HUMAN DEVELOPMENT IN ASSAM: A STUDY IN THE TRIBAL INHABITED DISTRICT OF KOKRAJHAR

THESIS

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BY

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CERTIFICATE

This is to certify that the dissertation entitled "Human Development in Assam: A Study in the Tribal Inhabited District of Kokrajhar" is the original research work carried out by Sri Sanswrang Mwchahary under my supervision and to the best of my knowledge and belief neither this dissertation nor any part of it did form basis for award of any research degree in this University or in any other University/Institute.

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Place: Bodoland University

Date: 04/06/2021

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LIST OF ABBREVIATIONS

AHDI	Assam Human Development Index
AHDR	Assam Human Development Report
ALR	Adult Literacy Rate
BLT	Bodoland Liberation Tiger
BPHC	Block Primary Health Centre
BTAD	Bodoland Territorial Area District
BTC	Bodoland Territorial Council
CA	Capability Approach
CD	Community Development
CDB	Community Development Block
CDS	Composite Development Scores
CESS	Center for Economic and Social Studies
CHC	Community Health Centre
CS	Consumers Surplus
CT	Census Town
DDP	District Domestic Product
EYS	Expected Years of Schooling
FGD	Focus Group Discussion
GDI	Gender Development Index
GDP	Gross Domestic Product
GEI	Gender Empowerment Index
GER	Gross Enrollment Ratio
GII	Gender Inequity Index
GNI	Gross National Income
GNP	Gross National Product
HDI	Human Development Index
HDR	Human Development Report

HDRNE	Human Development Report of North East
HFI	Human Freedom Index
HPI	Human Poverty Index
IAY	Indira Awas Yojana
ILO	International Labor Organization
IAMR	Institute of Applied Manpower Research
MC	Minority Community
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MPC	Marginal Propensity to Consume
MPCE	Marginal Propensity to Consumption Expenditure
MYS	Mean Years of Schooling
NCAER	National Council for Applied Economic Research
NDDP	Net District Domestic Product
NDP	Net Domestic Product
NGO	Non–Government organization
NSDP	Net State Domestic Product
NEC	North Eastern Council
NEHDR	North East Human Development Report
NER	North Eastern Region
NHDR	National Human Development Report
NIRD	National Institute of Rural Development
NSSO	National Sample Survey Organization
OBC	Other Backward Classes
PC	Personal Consumption
PCA	Principal Component Analysis
PCI	Per Capita Income
PCI	Planning Commission of India

PCMCE	Per Capita Monthly Consumption Expenditure
PCMI	Per capita Monthly Income
PHC	Primary Health Centre
PPP	Purchasing Power Parity
PQLI	Physical Quality Life Index
RGI	Registrar General of India
SC	Scheduled Caste
SEI	Socio-Economic Index
SES	Socio-Economic Status
SH	Sample Household
SHDR	State Human Development Report
SR	Sex ratio
SSA	Sarva Siksha Abhiyan
ST	Scheduled Tribe
TC	Town Committee
TRYSEM	Training to Rural Youth Self Employment
UNDP	United Nations Development Program
UNRISD	United Nations Research Institute for Social Development
UNESCO	United Nations Educational Scientific and Cultural Organization
WDR	World Development Report
WHDR	World Human Development Report
WHO	World Health Organization

CHAPTER - 1
INTRODUCTION AND RESEARCH DESIGN

1.1 Introduction

1.2 Human Development: Conceptual Clarification

1.2.1 Definition of Human Development

1.2.2 Measurement of Human Development

1.2.3 Human Development Index (HDI)

1.2.4 Dimensions of the Human Development Indices: Old and New

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1.2.7 Gender Related Development Index (GDI)

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1.2.9 Gender Empowerment Measure (GEM)

1.2.10 *Human Poverty Index (HPI)*

1.3 Statement of the Problem and Research Question

1.4 Area of Study

1.5 Objectives of the Study

1.6 Hypothesis of the Study

1.7 Methodology and Data Sources

1.7.1 Sample Design for Primary Data

1.8 Presentation of the Thesis

1.9 Conclusion

CHAPTER – 1
INTRODUCTION AND RESEARCH DESIGN

1.1 Introduction

Socio-Economic philosophers of the eighteen century were much concerned about development, which according to them must be evaluated on the basis of how far it has been succeeded in enhancing the quality of human life (UNDP, 1990: 9). However, by the middle of the nineteen century when Development Economics had emerged as a full- fledged branch of Economic Science, in development debates, income and investment occupied the prime positions ignoring how far they have succeeded in changing the human life. From the experience of several countries by last twenty century it has been realized that there is no automatic link between the level of income and the state of human welfare, and which had prompted the socio-economic experts to look for alternative development paradigms, leading to the emergence of the human development approach to measure quality of life. In short, human development refers to the expansion of people's choices by enhancing their capabilities and functioning. Human Development is not a new concept, the thoughts and writings of early leaders of political and economic thoughts like Aristotle, Immanuel Kant, Adam Smith, Robert Malthus, Karl Marx gave prominence to this concept. The concept of human development assumed its popularity since 1990, the first publication of Human Development Report by the United Nation's Development Programme (UNDP).

Gross National Product (GNP) as a monetary measure of growth can not represent true index of quality of life in the society. Nature and quality of production and expenditures, nature of economic growth are beyond the GNP measure. So many aspects which has a close relationship with human welfare; non monetized activities like household services, unpaid services, subsistence agriculture etc. are not included in GNP measure. The aspects of human development, i.e. social, cultural and political choices are not within the orbit of GNP. Unless proper care is taken, there is no automatic translation of income in to the well being of the society. Pakistani Economist, Nobel laureate Mahbub Ul Haq challenged the conventional wisdom and

asserted that there is no automatic link between economic growth and human development. Economic growth is necessary, but not a sufficient condition for human progress. Government needs to actively focus on human development goals and direct and use their resources efficiently so that economic growth leads to the empowerment of people **(Haq, 1996).**

Saudi Arabia with per capita income higher by 16 times than Srilanka, but performed very less in terms of literacy rate and life expectancy. Brazil had Infant Mortality Rate (IMR) 4 times higher than Jamaica though Brazil enjoys twice the per capita income. Oman had higher per capita income, by 3 times than Costarica but had only 1/3rd of literacy and fewer years of life expectancy; and the country also lakes most political and economic freedoms. Costarica had achieved same impressive level of human development though it has only ½ of the income of Korea. Vietnam achieved much in the sphere of human development though it has same level of income with Pakistan. Therefore, links are not automatic but can be established only through strong and effective government intervention in the social sector **(UNDP, 1996).**

In the context of India's scenario, it has been observed that Kerala, Tamil Nadu and Himachal Pradesh achieved highest level of human development index despite relatively modest level of income, while Punjab and Haryana having substantially high income could attain lower than Kerala and Tamil Nadu in terms of human development. On the other hand, Maharashtra, Gujarat and Karnataka have differences in terms of economic development aspects, but their achievements in terms of human development are somewhat moderate **(NHDR, 2002).**

In the case of Assam and North Eastern Region (NER) too, as per Assam Human Development Report (AHDR) 2014, Dima Hasao District attained more or less same Human Development Index (HDI) values with Kamrup (Metro) though its annual per capita income is even less than half of the annual per capita income of Kamrup Metro. Though the state of Nagaland has a annual per capita income of less than half of the Arunachal Pradesh, it attained much higher HDI value of 0.574 than the Arunachal Pradesh with 0.427 North East Region Human Development Report **(NERHDR) 2011.**

1.2 Human Development: Conceptual Clarification

The quality of life of the people in the society, in the present days is measured by the human development indicators rather than to measure it by economic indicators. The concept of human development signifies improvement in the quality of life of the people in terms of various health and educational indicators, through betterment of health, education & skills. Human development creates human capabilities that can then lead to productivity enhancement and acceleration in economic growth. The concept of human development is much broader; it considers human being not as a means but as an end of all development process. Human Development refers to the expansion of people's choices by enhancing their capabilities and functioning's. It aims at enabling environment in which people's capabilities can be enhanced and the range of their choices expanded. Capability expansion and the growth of Gross Domestic Product (GDP) are different; they are linked but not identical. All efforts at economic development are directed towards the people and their well-being who are considered to be the main objective of economic growth, and are treated merely as agents of economic development of a nation. The quality of life of the people in the society necessitates an economic development with a proper distribution of resources between the present as well as for the future generations. Thus, the concept of human development encompasses the welfare of not only the present generation, but the future generation as well **(UNDP, HDR 1995).**

The aspect of human development needs to consider both production and distribution of commodities; expansion of human capabilities in the society. Human development analyses all issues in society – whether economic growth, trade, employment, political freedom or cultural values from the perspective of people. It thus focuses on enlarging people's choices and it applies equally to both developing and industrial countries. Thus, the aspect of human development maintains not only sustained economic development, but also its quantitative and distributive aspects of human means. Most importantly, the relationship of economic development with human being and the quality of their life depends upon the attainment in the aspects of human development indicators.

The dimensions of human development can be classified between the two aspects. First, it represents the aspects of improved condition of health, knowledge and

skills which reveals the formation of human capabilities of the people; and second, it represents the aspects of optimal use of acquired capabilities for being active in cultural, social and political life. If the scales of human development do not balance, frustration appears in the society. In this sense income is clearly one of the options that people would like to have, though it is not the sum total of lives. Thus, when the countries aim at achieving higher economic development, it must focus on these two aspects. Development must, therefore, be more than just the expansion of income and wealth; its focus must be on people **(HDR, 1990).**

While attaining a desirable human development, the aspect of gender inequality in terms of economic, social and political decisions need to be addressed. There are four major elements in the concept of human development such as Productivity, Equity, Sustainability and Empowerment **(UNDP, 1995).** The objective should be focused on enhanced capabilities, the creativity and productivity of people so that they become effective agents of economic growth and development. Economic growth must be combined with equitable distribution of its benefits. Equitable opportunities must be available to present and future generation. Development should increase people's choices with two important implications. First, while enhancing the choices of one individual or a section of a society, should not restrict the choices of another. This calls for equity in human relationships. Second, while improving the lives of the present generation should not mortgage the choices of future generations **(UNDP, 1991)**. In other words, the development process must be sustainable. The concept of human development has gone beyond its basic premises to emphasize sustainability of the development process. It does not only put the people at the center of the development process but also advocates protection of the opportunities of future generations and in respect of natural system on which all life system depends. Sustainable human development addresses both equity within the generation and among the generations enabling all generations, present and future, to make the best use of their capabilities; and thus, improves the quality of life of the people in a society.

The issue of sustainability has three dimensions such as capacity, environment and institutions. If the development process does not create institutions fully supportive of people's rights, it cannot be sustainable in the long run. Human

development thus emphasizes strengthening the institutions of both government and civil society so that the entire development process becomes internally sustainable **(HDR, 1995).** All these approaches have emphasized the need for people-centered development, with concerns for human empowerment, participation, gender equality, equitable growth, poverty reduction and long-term sustainability **(HDR, 1998).** According to Haq, "there are two different schools concerning economic growth and human development. The first one exclusively concerned on the expansion of single choice, i.e. income; and the second one stresses on the enlargement of all types of human choices whether it is economic, social, cultural or political aspect **(Haq, 1996).**

1.2.1 Definition of Human Development

The term human development is not really new. Right from the early days of civilization, scholars and philosophers have doubted the validity of the notion of acquisition of national wealth as the goal of human society.

Aristotle has argued that wealth is evidently not the good we are seeking for it is merely useful and for the sake of something else. He distinguished a good political arrangement from a bad one by its successes and failure in enabling people to lead "flourishing lives" **(Aristotle, 1946).**

Immanuel Kant precedes the tradition of creating human beings as the real end of all activities. As argued in the UNDP global HDR of 1990, the concept of Human Development has been conceived first and foremost as an alternative vision to the prevailing development paradigms of the time.

Arthur Lewis defined the purpose of development as widening the range of human choice, as did the first HDR in 1991. The difference was that Lewis tended to equate wider choice merely with greater income and had more faith that economic growth would inevitably lead to human development **(UNDP, 1991).**

Abraham Lincon opines that human development means the development of the people, for the people, by the people. The term 'of the people' implies adequate income generation through jobs and the generation of primary incomes; 'for the people' implies social services for those who need help and the generation of secondary income and by the people means participation. It could also be interpreted as the economic, social and political dimensions of development.

James D Wolfenson argues, "The realizations of the economy are build not merely through the accumulation of physical capital and human skills, but on a foundation of information learning and adoption as because knowledge matters in understanding how people and society acquire and use knowledge; and why they sometimes fail to do so is essential for the improvement of people's lives, especially the lives of the poor.

United Nations International Children's Emergency Fund (**UNICEF)** observed that the progress of nations will be judged not by their military or economic strength, nor by the splendor of their capital cities and public buildings, but by the well-being of their people, by their levels of health, nutrition and education, by their opportunities to earn a fair reward for their labors **(UNICEF, 1994).**

Amartya Kumar Sen has defined Development in terms of an expansion in 'Capabilities' and 'Entitlement'. Capabilities refer to what a person can (not) do or can (not) be. Similarly entitlement refers to freedom from hunger, being free to participate in the political process, being adequately sheltered, access to health and education etc.

World Development Report (WDR) 1980 indicated that the qualities of people have an important influence on the prosperity and growth of the nation. It implies that human beings are the sources of ideas, decisions and actions on investment, innovations and other opportunities. The report also recognized four aspects of human development namely education, nutrition, health and fertility control **(WDR, 1980).**

In brief, the concept of human development is not new and its roots can be traced back to Aristotle who pleaded the government for promoting the "flouring lives" of the people. Over the years, however, new dimensions have been added which have made the concept a much broader in terms of scope, coverage, measurement and approach.

1.2.2 Measurement of Human Development

The measurement of human development concept is important in the ranking of countries based on their human development since its inception, several new and refined methods are being used to compute human development and the same have

been consolidated within the human development paradigm. However, the following indices deserve a special mentioning since they are the widely accepted indicators.

1.2.3 Human Development Index (HDI)

HDI is an index used to rank countries by level of 'human development, which usually implies whether a country is developed, developing or underdeveloped. It is composite index which measures the average achievement of a country in three basic dimensions of human development. These basic dimensions are represented by a long and healthy life, knowledge and a decent standard of living. The first dimension is measured by life expectancy at birth; second is measured by the adult literacy rate and the combined gross enrolment ratio. The third component is measured by Gross Domestic Product (GDP) per capita, PPP US$. These three indicators are also having three indices and these indices are: life expectancy (health) index, education (knowledge) index and the GDP or income index. The health status is measured by life expectancy; knowledge is represented by literacy and the school enrolment ratio and per capita income by the GDP at PPP rates in US dollars.

Now to calculate, HDI one has to create an index for each of the three dimensions. However, over the years certain changes are taking place in construction methodology of HDI. In human development report (HDR, 2010) UNDP has used mean years of schooling (MYS) and expected years of schooling (EYS) to calculate the educational attainment index and GNP per capita (PPP, US$) to calculate standard of living index or income index. Maximum and minimum values (goalposts) are set in order to transform the indicators into indices between '0 to 1'. Having defined the maximum and minimum values, the HDI is constructed by the formula:

$$\text{HDI} = \sqrt[3]{I_1 * I_2 * I_3}$$

Where, I_1 (Health Index) and I_2 (Education Index) are constructed by using the formula:

$$I = \frac{\text{Actual Value (X)} - \text{Minimum Value(X)}}{\text{Maximum Value(X)} - \text{Minimum Value(X)}}$$

And the Income Index (I_3) is constructed by using the formula:

$$\text{Income Index} = \frac{\log(\text{Actual Income}) - \log(\text{Minimum level Income})}{\log(\text{Maximum level Income}) - \ln(\text{Minimum level Income})}$$

Thus, HDI is the geometric mean of the three dimensional indices, that is, **Health Index, Education Index and Income Index.**

1.2.4 Dimensions of Human Development Indices: Old and New

Over the years, certain changes are made in construction of methodology of HDI. Both old and new HDI used three dimensions of development, namely: the dimensions of health, knowledge and income. There was no addition to the existing dimensions in the revised HDI.

(1) Dimensional Index of Health

In the dimension of health, both the indices (old and new) used the life expectancy at birth, the summary measure of health. The justification of life expectancy at birth in representing the health dimension is on the ground of the intrinsic value of longevity, the association of long life with adequate nutrition, good health and education and its linkages with other values goals (**UNDP, 1990).** In the new index, the lower bound of life expectancy has reduced from 25 to 20 years and the upper bound has reduced from 85 to 82.5 years. The lower limit of life expectancy (new) of 20 years was based on long run historical trends and the upper limit was based on the observed values of Japan (2010). The methodology in the construction of a dimensional index of health remained the same. However, in the study area as analyzed in the chapter-5, since data on life expectancy is not available, infant mortality (IMR) less than 1 year of age has been used in the construction of HDI for the study area. Infant mortality rate is defined as the number of deaths in the first year of child's life per 1000 live births. It is an important social indicator reflecting the status of public health in the country specially the status of women and child health. Generally in developing countries there is widespread poverty along with high level of illiteracy and combined with traditional and cultural factors lead to a higher level of infant mortality. It is a reflection of whether the population has access to health facilities adequately and Government succeeded while executing the policies effectively. Thus, infant mortality rate has been used instead of life expectancy rate in the calculation of dimensional index of health and human development index in present study.

(2) Dimensional Index of Knowledge

There are remarkable changes with respect to the methodology used in the construction of the dimensional index of knowledge. In the old index, the knowledge index was created by assigning two-third weight to adult literacy and one-third weight to the gross enrolment ratio (GER). In the new index, the variables are replaced by MYS and EYS. The mean years of schooling was calculated for people 25 years and older who received some education in their lifetime. The second variable used in the construction of the new index, 'expected years of schooling'. EYS represents expected number of years of schooling of a school entrance age child to receive in his or her life, if prevailing patterns of age-specific enrolment rates continue. EYS are calculated for children in the age group (6 to 18) who are currently enrolled in school. The main objective of this indicator is to know the overall level of development of an educational system in terms of the average number of years of schooling that it offers to the eligible population, including those who never enter school **(UNESCO, 2009).**

These changes are of important for many reasons. First, adult literacy rate used in the old human development index (which is simply a binary variable) is inadequate in measuring the attainment of knowledge. By including average years of schooling and expected years of schooling one can better capture the level of education.

(3) Dimensional Index of Income

In the income domain, while the old HDI used the GDP per capita, the new HDI used the GNI per capita. The replacement of GDP per capita with GNI per capita may be considered an improvement at the national level. GDP is the monetary measure of goods and services produced in a country irrespective of how much is retained in the country. On the other hand, GNI measures the income accrued to residents of a country, including some international flows and excluding income generated in the country and repatriated abroad. Thus, GNI is a more accurate measure of a country's economic welfare. The methodology to quantify the income dimension did not change. The log of income, which gives lower weight to a higher value and higher weight to a lower value, was used. This is on the basis premise that a minimum income is needed for a decent standard of living and that income is not the sum total of human existence.

The old methodology used the arithmetic mean while the new methodology used the geometric mean in computing the HDI. The geometric mean has been used because it captures the inequality in the dimensional indices while the arithmetic mean does not capture it. With the new method of aggregation, poor performance in any dimension is directly reflected in the HDI value. Thus, the level of substitutability between dimensions is reduced while at the same time ensuring that a 1 % decline, say in life expectancy at birth index has the same impact on the HDI as a 1 % decline in education or income index. This is the fundamental rationale for changing methodology in computing the human development index (HDI).

1.2.5 Estimation Procedures of HDI

The present study followed the same estimation procedure of UNDP's new methodology (2010) and Assam Human Development Report, 2014. The use of Assam Human Development Report, 2014 methodology by the present study is reasonable or justified as the present study area lies within the jurisdiction of the state of Assam. Moreover, the present study has made comparative study of the human development aspects of the present study area based on primary survey data with the conditions of other districts and the state as a whole However, to overcome the problems of data limitations, some modifications have been made in the present estimation procedure as explained in the following paras.

The HDI in the present study is calculated based on three different dimensions:

Long and Healthy Life	as measured by infant mortality rate
Knowledge	as measured by mean years of schooling and expected years of schooling
Standard of Living	as measured by per capita annual income

Infant mortality rate at the village and Block level has been estimated based on less than 1 year of age mortality rate. IMR, MYS and EYS are estimated from the primary survey data of the present study. The MYS is based on the number of years to be completed a particular level and actual level of educational attainment of individuals that obtained from the survey data; EYS is based on enrolment ratios. Moreover, instead of using district domestic product, the present study used directly obtained household income data obtained from primary survey.

The present study used the goal posts as given below (for normalization)

Indicators	Minimum (Value)	Maximum (value)
Life Expectancy	20	85
MYS	0	15
EYS	0	13
Income	5090	119032

In the case EYS, as adopted by the Assam Human Development Report, 2014 the maximum value is used as 13 instead of 18; and it is justified since India ensures the right to education for 6-14 years of age; and the rest estimation procedure are same as UNDP methodology. The present study adopted the income bounds as in Assam HDR 2014. The report had chosen minimum per capita income of the state Bihar and the maximum value for the state of Goa as per 2013-14 Gross State Domestic Product (GSDP) data series.

Having defined the minimum and maximum values, the sub indices are calculated as follows:

$$\text{Dimension Index} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}} \qquad (1)$$

For education, equation (1) is applied to each of the two subcomponents, MYS and EYS then a geometric mean of the resulting indices is created and finally, equation (1) is reapplied to the geometric mean of the indices using 0 as the minimum value and the highest geometric mean of the resulting indices for the time period under consideration as the maximum value. This is equivalent to applying equation (1) directly to the geometric mean of the two subcomponents. Because each dimensional index is a proxy for capabilities in the corresponding dimension, the transformation function from income to capabilities is likely to be concave (Anand and Sen 2000). Thus, for income the natural logarithm of the actual minimum and maximum values is used.

Aggregating the sub indices to produce the Human Development Index

The HDI is the geometric mean of the three dimension indices:

$$\text{HDI} = \sqrt[3]{\text{Education Index} * \text{Income Index} * \text{Life Expectation Index}} \qquad (2)$$

Methodology used to express income

GNI is traditionally expressed in current terms. To make GNI comparable across time, GNI is converted from current to constant terms by taking the value of nominal GNI per capita in purchasing power parity (PPP) terms for the base year (2015) and building a time series using the growth rate of real GNI per capita, as implied by the ratio of current GNI per capita in local currency terms to the GDP deflator.

1.2.6 Estimation of Standard Deviation (SD) and Co-efficient of Variation (CV)

The present study also made an attempt to analyze regional disparity in terms of dimensional indices of human development index, HDI, GDI and GII by using statistical tools like standard deviation and co-efficient of variation.

The formula for calculating Standard Deviation (SD) of any variable say 'X' is

$$SD = \sqrt{\frac{\sum(X - \bar{X})^2}{N}} \qquad \text{(i)}$$

Where,

$SD = \text{standard deviation}$, $\bar{X} = \text{mean of the variable X}$ and $N = \text{the size of sample}$

and the formula for calculating the Co-efficient of Variation (CV) is represented by-

$$CV = \frac{SD}{\bar{X}} * 100 \qquad \text{(ii)}$$

The indicated formula has been applied for the estimation of SD and CV in the relevant sections of the chapters.

1.2.7 Gender Related Development Index (GDI)

GDI basically measures the achievement in three basic dimensions of HDI, but it adjusts their values according to the inequality exists between the two sexes; the higher gender inequality, the larger the retrogression in the country's HDI. **HDI** measures average achievements; GDI, on the other hand adjusts the average achievement to represent inequalities in the dimensions:

1. A long and healthy life; as measured by life expectancy at birth.
2. Knowledge; as measured by the adult literacy rate and combined gross enrolment ratio.

3. A decent standard of living; as measured by the per capita income (PPP US $).

Health, education and income indicators are separately computed for male and female to measure GDI.

1.2.8 Gender Inequity Index (GII)

The extent of gender inequality in the society is represented by the difference between HDI and GDI ranking. In a more precise way, higher the differences between HDI rank and GDI rank; greater the gender inequity. If these two ranks represent negative differences, then it reveals better position in terms of gender equality. Gender Inequity Index (GII) thus reflects the extent of inequitable access of opportunities by the women section of the population.

1.2.9 Gender Empowerment Measure (GEM)

GEM assesses women's participation in economic and political life. It uses the female share in parliament as well as in the higher occupational categories and the proportion between women and men's income as variables.

GEM is the decision making power of both male and female. GEM focuses on women's opportunities rather than their capabilities; the GEM captures gender inequalities in following three key areas:

1. Political participation and decision making power, as measured by women's and men's percentage share of parliamentary seats.
2. Economic participation and decision-making power, as measured by two indicators-women's and men's percentage share of positions as legislators, senior officials and mangers and women's and men's shares of professional and technical positions.
3. Power over economic resources, as measured by women's and men's estimated earned income (PPP US dollars).

Interestingly, GDI and GEM do not measure the disparities between male and female, instead of that they penalize the disparities and compute the Human Development with gender perspective. Therefore, HDI, GDI and GEM reveal how much males and females have achieved in their respective fields, the existing differences. Disparities between male and female are considered as serious hurdles in the process of human development and achieving the welfare of the people. Existence

of differences among HDI, GDI and GEM are the clear indications of disparities between male and female.

1.2.10 Human Poverty Index (HPI)

HPI measures the extent of deprivation in HDI's three dimensions. For industrialized countries, it uses as variables the probability of dying before age 60, functional illiteracy, and the incidence of poverty and long lasting unemployment. For developing countries, its variables are the probability of death before age 40, adult illiteracy, child malnutrition and the percentage of population with no access to drinking water.

1.3 Statement of the Problem and Research Questions

It is now widely accepted that the conventional measures of well being such as per capita GDP and per capita consumption do not capture the broader concept of human capability; and such measures can't reflect the true picture of the "Quality of Life" of the people in the society. It has been observed that high economic growth do not automatically transfer in to the betterment of lives of the people, if the benefit is not accessible to all sections of the society; and it is the case which is going on in most of the Developing countries of the world, including India. In India, despite of the significant achievement in terms of economic development, basically the economic liberalization policy adopted by the then Narasimha Rao government since 2001, the proportion of the people living below the poverty line has not been decreased much. There has been wide spread poverty, low level of educational attainment, vast income gap, unequal opportunities between men and women, suppression of economic, social, cultural and political rights representing "Unhealthy Growth" in the country. The case is even more relevant in case of the state of Assam, in general, and the tribal inhabited districts of BTAD area, in particular.

Many research studies undertaken by the academicians and scholars revealed that the state of Assam is lagging behind other states in the country in terms of Human Development. As per the Human Development Report of Assam 2003, the HDI rank of Assam was 26 in the country; and the aspect of human capabilities is even more aggravated in the tribal inhabited district of Kokrajhar. As per the report, the HDI rank of Kokrajhar district was 15^{th} in the state. The state of Assam was lagging behind

other states in terms of literacy rate. As per 2011 data, it was 82.42, 73.18 percent for All India average and Assam respectively; and it was too low only 66.6 percent in the tribal inhabited district of Kokrajhar. 2011 data shows that the life expectancy at birth for the state of Assam was only 65 years whereas for All India it was 69 years. Moreover, the per capita income (2011), which determines the standard of living of the people, was only Rs.37, 250.00 in Assam; and it was Rs.60, 972.00 for the country in average representing a vast gap. There has been a wide spread and chronicle poverty in Assam since independence; and as per the 2010 data, estimated by the Planning commission of India the people living below the poverty line was 36 percent and 33 percent respectively for the state of Assam and India in average.

So, the basic objective of research work is a systematic inquiry into the present state of the "Human Development Aspect" in the state of Assam with special reference to the tribal inhabited district of Kokrajhar; and to formulate suggestions to overcome the problems.

1.4 Area of Study

Area of the present study covers the entire districts of the state of Assam. However, emphasis has been given for the study of various aspects of Human Development and other related aspects in the Tribal inhabited districts of Kokrajhar. Various issues relating to socio – economic conditions and human development indicators have been examined in the current study.

1.5. Objectives of the Study

The study has been undertaken keeping in mind the following few important objectives as follows:

1. To analyze the regional disparities in human development aspects at the global, South Asia, inter- state variations in Indian context.
2. To evaluate the status and inter district variations of human development aspects in Assam.
3. To evaluate the extent and disparities of human capabilities in the tribal inhabited district of Kokrajhar.
4. To formulate policy measures for its suggestion to raise the status of human development and to reduce disparities in the study area.

1.6 Hypotheses of the Study

The hypothesis is a tentative statement which is to be tested. The testing of hypothesis may either accept the statement or reject it. Since the hypothesis is to be tested, the study includes the following limited hypotheses.

1. Tribal inhabited district of Kokrajhar (study area) is lagging behind the other districts of the state in terms of human development aspects.
2. There is a wide disparity in terms of human development indicators in the Study Area.

1.7 Methodology and Data Sources

In this study, proper research method and relevant methodology are employed to make a systematic inquiry, data collection; data organization, data analysis and drawing the statistical inferences.

The study considers both the sources of information, i.e., Primary Data and the Secondary Data. The chapter –3 and 4 analyses are based on basically secondary sources of information. Chapter – 5 is related to the Status of Human Development in the study area and it has been analyzed by taking primary data. Secondary sources are obtained from the various reports and publications made by International Bodies like State and Central Governments reports and publications such as Economic Survey etc; Register General of India's publications of Census Reports of India; Census reports of Assam and other states of the country; Various issues of Economic Survey of Assam and India; Statistical Handbook of Assam and BTC; reports and publications of the autonomous Research Institutes such as National Council for Applied Economic Research (NCAER), New Delhi; various reputed reports, journals and publications of autonomous bodies.

In the present research work, an extensive study has been made to evaluate the status of human development in the Kokrajhar district as the study area. The primary data for the present study has been collected using the following methods.

i) Collection of data through Schedules, and

ii) Collection of data through Questionnaire.

iii) Focus group discussions.

In this present study, to obtain relevant data on human deprivations in the study area, a focus group discussion has been organized in an effective way by

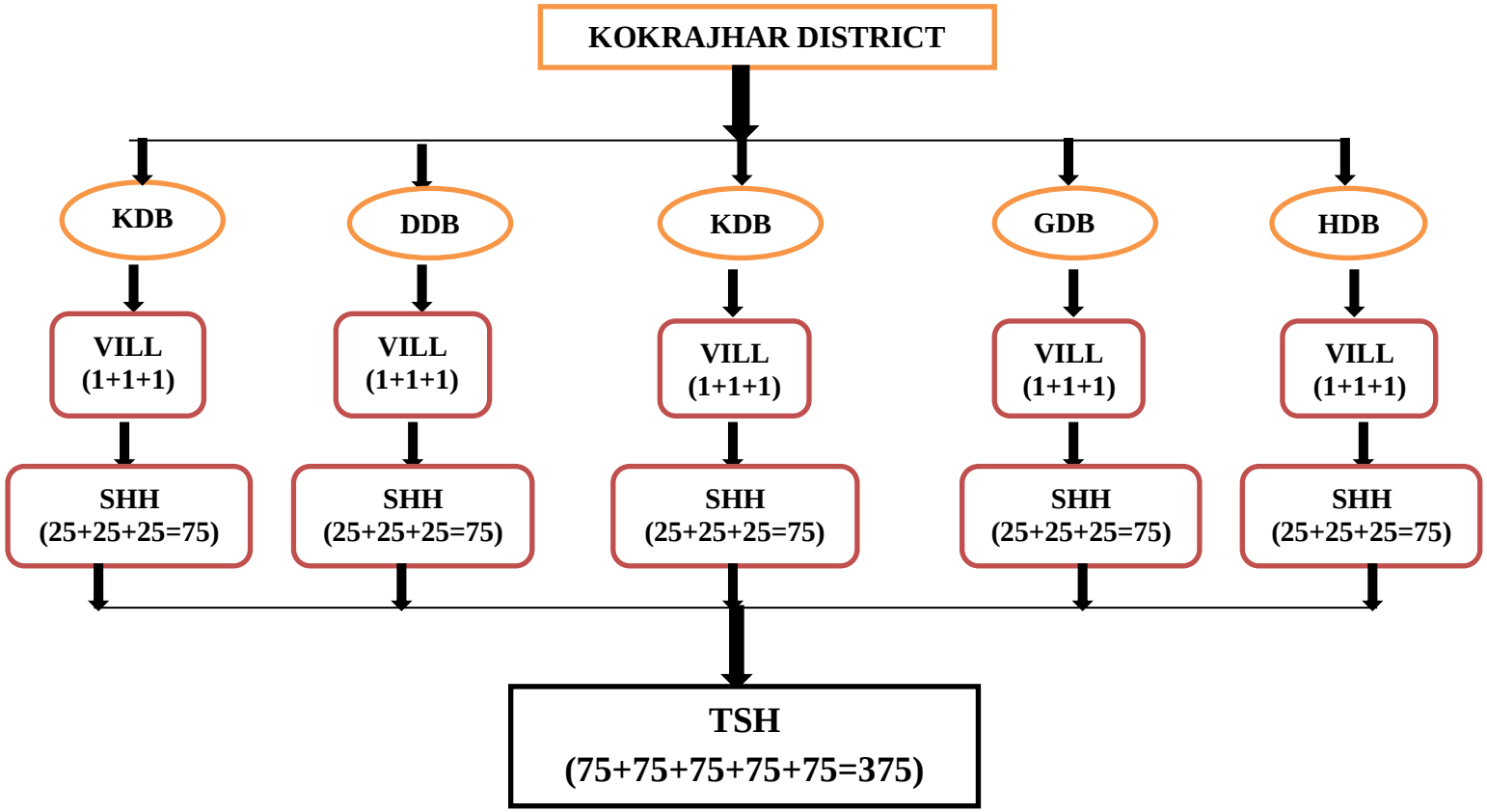
selecting different population groups, different organizations and institutions in the area. Appropriate statistical tools like arithmetic mean, correlation, coefficient of variations, bar diagram, line diagram, statistical tables and figures are employed with a proper care. Finally, the present study is based on the methodology framed by the UNDP and the Human Development Report of Assam, 2014 for the estimation of the HDI values.

1.7.1 Sample Design for Primary Data

To collect the primary data for the analysis of human development aspects in study area, an appropriate sample design has been prepared with consideration of well defined set of rules for research work. To work out the sample design for present study, the researcher has considered 'stratified sampling' and samples are selected purposively. A precise way sample design has been prepared as depicted in the Sample Chart-I below.

The tribal inhabited district of Kokrajhar is the study area and it has been considered for its extensive study about the status of human development aspect. All the five (main) Blocks, namely, Kokrajhar Block, Dotma Block, Kachugaon Block, Gossaigaon Block and Hatidura Block of the district have been considered for the primary data collection. The sample covers a total of fifteen (15) villages, namely, Haloadol, Dholmara and Ghoramara in Kokrajhar Block; Singimari, Boragari and Gossainichina in Dotma Block; Gangia, 1No. Sekadani and Kumtola in Kachugaon Block; Turshibil, Habrubil and Kartimari in Gossaigaon Block and Srirampur No.1, Mechpara and Pokalagi in Hatidura Block are considered by selecting three (3) villages from each Block. In present study, sample villages are selected purposively by considering community representation, and the aspect of size of households in the villages which gives more or less same percentage of sample households. Thus, a total of 375 households are considered for the primary data collection from 15 villages, by selecting 25 households from each of the sample villages. In the present study sample households are selected from rural areas only keeping the room for extensive study to be made by other researchers on urban areas.

SAMPLE CHART-I



[KDB: Kokrajhar Development Block; DDB: Dotma Development Block; K_eDB; Kachugaon Development Block; GDB: Gossaigaon Development Block; HDB : Hatidura Development Block; VILL: Village; SHH : Sample Households; TSH: Total Sample Household]

1.8 Presentation of the Thesis

The thesis has been organized in sequences in accordance with the well defined set of rules; and to represent the whole part of the study systematically, the thesis has been prepared systematically consisting the following seven chapters.

Chapter-1: Introduction and Research Design

In this chapter, an introductory part has been presented along with the evolution of the concept of human development; conceptual clarification, definition of human development, measurement of human development and its various indices. The chapter also presents statement of the problem and research questions, area of the study, objectives of the study, hypotheses, methodology and data sources including sample design and presentation of the thesis.

Chapter-2: Review of Literature on Human Development

In this chapter, a brief review of literature on human development aspect is done. Review of literature basically includes two aspects: (1) Review on the human development in terms of theoretical aspects; and the other (2) Review on human development presented in the form of methodological aspects.

Chapter-3: Human Development: Regional Disparities Aspect (An Empirical Analysis)

This chapter deals with present scenario of human development and gender disparities aspect in context of global, South Asian countries and inter- state disparities and progress of human development in India. Reliable secondary sources are collected for the systematic analysis and presentation of the disparities of human development at different levels.

Chapter-4: Human Development Scenario in Assam: A Perspective Analysis

In this chapter, human development scenario in the state of Assam is presented in a systematic way by taking the relevant secondary information. A short profile of Assam, and the position of Assam among the NER has been analyzed. An attempt has been made to examine the inter district variations of HDI, GDI, GII taking the Assam Human Development Report 2003 and 2014 and various census data for 1991, 2001 and 2011; and other reliable sources in this regard.

Chapter-5: Status of Human Development in the Tribal Inhabited District of Kokrajhar

In this chapter, an attempt is made to analyze different aspects of human development in the tribal inhabited district of Kokrajhar (study Area) of BTAD by using primary data. A detail analysis of socio-economic aspects in terms of human development and capability disparities has been presented in this chapter.

Chapter-6: Human Capability: An Observation from Sample Respondents (Focus Group Discussion)

In this chapter, an attempt has been made to deal with different aspects of human deprivations by organizing focus group discussions. Proper plan has been made to find such variables through focus group discussion by selecting different age groups and gender aspect in the tribal inhabited district of Kokrajhar.

Chapter-7: Findings, Conclusions and Policy Recommendations

In this concluding chapter of the thesis, an attempt has been made to present the report, findings and conclusions of the earlier chapters. However, more emphasis has been given to the report and findings from chapter 3, 4, 5 and 6. An attempt has also been made for the presentation of policy recommendations; basically keeping into the considerations for the improvement of human development aspects in the study area and further research questions that may arise in the field of human development literature.

1.9 Conclusion

In this chapter-1, evolution of the concept, methodology and measurement of human development is presented precisely along with the problem, statement and research questions. Area of the present study, objectives, and hypothesis are also analyzed precisely. Sample selection and design along with methodology of estimating HDI, data sources and statistical tools employed in the present work are clearly analyzed. The chapter indicates how whole part of the present study is analyzed in the form of presentation of thesis. This introductory chapter, in short, gives the basic idea of the present research work on the topic “Human Development in Assam: A Study in the Tribal Inhabited District of Kokrajhar.

CHAPTER - 2
REVIEW OF LITERATURE

2.1 Introduction

2.2 Review of Literature: Theoretical Aspects

2.3 Review of Literature: Methodological Aspects

2.4 Conclusion

CHAPTER - 2

REVIEW OF LITERATURE

2.1

This chapter is related to the review of literature. However, literature on human development is vast and varied. When some literature dealt on the concept of human development while some others dealt on the methods of measurement, construction of HDI for various states and sub states; and of different sections of the society.

In the following section, a brief review of literature is carried out on both theoretical and methodological aspects of human development.

2.2 Review of Literature: Theoretical Aspects

The credit for constructing an internationally acceptable Human Development Index goes to Prof. Mahbub-Ul-Haq and Prof. Amartya Kumar Sen. Prior to their effort, one of the earliest attempts was conducted by the United Nations Research Institute for Social Development (UNRISD). In 1966, the UNRISD published "level of living index" considering 20 countries for its study; and released its second study in 1972 and developed a "Development Index" with nine economic and nine social indicators. In 1973, the Organization for Economic Co-operation and Development (OECD) published a report in which six social variables were used to form a "predicted GNP per capita index" for 82 developing countries. In 1976, the International Labor Organization (ILO) began publishing its work on the 'basic needs' approach to development that includes an adequate level of both consumption and essential services like health care and primary education.

Sen (1977) in his paper "Human Capital and Human Capability" explained the conceptual meanings of both Human Capital and Human Capability. Human Capital concentrates on skill Knowledge and productivity while Human Capability helps the individuals to live the lives they choose and increases the choices they have. Human

Capital need not be under stood in the form of physical capital; rather it enhances the human capabilities. Education, health care and other factors enrich economic prosperity along with freedom and wish of the people. Human beings are not just means of production; rather it is also ends of production. The UNDP Human Development Reports have motivated over the years by this broader view and capability approach. Human capabilities promote well being and freedom of the people; and influence social changes, as opined by the author.

Sen (1989) the Nobel Laureate in economics, in his paper entitled 'development as capability expansion' states that it is a mistake to view expansion of real income or growth as successful economic development. The author had taken the per capita income of six countries along with life expectancy and maintained that the China and Srilanka with low per-capita incomes have higher life expectancy than the other four countries; Brazil, South Africa, Mexico and Oman. His capability approach for the evaluation of quality of life is explained as "Doings and Beings", and also called as functioning. The roots of the capability approach date back to Aristotle, Adam smith and Karl Marx; development is seen as a combination of distinct processes. The paper stated that the people should have freedom to choose in their life; and emphasis needs to be given on education which helps in exercising freedom and acts as the foundation to capability approach. In his paper, the author also stressed on sound health conditions as it increases productively of human being. Human capabilities, as author states, are the yard sticks to judge human development, and social changes are needed in the context of human well being.

The Human Development Report (1990) correctly recognizes that "development is much more than just the expansion of income and wealth"; and defined human development as the 'process of enlarging people's choices **(UNDP, 1990).** The first chapter of the report, entitled "Defining and Measuring Human Development", opens with famous words: **"**People are the real wealth of a nation. The basic objective of development, as report maintained, is to create an enabling environment so that people can lead long, healthy and creative life in the society. This may appear to be a simple truth; but it is often forgotten in the immediate concern with

the accumulation of commodities and financial wealth. Thus, the expansion of output and wealth is only a means; and the end of development must be human well-being**.**

The paragraph of the report (1990) also reads: Human development is a process of enlarging people's choices. The most critical aspect is how to achieve a life with a long and healthy life, to acquire knowledge becoming educated and to enjoy a decent standard of living. Additional choices include political freedom, guaranteed human rights and self-respect what Adam Smith called the ability to mix with others without being "ashamed to appear in public". Thus, the report says that human development denotes both the process of widening people's choices and the *level* of their achieved well-being.

Human Development Report (UNDP 1991) elaborates the concept of human development in the lines that people must be at the centre of human development. Development has to be woven around people, not people around development, that is, people should be at the centre while formulating plan and policies for development. As stressed by the report, human development should aims at development of the people, by the people and for the people.

Dalal (1991) in his edited volume brought together the contributions made at a National Symposium held in New Delhi in March 1991; and reflections on human development as conceived by the UNDP report from the Indian perceptive. The contributions were leading personalities from the various fields with vast experience and knowledge of political affairs, science, economics, education, culture, business, industry and administration. The common consensus of the symposium was that Indian development goals have been in tune with the Human Development Report. However, there has been a significant failure in implementation of well-constructed policies. The discussion of the symposium considered lack of political will and administrative inefficiency as major causes of the failures of implementation.

Human Development Report (UNDP 1992) maintained that the previous concepts of development often given exclusive attention to economic growth on the assumption that the benefits of growth would trickle down to various sections of the society. The report says that the past experience does not support this hypothesis;

higher growth rate in an economy does not necessarily bring higher degree of welfare for every section of the society. Growth needs to be translated into improvements in people's lives, expansion in human capabilities need to be enhanced by the growth process. The report maintained that economic growth is not the end of human development, it represent just one of the important means of achieving human development. Human development and economic growth are closely connected; and people contribute to economic growth, and growth contributes to human beings.

Anand and Ravallion (1993) focused on the role of private incomes and public services within the human development approach in attaining some very basic human capabilities and also tried to explore their implications for development policy. To them, average income matters, but only so far as it reduces poverty and finances key social services for development. This conclusion has an important policy implication if social expenditures and the reduction in income poverty are the main forces driving human development, rather than economic growth; then the policy intervention can play a role in promoting human development independently of the promotion of aggregate affluence.

Human Development Report (UNDP 1994) stressed on the points that the human development also encompasses elements that constitute the critical issues of gender and its development. The report maintains that there are four major elements in the concept of human development such as productivity, equity, sustainability and empowerment; besides empowerment is an important aspect of human development. People must participate in the decision making process that can shape their lives and maintain 'quality of life'. Human development cannot be achieved without gender equity in the society; and so long women are excluded from the development process, development will remain weak lopsided, as report maintained.

Human Development Report (UNDP 1995) maintained that the process of economic and human development must be sustainable one. The concept of human development has gone beyond its basic premises to emphasize the sustainability of the development process; and the issue of sustainability has three dimensions - capacity, environment and institutions. If the development process does not create institutions

fully supportive of people's right, it cannot be sustainable in the long run and this would hamper expansion of human capabilities. Human development thus emphasizes strengthening the institutions of both government and civil society so that the entire development process becomes internally and externally sustainable one.

Tilak (1997) observed that during the post Independence period India made substantial progress towards building up of a large educational edifice and network of scientific and technical institution in the country; and still half of the population in the country was illiterate. The goal of universaliation of elementary education still eludes and vocational and technical education at secondary level did not progress much so as to employ graduates in different fields. The study stressed that investment in human capital in India has to be significantly increased in three essential purposes: (a) to meet the challenge of poverty and to meet the aspiration of the people for better levels of living, (b) to eliminate or at least to reduce technological dependence on other countries and thus to make the country free from colonial dominance, and (c) to enter the international market in the field of industry and trade on a competitive basis to reap the benefits of economic liberalization and globalization.

Human Development Report (UNDP 1997) described clearly the concept of human development. The report states that people wants income as a means and Human Development is the end. A long and healthy life, acquisition of knowledge and access to resources for a decent standard of livings are the three essential choices for people corresponding to three indices of human development. The report maintains that the process of widening people's choices and the level of well being they achieve are at the core of the notion of human development aspect.

Zaidi and Salam (1998) in their study on human development using UNDP methodology tried to enumerate and correlate various indices denoting life expectancy, educational attainment and real GDP per capita to other parameters of the economies of 15 major states of India. The study finds out the causes of varying values of these indicators in different states in the country. The study revealed that public expenditure is more closely associated with educational attainment in the society than it has with life expectancy as the latter is influenced by multiplicity of

factors like heredity, race, climatic and environmental factors apart from public expenditures on health, nutrition, sanitation etc. The study also revealed that high literacy rate is necessary but not sufficient condition for economic growth. Though literacy rate was highest in Kerala in 1991, the state was ranked in the 6th position among these 15 major states in terms of combined enrolment ratio.

Nepal Human Development Report (UNDP 1998) reported that Nepal is still a very much a rural country and there are serious disparities between the urban and the rural areas in terms of human development aspects. Both public and private investments are concentrated in the urban areas and the urban population has much better access to social infrastructure and higher income per capita than the people in the countryside. The report also revealed that the Human Development Index (HDI) value for rural areas is approximately two thirds of that of the urban areas. The report also maintained that the disparities would become even more evident when the country is divided into regions, as was done in the Nepal Human Development Report (NHDP 1998).

National Institute of Rural Development (NIRD 1999) conducted a study on human development for the major states of India for the years 1961, 1971, 1981 and 1987-88. The report indicates that human development scores in all the states had gone up. However, as per the report, performance of the states like Bihar and UP was very poor, and the states of Gujarat made considerable strides of development. Rankings of the states during the period of study changed significantly indicating that the growth rates in human development indices across the states are not in the same magnitude. The study also reveals that the gender discrimination was common in 14 states except Kerala and Karnataka.

Viswanatham (1999) in her study for Madhya Pradesh pointed out that higher incomes do not always lead to high human development. High human development, at the same time, does not mean equal benefit to both men and women population. The study questions the relationship between incomes and human development on one hand and gender equity on the other which need to be addressed by incorporating

proper policy. The study further maintained that equal opportunity between the two sections of the society is important for the expansion of human capabilities.

Kurian (2000) in his article "Widening Regional Disparities in India" Published in EPW (Feb 2000), has analyzed regional disparities in the post reforms period in India. The study revealed that increased participation by the private sector has aggravated regional disparities in the country. The better off states have been preferred by the private sector as the socio-economic infrastructure in these states is well developed, and can support the investment in better way. Poor infrastructure and lack of resources have become handicaps to the backward states in attracting more investment for developmental purposes. The author concludes that the backward states are confronted with vicious circle due to lack of flow of private sector investment.

. **National Human Development Report (2001)** prepared by Planning Commission of India (PCI) showing state-wise as well as all-India human development indices for the years 1981, 1991and 2001; the report, for the analysis of human development indicators in the country used the same development indicators of the UNDP Human Development Reports. But weightage were given with slight modifications in the indicators; however, span of life, education and economic attainment are the basic indicators considered by both the computations.

Datt (2002) in his study examined the improvement in human development index in India vis-à-vis other countries of the world. The study found that the population growth rate has begun to decline and it is estimated to be at 1.3 percent per annum during 1999-2015. The study maintained that this will release quite a significant proportion of the resources being currently used to support a higher growth rate of population for other areas of development. The public expenditure on education was found to be stagnant at 3.2 percent of the GDP during the last 25 years from study year. The youth literacy at 72 percent in the country is much lower than the achievement of a majority of medium human development countries, which is around 90 percent and above. The study also revealed that there has been continuous improvement in health indicators - life expectancy , infant mortality rate and maternal mortality rate though they do not commensurate with the levels attained in several

medium developed countries of the world. Gender related development indicators revealed the gap between male and female population in terms of adult literacy, gross enrollment ratio and earned income as being too wide indicating the existence of a strong gender bias development.

Ravallion and Datt, (2002) in a cross – state study of poverty in 15 major states in India, concluded that various states have different capacities for poverty reduction due to variety of reasons in the concerned states. They argue that there exists a substantial difference of the elasticity of poverty index to non-farm output between the states. The difference between Bihar and the state of Kerala is due to the difference in the literacy rates that exists between these states. The study suggested differentiated approach of the policy initiative for the reduction of poverty in the states with different conditions.

Guha (2003) in his article "Human Development in India – A Study of Interstate Disparities" has deviated from the established Human Development Indices and considered access to safe drinking water, electricity connections, two meals a day throughout the year, permanent houses and availability of beds in public hospitals to measure human development in 15 major states of India. The study worked out Quality of life Index for rural and urban for these 15 major states in the country. He stressed on active role of the Central Government in removing interstate disparities in human development. In his opinion, a nation cannot develop without adequate provision for public health, education, food, clothing and shelter. The study clearly indicated that there are glaring disparities in human development among the states in India. This article is thought provoking in terms of concept, content and results of the study in the area of human development aspect.

Pant (2003) made an empirical study on the performance of states in education during 1995-96. The study showed that the academic standards of the students were very low in the U.P primary schools. The reasons for school drop outs were examined in this study; and the most important one was that school children need to attend household duties. On the part of teachers, the study revealed that proper in- service training was not properly conducted. Schools were not attractive, confronted with lack

of infrastructures; and even amidst dirt and dust with stray animals freely roaming about. The author feels that backwardness of elementary education limits the freedom and well being of the people in the society. The author concludes that the system of education should become an instrument of social change to ensure well being and freedom of the people in the society.

Bhatt (2003) in his article "Human Development Profile a study of primary education standards in Uttar Pradesh" stated that human development can be considered as the expansion of human capabilities. Human development, as a process of widening people's choices and the level of well being they attain has got important implications. The author maintained that basic objectives of the development process should be directed to remove illiteracy, ill health and social deprivation to ensure individual freedom and capabilities of human beings. Primary education facilitates with rapid participation in developmental process is required so as to improve human development and expansion of human capabilities. The author has enumerated the backward scenario of the state of U.P and deplores at the low literacy rate of 41.6 percent against the national average rate of 52.1 percent.

Khan (2003) in the article "Human development in India" a study of inter-state variations stated that human development is multidimensional aspect involving political, social, and economic elements. The article revealed that countries do not have identical ranks on income and human development scales. He has quoted the "Asian Development Report 1996-97" where it is maintained that India still lags behind most Asian countries in terms of social indicators though there is a trend of improvement. The author measured inter-state variations in the human development in India by taking 1991 as the year of study by adopting UNDP methodology. Urbanization is added as the fourth indicator for the computations of HDI for 15 major states in the country. The study revealed that Kerala, Maharashtra, and Punjab have higher than 0.50 HDI values and can be categorized as states of medium human development; and HDIs for Orissa, Bihar, U.P. and Assam are less than 0.3 indicating a very low level of human development. Kerala has achieved the top position in human development among the states of India even with a low per capita domestic

product (9^{th} Rank) in the country. As felt by the author, initiative taken by the Non–Government organizations (NGOs) has contributed much for Kerala's achievement in higher level of human development.

Padmanabham and Nagarjan (2003) in their paper "Measures of Human Development and Related concepts, a case study of Tamilnadu" have reviewed the Human Resource Development strategies of the Neo classicalists. The authors, in their study, have reviewed different kinds of Human Development Indices put forward by UNDP and other research studies; and the components of HDI in assuring human well being are discussed in the paper. The study pointed out that Tamilnadu ranked 7th on the basis of per-capita income where as the state is 3rd among the Indian States in 1991 on the basis of HDI. The authors have reviewed the stands of Armugum where HDIs for the districts in Tamilnadu were worked out; Per-capita District Domestic Product, life expectancy and female literacy are the indicators chosen by Armugum. It is stated that 8 districts in Tamilnadu have 0.5 to 0.8 HDIs representing medium Human Development category; and remaining 21 districts are in the low Human Development category with HDIS at below 0.5. The authors have presented an overall view of HDI and analyzed the relative position of the districts in Tamilnadu in terms of Human Development.

Dholakia (2003) examined the trends in regional disparity in the economic and human development in India over the last two decades of time. The study indicated that the per capita income (PCI) did not show any significant improvement in the trend of regional disparity over the last two decades; rather seven out of nine human development indicators display a declining trend. Further, the study revealed that twelve out of other sixteen related social and human development indicators showed a marked decline in regional disparity during 1981-1991.The study also examined the question involved in connection with direction of causality between economic development and human development.

Mohanty, Nayak Chatterjee (2004) examined Human Development in the state of Orissa by taking districts as units of study. The study is divided into five sections; and analysis was done based on secondary data. HDI values for the districts

are computed for 1993-94; 1997-98 and 2003-04 along with index values of the components considered in the study. The study maintained that the Tribal districts lag behind in all dimensions of human development. The study indicated that availability of quality infrastructure, both economic and social is a key factor for human development aspects; infrastructure in the form of health, education, transportation, communication, electricity, irrigation and banking facilities is measured with composite index. The state was divided into (3) clusters, developed moderately, developed and less developed. The districts with poor infrastructure showed less developed over the entire three periods of analysis. The study suggested that the state of Orissa needs to develop quality infrastructure, both social and economic, to attain better level of human development.

Devi (2004) in the Article the current scenario of human poverty in India examined the trend of poverty in the country India**.** The study considered the census data of 1991 and 2001 for analysis. It is seen that there was a declining trend in the decadal growth rate of population by 2.52%; an improvement in sex ratios from 927 to 933; overall literacy rate at 65.38% in 2001. However, from the study, it is seen that in 2001, 25% of men and 45% of women were illiterate. The data also indicated that the country was confronted with gender bias in terms of school enrollment; 70% of the tribal people were illiterate as per 2001 census data. Outlay of the Government expenditures on education for both centre and the states between 1993-94 and 1998-99 showed almost stagnant. The study also analyzed the percentage of people below the poverty line for the period of 1973-74 and 1999-2000. It is noted that the decline in urban poverty is greater than the decline in rural poverty. Employment growth in the public and private sectors had been examined for the period 1991-1999; and there was a stagnant trend in the overall growth of employment during the period. The author concludes that economic reforms have resulted in adverse effects on poor and rural sections of the population in the country. The study suggested for the improvement of primary education, health care facilities, gender equity, growth in employment, food security and absence of discrimination to promote human development and social progress.

Reddy, Murthy and Sarojini (2004) in their article "components of Human Poverty Index: comparative study of Indian states" stated that people are both the means and ends of economic development. Economic growth gives importance to economic choice while human development embraces all human choices - economic, social, cultural, and political and the like. The study worked out achievement in education, health and tax effort indices by considering 1980s and 1990s as time periods and compared the achievement indices of 15 major states in India. The study indicated that the state of Kerala was at the top in 1980s and improved at higher rate in the 1990s; Madhya Pradesh, Rajasthan and Orissa had low level of achievement in 1980s and the rate of improvement was also very low. It is also seen that the states with higher tax effort index had higher per-capita expenditure on education.

Leela (2004) in the paper entitled "Gender Inequalities and Human Poverty" states that the world of the 21st century still faces huge backlogs of deprivation, poverty, inequality and gender disparities in the society. The study quoted some earlier studies by eminent authors to narrate the poverty and gender discrimination. The basic objective of this paper was to examine the gender dimension of poverty; and for the analysis, 2001 census figure was taken by the author. The study showed that 76.7% of the population living below the poverty line was being women and children. Poverty of the women can be mitigated by employment and income for which training and literacy are important. The paper reviewed Gender Empowerment Measure (GEM) of the U.N. Development Report and 73rd constitutional amendment providing 1/3rd reservations and the schemes of the central and state governments. The author lamented at the low literacy rate of the women (32.72%) in the state of Andhra .Pradesh, which was the lowest among the southern states as revealed by the 2001 population census. Positive changes in social, cultural attitudes of the society towards the role of women; and elimination of gender bias in development policies were suggested by the author while removing poverty.

Subrahmanyam (2004) in his paper "Poverty in India" measurement and trends reviewed the problem of poverty in India and focused on eradication of poverty during the plan period. The author, in his study, elaborated different types of poverty,

the poverty line and the measures of poverty. He analyzed Human Development Index (HDI) and the method of its calculation by taking the development indicators of the UNDP; Human Poverty Index (HPI) and Gender Empowerment Index (GEI) have also been analyzed by the author. The paper reviewed poverty in Indian for the years 1950, 1960; and it is found that rural poverty declined to 39% in 1987-88 from 56% in 1973-74. The author, in his paper stated that the economic reforms have no positive impact on poverty reduction. The study also indicated one major concern for the policy makers that the Gross Domestic Product (GDP) grew at the same rate in the1990s as in 1980s indicating stagnancy of GDP.

Chakraborty (2006) in the (ed) volume of Human Development: Experiences of North East India, examined the relationship between the human development and inhuman growth. The analysis showed that the scenario in North Eastern Region of the country India was different from other states; though the region represents certain healthy trends, particularly in enrolment of students at primary level along with lesser gender disparities in comparison to other states. The author suggested that a major area of focus should be on creating sustainable socio-economic infrastructures in rural areas without which, to the opinion of author, all the states in the region will have higher dropout rates, higher illiteracy, lower health standards, higher infant and child mortality, and lower life expectancy. However, while trying to achieve these desired goals, the traditional wisdom, participatory tribal ethos and historical patterns of occupational specialization should be taken into consideration.

De (2006) in the (ed) volume of Human Development: Experiences of North East India examined the circular linkage between the human development and the environment; and concludes that like income and human capital circular linkage; there exists circular linkages between the natural resources, environmental quality and human development. Despites of availability of natural resources, the region with poor environmental quality may result to low productivity, low income and output; and in turn it provides people with less scope to achieve standard and quality education and health care facilities. The study maintained that the poor human resource development

leads to further mismanagement and more rampant use and degradation of environmental quality.

Nayak and Thamas (2007) conducted an in-depth study on human development in Meghalaya by working out HDIs for all the seven districts in the state; and the status and trend of human development and deprivation in Meghalaya were compared with other leading states of India. For their study, both primary and secondary data were used. The study revealed a low level of human development in the state, inequalities between rural and urban areas among the districts. The study also revealed development pattern with gender gap, between males and females across the districts of Meghalaya.

Choudhury and Mitra (2008) had used panel data from 138 countries from all over the world to describe the relationship between attainments of school education and economic development. The study examined the effect of other macro economic variables such as government expenditure on education and political instability on school attainment and completion of the schools by children. The results showed that income levels, government expenditure on education and political instability all generally have statistically significant effects on school attainment and completion rates. However, the direction and significance varies across the different levels of school attainment and completion as revealed by the study.

Daimari (2008) while studying the structure of the rural economy of BTAD followed the Marshall-Fisher-Clark-Kuznets schema of structural analysis, basically, to find out the relative contributions made by different sectors to the total income. Based on 182 sample households, the study found that the economy of the study area is basically an agricultural one in which about 52 percent of the regional income is generated from primary sector, about 42 percent from tertiary sector and only around 6 percent from secondary sector in BTAD area.

Jordon (2008) constructed a human development index (HDI) for each of Georgia's 159 countries; and the indicators included education, employment and housing variables. The study considered the data from the 2000 census collected by the state of Georgia office of the planning and budget department. According to the

study, the construction of HDI for each of Georgia's states would help in further research in the area of community development strategies. The use of an HDI in the country broadens the scope of measurement of standard income and economy's well being. As revealed by the study, further step to investigate whether levels of social capital overheads are related to the HDI would be another milestone for Georgia's economy.

Siddique (2008) used simultaneous equation model for identifying the relevance of primary needs of methodology for estimation of human development in Asia, Africa and rest of the countries in the world. It was found that the effect of human development on primary need for satisfaction is direct one, that is, the persons with higher income have higher capabilities which in return results to higher per capita income. The study revealed that though both the aspects, improvement in infant mortality rate and per capita income affect significantly; but the role played by income for meeting the basic need is more important. The study maintained that the results may vary from region to region but the conclusion drawn remains the same; gainful expenditure always an edge over the other aspects of human development.

Mishra and Biswa (2009) considered two basic approaches which are complementary for variations in human development across the states and regions. First, growth oriented to promote public and private incomes; and second, aims at public support in education, health care, employment, asset redistribution and social assistance. The paper examined the economic performance and social insecurity across the major states with more emphasis on lagging states showing the interstate variations in human development. The study worked out economic performance by taking the shares of the state population and gross state domestic product of the country for selected years 1993-1994-2001. The study covered all the 15 major states of India, including BIMARU states. Per capita Income and growth rates of these states for the selected years were taken for ranking the states. The study revealed that the social security provision in most of the states, except in Maharashtra, Tamilnadu and Kerala was not encouraging; Governments in richer states have more funds to take care of

social security. They suggested private sector participation in creating favorable infrastructure and environment for the improvement in human development.

Dutta (2009) in the (ed) volume of Human Development: Dimensions and Strategies examined the disparities in human and economic development in the North Eastern Region of India. The study concludes that HDI is not a comprehensive measure of human development; high HDI value need not necessarily guarantee access of human beings to other basic amenities of life such as drinking water, electricity, sanitation, health care etc. which are essential components of economic development. The study revealed that the disparities of economic development were much higher among the districts of Assam in comparison to other states of NER.

Bensahes, Colssard and Benlzrak (2009) in their paper "Gender and Human Development" made an attempt to show the importance of reducing gender disparities to promote human development. The paper stressed on the study of current situations, roles, social functions and the roles of the man and woman for analyzing gender disparity aspect. Women in the society have an important role to play in strengthening human development aspects. The authors have considered Beijing Conference in China in which the status of women, at length, was discussed. The paper discussed the Tunisian women and the progressive measures they enjoy in life; success of women entrepreneurs, women's rights; and how employment in Tunisia uplifted the women's position in the society. They conclude that "To be Happy" gender discrimination must be eliminated so that both men and women together can think, feel and act properly.

Mahapatra and Raj (2009) in their paper entitled "Human Development in India: Issues and Challenges" begins with the fact that India is in the 127^{th} position with HDI score 0.602 among 177 countries as estimated by the HDR of UNDP for 2006. The paper examined the level of human development in India in comparison with other countries between 1975 and 2005 by taking different points of time. The paper also made an assessment of the variations in human development across the states in the country. The paper focused on health care scenario; and basically, BIMARU states were not in a position to give priority to health care when compared

to middle and high Income states of the country. The study revealed that health infrastructure, safe drinking water and sanitation, besides maternal and child health care were not effective in some states which may have affected HDI. The authors concluded that the Government of many states in the country suffers from funds shortages to increase expenditure on social sector including health care facilities; and they suggested public-private partnership pattern of investment in promoting health infrastructure.

Chand and Punam (2009) in their paper entitled "A Study of Human Development Indicators and Declining Child Sex Ratio in Himachal Pradesh" examined the relationship between human development and declining trend of child sex ratios in the state of Himachal Pradesh. The paper is based on the census and NFHS II data in the country. The state witnessed increasing trend in the sex ratios between 1901–1991 as the no of females per 1000 females rose from 912 to 976 (next to Kerala in India); however, the girls in the 0-6 age group in 2001 decreased to less than 900 per 1000 boys: (in 1971 girls were 982 per 1000 boys). The study revealed that in the urban areas, the ratio was alarming at 844 only even though the state has achieved a lot of development in terms of education, female, literacy and female work participation; the districts with high literacy levels have lower child sex ratios. In the rural areas in which literacy rate was very low, child sex ratios was comparatively higher. To the opinion of authors, the declining trend in the girl child sex ratio in the state will have adverse effects on the socio-cultural base of the nation; and this aspect is to be viewed seriously while formulating plan and policies for development.

Nayak (2009) in his paper entitled "Status and Trend of Human Development in North East Region of India" discussed the nature of HDR and examined the construction procedure of HDI. The paper reviewed the literature on the subject, both from the methodological aspects and empirical evidences. For analysis purpose, general scenario of the 8 states in the North Eastern Region was considered; four of these states have majority tribal population, ranging between 64-94 percent. Human development of these states was examined for the years 1981; 1991 and 2000. The author estimated HDI for 2000, and for the analysis of other two points of time 1981

and 1991, Government of India figures were taken for analysis. The paper revealed considerable magnitude of rural-urban disparity in human development in the region. The status of women in the region was contrary to popular perception; gender disparity was very high in the state of Assam and Tripura. The author concluded that India has not been able to achieve desired level of human development; HDI in India is below 0.62 and it is much below in the North Eastern Region. The author stated that increasing gender disparities, growing rural-urban gaps in human develop0ment and uneven human development levels in the states of the NER calls for urgent appropriate action.

Sakiko, Rawanth and Shivakumr (2009) in their article "Using the HDI for policy analysis" examined the GDP per capita and HDI values of (8) countries. The paper revealed that there is no exact relationship, in nature, between these two variables, GDP per capita and HDI values. Costarica, Srilanka and Jamaica with low levels of per capita incomes had higher HDI values (2001) indicating that income and HDI need not always have close correlation. The paper also indicated that during 1991, HDI values in UP and Bihar were less than half of Kerala; and rural – urban and ethnic disparities within the states were present. The paper was a summary measure to guide and reorient policies; development from human capability point of view. The authors concluded that other indicators like political freedom, personal security and public participation helps the short run policy.

Kenchalgor (2009) in the paper entitled "Recasting Human Development Indices: A look into the state of Gender Empowerment in Karnataka" examined the status of women in Karnataka. The paper evaluated the human development as well as gender development by following methodology of UNDP Human Development Report 1995 and the methodology of Karnataka's Human Development Report 2005. The study, while using secondary data, elaborated the HDIs for Karnataka for the period 1991 and 2001; and to estimate Gender Empowerment in the districts of Karnataka, index of political participation; knowledge and decision making index and earned Income Index were worked out. Accordingly, index wise gender empowerment aspect was analyzed for the districts of Karnataka. Gender empowerment was

examined for the year 2001, combining the index with the ranks for the districts. Karnataka was placed in the second position among the states in India, after Madhya Pradesh as published in the state level Human Development Reports. The author concludes that women, still suffer from male dominance while exercising human choices; the patriarchal mind set curbs their freedom and gender inequalities prevail in some of the district over the years. To the opinion of the author, more micro level research in this direction is warranted.

Mishra (2009) in the paper entitled "A note on Human Development indices with Income Equalities" analyzed the computations of HDI by taking the methodology used by UNDP 2004 and **Sarker et al** 2006. In his paper, the author argues for the inclusion of income equality as one of the indicator along with health, education and income indices to obtain HDI, and relative weights to these indices are also be assigned. HDI by all these methods were compared and the egalitarian method of giving weights is supported by the author in his study. Further, he argued that Human Development Reports assigned weights to the indices of life expectancy, education and income arbitrarily; and it is observed that the HDI of HDR suffers from an excessive bias to pragmatism. The method suggested by the author takes care of weakly correlated indices and gives them proper representation in the composite Human Development Index.

Datta (2009) in the Paper entitled "Human Development and Economic Development: the case of Assam" indentified the poorer regions in the state of Assam with the help of selected indicators. Regional disparities have been widely examined by researcher both theoretically and empirically. The study had taken (8) variables as indicators of economic development, and districts were taken as a unit of study. Composite Developments Scores (CDS) of the districts for the year 2001 were worked out, and district rank was assigned by considering the data from Assam Human Development Report (2003). Dimension Index of development for each district is calculated by using a simple formula on the basis of considered 8 variables. It is observed that the disparities in economic development are higher in the state of Assam in comparison to human development aspects. The author considered CV of HDI to

analyze regional disparities. It is concluded that Brahmaputra valley region is more developed than the other two regions, Karbi Anglong and Cachar Hills region. The study revealed that the regional disparities of economic development are glaring; it calls for a proper developmental planning.

Nayak (2009) in the (ed) volume "Human Development: Dimensions and Strategies" while evaluating the status and trend of human development in North Eastern States from his primary survey concludes that the Indian economy in spite of a fast growing developing economy; and pursuing the policy of liberalization and globalization since early eighties, has not been able to achieve much on account of human development and welfare in the region. Human Development Index is bellow 0.62 in India and it is much bellow in North East Region of India. Rural-urban disparity and uneven human development across the states in the region were quite significant. Trend of increasing gender disparity in Nagaland and escalating rural-urban gap, particularly in the states of Assam and Meghalaya is a matter of great concern; has got a further policy implications.

Human Development in India Analysis to Action (2010) is a publication based on reports from the State Governments in the country India. Planning commission and UNDP, in collaboration initiated two projects. First, capacity building for preparation of State Human Development Reports (1999 – 2005); under this project State Governments was given support to prepare State Human Development Reports for their respective state. 21 States have already prepared such reports by creating data base at the district levels through suitable methodology of data collection. Madhya Pradesh is the first state to prepare State Human Development Report (SHDR). Second, is the project 2004–2009 which aimed at using human development data as an integral tool of planning process at the state and district level. The experiences of India in promoting human development action were shared by countries like Indonesia.

Kanakachary (2010) in his paper "Regional Disparities in Andhra Pradesh; A Spatial Study" analyzed the regional disparities and their increasing trend by dividing the districts into 6 sub regions in the state of Andhra Pradesh. The study considered

secondary data in the form of statistical abstract 2007 and Andhra Pradesh economic survey 2006-07. Sixteen variables were chosen and grouped into 4 categories to represent the economic development in the state for the year 2005 – 06. Agricultural activity and social activity are the two important dimensions in which the 16 variables were grouped. It is revealed in the study that 10 districts in the state were developed in agriculture of which 6 are in Telangana, 3 in Andhra and only one in Rayalaseema region; North Telangana was at the top while North Coastal Andhra was at the bottom. Telangana occupied 1st place in agriculture followed by Coastal Andhra and Rayalaseema.

India Human Development Report (**2011)** the second report was released in 2011; and the first one was released in the year 2001 by the Planning Commission. The Institute of Applied Manpower Research of the Planning Commission prepared the report for the period 2000 –2007. The report revealed that the HDI for India gone up by 21 percent against 17 percent in China during the period under reference. As per the report, poverty, unemployment, child labor and inter – state disparities had a declining trend; health and education indices have raised by 13 percent and 28.5 percent respectively. Kerala, Delhi, Himachal Pradesh Goa and Punjab were in the top 5 positions, and Bihar, Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Odisha and Assam had HDI values which were less than the average HDI of the country. The report maintains that, health, nutrition and sanitation were the key challenges in front of the country; and the 12th five year plan (2012 – 2017) had to concentrate on these issues pertaining to Human Development as suggested by the report.

Ranabothu (2011) in his paper "Telangana Development: Regional Imbalances in Human Development in Andhra Pradesh", to find out the regional disparities in Human Development in the state of Andhra Pradesh considered the Human Development Report prepared by Center for Economic and Social Studies (CESS) in 2008. The basic objective of the paper was to find out regional imbalances between Telangana, Andhra and Rayalaseema regions in terms of development and human capability. Apart from Human Development Indices many aspects of general well being and capabilities were analyzed in the paper by considering CESS data

pertaining to early 1990s to early 2000s; Human Poverty Index, General Development Index, Income Dimension of HDI, growth of District Domestic Product, Health Dimensions of HDI, including health facilities available per 10 lakh population during the period 2004 – 05. The paper also worked out education dimension of HDI, adult literacy, dropout rates, agriculture dimensions (2004 – 05) and other aspects of development in the form of Infrastructure Index (2004), urbanization and percentages of households with basic amenities in 1991 and 2001. The study concludes that the growth rate in the Andhra region was more than Telangana during the reference period; however, in terms of electricity facilities condition was better in Telangana. The paper revealed regional disparities in human development and individual well beings in the state.

Basumatary (2012) examined the status of human development of Bodo population living in the rural areas of Bodoland Territorial Areas Districts (BTAD) through primary survey on the basis of sample drawn from the four districts. Adopting the similar methodology of Human Development Report of Assam (2003), the author constructed the Human Development Index for each of the sample villages. The study revealed that the Tribal inhabited districts of BTAD are lagging behind the other districts of Assam in terms of human capabilities. The author, by examining various components of human development in BTAD area on the basis of both primary data and secondary data rightly pointed out that "despite the fact that Assam is a poor performer in the country, the Bodo inhabited districts are lagging significantly behind in terms of education, human health and standard of living as compared to the state average".

Human Development Report (UNDP 2015) maintains that the human development aims at enlarging human choices in the society. Human development, instead of focusing richness of the economies, it stresses on human lives; and it directly enhances human capabilities and indirectly creates the conditions for human development. The report views that critical to this process is work, which engages people all over the world in different ways and takes up a major part of their lives; of the world's 7.3 billion people, 3.2 billion are in jobs, and others engage in care work,

creative work, voluntary work or other kinds of work or are preparing themselves as future workers. Some of this work contributes to human development, and some does not; and some work even damages human development. Focusing on work agenda, the report concludes that work can enhance human development when policies expand productive, remunerative and satisfying work opportunities, enhance workers' skills and potential and ensure their rights, safety and well-being. The Report also pursues an action agenda based on a New Social Contract, a Global Deal and the Decent Work Agenda for enhancing human capabilities.

Human Development Report (UNDP 2020) maintains that the people of present generation are at an unprecedented moment in the history of humankind and in the history of our planet; and which, as the report argues, as warning lights—for our societies and the planet—are flashing red. The report focuses that the Covid-19 pandemic is the latest harrowing consequence of imbalances writ large. Scientists have long warned that unfamiliar pathogens will emerge more frequently from interactions among humans, livestock and wildlife, interaction that have steadily increased in scale and intensity, ultimately squeezing local ecosystems so hard that deadly viruses spill out. The novel corona virus may be the latest to do so, and unless we relax our grip on nature, it will not be the last, the report argues. The report concludes that the human development approach has much to contribute in addressing our collective paralysis in the face of alarming planetary change; and calls for a just transformation that expands human freedoms while easing planetary pressures.

2.3 Review of Literature: Methodological Aspects

Ganguli and Gupta (1976) used three sets of composite indices to measure levels of living in Indian states. First, it covers the primary components of the levels of living, namely nutrition, housing, medical care and education. Second, covers the secondary components such as leisure, security and environment. Third, an overall index of the level of living which was constructed by taking into accounts both the primary and secondary components of the level of livings in the society. The study found that while the levels of per capita domestic product and the levels of living have

a close relationship, it was not so when the levels of per capita consumption expenditure were considered. The study shows that the states with high levels of living did not show high rates of growth of the domestic product.

Morris, (1979) released the Physical Quality of Life Index (PQLI) with the objective of measuring whether a minimum set of human needs was being met by the world's poorest people. Later, he made an attempt to construct a measure of social welfare which includes Camp and Speidel's International Human Suffering Index, which combined ten measures including income, infant mortality, nutrition, adult literacy and personal freedom.

The first Human Development Report (1990) presents a comprehensive set of human development indicators to develop HDI. But for the knowledge dimension, the choice of the indicator was limited to adult literacy. For the standard of living dimension, the report used the logarithm of (purchasing power parity adjusted) income for the calculation, with a zero weight being given to income above the average poverty line of a selected set of industrialized countries. For the knowledge dimension, Human Development Report, 1991 combined adult literacy with mean years of schooling (giving 2/3 weight to the former and 1/3 to the latter). A less drastic utility adjustment was applied in this report, utilizing the Atkinson adjustment formula for taking into account diminishing returns of higher incomes (based on PPP, GDP per capita).

Tilak (1991) by applying the methodology of estimating human development indices constructed by UNDP, made inter-state comparisons for 17 major states in India, and compared the states with other countries of the world. In the case of Indian states, his analysis revealed high correlation between human development and economic growth. Moreover, his study indicated weak linkages between poverty and human development.

The Philippine Human Development Report5 (1997) examines changes in the Human Development Index (HDI) across various provinces in Philippines for the period 1990 to 1994. The study found a change in HDI, ranging from an increase of nearly 25 percent; and a decrease of nearly 4 percent indicating that Human

Development across its provinces is influenced by the past biases "absolute stand outs are few and far between and geographical concentration of development is still evident".

Haq (1997) the book "Human Development in South Asia, 1997", covered only limited areas of human development aspect. Many important aspects of human development were neglected and a clear cut state-wise picture was not provided by this works in the opinion of the author. He has enlarged the parameters to work out more effective measure of human development aspects. Life Expectancy Index, Per capita Income Index, Education Index, Quality of Life Index, Poverty Eradication Index, and Index of Urbanization have been calculated state wise. Quality of Life Index numbers for rural and urban, along with spatial disparities were worked out in the article. Besides inter states disparities, the indices showed significant levels of correlation between '0.86 to 0.97', and the study takes 1988-1994 as study period.

Vyasulu and Vani (1997) used district level secondary data of the state of Karnataka to measure the status of human development of the state using Human Development Index (HDI). Subject to data limitations, they constructed a set of six indices to estimate HDI, and the ranking of the districts were found to be more or less stable. However, the study showed that there was a high degree of variation within each state reflecting greater intra-state disparity in development. While making the concluding remarks, they suggested that sustained political support across-the board for the improvement in each district was essential, if HDI was to show improvement.

The UNDP Report (UNDP-IDF 1998) reflecting on disparities in human development between the states and districts in the country India. The report identified 13 most backward districts in the country in terms of female literacy in the 7+ age group on the basis of 1991 census data. The districts in question were all located in the five states: Bihar, Madhya Pradesh, Rajasthan, Orissa and Uttar Pradesh indicating that some effective policy is required for the correction of deprivations in the enlisted district in particular.

Annapurani (2003) in the article, "Concept and Estimation of Human Development Index" worked out Physical Quality of Life Index (PQLI) by taking

Infant Mortality Rate (IMR), Life Expectancy (LE) and basic literacy as indicators of PQLI. For analysis, she had taken 16 states in India and worked out the Human Development Index (HDI) and Gender Development Index (GDI). Further, the author considered fourteen countries for comparison of ranks in Human Development Index and Per Capita Income. In her opinion, each state of development requires new packages to stimulate further higher level of development. Satisfactory level of human development needs suitable packages relevant to social, economic and technological conditions of the region, as stressed by the author.

Kundu, Sheriff and Ghosh (2007) in their article "Index of Human Development in India : Indicators, Scanning and Composition" stated that the concept of human development can be traced to oriental societies as Kautilya's Arthasastra and Adamsmith's Wealth of Nations which can be referred as good for the common man. Methodological issues, weightages and the like adopted by various studies in the construction of HDI are questioned; and they worked out Human Development Indices with alternative methods. To them, planning bodies, policy makers and the academicians are to interact among themselves to find out better tools and methodology. The paper also maintained that no single method of HDI construction is superior or inferior; and HDI depends on the conditions of development of the region; and choice of indicators and methodology used in the study. The planning commission and other bodies should obtain larger acceptability in the selection of indicators and methodology while constructing Human Development Index.

Haq (2009) in his book "The Birth of the Human Development Index" states that GNP as a measure of human welfare is incomplete; GNP is just one dimension and does not include social, political cultural and other choices that the people make in the society. Human Development Index (HDI) has emerged as a new composite index of socio-economic progress. The author has narrated the guiding principles in the constructions as well as methodology for analyzing HDI. The validity of HDI in comparison to GNP has been elaborated in the paper; ranks in GNP and HDI were examined and it is found that the HDI ranks is better than GNP ranks with regard to countries like China and Srilanka (1994 HDR). National priorities potential growth,

disparities between people, early warning system and choice over time are revealed by the HDI as elaborated by the author; criticisms and possible refinements in HDI over the years were also described vividly in the paper. The author, in conclusion, admits that HDI is neither perfect nor fully developed and it requires continuous analysis and refinement to represent human development aspect properly.

Human Development Report (UNDP 2010) brought major changes in regards to construction of Human Development Index (HDI). In this report (2010), the indicators of education and income index were modified. Knowledge dimension, earlier which was measured with adult literacy rate and gross enrollment ratio is now measured by two indicators – expected years of schooling and mean years of schooling. GDP per capita which was considered as indicator of standard of living has been replaced by GNI as it includes international remittances from and to by the citizens along with flow of aid from abroad. Life expectancy at birth is retained as health indicator. Method of aggregation was also changed from UNDP Human Development Report, 2010 onwards. Geometric mean of the three indices has been introduced to ascertain the performance indictor wise.

2.4 Conclusion

In the previous sections of the present chapter, an extensive analysis has been made on the available and relevant literature on human development aspect, in terms of both methodological and empirical aspect of literature. There are large numbers of studies of review of literature on human development which were undertaken in India and abroad on various aspects of human development. Some studies dealt with defining the concept of development, human development and their measurement for various nations and sub nations; while some others dealt either in the development of new methodology of construction for the measurement of human development index or refinement of the older methods. As analyzed in the above sections, there were studies debate relating to the selection of variables to be included in human development index and weights to be assigned to different variables under consideration in the construction of human development index. While some studies

dealt with disparities on human development between rural and urban areas; between males and females; and while others concentrated on trend of human development. Some scholars have made an attempt to study the relationship between human development and economic growth. There were also some studies which argued in favor of a balanced path of development, while some authors favor for increased allocation of resources on social sectors for improving human development.

The Planning Commission, Government of India through National Council of Applied Economic Research (NCAER), New Delhi prepared National Human Development Reports for the years 1981, 1991 and 2001. Human development indices were constructed for all the states and union territories of India for the year 1981 and1991. In 2001 report, the HDI was constructed for major states only due to non availability of required data for smaller states and union territories. The Assam Human Development Report 2003 highlights human development explaining district wise construction of HDI and GDI in which performances of districts in BTAD area is not available. The Assam Human Development Report 2014 illustrates human development performances of the districts in the state along with districts in BTAD and after Assam HDR 2014, no study has been undertaken on human development aspects in the districts of BTAD; neither by any individual author nor by any institution. Therefore the present study is undertaken with an idea to generate data on human development aspect for the tribal inhabited district Kokrajhar of Bodoland Territorial Areas District (BTAD). Block wise and village wise analysis in terms of human development indicators has been made in the present study. However, the study covers only rural areas of the district, keeping the room for other researchers to study human development aspect of the urban areas of the tribal inhabited district of Kokrajhar. Moreover, the present study is an indicative; more extensive study may be undertaken by the researchers in the days to come.

CHAPTER - 3

HUMAN DEVELOPMENT: REGIONAL DISPARITIES ASPECTS

(An Empirical Analysis)

3.1 Introduction

3.2 Human Development Disparities at Global Level

3.3 Disparity in Gender Related Development Index (GDI) at Global Level

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CHAPTER - 3
HUMAN DEVELOPMENT: REGIONAL DISPARITIES ASPECTS
(An Empirical Analysis)

3.1 Introduction

Analysis of regional disparities in human development is important to understand the "Quality of Life" of the people living in different regions. The term regional disparities or imbalances refer to a situation where in standard of living, HDI indices, industrial, agricultural and infrastructural development is found to be different in different parts of a given region. The problem of regional disparities in development process is inconsistent with the concept of development. This problem is not a new phenomenon. Even during the earlier period there was difference in the level of economic development across the countries and regions. However, in recent years it has received lots of attention from regional economists. When the regional disparities are unchecked, it leads to numerous economic, social and political problems, and even become a threat to the unity and integrity of any nation. Identification of backward regions in a developing country could be helpful in formulating plans and policy to avoid regional disparities getting further accentuated, and preventing unwanted consequences. Regional disparities in human development are a new dimension of regional disparities and became very popular since UNDP introduced the first Human Development Report in 1990. The disparities in human development are mainly focused on the level of human development index and its indices including life expectancy at birth, educational attainment and decent standard of living. It also takes into account the different nuances of human development like Gender Related Development Index (GDI), Gender Empowerment Measure (GEM), Human Poverty Index (HPI) and Human Freedom Index (HFI) etc. which provides more significant development of the society.

In this section, an attempt is made to analyze regional disparities in human development, empirically at various regional levels namely global to local level focusing on inter-state disparities. This chapter is broadly classified into three sections. Section I deals with inter country disparities in human development at the global level; Section II at South Asian Association for Regional Cooperation (SAARC) level; the Section III deals with the status of human development in India by focusing on interstate disparities in human development; and Gender related Development Index (GDI).

3.2 Human Development Disparities at Global Level

The UNDP human development report reveals that the position of India at the global level has been very low. The UNDP Human Development Report, 2020 ranked India at 131st place out of 189 countries with HDI value of 0.645; and India's human development position is lower than that of many of newly industrialized countries of South East Asia like Indonesia and Malaysia and also that of South Asian countries like China, Srilanka and Maldives. The low per-capita income of a country does not mean low level of human development; even with limited funds and their proper allocation, substantial improvement in human capital can be secured. Srilanka and China with low per capita incomes have secured higher levels of human development whose development efforts were initiated at about the same time as of India (Griffin, 1992, Tan and Mingal, (1992). Despites of its potentialities, India could not improve the life of the people in recent decades.

The UNDP classified the countries into three groups based on HDI - High, Medium and Low human development countries. The countries having HDI range from 0.8 and above are grouped as high human development countries; HDI ranges between 0.5 to 0.8 as medium human development; and HDI value less than 0.5 values as low human development. Data clearly reveals great disparities among countries in respect of human development indices. Norway occupied top position with 0.957 HDI value followed by Iceland and Australia with 0.949 and 0.944 respectively while Niger placed in the bottom with 0.394 HDI value (**UNDP, 2020).**

Table 3.1 Human Development Indicators for Selected Countries, 2019

HDI Rank	Countries	HDI (Value)	Life Expectancy at Birth	Expected Years of Schooling	Mean Years of Schooling	GNI per Capita	GNI per capita rank minus HDI Rank
1	Norway	0.957	82.4	18.1	12.9	66,494	7
4	Iceland	0.949	83.0	19.1	12.8	54,682	14
8	Australia	0.944	83.4	22.0	12.7	48,085	15
13	U.K.	0.932	81.3	17.5	13.2	46,071	13
16	Canada	0.929	82.4	16.2	13.4	48,527	5
17	USA	0.926	78.9	16.3	13.4	63,826	–7
19	Japan	0.919	84.6	15.2	12.9	42,932	9
23	Korea. Rep	0.916	83.0	16.5	12.2	43,044	4
52	Russia Fed	0.824	72.6	15.0	12.2	26,157	2
72	Sri Lanka	0.782	77.0	14.1	10.6	12,707	23
85	China	0.761	76.9	14.0	8.1	16,057	–11
131	**India**	**0.645**	**69.7**	**12.2**	**6.5**	**6,681**	**–5**
133	Bangladesh	0.632	72.6	11.6	6.2	4,976	7
142	Nepal	0.602	70.8	12.8	5.0	3,457	13
154	Pakistan	0.557	67.3	8.3	5.2	5,005	–15
161	Nigeria	0.539	54.7	10.0	6.7	4,910	–19
182	Burkina Faso	0.452	61.6	9.3	1.6	2,133	–9
183	Sierra Leone	0.452	54.7	10.2	3.7	1,668	–4
189	Niger	0.394	62.4	6.5	2.1	1,201	-4
CV (in percent)		**26.76**	**13.22**	**28.77**	**46.67**	**90.39**	----

Source: HDR 2020; Countries 189

Table 3.2 India's Human Development Position in the Global Context, 2019

Countries/ Region	Human Development Indicators			
	Life Expectancy Index	Education Index	GDP Index	HDI
India	**0.765**	**0.566**	**0.635**	**0.645**
Least Developed Countries	0.697	0.439	0.510	0.538
Developing Countries	0.789	0.589	0.704	0.689
Very High Human Development Group	0.917	0.860	0.921	0.898
OECD	0.929	0.853	0.923	0.900
WORLD	0.812	0.637	0.773	0.737
CV (in percent)	**12.27**	**28.28**	**24.54**	**21.84**

Source: Compiled from UNDP Human Development Report, 2020

Fig. 3.1 India's Human Development position in the global context

Source: Compiled from UNDP Human Development Report, 2020

Table 3.1, Table 3.2 and Fig. 3.1 depict India's human development position in the global context as per HDR, 2020. In respect to human development indices such as Life Expectancy Index, Educational Index, GDP Index and Human Development Index, Indian position were 0.765, 0.566, 0.635 and 0.645 respectively; while the position of all developing countries, Organization for Economic Co-operation and Development (OECD) and World were well over India's position. This indicates that the relative position of India's human development indices were not only lower than so-called OECD but also lower than other developing countries of the World as well.

Table 3.2 indicates that Life Healthy Index, Education Index, Income Index and HDI vary largely across the different groups of the world as revealed by the estimated CV; and the variation was highest in the case of education index (28.28 percent).

Table 3.3 India's Human Development position in the Global Context, 2019

Human Development Indicators		India	Developing Countries	Least Developed Countries	Very High Human Development Group	OECD	World
Life Expectancy at Birth		**69.7**	71.3	65.3	79.6	80.3	72.8
Education Index	Mean Years of Schooling	**6.5**	7.5	4.9	12.2	12.0	8.5
	Expected Years of Schooling	**12.2**	12.2	9.9	16.3	16.3	12.7
GNI Per Capita (2008 ppp$)		**6,681**	10,583	2,935	44,566	44,967	16,734
Human Development Index (HDI) Value		**0.645**	0.689	0.538	0.898	0.900	0.737

Source: Compiled from UNDP Human Development Report, 2020

Table 3.3 shows the India's position in the global context in terms of various human development indicators in the year 2019. The data indicates that India's position in terms of life expectancy at birth (health index), MYS and EYS (education index) GNI per capita (income index) remained well below the OECD and world average. Not only that, India's position was even below the average of developing countries.

The UNDP classified various countries of the world into high, medium and low human development groups on the basis of their performance in terms of various human development indicators. The Table 3.4 and Fig. 3.2 indicate the Human Development Index for selected countries from 1990 – 2019, based on the HDI value, they have been classified into four groups: very high, high, medium and low human development groups **(UNDP, 2020).** Norway, Iceland, Australia, Canada, Japan, Korea Republic and Russia Federation were placed as very high human development

group; and China as representative of high human development group. India, Srilanka, Pakistan, Bangladesh and Nepal are in the group of medium human development; and Sierra Leone, Burkina Faso and Niger were in the group of low human development group. Estimated CV shows that there has been a gradual decrease in the variation of HDI among the countries indicating the trend of convergence between high and low human development countries; CV being 41.56 percent in 1990 to 26.27 percent in 2019.

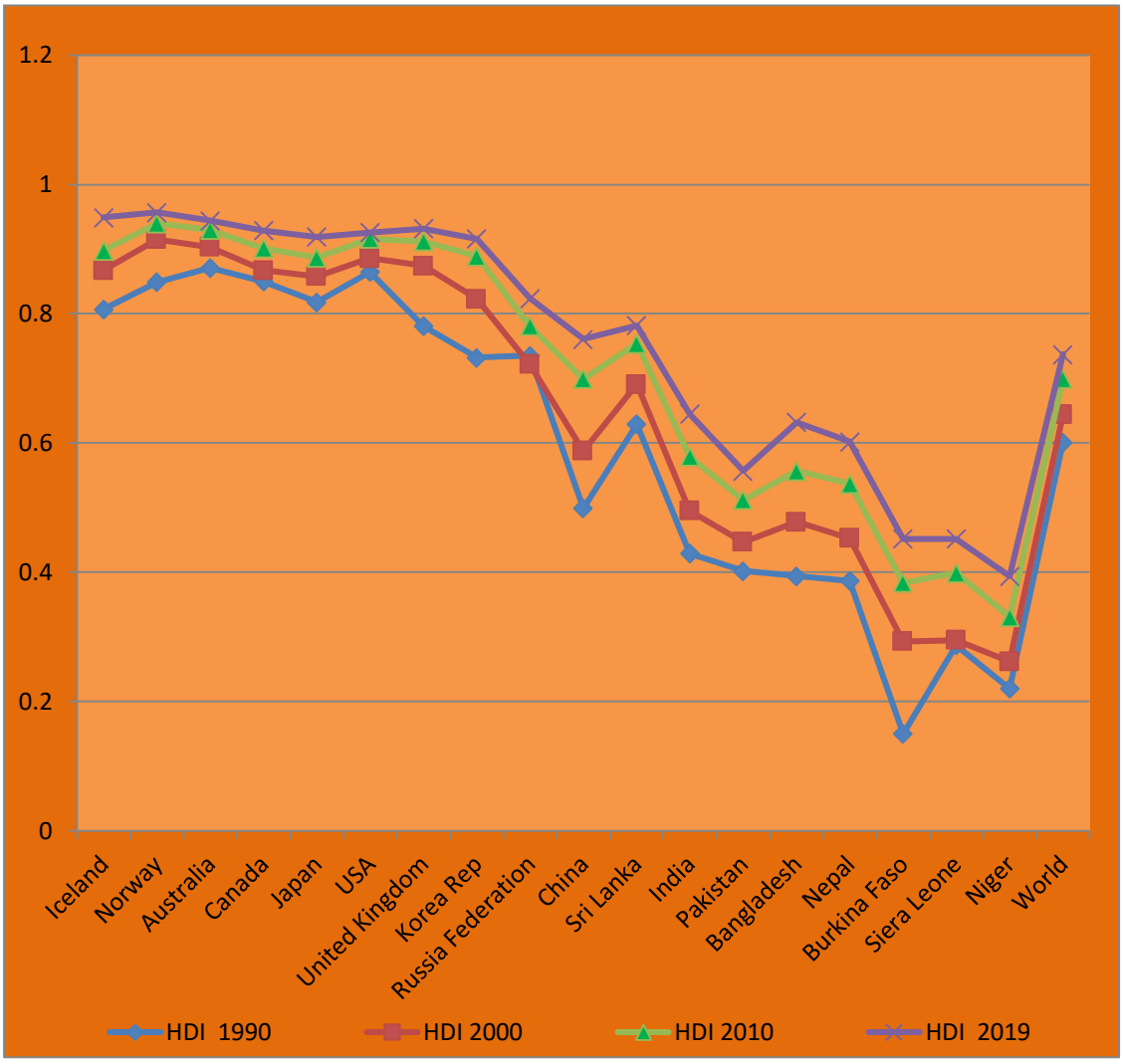
Table 3.4 Human Development Index trends for selected countries 1990 – 2019

Name of the Countries	HDI				Average Annual HDI Growth (in %)			
	1990	2000	2010	2019	1990-2000	2000-2010	2010-2019	1990-2019
Iceland	0.807	0.867	0.898	0.949	0.72	0.35	0.62	0.56
Norway	0.849	0.915	0.940	0.957	0.75	0.27	0.20	0.41
Australia	0.871	0.903	0.930	0.944	0.36	0.30	0.17	0.28
Canada	0.850	0.867	0.901	0.929	0.20	0.39	0.34	0.31
Japan	0.818	0.858	0.887	0.919	0.48	0.33	0.39	0.40
USA	0.865	0.886	0.916	0.926	0.24	0.33	0.12	0.24
U.K.	0.781	0.874	0.912	0.932	1.13	0.43	0.24	0.61
Korea Rep	0.732	0.823	0.889	0.916	1.18	0.77	0.33	0.78
Russia Fed	0.735	0.722	0.781	0.824	–0.18	0.79	0.60	0.39
China	0.499	0.588	0.699	0.761	1.65	1.74	0.95	1.47
Sri Lanka	0.629	0.691	0.754	0.782	0.94	0.88	0.41	0.75
India	**0.429**	**0.495**	**0.579**	**0.645**	**1.44**	**1.58**	**1.21**	**1.42**
Pakistan	0.402	0.447	0.512	0.557	1.07	1.37	0.94	1.13
Bangladesh	0.394	0.478	0.557	0.632	1.95	1.54	1.41	1.64
Nepal	0.387	0.453	0.537	0.602	1.59	1.72	1.28	1.54
Burkina Faso	0.150	0.293	0.384	0.452	6.92	2.74	1.83	3.88
Sierra Leone	0.287	0.295	0.399	0.452	0.28	3.07	1.40	1.58
Niger	0.220	0.262	0.331	0.394	1.76	2.37	1.95	2.03
World	0.601	0.644	0.699	0.737	0.69	0.82	0.59	0.71
CV (%)	**41.56**	**36.43**	**30.17**	**26.27**	**--**	**--**	**--**	**--**

Source: Compiled from UNDP Human Development Report 1990 to 2020

HDI trend of the countries as depicted in Table 3.4 for the period 1990, 2000, 2010 and 2019 is shown by the Fig. 3.2.

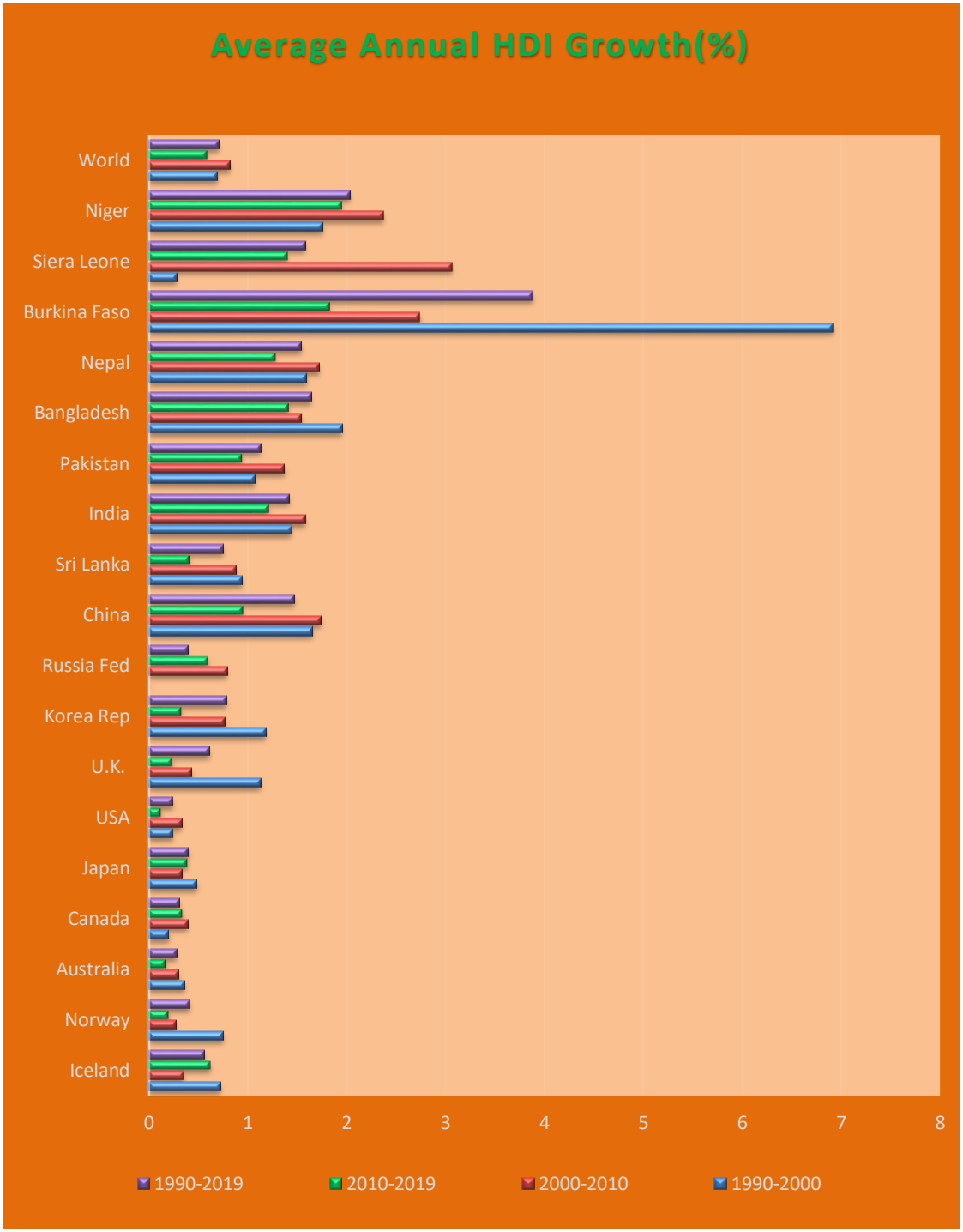
Fig. 3.2 HDI trend in the selected countries: 1990-2019



Source: Compiled from UNDP Human Development Report 1990 to 2020

The average annual growth in HDI values during 1990-2000 and 2000-2010 is shown in Fig. 3.3. It has been observed that the growth is higher in low human development countries than very high, high and medium human development countries. It reveals that progress of HDI shows convergence trend rather divergence between very high, high, medium and low human development countries. Less human development countries improved more than the relatively better developed countries in the world. It is worth mentioning that the percentage changed for 2000-2010 was much higher than the percentage change for the period 2010-2019.

Fig. 3.3 Average annual growth in HDI for selected countries: 1990-2019



Source: Compiled from UNDP Human Development Report 1990 to 2020

Thus, from the above analysis it is seen that the position of India in terms of human development aspect remained lower not only that of high human development and OECD countries; the position of India is even lower than some of the South East Asian and SARRC countries, like Maldives and Srilanka. High rate of growth of population and diversity which exist in the country is difficult to manage. Large scale unemployment, low public expenditure on social sectors along with inadequate facilities of health and nutrition in rural areas, low level of literacy and skills, lack of basic amenities like housing facilities, safe drinking water facilities are main reasons for low level of human development aspect in the country. Inequality in social, economic and gender aspect has also been contributing to low HDI in the country.

3.3 Disparity in Gender Related Development Index (GDI) at Global Level

The aspect of gender development is an important issue in the area of human development. Here, in this section, we analyze the aspect of GDI for selected countries of the world including India. The Beijing Conference on Women held on 1995 brought new grounds in comparing human development performance of countries from a gender perspective; and the question was how women fare in the socio-economic development of a country **(UNDP, HDR 1995).** The report focused on the two dimensions of gender development measures – Gender Related Development Index (GDI) and Gender Empowerment Measure (GEM).

Table 3.5 and Fig. 3.4 show the aspect of GDI for selected countries from 2005 to 2019. So long percentage change is concerned for GDI, they were higher in low human development countries such as Niger, Sierra Leone, Burkina Faso and Nepal and medium HDI countries namely, Bangladesh, Pakistan and India compared to high HDI countries. It reveals that progress of GDI shows a convergence trend rather than divergence between high and low human development countries. In fact, low human development countries improved relatively better when compared to high and medium HDI countries in the world; however, the gap in terms of opportunity between males and females is still significant which involves future policy implications.

Table 3. 5 GDI for selected countries of the world (1995-2019)

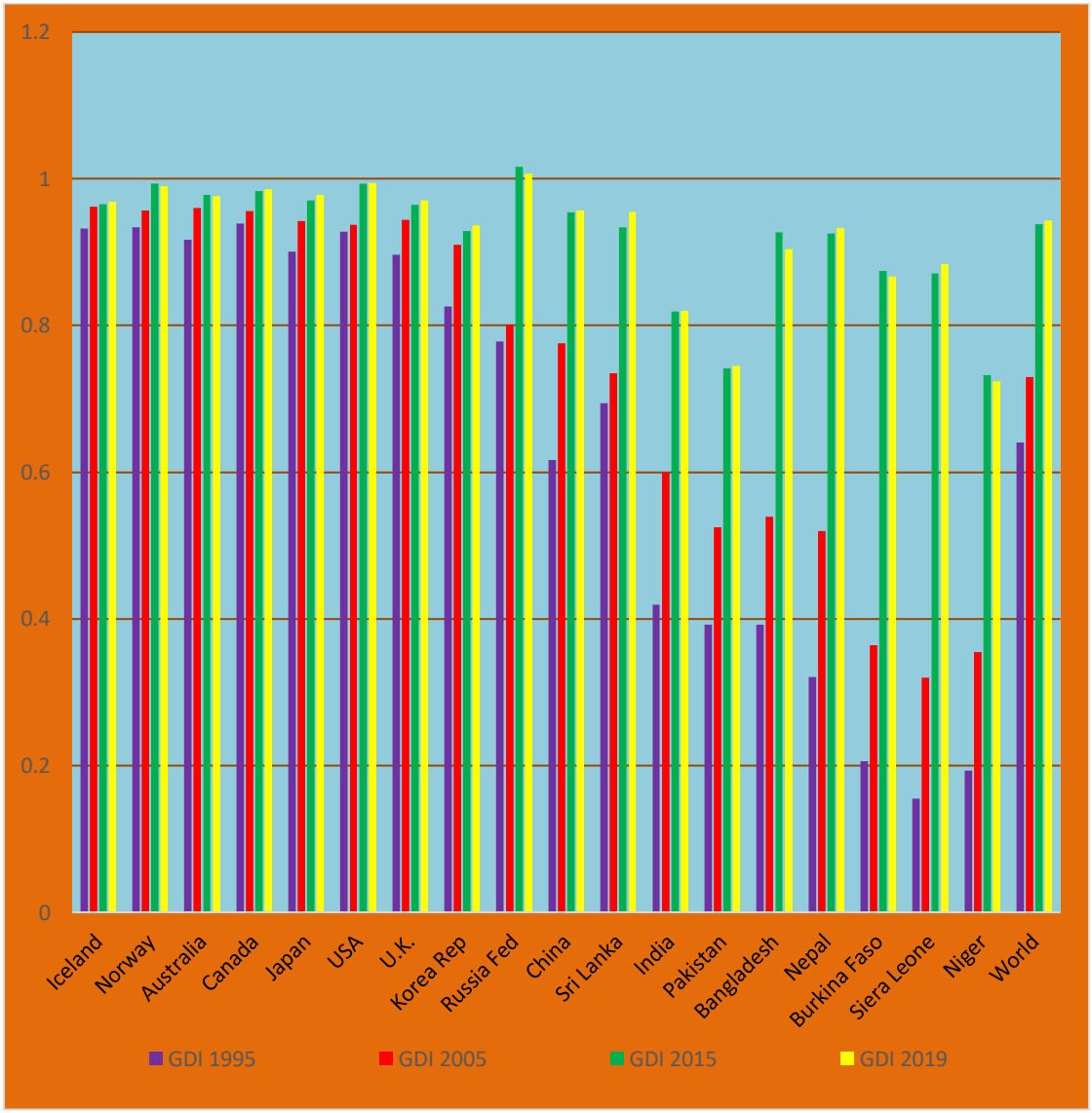
Name of the Countries	GDI 1995	GDI 2005	GDI 2015	GDI 2019	% Changed from 1995-2005	% Changed from 2005-2015	% Changed from 2015-2019
Iceland	0.932	0.962	0.965	0.969	3.21	0.31	0.41
Norway	0.934	0.957	0.993	0.990	2.46	3.76	-0.30
Australia	0.917	0.960	0.978	0.976	4.68	1.86	-0.20
Canada	0.939	0.956	0.983	0.986	1.81	2.82	0.31
Japan	0.901	0.942	0.970	0.978	4.55	2.97	0.83
USA	0.928	0.937	0.993	0.994	0.96	5.98	0.10
U.K.	0.896	0.944	0.964	0.970	5.35	2.12	0.62
Korea Rep	0.826	0.910	0.929	0.936	10.16	2.09	0.75
Russia Fed	0.778	0.801	1.016	1.007	2.95	26.84	-0.89
China	0.617	0.776	0.954	0.957	25.76	22.94	0.31
Sri Lanka	0.694	0.735	0.934	0.955	5.90	27.07	2.24
India	**0.419**	**0.600**	**0.819**	**0.820**	**43.19**	**36.5**	**0.12**
Pakistan	0.392	0.525	0.742	0.745	33.92	41.33	0.40
Bangladesh	0.392	0.539	0.927	0.904	37.50	71.98	-2.48
Nepal	0.321	0.520	0.925	0.933	61.99	77.88	0.86
Burkina Faso	0.206	0.364	0.874	0.867	76.69	140.11	-0.80
Sierra Leone	0.155	0.320	0.871	0.884	106.45	172.19	1.49
Niger	0.193	0.355	0.732	0.724	83.93	106.20	-1.09
World	0.640	0.730	0.938	0.943	14.06	28.49	0.53
CV (%)	**46.86**	**32.72**	**9.01**	**9.12**	--	--	--

Source: Compiled from various Human Development Report (1995-2020)

Fig. 3.4 shows that the GDI index for the period 1995, 2005, 2015 and 2019 are more or less same for very high and high human development countries. The Fig. also reveals that there has been considerable improvement of GDI in less developed and developing countries of the world indicating convergence trend between the high and low human development countries.

Table 3.5 indicates that GDI vary largely across the different development groups of the world as shown by the estimated CV. Estimated CV shows that there has been a gradual decrease in the variation of GDI among the countries indicating the trend of convergence between high and low human development countries; CV being 46.86 percent in 1995 to 9.12 percent in 2019.

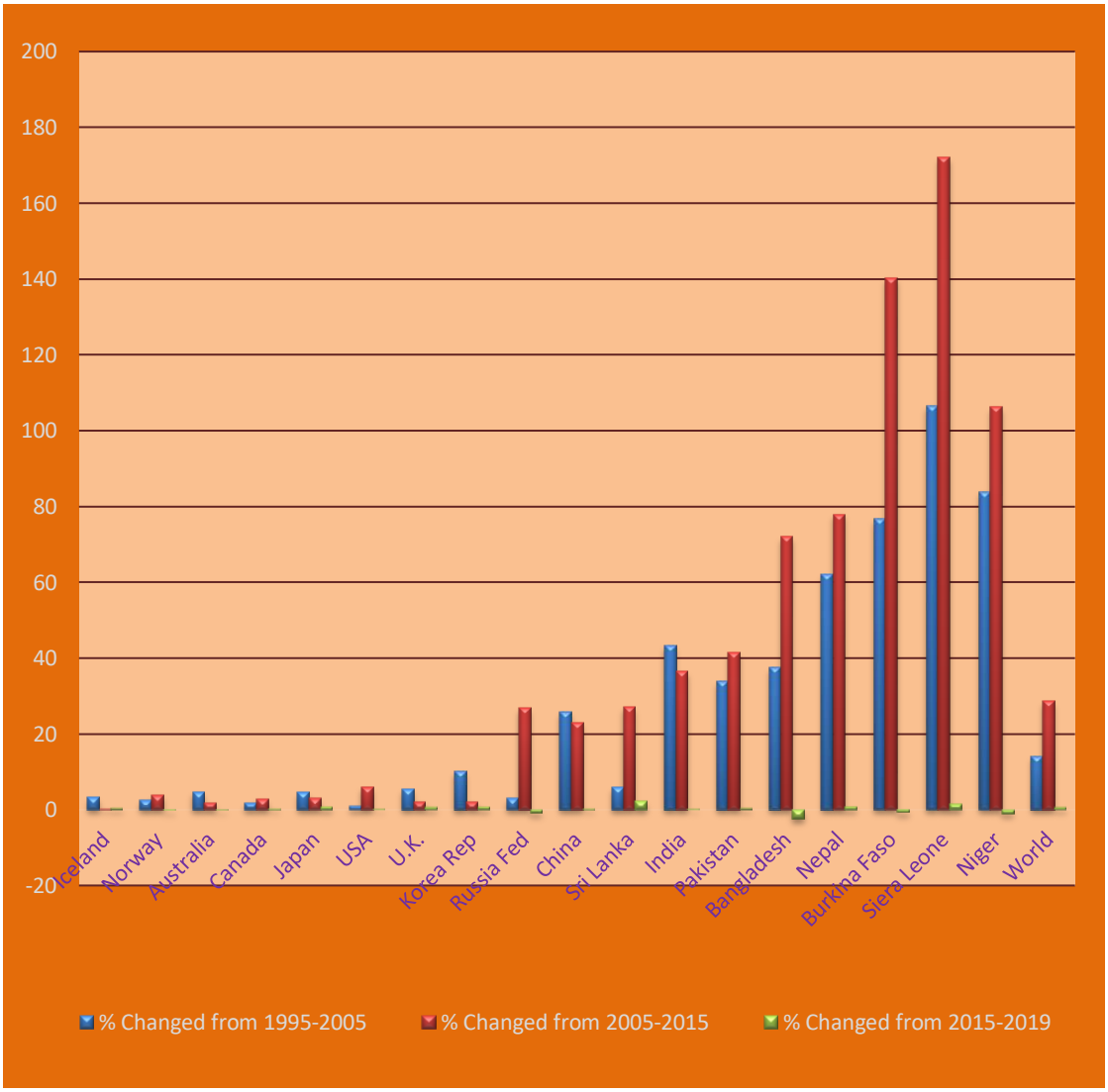
Fig 3.4 GDI for selected countries of the world: 1995-2019



Source: Compiled from UNDP Human Development Report 1995 to 2020

The percentage change of GDI from 1995-2005, 2005-2015 and 2015-2019 is shown in the Fig. 3.5. It has been observed that the percentage change for high human developed countries is comparatively much lower than the least developed and developing countries. However, more initiative is required by the least developed and developing countries for better distribution of opportunities between the males and females section of the society.

Fig 3.5 Percentage Changes of GDI for selected countries of the world (1995-2019)



Source: Compiled from UNDP Human Development Report 1995 to 2020

3.4 Disparity in Gender Inequality Index (GII) at Global Level

Gender inequality remains a major barrier to human development. Girls and women have made major strides since 1990, but they have not yet gained gender equity. The GII has been introduced in UNDP Human development Report as another experimental series. The GII is unique and it represents an important advance on existing global measures of gender equity. In this section we review GII at the global level and the position of India.

Table 3.6 GII for selected countries of the world: 2008-2019

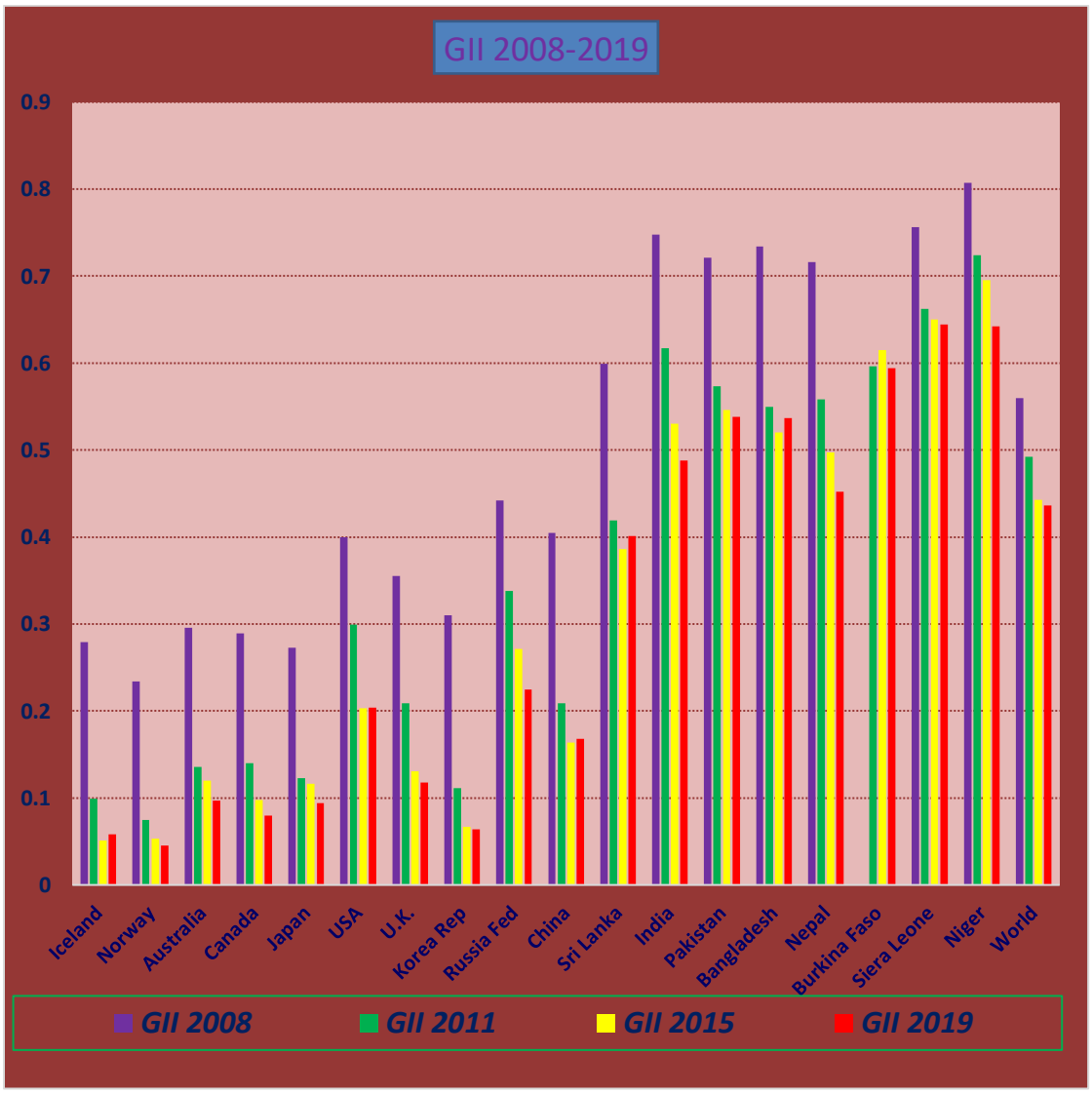
Countries	GII 2008	GII 2011	GII 2015	GII 2019
Iceland	0.279	0.099	0.051	0.058
Norway	0.234	0.075	0.053	0.045
Australia	0.296	0.136	0.120	0.097
Canada	0.289	0.140	0.098	0.080
Japan	0.273	0.123	0.116	0.094
USA	0.400	0.299	0.203	0.204
U.K.	0.355	0.209	0.131	0.118
Korea Rep	0.310	0.111	0.067	0.064
Russia Fed	0.442	0.338	0.271	0.225
China	0.405	0.209	0.164	0.168
Sri Lanka	0.599	0.419	0.386	0.401
India	**0.748**	**0.617**	**0.530**	**0.488**
Pakistan	0.721	0.573	0.546	0.538
Bangladesh	0.734	0.550	0.520	0.537
Nepal	0.716	0.558	0.497	0.452
Burkina Faso	NA	0.596	0.615	0.594
Sierra Leone	0.756	0.662	0.650	0.644
Niger	0.807	0.724	0.695	0.642
World	0.560	0.492	0.443	0.436

Source: Compiled from various Human Development Report (2010-2020)

Table 3.6 and Fig. 3.6 illustrate the gender inequality index for selected countries of the world, including India from 2008 to 2019.The data reveals that developing countries, including India and least developed countries have much greater

gender inequity. India's GII of 0.748 for the year 2008 is much higher than even world average of 0.560. However, the table shows that the gender inequity has been decreasing gradually for the countries; and the percentage decrease of GII in case of higher inequity countries are much higher than the low gender inequity countries. India's GII has decreased to 0.488 in 2019; however gender inequity of India is much higher than world average 0.436.

Fig. 3.6 GII trend for selected countries of the world (2008-2019)



Source: Compiled from UNDP Human Development Report 2010 to 2020

From Fig. 3.6, it can be seen that the GII has been decreasing gradually, basically for the least developed and developing countries, again indicating convergence trend like HDI and GDI between the high human development and low human development countries. Table 3.6 indicates that, GII vary largely across the different human development groups as shown by the estimated CV. Estimated CV shows that there has been an increasing trend in the variation of GII among the countries; CV being 47.94 percent in 2008 to 75.15 percent in 2019. Extend of GII which presence among the countries is to be addressed by incorporating the policy of differentiated approach.

3.5 Regional Disparities in Human Development: South Asian Scenario

It is worth mentioning that the disparities in human development not only present at the global level but it also exists among the South Asian Association for Regional Co-operation (SAARC) countries including India. In this section, an attempt has been made to discuss regional disparities in human development in SAARC countries. India, Pakistan, Srilanka, Maldives, Nepal and Bhutan are popularly called as SAARC nations. South Asia is one of the most unique regions in the world in the sense that there is a yawning gap among the SAARC Nations. With the great potentiality in all respects such as fertile lands, fresh water resources, diverse climate and a dynamic people, this region could have done much better in economic and social development fronts. In these regions with more than 1.5 billion people, in the global context, human deprivation in South Asia is colossal in scale. Nearly, 45 per cent of the world's poor live in South Asia, round 500 million people live in absolute poverty, surviving on less than one US $ per day; more than one and half adults are illiterate and over one quarter of the total population lacks access to safe drinking water or sanitation facilities. Further, 45 per cent of the world's illiterate female population lives in South Asia, and 50 percent of all malnourished children are in South Asia. Even among the developing countries, South Asia's share of human deprivation is almost twice as much as its share in the population **(MHDRC, 2001).**

Table 3.7 Human Development Index for SAARC countries: 1990 -2019

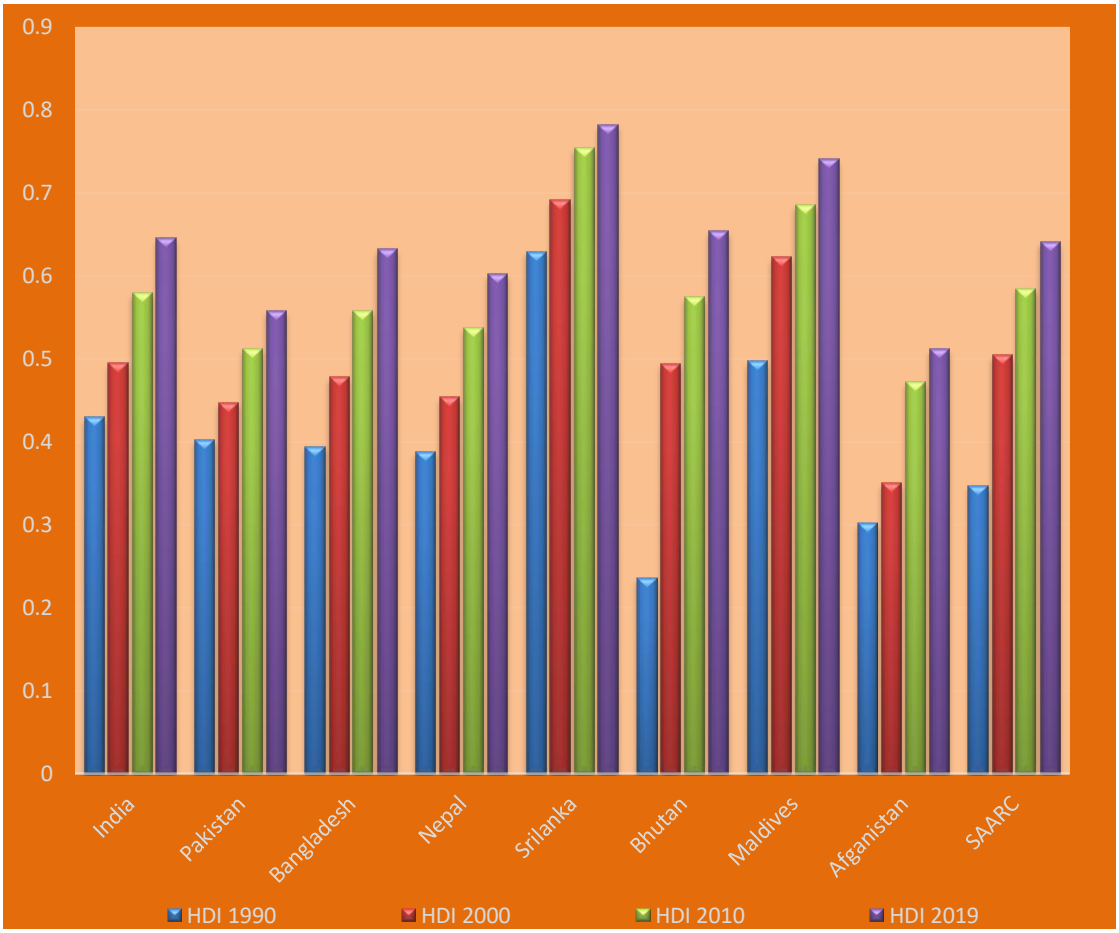
Name of the Countries	HDI				Average Annual HDI Growth (in %)			
	1990	2000	2010	2019	1990-2000	2000-2010	2010-2019	1990-2019
India	**0.429**	**0.495**	**0.579**	**0.645**	**1.44**	**1.58**	**1.21**	**1.42**
Pakistan	0.402	0.447	0.512	0.557	1.07	1.37	0.94	1.13
Bangladesh	0.394	0.478	0.557	0.632	1.95	1.54	1.41	1.64
Nepal	0.387	0.453	0.537	0.602	1.59	1.72	1.28	1.54
Sri Lanka	0.629	0.691	0.754	0.782	0.94	0.88	0.41	0.75
Bhutan	0.236	0.494	0.574	0.654	7.67	1.51	1.46	3.58
Maldives	0.497	0.622	0.685	0.740	2.27	0.97	0.86	1.38
Afghanistan	0.302	0.350	0.472	0.511	1.49	3.04	0.89	1.83
SAARC	**0.347**	**0.504**	**0.584**	**0.641**	**3.80**	**1.48**	**1.04**	**2.14**
CV (%)	**28.07**	**19.76**	**14.82**	**13.00**	--	--	--	--

Source: Compiled from UNDP Human Development Report 1990 to 2020

Table 3.7 and Fig. 3.7 illustrate that Human Development Index (HDI) of SAARC Nations; HDI increased from 0.347 in 1990 to 0.641 in 2019. Srilanka the highest achiever, improved her HDI from 0.629 to 0.691 from 1990 to 2000 and then to 0.754 and 0.782 in the year 2010 and 2019 respectively. HDI of India improved from 0.429 to 0.495 from 1990 to 2000 and then increased to 0.579 and 0.645 in 2010 and 2019 respectively; and on the other hand, Bhutan which had the lowest HDI of 0.236 in 1990, increased to 0.494 and 0.574 in 2000 and 2010; and then to 0.654 in 2019. However, when the annual average growth rate in HDI for SAARC is concerned, it is seen that it declined in the second and third period as shown in the Fig. 3.8; in the first phase 1990-2000, it was 3.86, where as in second phase 2000-2010, it was only 1.48 and then declined to 1.04 in the third phase 2010-2019. India had higher

average annual growth rate in HDI in comparison to neighboring country Pakistan; the growth rate in 1990-2000 was 1.44, and then increased to 1.58 during 2000-2010 and then decreased to 1.21 during 2010-2019.

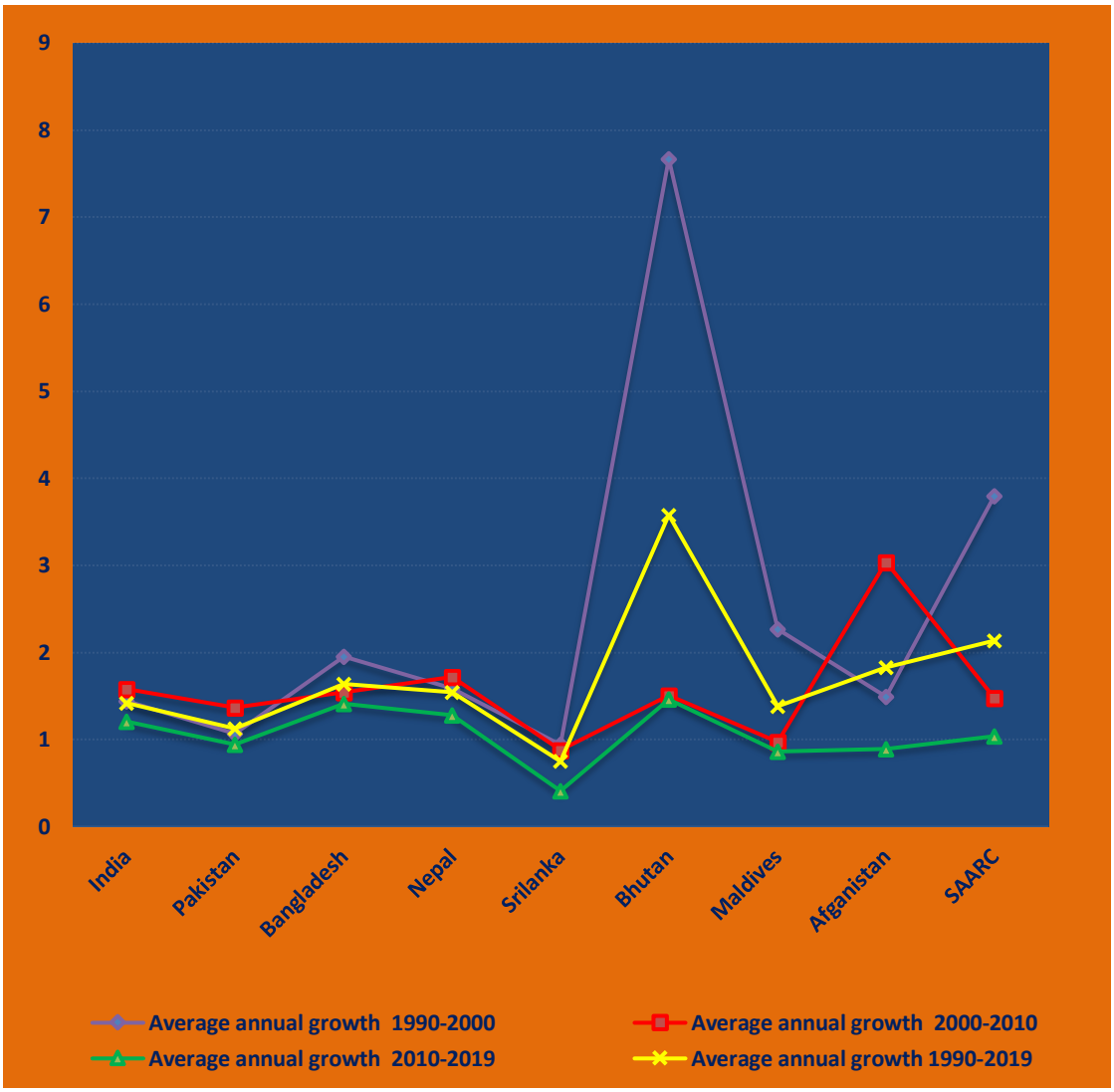
Fig. 3.7 Human Development Index for SAARC countries: 1990 to 2019



Source: Compiled from UNDP Human Development Report 1990 to 2020

Table 3.7 indicates that, HDI vary largely across the SAARC countries as shown by the estimated CV. Estimated CV shows that there has been a decreasing trend in the variation of HDI; CV being 28.07 percent in 1990 to 13.00 percent in 2019 indicating convergence trend of HDI among the SAARC countries. Policy execution with differentiated approach for respective countries is necessitated to reduce the gap further among SAARC countries.

Fig. 3.8 Average Annual HDI Growth for SAARC Countries: 1990 to 2019



Source: Compiled from UNDP Human Development Report 1990 to 2020

The annual average growth rate of HDI for SAARC countries from 1990-2019 is shown in the Fig. 3.8. Bhutan had the highest annual growth among the SAARC countries during 1990-2000; and also covering the whole period of analysis 1990-2019.The country had lowest HDI in 1990 among the SAARC countries.

3.6 Human Development Scenario in India: Interstate Disparities

The previous sections have discussed in detail, the global disparities in human development and disparities between South Asian countries. Now, in this Section, an attempt is made to discuss inter-state disparities in human development within the country and also to focus on the status and progress of human development in India. The basic concept of human development in India has come into force since the inception of first Five Year Plan. However, from the past three decades, human development began to receive utmost importance because of the fact that the benefits of economic growth did not necessarily accrue to all sections of the community. Apart from the basic necessities such as food, clothing and shelter, other human choices including long life, good health, adequate education and participatory decision-making remained unattainable for majority of the population. During sixties and seventies India remained in the group of 'weak link' countries characterized by slow progress of human development, constrained by low level of economic growth. The problem was different during eighties onwards as the county has been suffering from lopsided development with rapid economic growth and slow human development **(Naseem A, Zaidi & Abdul Salam, 2005)**. A proper strategy is required carving this lopsided development with an utmost care to have effective strategies for social sector development.

3.6.1 Progress of Human Development in India

Being a welfare country, planning in India is to give more priority for widening people's choices and improve the well-being of the people. In this context, human development is the key issue so that people could lead a long and healthy life; they could acquire knowledge so as to have better vertical mobility in life and to achieve a decent standard of living. The country like India where the people with various cast and creeds are living, human development is as important as economic development; they are like the two faces of the same coin. Since independence, India has made considerable progress on the economic horizon; and economically has diversified significantly, food production has grown sufficiently to provide adequate

levels of food security, infrastructure development has preceded a pace, a vast pool of trained manpower has been developed, domestic savings and capital formation have increased substantially, a vast net work of development institutions has been nurtured and great degree of technological development has taken place.

Table 3.8 Human Development Index of India from 1990-2019

Years	Human Development Index (HDI)	India's Rank	Number of Countries Covered
1990	0.297	121	173
1991	0.308	123	160
1992	0.382	134	173
1993	0. 436	134	173
1994	0.446	135	173
1995	0.451	134	173
1996	0.436	135	174
1997	0.545	138	175
1998	0.563	128	174
1999	0.571	115	162
2000	0.577	124	173
2001	0.590	127	175
2002	0.595	127	177
2003	0.602	127	177
2004	0.611	126	177
2005	0.619	128	177
2006	0.604	134	182
2007	0.612	134	182
2008	*NA*	*NA*	*NA*
2009	0.535	*NA*	*NA*
2010	0.519	119	169
2011	0.547	134	187
2012	0.554	136	186
2013	0.586	135	187
2014	0.609	130	188
2015	0.624	131	188
2016	0.640	129	189
2017	0.640	130	189
2018	0.647	129	189
2019	0.645	131	189

Source: Compiled from various Human Development Reports, UNDP, (1990-2020)

Though India has done well in human development indicators over the past six and half decades, necessary policy initiative is required to join the rank of 0.800 HDI value. Life expectancy was just 32 years in 1951 increased to 62.9 years in 2005, Infant Mortality Rate was 146 per thousand in 1951 and decreased to 56 in 2005, and then reduced to 40 in 2013.The Literacy Rate has gone up from 16.7 per cent in 1951 to 65.49 in 2001, and then further increased to 73.18 in 2011. As per the survey report of National Statistical Commission, IMR has decreased to 28.3 per thousand in 2019; Life Expectancy and Literacy Rate has increased to 69.73 years and 77.7 percent respectively in 2020.

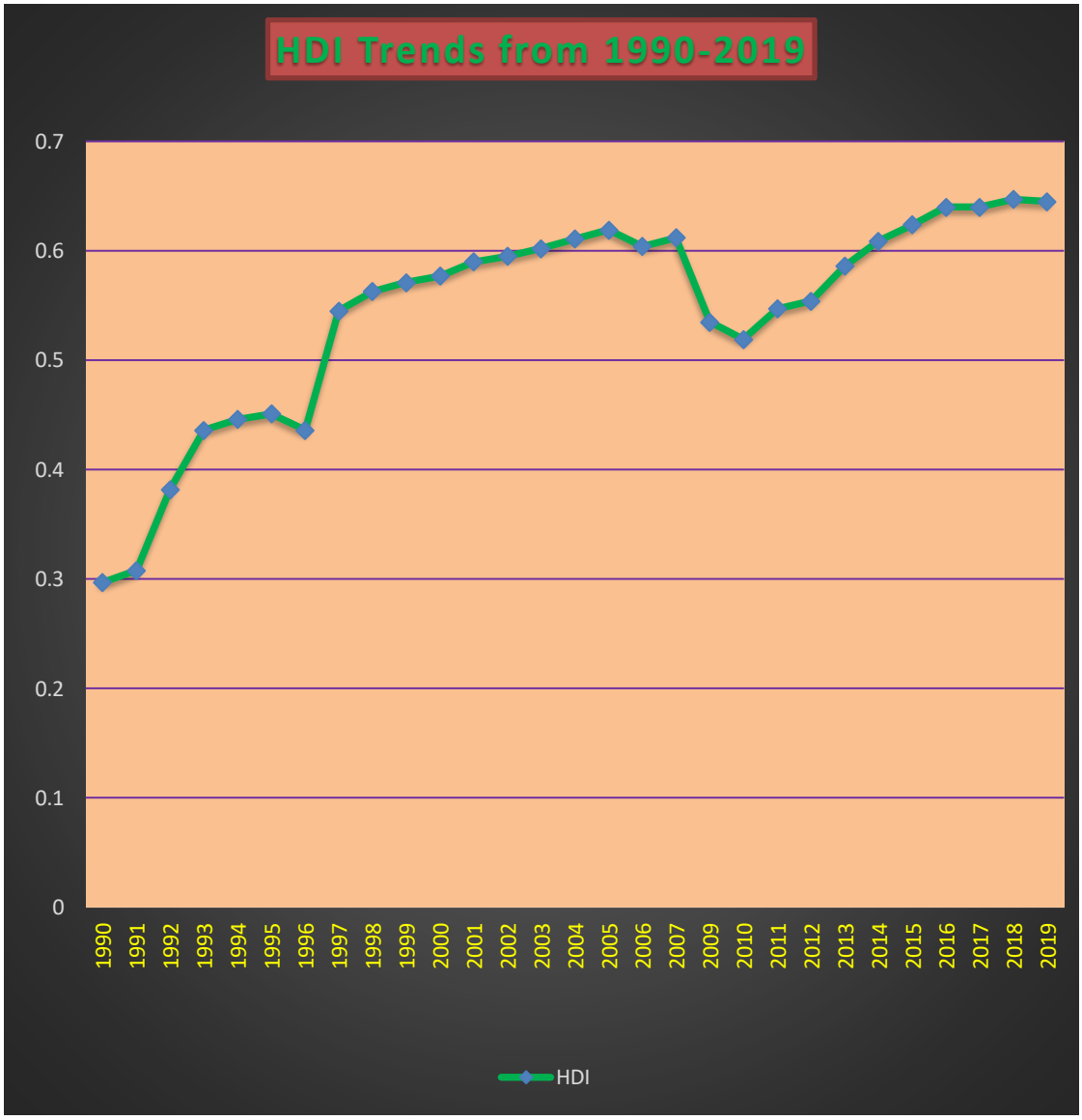
India has been categorized by the various global human development reports as a medium human development country. The human development index has increased gradually from 0.297 in 1990 to 0.577 in 2000; and then to 0.519 in 2010 and 0.645 in 2019. The Table reveals experiences of lower HDI for some years from 2010; however, this decrease in HDI value may be ascertained partly to changes in the method of HDI calculation. India will takes a long time to cross the mark of 0.800 in HDI to join the rank of high human development index countries **(UNDP, 2007).**

Table 3.8 and Fig. 3.9 depicts the progress of Human Development Index of India from 1990 to 2019 with its ranks at the global level and number of countries covered while preparing report for human development. The HDI value for India was 0.297 and its rank was 121 out of 173 countries in 1990. It means that 120 countries were above India and 53 countries were below them in the descending order of HDI obtained by the various countries. In 2000, HDI value has increased to 0.577 and its rank was 124 out of 177 countries. Further, the HDI value decreased to 0.519 and then increased to 0.645 in the year 2010 and 2019 respectively. However, in terms of HDI rank, India improved from 128th position in 2005 to 119th in 2010; and then deteriorated to 131st in the year 2019.

Fig.3.10 depicts classification of the states in India in terms of their level of human development index. In the case of India, classification was done by considering three separate HDI groups – high, medium and low human development states according to their levels of human development for 1981, 1991, 2001 and 2011. No

state was in the high human development position while except Kerala (medium human development index) rest of the 14 states were in the low human development

Fig. 3.9 HDI trends of India: 1990-2019



Source: Compiled from various Human Development Reports, UNDP, (1990-2020)

in 1981 and 1991. These states constitute a large proportion of India's geographical area and population, but situation was slightly different in 2001 - Punjab, Tamil Nadu, Maharashtra and Haryana also joined with Kerala in the medium human development group. Kerala, Maharashtra, Tamil Nadu, Gujarat and Punjab accounted for highest

HDI value. On the other hand, Madhya Pradesh, Orissa and Rajasthan have registered lowest achievement in the country. However, in 2011, the states of Kerala and Delhi, for the first time attained high human development; the states of Himachal Pradesh, Goa, Punjab, North East (other than Assam), Maharashtra, Tamil Nadu, Haryana, Jammu & Kashmir, Gujarat and Karnataka being placed in the medium human development states group. The states of West Bengal, Uttar Pradesh, Andhra Pradesh, Assam, Rajasthan, Uttarakand, Jharkand, Madhya Pradesh, Bihar, Orissa and Chhattisgarh remained poor in the aspect of human development and placed in the low human development category.

Table 3.9 Classification of Human Development in India: 1981 - 2011

Years	Level of Human Development Index			
	Very High	High	Medium	Low
1981	Nil		KER	PU, MAH, GUJ, HAR, KAR, TN, WB, AP, AS, OR, RAJ, UP, MP, BIH
1991	Nil		KER	PU, MAH, GUJ, HAR, KAR, TN, WB, AP, AS, OR, RAJ, UP, MP, BIH
2001	Nil		Ker, PU, TN, MAH & HAR	KAR, WB, RAJ, AP, OR,MP, UP, AS & BIH
2011		KER, DEL	HP, GOA, PU, NE, MAH, TN,HAR, J&K, GUJ, KAR	WB, UTT, AP, ASS, RAJ, UP, JHR, MP, BIH, OR, CHA

Source: Planning Commission (2002) National Human Development Report 2001, GOI

Note: Andhra Pradesh (AP), Assam (AS), Bihar (BIH), Gujarat (GUJ), Haryana (HAR), Karnataka (KAR), Madhya Pradesh (MP), Maharashtra (MAH), Orissa (OR), Rajasthan (RAJ), Tamil Nadu (TN)

While considering the relationship between income growth and human development in Indian states, classification was done into four groups – category one, two, three and four; Kerala, Tamil Nadu and Himachal Pradesh come under the First Category, which have achieved highest level of human development despite relatively modest level of income. The Second Category includes the states like Punjab, Haryana

where substantial increase in income has taken place but human development has been lesser in comparison to first category of the states. In the Third Category states such as Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh; neither economic nor human development has been realized. Whereas, Fourth Category comprises states like Maharashtra, Gujarat and Karnataka where the differences in their economic and human development are not too large and their achievements from the point of view of human development are also somewhat moderate (**Prabhu, 1996).** However, the third category states accounted for more than 45 percent of the country's population and their performance in the field of human development is far behind the national average. The first and fourth category of relationship is to be encouraged to attain human development in the society.

3.6.2 Inter-State Disparities in Human Development in India

India's human development trajectory is characterized by great diversity and deep disparities between states and regions. Much of the diversity and many of the disparities have historical roots, and the geographical condition has a strong influence. While cultural diversity should be cherished, wide disparities in human development are inconsistent with the egalitarian aspirations of the Indian Union. The various empirical studies have also shown inter-state disparities in human development which have followed more or less UNDP methodology to construct human development index based on three important indicators and try to identify inter-state and inter regional comparisons within the Indian States - Shivakumar, 1991, NPC Research Foundation 1992, Dutt et al 1997, Ram and Mohanti 1999, Sarma 1999, Deshpande et al 2002, Pradhan and Bhattacharya 2005 have observed inter-state disparities in human development in India. The Planning Commission, Government of India took the lead in the preparation of the NHDR 2001 for the first time in the country. At the state level there are wide disparities in the level of human development. In the early eighties, states like Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan and Orissa has HDI close to just half of the Kerala. The situation has drastically changed in recent time; while Kerala rapidly increased its HDI values, the above-mentioned states could

Table 3.10 Human Development Index (HDI) Across States in India: 1981-2011

States	1981		1991			2001			2011		
	HDI	Rank	HDI	Rank	% change from 1981-1991	HDI	Rank	% change from 1991-2001	HDI	Rank	% change from 2001-2011
Kerala	0.500	1	0.591	1	18.2	0.638	1	7.95	0.790	1	23.82
Punjab	0.411	2	0.475	2	15.57	0.537	2	13.05	0.605	5	12.66
Tamil Nadu	0.343	7	0.466	3	35.86	0.531	3	13.94	0.570	8	7.34
Maharashtra	0.363	3	0.452	4	24.50	0.523	4	15.70	0.572	7	9.36
Haryana	0.360	5	0.443	5	23.05	0.509	5	14.89	0.552	9	8.44
Gujarat	0.361	4	0.431	6	19.39	0.479	6	11.13	0.527	11	10.02
Karnataka	0.346	6	0.412	7	19.07	0.478	7	16.01	0.519	12	8.57
Assam	0.272	10	0.348	10	27.94	0.336	17	-3.44	0.444	16	32.14
West Bengal	0.305	8	0.404	8	32.45	0.472	8	16.83	0.492	13	4.23
Rajasthan	0.256	11	0.347	11	35.54	0.424	9	22.19	0.434	17	2.35
Andhra Pradesh	0.298	9	0.377	9	26.51	0.416	10	10.34	0.473	15	13.70
Orissa	0.267	10	0.345	10	29.21	0.404	11	17.10	0.362	22	-10.39
Madhya Pradesh	0.245	13	0.328	13	33.87	0.394	12	20.12	0.375	20	-4.82
Uttar Pradesh	0.255	12	0.314	12	23.13	0.388	13	23.56	0.380	18	-2.06
Bihar	0.237	14	0.308	14	29.05	0.367	14	19.15	0.367	21	0.00
All India	0.302	-	0.381	-	26.15	0.472	-	23.88	0.467		-1.05
CV (%)	**22.57**	**-**	**19.02**	**-**	**-**	**16.3**	**-**	**-**	**10.28**	**-**	**-**

Source: Compiled and estimated from National Human Development Report 2001, 2011
Note: Rural and Urban Combine

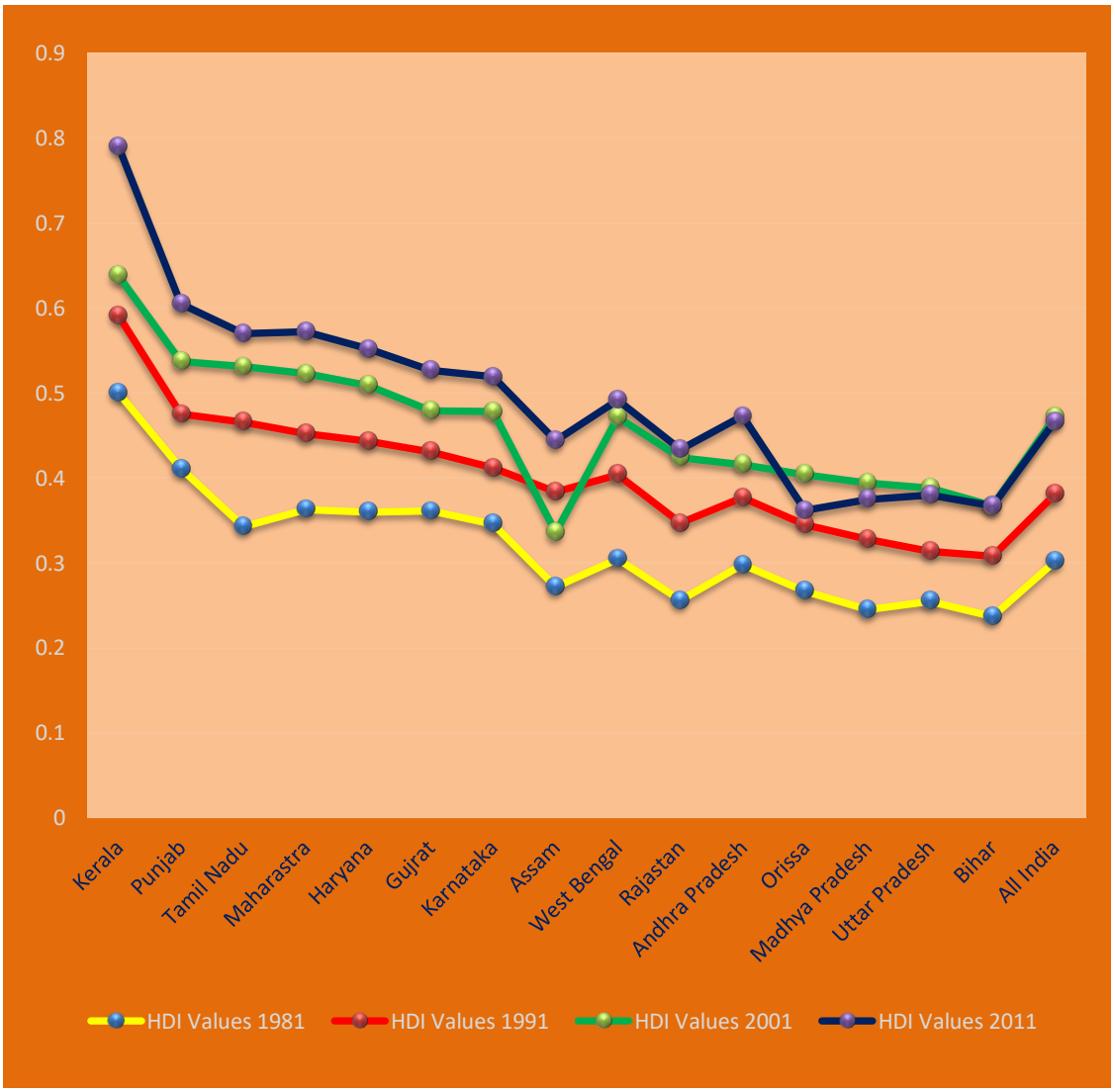
not maintain the pace and have trailed behind considerably. Punjab, Tamil Nadu, Maharashtra and Haryana have also done well on the HDI in 2001. Thus some of the Indian states are in a virtuous cycle of achievement, with growth of resource supporting improvement in human development, which, in turn, reinforced economic growth. Conversely, a majority of the Indian states, especially those having larger

populations, appear to be in a vicious cycle, with failures in both human development and economic growth.

Table 3.10 and Fig. 3.10 depicts human development index trend across the states of India from 1981-2011.There has been a wide inter-state variation in the performance of HDI. The estimated value of HDI varies from 0.237 to 0.500 in 1981; 0.308 to 0.591 in 1991; 0.367 to 0.638 in 2001; and 0.467 to 0.790 in 2011. The data indicates that the better off states – Kerala, Punjab, Tamil Nadu, Maharashtra and Haryana had a HDI above 0.500 and the worst-off states like Bihar, Assam, Uttar Pradesh and Madhya Pradesh had a HDI less than 0.400 in 2001. Although, seven states – Bihar, Haryana, Kerala, Orissa, Punjab, Uttar Pradesh and West Bengal could manage to maintain their relative position. The three states Andhra Pradesh, Assam, Gujarat, Karnataka and Maharashtra experienced deterioration in 2001 relative to 1981. However, the NHDR, 2011 shows a remarkable change. In terms of human development, Kerala, Delhi, Himachal Pradesh and Goa could represent first, second, third and forth position respectively. On the other hand, the states such as Chatisgarh, Orissa, Bihar and Madhya Pradesh had the position from bottom respectively.

Table 3.10 indicates that, HDI vary largely across the states of India shown by the estimated CV. However, CV shows that there has been a decreasing trend in the variation of HDI; CV decreased from 22.57 percent in 1981 to 19.02 percent in 1991, and then to 16.3 percent in 2001; and further decreased to 10.28 percent in 2011 indicating convergence trend of HDI among the states of India. Existing inter-state disparities in terms of human development and capabilities is a serious concern for the country. Policy execution with differentiated approach for respective state is necessitated to reduce the gap further so that the people in the country could be developed with same level of human development and economic status. This aspect represents one of the major challenges in front of the Government policy and initiative.

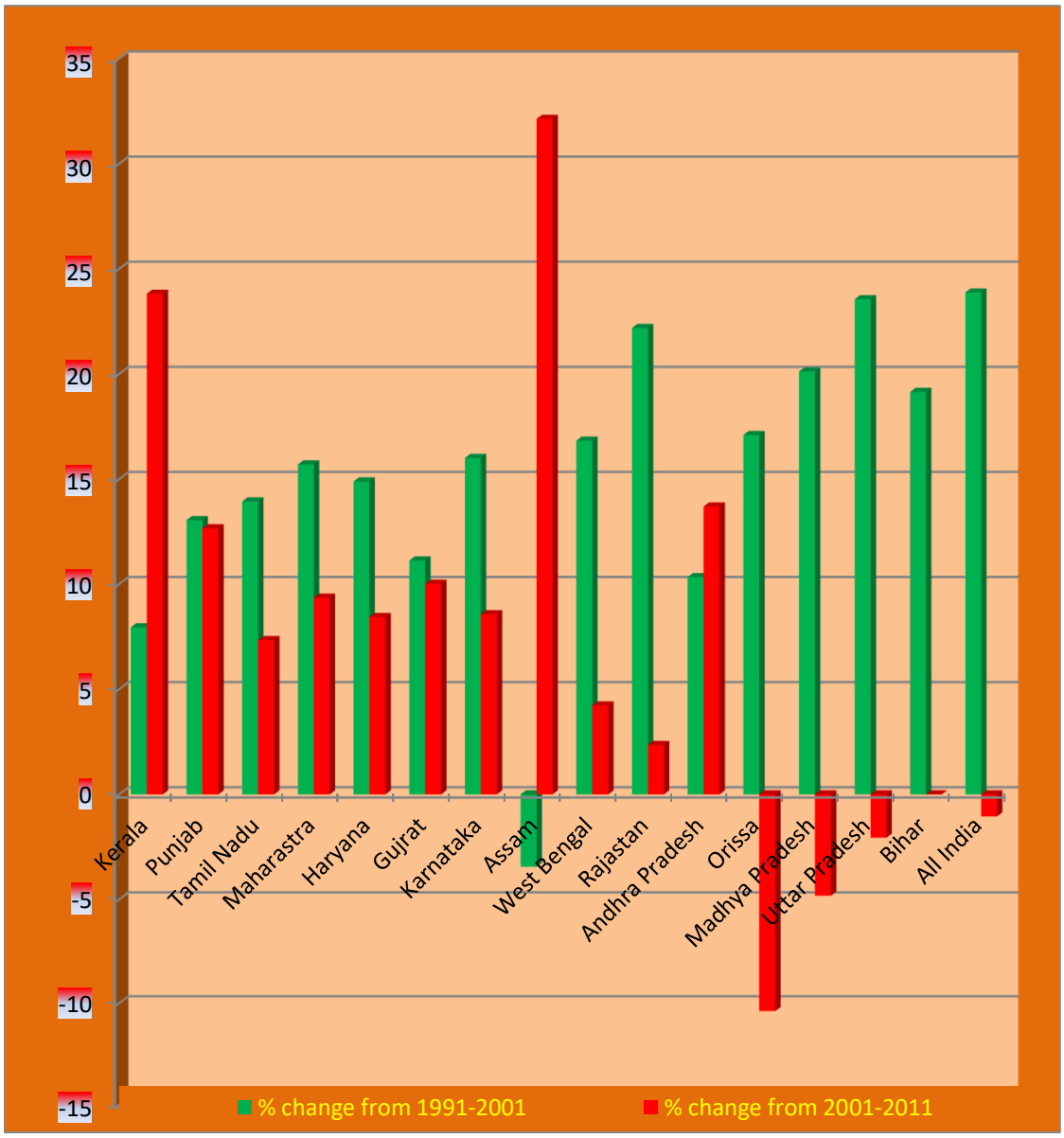
Fig. 3.10 Human Development Index (HDI) trends across States in India: 1981-2011



Source: Compiled from National Human Development Report 2001, 2011

While considering percentage changes from 1991-2001 and 2001- 2011 as depicted in Fig. 3.11, Orissa, Madhya Pradesh and Uttar Pradesh experienced negative percentage changes. The country also experienced negative percentage changes by (-.05) during 2001-2011. However, this negative percentage for the states may be attributed to the introduction of new components or indicators while measuring HDI values since 2010.

Fig.3.11 Human Development Index (HDI) Trends across States in India: 1981-2011



Source: Compiled and estimated from National Human Development Report 2001, 2011

3.7 Conclusion

In the previous sections of the present chapter, present scenario of human development disparity aspects has been analyzed at the global, OECD, SAARC context. The analysis reveals large disparity in terms of various indicators of human development. Human development indicators of the very high human development group countries are much higher than low human development groups; it clearly

reveals great disparities among countries in respect of human development indices. Norway occupied top position with 0.957 HDI value while Niger placed at the bottom with 0.394 HDI value. The UNDP human development report reveals that the position of India at the global level has been very low. The UNDP Human Development Report, 2020 ranked India at 131st place out of 189 countries with HDI value of 0.645; and India's human development position is lower than that of many of newly industrialized countries of South East Asia like Indonesia and Malaysia and also that of South Asian countries like China, Srilanka and Maldives. So long percentage change is concerned for HDI and GDI, they were higher in low human development countries such as Niger, Sierra Leone, Burkina Faso and Nepal and medium HDI countries namely, Bangladesh, Pakistan and India compared to high HDI countries. It reveals that progress of GDI shows a convergence trend rather than divergence between high and low human development countries. The analysis reveals that developing countries including India and least developed countries have much greater gender inequity. India's GII of 0.748 for the year 2008 is much higher than even world average of 0.560. However, the gender inequity has been decreasing gradually for the countries; and the percentage decrease of GII in case of higher inequity countries are much higher than the low gender inequity countries. An attempt is also made to discuss inter-state disparities in human development within the country India and also to focus on the status and progress of human development in India. There has been a wide inter-state variation in the performance of HDI. The estimated value of HDI varies from 0.237 to 0.500 in 1981; 0.308 to 0.591 in 1991; 0.367 to 0.638 in 2001; and 0.467 to 0.790 in 2011.Though there has been gradual improvement of HDI in the country, from the data it can be said that India will take a long time to join high human development group (0.800) and above.

CHAPTER - 4
HUMAN DEVELOPMENT SCENARIO IN ASSAM
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CHAPTER - 4

HUMAN DEVELOPMENT SCENARIO IN ASSAM (A PERSPECTIVE ANALYSIS)

4.1 Introduction

In India, despite of the significant achievement in terms of economic development, basically since the economic liberalization policy adopted in 2001 by the then Narasimha Rao government, the benefit of economic development could not benefited equally to all sections of the society; and the proportion of the people living below the poverty line did not decline much. The country experienced wide spread poverty, low level of educational attainment, vast income gap, unequal opportunities between men and women, suppression of economic, social, cultural and political rights representing "Unhealthy Growth". Even the case is more relevant in case of the state of Assam, in general, and the tribal inhabited district of Kokrajhar in particular.

Many research studies undertaken by the academicians and scholars revealed that the state of Assam is lagging behind in terms of Human Development aspect. As per the National Human Development Report (NHDR 2001), HDI value of the state was 0.336; and placed in 17th rank in the country. However, the HDI value of the state increased to 0.444; and state rank improved to 16th as per National Human Development Report (NHDR, 2011). The state of Assam, in terms of human development achievements always remained below desired level. Human Development Index (HDI) of Assam (0.557) as estimated by Assam HDR, 2014 represents just about half of the desired goal. However, the state has experienced a steady and continuous improvement in overall human development over the last 20 years. The report reveals that the achievements in educational dimension being about two-thirds of the desired goal; and both health and income dimensions represents just half mark of the desired goal (HDR Assam, 2014). The report also indicates wide variations in terms of both overall and dimensional achievements. Driving factor of

human development achievements also found to be greatly differing across the districts in the state of Assam. Present status of human development in the state necessitates utmost attention of the policy makers and the government for the correction of present unhealthy condition in the area of human development and deprivations in the state.

In this chapter, an attempt has been made to analyze the present scenario of human development aspect in the state of Assam, by considering secondary data from various sources. An attempt has also been made to analyze inter- district disparities in the state in terms of HDI, GDI and GII.

4.2 A Short Profile of Assam

In this section, a short profile of the state of Assam in terms of geographic, demographic, economic, education has been made.

4.2.1 Geographic and Demographic Overview

Assam represents one of the 8 states of North East Region; and among the 35 states and union territories of India. As per 2011 census data the total geographical area of Assam is 78,438 (km^2); and total population being 3.12 crore, highest among the North East states. Primarily, the state of Assam is a rural state with the area coverage of more than 98 percent of its geographical are. 86 percent of the total population of the state lives in the rural area. As per census data 2011, total geographical area of the state accounts about 2.4 percent of the country; and total population being 2.6 percent of India. Assam is situated in the north eastern part of India bordering two neighboring countries- Bhutan and Bangladesh. At present, there are 33 districts and 145 revenue circles in the state. Table 4.1 illustrates key demographic statistics of the state of Assam.

As per Census 2011, population of Assam has increased from 2.67 crore in 2001 to 3.12 crore in 2011. Out of total population of the state, male and female populations accounted for 15,939,443 and 15,266,133 respectively in 2011; and the male and female population being 13,777,037 and 12,878,491respectively in 2001. The state of Assam has a population pressure on its land, and it has higher density of

population (397) than the all-India average of (382).

Literacy rate of the state of Assam has been much lower in comparison to all-India average. As per 2011 census data, it was 73.18 percent against the all-India average of 74.04. Assam had a male and female literacy rate of 78.81 percent and 67.27 percent respectively indicating a vast gap between males and females. On the other hand, India's average literacy rate for males and females stood at 82.14 and 65.46 respectively. Census data 2011 shows that the life expectancy at birth for the state of Assam was only 65 years whereas for all India it was 69.

Table 4.1 Geographic and Demographic Overview of Assam

Sl. No.	Indicators	Year	Unit	Assam	India
1	Geographical Area	2011	Lakh Sq. Km	0.78	32.87
2	Population	2011	In crore	3.12	121.02
3	Decadal Growth Rate	2011	Percentage	16.93	17.64
4	Density of Population	2011	Population/sq. km	397	382
5	Urban to Total Population	2011	Percentage	14.00	31.16
6	Sex Ratio	2011	Female/1000 males	954	940
7	Literacy Rate	2011	Percentage	73.18	74.04
8	Birth Rate	2011	Per Thousand mid-years Pop.	22.4	18.2
9	Death Rate	2011	Per Thousand mid–year pop.	7.2	7.3
10	Life expectancy at birth	2011	Average year	65	69
11	Infant Mortality Rate	2011	Per Thousand of Child	55	44

Source: Compiled from Census 2011, India

4.2.2 Economic Overview of Assam

Assam is the largest economy of the North East India witnessing economic growth rate close to 8 percent over the last few years. Agriculture and allied activities contributes more than 30 percent of the Net State Domestic Product (NSDP). Table 4.2 gives the key economic indicators of the state's economy. Assam is one of the economically backward states in India and has recorded low NSDP and per capita NSDP growth rates in the last decade that was below the corresponding growth rates

for the country in average. The per capita income of Assam, 2011, which determines the standard of living of the people, was Rs.37, 250.00; and it was Rs.60, 972.00 for the country in average. There has been a wide spread and chronicle poverty in the state of Assam since independence. As per 2010 data, estimated by the Planning commission of India, the people living below the poverty line was 36 percent and 33 percent respectively for the state of Assam and India in average. There is a huge rural–urban divide; the incidence of poverty is much higher in rural areas, about one out of five people lives below the poverty line, and the incidence is one out of thirty in urban areas.

As per 2011 census data, fertility rate of Assam is close to all-India average at 2.6. Census data 2011 shows that Assam has a better sex-ratio of 954 females per 1,000 males, which is higher than all-India average 940 females per 1,000 males. It is worthwhile to note that child sex-ratio 957 in the state of Assam is higher than the overall sex-ratio of 914 for all-India average.

Table 4.2: Economic Overview of Assam

Indicators/ Unit	**2009-2010**	**2010-2011 (P)**	**2011-2012 (Q)**
GSDP in Rs. Crore (At Constant Prices)	69793.89	75297.77	80171.91
GSDP in Rs. Crore (At Current Prices)	95974.57	112466.26	126543.65
Economic Growth Rate as per GSDP (at Current Prices)	14.39	12.16	10.95
Economic Growth Rate as per GSDP in Percent (At Constant Prices)	7.98	7.24	8.42
Per Capita Income in Rs. (At Current Prices)	27464	30589	33633
Per Capita Income in Rs. (At Constant Prices)	20193	21406	22958
Poverty Ratio (in percent)	----	-----	31.98

Source: Compiled from Census, 2011 India

From the above analyzed geographic and economic overview, it is worth mentioning that the state of Assam is lagging behind of many states of the country in terms of human development indicators. The state is being confronted with wide spread chronicle poverty, lower standard of living, high mortality rate, lower life

expectancy at birth, ill health condition, low rate of literacy and enrollment at different levels of education etc. which has contributed to low levels of human development in the state.

4.3 Position of Assam among NER States

There are scores of economic and social indicators which have been used to measure different aspects of socio-economic progress of the people in the society. HDI is a composite index, and as defined by UNDP, it measures the average achievement in three basic dimensions of human development. These dimensions are– a long and healthy life, knowledge and decent standard of living. It has been observed that the state of Assam is lagging behind the other states of North Eastern Region (NER) in terms of human development aspect. Table 4.3 indicates that the state is least performer in case of all three basic dimensions; health dimension, education dimension and income dimension. The HDI scores of each of the states for 2004-05 have clearly divided the eight North Eastern States into two distinct groups (four States in each group). The states which scores more than 0.5 are Mizoram, Nagaland, Manipur and Sikkim; and the states which scores less than 0.5 are Arunachal Pradesh, Assam, Meghalaya and Tripura (NER HDR, 2011).

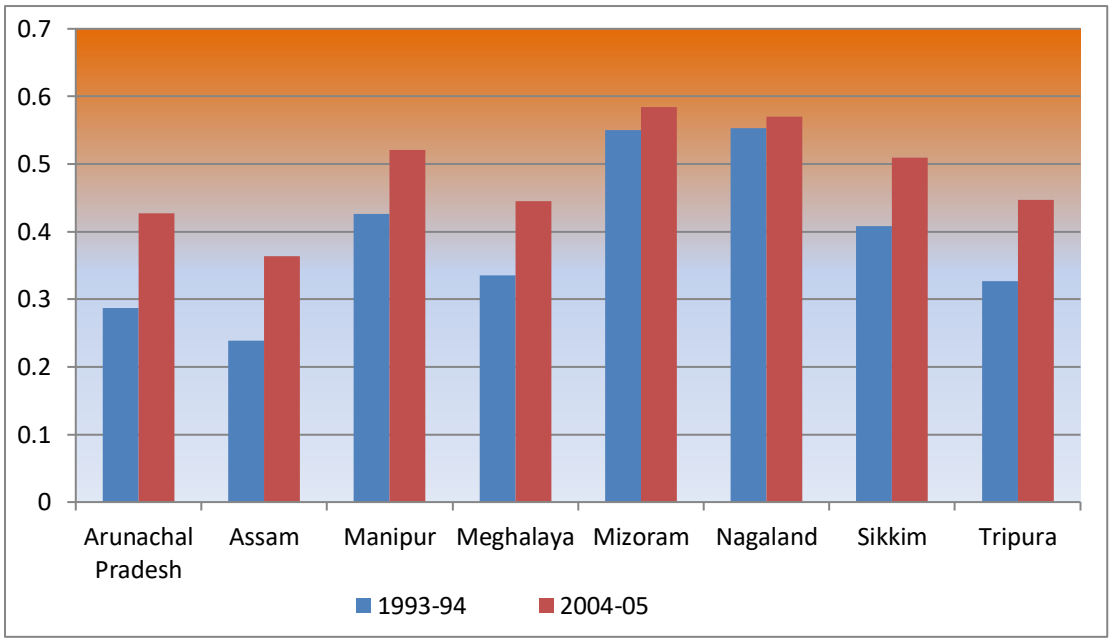
Table 4.3 and Fig. 4.1 indicate that the state of Assam retained lowest rank in HDI, both in 1993-1994 and 2004-2005. Data reveals that other states of NER performing better in the various aspect of human development. Assam had the lowest HDI value of 0.364; Mizoram and Nagaland with 0.584 and 0.570 HDI values respectively. The gap between the HDI score of Assam (0.364) and highest HDI attained by Nagaland (0.584) is too large; a gap of (0.220). Concerted effort of Government policy with differentiated approach is required to reduce this gap among the states of NER. As per HDR of NER 2011, chronologically, Mizoram, Nagaland, Manipur, Sikkim, Meghalaya, Tripura, Arunachal Pradesh and Assam stood at the position first, second, third, fourth, fifth, sixth, seventh and eight position respectively.

Table 4.3 HDI Scores and Rank of Assam among NER States

States	1993-94		2004-05		% Changed from 1993-94 to 2004-05
	Value	Rank	Value	Rank	
Arunachal Pradesh	0.287	7	0.427	7	48.78
Assam	**0.239**	**8**	**0.364**	**8**	**52.30**
Manipur	0.426	3	0.521	3	22.30
Meghalaya	0.335	5	0.455	5	35.82
Mizoram	0.550	2	0.584	1	6.18
Nagaland	0.553	1	0.570	2	3.07
Sikkim	0.408	4	0.509	4	24.75
Tripura	0.327	6	0.447	6	36.69

Source: Compiled from NER Human Development Report, 2011

Fig 4.1 HDI for NER States in 1993-94 and 2004-05

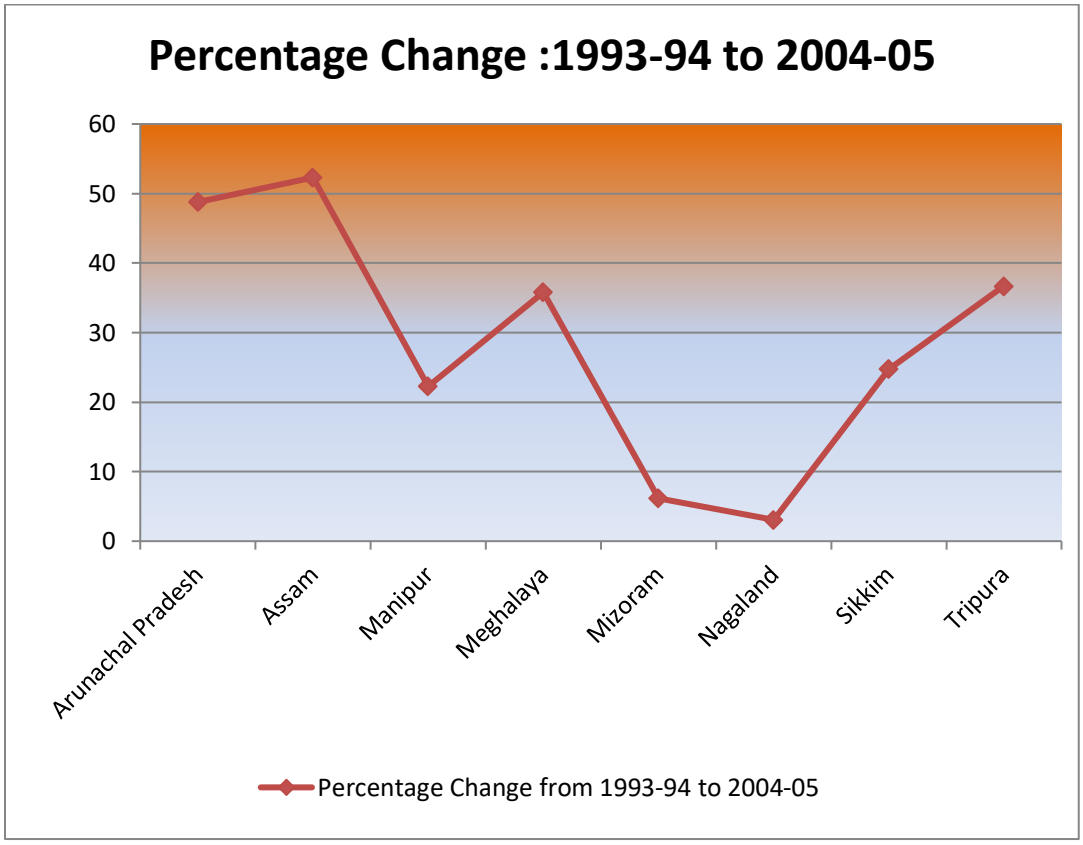


Source: Compiled from NER Human Development Report, 2011

Fig. 4.2 represents the percentage changes in HDI for NER states from 1993-1994 to 2004-2005. The data indicate that the Assam experienced highest percentage changes with 52.30 percent followed by Arunachal Pradesh with 48.78 percent. From

Fig. 4.2 it is also seen that the percentage changes of better off states are well below than the poorer performer Assam and Arunachal Pradesh indicating the fact that poor performing states can have better improvement, if proper policy is adopted.

Fig. 4.2 Percentage Change in HDI from 1993-94 to 2004-05



Source: Compiled and estimated from NER Human Development Report, 2011

It has been observed that during the period 2004-2005, except Assam and Arunachal Pradesh, the North Eastern States were perceived to be doing fairly well in human development as compared to states in other regions of the country (HDRNER-2011). In the context of NER, to raise human capability, widening the scope of economic opportunity within the region remains the major challenge to developmental policy-making. Basically, three aspects are important while achieving encouraging human development and making the economic growth inclusive one.

These three factors are represented by (a) broad based gainful employment, (b) quality and universal education, and (c) quality and sound healthcare facilities. In the context of NER, policy initiative is required for maintaining peace and stability which complement and support good governance in the region. Development effort necessitates restoration of peace and confidence among the people by reducing the level of violence in the region, and by promoting an environment in which development can take place.

4.4 Scenario of Human Development in Assam

In recent times, there has been a growing perception that has turned into a global objective as well as shared vision of real development which was initially conceptualized and articulated by the UNDP's first Human Development Report, 1990. The report stressed on the people of a country as its real wealth and creating an enabling environment for them in which human choices are expanded ; and in which environment people can enjoy a long, creative and healthy life in the society. Human Development Index is used as a way measuring actual progress of the society in three basic dimensions – health, education and income dimensions. The table 4.4 shows the HDI values and rankings of the districts in three basic dimensions of human development in the districts as published by Assam HDR, 2003 and 2014. The position of tribal inhabited district of Kokrajhar among the 23 districts stood at 14th place with HDI value of 0.354. Jorhat retained 1st position with HDI value of 0.650 followed by Kamrup and Golaghat with HDI values 0574 and 0540 respectively. The report revealed that the district of Dhubri experienced lowest HDI value of 0.214; followed by Darrang and Bongaigaon with HDI value 0.259 and 0.263 respectively. The report also indicates that the upper Assam districts are in a better position in comparison to lower Assam districts; only the Barpeta district could maintain 9th position with HDI value 0.369. It is serious concern that the state of Assam could not attain the level of even medium human development till 2003. The district Jorhat retains 1st rank in terms of both dimensions of health (0.720) and education (0.664). The district Kamrup occupied 1st rank in terms of income index (0.573). The district

Table 4.4 HDI Ranking of the Districts in Assam: 2003 and 2014

District	HDI 2003		HDI 2014		% improvement from 2003 to 2014
	Value	Rank	Value	Rank	
Baksa	NA	NA	0.437	26	NA
Barpeta	0.396	9	0.624	6	57.6
Bongaigaon	0.263	21	0.564	14	114.5
Cachar	0.402	8	0.463	24	15.17
Chirang	NA	NA	0.614	7	NA
Darrang	0.259	22	0.519	19	100.39
Dhemaji	0.277	20	0.507	21	83.03
Dhubri	0.214	23	0.482	23	125.23
Dibrugarh	0.483	6	0.560	15	15.94
Dima Hasao	0.363	11	0.638	3	75.76
Goalpara	0.308	18	0.591	10	91.88
Golaghat	0.540	3	0.543	16	0.60
Hailakandi	0.363	11	0.437	27	20.38
Jorhat	0.650	1	0.655	2	0.76
Kamrup	0.574	2	0.630	4	9.75
Kamrup (M)	NA	NA	0.703	1	NA
Karbi Anglong	0.494	4	0.612	8	23.89
Karimganj	0.301	19	0.456	25	51.50
Kokrajhar	**0.354**	**15**	**0.519**	**20**	**46.61**
Lakhimpur	0.337	17	0.583	11	72.99
Morigaon	0.494	4	0.576	13	16.60
Nagaon	0.356	14	0.592	9	66.30
Nalbari	0.343	16	0.576	12	67.93
N.C. Hills	0.363	11	NA	NA	NA
Sibsagar	0.469	7	0.629	5	34.11
Sonitpur	0.357	13	0.526	17	47.33
Tinsukia	0.377	10	0.505	22	33.95
Udalguri	NA	NA	0.523	18	NA
Assam	**0.407**		**0.557**		**50.97**
SD	**0.11**		**0.07**		
CV	**27.5**		**12.5**		

Source: Compiled and estimated from Assam HDR, 2003 and 2014
Note: NA indicate not available

Dhubri, retained lowest position in terms of both health and education index with (0.454) and (0.086) respectively. In terms of income index Dhemaji represented as

least performer with (0.026).The tribal inhabited district of Kokrajhar retained 21st, 8th and 15th position in terms of health, education and income index. It is worthwhile to be noted that the performance of the districts in Assam in terms of various dimensions of human development was very poor and insignificant. District wise variation in terms of human development indicators is also too high. The Assam HDR 2003 estimates the value of HDI for the state as a whole at 0.407 which indicates that given the desired normative goal, the present level of progress in overall human development in the state is even bellow the halfway mark (Assam HDR, 2003).

The National Human Development Report of India indicated that the performance of the state of Assam in terms of human development aspect was very poor in comparison to other states of the country (NHDR 2001). The report considered 15 states for its study; and out of 15 states, Assam ranked 14th with HDI value of 0.386; which is much below the national average of 0.472. Even the state rank gown down from 10th in 1991 to 14th in 2001; and the position of Assam was just after Bihar from the bottom. As published by NHDR 2011, HDI value of the state increased to (0.444) in 2007-2008 which is lower than the all-India average of (0.467); and the state raking even gone down to 16th in 2007-2008.

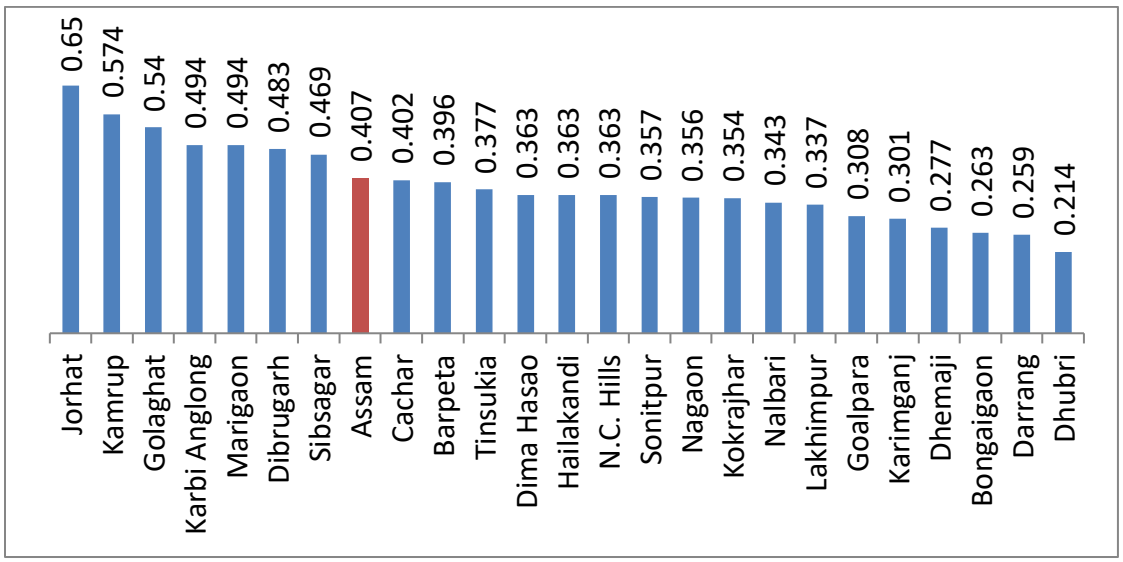
High rate of growth op population and diversity which exist in the state is very difficult to manage. Large scale unemployment, low public expenditure on social sectors along with inadequate facilities of health and nutrition in rural areas, low level of literacy and skills, lack of basic amenities like housing facilities, safe drinking water facilities are main reasons for low level of human development aspect in the country. Inequality in social, economic and gender aspect has also been contributing to low HDI in the country. Chronic poverty, low life expectancy of the people in rural areas has contributed to low HDI in the state of Assam. Lack of peace and stability is another aspect of uncongenial environment for economic growth in the state.

Fig. 4.3 shows human development index in the districts of the state as revealed by AHDR, 2003. Fig.4.3 reveals that the state average HDI is given by (0.407). Out of 23 districts, 9 districts attained higher than average; and fifteen (15) districts attained lower than state average HDI of (0.407). HDI (0.650) attained by

Jorhat is much higher than the lowest HDI (0.214) attained by the district Dhubri; showing a gap of (0.436). HDI largely vary across the districts in the state; the co-efficient of variation being 27.5 percent as depicted by table 4.4. It is noteworthy that the tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 16th position.

Table 4.5 shows the achievement of the districts in the three basic dimensions of human development as revealed by the AHDR, 2014. The average HDI of the state of Assam is estimated at 0.407 as published by Assam HDR 2014. This indicates that the level of overall progress in human development in Assam was just a little beyond the halfway mark.

Fig.4.3 HDI in the Districts of Assam, 2003



Source: Compiled from Assam HDR, 2003

It has been observed that the tribal inhabited district Kokrajhar could not achieve encouraging position in terms of human development aspect. The district had HDI value of 0.519 which is comparatively far below the HDI value of better off districts Kamrup Metro and Jorhat which managed to maintain first and second position in the state with 0.703 and 0.655 respectively. The HDI value of the Kokrajhar District was even far below the average HDI value for the state 0.557. It is a serious concern that the lowest HDI value (0.437) which attained jointly by the

District Baksa and Hailakandi is even bellow half way of desired goal. District wise variations are too large; the gap between the highest HDI attained by the district Kamrup Metro (0.703) and lowest HDI attained jointly by the districts Baksa and Hailakandi (0.437) in the state is represented by (0.436).

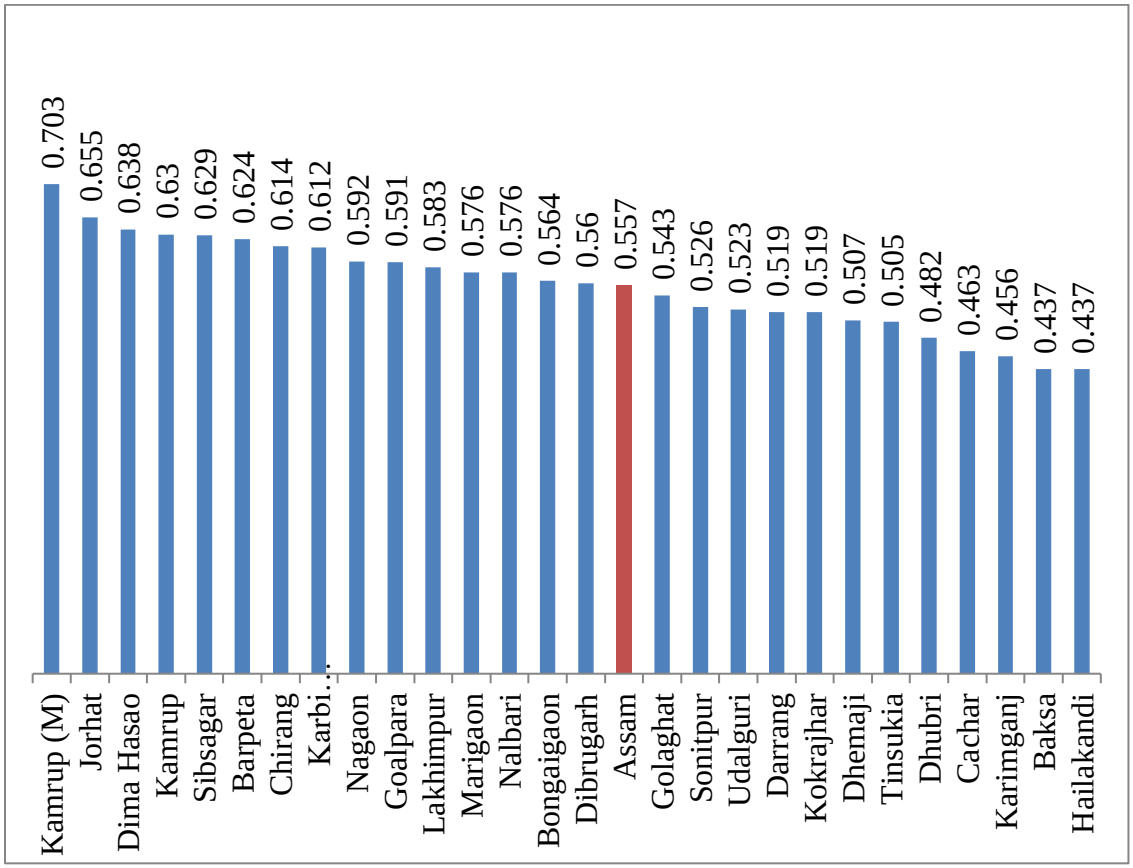
Table 4.5 Dimensional Index and HDI in the Districts of Assam, 2014

District	Dimensional Index						HDI	
	Health		Education		Living Standard			
	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Baksa	0.340	26	0.606	23	0.404	21	0.437	26
Barpeta	0.768	2	0.684	9	0.462	16	0.624	6
Bongaigaon	0.530	16	0.667	13	0.507	8	0.564	14
Cachar	0.319	27	0.647	16	0.479	13	0.463	24
Chirang	0.746	4	0.677	12	0.457	17	0.614	7
Darrang	0.620	8	0.566	27	0.399	23	0.519	19
Dhemaji	0.481	21	0.688	7	0.393	24	0.507	21
Dhubri	0.510	19	0.579	26	0.380	26	0.482	23
Dibrugarh	0.518	18	0.700	5	0.483	9	0.560	15
Dima Hasao	0.748	3	0.662	14	0.525	6	0.638	3
Goalpara	0.718	7	0.612	22	0.470	14	0.591	10
Golaghat	0.543	13	0.684	8	0.431	19	0.543	16
Hailakandi	0.366	24	0.605	24	0.376	27	0.437	27
Jorhat	0.587	11	0.744	3	0.643	2	0.655	2
Kamrup	0.798	1	0.648	15	0.483	11	0.630	4
Kamrup (M)	0.554	12	0.783	1	0.800	1	0.703	1
Karbi Anglong	0.743	5	0.645	17	0.480	12	0.612	8
Karimganj	0.360	25	0.627	19	0.420	20	0.456	25
Kokrajhar	**0.539**	**14**	**0.645**	**18**	**0.402**	**22**	**0.519**	**20**
Lakhimpur	0.612	9	0.693	6	0.468	15	0.583	11
Morigaon	0.730	6	0.678	11	0.386	25	0.576	13
Nagaon	0.588	10	0.684	10	0.516	7	0.592	9
Nalbari	0.496	20	0.721	4	0.535	4	0.576	12
Sibsagar	0.521	17	0.758	2	0.630	3	0.629	5
Sonitpur	0.444	22	0.615	21	0.532	5	0.526	17
Tinsukia	0.425	23	0.625	20	0.483	10	0.505	22
Udalguri	0.538	15	0.602	25	0.441	18	0.523	18
Assam	**0.523**		**0.661**		**0.501**		**0.557**	

Source: Compiled from Assam HDR, 2014

Fig. 4.4 shows the district wise HDI in the state as revealed by Assam HDR, 2014. Out of 27 districts, 15 districts attained higher than state average; and twelve (12) districts attained lower than average state HDI (0.557). HDI largely vary across the districts in the state; the co-efficient of variation being 12.5 percent as depicted in the table 4.4. However, However the gap between the highest and lowest observed value decreased from (0.437) in 2003 to (0.266) in 2014 indicating more equal trend among the districts from Assam, HDR 2003 and 2014; and the CV decreased from 27.5 in 2003 to 12.5 percent in 2014 report.

Fig. 4.4 HDI in the Districts of Assam, 2014



Source: Compiled from Assam HDR, 2014

It is also worth mentioning that the district rank in terms of HDI has changed considerably; position of the some districts have improved and for some districts gown

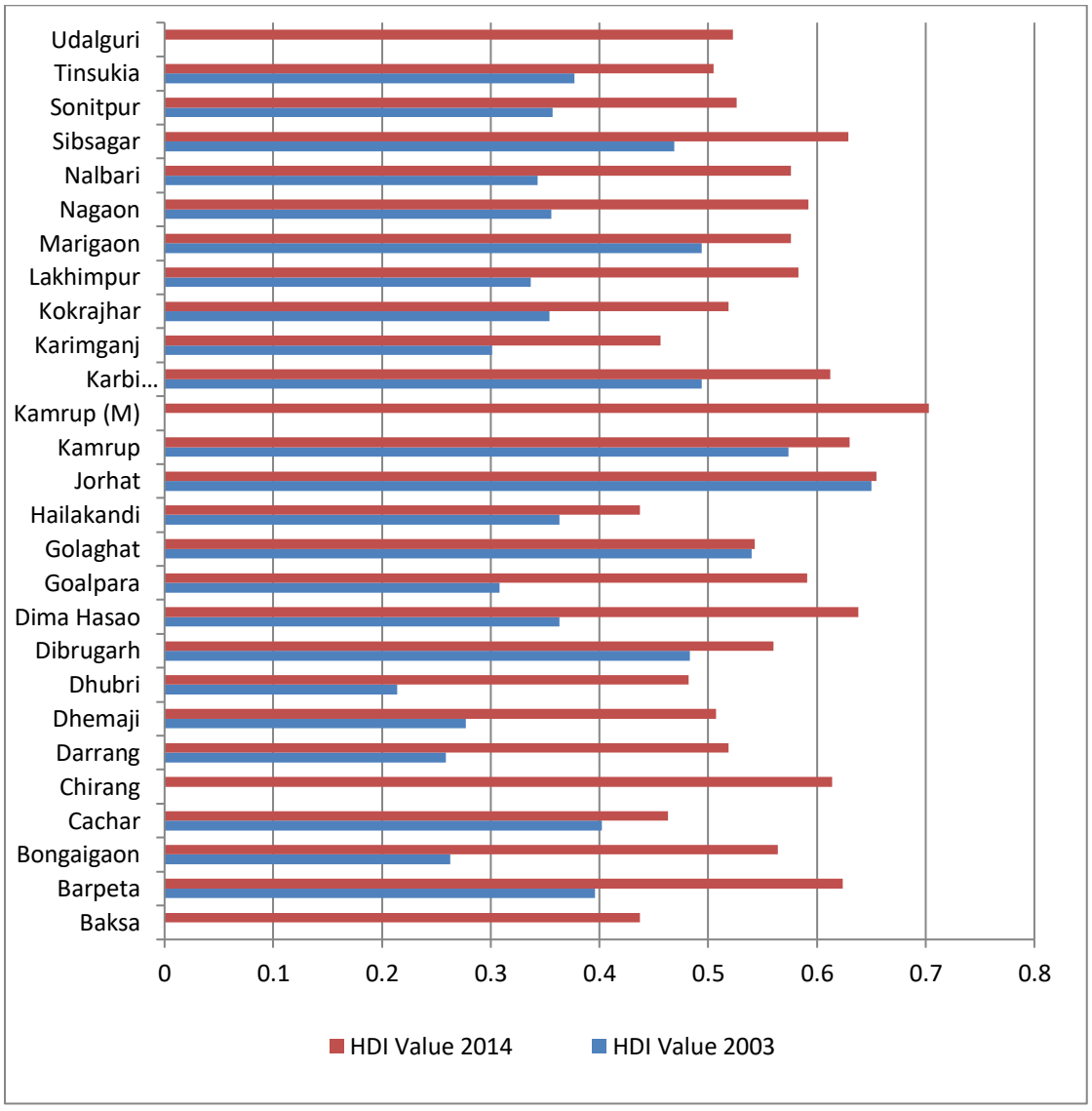
down from Assam, HDR 2003 and 2014. The tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 20th position in the state. Large scale unemployment and diversity which exist in the district of Kokrajhar is very difficult to manage. Low public expenditure on social sectors along with inadequate facilities of health and nutrition in rural areas, low level of literacy and skills, lack of basic amenities like housing facilities, safe drinking water facilities are main reasons for low level of human development in the district. Chronic poverty, low life expectancy of people in rural areas has contributed to low HDI. Lack of peace and stability is another aspect of uncongenial environment for economic growth in the tribal inhabited district of Kokrajhar.

Table 4.5 and Fig. 4.5 indicate the ranking of the districts in the basic dimensions of human development as revealed by Assam HDR, 2003 and 2014. The report revealed that among the six districts whose ranking gone down considerably from 2003 to 2014 are Cachar (from 8th to 24th), Hailakandi (from 11th to 27th), Golaghat (from 3rd to 16th), Tinsukia (from 12th to 22nd), Morigaon (from 4th to 13th) and Dibrugarh (from 6th to 15th); and the improvement rate of these districts in terms of human development indicators was considerably lower than other districts. As published by the report, improvement rate of the three districts - Sibsagar (from 15th to 5th), Dima Hasao (from 11th to 3rd) and Goalpara (from 17th to 10th) improved remarkably from Assam, HDR 2003 and 2014.

In terms of percentage improvement, the data indicates that the HDI percentage of tribal inhabited district of Kokrajhar increased only marginally (by 46.61). Table 4.5 reveals that the highest percentage improvement attained by the district Dhubri (125.23 percent); and lowest percentage was attained by the district Golaghat (60 percent). HDI value of three districts for which HDI percentage improved remarkably, by more than 100 percent are Dhubri (125.23), Bongaigaon (114.5), Darrang (100.39); and the data shows that the HDI percentage of six districts had improved by less than 25 percent are Kamrup (9.75), Sibsagar (13.96), Cachar (15.17), Dibrugarh (15.94), Morigaon (16.6) and Karbi Anglong (23.89). Average

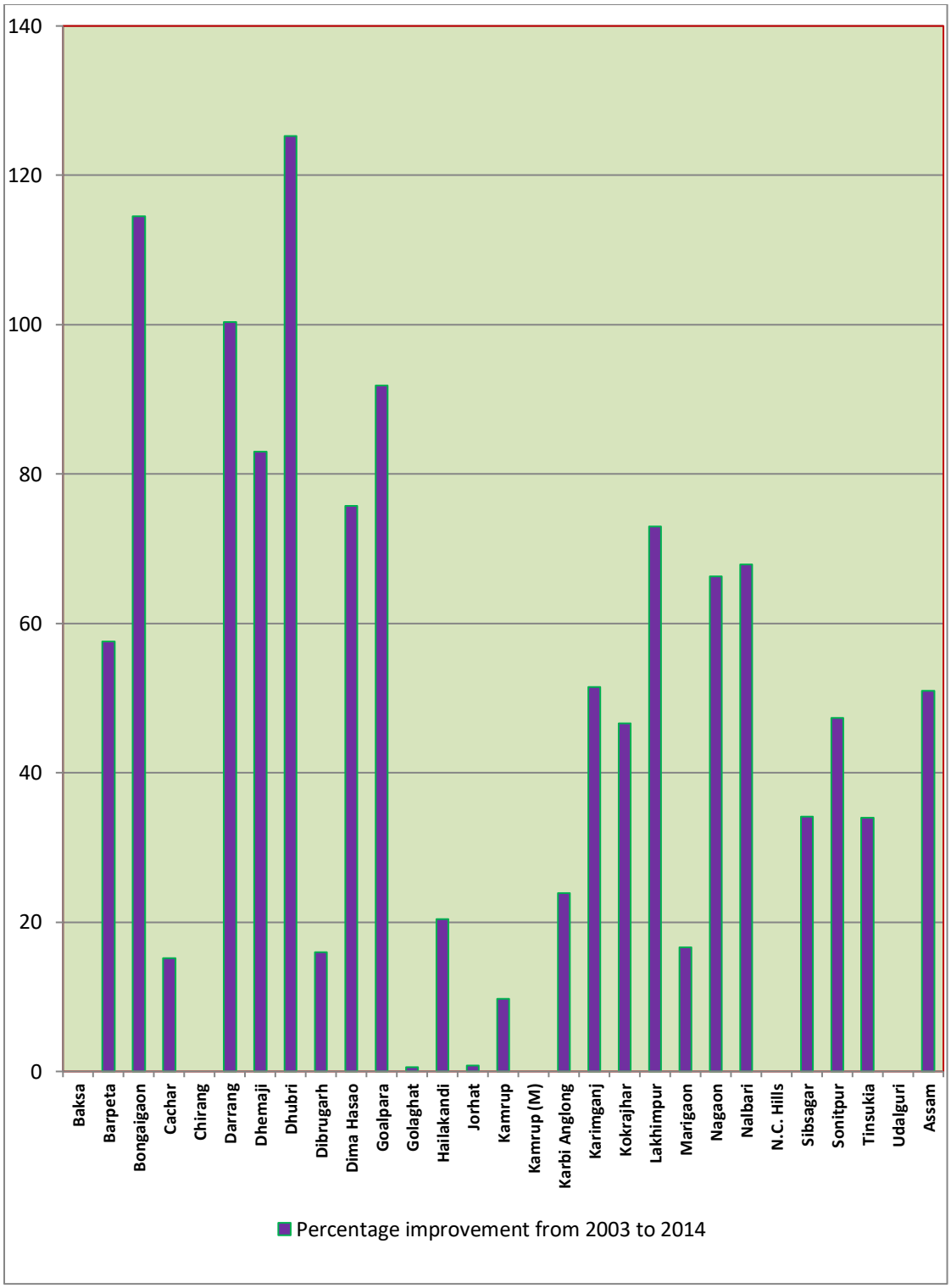
percentage of the state of Assam had increased by (50.97 percent). HDI percentage improvement of the districts from 2003 to 2014 also shows a convergence trend between the higher and lower performing districts in the state. HDI percentage improvement is shown by the Table 4.4 and Fig. 4.6.

Fig 4.5 HDI in the Districts of Assam: 2003 and 2014



Source: Compiled from Assam HDR, 2003 and 2014

Fig. 4.6 Percentage Improvement of HDI from 2003-2014



Source: Compiled from Assam, HDR, 2003 and 2014

4.5 Human Development: An analysis based on Historical Division of Assam

In this section an attempt is made for the analysis of region wise attainment of human development aspects in the state of Assam. Here, historical division of Assam is being considered for analysis; and historically Assam is divided into four (4) divisions – Hills and Barak Valley; Lower Assam; North Assam and Upper Assam division as depicted in the Table 4.6. Region wise, Hills and Barak Valley comprises seven (7) districts, Lower Assam region comprises of ten (10) districts, North Assam constitutes five (5) districts and Upper Assam region is represented by seven districts. Table 4.6 also gives the region wise and district wise area in sq. km. Among the regions, highest area is represented by Hills and Barak valley region (22244 sq. km.); and lowest area by North Assam (14325 sq. km.). At district level, Karbi Anglong represents with largest area coverage with 10434 sq. km.; and Kamrup (M) smallest area coverage with 955 sq. km. Area coverage of the tribal inhabited district of Kokrajhar in Lower Assam region is given by 3296 sq. km., largest district in the division. In percentage term, region wise area of Hills and Barak Valley, Lower Assam, North Assam and Upper Assam is given by (28.35 percent), (25.70 percent), (18.26 percent) and (27.67 percent) respectively.

As per 2011 census, size of the population was highest in the Lower Assam region (11252365); and lowest in the Hills and Barak Valley region (4795014). At district level, Nagaon represent with largest population with 2823768 persons; and Chirang district with smallest population with 482162 persons. The district Kokrajhar has the population of 887142 persons. In percentage term Hills and Barak valley, Lower Assam, North Assam and Upper Assam region represented by (15 percent), (36 percent), (24 percent) and (25 percent) of the total population of the state respectively. Region wise and district wise size of area and population in the state of Assam as per 2011 census is depicted in the Table 4.6.

Table 4.7 represents the standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the districts of Hills Area and Barak Valley region of Assam.

Table 4.6 Division wise Area and Population in the Districts of Assam

Divisions / Districts		Area (sq. km.)	Population 2011
Hills and Barak Valley Districts	Cachar	3786	1736617
	Dima Hasao	4888	214102
	Hailakandi	1327	659296
	Karbi Anglong	10434	956313
	Karimganj	1809	1228686
Sub Total for the Districts in Hills and Barak Valley		**22244**	**4795014**
Lower Assam	Baksa	2457	950075
	Barpeta	2282	1693622
	Bongaigaon	1093	738804
	Chirang	1923	482162
	Dhubri	2176	1949258
	Goalpara	1824	1008183
	Nalbari	1052	771639
	Kamrup (M)	955	1253938
	Kamrup (R)	3105	1517542
	Kokrajhar	3296	887142
Sub Total for the Districts in Lower Assam		**20163**	**11252365**
North Assam	Darrang	1585	928500
	Morigaon	1551	957423
	Nagaon	3973	2823768
	Sonitpur	5204	1924110
	Udalguri	2012	831668
Sub Total for the Districts in North Assam		**14325**	**7465469**
Upper Assam	Dhemaji	3237	686133
	Dibrugarh	3381	1326335
	Golaghat	3502	1066888
	Jorhat	2851	1092256
	Lakhimpur	2277	1042137
	Sibsagar	2668	1151050
	Tinsukia	3790	1327929
Sub Total for the Districts in Upper Assam		**21706**	**7692728**
Assam		**78438**	**31205576**

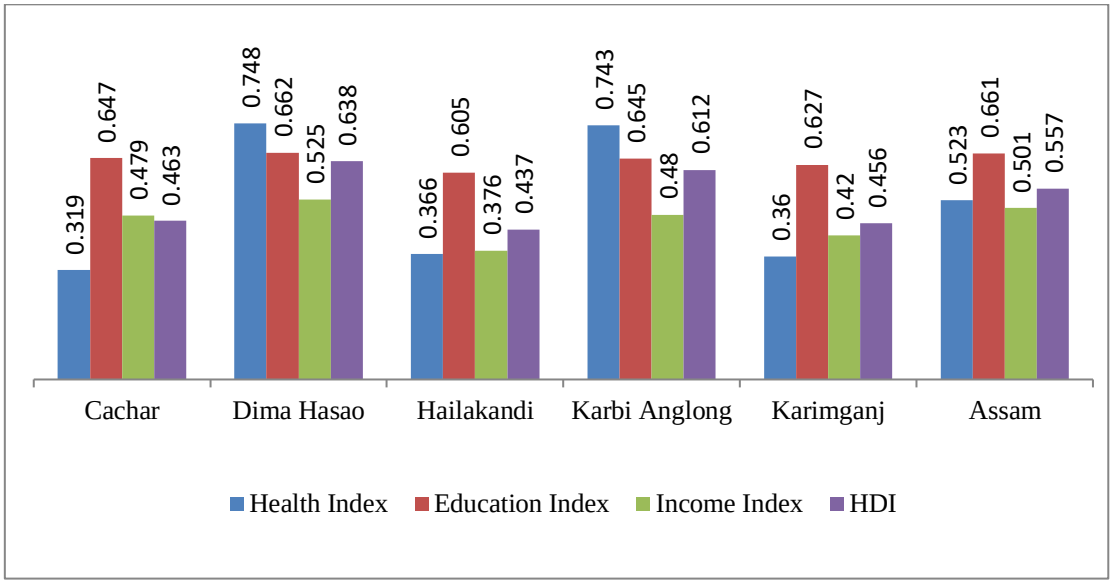
Source: Compiled from Statistical Hand Book of Assam 2011

Table 4.7 HDI of the Districts of Hills Area and Barak Valley of Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Hills and Barak Valley	Cachar	0.319	0.647	0.479	0.463
	Dima Hasao	0.748	0.662	0.525	0.638
	Hailakandi	0.366	0.605	0.376	0.437
	Karbi Anglong	0.743	0.645	0.480	0.612
	Karimganj	0.360	0.627	0.420	0.456
Average of the Hills and Barak Valley Districts		0.439	0.636	0.452	0.495
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.22	0.02	0.06	0.10
Co-efficient of Variation (in percent)		**43.04**	**3.43**	**12.77**	**18.36**

Source: Compiled and calculated from Assam, HDR 2014

Fig. 4.7 HDI and Dimensional Index in the Districts of Hills and Barak Valley Region



Source: Compiled and estimated from Assam, HDR 2014

Estimated co-efficient of variation as shown in the Table 4.7 reveals that the HDI and dimensional index of health, education and income largely vary across the districts in the Hills and Barak Valley region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.159), (0.149) and (0.035) respectively. HDI data also reveals large gap across the

districts of the region; the gap between the highest and lowest HDI being (0.201). Highest variation is found in the case of health; CV being 43.04 percent. HDI and Dimensional Index in the Districts of Hills and Barak Valley Region are diagrammatically represented by the Fig. 4.7.

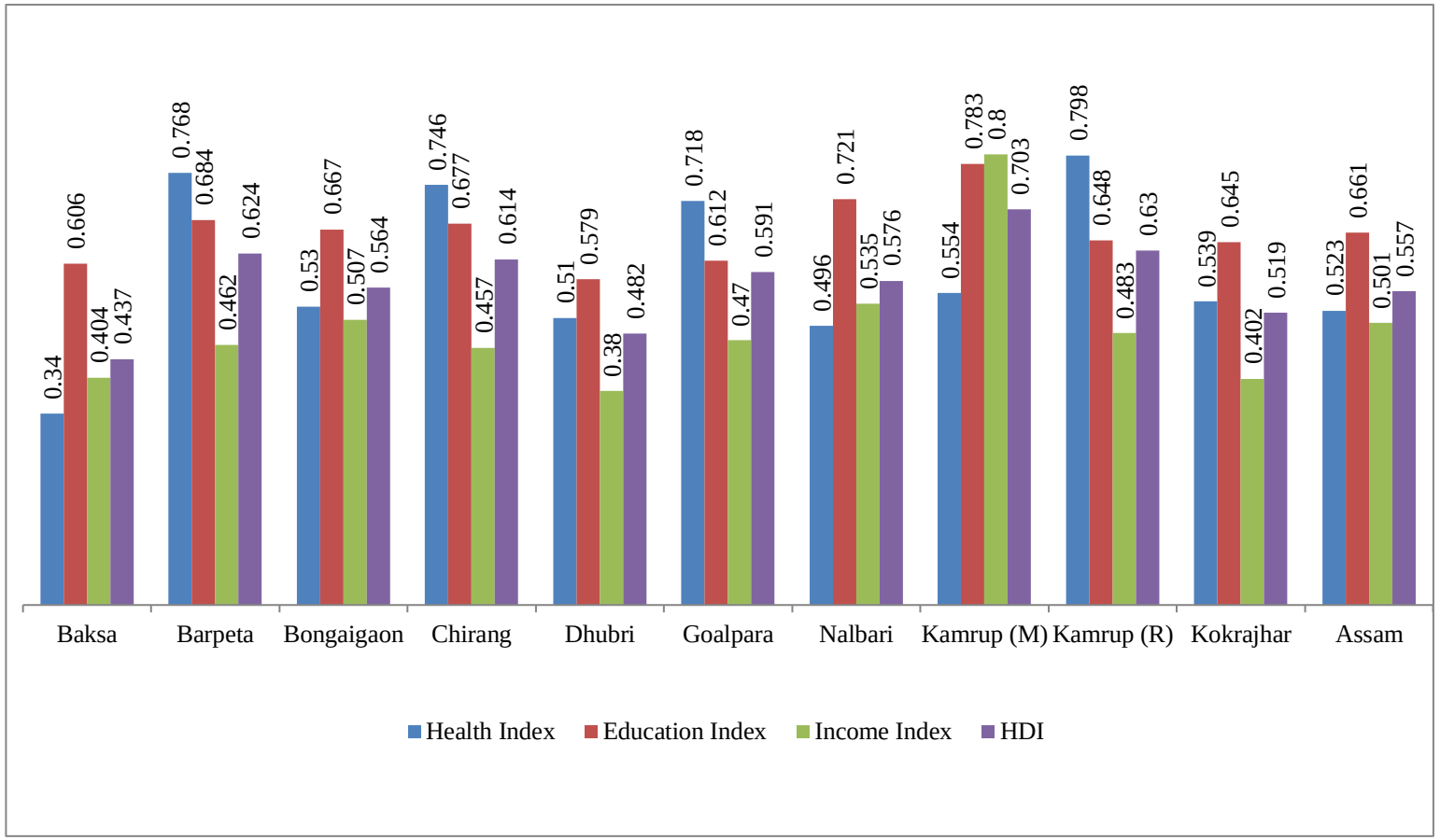
Table 4.8 HDI of the Districts of Lower Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Lower Assam	Baksa	0.340	0.606	0.404	0.437
	Barpeta	0.768	0.684	0.462	0.624
	Bongaigaon	0.530	0.667	0.507	0.564
	Chirang	0.746	0.677	0.457	0.614
	Dhubri	0.510	0.579	0.380	0.482
	Goalpara	0.718	0.612	0.470	0.591
	Nalbari	0.496	0.721	0.535	0.576
	Kamrup (M)	0.554	0.783	0.800	0.703
	Kamrup (R)	0.798	0.648	0.483	0.630
	Kokrajhar	0.539	0.645	0.402	0.519
Average of all Districts of Lower Assam		0.610	0.657	0.487	0.574
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.15	0.06	0.12	0.08
Co-efficient of Variation (in percent)		**24.84**	**8.99**	**24.34**	**13.56**

Source: Compiled and estimated from Assam, HDR 2014

Table 4.8 shows SD and CV of HDI and dimensional index of health, education and income in the districts of Lower Assam region. Estimated co-efficient of variation as shown in the Table 4.8 reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Lower Assam region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.458), (0.323) and (0.204) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.266). Highest variation is

Fig-4.8 HDI and Dimensional Index in the Districts of Lower Assam Region



Source: Compiled and estimated from Assam, HDR 2014

found in the case of health index and followed by education index; CV being 24.84 and 24.34 percent respectively. HDI and dimensional index in the Districts of Lower Assam Region are diagrammatically represented by the Fig. 4.8.

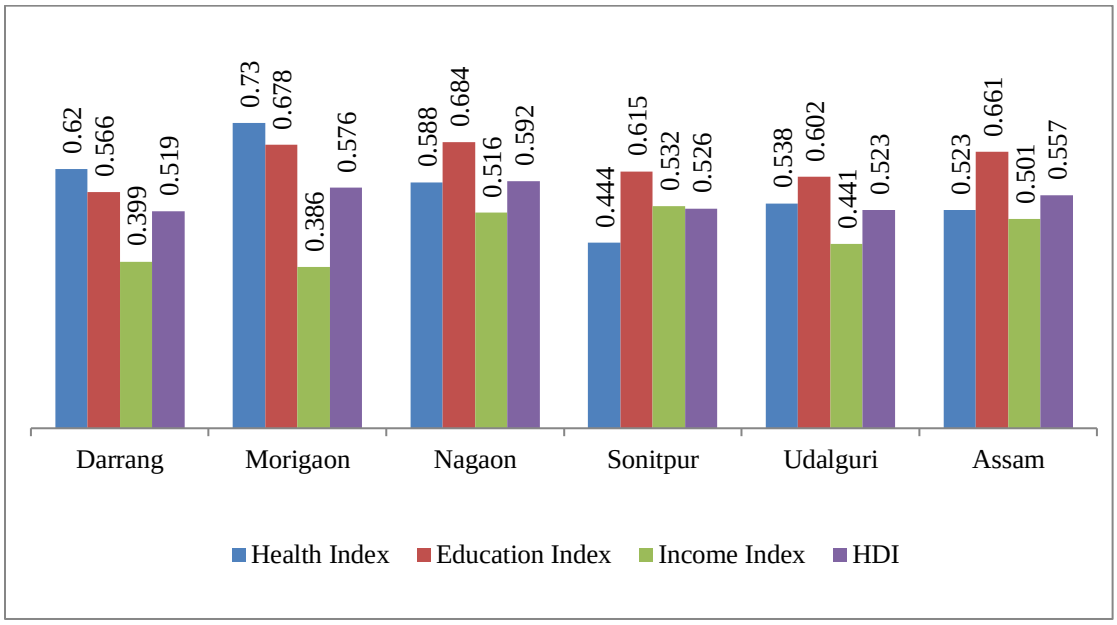
Table 4.9 HDI of the Districts of North Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
North Assam	Darrang	0.620	0.566	0.399	0.519
	Morigaon	0.730	0.678	0.386	0.576
	Nagaon	0.588	0.684	0.516	0.592
	Sonitpur	0.444	0.615	0.532	0.526
	Udalguri	0.538	0.602	0.441	0.523
Average of the Districts of North Assam		0.566	0.642	0.481	0.556
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.11	0.05	0.07	0.03
Co-efficient of Variation (in percent)		**18.02**	**8.06**	**14.64**	**6.24**

Source: Compiled and estimated from Assam HDR 2014

Table 4.9 shows the SD and CV of HDI and dimensional index of health, education and income in the districts of North Assam region. The estimated co-efficient of variation reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Lower Assam region of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.286), (0.146) and (0.118) respectively. HDI data also reveals gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.73). Highest variation is found in the case of health dimension followed by income dimension; CV being 18.02 and 14.06 percent respectively. It is noteworthy that the CV of HDI in the North Assam (6.24 percent) is much lower than the Hills and Barak Valley (18.36 percent), Lower Assam (13.56 percent) and Upper Assam (10.12 percent) indicating more equal attainment of HDI by the districts in North Assam division. Fig. 4.9 shows HDI and Dimensional Index in the Districts of North Assam.

Fig. 4.9 HDI and Dimensional Index in the Districts of North Assam Region



Source: Compiled and estimated from Assam, HDR 2014

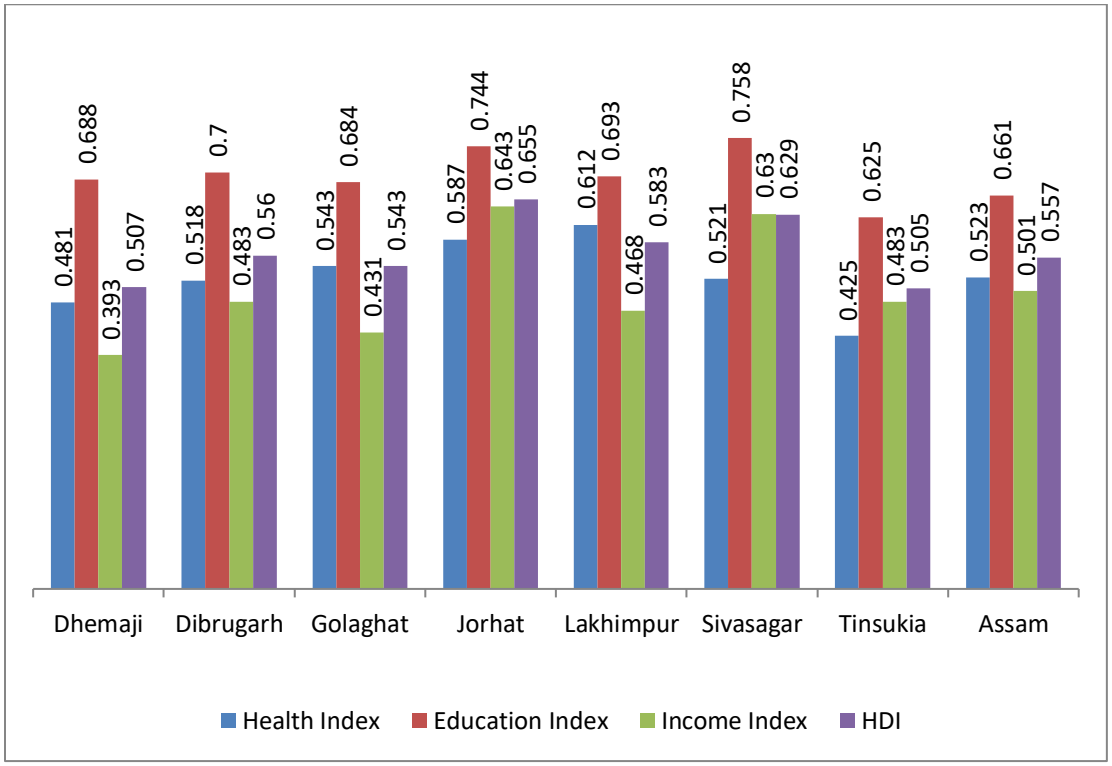
Table 4.10 HDI of the Districts of Upper Assam, 2014

Division	Districts	Dimensional Index			HDI
		Health	Education	Income	
Upper Assam	Dhemaji	0.481	0.688	0.393	0.507
	Dibrugarh	0.518	0.700	0.483	0.560
	Golaghat	0.543	0.684	0.431	0.543
	Jorhat	0.587	0.744	0.643	0.655
	Lakhimpur	0.612	0.693	0.468	0.583
	Sivasagar	0.521	0.758	0.630	0.629
	Tinsukia	0.425	0.625	0.483	0.505
Average of the Districts of Upper Assam		0.525	0.698	0.510	0.570
Assam		0.523	0.661	0.501	0.557
Standard Deviation		0.06	0.04	0.10	0.06
Co-efficient of Variation (in percent)		**11.94**	**6.23**	**18.98**	**10.12**

Source: Compiled and estimated from Assam, HDR 2014

SD and CV of HDI and dimensional index of health, education and income in the districts of Upper Assam region is shown in the Table 4.10. Table reveals that the HDI and dimensional index of health, education and income vary largely across the districts in the Upper Assam region of the state; the gap between the highest and lowest dimensional index of income, health and education are represented by (0.250), (0.187) and (0.133) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.150). Highest variation is observed income index; CV being 18.98 percent. Fig. 4.10 shows HDI and Dimensional Index in the Districts of Upper Assam Region.

Fig. 4.10 HDI and Dimensional Index in the Districts of Upper Assam Region



Source: Compiled and estimated from Assam, HDR 2014

From the above analysis it can be observed that in terms of dimensional index of human development, the performance of the Upper Assam region represent as best doing region and the Hills and Barak Valley region represent as worst performer among the regions of the state. Table 4.10 reveals that the dimensional index of health

is highly spread across the region; dimensional index of income and education also being spread considerably among the regions.

Table 4.11 represents SD, CV, HDI and dimensional Index in the regions of Assam. Estimated CV reveals that the HDI and dimensional index of health, education and income vary across the districts in the divisions of the state; the gap between the highest and lowest dimensional index of health, income and education are represented by (0.171), (0.058) and (0.062) respectively. HDI data also reveals large gap across the districts of the region; the gap between the highest and lowest HDI is represented by (0.079). Estimated CV at the division level reveals comparatively lower gap of dimensional index of health, education and income and HDI than while representing it at the level of respective divisions in the state of Assam. Highest variation is observed in the case of health dimension; CV being 13.61 percent.

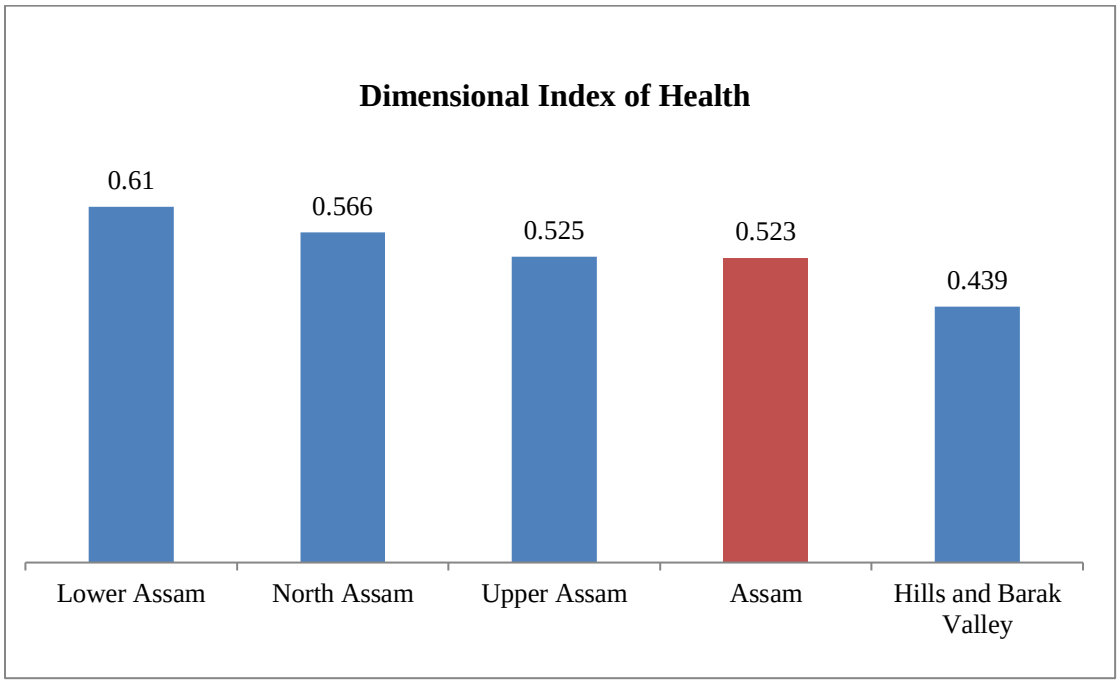
Table 4.11 HDI and Dimensional Index in the Divisions of Assam, 2014

Division	Dimensional Index			HDI
	Health	Education	Income	
Hills and Barak Valley	0.439	0.636	0.452	0.495
Lower Assam	0.610	0.657	0.487	0.574
North Assam	0.566	0.642	0.481	0.556
Upper Assam	0.525	0.698	0.510	0.570
Assam	0.523	0.661	0.501	0.557
Standard Deviation	0.07	0.03	0.02	0.04
Co-efficient of Variation (in percent)	**13.61**	**4.24**	**4.95**	**6.68**

Source: Compiled and estimated from Assam, HDR 2014

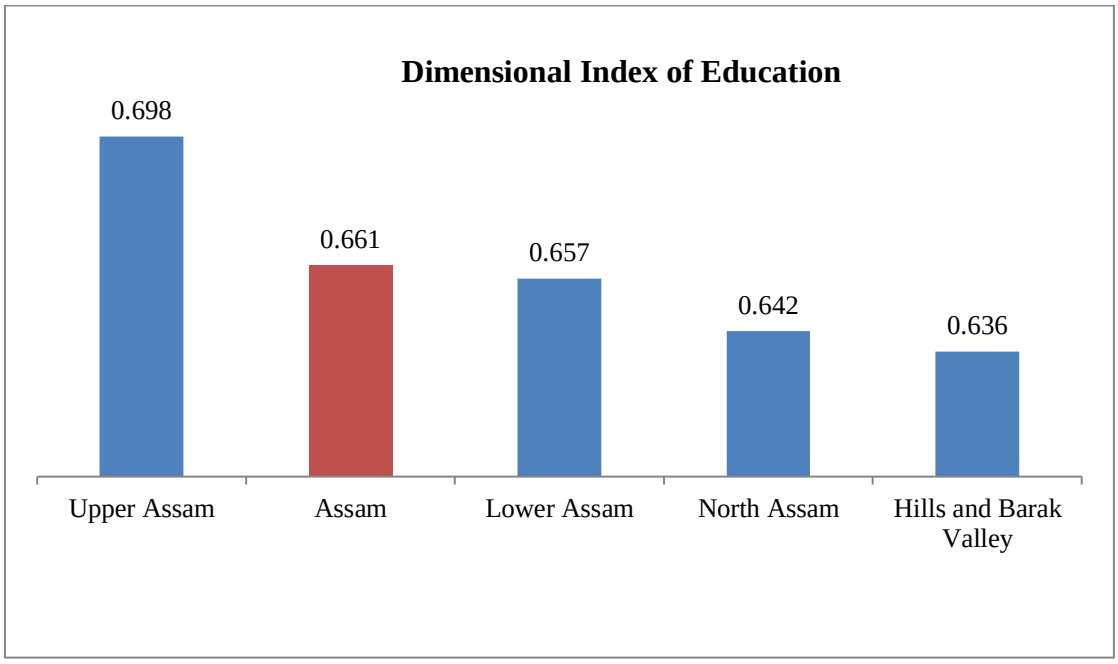
HDI and Dimensional Index of health in the divisions of the state are shown diagrammatically in the Fig. 4.11. The Fig. reveals that the average health index of Assam is given by (0.523). Health index of Lower Assam (0.610), North Assam (0.566) and Upper Assam region (0.525) are above state average; and health index of Hills and Barak Valley region (0.439) is lower than state average of Assam. The dimensional gap of health index between the highest and lowest value is given by (0.171).

Fig. 4.11 Dimensional Index of Health in the Divisions of Assam, 2014



Source: Compiled from Assam, HDR, 2014

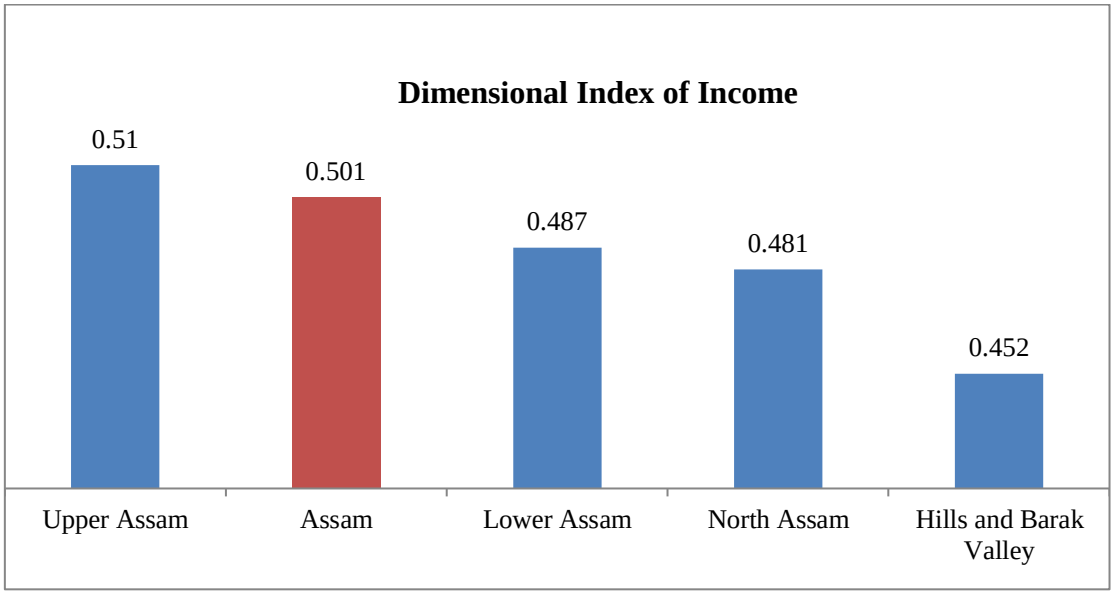
Fig. 4.12 Dimensional Index of Education in the Divisions of Assam, 2014



Source: Compiled from Assam, HDR, 2014

HDI and Dimensional Index of education in the region of the state are shown diagrammatically in the Fig. 4.12. The Fig. reveals that the average education index of Assam is given by (0.661). It is noteworthy that only single region Upper Assam (0.698) has higher than state average value; and education index of Lower Assam (0.657), North Assam (0.642) and Hills and Barak Valley region (0.636) are lower than state average of Assam. The dimensional gap of education index between the highest and lowest value is given by (0.062).

Fig. 4.13 Dimensional Index of Income in the Divisions of Assam, 2014

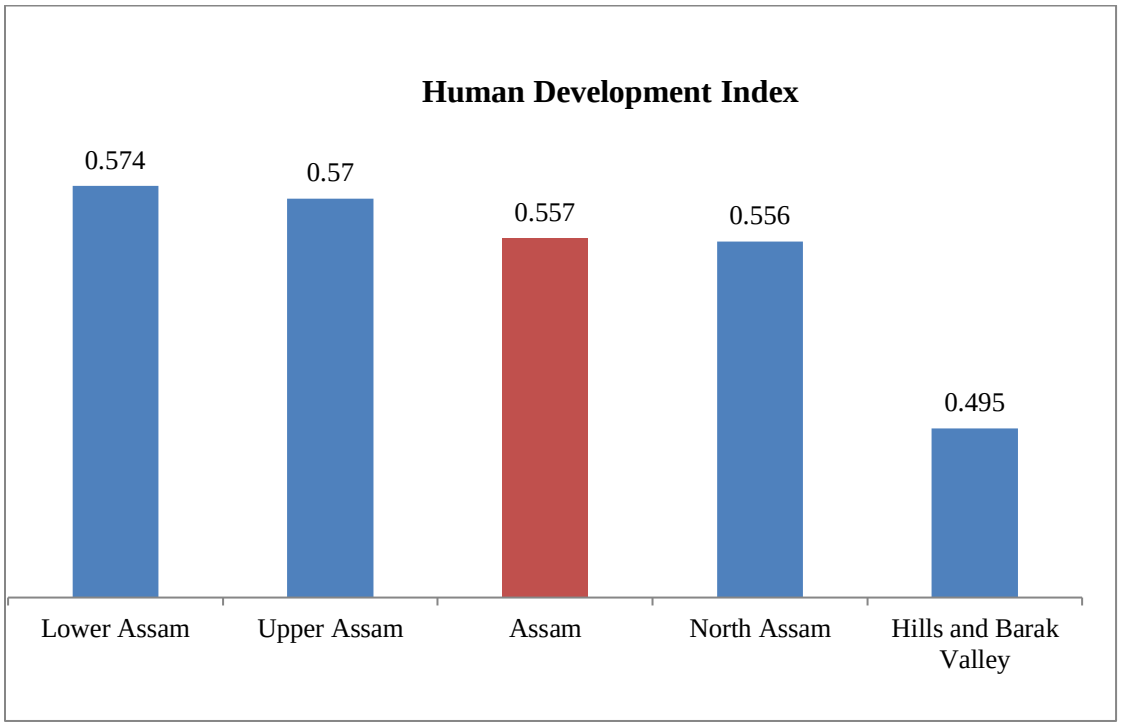


Source: Compiled from Assam, HDR, 2014

HDI and Dimensional Index of income in the region of the state are shown diagrammatically in the Fig. 4.13. The Fig. reveals that the average income index of Assam is given by (0.501). Income index of Upper Assam (0.510), is above state average; and income index of Lower Assam (0.487), North Assam (0.481) and Hills and Barak Valley region (0.452) are below the state average of Assam. The dimensional gap of income index between the highest and lowest value is given by (0.058). It has been observed that the gap between the highest and lowest dimensional index of health is much higher than the education and income index, while compared at the level of divisions in the state.

HDI in the region of Assam is shown diagrammatically in the Fig. 4.14. The Fig. reveals that the average HDI of Assam is given by (0.557) which is just half way mark of desired goal. HDI of Lower Assam (0.574) and Upper Assam (0.570) are above state average; and HDI of North Assam (0.556) and Hills and Barak Valley region (0.495) are below the state average of Assam. Lower Assam represent top with

Fig. 4.14 Human Development Index in the Divisions of Assam, 2014



Source: Own calculation based on secondary data

HDI value (0.574) and Hills and Barak Valley represent at bottom with HDI value (0.495). The gap of HDI between the highest and lowest value is given by (0.079). However, district wise category of HDI differs from regional wise HDI; some districts of Lower Assam and Upper Assam region have lower than state average – Baksa (0.437), Dhubri ((0.482) and Kokrajhar (0.519) in Lower Assam region; and Dhemaji(0.507), Golaghat (0.543) and Tinsukia (0.505) in Upper Assam though region wise they represent above state average. Likewise, districts in Hills and Barak Valley region – Dima Hasao (0.638) and Karbi Anglong (0.612); and Morigaon

(0.576) and Nagaon (0.592) have greater than state average of HDI though region wise they represent below state average.

4.6 Status of Human Development in Assam: Gender Related Development Index (GDI)

Gender Related Development Index (GDI) is another indicator of human development capability. GDI considers the inequalities between men and women in the basic dimensions of human development in the society. The current focus on human development by UNDP has served the important objective of highlighting the existing condition of gender dimension, and also continuing inequalities between two sections of the society, men and women. Statistical data shows that the development is not a gender neutral and women lag behind men in most of the sphere of human development indicators indicating continuing inequity in all over the world. It has been observed that the inequity between men and women have been accentuated by the process of modernization though the gender discrimination basically lies on social structures.

GDI basically measures the achievement in three basic dimensions of HDI, but it adjusts their values according to the inequality exists between men and women; the higher gender inequality, the larger the retrogression in the country's HDI indicating negative impact on development. The extent of gender disparity is reflected by the aspect of differences between HDI and GDI ranking. GDI is a useful tool for policy makers while formulating future strategies for development.

Planning Commission of India and other researchers made several attempt to create rankings of HDI and GDI. The study undertaken by A.K. Shivakumar (1996), one of the earliest such studies brought out existing gender inequity among the Indian states by considering relevant data for 1991. The study established the existence of gender inequity and differences between over all human development indicators and gender development indicators in the country. The study also concluded that overall progress and prosperity of the state not necessarily give equal position between male and female.

Table 4.12 GDI for Districts in Assam: 2003 and 2014

District	GDI 2003		GDI 2014		% improvement from 2003 to 2014
	Value	Rank	Value	Rank	
Baksa	NA	NA	0.820	18	NA
Barpeta	0.448	10	0.828	16	84.82
Bongaigaon	0.376	16	0.827	17	119.95
Cachar	0.409	14	0.796	20	94.62
Chirang	NA	NA	0.945	2	NA
Darrang	0.317	18	0.765	22	141.33
Dhemaji	0.410	13	0.863	12	110.49
Dhubri	0.206	21	0.704	25	241.75
Dibrugarh	0.642	4	0.914	5	42.36
Dima Hasao	NA	NA	0.850	13	NA
Goalpara	0.413	12	0.829	15	100.73
Golaghat	0.608	7	0.912	7	50.00
Hailakandi	0.609	6	0.845	14	38.75
Jorhat	0.701	3	0.913	6	30.25
Kamrup	0.642	4	0.868	11	35.20
Kamrup (M)	NA	NA	0.977	1	NA
Karbi Ang.	0.260	20	0.754	23	190
Karimganj	0.012	23	0.683	26	5591.7
Kokrajhar	**0.418**	**11**	**0.869**	**10**	**107.89**
Lakhimpur	0.491	8	0.818	19	66.60
Morigaon	0.759	2	0.752	24	-0.92
Nagaon	0.068	22	0.868	11	1176.5
Nalbari	0.357	17	0.883	9	147.34
N.C. Hills	0.877	1	NA	NA	NA
Sibsagar	0.468	9	0.920	4	96.59
Sonitpur	0.397	15	0.930	3	134.26
Tinsukia	0.300	19	0.902	8	200.7
Udalguri	NA	NA	0.795	21	NA
Assam	**0.537**		**0.875**		**62.94**
SD	**0.207**		**0.071**		
CV	**46.73**		**8.39**		

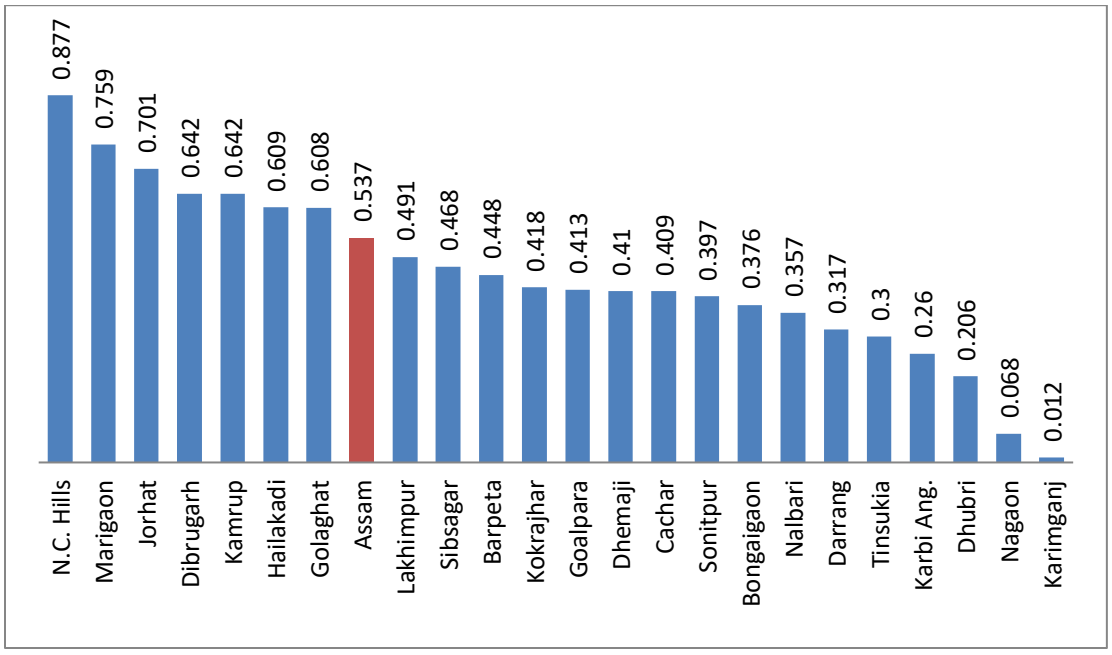
Source: Compiled and estimated from Assam, HDR, 2003 and 2014

Note: NA indicate not available

As per the National Human Development Report, (NHDR 2001) initiated and published by the Planning Commission of India, by considering 16 major states estimated the Gender Equality Index (GEI); and Assam was placed at the 10th position.

Table 4.12 shows comparative data of GDI compiled from 2003 and 2014 Assam Human Development Report. It is noteworthy that the tribal inhabited district of Kokrajhar could achieve much lower GDI than the state average; the district placed 10th position with GDI (0.418). Even GDI value of the district (0.418) was lower than the state average (0.537). North Cachar Hills, Morigaon and Jorhat could maintain 1st, 2nd and 3rd rank respectively. This indicates that the above mentioned districts could maintain better distribution of economic, social, political rights equally between males

Fig. 4.15 GDI in the Districts of Assam, 2003



Source: Compiled and estimated from Assam, HDR, 2003

and females than other districts in the state. On the other hand, Karimganj, Nagaon and Dhubri remained as worst performer while distributing the opportunities between males and females with GDI value of (0.012), (0.068) and (0.206) respectively.

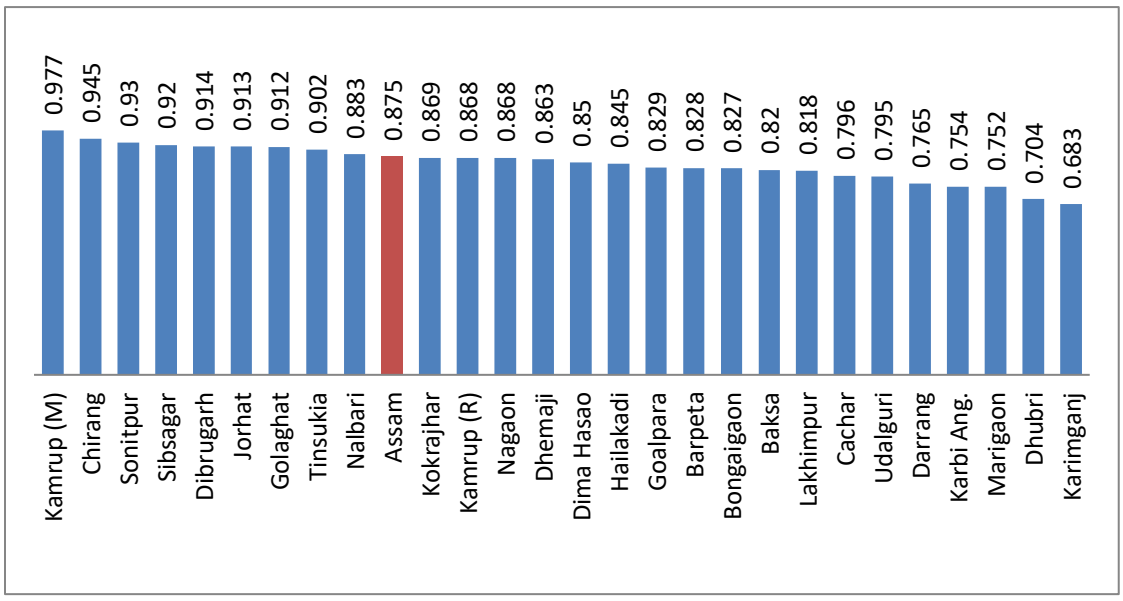
The Assam HDR, 2003 as revealed by the Fig. 4.15, estimated the average GDI of the state at (0.537). So far GDI attainment is concerned, out of 23 districts, 7 districts attained higher than average GDI; and sixteen (16) districts attained lower than state average GDI. Highest GDI (0.877) attained by N.C. Hills is much higher than the lowest GDI (0.012) attained by the district Karimganj; showing a gap of (0.865) which form a serious concern for the state. GDI largely vary across the districts in the state of Assam; estimated CV being 46.73 percent.

Assam Human Development Report, 2014 revealed that there is little improvement in overall GDI aspects in the state of Assam. The position of the district Kokrajhar is again remained unhealthy in terms of opportunity between male and female. Kokrajhar ranked at 10^{th} with GDI value (0.869) which is lower than the state average of (0.875). Kamrup (M), Chirang and Sonitpur districts performed better than other districts with GDI value of (0.977), (0.945) and (0.930) respectively. Contrary to this, the districts Karimganj, Dhubri, Morigaon and Karbi Anglong represented worst performer with GDI value of (0.683), (0.704), (0.752) and (0.754) respectively. It is noteworthy that the district Morigaon which ranked 2^{nd} as per Assam HDR, 2003, performed so badly that it could maintain 24^{th} rank in 2014. However, it is noteworthy to mention that the district level variations decreased considerably; as per 2003 Assam HDR lowest and highest GDI value was represented by (0.012) and (0.877) for the district Karimganj and N.C. Hills respectively indicating large gap of (0.865) between the lowest and highest GDI value. Data relating to Assam HDR, 2014 indicates that the district wise variation has been reduced considerably; (0.683) for Karimganj and (0.977) for Kamrup (M) representing a gap of (0.294). The State average has improved from (0.537) to (0.875) from 2003 to 2014. The lower Assam districts, except Barpeta, again represents worst performer in the state.

Fig. 4.16 shows the district wise GDI in the state of Assam as published by Assam HDR, 2014. The Fig. reveals that the gender development of the districts improved considerably from Assam, HDR 2003 and 2014; and out of 27 districts, 9 districts attained higher than state average GDI (0.875); and Eighteen (18) districts attained lower than average state GDI. GDI (0.977) attained by Kamrup (M) is much

higher than the lowest GDI (0.683) attained by the district Karimganj; showing a gap of (0.294). GDI largely vary across the districts in the state; estimated CV being 8.39 percent. However, the gap decreased from (0.865) – (0.294) indicating more equal trend among the districts from Assam, HDR 2003 and 2014; CV being decreased from 46.73 percent to 8.39 percent. It is also worth mentioning that the district rank in terms of HDI has changed considerably; positions of the some districts have improved and for some districts it has gown down as per Assam, HDR 2003 and 2014. It is noteworthy that the tribal inhabited district of Kokrajhar achieved much lower HDI than the state average; the district placed 20th position in the state. Graphical representation of the percentage improvement in GDI from 2003 to 2014 is shown by Fig. 4.17.

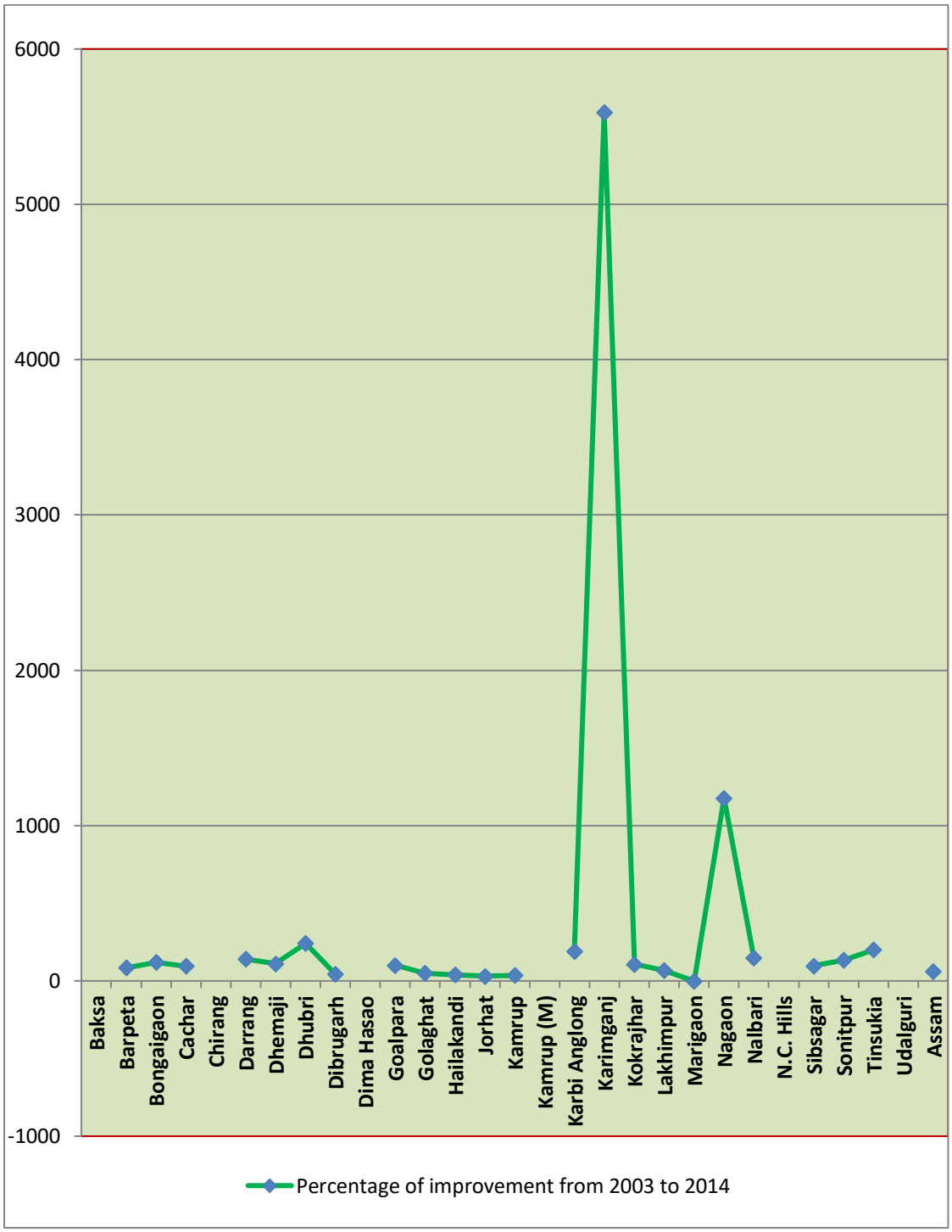
Fig. 4.16 GDI in the Districts of Assam, 2014



Source: Compiled from Assam, HDR, 2014

In terms of percentage improvement from 2003 to 2014, the data indicates that the GDI percentage of tribal inhabited district of Kokrajhar increased by (107.89 percent). The improvement of GDI percentage of two districts Karimganj (5591.7 percent) and Nagaon (1176.5 percent) are seems to be exceptional. Basic reasoning of

Fig. 4.17 Improvement in GDI from 2003 to 2014, Assam (%)



Source: Compiled and estimated from Assam HDR 2003 and 2014

this exceptional percentage improvement of GDI for the district of Karimganj and Nagaon is that the districts had a very insignificant GDI value of 0.012 and 0.068 respectively as per AHDR, 2003; and as per AHDR, 2014, it has increased to (0.683) and (0.868) respectively for Karimganj and Nagaon. GDI value (0.683) for Karimganj again represents lowest in the state. Inequality of income dimension is too large as per Assam, HDR 2003 for both the districts; annual per capita income of Rs. 3935(male) and Rs. 812 (female) for Karimganj and Rs. 4617 (male) and Rs. 916 (female) for Nagaon district. Other indicators of GDI also had shown large gap between male and female in the district of Karimganj and Nagaon.

GDI value of other districts whose percentage improved remarkably, by more than 200 percent are Dhubri (241.75) and Tinsukia (200.7). This shows the fact that the percentage improvement of the districts with low level of GDI has improved more than the districts that have already done well. It is noteworthy that the Morigaon district experienced negative percentage improvement by (-0.92); and the average percentage of the Assam has increased by (62.94 percent).

Viewing the above scenario, it can be observed that the GDI in the state of Assam always remained low; however, the average GDI increased from (0.537) in 2003 to (0.875) in 2014. The data also reveals large variation across the districts. Viewing the above scenario, it has been observed that the two critical indicators of gender related development; 'female life expectancy at birth and child sex ratio' indicates adverse condition towards the women in Assam. It is noteworthy that during 2001-2011, total sex ratio of the state improved considerably; and under these circumstances too, female life expectancy in the state continued to be the lowest. Moreover, the child sex ratio (0-6 years) during 2001-2011 had deteriorated indicating widening of gender disparities in the state of Assam. This aspect necessitates a proper attention and initiative by the state Government of Assam.

4.7 Gender Inequity for Districts in Assam, 2014

The extent of gender inequity in the society is revealed by the differences between the two rankings of HDI and GDI. Typically, the question and issues relating

Table 4.13 HDI, GDI and GII in the Districts of Assam, 2014

District	HDI		GDI		GII	
	Value	Rank	Value	Rank	Value	Rank
Baksa	0.437	26	0.820	18	0.394	15
Barpeta	0.624	6	0.828	16	0.412	19
Bongaigaon	0.564	14	0.827	17	0.437	24
Cachar	0.463	24	0.796	20	0.303	3
Chirang	0.614	7	0.945	2	0.390	13
Darrang	0.519	19	0.765	22	0.498	26
Dhemaji	0.507	21	0.863	12	0.399	17
Dhubri	0.482	23	0.704	25	0.566	27
Dibrugarh	0.560	15	0.914	5	0.271	1
Dima Hasao	0.638	3	0.850	13	0.354	10
Goalpara	0.591	10	0.829	15	0.438	25
Golaghat	0.543	16	0.912	7	0.348	8
Hailakandi	0.437	27	0.845	14	0.402	18
Jorhat	0.655	2	0.913	6	0.340	7
Kamrup (R)	0.630	4	0.868	11	0.379	11
Kamrup (M)	0.703	1	0.977	1	0.337	6
Karbi Ang.	0.612	8	0.754	23	0.428	23
Karimganj	0.456	25	0.683	26	0.420	20
Kokrajhar	0.519	20	0.869	10	0.424	21
Lakhimpur	0.583	11	0.818	19	0.348	9
Morigaon	0.576	13	0.752	24	0.427	22
Nagaon	0.592	9	0.868	11	0.383	12
Nalbari	0.576	12	0.883	9	0.392	14
Sibsagar	0.629	5	0.920	4	0.311	4
Sonitpur	0.526	17	0.930	3	0.318	5
Tinsukia	0.505	22	0.902	8	0.290	2
Udalguri	0.523	18	0.795	21	0.397	16
Assam	**0.557**		**0.875**		**0.375**	
Standard Deviation	**0.069**		**0.072**		**0.06**	
Co-efficient of Variation	**12.5%**		**8.6%**		**16.5%**	
Correlation between HDI and GDI = 0.474 **Correlation between HDI and GII = - 0.219** **Correlation between GDI and GII = - 0.671**						
Rank Correlation between HDI and GDI = 0.458 **Rank Correlation between HDI and GII = 0.219**						

Source: Compiled and estimated from Assam, HDR, 2014

to gender equality is addressed by Gender Development Index (GDI) and the Gender Inequality Index (GII). GDI captures the gap in achievement levels of men and women in terms of basic dimensions of human development. On the other hand, GII provides a measure of inequalities in opportunities between men and women that have a bearing on their ultimate well-being in the society. Here, in this section, an attempt has been made to analyze important aspects of gender inequity in Assam.

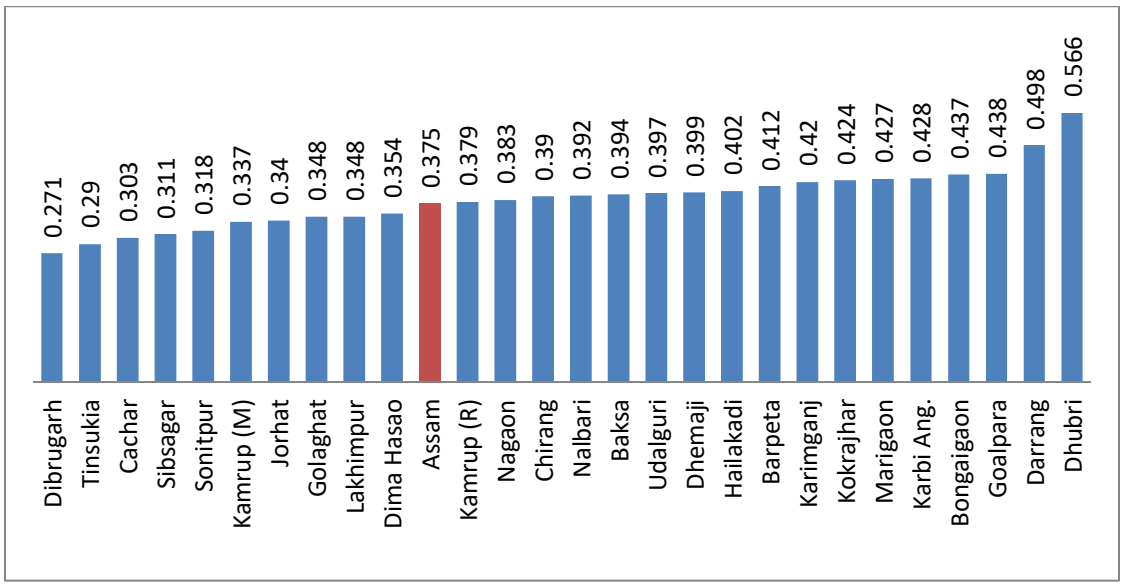
In a precise way, positive differences between the HDI and GDI ranking reveals the prevalence of gender inequity; and higher the HDI rank in comparison to GDI rank, greater is the extent of gender inequity. A negative difference between HDI and GDI ranks indicates better position in the society. As revealed in the Assam HDR 2014, eleven districts in the state of Assam have higher HDI values in comparison to GDI values, indicating inequitable distribution of opportunities between men and women. Table 4.13 shows the HDI, GDI and GII in the state of Assam as published by Assam HDR 2014.The Dhubri district has the highest gender disparity with GII (0.566); being HDI value (0.482) and GDI value (0.704) respectively. The district is followed by Darrang with GII (0.498) and Goalpara with GII (0.348). Out of 27 districts considered for study, Dhubri, Darrang and Goalpara ranked 27^{th}, 26^{th} and 25^{th} respectively. Dibrugarh, Tinsukia and Cachar ranked 1st, 2^{nd} and 3^{rd} position in terms of equal distribution of opportunities between male and female with GII of (0.271), (0.290) and (0.303) respectively.

Fig. 4.18 represents GII in the state of Assam, 2014. The Fig. reveals that out of 27 districts, 10 districts attained lower than state average GII (0.375); and 17 districts have GII higher than average GII. Lowest GII giving the lowest inequality between male and female attained by the district Dibrugarh (0.271) is much lower than the highest GII attained by the district Dhubri (0.566) giving highest inequality between males and females; showing a gap of (0.295). It is noteworthy that the performance of the tribal inhabited district of Kokrajhar is poorer than other districts in the state; and the district just maintained 21st rank in the state.

Fig. 4.19 shows the human development index, gender development index and gender inequity index in the districts of Assam, as per Assam, HDR, 2014. The Fig.

reveals that the GDI of all the 27 districts are higher than HDI. From the Fig (4.19), it can be observed that for the districts Barpeta, Dima Hasao, Jorhat, Kamrup (R), Karbi Anglong, Morigaon HDI is closer to GDI. Table 4.13 also indicates that the nine districts have GDI values above the average GDI values (0.875) in the state; and five districts have comparatively high HDI ranks, above (0.600).

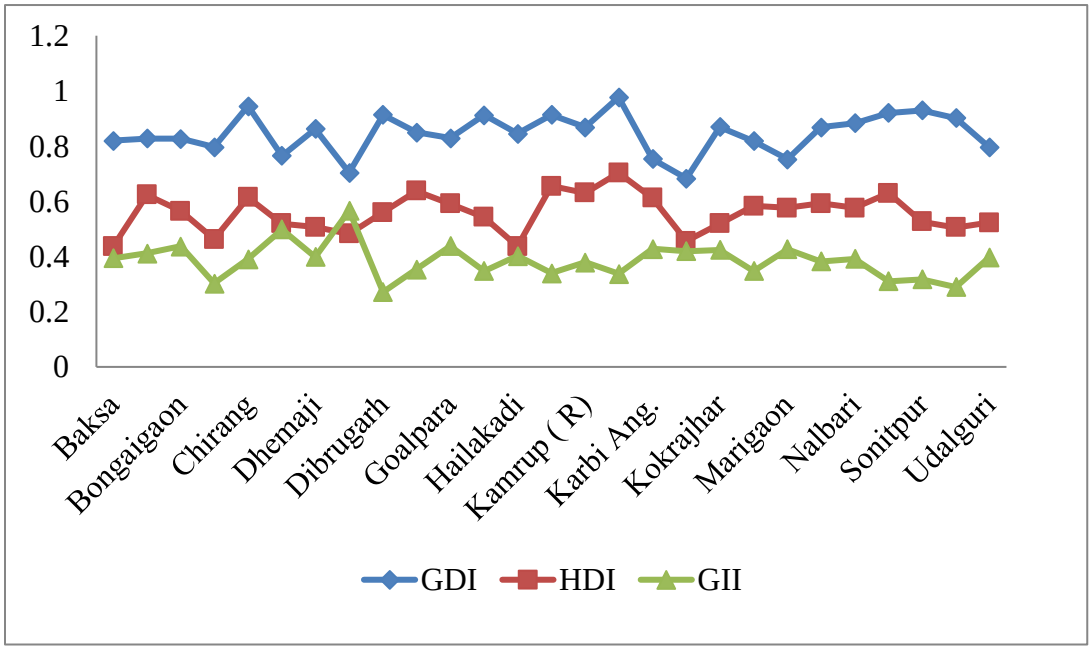
Fig. 4.18 GII in the Districts of Assam, 2014



Source: Compiled from Assam, HDR, 2014

The report indicates that there is no clear correlation between HDI and GDI; correlation between GDI and HDI is not apparent. As indicated by the Table 4.13, correlation between GDI and GII is given by (-0.671) indicating high inequality across the districts. Rank correlation between the HDI and GDI is found to be significant (0.458); and the rank correlation between HDI and GII is found to be moderate (0.219). The study has observed wide disparity in terms of GDI across the districts in the state of Assam; and existing characteristics of a district in relation to its population, geographical characteristics, and its existing infrastructural conditions which have a link with human development indicators are responsible factors for wide disparity in GDI. The reasons for this large variation become clearer if we consider district level developmental profiles along with area specifications which seem to be crucial in the state of Assam.

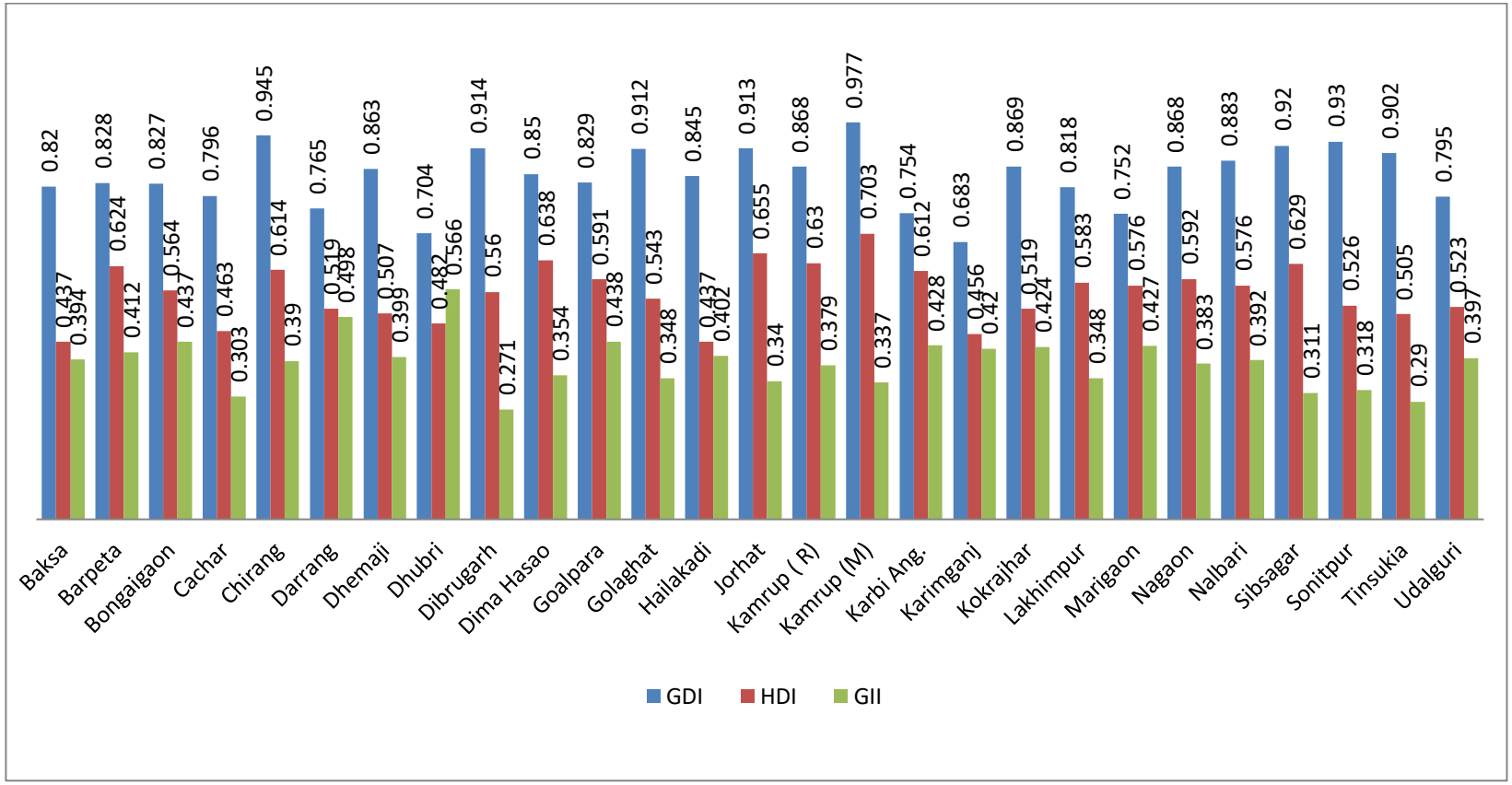
Fig. 4.19 HDI, GDI and GII in the Districts of Assam, 2014



Source: Compiled from Assam HDR, 2014

Table 4.13 reveals that all the indices – HDI, GDI and GII vary largely across the districts in the state as revealed by the Assam HDR, 2014. For all the districts GDI is greater than the HDI. Among the three different indices, HDI, GDI and GII, highest variation is observed in the case of GII. Gender inequity highly spread among the districts in the state; estimated CV being (16.5 percent). GII largely vary across the districts; highest GII (0.566) and lowest GII (0.271) represent a gap of (0.295). HDI also vary largely across the districts in the state indicating more unequal performance of the districts in terms of human development indicators; estimated CV being (12.5 percent). The gap between the highest and lowest HDI is represented by (0.266). Lowest variation has been observed in the case of GDI, estimated CV being (8.6 percent). The gap between the highest and lowest GII is being represented by (0.295). Thus, data clearly reveals that the GII, HDI and GDI largely vary across the districts in the state of Assam. Human Development Index, Gender Development Index and Gender Inequity Index in the Districts, as per Assam, HDR, 2014 is represented by the Fig. 4.20

Fig. 4.20 Human Development Index, Gender Development Index and Gender Inequity Index in the Districts of Assam, 2014



Source: Compiled and estimated from Assam, HDR, 20214

4.8 Conclusion

From the analysis in the various sections of the present chapter, it is seen that the state of Assam is lagging behind other states of the country in terms of human development aspect. Many research studies undertaken by the academicians and scholars revealed this fact. As per the NHDR 2001, HDI value of the state was 0.336; and placed in 17th rank in the country. However, HDI value of the state increased to 0.444 as per (NHDR, 2011); and the state rank improved to 16th. The state of Assam, in terms of human development achievements always remained below the desired level. Human Development Index (HDI) of Assam (0.557) indicates that the level of overall human development in the state is just about half of the desired goal. However, it has been observed that the overall level of human development in the state has shown a steady and continuous improvement over the last 30 years; achievements in all three key dimensions of human development, that is, health, education and income are about halfway with education being at about two-third followed by health and income which are just at the half mark of the desired level. HDI in the state too largely vary across the districts. The performance of the Upper Assam districts, including Kamrup (M) represents better than other districts in the state. Historical division wise analysis of human development aspect in the state also revealed that Upper Assam districts performed better than the districts of other three divisions-Hills and Barak Valley, Lower Assam, and North Assam regions.

GDI and GII analysis indicates that gender disparity in terms of socio-economic-political prevails in the state of Assam. Female are lagging behind the male counterpart in terms of enrollment, literacy, infant mortality rate, annual income, wages and other aspects of human development indicators. Women's in the state needs to be strengthened in the sphere of social, economic and political decision making process to develop both male and female section of the society in the state. As HDI, GDI and GII largely vary across the districts in the state; a differentiated approach is required for the improvement of human development aspect in the state of Assam, including the tribal inhabited district of Kokrajhar.

CHAPTER - 5

HUMAN DEVELOPMENT IN THE TRIBAL INHABITED DISTRICT KOKRAJHAR

5.1 Introduction

5.2 A Brief Profile of Kokrajhar District in Assam

5.3 Sample Households

5.4 Population, Family Size and Sex Ratio in Sample Villages

5.4.1 Average Family Size

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5.12 BPL, APL and Bank Accounts

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5.15 Conclusion

CHAPTER – 5
HUMAN DEVELOPMENT IN THE TRIBAL INHABITED DISTRICT OF KOKRAJHAR

5.1 Introduction

It is now widely accepted that the conventional measures of well being such as per capita GDP and per capita consumption do not capture the broader concept of human capability. Such measures can't reflect the true picture of the true "Quality of Life." High economic growth do not automatically transfer into the betterment of lives of the people, if the benefit is not accessible to all sections of the society; and it is the case which is going on in most of the developing countries of the world, including India. In India, despite of the significant achievement in terms of economic development, basically since the economic liberalization policy started by the then Narasimha Rao government since 2001, the proportion of the people living below the poverty line did not decrease much. There has been wide spread poverty, low level of educational attainment, vast income gap, unequal opportunities between men and women, suppression of economic, social, cultural and political rights representing "Unhealthy Growth." Even the case is more relevant in case of the state of Assam, in general, and the Tribal inhabited districts of BTAD area, in particular.

Many research studies undertaken by the academicians and scholars revealed that the state of Assam is lagging behind in terms of human development aspect. As published by Assam, HDR, 2003, the HDI rank of Assam was 26 in the country. The aspect of human capabilities is even more aggravated in the tribal inhabited district of Kokrajhar. The HDI rank of Kokrajhar district was 15^{th} in the state as per the same report.

The literacy rate of the state of Assam is too low in comparison to All India average. As per 2011 census data, it was 82.42 and 73.18 percent for All- India average and Assam respectively. In the tribal inhabited district of Kokrajhar, it was

only 66.60 percent. As per 2011 census data, the life expectancy at birth for the state of Assam was only 65 years whereas for all- India it was 69 percent. The per capita income (2011) of Assam, which determines the standard of living of the people, was Rs.37, 250.00 and it was Rs.60, 972.00 for the country in average. There has been a wide spread and chronicle poverty in the state of Assam since independence. As per the 2010 data, estimated by the Planning Commission of India, the people living below the poverty line was 36 percent and 33 percent respectively for the state of Assam and India in average.

So, the basic objective of the present chapter is to systematic inquiry into the present state of the "Human Development Aspect" in the tribal inhabited district of Kokrajhar in the state of Assam.

5.2 A Brief Profile of Kokrajhar District in Assam

5.2.1 Area and Location

The tribal inhabited district of Kokrajhar can be described as the gateway for other states of the country while entering to North East Region. Both road and rail routes touches the district Kokrajhar at Srirampur before they enter other districts in the state of Assam and other North East states. Data reveals that the Kokrajhar district has a total area of 3296 Sq. km. (Rural: 3279.68 Sq. Km and Urban: 16.32 Sq. Km). As per the 2011 census data, total population of the district was 887,142; male and female population being 452,905 and 434,237 respectively. The district of Kokrajhar is located on the river bank of Mighty Brahmaputra in Assam. The district lies roughly between 89.46' E to 90.38' E longitudes and 26.19" N to 26.54" N latitudes. The district is bounded on the north by the Himalayan kingdom of Bhutan; and by Dhubri district on the south, Chirang and Bongaigaon district in the east and West Bengal to the west.

5.2.2 Administrative Division

Till 1956, the tribal inhabited district of Kokrajhar was a part of the then undivided Goalpara district. In 1957, Kokrajhar sub-division was created by carving out northern part of the sub-division of Dhubri and some parts of the sub-division of

Goalpara. Geographical area of the then Kokrajhar sub-division was 4065 (km^2); and the sub-division covered five tracts of the then popularly known Eastern Dooars consisting of Bijni, Sidli, Chirang, Ripu and Guma. On the day of 1st July, 1983, it was up-gradated to district status as Kokrajhar district; and the area was extended to the river Sonkosh in the west from the river Manas in the east. In 1989, when there was a further reorganization, about 40 percent of the geographical area of Kokrajhar district, area from Bijni and Sidli revenue circle was curved out and included in the new district of Bongaigaon. Further, some 20 villages from Naikgaon Panchayat under the Chapar Revenue Circle were merged with the district Kokrajhar. The present Geographical area of the district Kokrajhar which covers three sub-divisions, namely, Kokrajhar, Gossaigaon and Porbotjhora is estimated at 3,196.22 (km^2).

5.2.3 Population

The colorful Bodo community comprises the majority in Kokrajhar district. The district also has a sizeable Rajbangsi and Santhali population. As per 2011 census data, the percentage of SC and ST population in the district was 3.33 percent and 31.41 percent respectively. The total population of the district during 2001 was 905,764 with a decadal growth of 15 percent for the period 1991-2001, which is lower than the state and national average. As per 2011 census data, total population of the district increased to 887,142. The growth rate of population in the district during 2001-2011 was 15.21 percent which is lower than the state average of 17.07 percent. As per 2011 census data, 6.19 percent population in the district lives in urban areas, which is much lower than the state average of 14.9 percent. There are altogether four towns in the district. The density of population in the district was 269 which are lower than the state average of 398 (Census 2011). In terms of religion, altogether 65.6 percent population is constituted by the Hindus, 20.36 percent by the Muslims, 13.72 percent by the Christian and negligible proportion of the total population of the district belongs to other religions. Demographic pattern of the tribal inhabited district of Kokrajhar is unique in nature.

5.2.4 Sex ratio

The overall sex ratio in the district during 2011 was 959 against the state average of 958. Religion wise, sex ratio of the Christian community was better (960) than that of the Muslims (949) and the Hindu community (938) in the district.

5.2.5 Literacy Rate

As published by census data 2011, literacy rate of the Kokrajhar district was 65.22 percent which is lower than that of the state average of 72.19. Female literacy of 59.27 percent of the district was also far below the male literacy of 71.89 percent. Religion wise literacy rate as reflected from the census data 2011; the literacy rate of Hindus (56.1 percent) was better than that of the Muslims (40.7 percent) and Christians (44.4 percent) community. Gender discrepancy in literacy was more reflected in the district. The female literacy rates of Muslims (32.6 percent) found to be much lower than the Christian (37.2 percent) and the Hindus (46.3 percent). Literacy rate of the tribal inhabited district Kokrajhar has remained low which in turn affected formation of human capital in the district.

5.2.6 Workforce

As reflected by the census data 2011, the strength of workforce in the district at present is about 38.45 percent. This proportion is almost same to the state average of 38.36 percent. However, marginalization of workforce in the district (9.92 percent) is smaller than the state average of Assam (10.52 percent). Religion wise data reflects that Muslims has larger proportion of non-workers than other two major communities. Moreover, relatively smaller proportion of cultivators and larger proportion of agricultural labor among the rural Muslim community reflect that possession of cultivable land in the community is limited.

5.2.7 Education and Health

As per data published by the District Statistical Hand Book 2018-2019, the district has 1511 primary educational institutions, 289 middle schools, 77 high schools and 14 higher secondary schools. However, the pattern of enrolment at different levels

of education indicates that the district has much higher potential for enrollment of students than the state average. Statistical data indicates that each primary school in the district accommodates 94 students against the state average of 116 students, each middle schools accommodates 130 students while the state average is 171 and each high schools accommodates 113 students against the state average of 133 students. However, performance of students in final school examination under state education board is not satisfactory in the district. The pass percentage in the district during 2016 was just 50.20 percent (ranked 21st among the 33 district in the state) compared to the state average of 53.5 percent; even the percentage gone down from 2015 pass percentage of 52.49. The district has two hospitals (most of the districts in the state has one), 10 PHCs, 7 dispensaries, 160 sub-centers, diagnostic centre 11 and 383 pharmacy. There are also two private hospitals in the district. Hospital bed per lakh population in this district is 42, which is much higher than the state average of 27 per lakh population.

5.2.8 Human Development Index

Kokrajhar is one of the poor performing districts in terms of development, i.e. in the three basic dimensions of human development, that is, 'a long and healthy life, knowledge and decent standard of living'. As per Assam Human Development Report 2014, HDI value of the district was 0.519 (20^{th} rank), which is below the state average of 0.557. In terms of income, education and health, the district occupies 22^{nd}, 18^{th} and 14^{th} places respectively in district rankings. The Human Poverty Index calculated in 2011 indicates that 31.9 percent of population in the district lives under poverty and placed in 21^{st} rank in the state. In terms of Gender Related Development Index (GDI), the district is placed 10^{th} position in the state and the index 0.869 was lower than the state average of 0.875 (Assam Human Development Report, 2014).

5.2.9 Natural Resource Base

The district is situated in a humid sub-tropical climate, which is the characteristic of the lower Brahmaputra Valley of Assam. There is high rainfall and humidity. The district also has the largest concentration of forest in the state. The soil

in the district is fertile and suitable for paddy cultivation. The main source of irrigation in the district is the water that flows along the rivers, natural dongs and available canals. Rain water flows down from the hill tracts of Bhutan along the foothills and reserve forests of the district. Many rivers originating from Bhutan Hills and tributaries of the river Brahmaputra has been contributing to the agriculture as a source of irrigation; and among the rivers which flows along the district are river Tipkai, Sonkosh, Gourang and Champabati are important. The soil throughout the district is composed of sand and clay in varying proportion ranging from pure sand in the riverbed to soft clay in different parts. The rocks found in the district are all sedimentary type. In the southernmost part of district there are two small hills that are composed of metamorphic rocks. Forest is one of the most prominent features of Kokrajhar district. The present estimated area under reserved forests is roughly 1,719 sq. km. Though records show that about 55 percent of the total geographical area under reserved forest, the actual position has dwindled to some extent due to relentless felling of trees by unscrupulous elements and encroachment of reserved forest which form a serious concern for the district.

5.2.10 Gross District Domestic Product

The Gross State Domestic Product (GSDP) of Assam for the financial year 2016-17 at current prices and constant (2011-12 prices) was 254478 crore and 202656 crore respectively. The Gross District Domestic Product (GDDP) of Kokrajhar was smaller than some of the districts in the state; GDDP for the financial year 2016-17 at current and constant (2011-12 prices) was 651176 lakh and 552281 lakh respectively. The Per Capita GSDP of the state at current and constant prices was Rs. 75898 and Rs. 60442 respectively. The Per Capita GDDP of Kokrajhar at current prices was Rs. 61662; and contrary to this, the figure at constant prices was Rs. 53, 715. This indicates that the Per Capita income of the tribal inhabited district of Kokrajhar was much lower than the state average of Assam and all-India average. Agricultural activity and productivity in the district involves great concern of nutrition and food security unless effective policy is planned and executed by the authority.

5.2.11 Agriculture

. In Kokrajhar district, 27.1 percent of geographical area is put into agriculture use; the figure for the state as a whole is 35.6 percent. It is found that about 59.7 percent cropped area in this district is sown more than once, which is more than the state average of 43.6 percent. Moreover, net cropped areas of the district (54.6 percent) are under HYV seeds which are greater than the overall net cropped areas in the state (47.5 percent). Consumption of fertilizer per hectare in this district (45.6 kg) is also found to be more than the state average of (41.6 kg). However, it has been observed that the agricultural production has declined considerably in recent times.

5.2.12 Industries

The state of Assam is industrially backward state; and the position of Kokrajhar district in industrial scenario of the state is insignificant. The district has 27 registered factories and about 4 small scale units and 22 nos. of micro firms (1.8 percent of the state total). The district has five handloom training centers, four weavers' extension services units and three handloom production centers. The handloom production unit covers 1055 number of villages in the district; and a total of 59,579 Nos. of weavers are engaged. The handloom sector which has high potentiality in the district necessitates a proper initiative by the government.

5.3 Sample Households

According to 2011 census data, the BTAD area has 4 districts, 10 sub-division, 12 towns, 25 Development Blocks and 3066 villages with a total population of 31, 51,047. The present study (primary survey) covers the tribal inhabited district of Kokrajhar in BTAD. As per 2011 census data, the district has 3 subdivisions, 9 Revenue Circles, 11 CD Blocks (5 main blocks and 6 part blocks) which comprises 1068 villages including 15 uninhabited villages; and a total population of 887,142.

As analyzed details in chapter-1 about the methodology employed in the present study, primary data were collected during 2017-2018 from 375 households; from five Blocks, namely Kokrajhar Block, Dotma Block, Kachugaon Block, Gossaigaon Block and Hatidura Block has been considered for current study in the

district. The surveyed households are distributed over 15 villages spread over the district; considering three (3) villages from each Block. The surveyed 375 households had a total of 2005 family members of which 1014 persons of male and 990 persons of female. Survey data indicates that out of 375 sample households considered for the present study; caste wise percentage of sample households are represented by ST (51 percent), SC (4 percent), OBC (19 percent), General (2 percent) and others including minority community (24 percent).

5.4 Population, Family Size and Sex Ratio of Sample Villages

As per census data 2011, the Kokrajhar district has a total population of 887,142 which accounts for 2.84 percent of the total population of the state. The density of population of the tribal inhabited district of Kokrajhar is 269 persons per square kilometer which is lower than the average density for the state 398. The decadal variation in population (2001-2011) in the district of Kokrajhar is (15.21) which are lower than the state of (17.07).

Size of the population of a region has a link with various indicators of human development. Overpopulation is associated with negative environmental and economic outcomes ranging from the impacts of over-farming, deforestation, water pollution and global warming. In a 'capital poor' and technologically backward state like Assam, growth of population reduces output by lowering the per capita availability of capital which ultimately affect the standard of living index of the people in the society.

5.4.1 Average Family Size

A large family size has certain negative impact in the society. Large family size leads to low or poor levels of education, income, health, welfare and economic status. A smaller family size represents for better levels of education, incomes, health and economic life, and each child receives more parental attention and educational advantages, which generally raise her self-esteem. Children in small families tend to have higher school and personal achievement levels than the children of larger families; and thus affect human development indicators in the society.

Table 5.1 Population, Family Size and Sex Ratio in Sample Village

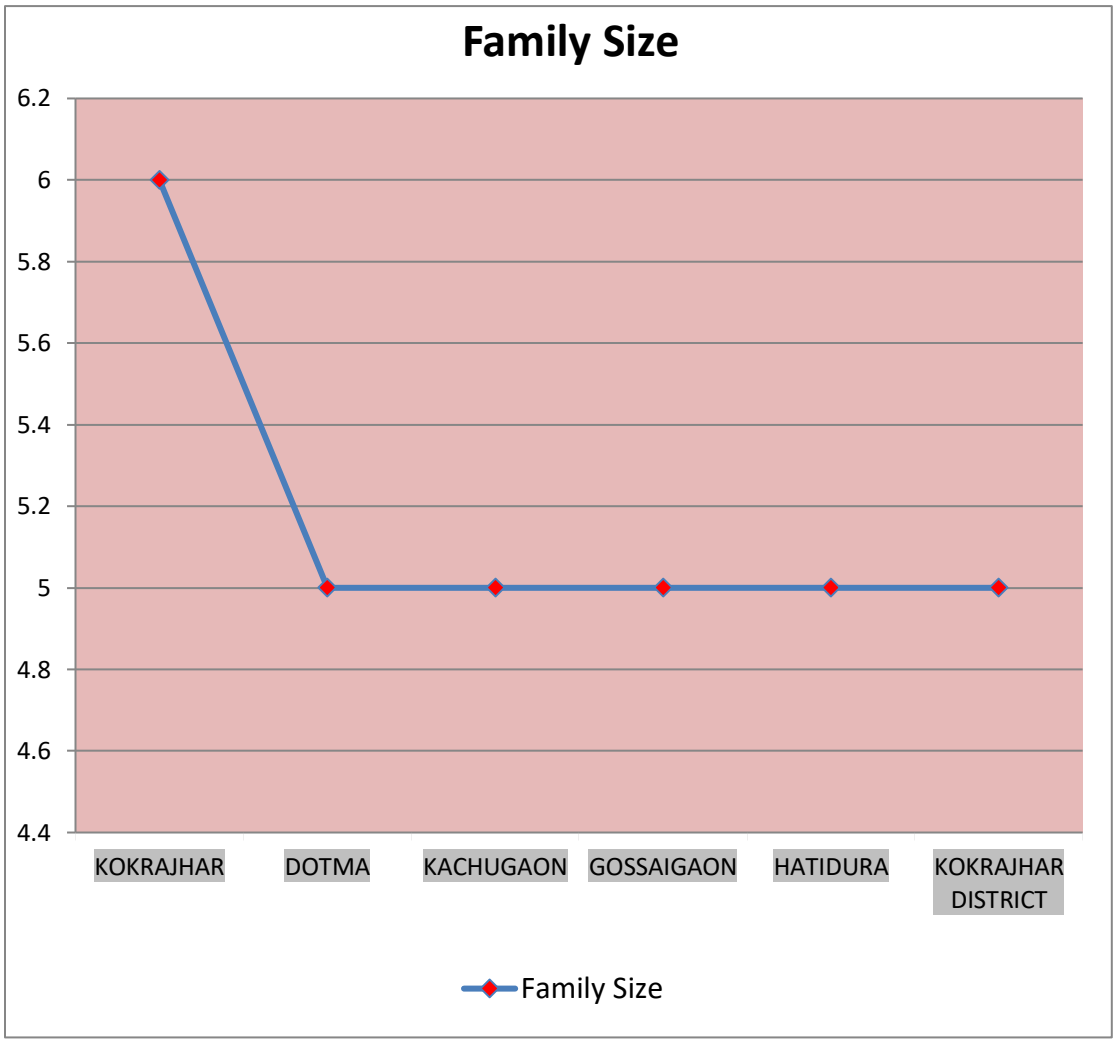
Village/ Block/District	Sample Household	Population			Average Family Size	Sex Ratio
		Person	Male	Female		
Haloadol	25	115	59	56	5	949
Ghoramara	25	160	79	81	6	1025
Dholmara	25	154	75	79	6	1053
Kokrajhar	**75**	**429**	**213**	**216**	**6**	**1014**
Gossainichina	25	143	71	72	6	1014
Singimari	25	126	65	61	5	938
Boragari	25	119	62	57	5	919
Dotma	**75**	**388**	**198**	**190**	**5**	**960**
Gangia	25	156	79	77	6	975
1No Sekadani	25	143	73	70	6	959
Kumtola	25	108	53	55	4	1038
Kachugaon	**75**	**407**	**205**	**202**	**5**	**985**
Habrubil	25	113	56	57	5	1017
Kartimari	25	132	71	61	5	859
Tulshibil	25	130	66	64	5	970
Gossaigaon	**75**	**375**	**193**	**182**	**5**	**943**
Pokalagi	25	126	62	64	5	1032
Srirampur No.1	25	150	77	72	6	935
Mechpara	25	130	66	64	5	970
Hatidura	**75**	**406**	**205**	**200**	**5**	**976**
Kokrajhar District	**375**	**2005**	**1014**	**990**	**5**	**976**

Source: Primary Survey

In the present context in which government is having family planning program, size of the average family member has important implications for human development aspect. Table 5.1 indicates that the average family size in the sample villages is ranges from four (4) to six (6). Ghoramara, Dholmara in Kokrajhar Block; Gangia, 1 No Sekadani in Kachugaon Block and Srirampur No. 1 in Hatidura Block have average family size of six (6). Out of fifteen (15) sample villages, Kumtola in Kachugaon Block represent single village having smallest average family size of four (4). Primary survey data shows that except Kokrajhar Block, all the four Blocks has average family size of five (5). In the present study, size of the average family represent

irrespective of nuclear, joint and extended type of family. The average family size of sample blocks in the district is depicted in Fig. 5.1.

Fig. 5.1 Average Family Size of Sample Blocks



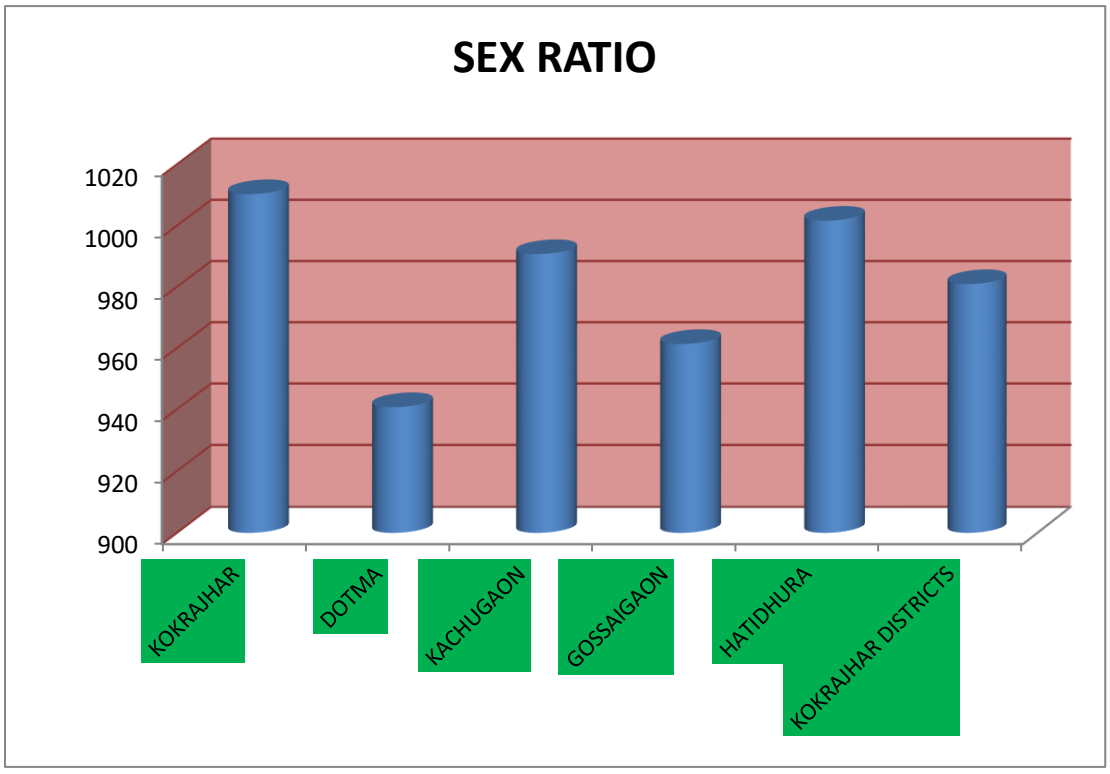
Source: Calculated based on Primary Data

Unlike other districts of Assam, the average family size in the tribal inhabited district of Kokrajhar did not vary significantly across the sample villages. Lack of educational awareness which acts as a barrier in the implementation of family planning/welfare program has contributed to this aspects. Given the limited resource base, this aspect has contributed to low level of human development in the study area.

5.4.2 Sex Ratio of Sample Villages in Kokrajhar District

The sex ratio is defined as the number of women per one thousand men. Sex ratio represents a good indicator about the social status of women that exist in the society. Sex ratio of a region involves economic and human capability implications as it is related to gender equity aspect in the society. Sex ratio in Assam was fond to be adverse during 2oth century, and it has improved significantly in recent decades only. Census data 2011 revealed that there were 958 women for every 1000 men in the State, compared to 943 per 1,000 for the country. It is worthwhile to mention that the sex ratio in the age group 0-6 years in the state of Assam is more equitable in comparison to all-India which has positive future implications. Improvement of sex ratio in Assam has come by the time when the overall sex ratio in the country has been declining; and this represent extremely positive development for the state of Assam. As estimated by the census data 2011, sex ratio of the tribal inhabited district was 959, higher by one woman for every 1000 male population of the state average.

Fig.5.2 Sex Ratio in Sample Blocks



Source: Calculated based on Primary Data

As shown in Table. 5.1, survey data indicates that the average sex ratio of tribal inhabited district of Kokrajhar is 976 which show better sex ratio than 2011 census data. It is noteworthy to mention that Ghoramara (1025), Dholmara (1053) in Kokrajhar Block; Habrubil (1017) in Gossaigaon Block and Pokalagi (1032) in Hatidura block have favorable sex ratio in which number of female is higher than male population. Survey data shows that Kokrajhar, Kachugaon, Hatidura, Dotma and Gossaigaon has sex ratio in descending order, represented by (1014), (985), (978), (960) and (943) females per thousand male population respectively. Survey data reveals that there are vast inter block differences of sex ratio in the study area. Blok wise sex ratio in the study area is depicted in the Fig. 5.2.

5.5 Age Composition of Sample Villages

The age composition of population has a important bearing and implications on the socio-economic life in the society; and it has undergone a considerable change during the period 1971-2011 in the state of Assam including tribal inhabited district of Kokrajhar. Fertility rate in the state during the period 1971-2011 has declined; and this aspect is revealed by the fact that the proportion of the age group of population with 0-14 years has decreased from 46.9 percent to 40.2 percent during the period. However, there was an increase in the proportion of women population in the age group of 15-49 years from the figure 43.4 percent in 1971 to 49 percent in 2011 revealing the possibility of high birth rate in the state.

Table 5.1 shows the age distribution of population in the study area based on primary survey. Primary data indicates that on average age category below 6 years, 7-14 years, 15-59 years and above 60 years are represented by 10 percent, 14 percent, 63 percent and 12 percent respectively in the tribal inhabited district of Kokrajhar.

5.5.1 Population below Six Years

In the present context in which government is having family planning program, age composition of the population in the society has important implications for human development aspect. Table 5.2 represents age wise population distribution in sample

Table 5.2 Age wise Population Distribution of Sample Villages in Kokrajhar District

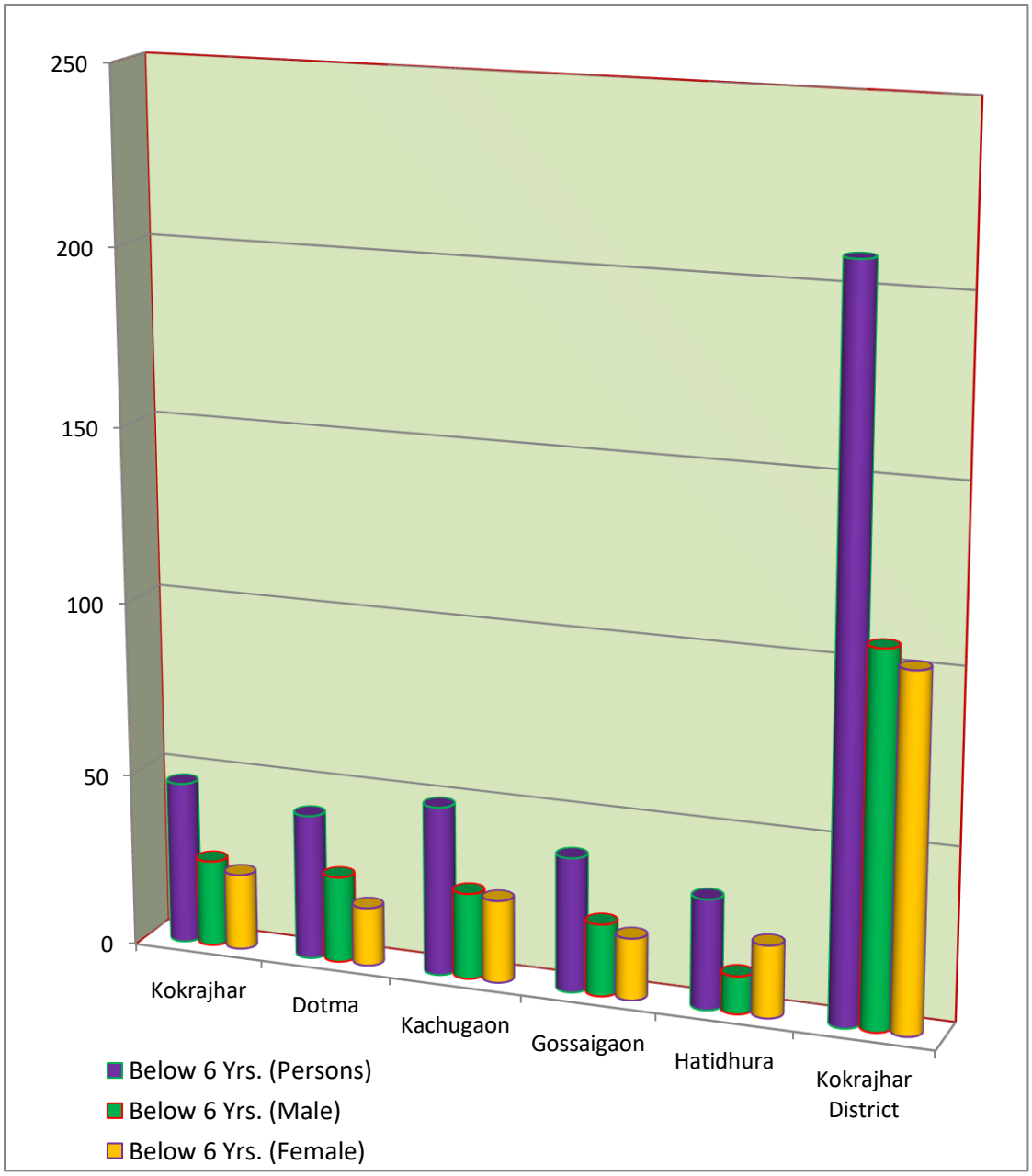
Village/ Block/District	Persons	Below 6 Years			7 Years to 14 Years			15 Years to 59 Years			Above 60 Years		
		P	M	F	P	M	F	P	M	F	P	M	F
Haloadol	115	8	6	2	21	13	8	80	39	41	6	3	3
Ghoramara	160	16	7	9	35	16	19	84	42	42	25	12	13
Dholmara	154	23	12	11	19	5	14	96	48	48	16	9	7
Kokrajhar Block	**429**	**47 (11)**	**25 (6)**	**22 (5)**	**75 (17)**	**34 (8)**	**41 (9)**	**260 (61)**	**129 (30)**	**131 (31)**	**47 (11)**	**24 (6)**	**23 (5)**
Gossainichina	143	16	9	7	21	12	9	76	35	41	21	9	12
Singimari	126	16	9	7	22	11	11	75	39	36	13	6	7
Boragiri	119	10	7	3	5	2	3	93	51	42	11	6	5
Dotma Block	**388**	**43 (11)**	**25 (7)**	**17 (4)**	**49 (13)**	**26 (7)**	**23 (6)**	**247 (64)**	**127 (33)**	**120 (31)**	**49 (13)**	**21 (6)**	**28 (7)**
Gangia	156	25	11	14	11	5	6	107	56	51	13	8	5
1No Sekadani	143	14	9	5	6	5	1	99	46	53	24	13	11
Kumtola	108	10	5	5	17	8	9	69	35	34	11	4	7
Kachugaon Block	**407**	**49 (12)**	**25 (6)**	**24 (6)**	**34 (8)**	**18 (4)**	**16 (4)**	**275 (68)**	**137 (34)**	**138 (34)**	**48 (12)**	**25 (6)**	**23 (6)**
Habrubil	113	11	7	4	20	9	11	75	35	40	7	4	3
Kartimari	132	14	10	4	18	11	7	85	41	44	14	9	5
Tulshibil	130	14	4	10	21	14	7	74	38	36	21	10	11
Gossaigaon Block	**375**	**39 (11)**	**21 (6)**	**18 (4)**	**59 (16)**	**34 (9)**	**25 (7)**	**234 (62)**	**114 (30)**	**120 (32)**	**42 (11)**	**23 (6)**	**19 (5)**

Pokalagi	126	9	3	6	28	13	15	80	41	39	8	3	5
Sirampur No.1	150	15	7	8	17	11	6	93	47	46	28	12	16
Mechpara	130	8	1	7	20	12	8	87	47	40	14	6	8
Hatidhura Block	**406**	**32 (8)**	**11 (3)**	**21 (5)**	**65 (16)**	**36 (9)**	**29 (7)**	**260 (64)**	**135 (33)**	**125 (31)**	**50 (12)**	**21 (5)**	**29 (7)**
Kokrajhar District	**2005**	**209 (10)**	**107 (5)**	**102 (5)**	**281 (14)**	**147 (7)**	**134 (7)**	**1273 (63)**	**640 (32)**	**633 (31)**	**232 (12)**	**114 (6)**	**118 (6)**

Source: Primary Survey

Note: Figure in parenthesis represent average percentage

Fig.5.3 Size of Population below 6 Years in Sample Blocks



Source: Calculated based on Primary Data

villages. Survey data indicates that the below 6 years average population in the district is given by 10 percent; highest in Kachugaon Block (12 percent) and lowest in Hatidura Block (8 percent). Below 6 years population in Kokrajhar Block, Dotma Block and Gossaigaon Block is given by 11 percent (for all the 3 Blocks). Table 5.2

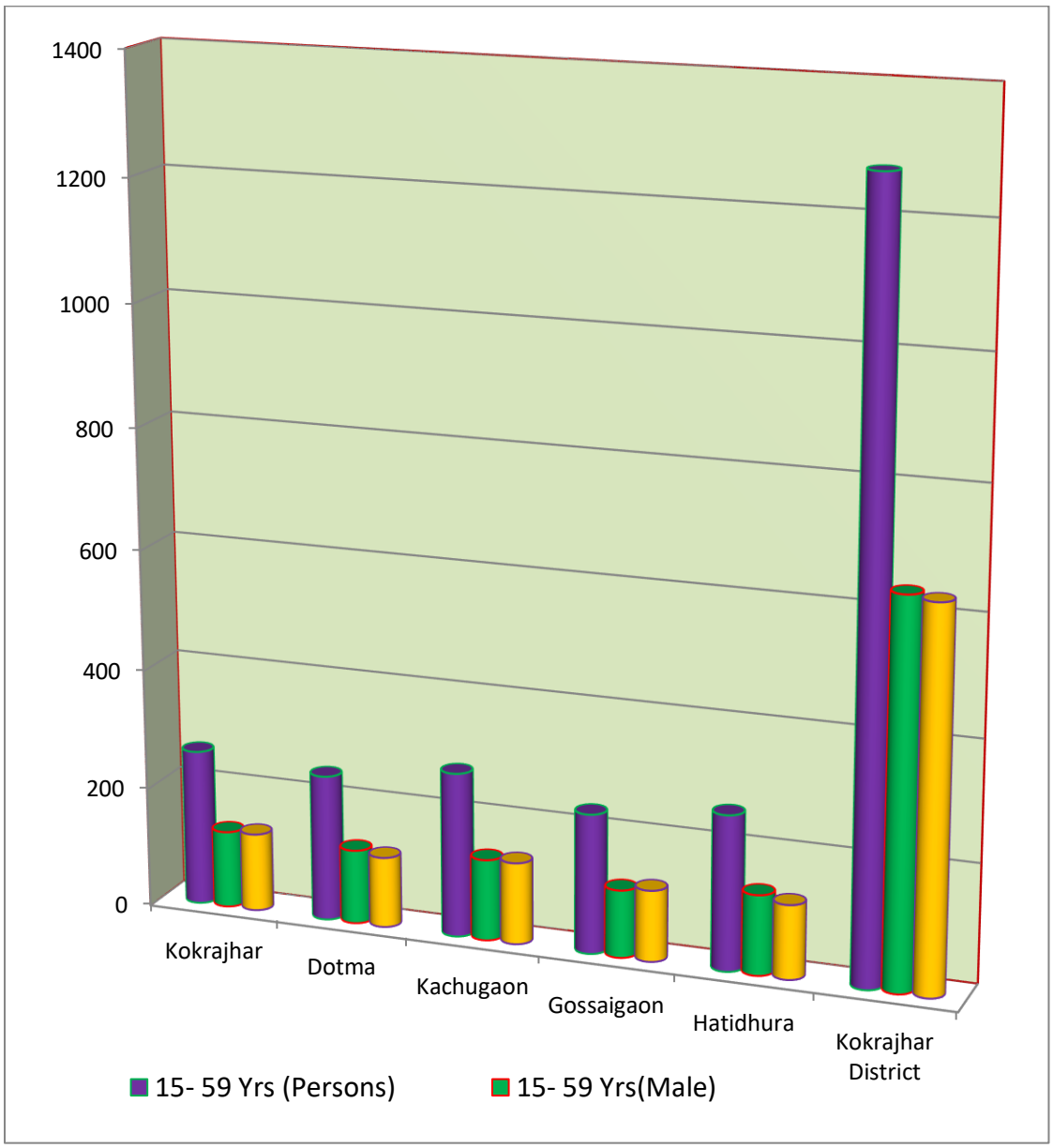
shows that the boys and girls population percentage in the district is represented by equal average percentage of (5 percent); Block wise, Kokrajhar Block is represented by (6 percent) and (5 percent), Dotma Block (7 percent) and (4 percent), Kachugaon Block (6 percent), Gossaigaon Block (6 percent) and (4 percent) and Hatidura Block (3 percent) and (5 percent) respectively for boys and girls. It is noteworthy that among the five (5) Blocks, the percentage of girls' population is higher than boys' counterpart in Hatidura Block; in all other Blocks Kokrajhar Block, Dotma Block, Kachugaon Block and Gossaigaon Block percentage of boys is greater than girls' population. Average male population of below 6 years is greater than female counterparts except Hatidura Block; male 3 percent and female 5 percent on average. Village wise, all sample villages in Hatidura - Pokalagi, Mechpara and Srirampur No.1 and Tulshibil in Gossaigaon Block; Ghoramara in Kokrajhar Block has higher average female population than males under the category of below 6 years age of population. In all other ten (10) sample villages in the district, the percentage of boys population is higher than girls population. Population distribution of below 6 years in sample Blocks is shown in Fig. 5.3.

5.5.2 Economically Active Population (15-59 Years)

Population distribution in a society has great economic implications. Population representing age group of 15-59 years is considered as economically active population in the economy. Primarily, productivity of output and the growth of the economy depend on this section of the population in the society. Primary data shows that on average, 63 percent of the total population represents the age group from 15 to 59 years in the district. Kachugaon Block has the highest percentage given by 68 percent; followed by Hatidura Block (64 percent), Dotma Block (63 percent), Gossaigaon Block (62 percent) and Kokrajhar Block (61 percent).

Among the five Blocks in the study area, Dotma and Hatidura Blocks have greater male percentage of the economically active population group than female counterpart; male and female percentage being (33 percent) and (31 percent) respectively in both Dotma and Hatidura Block. Kokrajhar Block, Kachugaon

Fig.5.4 Economically Active Population (15 to 59 Years) in Sample Blocks



Source: Calculated based on Primary Data

respectively in both Dotma and Hatidura Block. Kokrajhar Block, Kachugaon Block and Gossaigaon Blocks have smaller percentage of male than female in this category of age distribution. The percentage of male and female population are represented by (30 percent) and (31 percent) in Kokrajhar Block and (30 percent) and (32 percent) respectively in Gossaigaon Block. The Kachugaon Block has equal percentage of both

male and female population under the category of 15-59 years of age; the percentage being (34 percent). Survey data also reveals that the average percentage of male and female population in the district under the category of 15-59 years of age is given by (32 percent) and (31 percent) respectively. Fig. 5.4 shows the Block wise distribution of economically active population group in the study area.

5.6 Caste wise Population Distribution

The state of Assam is uniquely diverse in terms of its demography. The demographic pattern of a region has significant implications in making diverse choices in life. Effective understanding and critical analysis of the differential development outcomes is required; and this aspect has an important linkage with human capability. In Assam, there are about 26 scheduled tribes (STs) and 22 scheduled castes (SCs) which account 12.44 percent of ST and 7.15 percent of SC population. The population structure in the state also diverse; as per census data 2011, 17 out of 27 districts in the state have been identified as religious minority concentrated blocks in the state. This demographic diversity has a bearing on myriad socio-cultural-political implications which need to be observed carefully while formulating plan and policies for development.

Caste wise distribution of population in the present study area is represented by the Table 5.3. Survey data shows that at the village level, six villages, namely Haloadol, Gossainichina, Boragari, Gangia, 1 No. Sekadani and Kumtola represent 100 percent ST population. OBC population is represented by Dholmara (36 percent), Tulshibil (40 percent), Habrubil (12 percent), Kartimari (60 percent), Srirampur No.1 (64 percent) and Mechpara (80 percent) respectively. While considering SC category, sizable households is found in Kartimari (20 percent) and Srirampur No.1 (36 percent) respectively. The percentage of general category (other than Muslims) population is very much insignificant in the sample villages; the percentage being (16 percent) in the village Dholmara and (8 percent) in Kartimari. Survey data indicates that Ghoramara, Singimari and Pokalagi are the three villages in which (100 percent) households are represented by minority community (Muslims).

Table 5.3 Caste Wise Percentage of Population in Sample Villages

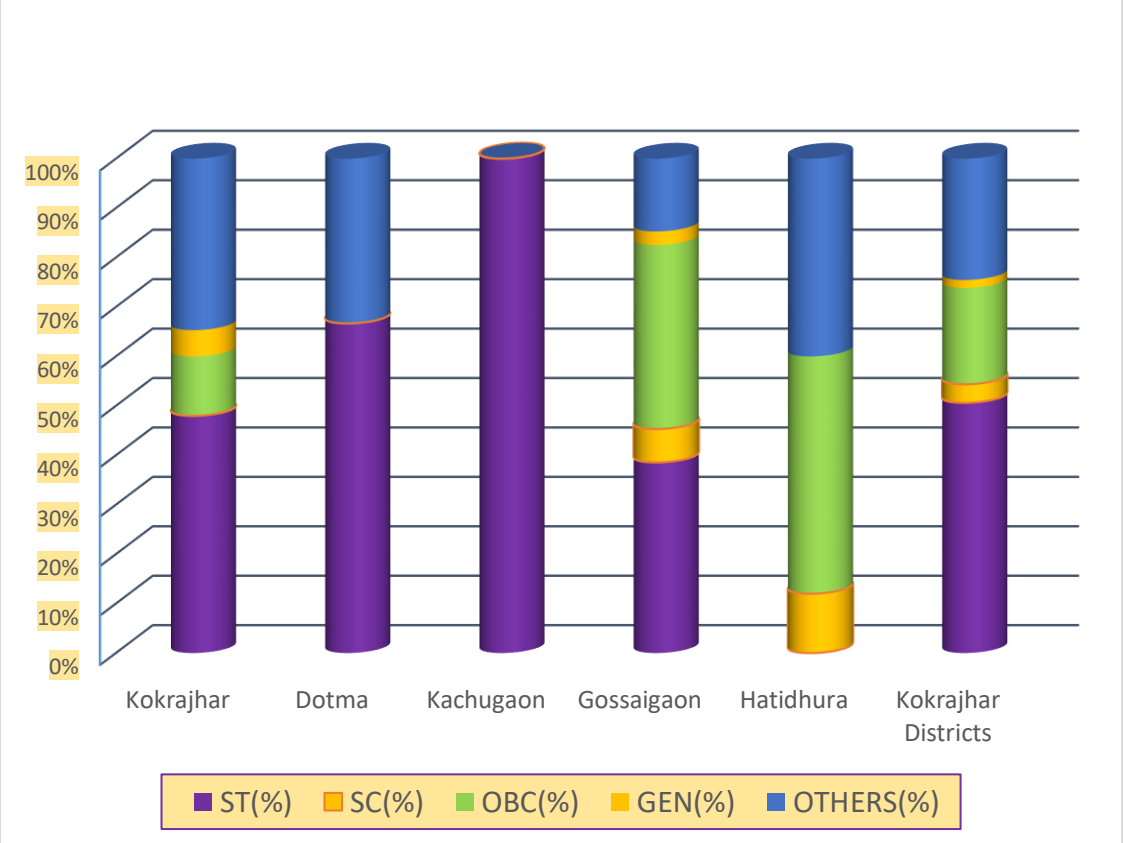
Village/ Block / District	No. of Household	ST		SC		OBC		GEN		OTHERS	
		No.	%	No.	%	No.	%	No.	%	No.	%
Haloadol	25	25	100	0	0	0	0	0	0	0	0
Ghoramara	25	0	0	0	0	0	0	0	0	25	8
Dholmara	25	11	44	0	0	9	36	4	16	1	0
Kokrajhar	**75**	**36**	**48**	**0**	**0**	**9**	**12**	**4**	**5**	**26**	**35**
Gossainichina	25	25	100	0	0	0	0	0	0	0	0
Singimari	25	0	0	0	0	0	0	0	0	25	0
Boragari	25	25	100	0	0	0	0	0	0	0	0
Dotma	**75**	**50**	**67**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**33**
Gangia	25	25	100	0	0	0	0	0	0	0	**0**
1No Sekadani	25	25	100	0	0	0	0	0	0	0	0
Kumtola	25	25	100	0	0	0	0	0	0	0	0
Kachugaon	**75**	**75**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Habrubil	25	17	68	0	0	3	12	0	0	5	20
Kartimari	25	2	8	5	20	15	60	2	8	1	4
Tulshibil	25	10	40	0	0	10	40	0	0	5	20
Gossaigaon	**75**	**29**	**39**	**5**	**7**	**28**	**37**	**2**	**3**	**11**	**15**
Pokalagi	25	0	0	0	0	0	0	0	0	25	100
SirampurNo.1	25	0	0	9	36	16	64	0	0	0	0
Mechpara	25	0	0	0	0	20	80	0	0	5	20
Hatidura	**75**	**0**	**0**	**9**	**12**	**36**	**48**	**0**	**0**	**30**	**40**
Kokrajhar District	**375**	**190**	**51**	**14**	**4**	**73**	**19**	**6**	**2**	**92**	**24**

Source: Primary Survey

At Block level, survey data reveals that the percentage of ST population is represented by Kokrajhar (48 percent), Dotma (67 percent), Kachugaon (100 percent), and Gossaigaon (39 percent). SC population is represented by Gossaigaon (7 percent) and Hatidura (12 percent). OBC category population constituted by Kokrajhar (12 percent), Gossaigaon (37 percent) and Hatidura (48 percent); and General category

population is represented by Dotma (33 percent), Gossaigaon (15 percent) and Hatidura (40 percent) respectively. The district on average constitute ST, SC, OBC, General and Minority community by (51 percent), (4 percent), (19 percent), (2 percent) and (24 percent) respectively. Caste wise percentage of population in sample Block is diagrammatically represented in Fig. 5.5.

Fig. 5.5 Caste Wise Percentage of Population in Sample Blocks



Source: Calculated based on Primary Data

5.7 Education and Literacy

Education represents one of the fundamental dimensions of human development. Education plays a crucial role in the process of enlarging diverse choices and opportunities by the people in the society. Right to education represents one of the fundamental rights of human being which helps in acquiring knowledge, ideas which

provide access and mobility to the people. An educated person by acquiring knowledge can contribute towards the formation of meaningful community life.

Table 5.4 Literacy Rate in Sample Villages

Village / Block/ BDistrict	No. of Population			Literacy Rate					
	P	M	F	L (P)	L (%)	M (P)	M (%)	F (P)	F (%)
Haloadol	115	59	56	107	93	57	97	50	89
Ghoramara	160	79	81	97	61	46	58	51	63
Dholmara	154	75	79	123	80	61	81	62	79
Kokrajhar	**429**	**213**	**216**	**327**	**76**	**164**	**77**	**163**	**75**
Gossainichina	143	71	72	108	76	52	73	56	78
Singimari	126	65	61	97	77	49	75	48	79
Boragiri	119	62	57	92	77	56	90	36	63
Dotma	**388**	**198**	**190**	**297**	**77**	**157**	**79**	**140**	**74**
Gangia	156	79	77	104	67	57	72	47	61
1No Sekadani	143	73	70	108	76	60	82	48	69
Kumtola	108	53	55	56	52	33	62	23	42
Kachugaon	**407**	**205**	**202**	**268**	**66**	**150**	**73**	**118**	**59**
Habrubil	113	56	57	103	91	50	89	53	93
Kartimari	132	71	61	96	73	56	79	40	66
Tulshibil	130	66	64	91	70	50	76	41	64
Gossaigaon	**375**	**193**	**182**	**290**	**78**	**156**	**81**	**134**	**74**
Pokalagi	126	62	64	106	84	52	84	53	83
Srirampur No.1	150	77	72	113	76	61	79	52	72
Mechpara	130	66	64	108	83	58	88	50	78
Hatidura	**406**	**205**	**200**	**328**	**81**	**171**	**83**	**155**	**78**
Kokrajhar Districts	**2005**	**1014**	**990**	**1510**	**76**	**798**	**79**	**710**	**72**

Source: Primary Survey

Note: P= Persons M= Male F= Female

Acquiring knowledge by the individuals represents one of the important indicators of human development. Literacy and educational attainment by the individuals determines the quality of life of a person which in turn depends upon provisioning and governance of educational system. Equitable distribution and an effective educational provisioning, by enhancing educational attainments enlarges choices of the people in the society.

An effective analysis of educational attainment and its provisioning is crucial in the framework of human development. Assam HDR, 2014 reveals that among 6-16 years of age children; 6.45 percent were out of school, 28 percent never been enrolled, about three-fourth children dropped out and some percentage of the children who have not given up formally, do not attend the school either.

Assam Human Development Report, 2014 also shows the most striking feature of high incidence of school drop- out rate; and the case is even true for educationally advanced districts in the state. The report also revealed high drop-out rate in border areas of the state where 8 out of 10 students leave without completing of schools and the case is true in case of hills area of the state. It has also been observed that girls population have higher proportion of non-enrollment in comparison to boys counterpart.

There is a growing divide between the public and private schools; there has been a trend that parents send their children to private schools or institutions in the state. Regularity of classes, better care taken of the students, regularity of teachers while taking the classes, better infrastructure-both academic and non-academic are the important reasons as informed by the parents for the ongoing trend of students movement towards private school in the state.

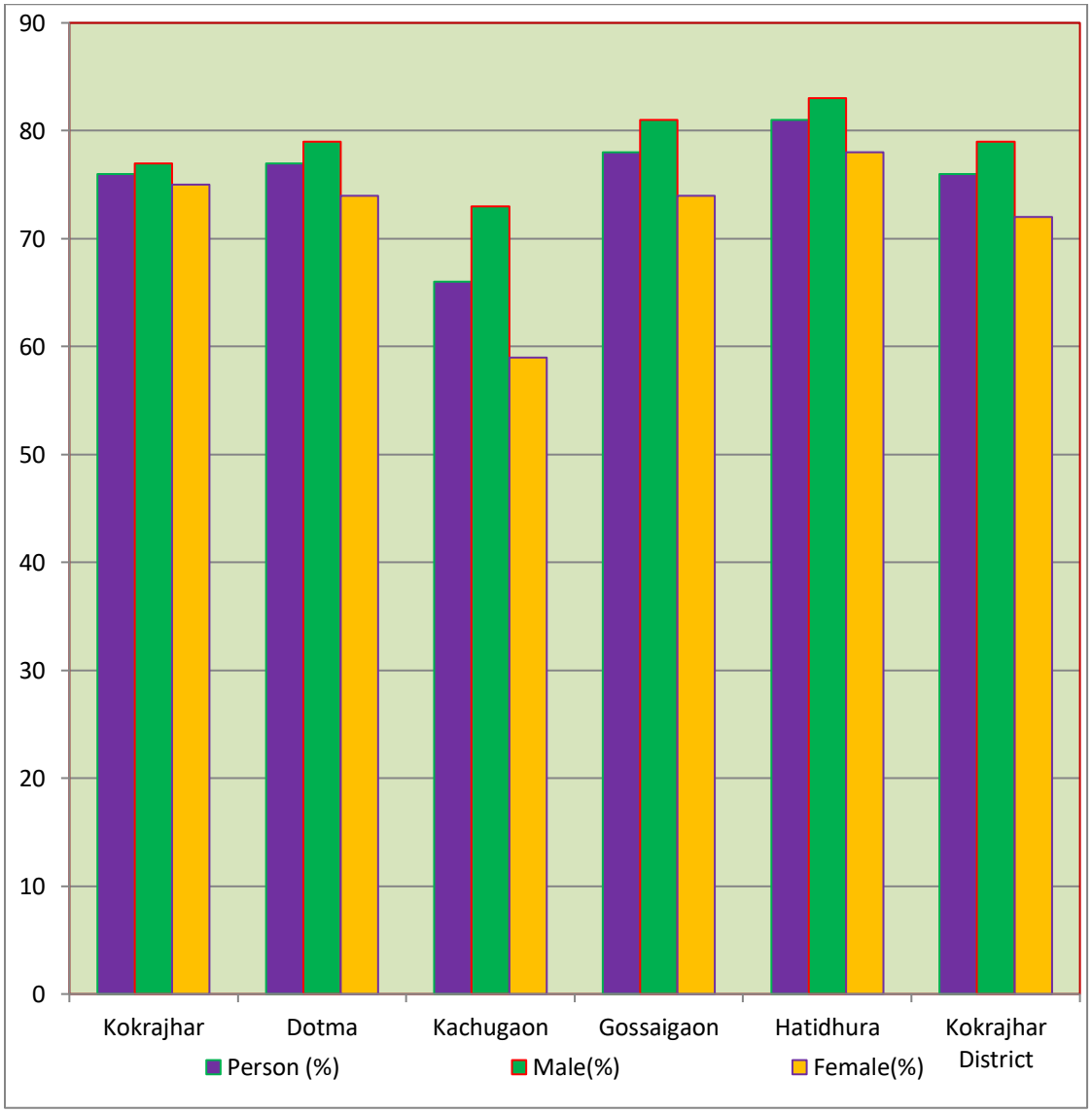
National Statistical Office (NSO), Assam holds the fifth position in the country with a literacy rate of 85.9 percent. The tribal inhabited district of Kokrajhar is educationally backward. As per 2011 census data, average literacy rate of Assam and Kokrajhar was 73.18 and 65.22 respectively which shows a vast gap between the literacy rate of Kokrajhar and state average of Assam.

Table 5.4 shows village and block wise literacy rate in the study area. Survey data indicates that the average literacy rate of tribal inhabited district of Kokrajhar is 76.0 percent which is much lower than the state average of Assam 85.9 percent as recently announced by the National Statistical Office (NSO). Survey data also reveals inequality between male and female; male and female literacy rate being 79 and 72 percent respectively.

At Block level, Hatidura is at the top with 81 percent and Kachugaon at the bottom with only 66 percent literacy rate. Gossaigaon, Dotma and Kokrajhar represent 2nd, 3rd and 4th position with 78 percent, 77 percent and 76 percent respectively. Male and female literacy percentage is represented by Kokrajhar (Male: 77 and Female: 75) percent; Dotma (Male: 79 and Female: 74) percent; Kachugaon (Male: 73 and Female: 59) percent; Gossaigaon (Male: 81 and Female: 74) percent; and Hatidura (Male: 83 and Female: 78) percent. It is noteworthy that in the sample Blocks, the male-female literacy gap is highest in Kachugaon Block; male and female literacy rate being (73 percent) and (59 percent) respectively, representing a gap of (14 percent). The survey data shows a gap between highest and lowest male literacy with 10 percent; and the gap is even more in case of female literacy with 19 percent gap between highest and lowest percentage which form a serious concern for the tribal inhabited district of Kokrajhar.

While looking at village wise literacy rate, Haloadol, Habrubil and Pokalagi represent 1st, 2nd and 3rd position with 93 percent, 91 percent and 84 percent respectively; and from the bottom Kumtola, Ghoramara and Gangia represent 1st, 2nd and 3rd position with 52 percent, 61percent and 67 percent respectively showing a vast gap between highest and lowest percentage being 41 percent. Survey data shows that Haloadol, Boragari and Habrubil represent 1st, 2nd and 3rd position with 97 percent, 90 percent and 89 percent of male literacy rate respectively. From the bottom, Ghoramara, Kumtola and Gangia represent 1st, 2nd and 3rd position with 58 percent, 62 percent and 72 percent respectively, indicating a gap of 25 percent between highest and lowest male literacy rate in the district. In case of female literacy, survey data reveals that from the top Habrubil, Haloadol and Pokalagi represents 1st, 2nd and 3rd

Fig.5.6 Block wise Literacy Rate in Sample Blocks



Source: Calculated based on Primary Data

position with 93 percent, 89 percent and 83 percent respectively; from the bottom Kumtola, Gangia; and Boragari and Ghoramara jointly represent 1st, 2nd and 3rd position with 42 percent, 61percent and 63 percent respectively showing a gap of 51 percent between highest and lowest female literacy rate which reveals a great concern for policy implications. In the present study area of Kokrajhar district, as a whole, the literacy percentage on average is given by 76 percent; male and female literacy rate

being 79 percent and 72 percent respectively; indicating a gap of 7 percent between the male and female literacy rate in the district. Block wise Literacy Rate in the study area is diagrammatically depicted in the Fig. 5.6.

Above analysis indicates that the tribal inhabited district of Kokrajhar is backward in terms of educational attainment. Literacy percentage of the district is far below the state average of Assam. There is uneven distribution of educational opportunities in the study area; and also wide gap between the male and female literacy rate. Educational infrastructure, both physical as well as academic is poor; high dropout rate prevails. All these stated aspect reveals that a proper policy formulation and its implementation is required for providing educational opportunities to all sections of the society; including both male and female population in this tribal inhabited district of Kokrajhar.

5.8 Human Development Index (HDI)

The state of Assam is lagging behind most the states of the country in terms of human development aspect; and the condition is even more worsening in the tribal inhabited district of Kokrajhar. In present study, to evaluate various aspects of human capabilities in the district, a primary survey was made during 2017 – 2018 by employing the methodology as stated above. Table 5.5 represents block wise and village wise HDI and dimensional index in the study area. The survey report indicates that out of five (5) numbers of blocks in the district, performance of the Gossaigaon Block with HDI value (0.532) is better than other Blocks; and Kachugaon Block (0.480) represents worst performer in terms of human development indicators. The study reveals that average dimensional index of health and income in the Gossaigaon Block are comparatively higher than other Blocks in the district indicating that the condition of health care facilities and standard of living of the people in the Block is better than other Blocks. Education index of the Block is also comparatively higher; next to Kokrajhar Block indicating that educational achievement (MYS and EYS) is higher in the Block. Better health care facility, proper educational provision and

higher income and employment opportunity prevails in the Gossaigaon Block in comparison to other sample Blocks in the district. Survey data reveals that the

Table 5.5 HDI and Dimensional Index of Sample Villages

Village/Block/ District	Dimensional Index			HDI	Rank
	Health	Education	Income		
Haloadol	0.522	0.766	0.485	0.578	
Ghoramara	0.494	0.575	0.392	0.480	
Dholmara	0.506	0.641	0.312	0.465	
Kokrajhar Block	**0.507**	**0.660**	**0.396**	**0.508**	**2nd**
Gossainichina	0.498	0.730	0.351	0.502	
Singimari	0.502	0.573	0.318	0.449	
Boragiri	0.527	0.624	0.410	0.511	
Dotma Block	**0.509**	**0.642**	**0.359**	**0.487**	**4th**
Gangia	0.479	0.617	0.342	0.465	
1No Sekadani	0.528	0.668	0.404	0.521	
Kumtola	0.497	0.508	0.375	0.454	
Kachugaon Block	**0.501**	**0.597**	**0.373**	**0.480**	**5th**
Habrubil	0.568	0.792	0.587	0.641	
Kartimari	0.480	0.555	0.344	0.449	
Tulshibil	0.517	0.619	0.412	0.507	
Gossaigaon Block	**0.522**	**0.655**	**0.447**	**0.532**	**1st**
Pokalagi	0.468	0.581	0.313	0.439	
Sirampur No.1	0.511	0.688	0.471	0.549	
Mechpara	0.465	0.610	0.384	0.477	
Hatidhura Block	**0.481**	**0.626**	**0.389**	**0.488**	**3rd**
Kokrajhar District	**0.504**	**0.636**	**0.392**	**0.499**	

Source: Primary Survey Data

dimensional index value of health, education and income in Kachugaon Block are not encouraging. Health index represents 2nd position from the bottom among the Blocks indicating a low level of health status and health care facilities in the Block. Other health related facilities like sanitation facilities, bathroom facilities are also very much poor in the Block. The Block also represents lowest dimensional index of education among the sample Blocks, representing low level of educational attainment by the

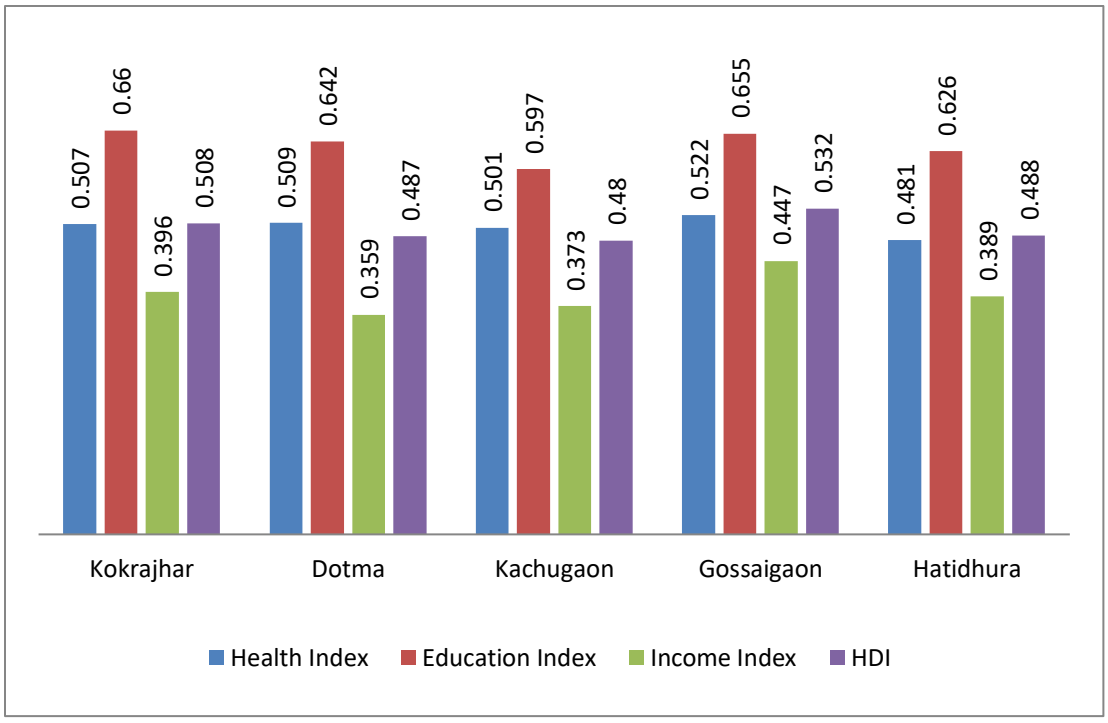
people in the Block; educational infrastructure, both academic and non-academic are at the very low level. Dimensional index of income also represents lowest among the sample Block; revealing a low standard of living of the people. Study reveals low opportunity of income and employment in Kachugaon Block.

Survey data indicates that Gossaigaon, Kokrajhar, Hatidura, Dotma and Kachugaon Block ranked 1st, 2nd, 3rd, 4th and 5th respectively. The present study estimated the average HDI value of the district at (0.499) which is much lower than the state average of (0.557) as given by Assam Human Development Report, 2014. However, HDI value of estimated by present study represents rural areas only. HDI of Gossaigaon Block (0.532) and Kokrajhar Block (0.508) are higher than district average; and HDI of Hatidura Block (0.488), Dotma Block (0.487) and Kachugaon Block (0.480) represents below average of the district. While considering health dimension, Gossaigaon Block ranked 1st with (0.522) and Hatidura Block raked 5th with (0.481). In case of Education Index, Kokrajhar Block ranked 1st with (0.660) and Kachugaon Block placed at the bottom with (0.597). Considering income index, Gossaigaon Block represents top position with (0.447) and Dotma Block at the bottom with (0.359). As per survey data, the Kokrajhar district in average, out of three HDI dimensions, performance in income dimension is poorest (0.392); educational index given by (0.636), followed by health index (0.504).

It is also observed that, overall human development is driven by the achievements in educational dimension in the districts and the state; and the primary data also reveals the same aspect. The standard of living of the people in the tribal inhabited district of Kokrajhar is a serious concern; income index of the district as per survey data is too low (0.393) representing below halfway to reach the goalpost. Survey data reveals that the HDI largely vary across the sample Block; the gap between the highest HDI (0.532) attained by Gossaigaon Block and lowest HDI (0.480) attained by Kachugaon Block is given by (0.052). The Gossaigaon Block which attained 1st rank is better performed in terms of health, education and income dimensions than other Blocks in the district. Basically, performance of the village Habrubil has contributed much; and it attained highest value in all the three

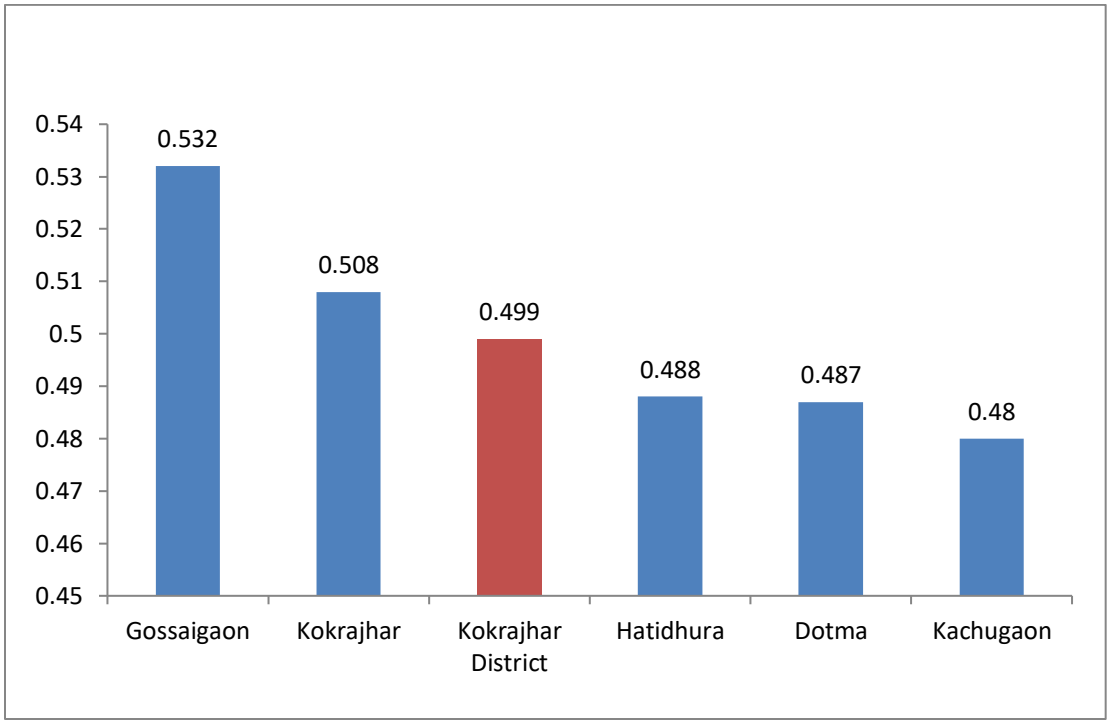
dimensions among the sample villages. From the survey data it has been observed that the facility of health services and education are availed by the villagers; and most of the households in the village are employed in govt. job. Performance of the other two villages is more or less same with other sample villages considered for the study. On the other hand, the Kachugaon Block which is ranked bottom; health dimension in the Block which represents health status is very poor (0.501); the village Gangia has lowest with (0.479) value. Education index of village Kumtola in the Block is very low (0.508). Income index of the Block which indicates standard of living is the lowest in the district (0.373); village Gangia and Kumtola with (0.342) and (0.375) respectively. From the survey data it has been observed that the facility of health services is very much poor; and the Block is confronted with high incidence of unemployment. The HDI and dimensional index of health, education and income of sample Block are represented in the Fig. 5.7. Fig. 5.8 gives diagrammatic representation of the HDI of sample Block in the district.

Fig. 5.7 Dimensional Index of Sample Blocks in the District



Source: Calculated based on Primary Data

Fig. 5.8 Human Development Index of Sample Blocks in the District

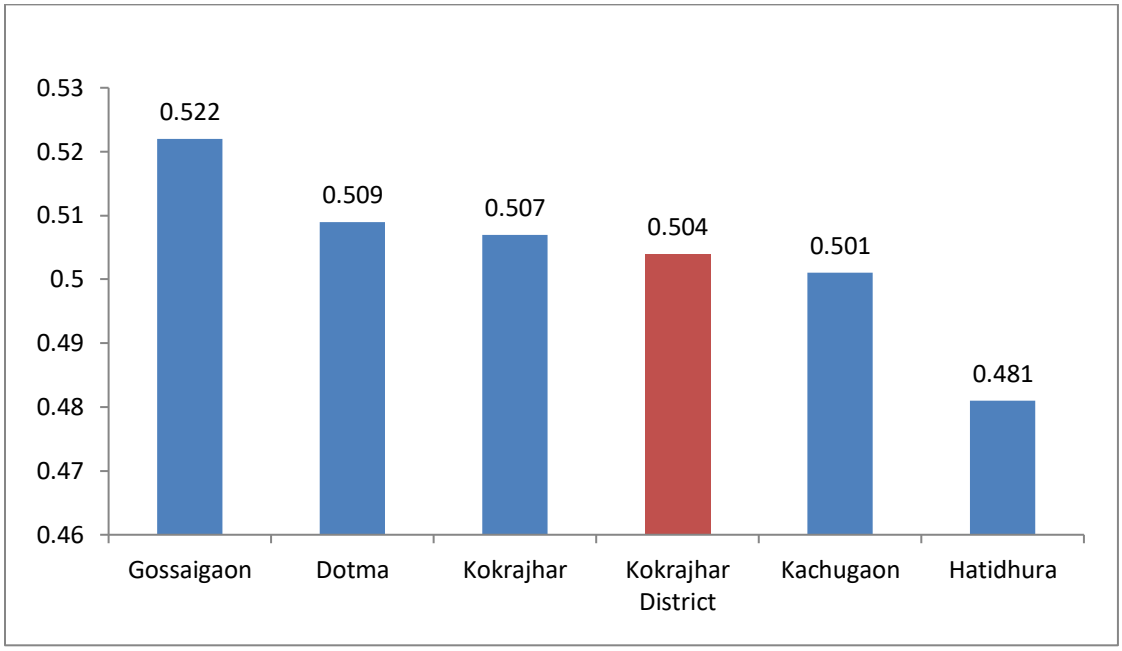


Source: Calculated based on Primary Data

Fig. 5.9 shows health index of sample Block in the district based on primary data. The data reveals that the average dimensional health index of sample Block is represented by (0.504). Three (3) Blocks have the value higher than district average; Gossaigaon (0.522), Dotma (0.509) and Kokrajhar (0.507). Two (2) Blocks have the value lower than district average, namely Kachugaon (0.501) and Hatidura (0.481). Health index of sample Blocks reveals inter Block differences; lowest value attained by Hatidura Block (0.481) and highest value by Gossaigaon Block (0.522) represents a gap of (0.041) between the highest and lowest dimensional index. It is noteworthy that the dimensional health index (0.504) of present study based on primary data for Kokrajhar district is lower than the figure published by AHDR, 2014; the report assigned health index of the district (0.539).

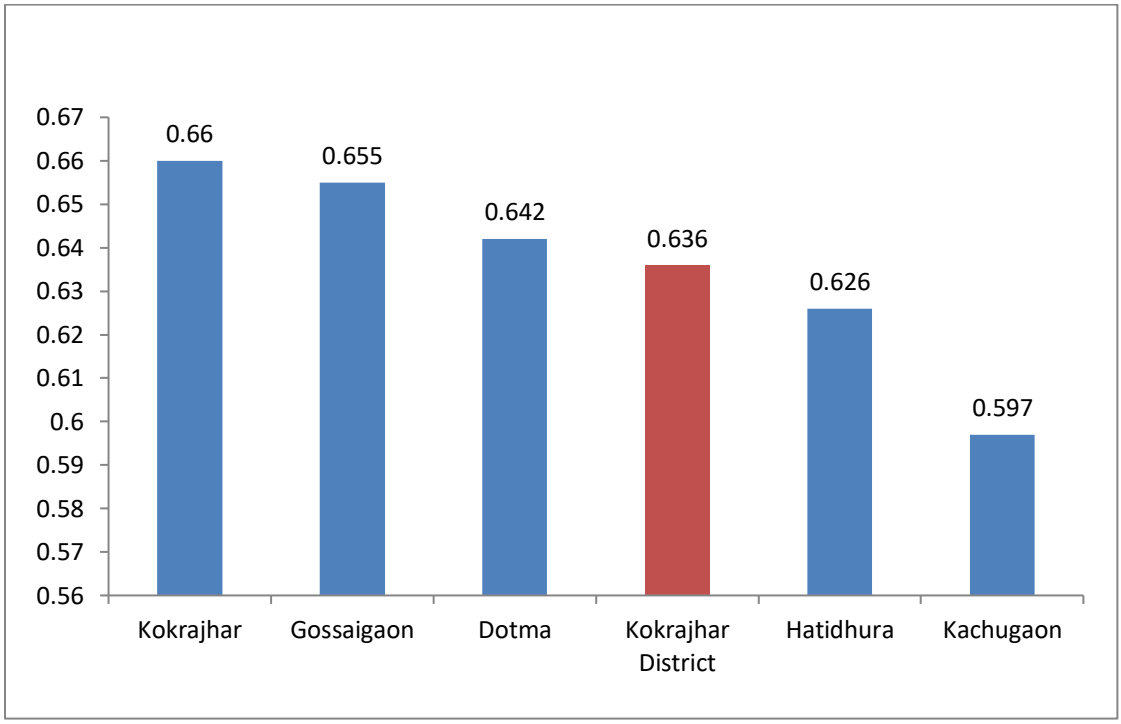
Education index of sample Blocks in Kokrajhar district, based on primary data is shown by the Fig. 5.10. The data reveals that the average dimensional education index is represented by (0.636). Three (3) Blocks have the value higher than district

Fig. 5.9 Health Index in the District of Kokrajhar at Block Level



Source: own Calculation based on primary data

Fig. 5.10 Education Index in the District of Kokrajhar at Block Level

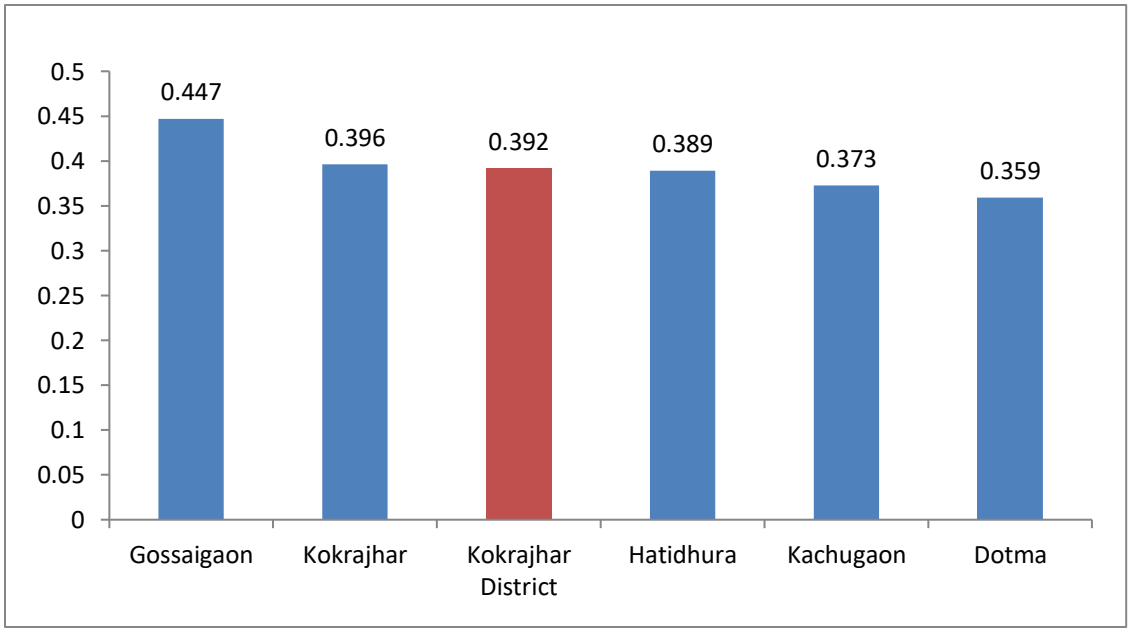


Source: Own calculation based on primary data

average; Kokrajhar (0.660), Gossaigaon (0.655) and Dotma (0.642). Two (2) Blocks have the value lower than district average, namely Hatidura (0.626) and Kachugaon (0.597). Education index of sample Blocks reveals inter Block differences; lowest value attained by Dotma (0.642) and highest value by Kokrajhar (0.660) represents a gap of (0.063). Dimensional education index (0.636) of present study based on primary data for Kokrajhar district is marginally lower than the figure published by AHDR, 2014; the report assigned education index of the district (0.645). The study reveals that the district has attained in terms of education better way than other two dimensions, health and income index.

Fig. 5.11 shows income index of sample Blocks in the study area. The data reveals that the average dimensional income index is represented by (0.392). Two (2) Blocks have the value higher than district average; Gossaigaon (0.447) and Kokrajhar (0.396). Three (3) Blocks have the value lower than district average, namely Hatidura (0.389), Kachugaon (0.373) and Dotma (0.359). Income index of sample Blocks reveals inter Block differences; lowest value attained by Dotma Block (0.359) and highest value by Gossaigaon Block (0.447); indicating a gap of (0.088). Dimensional

Fig. 5.11 Income Index in the District of Kokrajhar at Block Level

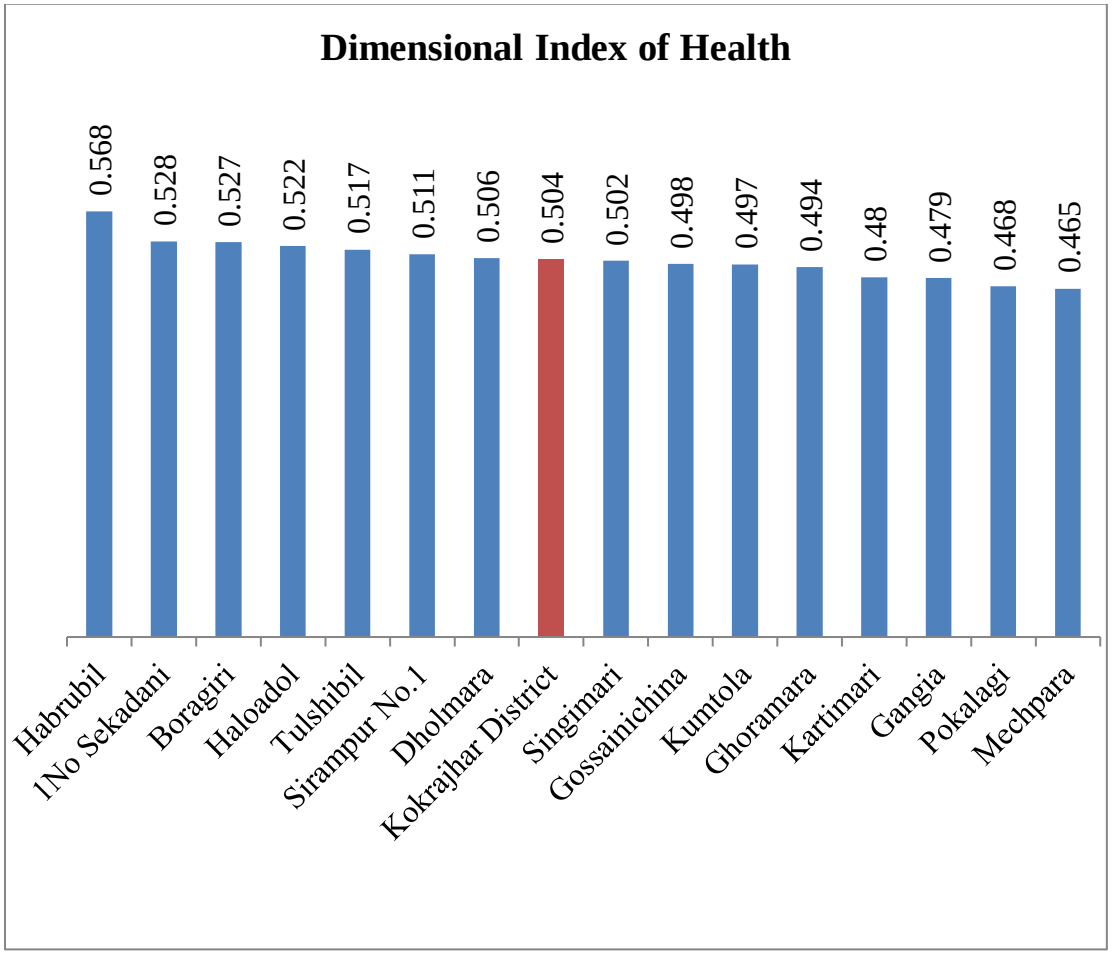


Source: Own calculation based on primary data

income index (0.392) of present study based on primary data for Kokrajhar district is lower than the figure published by AHDR, 2014; the report assigned income index of the district (0.402). Income index based on primary data reveals that the performance of the district is very poor than other two dimensions, health and education dimension.

Survey data reveals that the dimensions of human development vary across the sample villages in the study area. Primary survey data indicates that attainment gap of the sample villages is higher in the case of income and education dimensions. Here, an attempt is made to analyze dimensional achievement by the sample villages in the present study area.

Fig. 5.12 Health Index in the District of Kokrajhar at Village Level

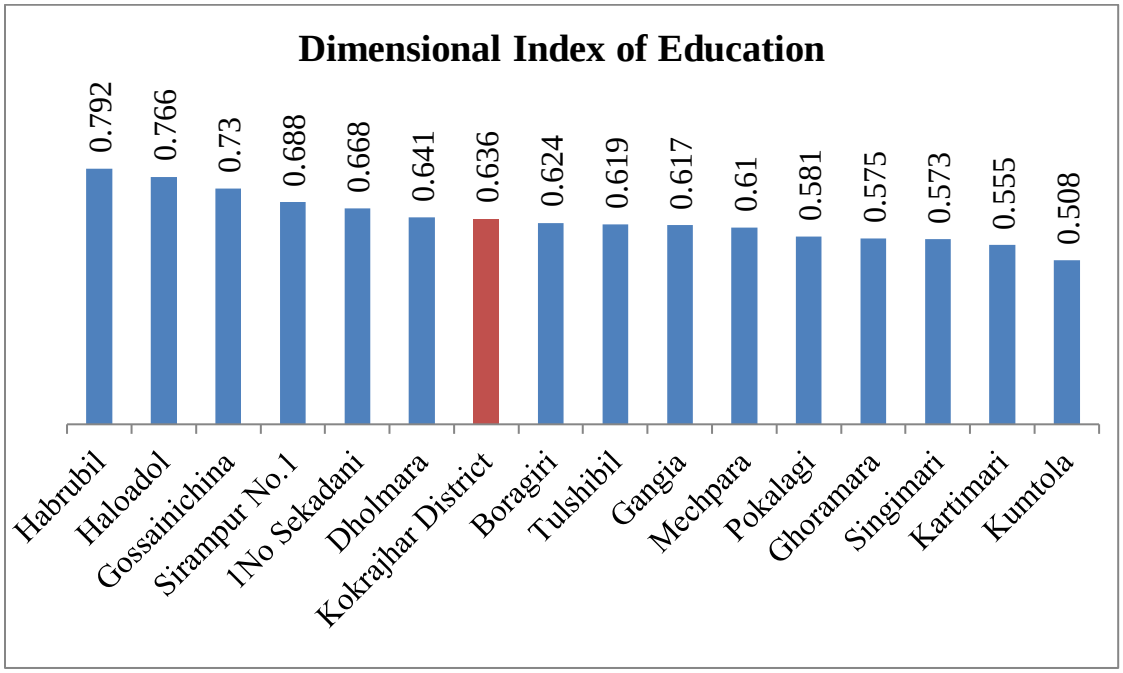


Source: Estimated based on primary data

Fig. 5.12 shows the health index in Kokrajhar district at village level. The Fig. indicates that the average health index of Kokrajhar district is given by (0.504). Out of 15 sample villages considered for current study, seven (7) sample villages have higher than average value; and eight (8) villages have attained lower than average value. The highest health index (0.568) attained by the village Habrubil of Gossaigaon Block and the lowest value (0.465) attained by Mechpara in Hatidura Block represents a large gap of (0.103).

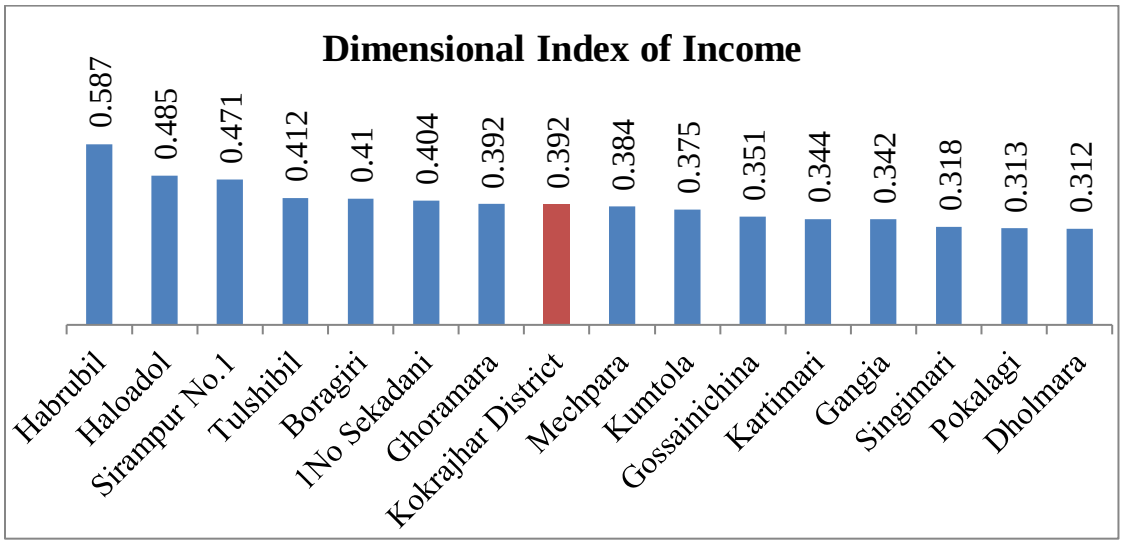
Fig. 5.13 shows the education index in Kokrajhar district at village level. The Fig. reveals that the average education index of Kokrajhar district is given by (0.636). Out of 15 sample villages considered for current study, six (6) sample villages have attained higher than average value; and nine (9) villages have attained lower than average value. The highest education index (0.792) attained by the village Habrubil of Gossaigaon Block and the lowest value (0.508) attained by the village Kumtola in Kachugaon Block; represents a large gap of (0.284).

Fig. 5.13 Education Index in the District of Kokrajhar at Village Level



Source: Estimated based on primary data

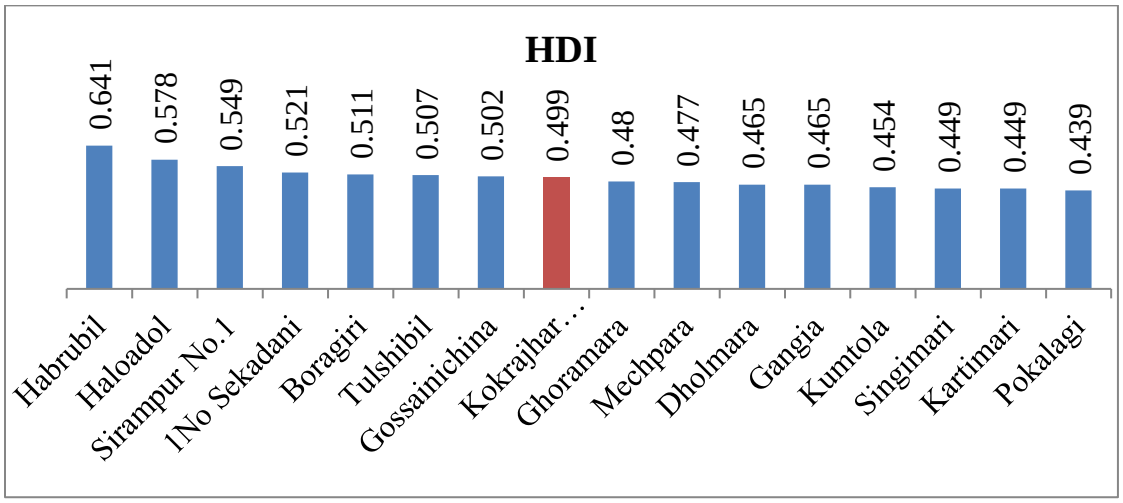
Fig. 5.14 Income Index in the District of Kokrajhar at Village Level



Source: Estimated based on primary data

Fig. 5.14 shows the income index in Kokrajhar district at village level. Dimensional income index of Kokrajhar district is given by (0.392). Out of 15 sample villages considered for current study, seven (7) sample villages have higher than average value, and eight (8) villages have attained lower than average value. The highest income index (0.587) is attained by the village Habrubil of Gossaigaon Block and the lowest value (0.313) is attained Dholmara in Kokrajhar Block; representing a large gap of (0.274).

Fig. 5.15 HDI of Sample Villages in Kokrajhar District



Source: Estimated based on primary data

Fig. 5.15 shows the HDI value in Kokrajhar district at village level. Survey data indicates that the average HDI of Kokrajhar district is given by (0.499). Out of 15 sample villages considered for current study, seven (7) sample villages have higher than average HDI value; and eight (8) villages have attained lower than average HDI value. The highest HDI value (0.641) is attained by the village Habrubil of Gossaigaon Block and the lowest value (0.439) is attained by the Pokalagi in Hatidura Block; representing a large gap of (0.202).

The present study reveals that the top village Habrubil is ranked 1st in all the three dimensions of HDI. Health care facility is adequate in the village which has contributed to low level of IMR and other diseases in the village. Opportunity of education of the people in the village is also adequate which has made higher level of educational attainment. Both academic and physical infrastructure is encouraging. Standard of living of the people is also comparatively higher in the village. Survey data shows higher Per-Capita Monthly Income (PCMI) and high Per Capita Monthly Consumption Expenditure (PCMCE). Dimensional index of health of the village Pokalagi which has been ranked last 15th position represents lowest, next to village Mechpara. Health care facility is too poor; people in the village suffer largely from ill-health condition. Drinking water facility, sanitation facility is also too poor. Dimensional index of education also reveals poor performance; the villagers had to be confronted with low level of educational infrastructure and opportunity. Lower level of enrollment and high dropout rate prevails. Low standard of living prevails due to lower PCMI and PCMCE.

Primary survey data reveals large gap across the sample villages in terms of attainment of human capabilities which form a serious concern for the tribal inhabited district of Kokrajhar. The present status of human development and deprivations in the study area necessitates effective and differentiated policy approach by the policy makers and the government. It is worth mentioning that the HDI value (0.499) of the Kokrajhar district based on primary data is even lower than the average HDI value (0.519) of the state of Assam as published by Assam HDR 2014.

5.9 HDI, Standard Deviations and Co-efficient of Variations

In this section, standard deviation and co-efficient of variation in terms of health index, education index, income index and HDI values are estimated and interpreted. An attempt is made to estimate Block wise; and then the district as a whole. The analysis of co-efficient of variation of statistical data is significant as it provide the information about to what extent data points variant from mean value. It shows the extent of variability of data in a sample in relation to the mean value. A small variance of statistical data indicates that the data points tend to be very close to the mean, and to each other and a high variance indicates that the data points are very spread out from the mean, and from one another.

Table 5.6 gives the standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the sample Block Kokrajhar.

Table 5.6 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Kokrajhar Block

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Haloadol	0.522	0.766	0.485	0.578
Ghoramara	0.494	0.575	0.392	0.480
Dholmara	0.506	0.641	0.312	0.465
Standard Deviations	**0.01**	**0.1**	**0.09**	**0.06**
Co-efficient of Variation (in %)	**2.77**	**14.68**	**21.85**	**12.09**

Source: Own calculation based on Primary Data

From the data, it is seen that co-efficient of variation in the sample Block is highly spread among the different dimensions of human development. Co-efficient of variation of income index (21.85 percent) reveals largest inter village gap in the Kokrajhar Block; highest dimensional index (0.485) attained by the village Haloadol is much higher than the lowest dimensional index (0.312) attained by the village Dholmara; representing a gap of (0.173).

Estimated co-efficient of variation (14.68 percent) also reveals large inter village differences in terms of dimensional index of education; highest value (0.766) attained by Haloadol is much higher than the lowest value attained by Ghoramara (0.575); representing a gap of (0.191). Co-efficient of variation in terms of health dimension (2.77 percent) is comparatively smaller in the sample Block Kokrajhar; highest dimensional index (0.522) attained by Haloadol and lowest value (0.494) attained by Ghoramara represent a gap of (0.028. Co-efficient of variation of HDI (12.09 percent) also reveals large inter village gap; highest HDI (0.578) attained by the village Haloadol is much higher than the lowest HDI (0.465) attained by the village Dholmara; represents a gap of (0.113).

Table 5.7 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Dotma Block

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Gossainichina	0.498	0.730	0.351	0.502
Singimari	0.502	0.573	0.318	0.449
Boragari	0.527	0.624	0.410	0.511
Standard Deviation	**0.02**	**0.08**	**0.05**	**0.03**
Co-efficient of Variation (in %)	**3.09**	**12.47**	**12.96**	**6.87**

Source: Own calculation based on Primary Data

Table 5.7 gives the standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the sample Block Dotma. Estimated co-efficient of variation in the sample Block reveals that the dimensional index of education, income highly spread among the villages; indicating large gap between the highest and lowest dimensional index; the gap in terms education, income and health is represented by (0.157), (0.092) and (0.029) respectively. The gap between the highest and lowest HDI in the Block is represented by (0.012); CV of HDI being (6.87 percent).

Table 5.8 gives the value of standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the sample Block Kachugaon. Estimated co-efficient of variation reveals that the different dimensions of human development largely vary across the villages; the gap between the highest and lowest dimensional index of education, income and health is represented by (0.160), (0.62) and (0.049) respectively. HDI reveals large inter village gap in Kachugaon Block representing a gap of (0.067) between the highest and lowest HDI; CV of HDI being (7.48 percent). Highest variation is observed in the case of education dimension indicated by largest co-efficient of variation (13.68 percent).

Table 5.8 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Kachugaon Block

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Gangia	0.479	0.617	0.342	0.465
1No Sakadani	0.528	0.668	0.404	0.521
Kumtola	0.497	0.508	0.375	0.454
Standard Deviation	**0.02**	**0.08**	**0.03**	**0.04**
Co-efficient of Variation (in %)	**4.94**	**13.68**	**8.30**	**7.48**

Source: Own calculation based on Primary Data

Table 5.9 gives the value of standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the sample Block Gossaigaon. Co-efficient of variation reveals that the gap between the highest and lowest dimensional index of income, education and health is represented by (0.243), (0.237) and (0.088) respectively. HDI reveals a large gap of (0.192) between the highest and lowest values; CV of HDI being (18.50 percent), highest among the sample Blocks in the district. Highest

variation is observed in the case of income dimension indicated by largest co-efficient of variation (28.00 percent), highest among the Blocks.

Table 5.9 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Gossaigaon Block

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Habrubil	0.568	0.792	0.587	0.641
Kartimari	0.480	0.555	0.344	0.449
Tulshibil	0.517	0.619	0.412	0.507
Standard Deviation	**0.04**	**0.12**	**0.13**	**0.10**
Co-efficient of Variation (in %)	**8.47**	**18.71**	**28.00**	**18.50**

Source: Own calculation based on Primary Data

Table 5.10 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Hatidura Block

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Pokalagi	0.468	0.581	0.313	0.439
Sirampur No.1	0.511	0.688	0.471	0.549
Mechpara	0.465	0.610	0.384	0.477
Standard Deviation	**0.03**	**0.06**	**0.08**	**0.06**
Co-efficient of Variation (in %)	**5.35**	**8.84**	**20.33**	**11.44**

Source: Own calculation based on Primary Data

Table 5.10 gives the value of standard deviation and co-efficient of variation of HDI and dimensional index of health, education and income in the sample block Hatidura. The estimated co-efficient of variation reveals that the different dimensional index of HDI largely vary across the sample villages in the Block; representing a large gap between the highest and lowest dimensional index of income, education and health; a gap of (0.158), (0.107) and (0.043)

respectively. HDI also represent a large gap of (0.110) between the highest and lowest value; CV of HDI being (11.44 percent).

Table 5.11 HDI, Standard Deviations and Co-efficient of Variations of Sample Block in Kokrajhar District

Village/SD/CV	Health Index	Education Index	Income Index	HDI
Kokrajhar	0.507	0.660	0.396	0.508
Dotma	0.509	0.642	0.359	0.487
Kachugaon	0.501	0.597	0.373	0.480
Gossaigaon	0.522	0.655	0.447	0.532
Hatidura	0.481	0.626	0.389	0.488
Standard Deviation	**0.01**	**0.03**	**0.03**	**0.02**
Co-efficient of Variation (in %)	**2.97**	**4.00**	**8.54**	**4.25**

Source: Own calculation based on Primary Data

Table 5.11 gives the value of standard deviation and co-efficient of variation in the sample Blocks of the tribal inhabited district of Kokrajhar. Table 5.11 indicates that the co-efficient of variation in the sample Blocks spread considerably among the different dimensions of human development. Estimated co-efficient of variation indicates that the dimensional index of income, education and health vary across the sample villages in the Block, representing a gap of (0.088), (0.034) and (0.041) respectively between the highest and lowest dimensional values. HDI also represents a gap of (0.052) between the highest and lowest HDI; CV of HDI being (4.25 percent).

Survey data clearly indicates that there is large gap of dimensional indices of income, education and health in the sample villages across the Blocks in the district of Kokrajhar. HDI figure also shows large differences in the sample villages across the Blocks and the tribal inhabited district of Kokrajhar as a whole. This intra-block and inter-block disparities in the present study area is a great concern for the human developmental aspect.

Table 5.12 HDI, Standard Deviations and Co-efficient of Variations of Sample Villages in Kokrajhar District

Village/District/SD/CV	Dimensional Index			HDI
	Health	Education	Income	
Haloadol	0.522	0.766	0.485	0.578
Ghoramara	0.494	0.575	0.392	0.480
Dholmara	0.506	0.641	0.312	0.465
Gossainichina	0.498	0.730	0.351	0.502
Singimari	0.502	0.573	0.318	0.449
Boragari	0.527	0.624	0.410	0.511
Gangia	0.479	0.617	0.342	0.465
1No Sekadani	0.528	0.668	0.404	0.521
Kumtola	0.497	0.508	0.375	0.454
Habrubil	0.568	0.792	0.587	0.641
Kartimari	0.480	0.555	0.344	0.449
Tulshibil	0.517	0.619	0.412	0.507
Pokalagi	0.468	0.581	0.313	0.439
Srirampur No.1	0.511	0.688	0.471	0.549
Mechpara	0.465	0.610	0.384	0.477
Kokrajhar District	**0.504**	**0.636**	**0.392**	**0.499**
Standard Deviation	**0.03**	**0.08**	**0.07**	**0.06**
Co-efficient of Variation (in percent)	**5.29**	**12.52**	**19.06**	**11.15**

Source: Estimated based on Primary Data

Table 5.12 represent standard deviations and co-efficient of variations of HDI and dimensional index of health, education and income of sample villages in Kokrajhar district. The Table indicates that the co-efficient of variation in the sample villages highly spread across the different dimensions of human development. Co-efficient of variation of dimensional index of income, education and health index is given by (5.29 percent), (12.52 percent) and

(19.06 percent) respectively; representing a large gap of (0.275), (0.284) and (0.103) respectively between the highest and lowest dimensional value. HDI gap between the highest and lowest value is represented by (0.202); CV of HDI being (11.15 percent). The study reveals that large inter village inequity prevails in terms of dimensional value of income, education and health attainment by the people in the district.

5.10 Housing Facilities

The type and housing condition are considered as indicative of living standard of the people. In this modern age too, 43.7 percent dwells in kutcha houses and only smaller proportion of 22.7 percent lives in pucca houses in the state of Assam as revealed by the Assam HDR, 2014. The percentage of the population living in the kutcha houses or otherwise dwelling in miserable condition is of significant proportion in the rural areas of Assam. However, kutcha houses cannot be considered as sole indicative of living condition, as it may be the norm for the people living in hilly areas.

Housing quality is an important indicator of human capabilities and the condition of human health in the society. Table 5.10 shows the housing pattern of the people in tribal inhabited district of Kokrajhar. Survey data indicates that in this modern age too, large percentage of people lives in a kutcha house in the present study area; highest in Kachugaon Block (47 percent) and lowest in Gossaigaon Block (21 percent). Highest percentage of pucca house has been attained by the Kokrajhar Block (52 percent) followed by Gossaigaon Block (51 percent), Hatidura Block (48 percent), Dotma Block (44 percent) and Kachugaon Block (40 percent). The study also reveals that the percentage of semi-pucca house dwelling by the people in different Blocks of the district is also not encouraging. Survey data indicates that Gossaigaon Block has highest percentage (28 percent) and Kachugaon Block has got lowest percentage (13 percent) of semi-pucca house. Survey data reveals that the percentage of pucca house, semi-pucca house and kutcha house in the district on average is given by (47 percent), (19 percent) and (34 percent) respectively.

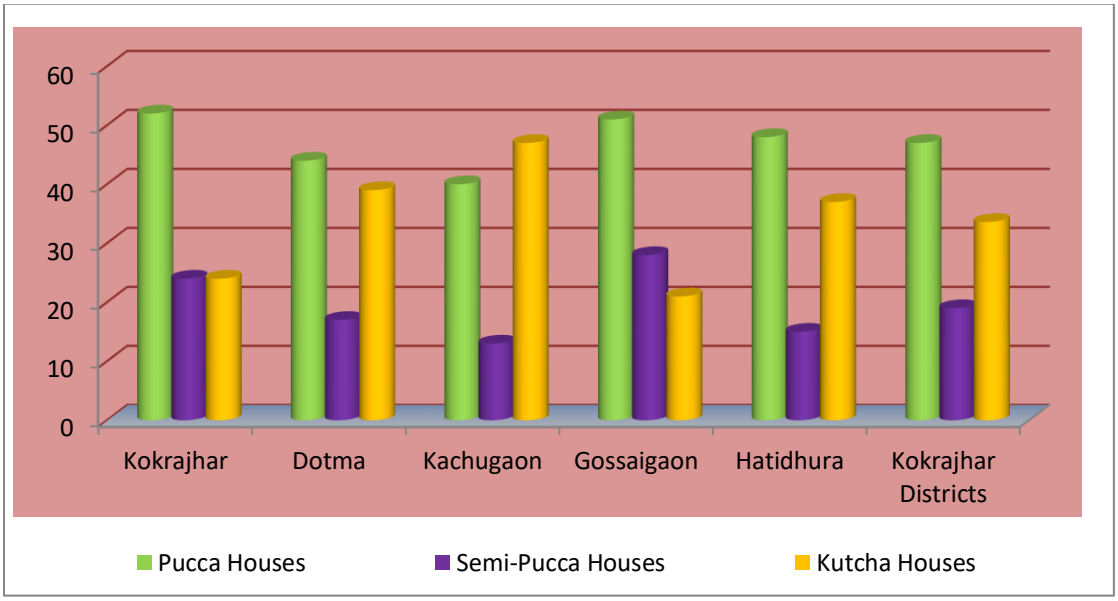
Table 5.13 Housing Facilities of Sample Blocks (in Percent)

Blocks / Districts	No. of Sample Household	Pucca House		Semi-Pucca House		Kutcha House	
		NH	%	NH	%	NH	%
Kokrajhar	75	39	52	18	24	18	24
Dotma	75	33	44	13	17	29	39
Kachugaon	75	30	40	10	13	35	47
Gossaigaon	75	38	51	21	28	16	21
Hatidhura	75	36	48	11	15	28	37
Kokrajhar District	**375**	**176**	**47**	**73**	**19**	**126**	**34**

Source: Primary Survey Data

Note: NH represents number of household

Fig. 5.16 Housing Facilities of Sample Blocks in the District



Source: Own calculation based on primary data

It, thus, emerges from the survey data that hosing conditions in the tribal inhabited district of Kokrajhar represents significant degree of deprivations; and the deprivations worryingly substantive in absolute sense. Percentage wise graphical

representation of the dwelling conditions of the sample households are shown in the Fig. 5.16.

5.11 Basic Amenities of Sample Households in the District

Basic amenities like sanitation, bathroom, safe drinking and electricity facilities are important indicators of human development. Assam HDR, 2014 indicates that considerable proportion (32 percent) of households is yet to be connected with electricity and this proportion is much higher in the case of rural Assam (47.2 percent). Percentage of non-electrified households is also in considerable size in the Char areas (47.1 percent). It has been observed that about 70 percent households in the state do not have toilet facility; three-fourth households in the rural area are deprived from improved sanitation facilities. Households in the Hills and Char area are evidently lacking from improved sanitation facility, represented by (88 percent) and (84.6 percent) respectively as published in the Assam HDR, 2014.

Table 5.14 shows the conditions of sanitation, bathroom, safe drinking and electricity facilities in the study area. It is a matter of great concern that the Govt. policy of providing safe drinking water and electricity facility could not be implemented in this tribal inhabited district of Kokrajhar. As per survey data, in average, only (66 percent) households are using safe drinking water facilities in the district. Block wise, Hatidura and Dotma has got highest (69 percent) and Gossaigaon has got lowest percentage of safe drinking water facility (61 percent). Village wise, Haloadol in Kokrajhar Block and Srirampur No.1 in Hatidura Block jointly represent highest safe drinking water facility (76 percent); and Kumtola in Kachugaon Block and Kartimari in Gossaigaon Block jointly represent lowest safe drinking water facility (56 percent). Survey data shows that in average (87 percent) households are connected with electricity in the tribal inhabited district of Kokrajhar. Block wise Hatidura has got highest percentage (99 percent) and Kachugaon with lowest percentage of (61 percent). At village level, households of seven villages, namely Dholmara, Gossainichina, Singimari, 1 No Sekadani, Habrubil, Mechpara and Srirampur No. 1 are connected with 100 percent electricity. The village Boragari in

Dotma Block has lowest percentage of households (76 percent) connected with electricity. It is noteworthy that the village Kumtola in Kachugaon Block has no electricity facility since the demolition and disconnection of electricity by the agitators of Bodoland Movement during 1987-1993 led by ABSU and BLT (as informed by the villagers).

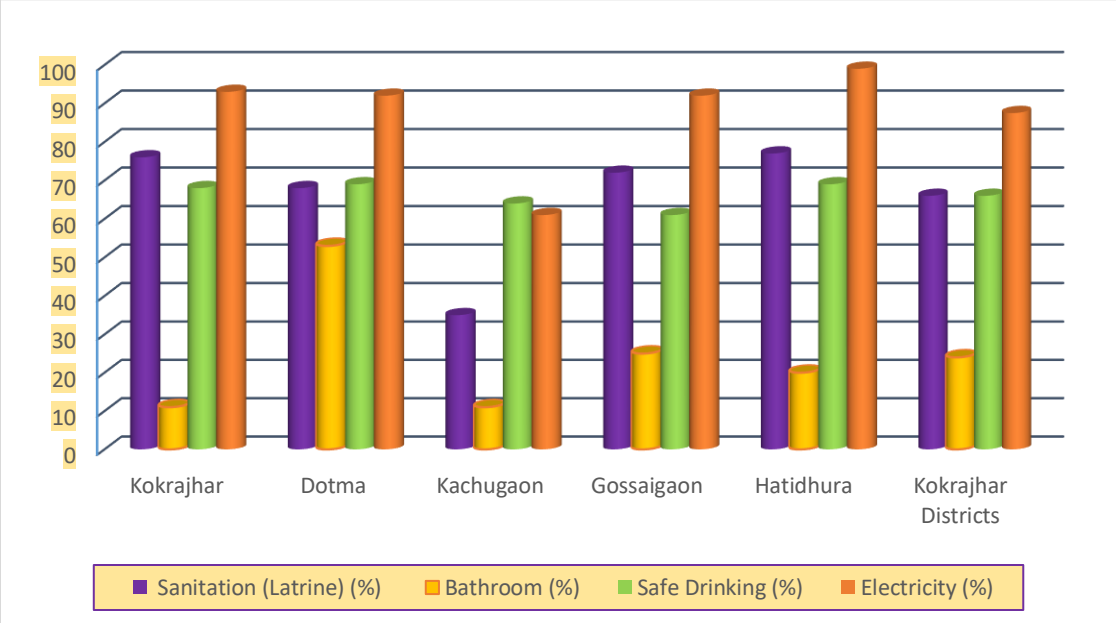
Table 5.14 Basic Amenities in Sample Villages in the District

Village/ District	No. of Sample Household	Sanitation (Latrine)		Bathroom		Safe Drinking		Electricity	
		NH	%	NH	%	NH	%	NH	%
Haloadol	25	16	64	5	20	19	76	22	88
Ghoramara	25	20	80	2	8	17	68	23	92
Dholmara	25	21	84	1	4	15	60	25	100
Kokrajhar	**75**	**57**	**76**	**8**	**11**	**51**	**68**	**70**	**93**
Gossainichina	25	21	84	19	76	18	72	25	100
Singimari	25	18	72	0	0	16	64	25	100
Boragari	25	12	48	21	84	18	72	19	76
Dotma	**75**	**51**	**68**	**40**	**53**	**52**	**69**	**69**	**92**
Gangia	25	06	24	02	8	16	64	21	84
1No Sekadani	25	19	76	04	14	18	72	25	100
Kumtola	25	01	04	02	08	14	56	00	00
Kachugaon	**75**	**26**	**35**	**08**	**11**	**48**	**64**	**46**	**61**
Habrubil	25	21	84	06	24	15	60	25	100
Kartimari	25	11	44	03	12	14	56	20	80
Tulshibil	25	22	88	10	40	17	68	24	96
Gossaigaon	**75**	**54**	**72**	**19**	**25**	**46**	**61**	**69**	**92**
Mechpara	25	19	76	03	12	15	60	25	100
Srirampur No.1	25	21	84	08	32	19	76	25	100
Pokalagi	25	18	72	04	16	18	72	24	96
Hatidura	**75**	**58**	**77**	**15**	**20**	**52**	**69**	**74**	**99**
Kokrajhar District	**375**	**246**	**66**	**90**	**24**	**249**	**66**	**328**	**87**

Source: primary Survey

Most of the households do not have bathroom facility. At Block level, Kokrajhar and Kachugaon have only (11 percent) households using bathroom facility. It is worth mentioning that Block with highest percentage of Bathroom facility represented by Dotma Block (53 percent). Village wise, Boragari in Dotma Block has got highest percentage (84 percent) followed by Gossainichina in Dotma Block (76 percent). Apart from these two villages, bathroom facility is very poor in sample households of the study area. This is very much serious concern that there are no single households in Singimari village availing bathroom facility. Dholmara in Kokrajhar Block has got only (4 percent) and Gangia in Kachugaon Block and Ghoramara in Kokrajhar Block have only (8 percent) bathroom facility. Survey data reveals that the Kokrajhar district on average has only 24 percent households availing bathroom facility.

Fig. 5.17 Basic Amenities of Sample Blocks in Kokrajhar District (in %)



Source: Own calculation based on primary data

Sanitation facility (latrine and toilet) in the study area is too poor; the district in average has got only (65.20 percent). At Block level, Hatidura represents highest percentage (77 percent) followed by Kokrajhar (76 percent), Gossaigaon (72 percent), Dotma (68 percent) and Kachugaon (35 percent). At village level, Tulshibil in Dotma

Block has highest percentage of sanitation facility (88 percent); Kumtola in Kachugaon Block represents lowest percentage (4 percent) followed by Gangia in Kachugaon Block (24 percent). This poor facility of safe drinking, sanitation facility may have formed basic reason for ill-health condition in this tribal inhabited district of Kokrajhar. Survey data indicates that a large percentage of the population still either defecate in open space or use unsanitary bucket latrines or smelly public toilets. Graphical representation of the basic amenities in sample block is depicted in Fig. 5.17.

5.12 BPL, APL and Bank Accounts

The size of population living below the poverty line is extremely high in the state of Assam. Despite of declining trend, the proportion is yet considerable size and about one third of its population are below the poverty line who is denying basic necessities of human live such as food, clothing and shelter. The percentage of population living below the poverty line in the state of Assam is highest among the NER. Rural-urban divide has also been observed, the proportion is represented by two out of five in the rural and less than one in ten in urban areas of the state. The incidence of poverty is even higher in the tribal inhabited district of Kokrajhar. As per 2011 census data, 31.98 percent of the total population was living below the poverty line in the district.

Above Poverty Line (APL) ration cards that were issued to households living above the poverty line as estimated by the Planning Commission of India. Below Poverty Line (BPL) ration cards that were issued to households living below the poverty line. These households received 25-35 kilograms of food grain per month.

Survey data as depicted in Table 5.15 shows that on average (65 percent) households in the district availed BPL card during the survey period. The percentage of BPL card users is highest in Kokrajhar Block (73 percent). At village level, highest percentage of BPL card is availed jointly by Singimari in Dotma Block and Srirampur No.1 in Hatidura Block (84 percent). Gangia in Kachugaon Block received lowest percentage of BPL card (28 percent) followed by Boragari in Dotma Block 52 percent). Survey data also reveals that on average (44 percent) household availed APL card in the

district. At Block level, Kokrajhar received highest percentage of APL card (51 percent). At village level, Dholmara in Kokrajhar Block availed highest percentage of APL card (72 percent). Singimari in Dotma Block availed lowest percentage of APL card (16 percent).

Table 5.15 BPL, APL and Bank Account in Sample Villages

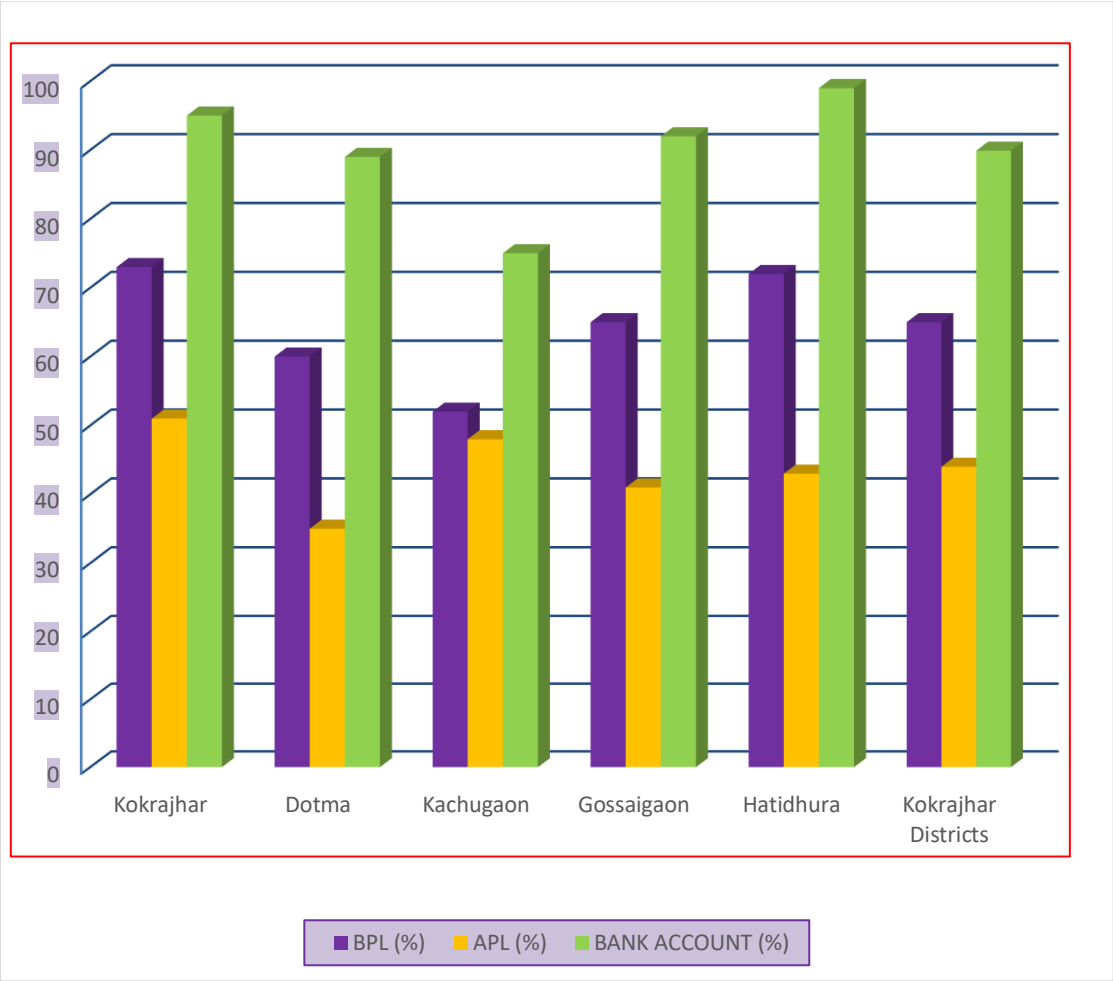
Village/ Block/ District	No. of Sample Household	BPL		APL		Bank Account	
		NH	%	NH	%	NH	%
Haloadol	25	15	60	9	36	21	84
Ghoramara	25	19	76	11	44	25	100
Dholmara	25	21	84	18	72	25	100
Kokrajhar	**75**	**55**	**73**	**38**	**51**	**71**	**95**
Gossainichina	25	11	44	15	60	25	100
Singimari	25	21	84	4	16	21	84
Boragari	25	13	52	7	28	21	84
Dotma	**75**	**45**	**60**	**26**	**35**	**67**	**89**
Gangia	25	7	28	15	60	17	68
1No Sekadani	25	18	72	13	52	25	100
Kumtala	25	14	56	8	32	14	56
Kachugaon	**75**	**39**	**52**	**36**	**48**	**56**	**75**
Habrubil	25	14	56	14	56	22	88
Kartimari	25	19	76	7	28	22	88
Tulshibil	25	16	64	10	40	25	100
Gossaigaon	**75**	**49**	**65**	**31**	**41**	**69**	**92**
Mechpara	25	18	60	7	56	25	96
Srirampur No.1	25	21	84	11	44	25	100
Pokalagi	25	15	72	14	28	24	100
Hatidura	**75**	**54**	**72**	**32**	**43**	**74**	**99**
Kokrajhar District	**375**	**242**	**65**	**163**	**43**	**337**	**90**

Source: Primary Survey

The banking system plays an important role in the modern economy. Banks collect the savings of the individuals and lend them out to business- people and manufacturers for production as well as consumption purposes. Thus, the banks play

an important role in the creation of new capital (or capital formation) in a country and thus help the growth process in the economy. Community banks have a critical role in keeping their local economies vibrant and growing by lending to creditworthy borrowers in their regions. Such lending helps foster the economy by allowing businesses to buy new equipment, add workers, or sign contracts for increased trade or services which contribute to the growth and development of the economy.

Fig. 5.18 BPL, APL and bank Account in Sample Blocks



Source: Own calculation based on primary data

Primary survey data shows that most of the households have bank account, except few in some villages of the study area. On average, (90 percent) households possess bank account in the district. At Block level, Hatidura has highest percentage

(99 percent) followed by Kokrajhar (95 percent), Gossaigaon (92 percent), Dotma (89 percent) and Kachugaon (75 percent). It is worth mentioning that at village level, Ghoramara and Dholmara in Kokrajhar Block, 1 No. Sekadani in Kachugaon Block, Tulshibil in Gossaigaon Block, Srirampur No.1 and Pokalagi in Hatidura Blok availing (100 percent) bank account. It is a serious concern that Kumtola and Gangia in Kachugaon Block availed only (56 percent) and (68 percent) bank account respectively. Facility availed by the households in terms of BPL, APL and Bank Account is diagrammatically in the Fig. 5.18.

5.13 Per Capita Monthly Income, Consumption Expenditure and Surplus Income of Sample Households

Although income cannot be considered as sole measure of human well-being in the society, per capita income represents one of the important components of HDI as income determines extent of access of resources. Though income does not measure directly the well-being of individuals, it is considered an important means by which individuals can improve their economic attainments and well-being in the society. It is worth mentioning that the per capita consumption expenditure (food and non-food items) is considered a more preferable indicator of individual's command over resources and better measure of economic well-being.

Since independence, although the state of Assam experienced appreciable economic development, the rate of growth of income in the state continued to be below the all-India average. It is a serious concern that gap is widening, the trend which need to be corrected urgently. Though the state has experienced encouraging economic growth, the growth rate of net state domestic product has remained below the all-India average which causes a serious economic implication for Assam. Data also reveals inter-district inequity; and the condition is even more concerning in the tribal inhabited district of Kokrajhar.

Table 5.16 depicts per capita monthly income, per capita monthly consumption expenditure and balance amount of the sample households. Survey data reveals that the per capita monthly income of the sample households in the district of Kokrajhar is

Table 5.16 Per Capita Monthly Income, Consumption Expenditure and Surplus income of Sample Household

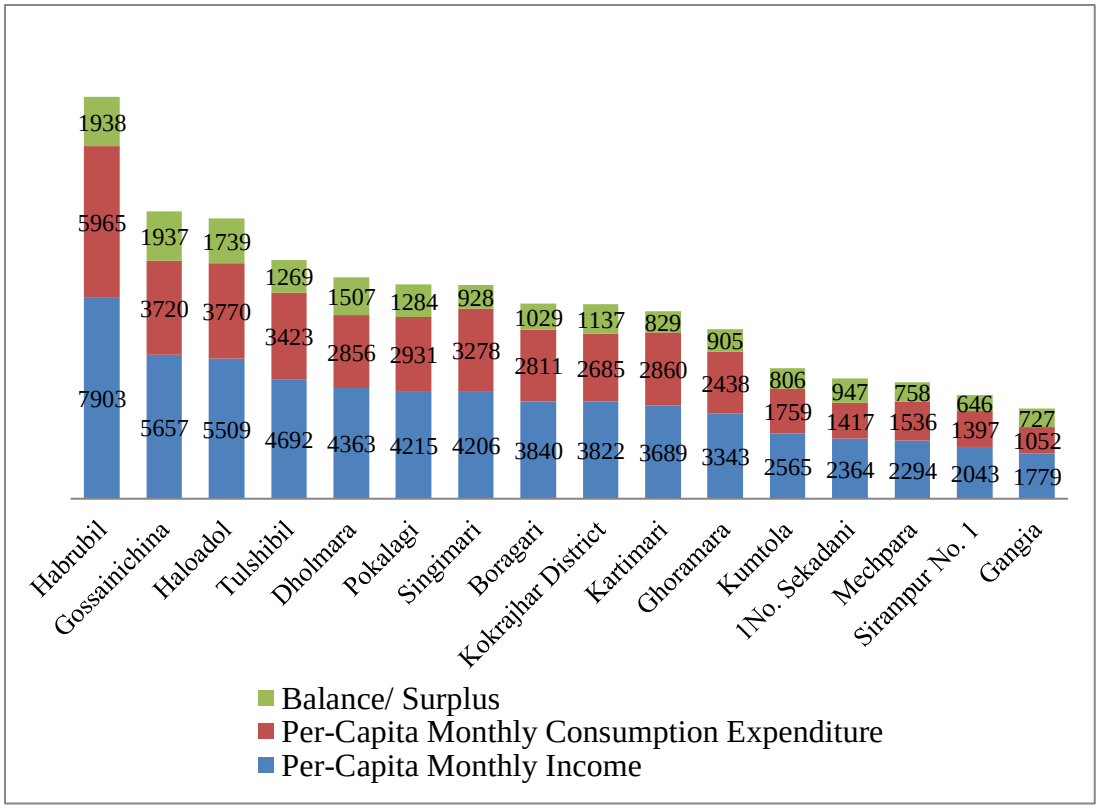
Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance / Surplus
Haloadol	115	633500	5509	433600	3770	1739
Dholmara	160	698000	4363	457000	2856	1507
Ghoramara	154	510500	3343	375500	2438	905
Kokrajhar	**429**	**1842000**	**4294**	**1266100**	**2951**	**1343**
Gossainichina	143	809000	5657	532000	3720	1937
Singimari	126	530000	4206	413000	3278	928
Boragari	119	457000	3840	334500	2811	1029
Dotma	**388**	**1796000**	**4629**	**1279500**	**3298**	**1331**
Gangia	156	277500	1779	164100	1052	727
1No. Sekadani	143	338000	2364	202600	1417	947
Kumtola	108	277000	2565	190000	1759	806
Kachugaon	**407**	**892500**	**2193**	**556700**	**1368**	**825**
Habrubil	113	893000	7903	674000	5965	1938
Kartimari	132	487000	3689	377500	2860	829
Tulshibil	130	610000	4692	445000	3423	1269
Gossaigaon	**375**	**1990000**	**5307**	**1496500**	**3991**	**1316**
Mechpara	126	289000	2294	193500	1536	758
Srirampur No. 1	150	306500	2043	209600	1397	646
Pokalagi	130	548000	4215	381000	2931	1284
Hatidura	**406**	**1143500**	**2817**	**784100**	**1931**	**886**
Kok. District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**

Source: Primary Survey

very low this gives low level of consumption representing low standard of living of the people. At Block level, Gossaigaon is on the top with rupees (5,307) followed by Dotma (4,629), Kokrajhar (4,294), Hatidura (2,817) and Kachugaon (2,193). While

considering per capita monthly consumption at the Block level, Gossaigaon represents highest amount (3,991) followed by Dotma (3,298), Kokrajhar (2,951), Hatidura (1,931) and Kachugaon (1,368). The Table shows that the sample villages are not capable to save as the balance amount which is available for saving (per capita monthly income--per capita monthly consumption expenditure) is too low. At Block level, Kokrajhar Block **(**1,343) represents at the top, followed by Dotma (1,331), Gossaigaon (1,316), Hatidura (886) and Kachugaon (825). Village level data of per capita monthly income, per capita monthly consumption expenditure and balance amount in the study area largely vary across the sample villages; and this aspect is analyzed along with diagrammatic representation.

Fig. 5.19 Per-Capita Monthly Income, Per-Capita Monthly Consumption Expenditure and Surplus Income of the Sample Villages



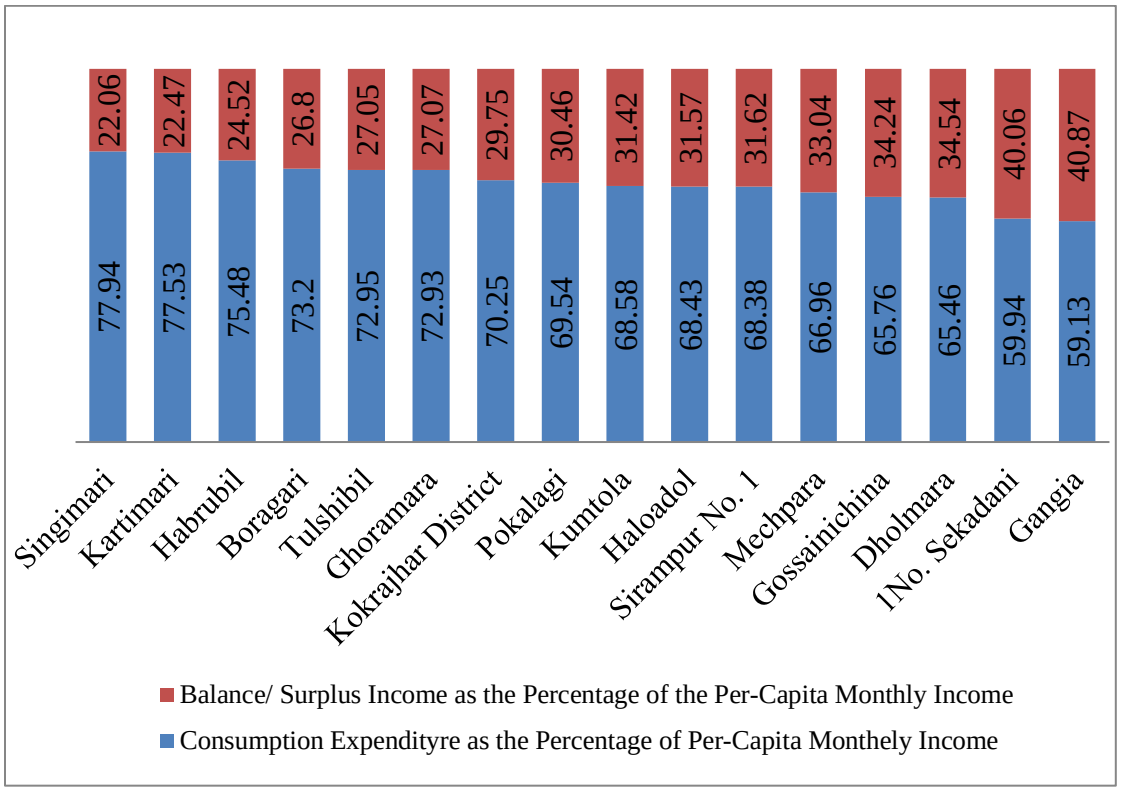
Source: Own calculation based on Primary Data

Fig. 5.19 reveals that the per-capita monthly consumption of the sample villages in the district on average is Rs 2685. Out of total 15 samples villages, nine (9) villages have higher than district average of per-capita monthly consumption expenditure; and six (6) villages have lower than average per-capita monthly consumption expenditure. It is noteworthy that among the 15 sample villages, Habrubil in Gossaigaon Block (Rs 5965), Haloadol in Kokrajhar Block (Rs 3770) and Gossainichina in Dotma Block (Rs 3720) represents top three; while Gangia in Kachugaon Block (Rs 1052), Srirampur No. 1 in Hatidura Block (Rs 1397) and 1 No. Sekadani in Kachugaon Block could maintain first three villages from the bottom in terms of per-capita monthly consumption expenditure.

Survey data indicates that the surplus income of the district on average is represented by Rs 1137 as shown in the Fig. 5.19. Out of total 15 sample villages, six (6) villages have attained higher than district average of surplus income amount; and nine (9) villages have lower than average surplus amount. Habrubil in Gossaigaon Block (Rs 1958), Gossainichina in Dotma Block (Rs 1937) and Haloadol in Kokrajhar Block (Rs 1739) managed to maintain top three villages; while Srirampur No. 1 in Hatidura Block (Rs 646), Gangia in Kachugaon Block (Rs 727) and Mechpara in Hatidura Block (Rs 758) maintained last three position in terms of surplus income amount.

Fig 5.20 shows the per-capita consumption expenditure and surplus income as the percentage of per-capita monthly income of the sample villages in the study area. Fig. 5.20 reveals that the per-capita monthly consumption expenditure as the percentage of per-capita monthly income in the district on average is 70.25 percent. Six (6) villages have attained higher than district average percentage; and nine (9) villages have attained lower than district average. Singimari in Dotma Block and Gangia in Kachugaon Block managed to maintain 1st position and 15th last position in terms of per-capita monthly consumption expenditure as the percentage of per-capita monthly income. Survey data reveals high percentage of income devoted to consumption expenditure as the level of income of the sample households remained at the low level during the survey year.

Fig. 5.20 Consumption Expenditure and Surplus Income as the Percentage of Per-Capita Monthly Income in the Sample Villages



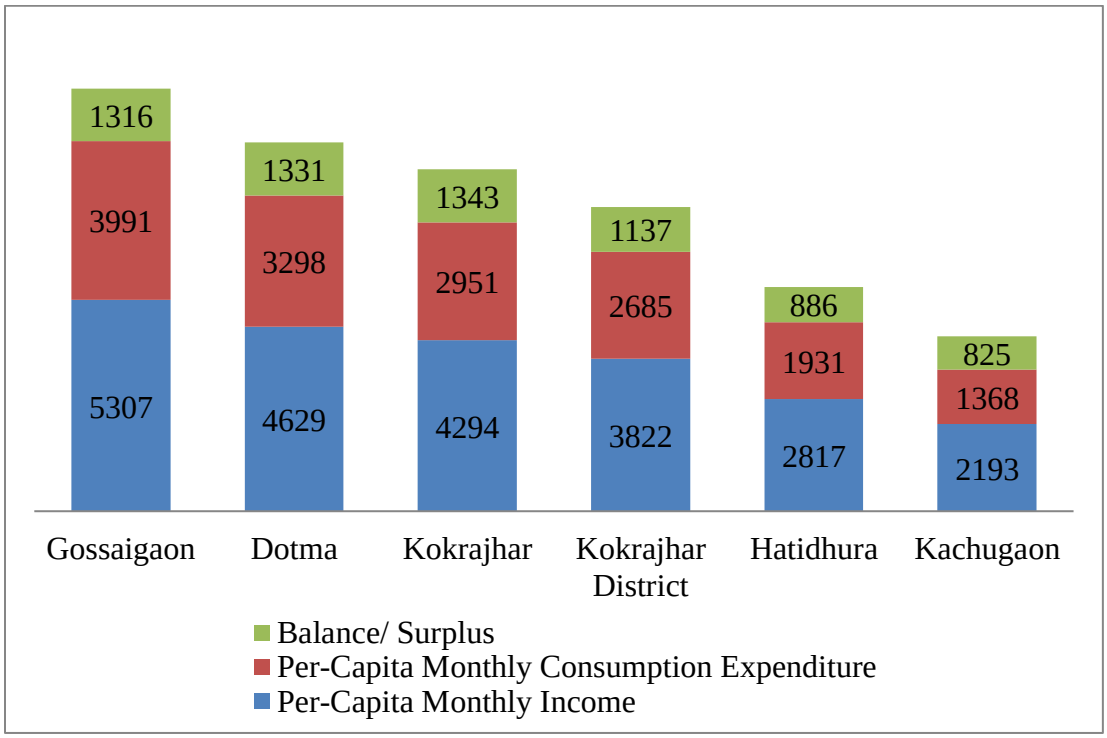
Source: Own calculation based on Primary Data

Fig. 5.20 also reveals that the surplus income of the sample villages as the percentage of per-capita monthly income in the district on average is 29.75 percent. Out of total 15 sample villages, nine (9) villages have attained higher than district average percentage; and six (6) villages have attained lower than district average. Gangia in Kachugaon Block and Singimari in Dotma Block managed to maintain1st position and 15th last position in terms of surplus income amount as the percentage of per-capita monthly income. From the survey data it can be observed that the sample villages with low level of income comparatively devote less percentage of their income on consumption.

Fig. 5.21 represents Block wise per-capita monthly income, per-capita monthly consumption expenditure and surplus income of the sample households in the study area. The Fig. reveals that the per-capita monthly income of the sample Blocks in the

district on average is Rs 3822. Three (3) Blocks, namely Gossaigaon (Rs 5307), Dotma (Rs 4629) and Kokrajhar (Rs 4294) have attained higher than district average of per-capita monthly income; and two (2) Blocks, namely Hatidura (Rs 2817) and Kachugaon (RS 2193) have attained lower than district average. It is worth mentioning that among the 5 sample Blocks, Gossaigaon Block and Kachugaon Block managed to maintain 1st position and last 5th position in terms of per-capita monthly income.

Fig. 5.21 Block Wise Per-Capita Monthly Income, Consumption Expenditure and Surplus Income of the Sample Households.



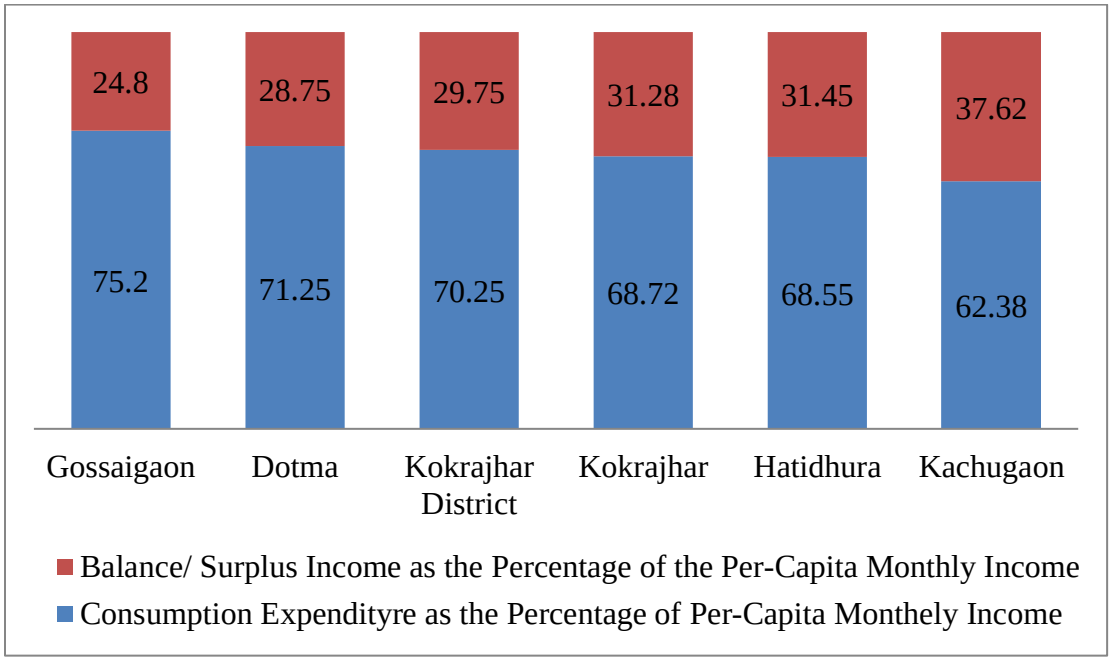
Source: Own calculation based on Primary Data

Fig. 5.21 also reveals that the per-capita monthly consumption expenditure of the sample Blocks in the district on average is Rs 2685. Three (3) Blocks– Gossaigaon (Rs 3991), Dotma (Rs 3298) and Kokrajhar (Rs 2951) have attained higher than district average of per-capita monthly consumption expenditure; and two (2) Blocks – Hatidura (Rs 1931) and Kachugaon (Rs 1368) have attained lower than district average. It is worth mentioning that among the 5 sample Blocks, Gossaigaon Block

and Kachugaon Block managed to maintain 1st position and last 5th position in terms of per-capita monthly consumption expenditure.

Fig. 5.21 also gives the surplus income of the sample Blocks in the district on average is Rs 1137. Three (3) Blocks – Kokrajhar (Rs 1343), Dotma (Rs 1331) and Gossaigaon (Rs 1316) have attained higher than district average; and two (2) Blocks – Hatidura (Rs 886) and Kachugaon (Rs 825) have attained lower than district average. Kokrajhar Block and Kachugaon Block managed to maintain 1st position and last 5th position in terms of surplus income amount.

Fig. 5.22 Block Wise Consumption Expenditure and Surplus Income as the Percentage of Per-Capita Monthly Income in Kokrajhar District



Source: Own calculation based on Primary Data

Fig. 5.22 represents Block wise consumption expenditure and surplus income as the percentage of per-capita monthly income in Kokrajhar District. The Fig. reveals that the per- capita monthly consumption expenditure of the sample Blocks as the percentage of per-capita monthly income in the district on average is 70.25 percent. Two (2) Blocks have attained higher than district average percentage; in descending order Gossaigaon (75.20 percent), and Dotma (71.25 percent); and three (3) Blocks,

Kokrajhar (68.72 percent), Hatidura (68.55 percent) and Kachugaon (62.38 percent) have attained lower than district average. Gossaigaon Block and Kachugaon Block managed to maintain 1st position and last 5th position respectively in terms of per-capita monthly consumption expenditure as the percentage of per-capita monthly income.

Fig. 5.22 also reveals that the surplus income amount of the sample Blocks as the percentage of per-capita monthly income in the district on average is 29.75 percent. Two (3) Blocks have attained higher than district average percentage; in descending order Kachugaon (37.62 percent), Hatidura (31.45 percent) and Kokrajhar (31.28 percent); and two (2) Blocks, Dotma (28.75 percent) and Gossaigaon (24.8 percent) have attained lower than district average. Kachugaon Block and Gossaigaon Block could maintain 1st and 5th position respectively in terms of surplus income amount as the percentage of per-capita monthly income.

5.14 HDI, Standard Deviations and Co-efficient of Variations

In this section, co-efficient of variation in terms of population, per-capita monthly income, per-capita monthly consumption expenditure and surplus income are estimated and interpreted. First, attempt is made Block wise; and then the district as a whole. Analysis of co-efficient of variation of statistical data is important as it provides the information about to what extent data point variant from mean value. The coefficient of variation shows the extent of variability of data in a sample in relation to the mean value. A variance of zero indicates that all of the data values are identical and all non-zero variances are positive. A small variance indicates that the data points tend to be very close to the mean, and to each other and a high variance indicates that the data points are very spread out from the mean, and from one another.

Table 5.17 gives the value of standard deviation and co-efficient of variation in the sample Block Kokrajhar. From the Table, it is seen that co-efficient of variation in the sample Block is highly spread among the different dimensions; population, per-capita monthly income, per-capita monthly

consumption expenditure and surplus income. Data reveals large inter village differences in terms of per- capita monthly income, CV being (24.60 percent); highest value (Rs 5509) of village Haloadol is much higher than the lowest value attained by Ghoramara (Rs 3343); representing a gap of (Rs 2166). Co-efficient of variation in terms of per-capita monthly consumption expenditure (22.55 percent) is also very large indicating a large gap among the villages in the sample Block; highest value (Rs 3770) attained by Haloadol and lowest value (Rs 2438) attained by Ghoramara; representing a gap of (Rs 1332). Surplus income dimension reveals large inter village gap, CV being (31.11 percent); highest amount (Rs 1739) attained by the village Haloadol is much higher than the lowest amount (Rs 905) attained by the village Ghoramara representing a gap of (Rs 834).

Table 5.17 Per-Capita Monthly Income, Consumption Expenditure and Surplus Income of the Sample Households in Kokrajhar Block (in Rs.)

Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance / Surplus
Haloadol	115	633500	5509	433600	3770	1739
Dholmara	160	698000	4363	457000	2856	1507
Ghoramara	154	510500	3343	375500	2438	905
Kokrajhar Block	**429**	**1842000**	**4294**	**1266100**	**2951**	**1343**
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**24.43**	**95358.9**	**1083.61**	**41963.1**	**681.22**	**430.46**
Co-efficient of Variation (in %)	**17.09**	**15.51**	**24.60**	**9.94**	**22.55**	**31.11**

Source: Estimated based on Secondary Data

Table 5.18 gives the value of standard deviation and co-efficient of variation in the sample Block Dotma. Data reveals that the co-efficient of variation in the sample Block Dotma highly spread among the different dimensions representing a large gap between the highest and lowest dimension. The gap between the highest and lowest value in terms of per-capita monthly

Table 5.18 Per-Capita Monthly Income and Consumption Expenditure of the Sample Households in Dotma Block (in Rs.)

Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance/ Surplus
Gossainichina	143	809000	5657	532000	3720	1937
Singimari	126	530000	4206	413000	3278	928
Boragari	119	457000	3840	334500	2811	1029
Dotma Block	**388**	**1796000**	**4629**	**1279500**	**3298**	**1331**
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**12.34**	**185775**	**960.98**	**99439.68**	**454.56**	**555.69**
Co-efficient of Variation (in %)	**9.54**	**31.03**	**21.04**	**23.32**	**13.90**	**42.81**

Source: Estimated based on Secondary Data

income, per capita-monthly consumption and surplus income in the Block is represented by (Rs1817), (Rs 909) and (Rs 1009) respectively. Highest variation can be observed in the case of surplus income; CV being (42.81 percent).

Table 5.19 Per-Capita Monthly Income, Consumption Expenditure and Surplus Income of the Sample Households in Kachugaon Block (in Rs.)

Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance/ Surplus
Gangia	156	277500	1779	164100	1052	727
1No. Sekadani	143	338000	2364	202600	1417	947
Kumtola	108	277000	2565	190000	1759	806
Kachugaon Block	**407**	**892500**	**2193**	**556700**	**1368**	**825**
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**24.83**	**35074.92**	**408.33**	**19629.14**	**353.56**	**111.45**
Co-efficient of Variation (in %)	**18.30**	**11.79**	**18.26**	**10.58**	**25.09**	**13.48**

Source: Estimated based on Secondary Data

Table 5.19 gives the value of standard deviation and co-efficient of variation in the sample Block Kachugaon. Data reveals that the co-efficient of variation in the sample Block Kachugaon is highly spread among the different dimensions. The gap in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income are represented by (Rs 786), (Rs 907) and (Rs 220) respectively. Survey data reveals highest variation in the case of per-capita monthly consumption expenditure; CV being (25.09 percent).

Table 5.20 gives the value of standard deviation and co-efficient of variation in the sample Block Gossaigaon. Primary data shows that the co-efficient of variation in the sample Block Gossaigaon is highly spread among the different dimensions; population, per-capita monthly income, per-capita monthly consumption expenditure and surplus income. The gap between the highest and lowest values in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income are represented by (Rs 4214), (Rs 3105) and (Rs 1109) respectively. Highest variation in the Block can be observed in terms of surplus income; CV being (41.51 percent).

Table 5.20 Per-Capita Monthly Income, Consumption Expenditure and Surplus Income of the Sample Households in Gossaigaon Block (in Rs.)

Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance / Surplus
Habrubil	113	893000	7903	674000	5965	1938
Kartimari	132	487000	3689	377500	2860	829
Tulshibil	130	610000	4692	445000	3423	1269
Gossaigaon Block	**375**	**1990000**	**5307**	**1496500**	**3991**	**1316**
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**10.44**	**208188.2**	**2201.3**	**155407.8**	**1654.28**	**558.43**
Co-efficient of Variation(in %)	**8.35**	**31.39**	**40.55**	**31.15**	**40.52**	**41.51**

Source: Compiled and Estimated based on Secondary Data

Table 5.21 gives the value of standard deviation and co-efficient of variation in the sample Block Hatidura. Survey data shows that the co-efficient variation in the sample Block Hatidura is highly spread among the different dimensions; population, per-capita monthly income, per-capita monthly consumption expenditure and surplus income. The gap between the highest and lowest values in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income are represented by (Rs 2173),(Rs 1534) and (Rs 526) respectively. Highest variation in the Block can be observed in the case of per-capita monthly consumption expenditure; CV being (43.40 percent).

Table 5.21 Per-Capita Monthly Income, Consumption Expenditure and Surplus Income of the Sample Households in Hatidura Block (in Rs.)

Village/ Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption Expenditure	Balance / Surplus
Mechpara	126	289000	2294	193500	1536	758
Sirampur No. 1	150	306500	2043	209600	1397	646
Pokalagi	130	548000	4215	381000	2931	1284
Hatidhura Block	**406**	**1143500**	**2817**	**784100**	**1931**	**886**
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**12.86**	**144746.6**	**1188.19**	**103917.8**	**848.38**	**340.65**
Co-efficient of Variation (in %)	**9.50**	**37.97**	**41.68**	**39.76**	**43.40**	**38.02**

Source: Compiled and Estimated based on Secondary Data

From the analysis of co-efficient of variation of the sample Blocks in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income that highest variation has been observed in the Gossaigaon Block; as the achievement of the village Habrubil is much higher than the other two villages in different dimensions.

Table 5.22 SD and CV of Per-Capita Monthly Income, Consumption Expenditure and Surplus Income in the Study Area (in Rs.)

Block/ District	Population	Total Monthly Income	Per Capita Monthly Income	Total Monthly Consumption Expenditure	Per Capita Monthly Consumption	Balance / Surplus
Kokrajhar	429	1842000	4294	1266100	2951	1343
Dotma	388	1796000	4629	1279500	3298	1331
Kachugaon	407	892500	2193	556700	1368	825
Gossaigaon	375	1990000	5307	1496500	3991	1316
Hatidura	406	1143500	2817	784100	1931	886
Kokrajhar District	**2005**	**7664000**	**3822**	**5382900**	**2685**	**1137**
Standard Deviation	**20.55**	**483593.10**	**1298.03**	**390271.40**	**1055.06**	**260.96**
Co-efficient of Variation (in %)	**5.13**	**31.55**	**33.73**	**36.25**	**38.96**	**22.89**

Source: Compiled and Estimated based on Primary Data

Table 5.22 represents the value of standard deviation and co-efficient of variation in the sample Blocks of the district Kokrajhar. The Table shows that the co-efficient of variation in the sample Blocks in the Kokrajhar district is highly spread among the different dimensions; population, per-capita monthly income, per-capita monthly consumption expenditure and surplus income. The gap between the highest and lowest dimensions in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income are represented by (Rs 3144), (Rs 518) and (Rs 458) respectively. Block wise analysis reveals large variation in all the dimensions; CV of per-capita monthly income, per-capita monthly consumption expenditure and surplus income being (33.73 percent), (38.96 percent) and (22.89 percent) respectively.

5.15 Conclusion

In the previous sections of the present chapter, various aspects and indicators of human development are analyzed based on primary survey data. Positions of the sample Blocks and villages in terms of HDI are also analyzed. Data reveals that the

state of Assam is lagging behind most the states of India in terms of human development indicators; and the condition is even more concerning in the tribal inhabited district of Kokrajhar. The present study estimated the value of HDI at 0.449 which is much lower than the state average of 0.557 as published by the Assam HDR, 2014. However, HDI value of present study represents only the rural area of the district. The position of Bodo inhabited district of Kokrajhar in terms of human development aspect is different from other districts of the state; district-wise close examination shows poor performance and large variations in human development across the districts in the state of Assam (Basumatary, 2012). The present study clearly indicates that, in terms of the progress in overall human development aspect, the Kokrajhar district is just about halfway point in achieving the desired goal. The value of HDI in the study area is particularly lowered by the achievement in income dimension which necessitates the desired process of growth in the district. The one to one survey report reveals that about half of the people in the study area are satisfied with the present status and various processes of human development achievements in the area. While promoting human development aspect, strategy needs to be adopted considering the aspect of inclusive institutions, and thus ensuring people's participation in the process of development. Strategy of creating gainful employment opportunities, thus, holds the key initiative for improving human development in the district. Present survey report indicates that sample households in the study area has been confronting with poor condition of basic amenities of life such as poor housing facility, insignificant levels of safe drinking and sanitation facilities. IMR of the district which has been considered as health indicator in the present study is higher than the state average. Proper strategy to reduce IMR, provisioning universal quality of public healthcare services is important. Given the multi dimensional complexities and prevalent diversities in the present study area, the required policy initiative cannot be a type of generic set of policies; the underlying problems calls for focused and specific set of policies for addressing the issues of human development. The present study is indicative of critical and analytical insights towards inclusive human development in the tribal inhabited district of Kokrajhar.

CHAPTER - 6
HUMAN CAPABILITY: AN OBSERVATION FROM SAMPLE RESPONDENTS
(FOCUS GROUP DISCUSSION)

6.1 Introduction

6.2 Focus Group Discussion: Methodology

6.3 Organization of Groups

6.4 Findings of Focus Group Discussion

6.5 Conclusion

CHAPTER-6
HUMAN CAPABILITY: AN OBSERVATION FROM SAMPLE RESPONDENTS
(FOCUS GROUP DISCUSSION)

6.1 Introduction

This Chapter attempts to capture qualitative judgments of respondents about their developmental issues, basically relating to human development aspects. At this stage of the study, an attempt has been made to recall the common concept of development though most of the respondents are not aware of human development and deprivation as a concept, nor about the mathematics involved in measuring it. In this chapter, methodology, organization and outcomes of the focus group discussion has been presented precisely. Selected respondents were facilitated the environment in which they were given freedom to express their priorities and better understanding and well-beings through organized platform of **Focus *Group Discussions (FGD).*** Respondents were first individually requested to respond to few major questions on various aspects of human development and deprivations. Facilities available in their family and concerned area, restoration of peace and unity, poor governance and their impact on *ill- fare*, peace loving nature of the people in the community, required policy initiative for providing basic facilities, etc. were considered. Respondents were absolutely free to express their views about on-going various issues and expected outcomes of the development during discussion. The interest was solely focused on what the people think *they should be able to do and be* i.e. their potential functioning or capabilities in the area of human development aspect. Focus Group Discussion was designed in such a way so that outcomes of the discussion could represent the status of human development aspects; and which may form part of the basis for policy formulations for the expansion of human capabilities in the study area. For FGD, some villages from the study area were selected purposively. The FGD was organized covering the period 2017-2018. As the selected sample villages are situated in rural

areas only, the discussion was being arranged during the off season of cultivation and harvesting of basic crops in the area.

6.2 Focus Group Discussion: Methodology

The Focus Group Discussion (FGD) is a powerful qualitative method, generally applied in social science research to obtain in-depth information on concepts, perceptions and ideas of a group on social, economic, political issues that directly or indirectly shape their lives [Asiimwe et. al. (2003)]. It refers to the group discussion participated by certain number of persons guided by a facilitator, during which group members talk freely and spontaneously on certain topic(s) considered by the organizers. The respondents get proper environment to express their ideas and views about the considered area of discussions. Hence, the method aims to be more effective and authentic than the common *question-answer-type* interactions in the area of research. The underlying ideas behind this qualitative technique traces upon the fact that group members discusses on the topic among themselves in a cordial atmosphere in which they feel absolutely free from any kind of pressure from social, political, administrative or religious angles. The FGD can effectively explore perceptions of the participants even on controversial topics and can help researchers. Moreover, proceedings of Focus Group Discussion has been interactive in nature, each discussion builds on the previous one with elaborated or better focused set of things for discussion. The technique is regarded as a powerful research tool which can provide valuable spontaneous information in a short period of time required for the purpose. However, it is suggested that the information gathered through FGD should not be used for typical quantitative purposes such as testing of hypothesis or the generalization of things for larger areas in the area of research.

The primary requirement for conducting an effective discussion could be by gathering knowledge of local conditions. While organizing FGD, the members selected for the discussion may not necessarily be homogenous. Their opinions are likely to differ according to age, gender, educational attainments, economic status, and ethnicity, political affiliations as well as religious identity of the respondents. These

differences are likely to be reflected on the perceptions of the problems they regularly suffer from, and dreams for possible solutions in time. The primary quality of the researchers conducting group discussion, therefore requires, complete awareness of these differences while formulating plan and policy for organizing FGD.

Respondents were selected preferably from the same socio-economic and ethno-political background and having a similar connection in relation to the issues under investigation. Facilitator or organizer is expected to speak in the language or dialect of the participants considered for discussion; and this aspect has important advantage of FGD. Better outcomes can be expected as the respondents can express their ideas and views properly in their mother tongue. There should be a precise list of topic(s) to be covered during the session in the mind of the facilitator so that all relevant topics are discussed. Care is to be taken so that no item is left out during discussion which resultants more effective outcomes. It is suggested that under no circumstances facilitator should control the direction of the discussion for its manipulation. However, in the situation when some of the participants are using words which are *un-parliamentarian* or abusive in nature, the facilitator is expected not to stop the member directly; but make them to maintain decorum of the discussion so that it may not spoil the entire proceedings.

6.3 Organization of Groups

Considering the relevant basics for conducting effective focus group discussion, as elaborated in the previous section, we have organized three (3) group discussions (FGD- I; FGD-II and FGD-III) in the entire five (5) Blocks considered for study in the district. As the opinions on expectations as well as aspirations vary significantly across the age and sex of the people, we made some broad grouping of the respondents covering all aspects of human capabilities. The focus group discussions were conducted with a total number of 150 respondents, taking 10 respondents from each of the 15 sample villages. The characteristics of total respondents participated in all fifteen *focus group discussions* are designed with number and structure of participants as represented in Table 6.1.

Table 6.1 Respondents Characteristics of FGD

Age Group	Male	Female	Total
20-30	15	15	30
31-40	15	15	30
41-50	15	15	30
51- 60	15	15	30
61 and above	15	15	30
Grand Total	75	75	150

Source: Field Survey

However, to maintain a certain degree of homogeneity among the participants in terms of their age and sex, and to provide free environment for expression; in 3 villages the groups were formed with exclusively male participants, in another 3 villages with only female participants. In the remaining 9 selected sample villages, groups were of mixed participants in which age-groups were taken as criterion of forming the groups. The groups in the villages namely, Haloadol in Kokrajhar Block, Singimari in Dotma Block and Habrubil in Gossaigaon Block were exclusively of male participants; while in the villages namely, Dholmara in Kokrajhar Block, Kumtola in Kacchugaon Block and Mechpara in Hatidura Block were of exclusively of female participants, and in the remaining 9 villages, namely Ghoramara in Kokrajhar Block, Boragari and Gossainichina in Dotma Block, Gongia and 1 No. Sekhadani in Kachugaon Block, Kartimari and Tulshibil in Gossaigaon Block, Srirampur No. 1 and Pokalagi in Hatidura Block; groups were formed with mixed participants, both male and female. While forming the groups, representations from all

Table 6.2 Characteristics of Exclusively Male Participants

Age Group	Male	Female	Total
20-30	6	0	6
31-40	6	0	6
41-50	6	0	6
51- 60	6	0	6
61 and above	6	0	6
Grand Total	30	0	30

Source: Field Survey

sample villages were being considered for focus group discussion. Moreover, the groups with exclusively male participants were also classified according to the age of the respondents as depicted in Table 6.2.

In the first FGD-I, 30 respondents for exclusively male participants; the groups formed with *20-30, 31-40, 41-50, 51-60* and *above 61 age* were invited from 3 villages (10 respondents from each village) as per well ahead scheduled date; and it was organized in the village Singimari in Dotma Block. The second FGD-II was organized in the village Kumtola in Kachugaon Block by inviting 30 respondents; the group formed with exclusively for female participants in the same line as done in the case of group formed for exclusively male participants. The composition of respondents in these three (3) villages with exclusive male participants is depicted in Table 6.2; and for the group exclusively female participants is depicted in the Table 6.3.

Table 6.3 Characteristics of Exclusively Female Participants

Age Group	Male	Female	Total
20-30	0	6	6
31-40	0	6	6
41-50	0	6	6
51- 60	0	6	6
61 and above	0	6	6
Grand Total	0	30	30

Source: Field Survey

Table 6.4 Characteristics of Male and Female Participants

Age Group	Male	Female	Total
20-30	9	9	18
31-40	9	9	18
41-50	9	9	18
51- 60	9	9	18
61 and above	9	9	18
Grand Total	45	45	90

Source: Field Survey

However, a total of 90 respondents (male participants: 45 and female participants: 45) were invited in FGD-III from remaining 9 villages; the group formed with *20-30, 31-40, 41-50, 51*-60 and *above 61* with both male and female participants. The FGD-III was organized in Kokrajhar by inviting a total of 90 respondents (45 males and 45 females) from 9 sample villages. The respondent characteristics of FGD-III are depicted in the Table 6.4

6.4 Findings of Focus Group Discussion

This section summarizes the key findings of Focus Group Discussions (FGD) on the aspects of human development and deprivations. FGD considered perception of development of various communities 'and key factors of persistent backwardness in developmental aspects. Participants in focus group discussions were asked to prioritize the major advantages and obstacles required for future changes; and the factors that push them to continue to remain as backward. Given the fact that most of the respondents are not aware of human development as concept, nor about the mathematics involved in measuring human development, the proceedings of discussions were solely on non-technical language. The investigator allowed the respondents to establish what they feel important without any interference or suggestions.

The discussion, first of all, focused on key advantages of various communities that can be considered as major resources to achieve their perceived goal of development in terms of human capabilities. The unity and the peace-loving nature of various communities living in the study area has been perceived as the major resources which may help the authority while formulating plan and policy for development. Hard-working nature and skills, brotherly feelings of the people for other group of population as well; and brotherly feelings and unity between the tribal and non-tribal communities living around emerges as next important resources. However, few participants emphasized tribal values as a part of developmental issues. About 40 percent of the total participants across the age groups of both sexes reported that they consider the unity among different community as the major advantage for achieving

developmental goals; and to them, human development was possible only with unity among different communities. Nearly 27 per cent participants consider the peace-loving feature of the community as most important resource for over all development in the tribal inhabited district of Kokrajhar. Majority of the participants in Focus Group Discussion opined that current dominating nature of the people in the present study area is not congenial for development. They stressed on changes of the attitude of the people and the authority for development of the society with equality. Opinion of majority participants indicates that only some 30 percent people in the study area are availing major proportion of the schemes and facilities representing existence of inequality and unhealthy growth in the study area.

The next aspect of discussion focused on the major obstacles that came in the way of development as potential barriers in the study area. Here, the participants pointed out different of *ill-fare and* social exclusion. About 73 per cent of male respondents blame poor governance as responsible factor low human development and social exclusion in various aspects of human capabilities. About 63 per cent women stressed on immediate solution of various agitations by the groups, organizations; and restoration of peace and unity in the area is necessary for their betterment and development. They also stresses on socio-economic, cultural and political equal opportunity between the males and females for gender unbiased development.

Young respondents of both sexes pointed out the lack of educational infrastructure and poor educational opportunities in the study area which have contributed to lower performance of the students than other parts of the state. They also pointed out inadequate health care facilities which form the aspects of ill- health condition of the people in the study area. The aspect of inadequate health care facilities is responsible for high rate of Infant Mortality Rate (IMR) in the study area.

Ethnic identity plays a crucial role in the mind of the older respondents, basically *51 and above* category of participants. Frequent occurrence of violence, riot including Bodoland movement, to their opinion, contributed to low level of development and poor human capabilities in the present study area. However, there is hardly any support for the violence; the opinion is clearly divided on the issue of

separate Bodoland. An acute feeling of exclusion of the people in the study area in socio-economic-political and decision-making process was clearly reflected during the sessions of *focus group discussions*. A proper initiative is required by the authority for the involvement of common people in decision making process.

6.5 Conclusion

In the previous sections of the present chapter, the observations of the sample respondents on various aspects of human development are analyzed. The observation of the respondents is captured through Focus Group Discussion organized in this present study. From the discussion, it has been observed that different sections of the people living in different area; and different group of age composition have different opinions about human capability. The unity and the peace-loving nature of various communities living in the study area have been perceived as the major resources which may help the authority while formulating plan and policy for development. Hard-working nature and skills, brotherly feelings for other group of population as well, that is brotherly feelings and unity between the tribal and non-tribal communities living around emerges as next important resources. Opinion of majority participants indicates that only some 30 percent people in the study area are availing major proportion of the schemes and facilities representing existence of inequality and unhealthy growth in the study area. Participants pointed out different aspects for their overall *ill-fare and* social exclusion. Their opinion, expression and suggestion through Focus Group Discussion could be helpful in further research work in the present study area.

CHAPTER - 7
FINDINGS, CONCLUSIONS AND POLICY RECOMMENDATIONS

7.1 Introduction

7.2 Summary of Findings

7.3 Recommendations and Policy Implications

7.4 Limitations of the Present Study

7.5 Future Scope

7.6 Conclusion

CHAPTER-7
FINDINGS, CONCLUSIONS AND POLICY RECOMMENDATIONS

*7.*1 Introduction

The chapter summarizes the preceding chapters. Major findings of the present study are presented in the section 7.2; and this section also presents implications on the hypothesis of present study. Section 7.3 presents policy imperatives and recommendations for the expansion of human capabilities in the study area; and improvement of data base and methodology of measuring human development. In section 7.4, limitations of the present study are presented in precise way. Section 7.5 indicates the future scope of the research in the present theme and study area. The last section 7.6 presents concluding notes on present research work.

The preceding chapters analyzed various aspects of human development and capabilities in Assam with special reference to the tribal inhabited district of Kokrajhar. Chapter-1 presents introduction to the study, statement of the problem, objectives, hypotheses, methodology and organization of the thesis on present study. Chapter-2 deals with related review of literature on theoretical, empirical and methodological aspect of human development. An empirical study on disparity aspect of human development at global, SAARC, South East Asia and Indian context is presented in Chapter-3. The Chapter-4 analyzed human development scenario in the state of Assam in a perspective way; inter district variations with special reference to the tribal inhabited district of Kokrajhar was presented precisely. Variations in human development dimensions in the historical divisions of the state of Assam are also presented in Chapter-4. In this context, Human Development Index (HDI), Gender Development Index (GDI), Gender Inequity Index (GII) and other related aspects of human capabilities are

analyzed. Both Chapter-3 and Chapter-4 study represents *a document review* based on secondary information. Human development and deprivations in the tribal inhabited district of Kokrajhar based on primary survey data is presented in Chapter-5*;* the *question-answer type interview step* was followed to gather primary data from sample block and villages. Inter block and inter village variations of human development based on conventional variables is presented in this chapter. Human capability aspect in the present study area from the observation of sample respondents through Focus Group Discussions (FGD) is presented in Chapter-6.

7.2 Summary of Findings

Relevant data shows that India is not only showing poor performance in terms of human development indicators at the global level including SAARC countries, but also representing lower performer than many Asian and South Asian countries such as China and Srilanka. India's position in terms of life expectancy at birth, MYS, EYS and GNI per capita remained well below the OECD and world average. Not only that, India's position was even below the average of developing countries. The average annual HDI growth from 1990-2019 was higher in low human development countries than high and medium human development countries indicating a convergence trend; and the case is same in case of GDI and GEM.

Progress of Human Development Index of India from 1990 to 2019 indicates that in terms of HDI rank, India's position improved from 128th position in 2005 to 119th in 2010; and then deteriorated to 131st in the year 2019. Though India has done well in human development indicators over the past six and half decades, necessary policy initiative is required to join the rank of 0.800 HDI value. There has been a wide inter-state variation in the performance of HDI. The estimated value of HDI varies from 0.237 to 0.500 in 1981; 0.308 to 0.591 in 1991; 0.367 to 0.638 in 2001 and 0.467 to 0.790 in 2011. While considering percentage changes from 2001 to 2011, Orissa, Madhya Pradesh, Uttar Pradesh experienced negative changes. However, this negative percentage for the states may be attributed to the introduction of new components or indicators while measuring HDI values since 2010.

It has been observed that except Assam and Arunachal Pradesh, the North Eastern States were perceived to be doing fairly well in human development as compared to states in other regions of the country. As per HDRNER 2011, Assam had the HDI value of 0.364, lowest in the region against the Mizoram and Nagaland with 0.584 and 0.570 HDI values respectively. The data for human development aspect in NER shows that the state of Assam experienced highest percentage changes from 1993-94 to 2004-05 with 52.30 percent followed by Arunachal Pradesh with 48.78 percent. It is also being observed that the better off states percentage changes were well below than Assam and Arunachal Pradesh indicating the fact that poor performing states can have better improvement, if proper policy is adopted.

The state of Assam is lagging behind other states in terms of Human Development aspects. The National Human Development Report (NHDR 2001) of India indicated that out of 15 major states considered by the report, Assam ranked 14th with HDI value of 0.386; which is much below the national average of 0.472. Even the state rank gown down from 10th in 1991 to 14th in 2001 as published by NHDR, 2001 of India; and the position of Assam was just after Bihar from the bottom. HDI value of the state increased to (0.444) in 2007-2008 as per NHDR, 2011 which is lower than the all-India average of (0.467). The state ranking even went down to 16th in 2007-2008 as published by the NHDR, 2011.

The tribal inhabited district of Kokrajhar and the state of Assam as a whole lagging far behind the other developed districts and states in terms of human development. HDI value of 0.407 which was estimated by the Assam HDR, 2003 for the state of Assam as a whole indicates that given the desired normative goal, the state could reach even below the half way mark. The position of tribal inhabited district of Kokrajhar among the 23 districts stood at 14th place with HDI value of 0.354. It is noteworthy to mention that the state of Assam could not attain the level of even medium human development values till 2003. The average HDI of the state of Assam is estimated at 0.407 as published by Assam HDR 2014. This indicates that the level of overall progress in human development in Assam was just a little beyond the halfway mark.

Data relating to human development indicators indicates that the upper Assam districts are in a better position in comparison to lower Assam districts; only the Barpeta district could maintain 9th position with HDI value 0.369. The tribal inhabited district of Kokrajhar ranked 20th with HDI value of (0.519). In terms of percentage improvement from Assam, HDR 2003 to Assam, HDR 2014; HDI percentage of tribal inhabited district of Kokrajhar increased only marginally (by 46.61 percent). The data reveals that the highest percentage improvement attained by the district Dhubri (125.23 percent); and lowest percentage was attained by the district Golaghat (60 percent). However, the gap between the highest and lowest HDI value decreased from (0.436) to (0.266) indicating more equal trend among the districts from Assam, HDR 2003 and 2014.

An Analysis based on the Assam HDR 2014, by considering historical division of Assam at district level indicates that the attainment of human development largely vary across the regions of Assam. Highest variation is found in the case of health dimension; highest value (0.798) attained by Kamrup (R) and the lowest value (0.319) attained by Cachar represents a large gap of (0.479); and the gap between the highest and lowest dimensional index of income and education is represented by (0.424) and (0.217) respectively. HDI also vary largely across the districts in the region; the gap between the highest and lowest HDI is 0.266; CV of health index, education index, income index and HDI being 13.61, 4.24, 4.95 and 6.68 percent respectively.

From the analysis of division wise attainment of dimensional index in the historical divisions of Assam, it has been observed that the average dimensional index of health, education and income in the state of Assam is represented by (0.523), (0.661), (0.501) respectively. Average HDI value is being represented by (0.557). While considering health index, Lower Assam region (0.610), North Assam region (0.566) and Upper Assam Region (0.525) were higher than state average; and that of Hills and Barak Valley Region (0.439) represent lower than state average. Dimensional index of education shows that three regions, Lower Assam Region (0.657), North Assam Region (0.642) and Hills and Barak Valley Region (0.636) represents lower than state average of (0.661); and Upper Assam Region (0.698)

represented higher than state average. Dimensional index of income shows that three divisions, Hills and Barak Valley Region (0.452), North Assam Region (0.481) and Lower Assam Region (0.487) represents lower than state average of (0.501); and Upper Assam Region (0.510) represent higher than state average. While two regions, Hills and Barak Valley Region (0.495) and North Assam Region (0.556) represent lower than state average HDI of (0.557); and Upper Assam region (0.570) and Lower Assam Region (0.574) represented higher than state average.

Co-efficient of variation analysis at the level of divisions of the state indicates that HDI and dimensional index of health, education and income vary largely across the districts in the regions of Assam. Highest differences among the regions can be observed in the case of health dimension; the gap between the highest co-efficient of variation (43.04 percent) attained by Hills and Barak valley Region and lowest co-efficient of variation (11.94 percent) attained by Upper Assam Region is represented by (31.1 percent). Likewise, the gap between the highest and lowest co- efficient of variation of dimensional index of income and education is represented by (11.57 percent) and (5.56 percent) respectively. HDI data also shows a large variation across the districts in the region; representing a gap of (12.12 percent) between the highest .and lowest co-efficient.

Analysis of gender development based on Assam, HDR 2014 reveals that the GDI improved considerably from the value of 0.537 (Assam, HDR 2003) to 0.875 (Assam, HDR, 2014). Out of 27 districts, 9 districts attained higher than state average GDI (0.875); and eighteen (18) districts attained lower than state average GDI. GDI (0.977) attained by Kamrup (M) is much higher than the lowest GDI (0.683) attained by the district Karimganj; showing a gap of (0.294). GDI largely vary across the districts in the state. However the gap between the highest and lowest value decreased from 0.865 (Assam, HDR 2003) to 0.294 (Assam, HDR 2014) indicating more equal trend among the districts. It is noteworthy that the tribal inhabited district of Kokrajhar achieved much lower GDI than the state average; the district placed 20th position in the state. Out of nine districts that have GDI values above the state average (0.875), only five districts have comparatively high HDI ranks, above (0.600). The present

study indicates that there is no clear correlation between HDI and GDI; correlation between GDI and HDI is not apparent.

Gender Inequity Index analysis based on Assam, HDR 2014 reveals that out of 27 districts, 10 districts attained lower than state average GII (0.375); and 17 districts have GII higher than state average GII. Lowest GII giving the lowest inequality between male and female attained by the district Dibrugarh (0.271) is much lower than the highest GII attained by the district Dhubri (0.566) giving highest inequality between males and females; representing a large gap of (0.295). It is noteworthy that the tribal inhabited district of Kokrajhar was poorer than other districts in the state; and the district maintained 21st rank in the state as per Assam, HDR 2014.

From the above analysis of dimensional indices, HDI, GDI and GII based on Assam HDR 2003 and 2014, it can be observed that in terms of human development indicators, the performance of the tribal inhabited district of Kokrajhar is much lower than other districts and the state average of Assam. As per Assam, HDR 2003, Kokrajhar district ranked at 14^{th} out of 23 districts. HDI value of the district Kokrajhar and state average was represented by (0.354) and (0.407) respectively. Assam, HDR 2014 reveals that, except health index, performance of the district was much lower than other districts and the state average of Assam. Education index of the Kokrajhar and state average was estimated at (0.645) and (0.661) respectively; and income index of the Kokrajhar ((0.402) was much lower than the state average of (0.501). HDI value of the district (0.519) was also lower than the state average of (0.557); and the district placed at 20^{th} out of 27 districts. The estimated value of GDI and GII for the Kokrajhar as published by Assam HDR 2014 were also lower than the state average of Assam. Survey data of the present study also reveals that the figure of all the three dimensional indices and HDI is much lower than the state average of Assam as published by the Assam, HDR 2014. The present study estimated health index, education index, income index and HDI of the district at (0.504), (0.636), (0.392) and (0.499) respectively. This establishes the hypothesis No. 2 that the tribal inhabited district of Kokrajhar is lagging behind the other districts of the state in terms of human development aspects.

All the indices – HDI, GDI and GII vary largely across the districts in the state. For all the districts GDI is greater than the HDI. The co-efficient of variation of HDI, GDI and GII are represented by (12.5 percent), (8.6 percent) and (16.5 percent) respectively. Comparative gap between the highest and lowest dimensions of GII, GDI and HDI is represented by (0.295), (0.294) and (0.266) respectively. State average GII, GDI and HDI value are (0.375), (0.875) and (0.557) respectively.

Primary survey data reveals that the achievement of the sample villages in terms of human development indicators is very low. At the village level, Habrubil in Gossaigaon Block and Pokalagi in Hatidura Block ranked 1st and last 15th with HDI values (0.641) and (0.439) respectively. At the Block level, Gossaigaon, Kokrajhar, Hatidura, Dotma and Kachugaon Block ranked 1st, 2nd, 3rd, 4th and 5th respectively.

Village level analysis of human development aspects in the district indicates large variations across the sample villages; the CV of income index, education index, health index and HDI being (19.06), (12.52), (5.29) and (11.15) percent respectively. Highest variation between the highest and lowest dimensional value is found in the case of education dimension; highest value (0.792) attained by Habrubil in Gossaigaon Block and lowest value (0.508) attained by Kumtola in Kachugaon Blok is given by (0.284); and while considering like way analysis, gap between the highest and lowest dimensional value of income index, health index and HDI are represented by (0.275), (0.103) and (0.202) respectively. At the village level, among the 15 sample villages, Habrubil in Gossaigaon Block maintained 1st rank in the dimensional index of income, health and HDI; the reason being that the villagers managed to avail most of the opportunities of Government Programmes.

From the analysis of human development aspects in the sample Blocks of the present study area, it has been observed that the average dimensional index of health, education and income in the district are represented by (0.504), (0.636), (0.392) respectively. Average HDI value is being estimated at (0.499). While considering health index, Gossaigaon (0.522), Dotma (0.509) and Kokrajhar (0.507) are higher than district average; and that of Kachugaon (0.501) and Hatidura (0.481) represent below the average. Dimensional index of education shows that three Blocks,

Kokrajhar (0.660), Gossaigaon (0.655) and Dotma (0.642) represent higher than district average of (0.636); and Hatidura (0.626) and Kachugaon (0.597) represent below district average. In the case of income dimension, two Blocks, Gossaigaon (0.447) and Kokrajhar (0.396) represents higher than district average of (0.392); and Hatidura (0.389), Kachugaon (0.373) and Dotma (0.359) represent below average. While considering HDI, two Blocks, Gossaigaon (0.532) and Kokrajhar (0.508) represent higher than district average HDI of (0.499); and Hatidura (0.488), Dotma (0.487) and Kachugaon (0.480) represents below average.

Block wise analysis of co-efficient of variation shows that HDI and dimensional index of income, education and health index largely vary across the sample Blocks. Highest differences among the Blocks can be observed in the case of income dimension; the gap between the highest co-efficient of variation (28.00) of Gossaigaon Block and lowest co-efficient of variation (8.30) by Kachugaon Block is represented by (19.7) percent. Likewise analysis reveals that the gap between the highest and lowest CV of dimensional index education and health are represented (9.87) and (5.70) percent respectively. HDI data also shows a large variation across the sample Blocks in the district; the gap is given by (11.63) percent. The above analysis of village level and Block level variations establishes the hypothesis No.2 of the present study that there is a wide disparity in terms of human development indicators in the tribal inhabited district of Kokrajhar.

Co-efficient of variation of HDI and dimensional index vary largely across the Blocks in the district indicating disparity among the sample Blocks in terms of human development aspects. Highest differences among the sample Blocks can be observed in the case of income dimension; the co-efficient of variation being (8.54) percent. Highest average dimensional index of income (0.447) attained by the Gossaigaon Block is much higher than the lowest average dimensional index of income (0.359) attained by the Dotma Block; showing a large gap of (0.88). Survey data also reveals a large gap between the highest and lowest average dimensional index of education and health; representing a gap of (0.063) and (0.041) respectively; the CV of the dimensional index of education and health being (4.00) and (2.97) percent

respectively. HDI data also reveals large gap across the sample Blocks in the district, the CV is being (4.25) percent; the gap between the highest and lowest HDI is (0.052) percent. From the above analysis it can be observed that in terms of dimensional index of human development, the performance of the Gossaigaon Block represent as best doing Block and the Kachugaon Block represent as worst performer among the Blocks in the district. This aspect establishes the hypothesis No.2 of the present study that there is a wide disparity in terms of human development indicators in the tribal inhabited district of Kokrajhar.

HDI and dimensional index of health, education and income of the Kokrajhar district on average as represented by survey data is below the figure as published by AHDR, 2014. Dimensional health index of present study and Assam, HDR 2014 are represented by (0.504) and (0.539) respectively; showing a gap of (0.035). The dimensional index of education is represented by (0.636) and (0.645) respectively; showing a gap of (0.009); the dimensional index of income are represented by (0.392) and (0.402) respectively; showing a gap of (0.010). HDI value (0.499) based on primary survey and (0.519) of Assam HDR, 2014 shows a gap of (0.020). Both the figure, average HDI based on primary survey and Assam HDR, 2014 for tribal inhabited district of Kokrajhar is well below the state average of (0.557) as published by Assam, HDR 2014.

Sex ratio of a region which involves economic development, human development and gender equity aspects in the society shows better position than other districts in the state. Survey data indicates that the average sex ratio of tribal inhabited district of Kokrajhar is 976 which show better sex ratio than 959 as per 2011 census data. It is noteworthy to mention that sex ration of Ghoramara (1025), Dholmara (1053) in Kokrajhar Block; Habrubil (1017) in Gossaigaon Block and Pokalagi (1032) in Hatidura Block have better sex ratio in which number of female is higher than male population. Kartimari in Gossaigaon Block has most unfavorable sex ratio, 859 females per thousand males. Block wise survey data shows that Kokrajhar, Kachugaon, Hatidura, Dotma and Gossaigaon have sex ratio in descending order, represented by (1014), (985), (978), (960) and (943) females per thousand male

population respectively. Survey data reveals vast inter Block differences of sex ratio in the study area.

Primary data indicates that on average age category below 6 years, 7-14 years, 15 -59 years and above 60 years are represented by 10 percent, 14 percent, 63 percent and 12 percent respectively in the tribal inhabited district of Kokrajhar. While considering below 6 years category of population which involves future implications, survey data reveals highest in Kachugaon Block (12 percent) and lowest in Hatidura Block (8 percent). At village level, all sample villages in Hatidura Block - Pokalagi, Mechpara and Srirampur No.1 and Tulshibil from Gossaigaon Block; Ghoramara in Kokrajhar Block have higher females population than males under the category of below 6 years age of population.

Population representing age group of 15-59 years is considered as economically active population in the economy. Primarily, productivity of output and the growth of the economy depend on this section of the population in the society. Primary data shows that on average, 63 percent of the total population represents the age group from 15 to 59 years in the district. Among the five Blocks in the study area, Dotma and Hatidura Blocks have greater male percentage of the economically active population group than female counterpart; male and female percentage being (33 percent) and (31 percent) respectively in Dotma and Hatidura Block. Kokrajhar Block, Kachugaon Block and Gossaigaon Blocks have smaller percentage of male population than female in this category of age distribution.

It has been observed that the tribal inhabited district of Kokrajhar is uniquely diverse in terms of its demography. The demographic pattern; the diversities – spatial, demographic and institutional–have significant implications for determining 'advantages' and 'achievements' of people in making diverse choices in life. Survey data indicates that six villages, namely Haloadol, Gossainichina, Boragari, Gongia, 1 No. Sekadani, Kumtola are represented by hundred (100) percent ST population. Ghoramara, Singimari and Pokalagi are the three villages in which (100 percent) households are represented by minority community (Muslims).The district on average

constitute ST, SC, OBC, General and Minority community by (51 percent), (4 percent), (19 percent), (2 percent) and (24 percent) respectively.

The literacy rate and level of educational attainment of people are two important indicators of a country's development. Survey data indicates that the average literacy rate of tribal inhabited district of Kokrajhar is represented by 76.0 percent which is much lower than the state average of Assam 85.9 percent as recently announced by the National Statistical Office (NSO). Survey data also reveals inequality between male and female; male and female literacy rate being 79 and 72 percent respectively; showing a gap of 7 percent. At Block level, Hatidura is at the top with 81 percent and Kachugaon at the bottom with only 66 percent literacy rate showing a gap of 15 percent between the highest and lowest. The gap between highest and lowest male literacy is 10 percent; and the gap is even more in case of female literacy by 19 percent which forms a serious concern for the tribal inhabited district of Kokrajhar. At village level, survey data reveals that the literacy rate of village Haloadol (93 percent) and Kumtola (52 percent) represent a vast gap between highest and lowest percentage of literacy being 41 percent; and a gap of 51 percent between highest and lowest female literacy rate which forms a serious concern for policy implications.

Survey data reveals that the percentage of pucca house, semi-pucca house and kutcha house in the district on average are (47 percent), (19 percent) and (34 percent) respectively. It, thus, emerges from survey data that, on the whole, there is a considerable degree of deprivation in terms of housing facilities and the deprivations worryingly substantive in absolute sense. As per survey data, in average, only (66 percent) households are using safe drinking water facilities in the district. At village level, Haloadol in Kokrajhar Block and Srirampur No.1 in Hatidura Block jointly represent highest safe drinking water facility (76 percent); and Kumtola in Kachugaon Block and Kartimari in Gossaigaon Block jointly represent the village with lowest safe drinking water facility (56 percent). On average (87 percent) households are connected with electricity in the tribal inhabited district of Kokrajhar. It is noteworthy that the village Kumtola in Kachugaon Block has no electricity facility since the demolition

and disconnection of electricity by the agitators of Bodoland Movement during 1987-1993 (as informed by the villagers).

This is very much serious concern that there are no single households in Singimari village availing bathroom facility**.** Dholmara in Kokrajhar Block has got only (4 percent) and Gangia in Kachugaon Block and Ghoramara in Kokrajhar Block have only (8 percent) bathroom facility. Survey data reveals that the Kokrajhar district on average has only 24 percent households availing bathroom facility. Sanitation facility (latrine and toilet) in the study area is too poor; the district in average has got only (65.20 percent). Kumtola in Kachugaon Block represent lowest percentage (4 percent) followed by Gangia in Kachugaon Block (24 percent). Survey data indicates that a large percentage of the population still either defecate in open or use unsanitary bucket latrines or smelly public toilets. This poor facility of safe drinking, sanitation facility may form basic reason for ill-health condition in this tribal inhabited district of Kokrajhar.

Survey data shows that on average (65 percent) households in the district availed BPL card during the survey period. Survey data also reveals that on average (44 percent) household availed APL card in the district.

Primary data reveals that the per-capita monthly income (PCMI) of the sample villages in the district on average is Rs 3822. Highest per-capita monthly income attained by Habrubil in Gossaigaon Block (Rs 7903) is much higher than the lowest per-capita monthly income of Gangia in Kachugaon Block (Rs 1779); a large gap of (Rs 6104), representing unequal distribution of income across the sample villages. The per-capita monthly consumption (PCMC) of the sample villages in the district on average is Rs 2685. Data reveals a large gap of (Rs 4913) between the highest PCMC of Habrubil in Gossaigaon Block (Rs 5965) and lowest PCMC of Gangia in Kachugaon Block (Rs 1052) representing unequal consumption standard and quality of life in the study area. Survey data reveals that high percentage of income devoted to consumption expenditure as the level of income of the sample households remained at low level during the survey year and the sample villages with low level of income comparatively devote less percentage of their income on consumption. The per-capita

monthly consumption expenditure and the surplus income of the sample villages as the percentage of per-capita monthly income in the district on average are (70.25 percent) and (29.75 percent) respectively. Per-capita monthly income, per-capita monthly consumption expenditure and the surplus income of the sample Blocks in the district on average is Rs 3822, Rs 2685 and Rs 1137 respectively.

Survey data relating to Block level analysis reveals large variation across the sample Blocks in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income; the co-efficient of variation being (33.73 percent), (38.96 percent) and (22.89 percent) respectively. Data reveals very large inter Block differences in terms of per- capita monthly income; highest value (Rs 5307) of the Gossaigaon Block is much higher than the lowest value attained by Kachugaon Block (Rs 2193); representing a gap of (Rs 3144). Co-efficient of variation of per-capita monthly consumption expenditure is (38.96 percent); highest value (Rs 1343) attained by the Kokrajhar Block and lowest value (Rs 825) attained by Kachugaon Block; indicating a large gap of (Rs 518) across the sample Blocks. Co-efficient of variation of surplus income dimension reveals a gap of (Rs 518) between the highest amount (Rs 1343) attained by the Kokrajhar Block and the lowest amount (Rs 825) attained by the Kachugaon Block.

From the analysis of co-efficient of variation of the sample Blocks in terms of per-capita monthly income, per-capita monthly consumption expenditure and surplus income it is found that highest variation has been observed in the Gossaigaon Block; as the achievement of the village Habrubil is much higher than the other two villages in different dimensions.

The ***focus group discussion*** reveals that the unity and the peace-loving nature of various communities living in the study area have been perceived as the major resources which may help the authority while formulating plan and policy for development. About 40 per cent of the total participants across the age groups of both sexes consider the unity among different community as the major advantage for achieving developmental goals; and to them, human development was possible only

with unity among different communities. Hard-working nature and skills, brotherly feelings between tribal and non-tribal communities living around emerges as next important resources. Few participants, however, emphasizes on tribal values of the community as a part of developmental issues. Majority of the participants in *focus group discussion* opined that current dominating nature of the people in the area is not congenial for development. They stressed on change of the attitude of the people and the authority for the development of the society in the area with equality.

The next aspect of discussion focused on the major obstacles that came in the way of development as potential barriers in the study area. Here, the participants pointed out different aspects of *ill fare and* social exclusions. About 73 per cent of male respondents blame poor governance responsible for their low human development and social exclusion in various aspects of human capabilities. Opinion of respondents indicates that only some 30 percent people in the study area are availing major proportion of the schemes and facilities, representing existence of inequality and unhealthy growth in the study area. About 63 per cent women feel that immediate solution of various agitations by the groups, organizations; and restoration of peace and unity in the area is necessary for the betterment and development. They also stresses on equal opportunity for gender unbiased development.

Lack of poor educational infrastructure and opportunities in the study area are pointed out by the young respondents of both sexes which have contributed to lower performance of the students than other parts of the state. They also pointed out inadequate health care facilities which form the aspects of ill- health condition of the people in the study area. The aspect of inadequate health care facilities is responsible for high rate of Infant Mortality Rate (IMR) in the study area. Ethnic identity plays a crucial role in the mind of the older respondents, basically *51 and above* category of participants. Frequent occurrence of violence, riot including Bodoland movement, contributed to low level of development in the study area. These aspects are also responsible for low level of human capabilities. A proper initiative need to be taken by the authority for the involvement of common people in decision making process.

7.3 Recommendations and Policy Implications

On the basis of the analysis of human development and disparity in various chapters and findings as presented above, this research work makes the following recommendations, in order to improve human development aspects in the tribal inhabited district of Kokrajhar, in particular and the state of Assam as a whole.

The tribal inhabited district of Kokrajhar and the state of Assam is a unique storehouse of demographic diversities with uniquely rich and diverse social norms and customs, different tribes and communities. The district is also part of interesting institutional diversities in the state of Assam – Bodoland Territorial Council (BTC), and now Bodoland Territorial Region (BTR), an autonomous council for self-governance by different communities. While formulating plan policies for the development, relative advantages and disadvantages; and aspirations of various groups and communities need to be understood and proper policy need to be incorporated in terms of human capabilities.

The tribal inhabited district of Kokrajhar and the state of Assam is characterized by unrest and lack of development has contributed to this aspect. The state has been continuously facing fragile communication facilities, poor developmental infrastructure, poor performance in agriculture and lack of industrial development. Despite the attempts of the central and state governments for balanced regional development, it is observed that the gap between the states of NER including Assam and other states of the country has widened. Significantly, the states in the region unable to receive the benefits of globalised growing economy of the country. The state and the NE region have been facing the problem of mismatch between the required amount of resources for developmental purposes and available resources. Under these critical circumstances, the state and the NE region necessitated extraordinary support and guidance from the Central Government and Planning Commission of India.

The present study, based on survey data, puts the Human Development Index (HDI) in the tribal inhabited district of Kokrajhar at 0.499 which is even lower than state average of Assam 0.557 as published by Assam HDR, 2014. This indicates that

given the desired goal, the performance of the district in terms of HDI represents just about half point. A proper plan and policy with the strategy of differentiated approach need to be incorporated to cope up with other developed districts of the state in terms of human development.

The present study based on secondary data reveals that the human development of some districts in the state of Assam is very poor; including tribal inhabited district of Kokrajhar which represents below state average HDI of (0.557) as published by Assam HDR, 2014. Administration of respective districts and state government should introduce special packages for the improvement of education and health care; and to create opportunities to work by introducing productive economic schemes in these backward districts.

Economic growth and development that achieved by a region needs to be translated for better human development achievements and for the improvement of quality of life of the people; and for achieving this goal an attempt is required to provide gainful employment, quality universal healthcare and quality widespread education. Successful initiative towards these aspects will give better human development results and while making the economic growth process inclusive and broad based. The state needs to ensure human capability not only by resolving the issues of environmental externalities, rather it also requires an effort of addressing the issues of deprivations and myriad forms inequalities which exist in the study area. The present study, therefore, suggests for inclusive institutions and the growth process with people's participation.

There is an urgent need for re-examination of pattern of development in the present study area. It is important to be noted that the state needs to have a policy to prioritize, focuses and target relatively backward areas and the underprivileged group of people. The authority should also aims at decentralized and integrated developmental strategy. Investment pattern need to address the aspect of disparities among the districts and villages in terms of health, income and education; and other social indicators.

There was an improvement of average GDI value of 0.537 (Assam, HDR 2003) to 0.875 (Assam, HDR 2014). Assam, HDR 2014 reveals that the average GII value of the state is (0.375); and the highest GII (0.566) of Dhubri district and the lowest GII (0.271) of Dibrugarh indicate the prevalence of high gender disparity in the state of Assam, including tribal inhabited district of Kokrajhar of GII value (0.424). The present process of national output estimation, neither it is recognized nor given due remuneration for women's labor contribution to the economy. Women in Assam face aggression, violence, insecurity, uncertainty and also growing problem of harassment at the work place. Effective strategy is to be worked out for dynamic, gender sensitive and forward looking gender guiding principles to address the existing inequity, and that seeks to make a positive policy framework for required changes in the area of opportunity between men and women. The gender developmental strategy needs to consider women as active partners. Job reservation (positive discrimination) for women in order to improve the economic status of women; and thereby to empower women sections of the society will reduce gender disparity in the study area.

There exists a myriad form of inequalities in the present study area and the state of Assam as a whole. The extent of inequality in terms of land holding, consumption expenditure, per capita NSDP is considerably large. The per capita NSDP of Kokrajhar has been lower than state average and rest of the country. The aspect of inter-district inequalities which is prevalent in the present study area needs to be addressed by incorporating effective plan and policies and a differentiated approach as an integral part of the developmental planning; prioritization of state authority initiative is important. As the economy of India has been experiencing higher growth path in recent decades, it is imperative that the Kokrajhar district, Assam and its entire people be enabled to improve their standard of living and quality of life.

Despites of declining trend, about one-third of population are denying basic necessities of human life in the present study area representing multi-dimensionally poor aspect and the case is more worsening in the tribal inhabited district of Kokrajhar. The study area has been experiencing a quandary gap between levels of

income and employment in the state and higher levels of income and employment in other states of the country. Given the critical role of public investment, to close this gap, it must continue to play critical role. Under such circumstances, public resources need to be transferred from the Centre to the present study area of the state of Assam in an enhanced form. In the context of present condition in which large proportion of the population lives below the poverty line, adequacy and strategic funding of public investment is even more urgent.

Though the agriculture contributes only about one-third of the State Domestic Product, it provides employment to the large proportion of the total work force in the state, about 69 percent of the population dependent on agriculture for their livelihood. Growth rate of agriculture in the state is not comparable to the other agriculturally developed states and all-India level, and the case is more relevant in case of tribal inhabited district of Kokrajhar. In recent decades, the state of Assam has experienced growth in primary sector only marginally by 2 percent which represents lowest among the three main sectors of the economy. It is matter of great concern that the production of food grains has declined indicating serious implications of food security, particularly for vulnerable and underprivileged groups. Agricultural allied activities in the present study area also yet to get momentum raising income of the state substantially in a sustained form that may raise purchasing power in the study area.

The present state of the agriculture needs to be enhanced and modernized to produce surplus quantity to steer the economy of the state on to a higher and appreciable growth path; and the growth should be equitable sustainably so that the benefits of its expansion are distributed equally. Government role and initiative need to be strengthened further to raise agricultural productivity in the study area and the state of Assam as a whole. The policy, instead of relying on subsistence agriculture, should aims at technologically updated modern and market oriented agriculture marked by improved agricultural practices, multiple cropping and high yields variety. Moreover, the policy should aims at providing effective credit, especially to marginal farmers; and most importantly controlling measures to overcome the problem of uncertainties which arises due to vagaries of nature in the present study area.

Despites of its vast deposition of natural resources, the tribal inhabited district Kokrajhar, in particular and the state of Assam as a whole have remained industrially most backward. Geographical isolation and inadequate quality infrastructure, high transportation cost, shortage of capital and lack of well developed markets has prevented the state from industrial diversification and growth of the sector. Effective policy is required to develop some identified sectors such as handloom and textile and food processing industries. It is noteworthy to mention that under such critical circumstances, role of the state is extremely important in the case of private investment including Multi National Corporations (MNCs) from outside state and abroad. Necessary support is to be enhanced for industrial development, particularly in the power, communications and transport sectors.

The study area and the state as a whole is marked by high incidence of unemployment, measured as a percentage of the labor force. The unemployment rate in the state has been increasing at a considerable rate, and it is to be estimated at higher than all-India average. Assam's unemployment rate had risen substantially to 4.6 percent; and the rate has been increasing at alarming rate in recent years. The scenario is even more worsening in the tribal inhabited district of Kokrajhar as the district is very much backward industrially. The study area has been experiencing a quandary gap between levels of income and employment in the state and higher levels of income and employment in other states of the country. Given the critical role of public investment, to close this gap, it must continue to play critical role. Under such circumstances, public resources need to be transferred from the Centre to the present study area of the state of Assam in an enhanced form. Priority is to be given for the creation of job opportunities which may address different types of unemployment in the study area. Training to Rural Youth Self Employment (TRYSEM), Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), Indira Awas Yojana (IAY) and other employment schemes need to be stressed for their effective implementations.

Though there has been an impressive growth in educational sector in the present study area and the state of Assam as a whole in recent decades in term of

enrollment in schools, expansion of physical infrastructure, teacher induction; enrollment gap between the boys and girls continued to be prevalent in the study area. Many areas and habitations are still continuing without the govt. schools; and many children remain either out of school enrollment, or they attend the school irregularly; and the case is more relevant in the case of current study area. Inter-district and intra-district variations are also persistent in the present study area. There continue to be provisioning deficiencies in terms of additional school infrastructure including drinking water and toilet facilities. It is a great concern for the state that there is a increasing trend of school dropout rate, while for the country as a whole the school dropout rate has been declining. Programs like Adult Literacy Rate (ALR), Sarva Siksha Abhiyan (SSA) etc. too could not help much.

Considering the issue of the gender gap in education, the Government needs to identify the areas, population groups and sub-district pockets with substantial gender differentials. The initiative is required for the establishment of new schools and building both academic and non-academic infrastructure and to redress the grievances of the educational system with the basic idea of rationalization and reorganization in the study area. Concerted effort is to be enhanced in a fixed time frame to provide quality education and widespread education at the primary level. Proper plan and policy for the management of school by involving local community need to be enhanced by considering appropriate strategy to existing local conditions.

Health represents one of the indicator human capabilities and social well-being has got immediate important implications on quality of life of the people in the society. Productive capacity of the economy too, largely depends upon health status of the people. Although there is an improvement of health care facilities, people from remote and forest areas are still facing the problem of accessibility of proper and sound health care facilities. There are both chronic and acute malnutrition among children in the present study area. Govt. initiative for providing adequate and sound primary health care facilities, bringing awareness on various issues of health along with dissemination of appropriate information for maintaining hygiene, nutrition,

proper and hygiene sanitation, safe drinking and other relevant health issues including maternal and child health care issues. An effective system of vaccination can contribute to the health and longevity of children.

Survey data reveals that considerable degree of deprivations prevails in terms of housing facilities, safe drinking water facilities, bathroom and sanitation facility (latrine and toilet) which may be the basic reason for ill-health condition in this tribal inhabited district of Kokrajhar. Survey data indicates that a large percentage of the population still either defecate in open or use unsanitary bucket latrines or smelly public toilets. Government should initiate the initiatives to improve these basic facilities to overcome the problem of prevailing ill-health condition; and to improve quality of life of the people in the study area.

Peace and stability represents important pre requisite condition of good governance. The tribal inhabited district of Kokrajhar in the state has been confronted with social unrest and political agitations and violent activity of various insurgency groups. Lack of employment opportunities and development, inequity aspect and apparent discrimination have added to the crucial aspect of discord and strife in the present study area. Such situations are rarely, if ever, conducive to development, socially, economically, culturally and politically. Bodoland Territorial Council (BTC) agreement in 2003 and recent Bodoland Territorial Region (BTR) agreement have brought positive solution to some extent. Proper implementation of both BTC and BTR agreement may bring peace and harmony in the society and a path of development in the region including study area. The Government needs to have more initiative promoting surrounding environment for developmental activities; and restoring peace and confidence and reducing violence in the current study area.

7.6 Limitations of the Present Study

The human development perspective is an improvement over other perspectives of development such as the standard of living (income) perspective, physical quality of life perspective and the minimum needs perspective. The present study made an attempt to analyze human development and deprivations in the sample

Blocks of tribal inhabited district of Kokrajhar by employing primary survey; and the state of Assam based on secondary data. However, the present study is not free from limitations. Its main limitations are the following.

i) The HDI methodology revolves around certain conventional indicators the availability of which is generally considered as additions to human well-being. It completely ignores many factors the presence of which could definitely lower the level of welfare. They generally take the form of distresses like morbidity, crimes, pollution, etc. Non-inclusion of such non-conventional indicators in the measurement of human development will unrealistically inflate the human development performance of the society.

ii) The statistical databases available, in many parts of the country, for the computation of various indices of human development are quite inadequate and largely unreliable, and the tribal inhabited district of Kokrajhar and Assam is no exception to this. Data constraints often hamper the computation of HDIs, particularly for small areas like districts and Block levels. For instance, the district level data on life expectancy at birth, the most commonly used indicator for the computation of health sub-index of the HDI, is yet to be available in the district and Block level.

iii) Although there is considerable size of collections of statistical information with numerous agencies in the state of Assam, many of them are unreliable, irrelevant, out-dated, ill defined or poorly organized; using such data may result in an overstatement or understatement of HDI and other indicators of human development.

7.7 Future Scope

The present study is only an elementary step towards improving micro-level studies in human development of tribal inhabited district of Kokrajhar and the state of Assam. It is indicative, rather than comprehensive. The aspects of human development and capability in the present study area needs further studies, particularly at more disaggregated levels. Researcher of the present study hopes that

this work will be useful in initiating and intensifying the present research work in future. A number of studies can be undertaken by the future scholars following the framework developed in the present research work. The important contribution of the present study is the observation that ***the tribal inhabited district of Kokrajhar is lagging behind most of the districts in the state of Assam in terms of human development and capability. Present study also reveals that there are acute deprivations and inter-block and intra-block disparities in the present study area. From the present study, it has also been observed that while estimating HDI through conventional indicators, there is possibility of over estimation of it.*** These aspects of observation can be taken as the basis for future social science researches.

7.6 Conclusions

The present research work has made an attempt to study the aspect of human development and deprivations in the tribal inhabited district of Kokrajhar based on primary data and the state of Assam as a whole based on secondary data; keeping in mind of the underlined objectives of the present study. From the analysis in the previous sections of the present study, it has been observed that inter district disparity is prominent in the state of Assam in terms of human development and capabilities. The gap between the highest and lowest value attained by the districts in terms of HDI, GDI and GII are also found to be too large. Survey data reveals that the tribal inhabited district of Kokrajhar is lagging behind other comparatively developed districts in the state in the area of human development; deprivations in terms of health, income, education is remarkable. Village wise and Block wise analysis reveals sizable extent of deprivations in terms of basic amenities of life such as electricity, dwellings, sanitation facilities wish may be responsible for poor and ill health condition of the people in the present study area. HDI and dimensional index of health, education and income largely vary across the sample Block and villages. At village level, Habrubil managed to maintain best performing village representing 1st position in dimensional indices; the reason being that the villagers have been availing most of the facilities out of government programmes. Households of some sample villages are almost totally

deprived from basic amenities like bathroom, toilet, latrine etc. The tribal inhabited district of Kokrajhar in the state has been confronted with social unrest and political agitations and violent activity of various insurgency groups. Lack of employment opportunities and development, inequity aspect and apparent discrimination have added to the crucial aspect of discord and strife in the present study area. Such situations are rarely, if ever, conducive to development, socially, economically, culturally and politically. The Government needs to have more initiative promoting surrounding environment for developmental activities; and restoring peace and confidence and reducing violence in the current study area. Proper implementation of the Bodoland Territorial Council and recent accord of Bodoland Territorial Region will help while improving the economic status and the aspect of human development and capability in the tribal inhabited district of Kokrajhar. It is noteworthy that the planners and the government need to keep in mind so that the encouraging attitude and values of the tribal people does not hamper while formulating and executing the plan and policies for development. However, the present study is only an elementary step towards improving micro-level studies in the area of human development and deprivations; it is indicative, rather than comprehensive. The present study may help the scholars while undertaking further research work in the area of human development aspect which require more extensive study at micro level in the present study area.

BIBLIOGRAPHY

Amin, A. A. (2005): "Economic Growth and Human Development with Capabilities Expansion", Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=5CBE44174FB7ABB355F9B6CFAA10904B?doi=10.1.1.543.3655&rep=rep1&type=pdf

Anand, S. and Ravallion, M. (1993) "Human Development in Poor Countries: On the Role of Private Incomes and Public Services", *Journal of Economic and Perspectives,* Vol. 7, No. 1, pp. 133-150.

Arumugam, V (1999): "Human Development Index: A Study of Districts in Tamilnadu", retrieved from www.orissa.gov.in/p&c/humandevelopment/hdr/reference.pdf

Anand, S. and A. Sen (1994): "Human Development Index: Methodology and Measurement", Occasional Paper 12, UNDP, Human Development Report Office, New York.

Anand, S. and A. Sen (1995): "Gender Inequality in Human Development: Theories and Measurement", Occasional Paper 19, UNDP, Human Development Report Office, New York.

Bagchi, K. K. and S. Sarkar (2003): "Development of Social Sector in West Bengal: A Study in Inter-District Disparity", *Indian Journal of Regional Science,* Vol. 35, No. 2, pp. 115-130.

Barro, R. J., & J. W. Lee (2000): *International Data on Educational Attainment: Updates and Implications,* Centre for International Development, Working Paper No. 42, Harvard University.

Basumatary, K. (2012): *Political Economy of Bodo Movement: A Human Development perspective*, Akansha Publishing House, New Delhi

Bensahes, S. C. and A. Benlzrak (2009): *Gender and Human Development* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda New Century publications 4800/24, Bharatram Road, Darya Ganj, New Delhi-110002

Bharadwaj & Bharadwaj (1998): "Gender Related Development Index for Major States of India: An Economic Analysis", *The Indian Journal of Economics*, Vol. (59), No. 312, pp. 9-19

CESS (2007): Human Development Report 2007, Andhra Pradesh Government, Andhra Pradesh Centre for Economic and Social Studies, Hyderabad

Chakrabarty and Bhat (1994): "Human Development Profile of Karnataka", Project Work, NCAER, New Delhi

Chakraborty, G. (2006): "Human Development and Inhuman Growth", *Human Development: Experiences of north East India*, edited by Kiran Sankar Chakravarty and Gurudas Das, Akansha Publishing House, New Delhi-110002

Chakravarty, K. S. and G. Das (2006): "Human Development: Experiences of North East India", *Human Development and the Management of Natural Resources: Some Basic Issues*, edited by Utpal Kr. De, Akansha Publishing House, New Delhi

Chaudhuri, K. (1998): "Regional Disparities in Human Development in India", *Regional Dimensions of the Indian Economy*, edited by Biswajit, Allied Publication Limited, Calcutta

Chaudhuri K. and P. Maitra (2008): "School Attainment Completion and Economic Development: A Cross Country Analysis", *Review of development Economics",* Vol. 12, No. 1, pp. 90-105.

Chelliah, R. J. & K.R. Shanmugam (2000): "Some Aspects of Inter-district Disparities in Tamil Nadu", in Pandit, V.et al. (eds.) Data Modeling and Policies, *proceeding of 38th Annual Conference of the Indian Econometric Society*, Chennai

Dadabhavi R.V. (1991), "Disparities in Social-Infrastructure Development in India: 1970-71 to 1984-85", *The Asian Economic Review*, Indian Institute of Economics, Hyderabad, Vol. 33, No. 1, pp. 31-48.

Daimary, P. (2008): *Structure of the Rural Economy of BTAD*, EBH Publishers (India), 136, M.L.N. Road, Panbazar, Guwahat—781001, India

Dalal, K. L.(1991): *Human Development – An Indian Perspective*, Har-Anand Publications, New Delhi.

Dutta, B. M. Panda and W. Waxhaw (1997): "Human Development in India", *Indira Gandhi Institute of Development Research*, Mumbai.

Datt R., (2002), "Human Development: India and World Context", *The Indian Journal of Labor Economics,* Vol. 45, No. 2.

Datta, S. (2009): "Human Development and Economic Development: the case of Assam", *Human Development: Dimensions and Strategies,* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century publications 4800/24, New Delhi.

Datta, S. (2009): "Disparities in Human development and Economic Development: The Case of Assam", *Human Development : Dimensions and Strategies,* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century Publications 4800/24, New Delhi

Deaton, A. and C. Paxon (1999): *Mortality Education Income and Inequality among American Cohorts*, NBER Working Paper www.nber.org/papers/w/7140.pdf

Desai, M. (1991): Human development: Concept and Measurement, *European Economic Review,* Vol. 35, No.2-3, pp. 350-357.

De, U. (2006): "Human Development and the Management of Natural Resources: Some Basic Issues", *Human Development: Experiences of north East India,* edited by Kiran Sankar Chakravarty and Gurudas Das, Akansha Publishing House, New Delhi-110002

Dhar, R. (1994): "Human Development in India: In a Comparative Context", Working Paper, *Indian Institute of Management*, Bangalore

Dholakia, R. H. (2003): "Regional Disparity and Economic and Human Development in India", *Economic and Political weekly,* Vol. 38, No. 39, pp. 4166-4172.

Ganguly, B.N. and D. B. Gupta. (1976): *Levels of Living in India: An Interstate profile,* Chand and Co. Ltd., New Delhi.

Ghosh, M. (2006): "Economic Growth and Human Development in Indian States", *Economic and Politically Weekly,* Vol. 41 No. 30, pp. 3321-29.

Govt. of Assam (2003): *Assam Human Development Report, 2003*

Govt. of Assam (2014): *Assam Human Development Report 2014*

Guha B. (2002): "Human Development in India A Study of Inter State Disparity", Human development and economic development, edited by Ruddar Datt, Deep & Deep, New Delhi, pp. 211-229.

Hari, K. S. (2003): "Economic Growth and Human Development: Empirical Evidence from Indian States", *www.econ.yale.edu/`egcentre/research.httm*

Haq, (1997): Reflection on Human Development Report, Oxford Publication, New York

Haq, M. Ul. (1995a): "Reflection of Human Development", Oxford University Press, United Kingdom

Haq, M. Ul. (1995b): "The birth of the human development index", *Readings in Human Development*, edited by Fukuda-Parr, Sakiko and A. K. Shiva Kumar, Oxford University Press: New Delhi, pp. 127-13.

Indian Human Development Report (1994): "The National Council of Applied Economic Research", *Oxford University Press*, New Delhi

Jordon, L. J. (2008): "Constructing a Human Development Index for Georgia's Counties", *Agricultural and Applied Economics,* University of Georgia *Faculty Series* http://ides.repec.org/p/ags/ugeofs/16672.html

Kanakachary, S. (2010): "Regional Disparities in Andhra Pradesh: A spatial Study" 2010 A.P. Economic Conference, S.V. University Tirupathi AP (India).

Khan, (2003), "Human Development in India: A Study of Inter-State Variation", *Human Development and Economic Development,* edited by Ruddar Dutt, Deep and Deep Publications Private Limited, New Delhi

Khan, N. A. (2003): "Human Development in India – A Study of inter-state variations", *Related concepts: A Case Study of Tamil Nadu,* edited by R Datt, Books Google.com.

Kumar, A. K. S. (1996): "UNDP's Gender Related Development Index – A Computation for Indian States", *Economic & Political Weekly,* Vol. 31, No. 14, pp. 887-895.

Kumar, J. (2002): "Disparities in Economic Growth and Human Development: A State-wise Analysis", *www.econ.yale.edu/~egcenter/research.htm*

Kurian, N. J. (2000): "Widening Regional Disparities in India: Some Indicators", *Economic and Politically Weekly,* Vol.35, No. 7, pp 538-50.

Mahapatra, M. K. and Rajesh Raj S.N. (2009): " Human Development in India" Issues and Challenges", *Human Development : Dimensions and Strategies,* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century Publications 4800/24, New Delhi.

Malhotra, N. (1998); "Human development in India & Inter-state patterns", *Anvesak,* Vol.28, No.2

Mandal, N. (2003): "Inter-State Comparisons of Human Development in India: An Alternative Measures", *Human Development and Economic Growth,* edited by Ruddar Dutt, Deep and Deep Publication, pp. 42-48, New Delhi.

Majumder, R. (2005): "Human Development in India: Regional Pattern and Policy issues", MPRA paper, No. 4821, posted 07, retrieved from https://mpra.ub.uni-muenchen.de/4821/1/MPRA_paper_4821.pdf

Mazumdar, K. (2001): *Human Well-Being: Socio-Economic Indicators – A Global Study,* Shipra Publications, New Delhi

Mehrotra, R. (2007): "Human Development Measures: From Advocacy to Policy Monitoring at Country Level", *Indian Journal of Human Development,* Vol. 1, No. 1, pp. 103-127

Mehta, A. (2003): "Human Development and Economic Growth: The Experience of India, 1980-96", edited by Ruddar Dutta, "*Human Development and Economic Development*", Deep and Deep Publications Private Limited, New Delhi

Mishra A. K. and B. Patra (2009): "The perspectives of Economic Growth and Social insecurity on Human Development for lagging states in India" *Human Development: Dimensions and Strategies,* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century Publications 4800/24, New Delhi

Mishra, S. K. (2009): "**A Note on Human Development Indices with Income Equalities**", *Human Development: Dimensions and Strategies,* edited by

Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century Publications 4800/24, New Delhi.

Mohanty, A. K., N. Nayak and B. Chatterjee (2009): "Human Development in Orissa An Inter-District Analysis from the perspective of infrastructure", *Human Development : Dimensions and Strategies,* edited by Himanshu Sekhar Rout and Prasanth Kumar Panda, New Century Publications 4800/24, New Delhi

National Human Development Report 2001, Planning Commission of India, Govt. of India, Yojana Bhavan, Sansad Marg, New Delhi; 110001

National Human Development Report, 2011, Planning Commission of India, Govt. of India, Yojana Bhavan, Sansad Marg, New Delhi; 110001

National Institute of Rural Development (NIRD), (1999): 'India Rural Development Report 1999, Regional Dispersions in Development and poverty, Hyderabad

Nayak, P. (2007): *Human Development – Conceptual and Measurement*, MPRA Paper No. 6272, Posted 13, December.

Nayak, P. (2009): "Status and Trend of Human Development in North East Region of India", *Human Development: Dimensions and Strategies*, edited by Himanshu Sekhar rout and Prasant Kumar Panda, New Century Publications, New Delhi, India

Nayak, P. and E. D. Thomas (2007): *Human Development and Deprivation in Meghalaya*, Akansha Publishing House, New Delhi.

Nayak, P and S. Ray (2007); "Inter-District Disparities in Meghalaya: A Human Development Approach", MPRA paper No. 6274.December

Piar Chand Ryhal and Shashi Punam (2009): the General of Family Welfare, Vol. 55, No. 1, June 2009

Planning Commission (1999): *Human Development Report of Karnataka 1999, Government of Karnataka*, Bangalore

Prabhu, K. S. & S. Chatterjee (1993): "Social Sector Expenditure & Human Development: A Study of Indian States", DRG Study No.6, Mumbai, *Reserve Bank of India,* Bombay

Pradhan, R. P. (2007): "Human Development: A Case Study", Asian-African *Journal of Economics and Econometrics,* Vol. 7, No. 1-2, pp. 307-21.

Pul S. P, & D. K. Pant (1993): "An Alternative Human Development Index", *Margin,* Vol. 25, No. 2, Part II, pp. 8-22.

Raghupahi, U. P. (1993):"Human Development Indicators for Urban India", *Margin Special Issue,* Jan-March 1993 Part II, pp. 131-136

Ranis, G. F. Stewart and A. Ramirez (2000): "Economic Growth and Human Development", *World Development*, Vol. 28, No. 2, pp. 197- 219

Rao, H. (1986): "Educational development and inter-taluk disparities in Karnataka", *Education and Regional Development,* edited by Tilak J. B. G., Yatan Publications, New Delhi

Ravallion, M. and G. Datt (2002): "Why has economic growth been more pro-poor in some states of India than others?", Journal *of Development Economics,* Vol. 68, No. 2, pp. 381-400

Ranis, G. & F. Stewart (2000): "Strategies for Success in Human Development", *Working Paper No. 32, Queen Elizabeth House and Oxford University Press,* London

Ranis, G. and F. Stewart (2001): "Growth and Human Development: Comparative Latin American Experience", Centre Discussion Paper No. 826, Economic Growth Centre, Yale University.

Sakiko Fukuda-Parr and A. K. Shiva Kumar (2009): *Hand book of Human Development concepts, measures and policies,* Oxford University press, New York

Sen, A. K. (1997): "Human Capital and Human Capability", *World Development,* Vol. 25, No. 12, PP. 1959-61, Oxford University New York.

Sanjeevd Kenchalgor (2009): "Recasting Human Development Indices: A look into the state of Gender empowerment in Karnataka" edited by Himanshu Sekhar Prasanth Kumar Rout Panda New Century publications 4800/24, Bharatram Road, Darya Ganj, New Delhi-110002 (India).

Sen, A. K. (1977): *Development as Freedom,* Oxford University Press, New York

Sen, A. K., (2000), "A Decade of Human Development", *Journal of Human Development*, Vol. 1, No.1, pp. 17-24

Sengupta (2003): "Economic Growth and its Impact on Human Developed in the Indian Economy", *Human Development and Economic Development*, edited by Ruddar Dutta, Deep and Deep Publications Private Limited, New Delhi.

Siddique, R. (2008): "*Human Capital vs Physical capital: A cross country analysis of human development strategies",* Retrieved from http://mpra.ub.uni-muenchen.de/13999

Shariff, A. and J. Unni. (1999): "Enabling Development through Education Implications through South Asia", *Labor and Development*, Vol. 5 No. 1, December (31-35).

Singh, S. P. and D.K. Nauriyal (2006): "Human Development Disparities in India: Inter- State Scenario", *Indian Journal of Social Development*, Vol. 6, No. 2, pp. 289-311

Srinivasan and Verma. (1993): "Human Development: Concepts and International Standards", *Human Development and Economic Growth*, edited by Ruddar Dutt, Deep and Deep Publication Private Limited, New Delhi.

Tiwari and Pandey (1998): "Human Development and Government Expenditure: The Indian Scenario", Retrieved from *www.econ.yale.edu/`egcentre/research.httm*.

United Nations Development Program (UNDP), (1990), *Human Development Report, 1990*, Oxford University Press, New York.

UNDP (1990): Human *Development Report 1990,* OUP, New York.

UNDP (2001): *Human Development Report 1991,* OUP, New York

UNDP (1992): *Human Development Report 1992,* OUP, New York.

UNDP (1995): *Human Development Report 1995,* OUP, New York.

UNDP (1996): *Human Development Report 1996, OUP*, New York.

UNDP (2005): *Human Development Report 2005,* OUP, New York.

UNDP (2010): *Human Development Report 2010,* OUP, New York.

UNDP (2015): *Human Development Report 2015,* OUP, New York.

UNDP (2019): *Human Development Report 2019,* OUP, New York

HUMAN DEVELOPMENT AND DEPRIVATION IN KOKRAJHAR

(The questionnaire is for Research Purpose only)

1. Name of the District:
2. Name of the Block:
3. Name of the Village:
4. Name of Person interviewed:
5. Cast:
6. Distance from Sub Division (in Km):
7. Total number of birth of each couple in the family (in the last five year):
8. Total number of death in the family (in the last five year):
9. Total No. of children died before attaining age 1 year of age (in the last five year):
10. Total No. of children died before attaining age 5 years of age (in the last five year):
11. Number of mother death during the time of child birth (in the last five year):
12. Number of family members in services: Still working: Retired:
13. Number of family members engaged in business:
14. Total finally members in the family**:** Male: ( ) Female: ( )
15. Family type (Tick √): Nuclear: ( ) Joint: ( ) Extended: ( )

16. Total number of persons in the household/family:

Age group	Male (M)	Female (F)	Total
(0-6) years			
(7-14) years			
(15-59) years			
(above 60) years			
All total			

17. Educational background of the persons in the family:

Sl. No.	Class/still on	Male (in number)	Female (in number)
	Illiterates		
Expected years of schooling (6-18)	LP/Primary/pre-primary(I-V)		
	ME (VII-VIII)		
	High School (IX-X)		
	Matriculation		
	Higher Secondary (XI-XII)		
	Graduate (XIII-XV)		
Mean years of schooling (25+)	Master Degree (XVI-XVII)		
	Other		
	Total		

18. Monthly Expenditure of the family:

Sl. No.	Expenditure on	Rupees
1	On food item	
2	On medical/health (illness, diseases etc)	
3	On education/schooling (fee, buying books etc)	
4	On non food item (gas, telephone, dress, utensil, table, chair, TV etc)	
5	All Total Expenditure of above items	

19. Income of the family from various sources:

Sl. No.	Sources of Income	Monthly Income (Rs)
1	From Service	
2	From Agriculture (paddy, garlic, ginger, vegetable, jute, chilly, fish, fruits, etc)	
3	From Business	
4	From Labor	
5	From Handloom & Handcrafts	
6	From Pan Leave sale	
7	From Coconut sale	
8	From Betel nut (Tamul) sale	
9	From Orange/lemon sale	
10	Forest (meat, wood, fuel, various items from forest)	
11	From Self Help Group/ Samabay Samity etc.	
	Other (specify)	
	All Total income (sum of above income)	

20. Please provide information:

Nature of occupation	Male	Female
Govt. employee		
Private employee		
Business		
Agriculture		
Unemployed		
Does not arise (old + student)		
Total		

21. Yearly family income (tick please): √

1. Below 15000 (Rs) 2. 15000-55000 (Rs) 3. 55000-95000(Rs)
   4. 95000-135000(Rs) 5. 135000-175000(Rs) 6. 175000-215000(Rs)
   7. 215000-255000(Rs) 8. 255000(Rs) above

22. Provide following information

Distance available	Km
How far is the nearest veterinary service available?	
How far is the nearest water source?	
How far is the nearest market place?	
How far is the nearest bus stop?	
How far is the railway station?	
How far is the nearest Primary School from your home?	
How far is the nearest PHC/Sub-Centre from your home?	
How far is the nearest post office your home?	
How far is the nearest banking facility from your home?	
How far is the nearest National Highway (NH)?	

23. Provide the following information by Yes or No

Land holding (in bigha)	Yes/No
Below 1 bigha	
Between 2-3 bigha	
Between 4-5 bigha	
Between 6-7 bigha	
Between 8- above	

24. Provide following information

Basic facilities/Amenities	Yes (√) & No (x)
Do you possess Pucca house?	
Do you have semi pucca house?	
Do you have kutcha house?	
Do you have latrine/toilet facility?	
Do you have safe drinking Water?	
Do you have Sanitation Facility?	
Do you have Access to medical facilities?	
Have your Children Taken vaccination?	
Do you use Electricity at Home?	
Do you have LPG connection?	
Do you have TV facilities?	
Do you have BPL card?	
Do you have APL card?	
Do you have own land? (not less than 3 bigha)	
Do the village road pucca?	
Do the village road semi pucca/sand graveled?	
Do the village road kutcha?	

Do you have bank account?	
Do you have the following items?	
Bathroom facility?	
AC?	
Radio?	
Refrigerator?	
Computer?	
Camera?	
Inverter?	
Mobile?	
Bicycle?	
Bike?	
Car?	
Power Tiller?	
Tractor?	
Pump set?	
Sewing Machine?	
Cow?	
Goat?	
Buffalo?	
Others? (please specify)	

(Signature of investigator)
Date:

(Signature of Respondent)
Date: