.8	21.0
Chandigarh	0.8	11.4	0.5	5.8
Dadra & Nagar Haveli	0.8	50.8	0.3	17.1
Delhi	15.5	14.7	11.5	8.2
Daman & Diu	0.2	15.8	0.1	4.4
Lakshadweep	0.1	25.0	0.1	15.6
Puducherry	3.3	37.4	2.4	21.7
ALL INDIA	3203.7	36.0	2602.5	26.1

TABLE 12: STATE-WISE LIFE EXPECTANCY*

(Years)									
State/Union Territory	2012-16			2013-17			2014-18		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	59	60	61	62	63	64	65	66	67
Andhra Pradesh	68	71.4	69.6	68.3	71.2	69.7	68.7	71.4	70.0
Assam	64.4	66.8	65.5	65.4	67.3	66.2	66.1	67.9	66.9
Bihar	68.9	68.5	68.7	69.2	68.6	68.9	69.4	68.7	69.1
Chhattisgarh	63.6	68.5	65.2	63.8	66.6	65.2	63.7	66.6	65.2
Delhi	72.7	68.5	74.2	73.3	76.3	74.7	73.8	77.0	75.3
Gujarat	67.4	68.5	69.5	67.6	72.0	69.7	67.8	72.3	69.9
Haryana	67.2	68.5	69.4	67.6	72.3	69.7	67.7	72.3	69.8
Himachal Pradesh	69.4	68.5	72.3	69.8	75.6	72.6	69.6	76.8	72.9
Jammu and Kashmir	71.6	68.5	73.5	72.1	76.7	74.1	72.2	76.2	74.0
Jharkhand	67.8	68.5	67.9	68.8	68.4	68.6	69.9	68.5	69.1
Karnataka	67.6	68.5	69.1	67.7	70.8	69.2	67.9	70.9	69.4
Kerala	72.2	68.5	75.1	72.5	77.8	75.2	72.5	77.9	75.3
Madhya Pradesh	63.7	68.5	65.4	64.2	67.9	66.0	64.8	68.5	66.5
Maharashtra	70.8	68.5	72.2	71.2	73.9	72.5	71.3	73.8	72.5
Odisha	66.2	68.5	67.6	67.1	69.9	68.4	68.0	70.8	69.3
Punjab	71	68.5	72.5	71.0	74.0	72.4	71.0	74.8	72.7
Rajasthan	66.1	68.5	68.3	66.3	70.9	68.5	66.5	71.6	68.7
Tamil Nadu	69.5	68.5	71.4	69.9	73.7	71.7	70.2	74.2	72.1
Telangana	-	-	-	-	-	-	68.6	70.2	69.6
Uttar Pradesh	63.9	68.5	64.8	64.3	65.6	65.0	64.8	65.8	65.3
Uttarakhand	68.5	68.5	71.5	68.8	74.2	71.0	67.9	74.3	70.9
West Bengal	69.8	68.5	70.8	70.4	72.2	71.2	70.7	72.6	71.6
ALL INDIA	67.4	68.5	68.7	67.8	70.4	69.0	68.2	70.7	69.4

*: Quinquennial Survey. -: Not Available.

Note: Data relating to Bihar, Madhya Pradesh and Uttar Pradesh includes Jharkhand, Chhattisgarh and Uttarakhand, respectively.

Sources: Sample Registration System, Bulletin, various issues, Office of the Registrar General and Census Commissioner, Ministry of Home Affairs; and Economic Survey, Ministry of Finance, Government of India.

TABLE 11: STATE-WISE INFANT MORTALITY RATE

(Per Thousand)							
State/Union Territory	2004	2005	2006	2007	2008	2009	2010
Andaman & Nicobar Islands	19	27	31	34	31	27	25
Andhra Pradesh	59	57	56	54	52	49	46
Arunachal Pradesh	38	37	40	37	32	32	31
Assam	66	68	67	66	64	61	58
Bihar	61	61	60	58	56	52	48
Chandigarh	21	19	23	27	28	25	22
Chhattisgarh	60	63	61	59	57	54	51
Dadra & Nagar Haveli	48	42	35	34	34	37	38
Daman & Diu	37	28	28	27	31	24	23
Delhi	32	35	37	36	35	33	30
Goa	17	16	15	13	10	11	10
Gujarat	53	54	53	52	50	48	44
Haryana	61	60	57	55	54	51	48
Himachal Pradesh	51	49	50	47	44	45	40
Jammu and Kashmir	49	50	52	51	49	45	43
Jharkhand	49	50	49	48	46	44	42
Karnataka	49	50	48	47	45	41	38
Kerala	12	14	15	13	12	12	13
Lakshadweep	30	22	25	24	31	25	25
Madhya Pradesh	79	76	74	72	70	67	62
Maharashtra	36	36	35	34	33	31	28
Manipur	14	13	11	12	14	16	14
Meghalaya	54	49	53	56	58	59	55
Mizoram	19	20	25	23	37	36	37
Nagaland	17	18	20	21	26	26	23
Odisha	77	75	73	71	69	65	61
Puducherry	24	28	28	25	25	22	22
Punjab	45	44	44	43	41	38	34
Rajasthan	67	68	67	65	63	59	55
Sikkim	32	30	33	34	33	34	30
Tamil Nadu	41	37	37	35	31	28	24
Telangana	.	.	.	.	.	.	.
Tripura	32	31	36	39	34	31	27
Uttar Pradesh	72	73	71	69	67	63	61
Uttarakhand	42	42	43	48	44	41	38
West Bengal	40	38	38	37	35	33	33
ALL INDIA	58	58	57	55	53	50	47

TABLE 6: STATE-WISE LITERACY RATE

(Per cent)							
State/Union Territory	1951	1961	1971	1981	1991	2001	2011
Andaman and Nicobar Islands	30.30	40.07	51.15	63.19	73.02	81.30	86.63
Andhra Pradesh	-	21.19	24.57	35.66	44.08	60.47	67.02
Arunachal Pradesh	-	7.13	11.29	25.55	41.59	54.34	65.39
Assam	18.53	32.95	33.94	-	52.89	63.25	72.19
Bihar	13.49	21.95	23.17	32.32	37.49	47.00	61.80
Chandigarh	-	-	70.43	74.80	77.81	81.94	86.05
Chhattisgarh	9.41	18.14	24.08	32.63	42.91	64.66	70.28
Dadra and Nagar Haveli	-	-	18.13	32.90	40.71	57.63	76.24
Daman and Diu	-	-	-	-	71.20	78.18	87.10
Delhi	-	61.95	65.08	71.94	75.29	81.67	86.21
Goa	23.48	35.41	51.96	65.71	75.51	82.01	88.70
Gujarat	21.82	31.47	36.95	44.92	61.29	69.14	78.03
Haryana	-	-	25.71	37.13	55.85	67.91	75.55
Himachal Pradesh	-	-	-	-	63.86	76.48	82.80
Jammu and Kashmir	-	12.95	21.71	30.64	-	55.52	67.16
Jharkhand	12.93	21.14	23.87	35.03	41.39	53.56	66.41
Karnataka	-	29.80	36.83	46.21	56.04	66.60	75.37
Kerala	47.18	55.08	69.75	78.85	89.81	90.86	94.00
Lakshadweep	15.23	27.15	51.76	68.42	81.78	86.66	91.85
Madhya Pradesh	13.16	21.41	27.27	38.63	44.67	63.74	69.32
Maharashtra	27.91	35.08	45.77	57.24	64.87	76.88	82.34
Manipur	12.57	36.04	38.47	49.66	59.89	70.50	76.90
Meghalaya	-	26.92	29.49	42.05	49.10	62.56	74.43
Mizoram	31.14	44.01	53.80	59.88	82.26	88.80	91.33
Nagaland	10.52	21.95	33.78	50.28	61.65	66.59	79.60
Odisha	15.80	21.66	26.18	33.62	49.09	63.08	72.89
Puducherry	-	43.65	53.38	65.14	74.74	81.24	85.85
Punjab	-	-	34.12	43.37	58.51	69.65	75.84
Rajasthan	8.50	18.12	22.57	30.11	38.55	60.41	66.11
Sikkim	-	-	17.74	34.05	56.94	68.81	81.42
Tamil Nadu	-	36.39	45.40	54.39	62.66	73.45	80.09
Tripura	-	20.24	30.98	50.10	60.44	73.19	87.22
Uttar Pradesh	12.02	20.87	23.99	32.65	40.71	56.27	67.68
Uttarakhand	18.93	18.05	33.26	46.06	57.75	71.62	78.82
West Bengal	24.61	34.46	38.86	48.65	57.70	68.64	76.26
ALL INDIA	18.33	28.30	34.45	43.57	52.21	64.84	72.99

-: Not Available.

Notes: 1. Literacy rates for 1951, 1961 and 1971 Censuses relate to population aged five years and above. The rates for the 1981, 1991, 2001 and 2011 Censuses relate to the population aged seven years and above. The literacy rate for 1951 in case of West Bengal relates to Total Population including 0-4 age group. Literacy rate for 1951 in respect of Chhattisgarh, Madhya Pradesh and Manipur are based on sample population.

2. India and Manipur figures exclude those of the three sub-divisions viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census result of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India.

TABLE 4: STATE-WISE DECADAL GROWTH RATE OF POPULATION

State/Union Territory	(Per cent)					
	1951-1961	1961-1971	1971-1981	1981-1991	1991-2001	2001-2011
Andaman and Nicobar Islands	105.19	81.17	63.93	48.70	26.90	6.86
Andhra Pradesh	15.65	20.90	23.10	24.20	14.59	10.98
Arunachal Pradesh	-	38.91	35.15	36.83	27.00	26.03
Assam	34.98	34.95	23.36	24.24	18.92	17.07
Bihar	19.79	20.91	24.16	23.38	28.62	25.40
Chandigarh	394.13	114.59	75.55	42.16	40.28	17.09
Chhattisgarh	22.77	27.12	20.39	25.73	18.27	22.61
Dadra and Nagar Haveli	39.56	27.96	39.78	33.57	59.22	55.88
Daman and Diu	-24.56	70.85	26.07	28.62	55.73	53.76
NCT of Delhi	52.44	52.93	53.00	51.45	47.02	21.21
Goa	7.77	34.77	26.74	16.08	15.21	8.23
Gujarat	26.88	29.39	27.67	21.19	22.66	19.28
Haryana	33.79	32.22	28.75	27.41	28.43	19.90
Himachal Pradesh	17.87	23.04	23.71	20.79	17.54	12.94
Jammu and Kashmir	9.44	29.65	29.69	30.89	29.43	23.64
Jharkhand	19.69	22.58	23.79	24.03	23.36	22.42
Karnataka	21.57	24.22	26.75	21.12	17.51	15.60
Kerala	24.76	26.29	19.24	14.32	9.43	4.91
Lakshadweep	14.61	31.95	26.53	28.47	17.30	6.30
Madhya Pradesh	24.73	29.28	27.16	27.24	24.26	20.35
Maharashtra	23.60	27.45	24.54	25.73	22.73	15.99
Manipur	35.04	37.53	32.46	29.29	24.86	24.50
Meghalaya	27.03	31.50	32.04	32.86	30.65	29.95
Mizoram	35.61	24.93	48.55	39.70	28.82	23.48
Nagaland	73.20	39.88	50.05	56.08	64.53	-0.58
Odisha	19.82	25.05	20.17	20.06	16.25	14.05
Puducherry	16.34	27.81	28.15	33.64	20.62	28.08
Punjab	21.56	21.70	23.89	20.81	20.10	13.89
Rajasthan	26.20	27.83	32.97	28.44	28.41	21.31
Sikkim	17.76	29.38	50.77	28.47	33.06	12.89
Tamil Nadu	11.85	22.30	17.50	15.39	11.72	15.61
Tripura	78.71	36.28	31.92	34.30	16.03	14.84
Uttar Pradesh	16.38	19.54	25.39	25.61	25.85	20.23
Uttarakhand	22.57	24.42	27.45	23.13	20.41	18.81
West Bengal	32.80	26.87	23.17	24.73	17.77	13.84
ALL INDIA	21.51	24.80	24.66	23.87	21.54	17.70

-: Not Available.

Source: Office of the Registrar General and Census Commissioner, Ministry of Home Affairs, Government of India.