HUMAN DEVELOPMENT AMONG THE RABHAS : A STUDY IN GOALPARA DISTRICT OF ASSAM

A Dissertation submitted to Dibrugarh University in partial fulfillment of the requirements for the award of the Degree of Master of Philosophy in Economics

Submitted by

Bhargab Das

Department of Economics

Dibrugarh University

Dibrugarh : 786004

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CERTIFICATE

This is to certify that the dissertation entitled **"Human Development Among The Rabhas : A Study in Goalpara District of Assam,"** written and submitted by **Bhargab Das** in partial fulfillment for the Degree of Master of Philosophy in Economics of Dibrugarh University is a record of genuine research work done by him under my supervision and guidance. This dissertation or a part thereof has not been submitted to any other University/Institution for any research degree.

This is further to certify that **Bhargab Das** has fulfilled all the requirements prescribed under the M. Phil regulations of Dibrugarh University.

Date :

Place : **(Pranjal Protim Buragohain)**

PREFACE

Human Development is the process of enlarging people's choices. The most critical ones are to be educated, to lead a long and healthy life and to enjoy a decent standard of living. Human development is better than economic growth because economic growth focuses exclusively on the expansion of only one choice i.e. income while human development embraces the enlargement of all human choices whether economic, social, cultural and political. In spite of experiencing a very high rate of economic growth since 1990s, India is still in that group of countries with a very low level of human development. The same is the condition of Assam. Though rich in natural resources, the level of human development in Assam is not satisfactory at all. Again sometime it happens that in the process of measuring human development of the state or country, the real picture of human development of different sections of the country being missed out or remains suppressed. Therefore, the present study attempts to measure the level of human development among the Rabhas, one of the most backward communities of Assam. Here the UNDP's methodology has been widely used to construct the Human Development Index for the community. The study could be a very important addition to the existing stock of literature on human development. By constructing the HDI of Rabhas we can trace an idea to make comparative analysis of the findings of Human Development Indicators of the other tribal communities of Assam as well as national level.

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Annexure- I

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Certificate of Originality

The research work embodied in this thesis entitled "Human Development Among The Rabhas : A Study in Goalpara District of Assam" has been carried out by me at the Department of Economics, Dibrugarh University, Dibrugarh, Assam, India. The manuscript has been subjected to plagiarism check by URKUND software. The work submitted for consideration of award of M.Phil is original.

Name and Signature of the Candidate

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Date:

Place: Dibrugarh **(Bhargab Das)**

LIST OF ABBREVIATIONS

AHDR	-	Assam Human Development Report
AMSS	-	Assam Mahila Samata Society
APHDR	-	Arunachal Pradesh Human Development Report
BPL	-	Below Poverty Line
CBR	-	Crude Birth Rate
CDR	-	Crude Death Rate
DB	-	Development Block
DI	-	Deprivation Index
EYS	-	Expected Years of Schooling
GC	-	Gini Coefficient
GDI	-	Gender related Development Index
GDP	-	Gross Domestic Product
GER	-	Gross Enrollment Ratio
GII	-	Gender Inequality Index
GMI	-	Gender Empowerment Index
GNI	-	Gross National Income
GNP	-	Gross National Product
HDI	-	Human Development Index
HDR	-	Human Development Report
HPI	-	Human Poverty Index
IHDI	-	Inequality Adjusted Human Development Index
IMR	-	Infant Mortality Rate

KHDR	-	Karnataka Human Development Report
LC	-	Lorenz Curve
MDG	-	Millennium Development Goals
MMR	-	Maternal Mortality Rate
MPHDR	-	Madhya Pradesh Human Development Report
MPI	-	Multidimensional Poverty Index
MPR	-	Morbidity Prevalence Rate
MYS	-	Mean Years of Schooling
NHDR	-	National Human Development Report
NIP	-	Natural Increase in Population
NSSO	-	National Sample Survey Organization
PCI	-	Per Capita Income
PDDP	-	Per Capita District Domestic Product
PPP	-	Purchasing Power Parity
RC	-	Revenue Circle
SRS	-	Sample Registration System
UNDP	-	United Nation Development Programme
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
WHO	-	World Health Organization

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CHAPTER - 1

INTRODUCTION

1.1 Prelude

The first Human Development Report (HDR) which was published by the United Nation Development Programme (UNDP) in 1990 vividly stressed the main message of every HDR at global, national and sub national level – the human centered approached to development – that places human well being as the primary end of development. "*People are the real wealth of a nation. The basic objective of development is to create an enabling environment for the people to enjoy long, healthy and creative lives. 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* (HDR 1990)".

Human development is a process of enlarging people's choices. The most critical ones are to be educated, to lead a long and healthy life and to enjoy a decent standard of living. Additional choices include guaranteed human rights, political freedom and self respect – what Adam Smith called the ability to mix with others without being ashamed to appear in public (HDR 1990). According to the first Human Development Report people must be the centre of development. Development has to be woven around people not people around development. It has to be development of the people, for the people and by the people.

Many fast growing developing countries are discovering that their high growth rates of GNP have failed to reduce the socio economic deprivation of huge sections of their population. Again many industrialized nations have realized that higher income

does not mean protection against rapid spread of many problems as alcoholism, drugs, AIDS, violence, homelessness and breakdown of family relation. On the other hand, some countries with lower level of income have demonstrated that it is possible to achieve higher level of human development if they skillfully use their available resources to enhance the basic human capabilities (HDR 1990).

In order to measure the level of human development of a particular area a simple composite index was suggested by the Human Development Report 1990 which is known as Human Development Index (HDI). HDI is a composite index of three basic dimensions of human life – a long and healthy life (measured by life expectancy), Knowledge (measured by literacy and enrollment) and a decent standard of living (measured by GDP per capita income).

1.2 Importance of Human Development

The search for an alternative measure to GNP as a measure of development led to the introduction of the concept of human development by the United Nation Development Programme (UNDP) in its first Human Development Report published in 1990.

According to Mehbub-Ul-Haq, economic growth focuses exclusively on the expansion of only one choice, i.e. income while human development embraces the enlargement of all human choices whether economic, social, cultural and political. Sometime it is suggested that income is a very good proxy for all other human choices since access to income permits exercise of every other option. This is partly true because of many reasons – firstly, income is a means, not an end. Well being of a society depends not on the level of income but it depends on the uses of income.

Secondly, country experience demonstrates different examples of higher level of human development at lower level of income and vice-versa. Thirdly, present level of income of a country may offer very little guidance to its future growth prospects. If it has already invested properly in its citizens, its potential income may be much higher than what is current income level shows and vice-versa. Fourthly, different human problems of many industrial and rich countries show that higher levels of income are no guarantee for human development (HDR 1990).

Streeten (1996) has mentioned the following reasons to show the significance of human development–

1. Human development is the end while economic growth is only a means to the end. The main aim of the whole process of development is to treat women, men and children as ends, to improve the conditions of human and to enlarge people's choices.
2. Human development acts as an important instrument in increasing the productivity of the citizens of a country. Investment in nutritious foods, education and better health services can increase the productivity of the country's population.
3. Human development helps in reducing the population size of a country. Human development increases educational awareness that leads to narrow the size of the population. Improved and better educational facilities make people aware of the benefits of micro family, reduces infant mortality rate and changes the mindset of the people of having large families.

4. Human development is extremely important for physical environment. Improvement in human development, reduction in poverty and reduction in population size always lead to better physical environment.
5. Human development helps in creating healthy civil society, social stability and increased political democracy by reducing civil disturbances and political instability in the society.

It is not correct to suggest that higher GNP will automatically translate in to higher levels of human development. All depends on policy choices. The broad concept of human development makes it possible to capture the complexity of human life – the many concerns people have and many cultural, economic, social and political differences in people's life throughout the world (HDR 1990).

1.3 Components of Human Development

According to Mehbub-Ul-Haq, there are four components of human development – equity, sustainability, productivity and empowerment.

1. **Equity –** Human development means to enlarge people's choices and every people must enjoy equitable access to opportunities and demands changes along the following line – (a) equitable distribution of productive assets among the people through land reform; (b) equitable redistribution of income with the help of progressive fiscal policy; (c) reshaping the credit system to meet the credit requirements of the poorer section of the society; (d) equal distribution of political opportunities with the help of voting rights reform, campaign finance reform and other actions; and (e) adopting steps to remove different legal and

social barriers that limit the weaker sections of the society to access some of the key economic and political opportunities.

2. **Sustainability –** The next generation deserves the same level of well being that the present generation is enjoying. "*The main objective of the entire process development is to create an environment in which all people can expand their capabilities and opportunities for both present and future generations. Sustainability is a matter of distributional equity – of sharing development opportunities between present and future generation* (HDR 1994)".
3. **Productivity –** One of the most important components of human development is productivity which requires investment in people. "*A healthy, well nourished, well educated and skilled labor force is the best foundation of growth. Countries like Japan, Singapore and Republic of Korea invested massively in people – an investment that yielded its fruits in rapid growth* (HDR 1990)".
4. **Empowerment –** Empowerment is another important component of human development. Empowerment means people are in a position to exercise choices of their own free will. It implies political democracy where people can influence decisions by casting their valuable votes. It implies economic liberalism where citizens are free from excessive economic controls. Empowerment implies decentralization of power. Empowerment of the citizens of a country requires massive investment in the sectors of education and health; it requires provision of an environment that gives opportunities to everyone to access credit and productive assets. Again empowerment implies empowering both the sexes so that they can compete on an equal footing.

1.4 Human Development in India

India has been experiencing a high rate of economic growth since 1990s after the introduction of economic reform measures. India has achieved excellence in different important areas like pharmaceutical and information technology and now is becoming one of the fastest growing countries of the world. Despite these achievements, India is still in that group of countries with a very low level of human development. The levels of poverty, malnutrition and illiteracy are still quite high in India. There has been a serious rise in the rate of unemployment, inequalities in the distribution of income and regional disparities. Although there has been a huge increase in the public expenditure on various social services like health care facilities and education, the quality of these services are not up to the mark in many rural areas of the country. And again a huge section of society is still deprived of these basic social services (Human Development in India: Emerging Issues and Policy Perspectives, 2010).

The Planning Commission of India published the first Human Development Report in 2001. This report compared the status of human development of Indian states with the help of different indicators. In this report, the Gender Equality Index (GEI), Human Poverty Index (HPI), and Human Development Index(HDI) were constructed for the different states of India, although the methodology used for the computation of HDI is slightly different from the UNDP's methodology (HD in India: Analysis and Action, 2010).

According to the National Human Development Report 2001, Kerala got the first rank among all other states of India with an HDI of 0.638; Punjab got the second rank with an HDI of 0.537and Tamil Nadu got the third rank with an HDI of 0.531. On the other hand, Bihar got the last rank with an HDI of 0.367 and Assam got the second last rank with an HDI of 0.386 (NHRD 2001). It is important to mention that in National Human Development Report 2001, the HDI was constructed for only 15 states of India.

The all India HDI average was only 0.427 in 2001 as per the NHDR methodology. According to the Human Development Report, 2017, India's HDI value was 0.640, which put the country in the category of medium human development countries. According to UNDP, between 1990 to 2017, India's HDI value has increased from 0.427 to 0.640, an increase of almost 50%. Among the south Asian countries, Sri Lanka and Maldives were ahead of India with HDI of 0.77 and 0.717 respectively (HDR 2017).

1.5 Human Development in Assam

Assam, the North-Eastern sentinel of the frontiers of India, is a state richly endowed with different natural resources. However, Assam exhibits all the characteristics of an underdeveloped economy. Assam is one of the most backward states of India. This is evident from the wide spread poverty, very poor productivity, high rate of unemployment, inequality in the distribution of income and wealth, high infant mortality rate, high maternal mortality rate, low literacy rate and low per capita income. Though rich in natural resources, Assam's level of resource use is very poor.

Inspired by the global Human Development Reports, many state governments of India including Assam also started preparing Human Development Reports independently by following UNDP's methodology. Assam published its first Human Development report in 2003. According to this report the HDI value of that state as a whole was only 0.407. Only seven districts had HDI values higher than the state average. The remaining 16 districts had HDI values lower than the state average reflecting considerable inequality. The progress and level of human development in Assam was not satisfaction (AHDR 2003).

Assam published its second Human Development Report in 2014. According to this report the HDI value for the state was 0.557 which vividly points out that, in terms of the level of human development, Assam is the half waypoint in achieving the desired goal (AHDR 2014). In this report, it is found that progress is half way in all the three key dimensions. There is a high degree of inequalities and disparities among the different districts of the state as reflected in the levels of human development. Inequalities in opportunities with regard to three key dimensions of human development have been prevailing in Assam and it results in loss in potential human development attainments to a considerable extent in the state.

1.6 Brief Description about the Study Area

The present study is conducted in the Goalpara district of Assam. Goalpara is one of the oldest districts of Assam which was originally created by the British in 1876. On 1983 two more districts were created from Goalpara district: Kokrajhar and Dhubri. On 1989 Bongaigaon district was created from parts of Kokrajhar and Goalpara district. Presently the district shares the common boundaries with Kamrup district on the east; Dhubri district on the west; East Garo Hill district, Meghalaya on the south and Brahmaputra River on the North.

Goalpara district has only one Sub Division named Sadar-Sub-Dision. Goalpara possesses five revenue circles with eight development blocks. The development blocks are *Balijana, Jaleswar, Kharmuza, Krishnai, Kuchdhowa, Lakhipur, Matia* and *Rangjuli*. Goalpara district occupies 829 villages and 11 towns. The total geographical area of the district is 1824 square kilometers (District Census Handbook Goalpara).

According to 2011 census the total population of Goalpara district was 1,008,183 of which 5,13,292 were male and 4,94,891 were female. Out of the total population 86 percent population live in rural areas and only 14 percent live in urban areas. The district has 45,094 SC population and 231,570 ST population. The population density of the district is 553 and sex ratio is 964. The district has a literacy rate of 67.37 percent which is lower than the state average of 72.19 percent (census of India, 2011).

The main communities living in the district are *Boro, Rabha, Hajong, Garo* and *Miri*. Among these communities *Rabha* is the most dominant one with a population of 103,757. Presently 35.03 percent of the total *Rabha* population of Assam lives in Goalpara district (census of India, 2011).

In 2016, the government of India named Goalpara district of Assam as one of the country's 250 backward districts (A note on backward regions Grant Fund Programme). It is one of the 11 districts of Assam currently receiving fund from the Backward Regions Grant Fund Programme.

According to Assam Human Development Report 2003, out of 23 districts of Assam, Goalpara district got 18th rank with an HDI value of 0.308 indicating a very low level of human development in the district. However, according to Assam Human Development Report 2014, the district has improved its position and occupies the 10th rank among the 27 districts of Assam with an HDI value of 0.591. The performance of Kamrup (M), Jorhat, Dima Hasao, Kamrup (R), Sivsagar, Barpeta, Chirang, Karbi Anglongand and Nagoan district are better than Goalpara district (AHDR 2014).

1.7 The *Rabhas*: The Tribe under Study

One of the nine scheduled tribes in the plain districts of Assam, the *Rabhas* belong to the Indo-Mongoloid group of people and have similarities with other members of *Boro* group such as *Garo, Kachari, Mech* and *Hajong*. The *Rabhas* are widely concentrated in the districts of Goalpara, Udalguri, Kamrup and Kokrajhar of Assam. Besides Assam, *Rabhas* are also found in West Bengal, Meghalaya, Manipur, Nepal and Bangladesh. In West Bengal, the *Rabha* people mostly live in Coach Behar district and Jalpaiguri District. They refer to themselves as Koch and had a strong connection to the historical Koch kingdom.

1.7.1 Population of the Community

According to 2011 census total scheduled tribe population of Assam is 3,884,371 which constitute 12.45 percent of total population of Assam. The total population of *Rabhas* is 296,189 which constitute 0.95 percent of the total population of Assam and 7.63 percent of total ST population of Assam. Goalpara has the highest number of *Rabha* population with 35.03 percent of total *Rabha* population of Assam live there followed by Kamrup (R) district and Udalguri district with 30.73 percent and 10.42 percent of total *Rabha* population live there respectively. The Table 1.1 shows the distribution of *Rabha* population in different district of Assam.

Table 1.1

Distribution of *Rabha* Population in different districts of Assam

District	Total Population	Percentage
Goalpara	103,757	35.03
Kamrup	91,034	30.73
Udalguri	30,873	10.42
Kokrajhar	22,255	7.51
Baksa	20,009	6.755
Kamrup (M)	6,430	2.17
Bongaigaon	5,599	1`.89

Sonitpur	4,161	1.4
Dhemaji	2,332	0.787
Nagaon	2,263	0.764
Golaghat	2,085	0.703
Chirang	2,040	0.668
Tinisukia	1,103	0.372
Darrang	641	0.216
Dibrugarh	329	0.111
Lakhimpur	274	0.092
Dhubri	235	0.0793
Marigaon	153	0.051
Barpeta	152	0.051
Jorhat	137	0.0462
Sivsagar	124	0.041
Cachar	109	0.0368
Nalbari	50	0.016
Hailakandi	29	0.0097
Karimganj	15	0.005
Total	296,189	100

Source: Census of India 2011

1.7.2 Religion

Mr. Friend Pereira in his Ethnographic Notes on the *Rabhas* (as incorporated in 1911 census report) has termed the *Rabhas* as animists in their religious outlook. The foundation of the religious beliefs of the *Rabhas* is primarily based on animism that cannot be denied even today. However, a considerable number of the *Rabhas* under the influence of Hinduism have already integrated with the Hindu culture and started taking part in various religious festivals of the Hindus like the *Siv Puja, Kali Puja, Durga Puja, Ganesh Puja* etc. Thus this section of the tribe may be described as the followers of both *Saivism* and *Saktism* over their traditional faith in animism (Bordoloi, Thakur and Saikia 1986).

There are various spirits and natural objects in the religious world of *Rabha* people. *Rishi* is the main deity of the *Rabhas. Mahakal* is another name of *Richi. Richi* is worshiped in all important social and religious ceremonies by the *Rabhas.* However, recently adoption of Christianity by a section of the *Rabha* tribe has come to notice. According to 2011 census, 96.4 percent of total *Rabha* population of Assam follows Hinduism and 3.32 percent follows the Christian religion.

1.7.3 Language

The *Rangdani* and *Maitary* groups of *Rabha* tribe only speak the beautiful language of *Rabha*. The same language is also spoken by the *Koch* or the *Kocha* group but their words structure and phonetics are slightly different from the language spoken by the former two groups of *Rabhas*. Small groups like the *Tintekias, Songhas* and Chapras speak their own dialects and the variations in dialects are quite different. Some groups like *Hanas, Totlas, Patis* and the *Gahories* have already lost their languages and started speaking and following Assamese language widely (Bordoloi, Thakur, Saikia 1986).

Efforts have been made by different organizations to standardize the *Rabha* language and to provide primary education through mother tongue. The "*Bibek Rabha Kraurang Runchume*" and "*Rabha Bhasa Parisad*" are the two important literary organizations that have taken up the cause of establishing *Rabha* language on a scientific footing. Again the "*Rabha Sahitya Gosthi*" of *Bondapara* has also been supplementing the creative works of the above mentioned organizations to give the *Rabha* language an identity of its own (Bordoloi, Thakur, Saikia 1986).

1.7.4 Education

According to 2011 census the literacy rate among the *Rabhas* are 75.07 percent which is higher than the state average of 72.19 percent. Again female literacy rate is 68.66 percent and male literacy rate is 81.45 percent. Thus we can see a gap of almost 13 percent between the male literacy rate and female literacy rate. The rural literacy rate is 74.63 percent and urban literacy rate is 85.14 percent among the *Rabhas* of Assam. Thus there is a wide disparity of literacy rates between *Rabhas* living in rural and urban areas of Assam.

1.7.5 Economy

The *Rabha* economy is predominantly agrarian. Most of the people of *Rabha* tribe are directly or indirectly related to agricultural activities. However, in recent times there are quite a few numbers of people from *Rabha* community who take weaving and animal husbandry as their main occupation. Apart from these, some *Rabhas* are also engaged in different government jobs and private sector jobs.

1.8 Importance of the Study

A study on the socio economic condition and Human Development status among the *Rabha* people are important because of the following reasons –

a. Research work as revealed by our literature survey relating to human development in Assam is very scanty. Again the real picture of human well being of different sections of the society missed out or remain suppressed in the process of constructing HDI at the national or state level. So in order to assess the development of different communities or tribes construction of disaggregated HDI is very essential. It is need of the hour to study the level of well-being of the tribal peoples of Assam so that they can be brought into the mainstream development paradigm. The tribe under consideration is the

Rabhas. The *Rabhas* are one of the major tribes of Assam. Although among them literacy rate is higher than the state and the national average, it is revealed that they lack enough income to maintain decent standard of living. Therefore, using Human Development framework, an attempt has been made here to calculate Human Development Index for the tribe so that their level of achievements can be traced. Moreover, from the review of literature, it has been observed that most of the studies are not related to human development of the *Rabhas.*

b. According to the 2011 census, 75.07 percent population of the *Rabhas* are literate which is higher than the state average of 72.17 percent and national average of 72.99 percent. However, male literacy rate among the *Rabhas* are 81.45 percent and on the other hand, female literacy rate is only 68.66 percent. Thus the gap between the male literacy rate and female literacy rate is very high and it warrants immediate attention. Again quality of educational infrastructure is not up to the mark in the different *Rabha* villages. In this context, present study examines the educational attainment of the surveyed households and addresses the related issues.

c. According to the Report of *Assam Mahila Samata Society* (AMSS) the superstitious evil practice of witch hunting is quite common among the *Rabhas*. Again geographically Goalpara is one of the worst affected district in Assam in terms of wide spread presence of witch hunting practices. 51 cases of witch hunting have been reported in Goalpara district since 1998 when AMSS started its operation in Goalpara district. Witch hunting is understood as a manifestation of the low social status of women where violence and dominance against women is legitimized by calling her a witch (Choudhuri 2012). Lack of education, lack of availability of access to a reasonable standard of health care

and wide spread poverty perpetuated the presence of witch hunting practices (Saikia and Kashyap, 2017). Thus it is very essential and important to study the socio economic and demographic condition of the community in details.

d. Gender discrimination prevails among the *Rabhas*. As per 2011 census the gap between female literacy rate and male literacy rate is almost 13 percent which is higher than the state and national gender gap in literacy rate. Again higher unemployment, low work force participation and relatively low political participation could be seen among the *Rabha* women of the region.

e. The study could be very important addition to the stock of existing literature on Human Development. The study makes use of widely accepted method of UNDP to construct the Human Development Index. By constructing HDI of *Rabhas* we can trace an idea to make comparative analysis of the findings of human development indicators of the other tribal communities of Assam as well as at National level.

1.9 Objectives

1. To examine the present socio economic status of the *Rabhas.*
2. To construct the Human Development Index (HDI) for the *Rabhas.*
3. To assess the gender gap and loss in human development due to gender gap among the *Rabhas*.

1.10 Research Questions

1. Is the level of Human Development among the *Rabhas* below as compared to the state level?
2. Is there any difference between the Human Development Index and the Gender related Development Index of the *Rabhas*?

1.11 Methodology

In this section, methodology to be followed in the study is outlined.

1.11.1 Data Source

The study is mainly based on primary data. However, some amounts of secondary data are also used in the study. The secondary data are collected from government sources and reports of research organizations dealing with human development. The main sources of secondary data are-

1. Census of India, 2011.
2. Assam Human Development Report 2014.
3. UNDP's Human Development Reports.
4. National Family Health Survey (2015-16).
5. Economic Survey, 2017-18.

The required primary data are collected through sample survey. By following multistage sampling technique (random and purposive), the samples for the study have been drawn. The sample design involves the following stages –

1. Selection of District

The first stage involves the selection of appropriate district for the collection of the samples. For the present study Goalpara district of Assam has been selected as the sample district as Goalpara district contains the highest numbers of *Rabha* population. According to 2011 census, Goalpara district has 35.03 percent of the total *Rabha* population of Assam.

2. Selection of Revenue Circle

The selected district has been further stratified into 5 Revenue Circles. They are *Matia, Rangjuli, Balijana, Lakhipur* and *Dudhnoi.* From these 5 Revenue Circles

Balijana, Matia and *Dudhnoi* have been selected as sample Revenue Circles as these three Revenue Circles contain the highest number of *Rabha* villages.

3. Selection of Development Blocks

Balijana Revenue Circle has two development blocks namely *Balijana* and *Kharmuja* of which *Balijana* has been selected as *Balijana* has more *Rabha* villages than *Kharmuja*. Again *Matia* Revenue Circle has two development blocks – *Matia* and *Krishnai*. Out of *Matia* and *Krishnai, Krishnai* development block has been selected as it contains more *Rabha* villages. Again from *Dudhnoi* Revenue Circle *Kuchdhowa* development block has been selected as it is the only development block of *Dudhnoi*.

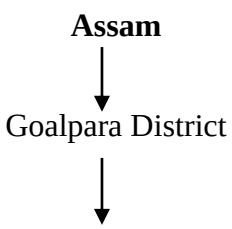
4. Selection of Villages

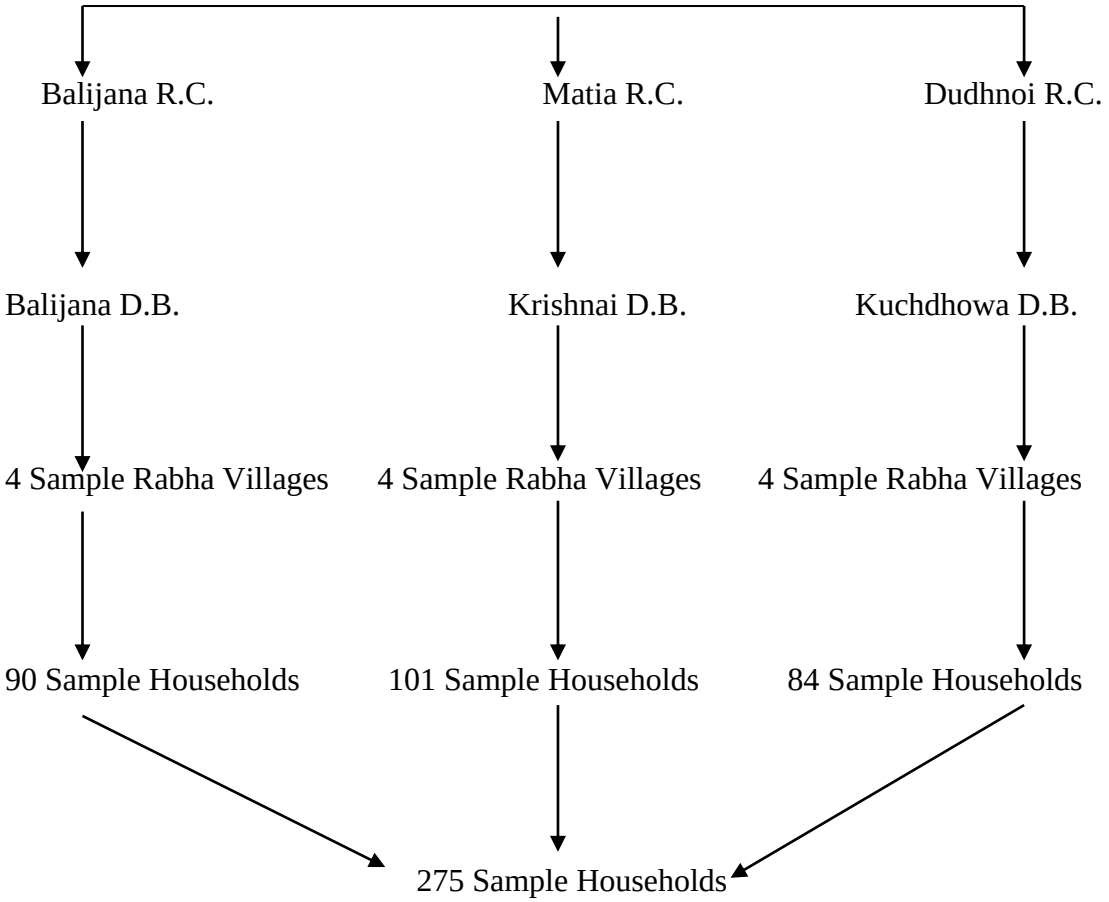
From each development blocks 4 sample *Rabha* villages are selected randomly. Here a village containing more than 50 percent *Rabha* population is defined as *Rabha* village. Total 12 villages have been selected randomly for the study.

5. Selection of Households

The last stage of the sample design involves the selection of the sample households from each sample village. For this purpose 20 percent of the households from each sample village are randomly selected as sample households. Finally, a total of 275 households from the sample villages are selected for the purpose of the study. The necessary data to fulfill the objectives of the study have been collected through direct interview with the help of structured questionnaires prepared for the study.

1.11.2 Diagrammatic Representation of Sample Techniques





R.C. = Revenue Circle
D.B. = Development Block

1.11.3. Methods

1. For the first objective primary data have been collected relating to the socio economic condition of the sample households which are analyzed by using simple statistical technique of percentage and presented in tables and diagrams.

In order to measure the inequality in the distribution of income among the *Rabhas*, Lorenz curve and Gini Coefficient has been calculated. These two are the most widely used measures of income inequality. Lorenz curve is a graphical representation of inequalities in the distribution of income by plotting cumulative percentages of income against the corresponding cumulative percentages of households getting the

income. Gini Coefficient is based on the LC and is defined as the ratio of the area between the diagonal line and the LC with the total area of the half square in which the curve lies. Mathematically the Gini Coefficient in written as –

$$G.C. = (\sum X_i Y_{i+1}) - (\sum X_{i+1} Y_i)$$

Where, G.C. = Gini Coefficient

X_i = Cumulative proportion of number of households.

Y_i = Cumulative proportion of income.

The value of Gini Coefficient lies between 0 to 1 where 0 indicates perfect equality and 1 indicates the other extreme.

Again in order to measure the level of deprivation among *Rabhas* a Deprivation Index has been constructed (Kerala Human Development Report, 2005). The formula is as follows –

$$\text{Deprivation Index} = [{}^{1}/_{4} (d_1^{\alpha} + d_2^{\alpha} + d_3^{\alpha} + d_4^{\alpha})]^{1/\alpha}$$

Where, d_1= Deprivation in quality of housing.

d_2= Deprivation in access to water.

d_3= Deprivation in sanitation.

d_4 = Deprivation in electricity lighting.

If we take $\alpha = 1$, then the Deprivation Index will be the average of its indicators. As the value of α increases more weight is given to the indicator where there is more deprivation. Here we have taken $\alpha = 3$ for the calculation of the Deprivation Index.

2. To measure the status of human development among the *Rabhas* Human Development Index (HDI) has been constructed by following UNDP's methodology. The HDI is a summary measure of human development. It measures the average achievement in three basic dimensions of human development: health measured by life expectancy at birth; education measured by mean years of schooling and expected years of schooling; and income measured by annual per capita income. The Human Development Index is the geometric mean of the three dimension indices (HDR 2010).

$$\text{HDI} = \sqrt[3]{I_{\text{Health}} \times I_{\text{Education}} \times I_{\text{Income}}}$$

To compute the dimension indices minimum and maximum values (goalposts) are chosen for each underlying indicators. Performance in each dimension is expressed as a value between 0 to 1. Except standard of living, all other indicators are obtained by

$$I_{ij} = \frac{X_{ij} - \text{Minimum}\,(X_i)}{\text{Maximum}(X_i) - \text{Minimum}\,(X_i)}$$

When the dimension index is negatively related to Human Development then the below mentioned formula is used.

$$I_{ij} = \frac{\text{Maximum}(X_i) - (X_i)}{\text{Maximum}(X_i) - \text{Minimum}\,(X_i)}$$

Where I_{ij} indicates individual indicators with respect to the ith variables. X_{ij} indicates the actual value of the ith indicator; Minimum(X_i) indicates minimum value of the ith indicator and Maximum(X_i) indicates the maximum value fixed for the ith indicator. However, for the standard of living which captures command over resources, the index was computed by

$$I_{ij} = \frac{\ln(Y_j) - \ln(\text{Minimum Y})}{\ln(\text{Maximum Y}) - \ln\,(\text{Minimum Y})}$$

Where Y_j = Actual value of economic attainment.

Minimum(Y) = Minimum value fixed for economic component, and

Maximum (Y) = Maximum value fixed for economic component.

As the community level data are not available, therefore some adjustments are made and proxies are used to construct HDI. In the present study, to construct the health index, Infant Mortality Rate among the sample population is used. Again Adult Literacy Rate and Mean Years of Schooling for 15+ age group are used to construct the education index by giving $^2/_3$ and $^1/_3$ weight respectively (*Gendering Human Development Indices: Recasting GDI and Gender Empowerment for India*, Ministry of WCD). Again to calculate the income index, Per Capita Income of the sample population is used instead of real GNI Per Capita as data are not available. For the present study the goalposts used for normalization are as follows:

Table 1.2

Goalposts for calculating HDI

Indicators	Minimum	Maximum
Infant Mortality Rate	0	74
Adult Literacy Rate	0	100
Mean Years of Schooling	0	15
Per Capita Income	16632	63444

(Infant Mortality Rate of Kokrajhar district is taken as the maximum value as Kokrajhar district has the highest Infant Mortality Rate as compared to the other districts of Assam according to Annual Health Survey Bulletin, Assam, 2012-13. Maximum and Minimum Values of Adult Literacy Rate are set according to UNDP's Human Development Reports. Maximum and Minimum Values of Mean Years of schooling are set according to the Assam Human Development Report, 2014. Per capita annual income of Kamrup(M) district and Hailakandi district are set as the maximum and minimum as these two districts have the maximum and minimum annual per capita income among all other districts of Assam as per the Assam Human Development Report, 2014.)

3. To assess the gender gap among *Rabhas* various standard indicators like sex ratio, child sex ratio, infant mortality rate, literacy rate, gross enrollment ratio, work participation rate etc. are used. Again to measure the impact gender gap in human development Gender related Development Index (GDI) is constructed. The concept of GDI was introduced by UNDP's Human Development Report 1995. "*The GDI measures the achievement in the same basic capabilities as the HDI does, but takes in to account inequality in achievement between men and women. The methodology used imposes a penalty for inequality such that GDI falls when the achievement levels of both sexes go down or when disparity between their achievements increases. The greater the disparity in basic capabilities, lower a country's GDI compared to HDI* (HDR 1995)". The GDI adjusts the average achievement to reflect the disparities between women and men in the following dimension –

(a) A long and healthy life as measured by life expectancy at birth.

(b) Knowledge as measured by the Adult Literacy Rate and Combined Gross Enrolment Ratio.

(c) Decent standard of living, measured by estimated earned income.

For the calculation of GDI the following three steps have been followed

First Step – Calculating the dimension indices for female and male population separately by using the following formula –

$$\text{Dimension Index} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

Second Step – Now the dimension indices of male and female are combined together in a way that penalizes inequalities in achievements between them. The resulting index is called equally distributed index which is calculated by the following formula -

Equally Distributed Index =

$$\{[\text{Female Population Shares } (\text{Female Index}^{1-\epsilon})] + [\text{ Male Population Shares } (\text{Male Index}^{1-\epsilon})]\}^{\frac{1}{1-\epsilon}}$$

Here ϵ measures the aversion to inequality. It is the penalty for gender disparity. More the value of ϵ, the more heavily the society is penalized for having gender disparity. If $\epsilon = 0$, then there will be no difference between GDI and HDI in spite of having gender disparity. As ϵ increases, more and more weight is given to the lesser achieving group. The HDR 1995 used ϵ = 2 for calculating the GDI as it places moderate penalty on gender disparity in achievement. Thus the equally distributed index becomes the following –

Equally Distributed Index =

$$\{[\text{Female Population Shares } (\text{Female Index}^{-1})] + [\text{ Male Population Shares } (\text{Male Index}^{-1})]\}^{-1}$$

Thus we get the harmonic mean of the male and female dimension indices.

3rd Step – Gender related Development Index is obtained by calculating the Geometric Mean of the three equally distributed Indices.

As the community level data are not available, therefore some adjustment are made and proxies are used to construct GDI just like HDI. In the present study, to

construct the health index, Infant Mortality Rate among the sample population is used. Again Adult Literacy Rate and Mean Years of Schooling of 15+ age group are used to construct the education index by giving $^{2}/_{3}$ and $^{1}/_{3}$ weight respectively (*Gendering Human Development Indices: Recasting GDI and Gender Empowerment for India*, Ministry of WCD). Again to calculate the income index, Annual Per Capita Income of both male and female population is calculated separately. The goalposts used to calculate the dimension indices –

Table 1.3

Goalposts for Calculating GDI

Indicators	Maximum Value	Minimum Value
Infant Mortality Rate	0	74
Adult Literacy Rate	0	100
Mean Years of Schooling	1	15
Per Capita Income	16632	63444

(Infant Mortality Rate of Kokrajhar district is taken as the maximum value as Kokrajhar district has the highest Infant Mortality Rate as compared to the other districts of Assam according to Annual Health Survey Bulletin, Assam, 2012-13. Maximum and Minimum Values of Adult Literacy Rate are set according to UNDP's Human Development Reports. Maximum and Minimum Values of Mean Years of schooling are set according to the Assam Human Development Report, 2014. Per capita annual income of Kamrup(M) district and Hailakandi district are set as the maximum and minimum as these two districts have the maximum and minimum annual per capita income among all other districts of Assam as per the Assam Human Development Report, 2014.)

1.12 Topical Organization of the Study

The present study has been organized into six chapters. The chapterization scheme is mentioned below –

Chapter – 1 Introduction

This chapter summarizes the concept of human development, importance of human development and components of human development. After that brief descriptions about the study area and the tribe under study are provided followed by the importance of the study; objectives of the study; research questions and methodology of the study.

Chapter – 2 Review of Literature

This chapter reviews the exiting literature relating to human development. Here literature survey has been divided into three parts – firstly, review of Global, National and State Human Development Reports; secondly, review of studies made by individual researchers on Human Development and thirdly, reviews of studies relating to the socio economic conditions of the *Rabhas*.

Chapter – 3 Socio Economic and Demographic Characteristics of the Sample Population

This chapter analyses the different demographic and socio economic characteristics like religion, sex ratio, educational status, occupational status, level of income, consumption pattern, housing condition etc. of the sample *Rabha* households in details.

Chapter – 4 Status of Human Development among the *Rabhas*

This chapter is related to the construction of Human Development Index for the *Rabhas* by following UNDP's methodology. It also attempts to make a comparison of

the Human Development Index value of the *Rabhas* with the national and state averages and other communities of Assam.

Chapter – 5 Gender Disparities among the *Rabhas*

This chapter attempts to assess the gender disparity among the *Rabhas* by evaluating attainments of *Rabha* women in health, education and income dimension by using different standard indicators. Again in order to reflect the inequalities between men and women in the dimensions of Human Development, the Gender Development Index is constructed as per UNDP's methodology.

Chapter - 6 Summary and Conclusion

This is the last chapter of the study which includes the major findings of the previous chapters. It also includes certain suggestions which have been made on the basis of the findings.

CHAPTER - 2
REVIEW OF LITERATURE

The review of literature helps us to understand the different dimensions of an issue. It also helps us in recognizing the methodological and conceptual issues relevant to the study. Review of literature will make it possible for the researcher to collect information and subject them to sound reasoning and provide meaningful interpretation. The different issues that have been found during the literature survey can be used for the formation of research objectives and research questions. Further it helps in identifying the research gap too.

This chapter focuses on the review of different research literatures relating to human development carried out at state, national and international levels by both individual scholars and institutions. Here literature survey has been divided into three parts – firstly, review of the Global, National and State Human Development Reports; Secondly, review of studies made by individual researchers on human development and thirdly, some review of literatures have been done on studies relating to the socio economic condition of the *Rabhas*.

2.1 Official Studies on Human Development

UNDP in its first Human Development Report published in 1990 introduced the concept of human development. According to this report people are the real wealth of a nation and the primary objective of the entire process of development is to construct a better environment for the people to enjoy a good life. This report defined human development as a process of enlarging people's choices such as to be educated; to enjoy

a decent standard of living and to lead a long and healthy life. This report also introduced a composite index called Human Development Index (HDI) to measure the level of human development. Further, it also addresses the relationship between human development and economic growth. It recommended to reshape the budgetary expanses and to create a better environment conducive to human development (HDR 1990).

Human Development Report 1991 mentioned that development has to be woven around people, not people around development. "*It has to be development of the people, by the people, for the people*". The best strategy of human development is to increase the primary incomes in a society by unleashing the creative energies of its people; its resources and its capabilities and by ensuring that these incomes benefit the majority of the population. This report urged for a strong policy action for better generation of primary income as well as distribution of primary income. It reached the conclusion that restructuring or reorganizing the existing expenditure pattern can provide so many funds to finance the basic needs of the people. If priorities are reset, most of the budgets can provide more funds to spend for human development (HDR 1991).

The main theme of the Global Human Development Report 1992 is that the search for equitable access to market opportunities should extend beyond national borders to reduce the inequalities between the richest and the poorest sections of the people of the society. This report mentioned that the income of the richest billion people is more than 150 times than the billion poorest people. However, the income inequality between the richest 20 percent and poorest 20 percent of people at individual country is smaller than the income inequalities at the global level. According to this report the relative poverty gap of the poor people and poor countries can be reduced only through the increasing market opportunities (HDR 1992).

The Human Development Report 1993 gave importance to the people's participation in economic and political lives of their nation. This report mentioned that very few people get the opportunity to participate fully in different economic and political activities. For example, at the global level women are still lacking behind the men in terms of economic and political participation. Many ethnic communities of United States are still living like a separate nation within their country. Accordingly this report stressed the importance for fundamental change in political and economic system for better governance (HDR 1993).

The Human Development Report 1994 introduced the concept of sustainable human development. Sustainability means distributional equity i.e. future generation deserves the same level of development opportunities that the present generation is enjoying. "*Sustainable human development means that we have an obligation to do at least as well for our successor generations as our predecessors did for us*". This report mentioned that there must be sufficient investment in the fields of health and education today so that we don't create any social debt for our upcoming generations. This report also emphasized about the concept of human security which is reflected in better lives for people. It is proved that those countries that ignored the security of the citizens could not even protect nation's sovereignty (HDR 1994).

Human Development Report 1995 mentioned that it is not possible to get human development without gender equality. So long as women of the country are not included in the development process of that country, development will always remain weak. This report has introduced two composite measures to capture gender disparities and their unfavorable effect on entire social process. These two measures are Gender related Human Development Index (GDI) and Gender Empowerment Index (GMI). GDI

measures achievements in the same basic dimensions like HDI, but it takes into account the inequalities in the achievements between men and women. On the other hand, GMI measures whether the women of a society are able to actively participate in the economic and political life and decision making process of that society (HDR 1995).

The Human Development Report 1997 has given so much importance to eradicate poverty from human development perspective. It focuses not just on income poverty but also on human poverty. The report mentioned that poverty must be addressed in all its dimensions, not income only. The Human Poverty Index (HPI) was introduced by this report to measure poverty in terms of human development perspective. The HPI uses the indicators of the very basic dimensions of deprivation: a short life; lack of basic education and lack of access to resources (HDR 1997).

Human rights and human development shares a common objective – to secure the freedom, well being and dignity of all people everywhere in the world (HDR 2000). This report mentioned that human development is influenced by the search for freedom; well being and status of individuals. Human development is also related with expanding certain capabilities. People value the freedom of being able to live according to their own norms. It is mentioned that both human rights and human development increase freedom of the people. Human rights protect people from different kinds of exploitations and human development helps to enhance people's capabilities (HDR 2000).

The Human Development Report 2001 is all about how people can develop technology and take the benefits of technology to improve their lives. It is also about creating an environment to start a revolution in information and communication technology to achieve higher level of human development. This report gave importance

on how new technologies will influence developing countries and the poor people. Technology is a tool, it is not a reward for development. Technological innovation can improve human development by advancing health status, nutrition level and knowledge. However, many people express their fear that technological development may not help the developing countries and it will increase the inequalities between the rich and poor countries. Without proper public policies, technological innovation may lead to exclusion and conflict (HDR 2001).

The Human Development Report 2002 by giving importance on deepening democracy in a fragmented world interprets the relationship between politics and human development. It analyzed how political power and political institutions shape human progress. "*Politics matter for human development because people always want to be free to determine their destination;, express their personal views and participate in the decision making process which reshape their lives*". This report states that strengthening democracy makes governance truly responsive to the demands of the ordinary people. This process needs not only the expansion of democratic institutions but also the spread of democratic politics (HDR 2002).

The Human Development Report 2003 represents a strong policy action to attain the Millennium Development Goals i.e. to remove extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowerment of the women; reduce mortality of child; improve maternal health etc. This report provides sufficient data on the status of each goal in every country. It focuses on the best options for achieving these goals (HDR 2003).

The Human Development Report 2004 makes a case for respecting diversity and constructing a more inclusive society by taking different policy measures that

specifically identify cultural diversity. The world cannot function properly until people respect diversity and construct unity among them. The expansion of cultural freedom is the only option to promote democracy, peace and human development. The report suggests to have healthy competition between nations and regions to obtain higher level of human development. Human development not only requires education, health and decent standard of living but also requires cultural liberty (HDR 2004).

The Human Development Report 2005, entitled "*International Cooperation at a Crossroads: Aid, trade, security in an unequal world*" focuses on the responsibility of the rich governments for global partnership bargain. The report gives importance on the three pillars of cooperation i.e. development assistance, international trade and security. The first pillar is a key investment in human development. The second pillar i.e. international trade can be powerful catalyst for human development. The third important pillar is security. More effective international cooperation can help to remove the constraints to MDG created by international conflicts; it can lead to improved human development and real security (HDR 2005).

Water, one of the basic human rights, is at the heart of daily crisis faced by millions of people which threatens life and destroys livelihoods. Deprivation in access to water is a silent crisis experienced by the vulnerable section of the society. The Human Development Report 2006 addresses the crisis in water and sanitation as the greatest human development challenges of the 21st century. According to this report water crisis is not the result of scarcity of water, but it is the result of poverty, power and inequality. At the beginning of 21st century the violation of the human rights to clean water is destroying human potential on a huge scale. Again it is mention that almost one in two people in the developing countries do not have access to improved

sanitation facility. While the provision of improved sanitation facility for all has been a major goal since 70s, progress in this field has been found very slow (HDR 2006).

The Human Development Report 2007-08 identified climate change as a defining human development issue of our generation. Climate change threatens to crumble human freedom and choices. Across the developing countries millions of people are adversely affected by climate change. Climate change will reduce international efforts to fight with poverty. Climate change is creating barriers to MDG promise. Increasing environmental calamities like draughts, floods and storms are destroying the opportunities for human development (HDR 2007-08).

Human mobility can have a very large impact on person's income, health and education prospects. But its value is more than that because being able to decide where to live is a very important component of human freedom. The Human Development Report (2009) explores how better policy measures towards mobility of human can improve human development. The report argues for different policy measures which can improve prospects on arrival, which will have huge benefiting impact on both destination communities and on places of origin. This report investigates human mobility in the context of demographic changes and trends in economic growth and inequality (HDR 2009).

The first HDR started with the assertion "*people are the real wealth of a nation*" which began a new approach to thinking about development. The Human Development Report (2010) entitled "*The real wealth of nations: pathways to human development*" continues the tradition of forcing the frontiers of development thinking. For the first time, this report looks back rigorously at the past several decades and identifies some surprising trends and patterns and provides important suggestions for upcoming days.

This report introduces three new measures to the HDR family of indices – the Inequality Adjusted HDI (IHDI), Gender Inequality Index (GII) and Multidimensional Poverty Index (MPI). The IHDI measures human development by taking into account inequality. The GII measures the loss in achievements due to gender disparities and MPI measures the deprivation in the dimensions of health, education and Standard of living (HDR 2010).

The HDR 2011 entitled "*Sustainability and Equity: A better future for all*" focuses on the challenge of sustainable and equitable progress. "*A joint lens shows how environmental degradation intensifies inequality through adverse impacts on already disadvantaged people and how inequalities in human development amplify environmental degradation*". Human development which is all about expanding people's choices, constructed on shared natural resources. According to this report if we want to promote human development we have to address sustainability at local, national and global levels and this should be done through equitable and empowering ways (HDR 2011).

The Human Development Report 2013 mentioned that the rise of South has resulted not from adhering to fix set of policy measures but from applying different policies that respond to local opportunities and circumstances. According to this report the South has risen at a very high speed and scale. For example, the economic take offs in India and China. The Report mentioned that by 2050, India, China and Brazil combined are projected to account for more than 40 percent of the world output in PPP (HDR 2013).

Real progress of human development is not only related to the enlargement of people's choices but it is also related to how secure these achievements are and whether

situations are enough for sustained human development. The Human Development Report (2014) takes a broader approach emphasizes the linkage between increasing human development and reducing vulnerability. According to this report sustained expansion of individuals' and society's capabilities is necessary to reduce persistent vulnerabilities. Progress has to be about encouraging development of resilient human development. Here human resilience means that people's choices are vigorous now and in the future, and that enabling people to fight and adjust to adverse situations. The report focuses on the types of policies and reforms of institutions that can construct resilience in the society, particularly for vulnerable sections at sensitive times (HDR 2014).

The Human Development Report 2015, entitled "*Work for human development*", begins with a most fundamental question – how work can expand human well being? The report looks at work by going beyond job and taking into account various other concepts like unpaid care work, voluntary work and creative work, which contributes to the expansion of human development (HDR 2015).

The Human Development Report 2016 entitled "*Human Development for Everyone*" conveys a few basic messages – universalism is the key to human development and it is attainable for everyone; different sections of the world are still suffering from basic deprivation and face so much constrains to overcoming them; there are lots of policy options which are if implemented properly can contribute to achieve human development for everyone; and a reformed global governance can help to attain human development for everyone (HDR 2016).

Inspired by the Global Human Development Reports, some states of India also started preparing sub national Human Development Reports. As major states of India

have more areas and population size than important countries of other continents. Therefore, some important states of India also started preparing Human Development Reports by following the UNDP's methodology. The world's first Human Development Report for a state was published in Madhya Pradesh in 1995. After that Madhya Pradesh published three more HDR in 1998, 2002 and 2007. Karnataka also prepared a Human Development Report for the state in 1997 and it was published in 1999.

The Madhya Pradesh Human Development Report 1995 is the result of the state strategies in the social sector. This report brings out inter district disparities in the level of human development of Madhya Pradesh. So far 21 states have prepared HDR out of 29 states of India. Most of the states have largely followed the UNDP's methodology of constructing Human Development Index to measure the status of human development in their state.

The Planning Commission of India published the first National Human Development Report in 2001. The report makes a comparison of human development status of the states of India by taking 70 development indicators for every state. The report has constructed HDI, GII and HPI for the states of India. According to this report, Kerala got the first rank with an HDI of 0.638 and Punjab got the second rank with an HDI of 0.537. On the other hand, Bihar got the last rank with an HDI of 0.367. For the country as a whole the HDI was only 0.42 (NHDR 2001).

Assam Human Development Report 2003 asserted that human development is the process of enlarging people's choices. In this report the HDI for the state and corresponding indices for the districts have been calculated. This Human Development Report constructed the HDI for the entire state which was only 0.407. According to this report there were significant variations across different districts. Only seven districts

have HDI higher than the state average. Remaining 16 districts had HDI values lower than the state average. The report suggested to adopt a development strategy by the government that is decentralized in nature and wants to involve more numbers of young entrepreneurs in the sectors in which the state have more advantages (AHDR 2003).

Arunachal Pradesh published its first Human Development Report in 2005. This report constructed the human development index of Arunachal Pradesh for the year 2001 as 0.515. This report highlights considerable variations in the level of human development among the different districts of the state. East Siang district got the first rank with an HDI of 0.660. Dibang Valley got the second rank with an HDI value of 0.659 followed by Papum Pare and West Kameng with an HDI value of 0.573. On the other hand, according to this report East Kameng district got the last rank with a very low HDI value of 0.362 (APHDR 2005).

The Karnataka Human Development Report 2005 computed Human Development Index for the different districts of the state on the basis of the methodology used in UNDP's Human Development Report, 1990. This report provides a review of expansion of human development over the last decade. According to this report the level of human development of Karnataka is much better than the level of human development of national level. District wise Bangalore Urban district got the first rank with an HDI value of 0.753 followed by Dakshina Kannada and Udupi district with HDI values of 0.773 and 0.714 respectively. On the other hand, Raichur district got the last rank among all districts with an HDI value of 0.547 (KHDR 2005).

The second National Human Development Report of India entitled "*India Human Development Report 2011: Towards Social Inclusion*" focuses on the social inequalities explicitly on how SCs and STs are doing in comparison to the rest of the society and

also how Muslims are doing in comparison to the other religious groups of the country. The report estimates the HDI for every states of India and discusses the different issues like unemployment, poverty, nutrition level, the health status, educational status, the level of basic amenities and conditions of elders and disabled of the country. According to this report the performance of Human Development of backward casts of Tamil Nadu, Kerala and North Eastern states are better than many upper casts in other states (NHDR 2011).

The Assam Human Development Report 2014 provides a detail picture of the level of human development of the state as a whole and different section of the society in particular. It highlights geographical, social, economic and institutional diversities of the state and the impact of these diversities on aggregate human development outcomes. The report found that the HDI value of the state is 0.557 which indicates that the level of human development in the state is not satisfactory and it falls in the medium human development category. The highest value of HDI is obtained by Kamrup district (0.703) and the lowest value is obtained by Hailakandi District (0.437) (AHDR 2014).

2.2 Studies by Individual Scholars on Human Development

Corrie in his article (1995) "*A Human Development Index for the Dalit child in India*" attempts to measure the quality of life of a society in general and of children in particular. The paper constructs a Human Development index by following the UNDP's methodology for the *Dalit* child of India. *Dalits* are the marginalized group of Indian society. This paper compares the HDI of *Dalit* child with the HDI of 17 states in India by using the same indicators as UNDP (1990) (Corrie, 1995).

Hasan (2000) in his article "*Determinants of Human Resource Development: An empirical Analysis*" finds that the main determinants of the level of human development measured by Human Development Index for different countries are basically the per capita income; rate of growth of per capita income; military expenditure and the inequalities in the distribution of income. The study found that there is a positive correlation between HDI and GDP, however, the relationship become weaker at a higher level of income. Expansion of HDI is lagging behind expansion of income. Again expansion of military expenditure has a negative impact on human resource development (Hasan, 2000).

Chattarjee and Ghosh (2001) in their work "*In search of District Development Index*" attempts to represent the current development status of the 18 districts of the state of West Bengal. As it is not possible to include all the parameters of development in a single study, this paper attempts to show the status of development in the different districts of West Bengal through an aggregate score. It is easier to understand the overall level of development with the help of an aggregate index (Chattarjee and Ghosh, 2001).

Mahajan (2009) in his paper "*Attainment of Human Development: A Study of North East India*" attempts to construct a composite index of human development by taking eight different indicators like per capita state income, household type, access to electricity, population above poverty, literacy rate, infant mortality rate, population served per household and access to save drinking water. The study finds that except Mizoram, all other states of North East India have low level of human development and higher level of human deprivation among its population. The main reasons responsible for low level of human development in this region are low per capita state income and

lack of adequate medical facilities. However, the region has shown considerable progress in the field of literacy (Mahajan, 2009).

Nayak (2010) in his paper provides a brief account of findings of different Human Development Reports of the states of North East India. According to the findings achievements of this region is very reasonable in comparison to all India situations in terms of Human Development but it had failed to bring sufficient economic growth for the region. There are huge differences in terms of socio economic achievements among different states and within the states. There are also large differences between the rural and urban areas of this region. If these problems are not addressed properly then the region will fall in to the trap of vicious quadrant (Nayak, 2010).

Nayak and Roy (2010) in their paper "*Human Development in North East India: A Critical Appraisal*" attempts to make a critical assessment of the performance in terms of human development in northeastern states of India by examining reports published by Planning Commission and Ministry of Women and Child Development, Government of India. The northeastern states are compared not only among themselves but also with national average by using different indices like HDI, HPI, GDI and GMI. The paper said that expansion of economic opportunities for both male and female and different parts of the society is very important to achieve sustainable human development (Nayak and Roy, 2010).

Nayak and Roy (2010) in their paper "*Inter District Disparities in Meghalaya: A Human Development Approach*" tries to highlight the magnitude and the problem of unequal human development in the state of Meghalaya. It finds that there exist significant inequalities in terms of human development indicators in Meghalaya. The inequality in economic attainment is found to be very high. The existing level of low

HDI and inequalities present in the region calls for a need to reconstruct the public policy measures so that it can influence the level of well being of the people (Nayak and Roy, 2010).

Misra and Nayak (2010) in their paper systematically presents the historical and geographical forces that have formed the resource base, infrastructure, connectivity, the economy and the level of human development of Tripura. In spite of having lots of odds, this state of north east India has secured a very good score in the fields of health and education. The people of Tripura have shown a great courage to scale all the barriers or difficulties against them to achieve higher score in the fields of education and health. According to his paper human resources of Tripura are needed to gear to command higher per capita income also (Misra and Nayak, 2010).

Misra and Nayak (2010) in their study "*Human Development and its Correlates in Nagaland*" presented data relating to Human Development in Nagaland and attempted to observe regularities to provide meaningful policy prescriptions. The findings of this paper are that PCI, HDI and GDI are poorly correlated with health indicators. On the other hand, education index is highly correlated with PCI, HDI and GDI. The paper concluded that reliability of data provided by socio economic system is very much dependent on the level of development of that particular system (Misra and Nayak, 2010).

Mukharjee and Chakraborty (2010) in their paper "*Is there any relationship between Economic Growth and Human Development? Evidence from Indian States*" tries to analyze the relationship between human development and economic growth for 28 major states of India by taking time periods 1983, 1993, 1999 and 2004-05. The result of this paper implies that per capita income is not translating into human

development. This result identified that the urgent need for future investigation to identify the factors other than per capita income which can influence the level of human development of the people of the states (Mukharjee and Ckakraborty, 2010).

Roy and Adhikari (2010) in their article "*Human Development in Assam: An Analysis*" concluded that the progress and status of human development in Assam is not at all satisfactory. There is a high degree of disparities among the different districts of Assam in terms of levels of attainment in various dimensions of human development. According to this paper poverty is not only an outcome of lower income but also due to deprivation in health, education, shelter, sanitation and water supply (Roy and Adhikari, 2010).

Panda (2010) in his paper "*Economic Growth, Exclusion and Human Development in North Eastern Region of India*" suggest to urgently promote economic growth of this region by accelerating the process of industrialization. The study finds that north eastern region is one of the most deprived regions in India. Therefore, the government has a proactive role to play in order to bring overall development of this region and improve the level or status of human development of the region (Punda, 2010).

Basumatary (2010) in his thesis attempts to study the level of human development among the *Bodos* of Assam with the help of primary survey data. In his study it is found that *Bodos* are lagging marginally behind the rest of the state in terms of overall expansion of human capabilities. However, the Human Development of the *Bodos* is found comparatively income driven as compared to the state level scenario. This is found that expansion of economic opportunity is not accompanied with the parallel expansion of human capabilities (Basumatary, 2010).

Asongu (2011) in his paper "*Financial Determinants of Human Development in Developing countries*" assesses determinants of human development form financial dynamics by taking data for 38 African countries. The result of the study indicates that financial activity, size and depth are significant for inequality adjusted Human Development Index. On the other hand, financial allocation efficiency is found insignificant in this study (Asongu, 2011).

Nandi (2012) in his article "*Human Development in Assam: A study of rural urban disparity*" makes an attempt to identify the role of different socio economic factors in determining the level of human development specifically in the rural areas of Assam. The major findings of this study are that there is a high degree of disparity across the different districts in terms of achievements in various dimensions of human development. There is a wide gap between urban and rural areas in terms of attainment in education, health and standard of living. The study finds that female literacy rate is positively related to the level of human development in the state (Nandi, 2012).

Buragohain (2013) in his paper "*Construction of a community specific Human Development Index with special reference to the Tai Ahoms of Assam*" attempts to construct Human Development Index for the *Tai Ahom* community of Assam to have better development picture of the community. Following the methodology of UNDP, this paper constructed the HDI of the community which is found above the national and state average. It is concluded that the disaggregated HDI for India should be calculated community wise to get the real picture of development of the country and to have harmonious development of the nation (Buragohain, 2013).

The paper of Eren *et al.* (2014) aim to examines the factors affecting the level of human development of 84 countries. The study uses various regression models for

limited dependent variables like Tobit, Probit and Logit. The results of these regression models suggested that expected years of schooling; life expectancy at birth; labor force participation rate and GDP per capita are statistically significant. Here expected years of schooling had the highest impact on the HDI value for the country (Eren et al., 2014).

Mahanta (2016) in her study threw lights on the status of gender gap; women empowerment and human development among the BPL households in Dibrugarh district of Assam. The study finds that in spite of undertaking so many programmes by the government for the all round development of women, there is wide gap between the achievements of women and men in the field of Human Development (Mahanta, 2016).

The paper of Asmita *et al.* (2017) tries to examine the influence of economic growth; percentage of poor population; government expenditure on education; income distribution and health expenditure on human development index of North Sumatera Province of Indonesia. The paper finds that economic growth has a significant positive effect on HDI. The percentages of poor people and government expenditures in the field of education have no impact on human development. On the other hand, government expenditure in the field of health has a significant impact on Human Development Index of North Sumatera Province (Asmita et al., 2017).

2.3 Studies on the *Rabhas*

No systematic study on the socio economic status and human development among the *Rabhas* are done yet. Therefore, review of some research papers and books on the *Rabhas* in general are made.

Bordoloi *et al*, in their book “Tribes of Assam” made a detail discussion on the origin of the *Rabhas*; the dwelling and livelihood pattern; social life and institutions;

their religious outlooks; festivals; marriage ceremony; birth ceremonies; language and literature; death rites etc. However, no discussion is done on the economic status and the level of human development among them (Bordoloi et al., 1987).

Basumatary (2010) in his book "*The Rabha Tribe of North East India, Bengal and Bangladesh*" attempts to focus on the linguistic and cultural characteristics of the *Rabha* community. Here a micro level analysis is done on the basis of the data collected from the primary and secondary sources. The study is divided in to two parts – one is cultural elements and the other is linguistic features. However, cultural analysis is done from a folkloristic point of view. This book does not discuss anything related to economy and the level of development among the *Rabhas* (Basumatary, 2010).

Mandal and Roy (2013) in their article "*The Rabhas and their social Movement (1925-50): A case study of North Bengal*" tries to look into the significant characteristics of the *Rabha* people and their social movement in North Bengal. It concluded with the observation that the *Rabhas* are politically and economically overpowered and perhaps the most backward tribal group in North Bengal as well as North East India lacking proper socio economic development and proper representation as well. Therefore, the community requires very sympathetic attention in their socio economic status (Mandal and Roy, 2013).

It is observed that there are no significant books, articles and research papers which clearly discuss the socio economic condition and more specifically the level of development among the *Rabhas*. Most of the studies on *Rabha* community are on the cultural and linguistic characteristics of the community. Therefore, in the present study an attempt has been made to study the present socio economic condition and level of human development among the *Rabhas* of Goalpara district of Assam in details.

CHAPTER - 3
SOCIO ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE POPULATION

Socio-economic status basically refers to economic and sociological combined total measures of an individual's or a family's social and economic position based on income, education, occupation, wealth etc. Mueller and Paral (1981) have defined socio-economic status as the relative position of a family or an individual within hierarchical social structure, based on their access to prestige, power and wealth. Different socio-economic factors have huge impact on economic development as it affects health, education, mortality, fertility, income etc. Like other societies, the *Rabha* tribe also has certain unique socio-economic-cultural characteristics. This chapter provides some of the noteworthy socio-economic features of the sample population of *Rabhas* of Goalpara district of Assam.

3.1 Socio-Economic Characteristics of the Sample Households –

3.1.1 Religion

Religion can influence the economic growth and population growth of a society. If people of a society are more religious, then it will have an adverse impact on economic development (Fanfani. A, 1993; Grier, 1997). Again Campante and Drott (2003) find that more religious beliefs have a negative effect on output growth in courtiers but increases subjective well being among them. Barro and Mc Cleary (2003), however, after empirical investigation find that religious belief is positively related to economic growth. But economic growth is negatively related to more church attendance.

Mr. Friend-Pereira in his Ethnographic Notes on the *Rabhas* (as incorporated in 1911 Census Report) has termed *Rabhas* as animists in their religious outlook. However, a huge section of the *Rabhas* have already amalgamated with the neighboring Hindu culture and they use to take part in all Hindu festivals like the *Kali Puja, Durga Puja, Siv Puja, Ganesh Puja* etc. (Bordoloi *et al.* 1987). In the recent years a major breakthrough in the religious field of the *Rabha* tribe has been noticed in the emergence of a new band of followers of the *Vaishnavite* School of the *Mahapurusia* Sect. In the recent times, the *Rabhas* are also noticed to be attracted towards the Christianity. The process of conversion to Christianity is visible in certain areas of Goalpara and Kamrup district. It is observed that those who converted themselves to Christianity have adopted it for all intents and purpose and hardly convert back to the original religious faith (Bordoloi et al. 1987).

Table 3.1

Distribution of Households by Religion

Religion	No. of households	Percentage
Hindu	266	96.727
Christian	9	3.272
Total	**275**	**100**

Source: Field Survey

In the present study it is found that 266 households (i.e. 96.73 percent) are Hindu and the rest 9 households (i.e. 3.27 percent) are Christian.

3.1.2 Type of Family

Family, which is a primary social group, universally recognized to be the basis of all human endeavors and activities. In India, the joint family system is more popular from yearly days. However, with the passage of times, changes in different factors like

beliefs, norms, attitude towards life etc. have made changes towards the family from a joint to nuclear family system. Nuclear family is a family consisting most commonly of father, mother and children. In this type of family there are only children and two parents and it can be of any size, as long as the family can provide the basic needs of the members of the family. On the other hand, in joint family many generations of a family live together under the same roof and use the same kitchen.

In the past, *Rabhas* lived in joint family consisting of many generations. The eldest male of the family is usually the head of the family whom the other members are obliged. There is love and cooperation among the members and everybody participate in household activities for smooth functioning of the family. The *Rabha* women are expert in both spinning and weaving. Normally they prepare their own apparels including those used by the males (Bordoloi et al, 1987). The women also contribute to the family by earning money through rearing pigs and fowls and weaving cloths.

However, the family structure of the *Rabhas* has undergone change over the years. According to this study nuclear family is becoming more common among them. Table 3.2 shows that as many as 72 percent of the sample households (i.e. 198 households) have nuclear family and 28 percent of the sample households (i.e. 77 households) have joint family.

Table 3.2

Distribution of Households by Family Type

Family Type	No. of Family	Percentage
Nuclear	198	72
Joint	77	28
Total	**275**	**100**

Source: Field Survey

3.1.3 Distribution of the Households by Family Members –

The table 3.3 shows the distribution of sample households by the numbers of the family members. From table 3.3, it can be seen that most of the family consist of the number category of 4-6 (68 percent). On the other hand, percentage of households having family numbers up to 3 is 23.64 percent. Again Percentage of sample households having family members between 7 to 8 is 6.9 percent and only 1.45 percent of the sample households have family size above 8 members. Moreover, the total number of sample population is 1236 and the total number of sample households is 275 thus the average size of the family is 4.50.

Table 3.3

Distribution of Households by Family Members

No. of Members	No. of Households	Percentage
Up to 3	65	23.64
4 – 6	187	68
7 – 8	19	6.9
Above 8	4	1.45
Total	**275**	**100**

Source: Field Survey

3.1.4 Sex Ratio

The sex ratio indicates the extent of equality between male and female. The sex ratio is defined as the number of females per 1000 males. The sex ratio of the Rabha community has been calculated and it is found that sex ratio of the sample population in only 919 which is lower than the state average and national average according to both 2001 and 2011 census. According to 2011 census, the sex ratio of Assam was 954 and for the entire country it was 940. Again, according to 2001 census, the sex ratio for the state was 935 while for India it was 933. On the other hand, the child sex ratio (0-6

years) is calculated as 954 for the *Rabhas* which is slightly lower than the state average (957) and higher than the national average (914) in 2011.

3.1.5 Educational Status

Education is one of the very important socio-economic indicators that has huge impact on the demographic characteristics, on economic development and on the level of human development of the population of a society. Education like other form of investment in human capital can contribute to economic development and rise the income of the poor just as much as investment on physical capital such as transport, communications, power or irrigations etc. (Woodhall and Psacharopoular, 1985). The various functions of education are –

1. Promotion of economic growth and development.

2. Increase in productivity and promotion of social equity.

3. Modernization of attitudes and mentalities in societies.

4. Contribution to the important development goals such as improved health status, increase in life expectancy and reduction in fertility.

5. Reduce gender and different other social inequalities and increase social mobility (Szirmai, 2005, p. 213).

Thus education is very important not only for economic development of a country or community but also very important for the expansion of the level of human development. Recognizing the importance of education in the society an attempt has been made to study the educational attainments among the *Rabhas*. According to the census of India, a person whose age is 7 years or more than 7 years who can read and write with understanding in any language is called a literate person (Census of India). A

person who can merely read but cannot write is not categorized as literate. To consider a person as literate any formal education or minimum educational standard is not necessary. From table 3.4 it can be seen that the male literacy rate among the *Rabhas* is 85.6 percent which is higher than the national average of 80.9 percent and 78.81 percent of state average (According to census 2011). On the other hand, female literacy rate among the *Rabhas* is 75.1 percent which is also higher than state (67.27 percent) and national average (65.46 percent) according to 2011 census. Again the overall literacy rate among the sample households is 80.6 percent which is higher than the state (73.18 percent) and National average (74.04 percent) as per 2011 census.

Table 3.4

Distribution of the Sample Population by Their Education Level

Level of Education	Male		Female		Total	Percentage
	Nos.	%	Nos.	%		
Illiterate	83	12.90	132	22.29	215	17.40
Primary (I to V)	106	16.46	72	12.16	178	14.40
M. E (VI to VII)	97	15.06	100	16.89	197	15.94
High School (IX to X)	165	25.62	151	25.51	316	25.57
H S (XI to XII)	100	15.25	59	9.97	159	12.86
Above HS	28	4.34	16	2.71	44	3.56
Doesn't arise (child)	65	10.09	62	10.47	127	10.27
Total	**644**	**100**	**592**	**100**	**1236**	**100**

Source: Field Survey

It can be observed from the above table that among the sample population, the maximum numbers have received the education up to HSLC level. On the other hand,

population having education above higher secondary is very low i.e. 4.34 percent among the male and 2.71 percent among the female sample population have education above higher secondary.

3.1.6 Occupation

The living condition of a family mainly depends on the nature of occupation. Again, the nature of occupation has also impact on the status of health, income and education. The development of a particular community can be judged from the pattern of occupation of the community (Gopalkrishna, 2008).

The scheduled tribes of Assam are predominantly agriculturalists. According to census 2011 data, more than 76 percent of the total ST population of Assam is mainly engaged in the agricultural sector either as cultivators or as agricultural labourers.

The *Rabhas* are also predominantly agriculturalists. They cultivate their own agricultural fields and also work as agricultural labourers. Table 3.5 shows occupational pattern of the sample population.

Table 3.5

Distribution of the Sample Population by the Nature of Occupation

Occupation	Numbers	Percentage
Govt. Employee	54	4.37
Private Employee	36	2.91
Business	31	2.50
Agriculture	421	34.06
Daily Wage Earner	41	3.31
Unemployed	57	4.61
Other	21	1.69
Not in Workforce	575	46.52
Total	1236	100

Source: Field Survey

From table 3.5 it can be seen that 34.06 percent of the total sample population are agriculturalists; 4.37 percent of sample population are government employees; 2.91 percent are private employees and 2.50 percent sample population do business. Apart from that 3.31 percent sample population are daily wage earners; 4.61 percent are unemployed; 1.69 percent sample population have other types of occupation and 46.52 percent sample population are not in the workforce. Thus we can say that *Rabhas* are predominantly agriculturalist as 63.7 percent of the total working population is engaged in agricultural sector.

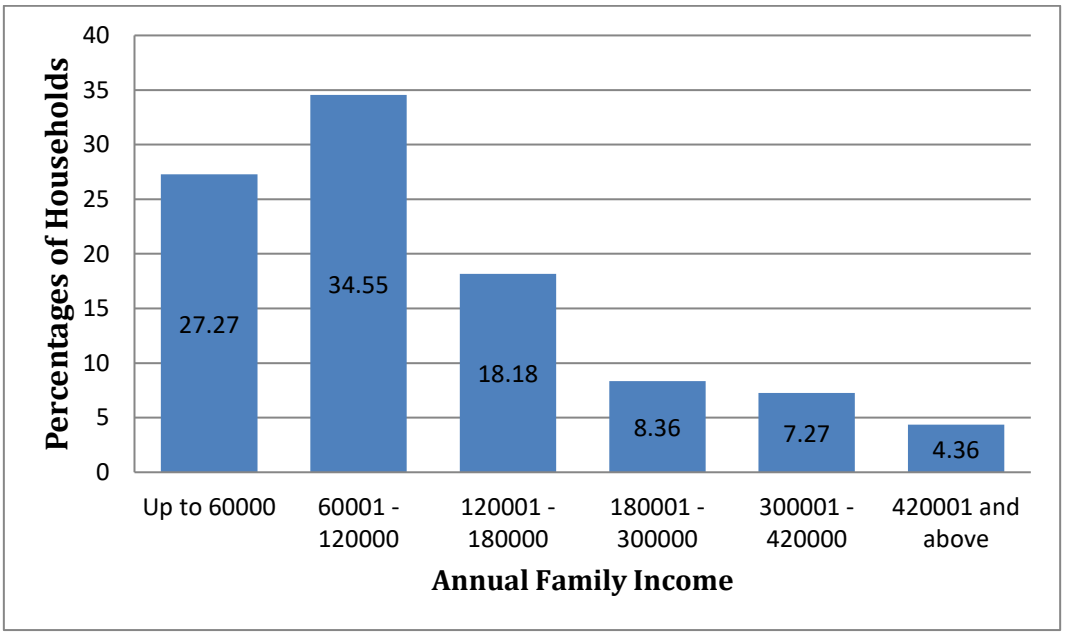
3.1.7 Family Income

Income is a very important socio-economic factor which affects the life style or standard of living of the people. Family income also has huge impact on the demographic behaviour of a population. Without adequate income, a family can not enjoy a decent standard of living (Buragohain, 2012). Many factor like educational attainment, consumption pattern, health status, use of family planning devices etc. depend on the income of the households. However, it is not easy to calculate the personal income of the family members. Here in calculating the annual family income, the daily, weekly and monthly money wages received by the all the members of the family have taken it to consideration. Again the market prices of the agricultural products of the family are also taken into consideration to calculate the income of the family. The figure 3.1 shows the distribution of the sample households on the basis of annual family income. In the figure it can be seen that 27.27 percent (75 households) have annual income up to rupees 60000. On the other hand, 34.55 percent households (95 households) have annual family income between 60001-120000 rupees; 18.18 percent households (50 households) have annual family income between 120001-

180000 rupees; 8.36 percent households (23 households) have annual family income between Rupees 180001-300000; 7.27 percent households (20 households) have annual family income between rupees 300001-420000 and only 4.36 percent households (12 households) have annual income above 420000 rupees.

Figure 3.1

Distribution of Households by Annual Income



On the other hand, the average per capita income of the sample population is estimated to be rupees 2686/- per month, which shows that each *Rabha* person earn on an average of Rupees 89.53/- per day. The distribution of the sample households by monthly per capita income is shown in Table 3.6. It can be seen from the below table that 0.36 percent of the sample households fall in the monthly per capita income range up to rupees 500; 10.91 percent of the sample households fall in the per capita income range between rupees 501-1000; 14.91 percent households fall in the monthly per capita income range between rupees 1001-1500; 30.54 percent households fall in the range between rupees 1501-2500 per month; 20 percent of the households fall in the per capita income range between 2501-3500 rupees per month; 9.09 percent of the sample

households fall in the category of 3501-5000 rupees per capita income per month; 6.91 percent households fall in the range between 5001-7000 rupees per capita income per month and 7.27 percent households have monthly PCI of rupees 7001 and above.

Table 3.6

Distribution of Households by Monthly Per Capita Income

Monthly Per capita Income	Nos. of Households	Percentage
Up to 500	1	0.36
501-1000	30	10.91
1001-1500	41	14.91
1501-2500	84	30.54
2501-3500	55	20
3501-5000	25	9.09
5001-7000	19	6.91
7001 and above	20	7.28
Total	**275**	**100**

Source: Field Survey

3.1.8 Inequalities in the Distribution of Income

In evaluating the level of development, significant amount of importance has been given to distributional justice. The pattern of income distribution affects the level of production, market structure, flow of investment and flow of employment (Bequela and Hoeven, 1980). There are different methods to measure income inequalities. Among which Lorenz Curve and Gini Coefficient are the most extensively used measures in economic research.

Lorenz Curve is a graphical representation of inequalities in the distribution of income by plotting cumulative percentages of income against corresponding percentages of households getting that income. If the LC is equal to the diagonal line

then there is perfect equality in the distribution of income. On the other hand, Gini Coefficient is based on the LC and is defined as the ratio of the area between the diagonal line and the LC with the total area of the half square in which the curve lies. Mathematically, the Gini Coefficient is written as

$$G.C. = (\sum X_i Y_{i+1}) - (\sum X_{i+1} Y_i)$$

Where, G.C. = Gini Coefficient

X_i = Cumulative proportion of number of households.

Y_i = Cumulative proportion of income.

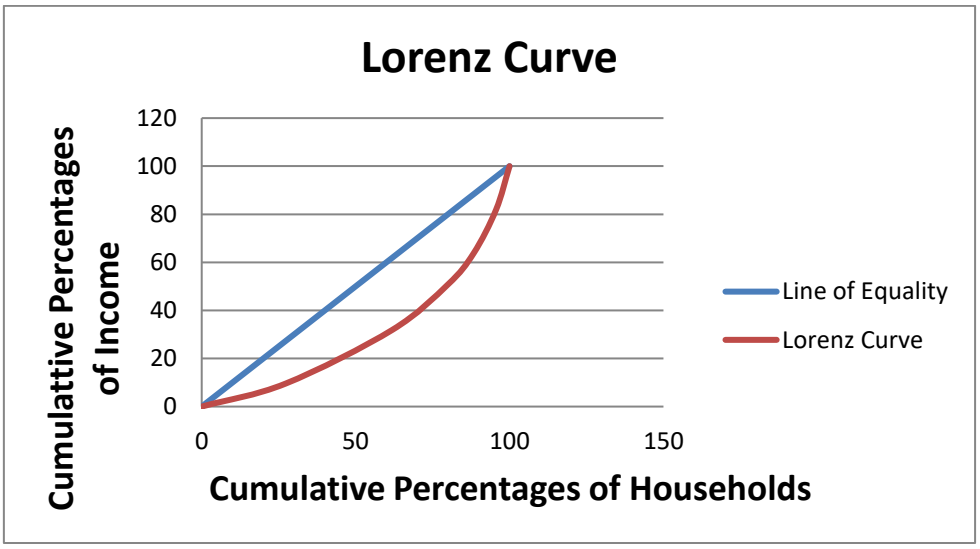
The value of Gini Coefficient lies between 0 and 1. According to Todaro and Smith (2003), Gini Coefficient lies between 0.5 to 0.7 for the countries having highly unequal income distribution and it lies between 0.2 and 0.35 for countries having relatively equal income distribution.

On the basis of the primary data Lorenz Curve and Gini Coefficient have been calculated for the *Rabha* community which is shown in Figure 3.1. The shape of the Lorenz Curve which is closer to the line of equal distribution indicates relatively smaller value of Gini Coefficient i.e. 0.24 indicating less skewed distribution of income among the *Rabhas* of Goalpara district. This may be attributed to the fact that they are basically dependent on agriculture and maintain a subsistence economy. Again Gini Coefficients for the three sample revenue circles have been calculated in order to compare the relative income inequalities in the distribution of income among the *Rabhas* of the three revenue circles. It is found from the primary data that Gini Coefficient of *Balijana* Revenue Circle is 0.39 which is considerably higher than the Gini Coefficients of *Krishnai* Revenue Circle and *Kusdhowa* Revenue Circle which are 0.15 and 0.14 respectively. The main reason of having higher income inequality in

Balijana revenue circle is that a section of the people of *Balijana* Revenue Circle is involved in rubber cultivation and earning a considerably higher amount of income in comparison the other people of that revenue circle. Thus we can say that the inequality in the distribution of income is higher in *Balijana* revenue circle than in *Krishnai* and *Kusdhowa* revenue circle. The estimated Gini Coefficient for the state is 0.5 (AHDR 2014) which is higher than Gini Coefficient of the *Rabhas*. On the other hand, Gini of Coefficient of India is 0.35 (World Bank Gini Coefficient) in 2013 which is also higher than the *Rabhas*.

Figure 3.2

Inequalities in the Distribution of Household Income



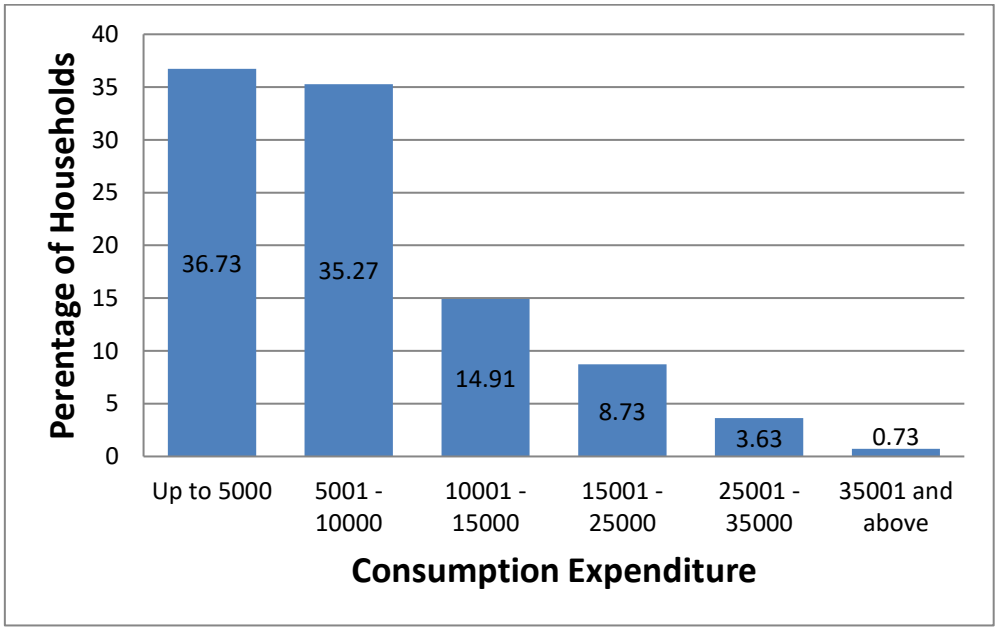
3.1.9 Consumption Expenditure

Consumption is a very important component of economics. Consumption occurs through Institutions and Industries as well as individuals. Increase in individual consumption leads to increase in aggregate demand. Aggregate demand leads to increase in production and thus brings back its return to the consumers in the form of wages and profits (ICMR, 2006). However, it is very difficult to calculate family consumption expenditure in social science. In the present study, respondents are asked

to report the likely consumption expenditures on various items like food, health, education, cloth, fuel, transportation, electricity, telephony and expenditures on other items during the last 30 days. By adding these expenditures, consumption expenditure of the sample households has been calculated. The consumption expenditure reflects the standard of living of a household. It is also used as a proxy of development instead of PCI. The figure 3.3 shows the distribution of *Rabha* sample households on the basis of monthly consumption expenditure.

Figure 3.3

Distribution of Sample Households by Monthly Consumption Expenditure



It is observed from figure 3.3 that most of the sample households i.e. 36.73 percent households have monthly consumption expenditure up to Rupees 5000. Again, 35.27 percent households have monthly consumption expenditure between rupees 5001 to 10000; 14.91 percent sample households have monthly consumption expenditure between rupees 10001-15000 and 8.71 percent sample household have monthly consumption expenditure between rupees 15001-25000. Again 3.63 percent sample

households belong to the group of rupees 25001-35000 and only 0.73 percent sample households have monthly consumption expenditure of rupees 35001 and above.

3.1.10 Possession of Assets

We have tried to look at the possession of the assets by the sample households after analyzing their income and consumption level. The table 3.7 gives us an overview of the different assets possessed by the sample households. It can be seen that possession of the assets by the sample households are not satisfactory. It is observed that only 4 percent of the households have power tillers and 2.9 percent of the sample households have pump sets which indicates the use of traditional methods of cultivation by the *Rabha* people. Again 10.9 percent households have radio; 47.64 percent households have T.V.; 12.63 percent households have refrigerator, 5.1 percent households have computer; 46.19 percent households have L.P.G stove; 7.64 percent have inverter; 98.91 percent households have mobile phones; 89.82 percent households have bicycle and 9.45 percent sample households have mixer grinder. Again 32 percent sample households have motor cycles, 1.45 percent have car and 92 percent have fan. The detail of the possession of assets is shown in Table 3.7.

Table 3.7

Possession of Assets by the Sample Households

Types of Assets	Nos. of Households	Percentage
Radio	30	10.9
T.V.	131	47.64
Refrigerator	34	12.36
Computer/Laptop	14	5.1
L.P.G. Stove	127	46.19
Inverter	21	7.64
Mobile	272	98.91

Bicycle	247	89.82
Motorcycle	88	32
Car	4	1.45
Power Tiller	11	4
Pump Set	8	2.9
Sewing Machine	43	15.64
Mixer Grinder	26	9.54
Fan	253	92

Source: Field Survey

3.1.11 Housing Condition

Housing is a very important basic human need. It is the place where the members of the family grow and develop. Housing is not only a physical shelter but also plays a significant role in a person's physical, mental and emotional health conditions with regards to the qualitative dimension provided by the housing condition (Zainal, et at., 2012). Better living condition and better housing is very important for better quality of life. Better housing condition increases working capacity of the people as it provides a healthy disease free environment.

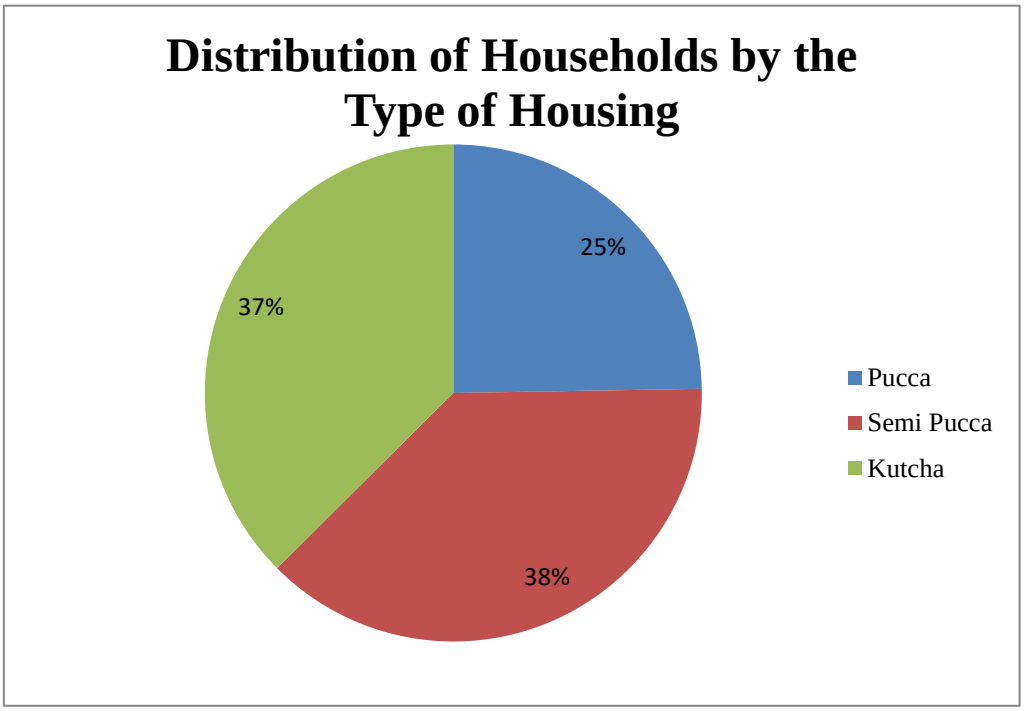
3.1.11.1 Type of House

The houses of the *Rabhas* are traditionally made of woods, bamboo, thatch and wall plastered with cow dung and mud. However, with times, they started constructing pucca houses with cement, stones and bricks. Their dwelling basically consists of 3 houses - main house, outer house and a cook shed. A granary and poultry house is also

constructed separately. The *Rabhas* keep their weaving looms under the extended roof of the granary (Bordoloi et al, 1987).

The Figure 3.4 reveals that percentage of sample households having pucca houses is 24.73 percent; again percentage of households having semi pucca houses is 37.82 percent and percentage of households having kutcha houses is 37.45 percent.

Figure 3.4

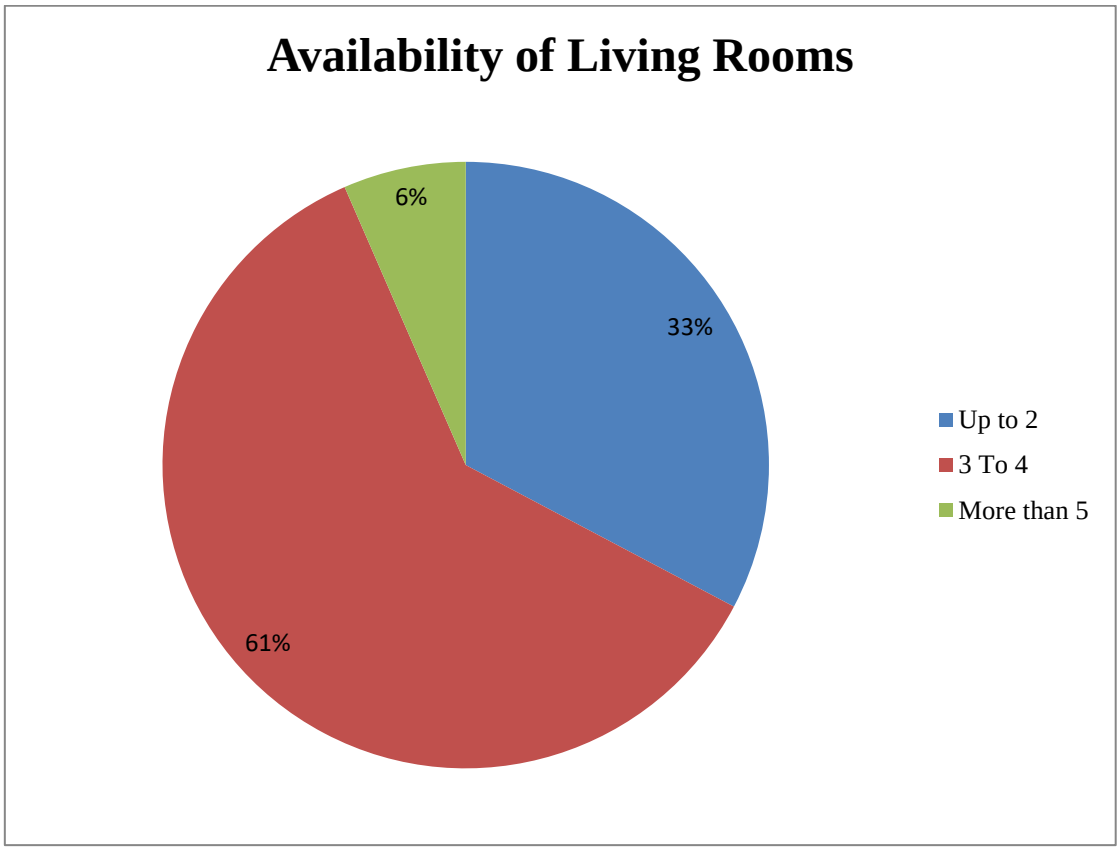


3.1.11.2 Availability of Living Rooms

Availability of sufficient numbers of living rooms is a basic housing facility. A separate living room increases one's privacy, freedom and peace. Buragohain (2012) mentioned that lack of sufficient numbers of living rooms reduce privacy of couples and affects educational attainments of children. The figure 3.5 shows the distribution of households by the number of living rooms. It can be observed that 32.73 percent of the sample households have up to 2 numbers of living rooms, 60.73 percent sample

households have 3 to 4 numbers of living rooms and 6.54 percent sample households have 5 and more number of living rooms.

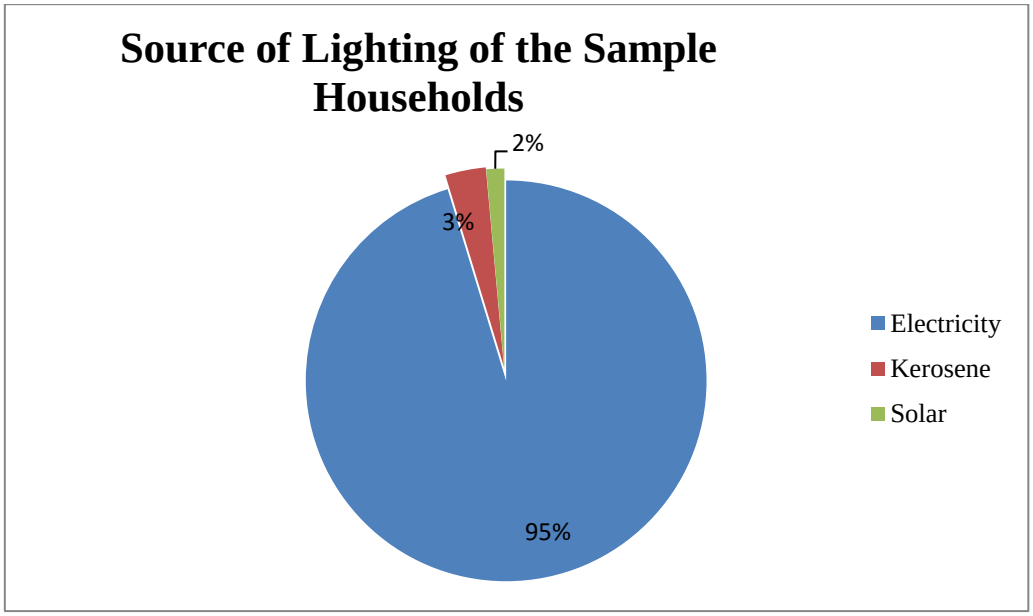
Figure 3.5



3.1.11.3 Source of Lighting

Use of electricity is a very important socio economic variable and sometime it is used as an indicator of socio economic progress (Nandi, 2012). The figure 3.6 shows the source of lighting of the sample households. It can be seen from the below figure that most of the sample households use electricity. 95.27 percent i.e. 262 households use electricity as the main source of lighting. On the other hand, only 3.27 percent households i.e. 9 households use kerosene as the main source of lighting and 1.45 percent households i.e. 4 households use solar energy as the main source of lighting.

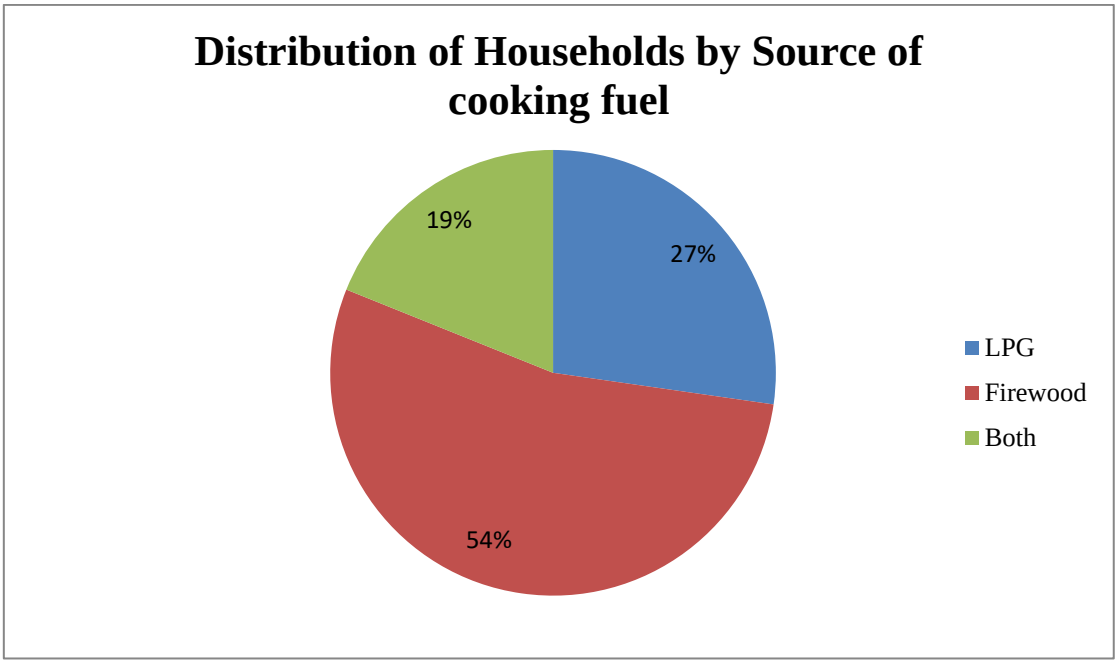
Figure 3.6



3.1.11.4 Use of Cooking Fuel

Another important socio-economic indicator is the source of cooking fuel as the use of any cooking fuel can cause risk of health of women and children in the form of indoor air pollution (Spengler and Sexton, 1983). So it is necessary to use such kinds of cooking fuels that emit less smoke and not pollute the air. So here an attempt has been made to analyze the use of different cooking fuels among the *Rabhas*. The distribution of the sample households on the basis use of different cooking fuels is represented in Figure 3.7. It can be seen from the figure that 27.27 percent of the sample households use only L.P.G as fuel for cooking. On the other hand, 53.82 percent households use only firewood for their cooking purposes. Again, 18.91 percent sample households use both L.P.G and firewood as cooking fuel. Thus we can say that most of the people are still using firewood as a source of cooking energy.

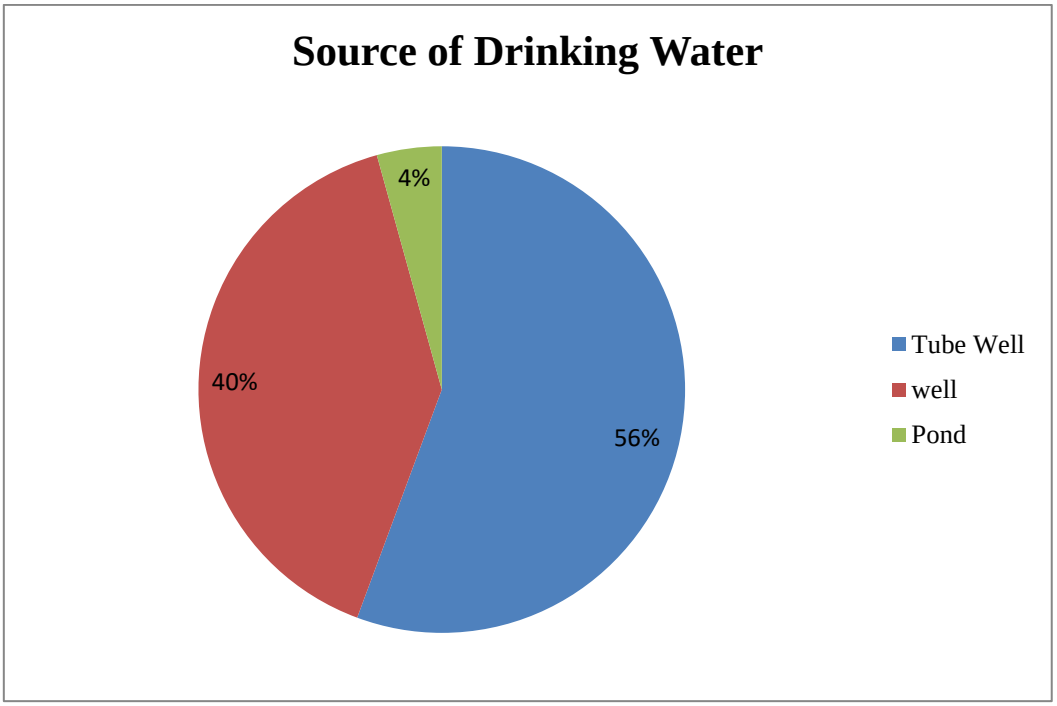
Figure 3.7



3.1.11.5 Source of Drinking Water

Pure drinking water, one of the basic human rights, is at the heart of daily crisis faced by millions of people which threatens life and destroys livelihoods (HDR, 2006). Survey data show that majority of the sample households i.e. 55.6 percent households (153 households) use Tube Well as the main source of drinking water while 40 percent i.e. 110 households use Well water as the main source of drinking water. On the other hand 4.3 percent households i.e. 10 households use Pond water as the main source of drinking water. The figure 3.8 shows the distribution of sample households on the basis of sources of drinking water.

Figure 3.8



3.1.11.6 Treatment of Drinking Water

Deprivation in access to pure water is a silent crisis experienced by the vulnerable section of the society (HDR, 2006). It has been observed that only 25.81 percent of the sample households i.e. only 71 households treat the water before drinking. On the other hand majority of the sample households i.e. 74.17 percent households don't treat the water before drinking.

Table 3.8

Distribution of Sample Households on the basis of Treatment of Drinking Water

Treat Water before Drinking	Nos. of Households	Percentage of Households

Yes	71	25.81
No	204	74.19

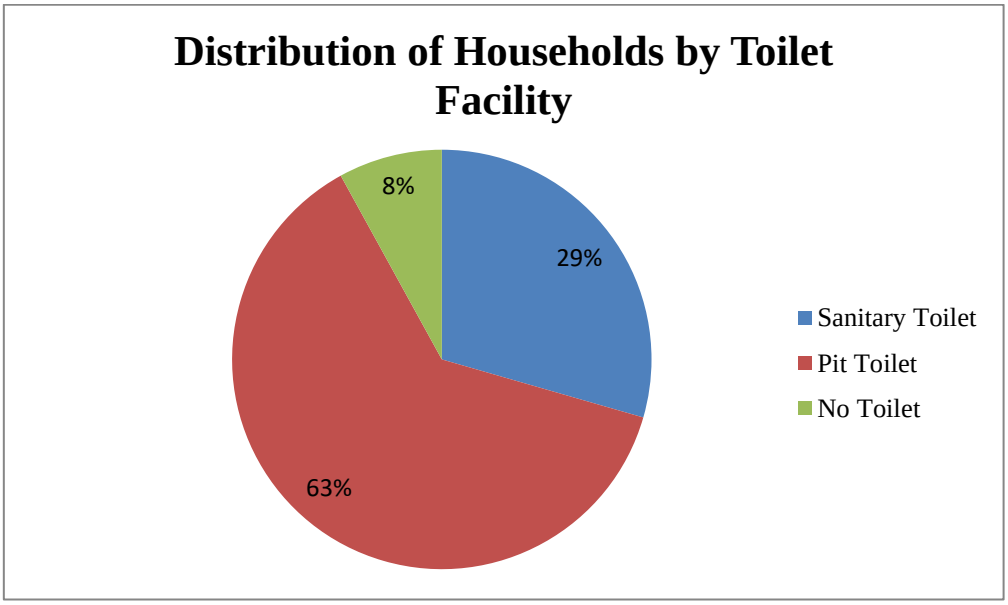
Source: Field Survey

Among these 25.81 percent households 11.27 percent households use non electric filter; 9.1 percent households use electric filter and 5.45 percent sample households boil water before drinking.

3.1.11.7 Toilet Facility

The Human Development Report 2006 addresses the crisis in water and sanitation as the greatest human development challenges of the 21st century. Deprivation of sanitation is one of the major challenges faced majority of the people (KHDR 2005). From the figure 3.9 it can be seen that only 29.45 percent households have sanitary toilet. On the other hand, majority of the households i.e. 62.5 percent households have pit toilet. Again 8 percent sample households don't have toilet facility.

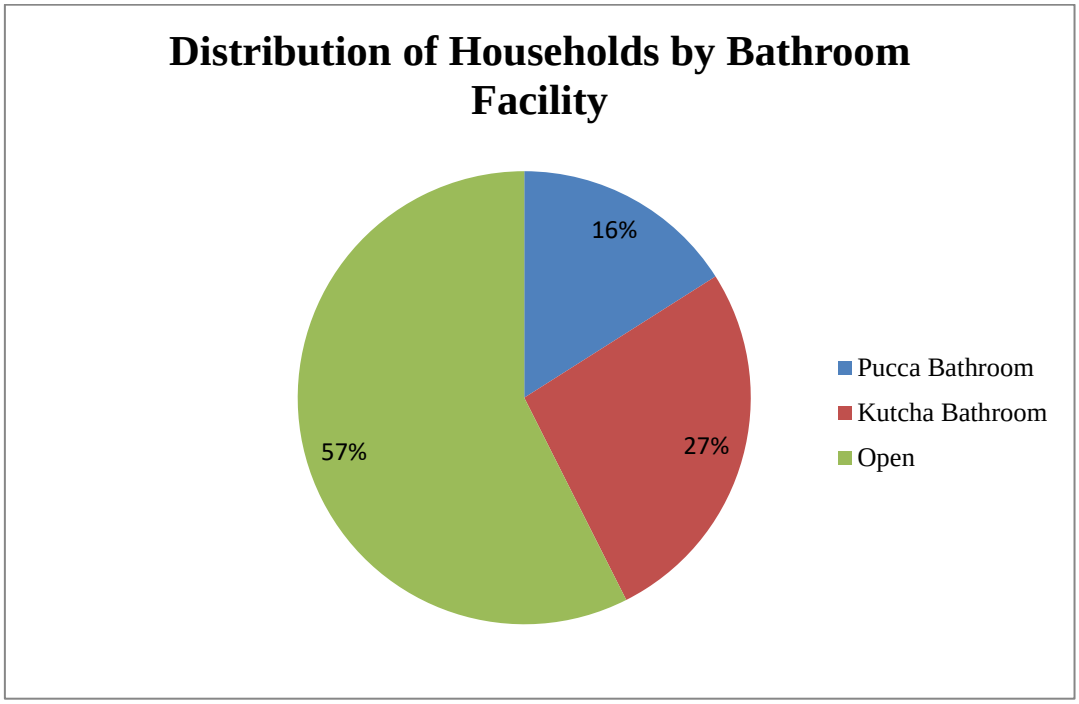
Figure 3.9



3.1.11.8 Bathroom Facility

The Figure 3.10 shows that majority of the households i.e. 57.41 percent households don't have bathroom facility. On the other hand, percentage of households having pucca bathroom facility is only 16 percent and percentage of households having kutcha bathroom facility is 26.5 percent.

Figure 3.10



3.1.12 Level of Deprivation

In order to measure the level of deprivation among the *Rabhas* we have constructed the Deprivation Index (Ref, Kerala Human Development Report 2005, p. 62) from primary data. The following indicators are used for constructing the Deprivation Index.

a. Deprivation of Quality of Housing (d_1) – It is measured through percentage of households not residing in a permanent house. Here permanent house means the roof; wall and floor are made of permanent materials.

b. Deprivation in Access to Water (d_2) – It is measured through the percentage of households not having pure source of drinking water within premises.

c. Deprivation in Sanitation (d_3) – It is measured through percentage of households not having sanitary toilet.

d. Deprivation in Electricity Lighting (d_3) – It is measured through the percentage of households not having electricity.

Deprivation Index = $[{}^{1}/_{4}\,(d_1^{\alpha} + d_2^{\alpha} + d_3^{\alpha} + d_4^{\alpha})]^{1/\propto}$

Where, $\alpha = 3$

D.I of *Rabhas* = $[{}^{1}/_{4}\,\{(75)^3 + (29.3)^3 + (71)^3 + (4.73)^3\}]^{1_3}$

$= [{}^{1}/_{4}\,(421875 + 25153.757 + 357911 + 105.83)]^{1/3}$

$= [{}^{1}/_{4}\,(805045.587)]^{1/3}$

$= (201261.39675)^{`1/3}$

$= 56.3$

So we can say that Deprivation Index (DI) is quite high for the *Rabha* Community. Again we have constructed Deprivation Index for Assam also from the secondary data collected from National Family Health Survey (NFHS-4) 2015-16. And the Deprivation Index for the state is estimated at 52.4. So we can say that the level of deprivation among the *Rabhas* is higher than the state average.

3.1.13 Land Holding

We have already observed from the study that *Rabhas* basically depend on agriculture for their livelihood and therefore, the present study also made an attempt to examine in detail about the possession and utilization of their land. It has been established that amount of land holding influences not only the level of income of a family but also their social status. Land holdings of the sample households have been estimated in table 3.9 to have an idea about the possession of land. It has been found that 8.37 percent of the households hold land less than 1 acre; 51.27 percent households own land between 1 to 2 acres; 26.2 percent of the households own land between 2 to 3 acres; 7.64 percent households hold land between 3 to 5 acres; 2.55 percent of the sample households hold between 5 to 7 acres of land and 4 percent of the sample households hold more than 7 acres of land. Moreover, the average size of land holding among the sample households is found 2.56 acres.

Table 3.9

Distribution of Land Holdings

Land Holdings	Nos. of Households	Percentage
Up to 1 acre	23	8.37
More than 1 acre to 2 acres	141	51.27
More than 2 acres to 3 acres	72	26.2
More than 3 acres to 5 acres	21	7.64
More than 5 acres to 7 acres	7	2.55
More than 7 acres	11	4
Total	**275**	**100**

Source: Field Survey

3.1.14 Agricultural practices

Rabhas are basically agriculturalist. It is found that 63.7 percent of the working population is engaged in agricultural sector. Therefore, an attempt has been made to look at the use of modern technology such as use of machine power, use of fertilizers, insecticides and pesticides, irrigational facility etc. in the agricultural field to increase agricultural productivity.

Table 3.10

Respondent's Behaviour on Agricultural Practices

Fertilizer Use	**Nos. of Respondents**	**Percentage**
Use of only Chemical Fertilizers	29	10.54
Use of only Organic Fertilizers	116	42.18
Both	130	47.27
Cropping Pattern	**Nos. of Respondents**	**Percentage**
Double Cropping Pattern	13	4.7
Single Cropping Pattern	262	95.3
Irrigation Facility	**Nos. of Respondents**	**Percentage**
Have Irrigation Facility	18	6.5
Doesn't Have Irrigation Facility	257	93.5
Mode of Ploughing	**Nos. of Respondents**	**Percentage**
Bullocks	148	53.82
Tractors	70	25.45
Both	57	20.73

Source: Field Survey

The table 3.10 provides a glance at the respondents' behaviour on agricultural practices. It can be seen from the above table that 10.54 percent respondents use only chemical fertilizers in the crops, while 42.18 percent respondents use only organic fertilizers in the crops. On the other hand, 47.27 percent respondents use both chemical and organic fertilizers in their agricultural field. Again only 4.7 percent of the

respondents practice double cropping pattern indicating that the agricultural status among the *Rabhas* of Goalpara district is poor. Irrigational facility is also not adequate among the farmers. It can be seen from table 3.10 that 6.5 percent of the total respondents have irrigation facility which can be regarded as a main factor of poor agriculture among the *Rabhas*. Again most of the respondents use bullocks to plough their land instead of using tractors and power tillers. Thus it can be concluded that the state of agricultural practices of the *Rabhas* is not satisfactory.

Conclusion

Socio-Economic factors have huge impact on Human Development as it affects health, education fertility, mortality etc. Like other communities, *Rabhas* also have some unique socio economic characteristics which might influence their human development status. That's why this chapter exclusively focuses on the socio economic and demographic characteristics of the sample population. In the present chapter it is observed that socio economic status of the sample *Rabha* households is adequate in some aspects like access to electricity, access to pure drinking water, literacy rate etc. On the other hand, in some aspects such as sex ratio, per capita income, asset possession, housing facility, access to sanitary toilet facility, access to pucca bathroom facility etc. it is not satisfactory.

CHAPTER - 4

STATUS OF HUMAN DEVELOPMENT AMONG THE RABHAS

In this chapter an attempt has been made to discuss the human development status of the *Rabhas* of Goalpara district of Assam. The objective of this chapter is to measure the level of Human Development among the *Rabhas* of Goalpara district. Here the status of Human Development has been discussed in three dimensions – Achievements in health, Educational Attainment and Standard of Living.

4.1 Achievements in Health

"*Health is a central component of Human Development. A long and healthy life, free from risk of disability or untimely death apart from being an elementarily valued end in itself is also instrumental in attaining other relevant and valued functioning and that's why it forms a crucial basis of personal well being*" (AHDR 2014). The WHO defined health as "*a state of complete physical, mental and social well being and merely the absence of disease or infirmity*." Poor health leads to capability deprivation and poverty. Again poverty leads to low standard of living, malnutrition and lack of basic amenities. So good health is very important for all round development of the people. Health indicators are quantifiable characteristics which describe the heath status of a particular population. These indicators are basically used by governments to guide health policy. In this section an attempt has been made to analysis the achievements in health among the *Rabhas* with the help of different standard health indicators.

4.1.1. Infant Mortality Rate

The Infant Mortality Rate is a very important indicator that represents Human Development. It is also the most important component of mortality that can represent well being of human beings. It is used as a proxy to the life expectancy variable when data on life expectancy at birth is not available. According to SRS, the Infant Mortality Rate is the number of children dying before their first birthday. Mathematically, the Infant Mortality Rate can be defined as:

$$\text{IMR} = \frac{D_0}{B} \times 1000$$

Where, D_0 = Number of deaths within one year of any reference period

B = Total number of live births during the same reference period.

In the present study Infant Mortality Rate of the community is found as 47.17 per thousand live births which is higher than the state average of 44 and national average of 34 in 2016 as per the NITI Ayog data. Thus we can say that IMR of the *Rabha* tribe is much higher than the state and national average.

4.1.2 Maternal Mortality Rate

Maternal Mortality or death due to cause related to pregnancy and child birth, is another key heath outcome indicator which has a wider capability implication. Maternal death is defined by WHO as "*the death of women while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental cause.*" Mathematically, MMR is defined as

$$MMR = \frac{M_0}{B_0} \times 100000$$

Where, M_0 = All maternal deaths occurring within a reference period.

B_0 = Total number of live births during the same reference period.

In the present study, 1 maternal death has been found during the period of 5 reference years and hence 0.2 maternal deaths per year. Thus the Maternal Mortality Rate of the community is found 943 per 100000 live births which is much higher than the national average of 130 and state average of 237 in 2014-16 as per NITI Ayog.

4.1.3 Crude Death Rate

Crude Death Rate is another important indicator of mortality. It can indicate the present heath achievement of a population. It measures the number of deaths per 1000 population in a particular period of time. Mathematically, it is defined as

$$CDR = \frac{D}{P} \times 1000$$

Where, CDR = Crude Death Rate

D = Total registered death during a calendar year.

P = Total number of population in a specified year.

In the present study it is observed that a total 31 deaths took place during the reference period of 5 years and hence the average death is 6.2 per year. And the estimated Crude Death Rate of the sample population is 5.01 per thousand population which is lower than the state average of 7.01 and Indian average of 6.50 in 2015 (Source: Office of the Registrar General and Census Commissioner, India).

4.1.4 Crude Birth Rate (CBR)

The Crude Birth Rate is the widely used measure of fertility. As the name implies it is the crude measure of public health. The Crude Birth Rate is the number of live births per year per 1000 midyear population. The mathematical formula for calculating CBR is

$$CBR = \frac{B}{P} \times 1000$$

Where, CBR = Crude Birth Rate

P = Total midyear population in a particular area

B = Total number of births in a particular area

In the present study data for live births is calculated for a period of last 5 years. So after calculating total number of live births for the last 5 years, the annual birth has been calculated. In the present study 106 live births are found and hence the average number of births per year is 21.2. Thus the estimated Crude Birth Rate for the sample population is 17.15 per thousand population which is lower than the state average of 20.8 and national average of 19.27 in 2015 (Source: Office of the Registrar General and Census Commissioner, India).

4.1.5 Growth of *Rabha* Population

In order to measure the population growth among the *Rabhas* we calculated the Natural Growth of Population. The Natural Growth of population takes into account only the birth rates and death rates. It does not take into account the population changes due to migration of people from one place to another place. Natural increase in population is defined as the difference between Crude Birth Rate and Crude Death Rate.

Natural Increase in Population = CBR – CDR

CBR = Crude Birth Rate

CDR = Crude Death Rate

In the present study the Growth rate of the population is found to be 12.2 which is slightly lower than the national average of 12.77 and the state average of 13.7 in 2015.

4.1.6 Morbidity Prevalence Rate (MPR)

Morbidity Prevalence Rate is an important heath indicator. Morbidity affects the normal functioning of the human beings. Morbidity is a state of affair in which an individual is physically and mentally suffering. The MPR is the frequency with which a disease appears in a particular population.

$$\text{Morbidity Rate} = \frac{\text{Number of ailing persons}}{\text{Total Population}} \times 1000$$

The MPR can be studied in terms of acute disease and chronic disease. Ailments of less than 30 days duration are treated as acute and more than 30 days are treated as Chronic (NSSO 1998). Among the sample population, the Morbidity rate is found 97.89.

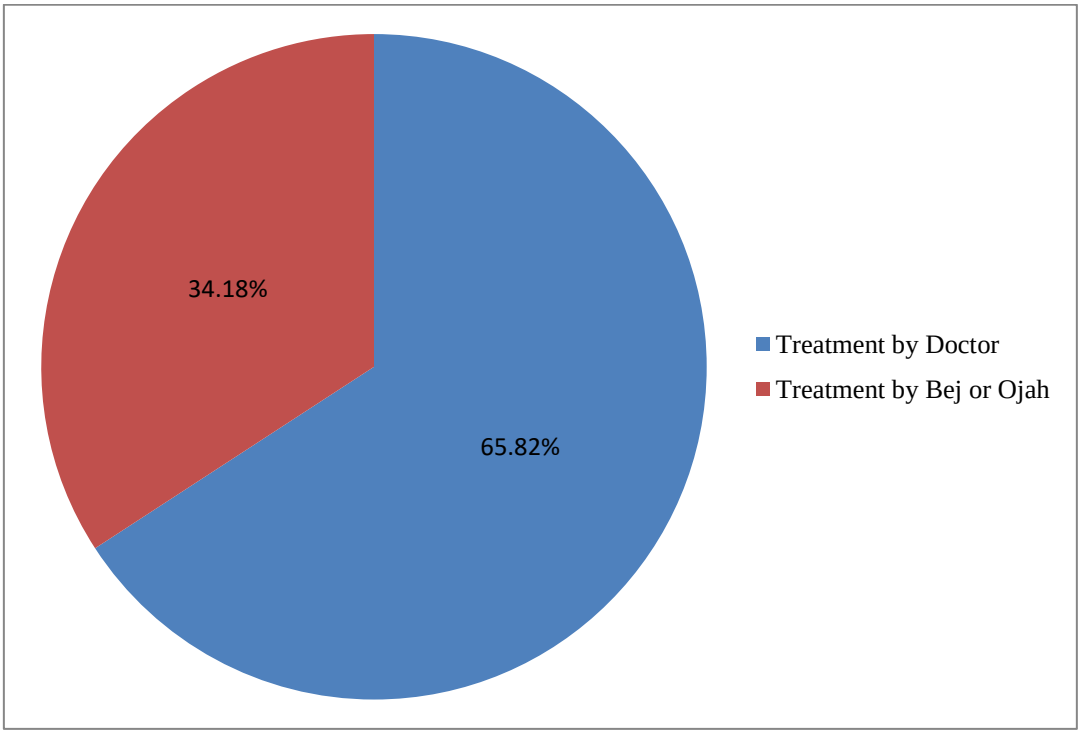
4.1.7 Mode of Treatment of Disease

It is important to study the mode of treatment in order to have idea of the health status of a particular community. A primitive backward society uses more traditionally known medicines and traditional way of treatment than modern drugs and modern technologies. The diseases are treated by *Kabiraj* or *Bej* in such societies. However, with development and advancement in science and technology and spread of education, people started visiting hospitals and doctors for treatment of diseases. It is found from

field survey data that 94 respondents i.e. 34.18 percent of the sample respondents still depend on the *Bej* or *Kabiraj* for treatment of diseases. On the other hand, the remaining respondents i.e. 181 respondents (65.81 percent) use to visit doctors for the treatment of diseases. Thus we can say that a huge proportion of the respondents is still depended on traditional or primitive methods of treatment which is not a good sign.

Figure 4.1

Distribution of Respondents by Mode of Treatment



4.2 Educational Attainment

Human capital, particularly attained through education is very important determinant of economic progress. More educational attainment implies more productive and skilled workers who can increase the overall production of an economy. Well educated human resources of a country can absorb the advanced technologies from developed countries. Again, educational attainments also have huge impact on fertility,

income distribution, child mortality, maternal mortality and education of children (Barro, R.J. and J.W. Lee, 2011). Education can also help to generate confidence and self esteem. It can also increase the employability of a person. Education is a fundamental element of human development and it opens new world and provides access and mobility in the process of enlarging opportunities and choices (AHDR 2003). Therefore in the present study an attempt has been made to analyze the educational attainment of the *Rabhas* of Goalpara district of Assam with the help of different indicators.

4.2.1 Adult Literacy Rate

Adult Literacy rate is an important component of Human Development Index and it is considered as the most important parameters of educational attainment (NHDR 2011). UNDP in its first Human Development Report (HDR 1990) used only adult literacy rate to measure the educational attainment for the construction of HDI. The Adult Literacy Rate is defined as the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. It is calculated as –

$$\text{Adult Literacy Rate} = \frac{\text{Total number of literates aged 15 years or above}}{\text{Total Adult Population (15+)}} \times 100$$

Using the above formula Adult Literacy Rate has been calculated as 76.6% of the sample population. Out of 920 people aged 15 years or above, 215 are illiterate. Here we have also calculated 7+ literacy rate of the sample population which is found 80.6%, higher than the national and state average as per 2011 census.

4.2.2 Mean Years of Schooling

Mean Years of Schooling is one of the two indicators which is used to measure the educational attainment of human development by United Nation Development Programme (UNDP). The Mean Years of Schooling has replaced the Adult Literacy Rate as an indicator of educational attainment in UNDP's Human Development Report 2010. Mean Years of Schooling (MYS) is the average number of completed years of education of a country's population. However, it excludes years spent in repeating individual grades. Basically MYS is calculated for population aged 25 years or above. But in our country since the population enters the labour force as early as at 15 years and therefore to calculate Mean Years of Schooling 15+ age group population has been taken into account by the Ministry of Women and Children Development (WCD) in its report "Gendering Human Development Indices: Recasting the Gender Development Index and Gender Empowerment Measures for India."

For the calculation of MYS, distribution of population by educational attainment and age is necessary at a given point of time. In our study MYS is found as 8.1 years for the sample population of 15 + age group.

4.2.3 Gross Enrolment Ratio

Gross Enrolment Ratio was included to construct the education dimension of Human Development index by the Human Development Report 1995. According to UNESCO Gross Enrolment Ratio is the number of students enrolled in a given level of education, regardless of age, expressed as a percentage of population in the official age group corresponding to the level of education. In our study it is found that all the children eligible for enrolment are properly enrolled.

4.3 Decent Standard of Living

Except educational attainment and health attainment there is another dimension of Human Development Index i.e. Standard of Living. The Human Development Report 1990 observed that to measure standard of living an indicator of command over resources needed which requires sufficient and reliable data on access to credit, land, income and other sources. But there is lack of sufficient and reliable data covering all these aspects. As data on Gross Domestic Product per capita is available, therefore GDP per capita is taken to measure the income dimension of HDI. However, Human Development Report 2010 replaces GDP per capita by Gross National Income per capita to measure the standard of living. And for the comparison of countries GNI of the countries are adjusted by PPP (Purchasing Power Parity) ratios. To measure standard of living the National Human Development Report 2001 uses per capita real consumption expenditure adjusted for inequality. In the present study we use per capita income of the sample population to calculate the income index of HDI instead of GDP per capita because data on GDP per capita is not available for the *Rabha* tribe. In the present study, per capita income of the sample population is found rupees 32241.

4.4 Human Development Index for the *Rabhas*

After the discussion about different indicators and components of human development index, the present study attempts to construct the Human Development Index for the *Rabhas*. HDI is basically a tool to measure level of human development. It measures the average achievement in three basic dimensions of human development – a long and healthy life measured by life expectancy at birth, access to knowledge measured Mean Years of Schooling and Expected Years of Schooling and standard of living measured by annual PCI. However, in the present study due to lack of sufficient data some adjustment are made and proxies are used to construct the HDI. Following

are the rational for the choice of indicators used for the construction of HDI of the *Rabhas*.

4.4.1 Health Indicator

The UNDP's HDRs use Life Expectancy at Birth to measure the health dimension. On the other hand, National Human Development Report 2001 constructed the health index of HDI by taking life expectancy at age 1 and infant mortality rate. Again Assam Human Development Report 2003 use only infant mortality rate to calculate the health index. If the data on life expectancy at birth is not available then we can use IMR as a proxy of life expectancy in calculating HDI. In the present study due to small sample size it is not possible to calculate the life expectancy at birth; therefore we use IMR as a proxy of life expectancy at birth to measure the attainments in health. Since IMR is negatively related to Human Development we use the following to calculate the dimension index.

$$\text{Dimension Index} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

4.4.2 Education Indicator

The first Human Development Report (HDR 1990) uses only Adult Literacy Rate to measure attainments in education. However, HDR 1991 uses Adult Literacy Rate and MYS giving $^2/_3$ and $^1/_3$ weights respectively to calculate the education dimension of HDI. HDR 1995 replaced the MYS by combined enrolment ratio to measure attainments in education. However, the Human Development Report 2010 replaces Adult Literacy Rate and Gross Enrolment Ratio by Expected Years of Schooling (EYS) and Mean Years of Schooling (MYS) to measure the attainments in education. In the

present study knowledge dimension is measured by Adult Literacy rate and Mean Years of Schooling for 15 + age group. The Adult Literacy Rate is defined as the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. Moreover, India population is entering into the labour force as early as 15 years and can contribute to the country's growth that's why MYS for 15 + age group is taken (According to Ministry of Women and Child Development, India). The education index is calculated by giving $^2/_3$ weight to Adult Literacy Rate and $^1/_3$ weight to Mean Years of Schooling of 15 + age group as adopted by UNDP for the calculation of education index.

4.4.3 Income Indicator

From 1990 to 2009 UNDP uses GDP per capita (PPP at US Dollar) to measure income dimension. However, this is replaced by Gross National Income per capita (PPP at US Dollar) in HDR 2010. Again NHDR 2001 uses per capita real consumption expenditure adjusted for inequality for this purpose. Ministry of Women and Child Development in their Report "*Gendering Human Development Indices: Recasting GDI and Gender Empowerment for India*" uses per capita net state domestic product to calculate income index. In the present study we use annual per capita income of the sample population to calculate the income index for the *Rabhas* as the data on GDP per capita income is not available for the community.

4.4.4 Construction of Human Development Index (HDI)

In order to construct the Human Development Index of the *Rabhas* we have to fix the goalposts of each indicator. Let us consider the following table.

Table 4.1

Goalposts of the Indicators

Indicators	Minimum	Maximum
Infant Mortality Rate	0	74
Adult Literacy Rate	0	100
Mean Years of Schooling	1	15
Per Capita Income	16632	63444

(Infant Mortality Rate of Kokrajhar district is taken as the maximum value as Kokrajhar district has the highest Infant Mortality Rate as compared to the other districts of Assam according to Annual Health Survey Bulletin, Assam, 2012-13. Maximum and Minimum Values of Adult Literacy Rate are set according to UNDP's Human Development Reports. Maximum and Minimum Values of Mean Years of schooling are set as per the Assam Human Development Report, 2014. Per capita annual income of Kamrup(M) district and Hailakandi district are set as the maximum and minimum as these two districts have the maximum and minimum annual per capita income among all other districts of Assam as per the Assam Human Development Report, 2014.)

After fixing the goalposts dimension indices are calculated. Performances in each dimension are expressed as a value between 0 and 1.

(i) Health Index – Since IMR is negatively related to HDI we use the following formula to calculate health index.

$$\text{Health Index} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minium Value}}$$

$$= \frac{74 - 47.17}{74 - 0}$$

$$= \frac{26.83}{74}$$

$$= 0.362$$

(ii) Education Index – Since education is positively related to HDI we use the following formula to calculate for normalization.

$$\text{Dimension Index} = \frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

$$\text{Adult Literacy Rate Index} = \frac{76.6 - 0}{100 - 0}$$

$$= 0.766$$

$$\text{Mean Years of Schooling Index} = \frac{8.1 - 1}{15 - 1}$$

$$= 0.507$$

Now, Education Index $= {}^{2}/_{3}$(Adult Literacy Rate Index) + ${}^{1}/_{3}$(MYS Index)

$$= {}^{2}/_{3} \times 0.766 + {}^{1}/_{3} \times 0.507$$

$$= 0.510 + 0.169$$

$$= 0.679$$

(iii) Income Index – Income Index is calculated by the following formula

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

$$= \frac{\ln(32241) - \ln(16632)}{\ln(63444) - \ln(16632)}$$

$$= \frac{10.38 - 9.72}{11.10 - 9.72}$$

$$= \frac{0.66}{1.38}$$

$$= 0.478$$

Therefore the Human Development Index of the *Rabhas* is

$$\text{Human Development Index} = \sqrt[3]{I_{\text{Health}} \times I_{\text{Education}} \times I_{\text{Income}}}$$

$$= \sqrt[3]{0.362 \times 0.679 \times 0.478}$$

$$= 0.489$$

Thus the Human Development Index for the *Rabha* community of Goalpara district is 0.489 which fall in the low human development category. The HDI value of the *Rabhas* is lower than the national average of 0.640 and state average of 0.605 in 2017 (source: Sub national HDI – Area Database – Global Data Lab).

4.5 Human Development Status of the *Rabhas* and some other Communities/tribes of Assam

After constructing the Human Development Index for the *Rabhas*, an attempt has been made to compare the human development indices of different communities of Assam. Here we have considered *Bodo*, *Tai Ahoms*, *Tai Khamiyangs* and *Mishings* (Basumatary 2010, Buragohain, 2012; Butta, 2015 and Konwar and Mazumder, 2015) for comparison with *Rabhas*.

Table 4.2

Communities	HDI

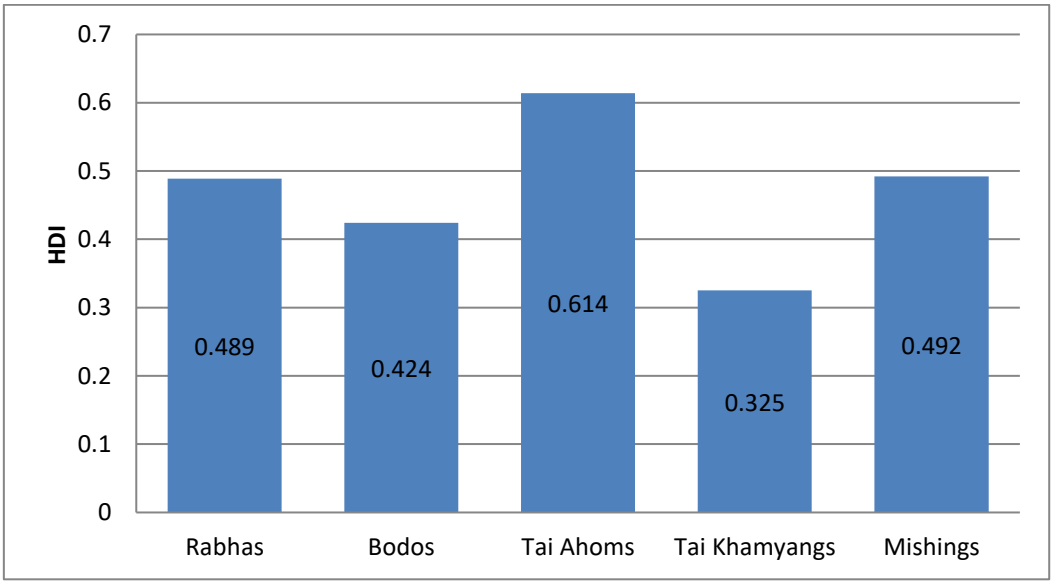
Rabhas[1]	0.489
Bodos[2]	0.424
Tai Ahoms[3]	0.614
Tai Khamyangs[4]	0.325
Mishings[5]	0.492

Comparison of Human Development Indices of *Rabhas* and other Tribes of Assam

Source: 1. Current Study, 2. Basumatary, 2010; 3. Buragohain, 2012; 3. Dutta, 2015; 4. Konwar and Mazumdar, 2015.

Figure 4.2

HDI of Different Communities of Assam



4.6 Answer to the First Research Question

The first research question was regarding the level of human development among the *Rabhas*. On the basis of the primary data the Human Development Index for the *Rabhas* has been calculated. The HDI value of the *Rabhas* is estimated at 0.489 which indicates low level of Human Development among the *Rabhas*. The HDI value of *Rabhas* is lower than the state average (0.605) and national average (0.640) as per 2017 data. The studies made by Buragohain (2012); Basumatary (2010); Dutta (2015) and Konwar and Mazumdar (2015) reveal that HDI values of *Tai Ahoms* and *Mishings* are also better than *Rabhas*. However, HDI value of Tai *Khamyangs* and *Bodos* are lower than the *Rabhas*. Thus it has been found that the level of Human Development among the *Rabhas* is lower than the State average and National average.

CHAPTER - 5

GENDER GAP AMONG THE RABHAS

Human Development is the process of enlarging the opportunities and choices for all the people of the society. Such a process becomes discriminatory and unjust if women of the society are not getting the benefits of the progress. Denial of equal opportunities to women in social, economic and political areas is a major hurdle towards modern progress. Basically, there are two main reasons for the gender disparities – firstly, there are very limited opportunities for women to expand their capabilities, and secondly, the economic, political and socio-cultural environment limits them from using their capabilities (Gujrat Human Development Report 2004).

> "*In no society today do women enjoy the same opportunities as men. Paradoxically, the progress of the past two decades has in some way expanded women's capabilities but not expanded the opportunities available to them. Economic growth not always automatically translated into gender development and that high human development leads to lowering of gender disparity*" (GHDR 2004).

There is an urgent need to understand the extent of disparities exist between men and women. UNDP's Human Development Reports since 1995 have vividly mentioned that nowhere in the world women and men are enjoying equal opportunities, although in many developed countries significant progress has been made towards the development of women. The four main components of human development i.e. productivity, equity,

sustainability and empowerment demand to address the gender issue as well as development issue.

Many governments of the developing countries have been trying to initiate different actions towards gender equity. At the international level, the 'Convention on the Elimination of All Forms of Discrimination against Women' (CEDAW) is an important step in this regard. The Government of India also adopted 'National Policy for the Empowerment of Women' in 2001. Following this, the Department of Women and Child Development (WCD) has initiated a policy called "Gender Equity Policy" to integrate gender within programmes and policies of the both state and central governments. But, in spite of all these efforts disparities between men and women are still present to a large extent in India. However, women have different status in Assam. They have been playing a very important role in the society from long back. Women not only perform all the households' works but also contribute in the works of agricultural fields. They also actively participate in different socio-cultural activities (AHDR 2003). However, despite their contributions they are severely disadvantaged and discriminated. Poverty, violence, lack of political participation, high MMR, incidence witch hunting etc. are the issues of concern of Assam. Under this context, the present study attempts to discuss the issues of gender gap in the case of *Rabhas* of Goalpara district of Assam.

This chapter seeks to assess the gender disparity among the *Rabhas* of Goalpara district of Assam by evaluating the attainments of *Rabha* women in health, education and income by using standard indicators like sex ratio, child sex ratio, infant mortality rate, literacy rate, adult literacy rate, gross enrollment ratio and work participation rate. In order to reflect the inequalities between men and women in the dimensions of Human Development, the Gender related Development Index (GDI) is constructed. GDI is a

measure of gender differentials in human development. The difference or gap between HDI and GDI indicates the gender disparity. Higher the value of Human Development Index in relation to Gender Development Index, greater the gender disparity. If GDI and HDI both are equal then it indicates there is no gender disparity.

5.1 Gender Gap in Health

Gender disparity is most visible in the health spare and is indicated by adverse sex ratio, adverse child sex ratio and high female infant mortality rate.

5.1.1 Sex Ratio

Sex ratio is the number of women per 1000 males. It reflects the status of women in a society. Women are biologically stronger and enjoy higher survival rates than men. If there is no discrimination against women then sex ratio would be more than 1000. So, an adverse sex ratio basically reflects discrimination against women. Sex ratio of a region can be low because of high female mortality rate, high maternal mortality rate, practice of female feticide and infanticide and negligence of the health of the girl child (GHDR 2004). The sex ratio of the *Rabha* community has been calculated from the sample households and it is found only 919 which is lower than the state average (954) and national average (940) as per 2011 census data.

5.1.2 Child Sex Ratio

Child sex ratio is also known as Juvenile Sex Ratio. It is the sex ratio of the population in the age group 0-6 years. Child sex ratio is less likely to be affected by in migration. The child sex ratio of the *Rabha* sample households is found 954 which is better than the overall sex ratio of the sample households. The child sex ratio of the

Rabhas are slightly lower than the state average of 957 and higher than the national average of 914 in 2011.

5.1.3 Infant Mortality Rate

Infant Mortality Rate is a very important indicator of health attainment and it is used as a proxy of measuring health attainment. Infant mortality rate is the number of children dying before their 1st birthday. Here in order to observe the gender gap in health attainment both male infant mortality rate and female infant mortality rate have been calculated from the field survey data. According to the sample survey data the female infant mortality rate among the *Rabhas* is found 54.54 which is higher than the male infant mortality rate of 39.21.

Table 5.1

Comparison of Female and Male IMR

	Female IMR	Male IMR	Total IMR
Rabhas	54.54	39.21	47.17

Source: Field Survey Data

Thus, we can see the difference in the male infant mortality rate and female infant mortality rate among the *Rabhas* of Goalpara district of Assam.

5.2 Gender Gap in Education

Education is the most fundamental means to expand opportunities, to build capabilities and to safeguard freedom. Access to education is very important for making informed choices, to participate in economic and political activities, using modern technologies and to acquire protection against exploitation. It is not only a mean to raise productivity to increase earning or to enhance human capabilities but it is also an end. Denial of access to education means denial of basic freedom for building better future

for the society as a whole (Arunachal Pradesh Human Development Report 2005). Gender disparities in educational attainments reflect the existence of gender inequalities in a society or a region. Closing the educational gender gap is economically desirable for four reasons –

1. The rate of return on women's education is higher than that on men's in most developing countries.

2. Increasing women's education not only increases their productivity on the farm and in the factory but also results in greater labor force participation, later marriage, lower fertility, and greater improved child health and nutrition.

3. Improved child health and nutrition and more educated mothers lead to multiplier effects on the quality of a nation's human resources for many generations to come.

4. Because women carry a disproportionate burden of the poverty and landlessness that permeates developing societies, any significant improvements in their role and status via education can have an important impact on breaking the vicious circle of poverty and inadequate schooling (Wadi D. Haddad et al., 1990).

Thus, education of women leads to greater access to resources, better health, better child care, reduction of fertility and better decision making. Considering all these facts an attempt has been made to look in to the progress made by *Rabha* women in the sphere of education.

5.2.1 Gender Wise Distribution of Educational Status

Here an attempt has been made to analyze gender wise distribution of educational status among the *Rabhas* prior to study the female literacy rate and female adult literacy rate. Table 5.2 provides gender wise distribution of educational status among the sample population.

Table 5.2

Gender Wise Distribution of Educational Status among the *Rabhas*

Level of Education	Male		Female		Total	Percentage
	Nos.	%	Nos.	%		
Illiterate	83	12.90	132	22.29	215	17.40
Primary	106	16.46	72	12.16	178	14.40
Middle English	97	15.06	100	16.89	197	15.94
Up to HSLC	165	25.62	151	25.51	316	25.57
Up to HS	100	15.25	59	9.97	159	12.86
Graduate	24	3.72	13	2.20	37	2.99
Post Graduate	4	0.62	3	0.51`	7	0.56
Doesn't arise (child)	56	10.09	62	10.47	127	10.27
Total	**644**	**100**	**592**	**100**	**1236**	**100**

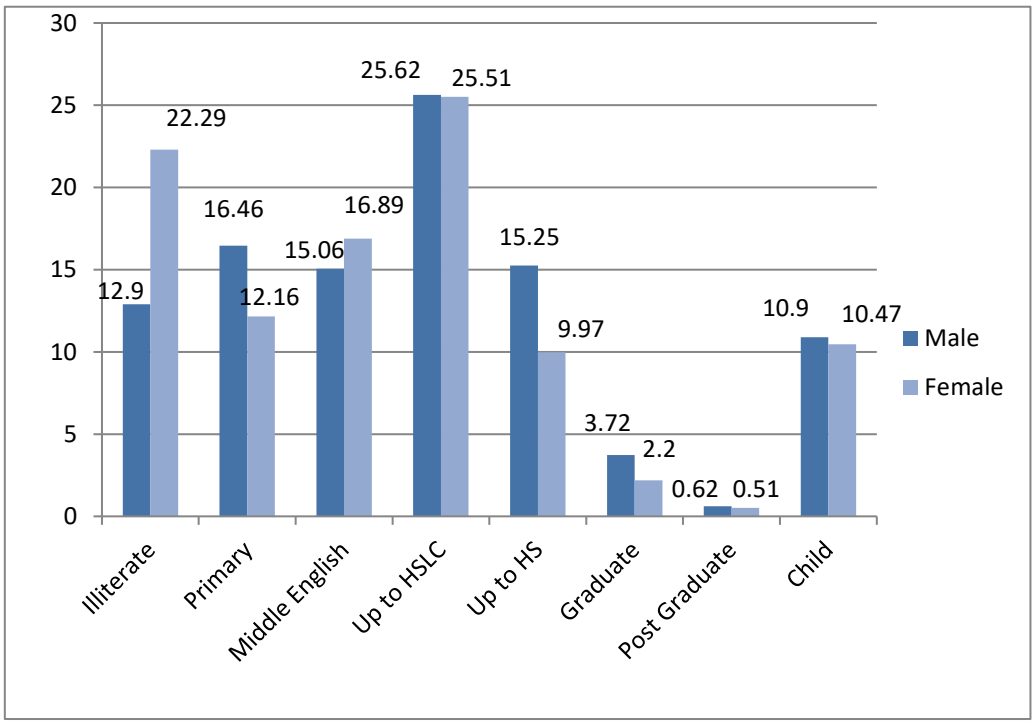
Source: Field Survey

From the table 5.2 it can be observed that proportion of illiterate person is higher among females (22.29 percent) as compared to male (12.90 percent). Majority of the female population have their education up to Middle English school (16.89%) and up to HSLC (25.51%). On the other hand, it should be mentioned that proportion of the sample population having higher education is more among the males than female.

Figure 5.1 depicts the gender wise distribution of educational status among the sample population.

Figure 5.1

Gender Wise Distribution of Educational Status



5.2.2 Literacy Rate

According to the census of India, a person aged 7 years or more than 7 years who can read and write with understanding in any language is called a literate person (Census of India). A person who can merely read but cannot write is not categorized as a literate person. Any formal education or minimum standard of education is not necessary to consider a person as literate. In order to measure the gender gap in literacy rate both male and female literacy rate has been calculated separately for the *Rabhas* of Goalpara district. The female literacy rate, male literacy rate and gender gap in literacy rate in shown in table 5.3.

Table 5.3

Comparison of Male and Female Literacy Rate

	Male Literacy Rate	**Female Literacy Rate**	**Gender Gap in Literacy Rate**
Rabhas	85.6	75.1	10.1

Source: Field Survey

Thus from table 5.3 it can be observed that male literacy rate is 85.6 percent and female literacy rate is 75.1 percent among the sample population. The gap between the male literacy rate and female literacy rate is 10.5 percent which is very high and warrants immediate attention.

5.2.3 Adult Literacy Rate

Adult Literacy rate is a very important component of HDI and it is considered as the most important parameter of educational attainment (NHDR 2011). UNDP in its first Human Development Report (HDR 1990) used only adult literacy rate to measure the educational attainment for the construction of Human Development Index. The Adult Literacy Rate is defined as the percentage of total population aged 15 years and over who can both write read and with understanding a short simple statement on

his/her everyday life. Here in order to see the gender gap in adult literacy rate both male and female adult literacy rate have been calculated separately. According to the field survey data the female adult literacy rate among the *Rabha* tribe is found 71 percent. On the other hand male adult literacy rate is found 82.3 percent. Thus we can see a huge gender gap in terms of Adult literacy rate among the *Rabhas* of Goalpara district of Assam.

5.2.4 Gross Enrolment Ratio

The Gross Enrolment Ratio for the *Rabhas* has been calculated for both male and female population and it is found 100 percent enrolment ratio in both the cases. Thus in case of Gross Enrolment Ratio, there is no discrimination or disparity between male and female population of the *Rabhas* which is a very good sign.

5.3 Gender Gap in Income

The income gap among the male and female population has also been calculated. Here the per capita income of both male and female population has been calculated in order to see the gender gap in income among the *Rabhas*. It has been estimated that the per capita income of the male population is Rs. 40178/- while the per capita income of the female population is Rs 23606/-. On the other hand, the per capita income of the entire population is Rs. 32241. So we can clearly see that there is a huge difference between the per capita income of the male and female population. Here per capita income gap is Rs. 16572/-.

5.4 Work Participation Rate

The contribution of women in economic field remains underreported in the official data system because of the problems associated with the valuation of unpaid and

unaccounted work. Work participation rate among the male and female population can also reflect the gender gap. Therefore, work participation rate among the people of age group 15-59 has been calculated. Work participation rate as defined by the census of India is the proportion of total workers involved in various economically productive works to total population.

$$\text{Work Participation Rate} = \frac{W}{P} \times 100$$

Where, W = Total Workers

P = Total Population

The table 5.4 shows the work participation rate of male and female *Rabha* population.

Table 5.4

Work Participation Rate between the Age Group (19-59)

	Male	Female
Work Participation Rate	65.52%	40.37%

Source: Field Survey

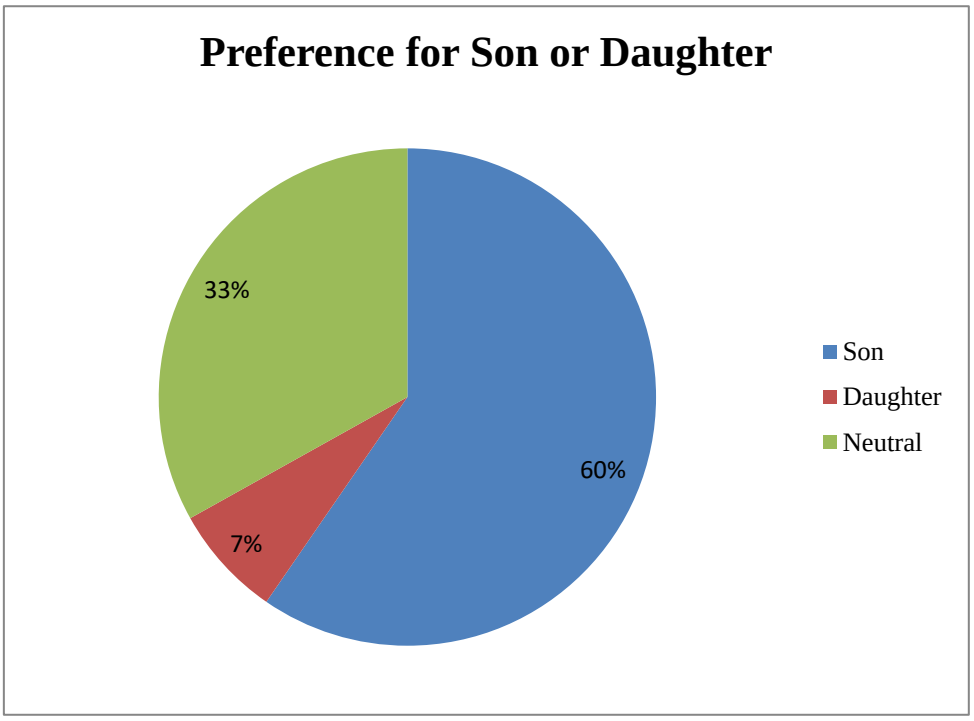
It is observed from the above table that work participation rate among the male population is higher than the female population. Thus we can see gender gap with respect to work participation rate among the *Rabhas* of Goalpara district of Assam.

5.5 Son Preference

Differential treatment to the girl child within the family is related to the male child preference. There are many reasons for the preference of male child. Among them the most important are son is considered as old age insurance of the parents and again our

socio cultural value system attaches a higher importance to boys than girls (APHDR 2005). According to the sample survey data 59.6 percent of the married women want sons than daughter and only 7.3 percent want daughters than sons. On the other hand, 33.1 percent of them are neutral about son or daughter. Thus we can see preference for a son is higher among the *Rabhas*.

Figure 5.2

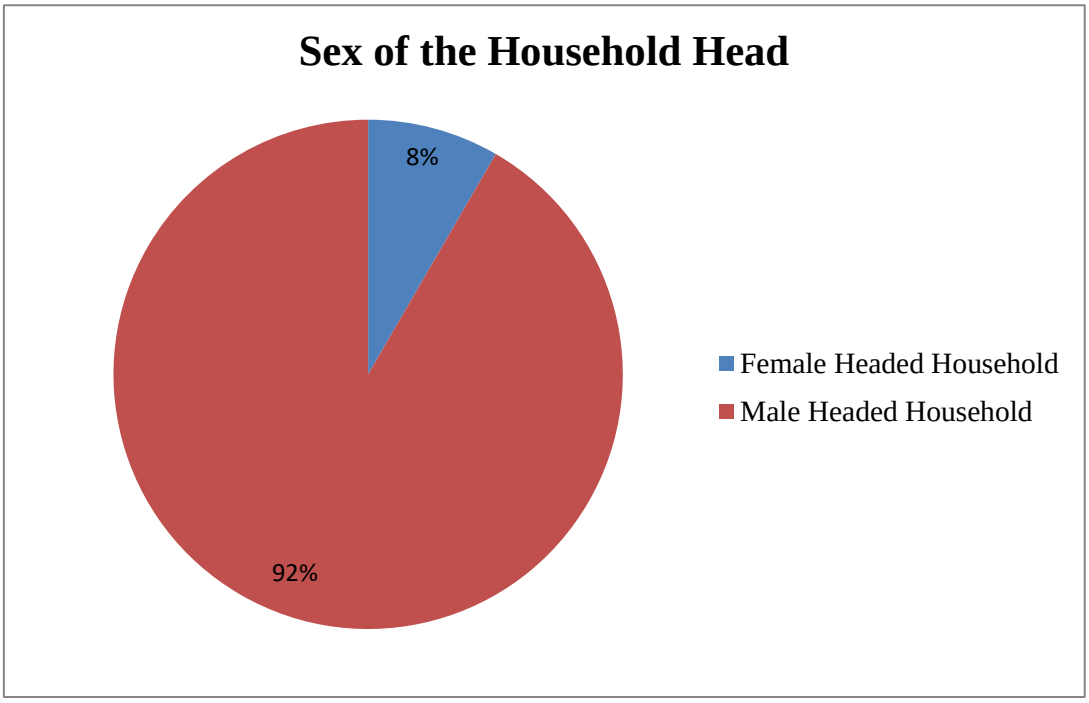


5.6 Female Headed Households

Female headed households have emerged as an important indicator of the gender dimension. However, in most of the studies it is found that the female headed households are poorer than others and headship of the family is considered as a potential useful criterion for targeting anti poverty interventions (Buvinic and Gupta, 1997). The proportion of female headed households among the *Rabhas* of Goalpara

district is only 8.36 percent which is lower than the national average of 13.17 percent and state average of 10.23 percent in 2011.

Figure 5.3



5.7 Witch Hunting and Violence against Women among the *Rabhas*

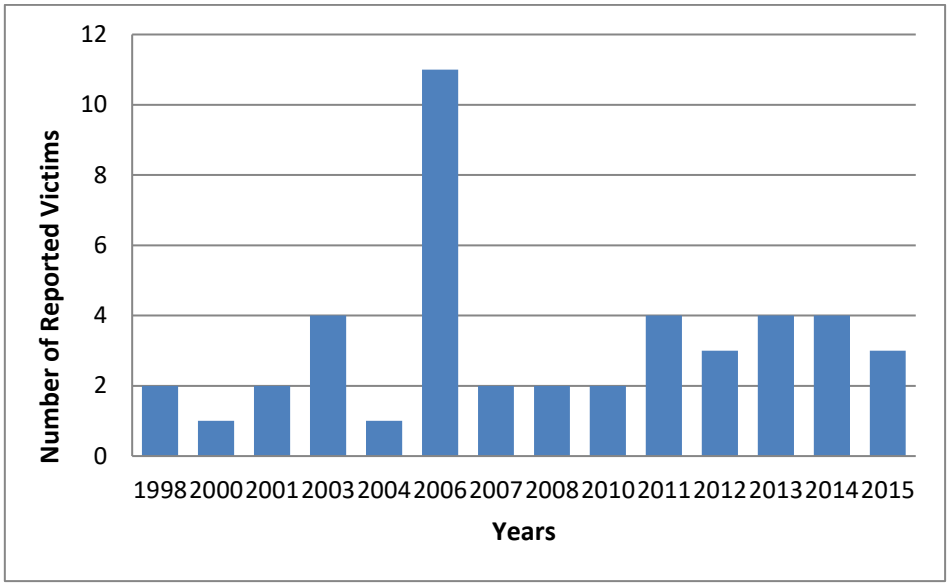
Witch hunting is a form of gender violence, much ugly; less discussed and largely overlooked (Iqbul, 2015). It is a social menace triggered by lack of information and fuelled by superstitions (Nath, 2016). Witch hunting is an act of violence against women whereby the community sanctions the punishment meted out to the person being accused of witch (Chakraborty and Borah, 2013). Witch hunting is understood as a manifestation of low social status of women where violence and dominance against women are legitimized by calling her a witch (Choudhuri, 2012). Assam in the recent

years has witnessed more than 400 cases of witch hunting. This practice is more prominent among the different tribal or indigenous communities of Assam like *Rabhas, Bodos* and *Hajongs*. Geographically Goalpara district is the worst affected district in Assam in terms of the prevalence of witch hunting practices. Lack of education, lack of standard health care facilities and wide spread poverty are the main reasons of witch hunting.

Witch hunting is a serious issue of gender violence. It is a legacy of gender violence because it is the women who are victims of witch killing. The practice of witch hunting is very common among the *Rabhas*. The witch is believed to cause ailment to people, destroy live stocks and crops. Among *Rabhas* the witch is identified by a *'bez'* or *'ojah'* and either banished from the community or killed. In most of the cases they are kicked out of the house, stripped naked, paraded naked across village, hair burnt, her teeth pulled out and nose is slit; she is also whipped with sandals and sticks (Iqbal, 2015). During the period of 1998 to 2015, a total of 45 cases of witch hunting were reported from the *Rabha* community of Goalpara district (AMSS Report). The figure 5.4 shows the year wise number of *Rabha* victims of witch hunting from Goalpara district.

Figure 5.4

Number of Reported *Rabha* Victims of Witch Hunting From Goalpara District



In the present study an attempt has been made to see whether there is any linkage between human development and witch belief among the respondents. Here one of the important dimensions of human development i.e. education of the respondents are taken to see its association with witch belief by using chi-square test. The cross classification of education of the respondents and respondents' belief in witches shows that percentage of illiterate person who personally belief in witches is 81.52 percent and percentage of illiterate person who don't belief in witches is 18.47 percent. Here percentage of illiterate person who belief in witches (81.52) is significantly higher. Again percentage of literate person who belief in witches is 42.07 percent and who don't belief in witch is 57.92 percent. Here the percentage of literate person who don't belief in witches is higher. The chi-square value has been found 38.531, which is significant at 1 percent level with 1 degree of freedom.

Table 5.5

Association between Education of the Respondents and their Belief in Witches

Education	Belief in Witches		
	Yes	No	Total
Illiterate	75 (81.52)	17 (18.47)	92 (100)

Literate	77 (42.07)	106 (57.92)	183 (100)
Total	152 (55.27)	123 (44.72)	275 (100)
Chi-Square Test Result			
Chi-Square Value	Degree of Freedom	Remarks	
38.531	1	1 % level of significance	

Thus we can say that there is a close association between the education of the respondents and their belief in witches.

5.8 Construction of Gender Development Index for the *Rabhas*

In order to assess the gender disparity among the *Rabhas* we have constructed the Gender Development Index from the sample survey data. GDI was introduced by UNDP's Human Development Report 1995. "*The GDI measures the achievement in the same basic capabilities as the HDI does, but takes in to account inequality in achievement between men and women. The methodology used imposes a penalty for inequality such that GDI falls when the achievement levels of both sexes go down or when disparity between their achievements increases. The greater the disparity in basic capabilities, lower a country's GDI compared to HDI*" (HDR 1995). The GDI adjusts the average achievement to reflect the disparities between women and men in the following dimension –

(a) A long and healthy life as measured by life expectancy at birth.

(b) Knowledge as measured by the Adult Literacy Rate and Combined Gross Enrolment Ratio.

(c) Decent standard of living, measured by estimated earned income.

As the community level data are not available, therefore some adjustment are made and proxies are used to construct GDI just like HDI. In the present study, to construct the health index, Infant Mortality Rate among the sample population is used. Again Adult Literacy Rate and Mean Years of Schooling of 15+ age group are used to construct the education index by giving $^2/_3$ and $^1/_3$ weight respectively. Again to calculate the income index, Annual Per Capita Income of both male and female population is calculated separately.

In order to construct the Gender Development Index of the *Rabhas* we have to fix the goalposts of each indicator. Let us consider the following table.

Table 5.6

Goalposts of the Indicators

Indicators	Minimum	Maximum
Infant Mortality Rate	0	74
Adult Literacy Rate	0	100
Mean Years of Schooling	1	15
Per Capita Income	16632	63444

(Infant Mortality Rate of Kokrajhar district is taken as the maximum value as Kokrajhar district has the highest Infant Mortality Rate as compared to the other districts of Assam according to Annual Health Survey Bulletin, Assam, 2012-13. Maximum and Minimum Values of Adult Literacy Rate are set according to UNDP's Human Development Reports. Maximum and Minimum Values of Mean Years of schooling are set as the Assam Human Development Report, 2014. Per capita annual income of Kamrup(M) district and Hailakandi district are set as the maximum and minimum as these two districts have the maximum and minimum annual per capita income among all other districts of Assam as per the Assam Human Development Report, 2014.)

In order to calculate GDI, male and female indices in each dimension are calculated separately as follows –

5.8.1 Health Index

Since Infant Mortality Rate is negatively related to HDI, so we use the following formula to calculate the health index.

$$\text{Female Health Index} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

$$= \frac{74 - 54.54}{74 - 0}$$

$$= \frac{19.46}{74}$$

$$= 0.262$$

$$\text{Male Health Index} = \frac{\text{Maximum Value} - \text{Actual Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

$$= \frac{74 - 39.21}{74 - 0}$$

$$= \frac{34.8}{74}$$

$$= 0.470$$

Equally Adjusted Health Index =

$$\{[\text{Female Population Shares (Female Index}^{-1})] + [\text{Male Population Shares (Male Index}^{-1})]\}^{-1}$$

$$= \left\{\left[\frac{47.90}{100} \times (0.262^{-1})\right] + \left[\frac{52.10}{100} \times (0.470^{-1})\right]\right\}^{-1}$$

$$= (1.828 + 1.108)^{-1}$$

$= (2.936)^{-1}$

= 0.340

5.8.2 Education Index – Education Index is constructed by the following formula

Female Adult Literacy Rate Index = $\frac{\text{Actual Value – Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$

$= \frac{71-0}{100-0}$

= 0.71

Female Mean Years of Schooling Index = $\frac{\text{Actual Value – Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$

$= \frac{7.56-0}{15-0}$

$= \frac{7.56}{15}$

= 0.504

Female Education Index = $^{2}/_{3}$(Adult Literacy Rate Index) + $^{1}/_{3}$(MYS Index)

= $^{2}/_{3}$ (0.71) × $^{1}/_{3}$(0.504)

= 0.473 + 0.168

= 0.641

Now, Male Adult Literacy Rate Index = $\frac{\text{Actual Value – Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$

$= \frac{82.30-0}{100-0}$

= 0.82

Male Mean Years of Schooling Index = $\frac{\text{Actual Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$

$= \frac{8.62-0}{15-0}$

$= 0.575$

Male Education Index = $^{2}/_{3}$(Adult Literacy Rate Index) + $^{1}/_{3}$(MYS Index)

$= {}^{2}/_{3}(0.82) + {}^{1}/_{3}(0.575)$

$= 0.55 + 0.19$

$= 0.74$

Therefore, Equally Distributed Education Index

$= \{\left[\frac{47.90}{100} \times (0.64^{-1})\right] + \left[\frac{52.10}{100} \times (0.74^{-1})\right]\}^{-1}$

$= (0.748 + 0.704)^{-1}$

$= (1.45)^{-1}$

$= 0.688$

5.8.3 Income Index – Income Index is also calculated separately for both male and female population by the following formula

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

$= \frac{\ln(23606) - \ln(16632)}{\ln(63444) - \ln(16632)}$

$= \frac{10.06 - 9.72}{11.05 - 9.72}$

$$= \frac{0.34}{1.33}$$

$$= 0.255$$

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

$$= \frac{\ln(40178) - \ln(16632)}{\ln(63444) - \ln(16632)}$$

$$= \frac{10.60 - 9.72}{11.05 - 9.72}$$

$$= \frac{0.88}{1.33}$$

$$= 0.661$$

Therefore, Equally Distributed Income Index

$$= \left\{\left[\frac{47.90}{100} \times (0.255^{-1})\right] + \left[\frac{52.10}{100} \times (0.661^{-1})\right]\right\}^{-1}$$

$$= (1.87 + 0.788)^{-1}$$

$$= (2.65)^{-1}$$

$$= 0.377$$

Therefore, The Gender related Development Index

$$= \sqrt[3]{EAI_H \times EAI_E \times EAI_I}$$

Where, EAI = Equally Adjusted Index

$$= \sqrt[3]{0.340 \times 0.688 \times 0.377}$$

= 0.440

The GDI among the *Rabhas* is 0.440 which is lower than the HDI value of 0.489. The difference between GDI and HDI of a particular region or community indicates the prevailing gender disparity in that region or community. Greater the gap between GDI and HDI greater is the gender inequality. Difference between the GDI and HDI implies that women are in disadvantageous position in comparison to their male counterpart.

5.9 Answer to the Second Research Question

The second research question was regarding the difference between the HDI and GDI. In this chapter the GDI of the community has been calculated as 0.440 which is lower than the HDI of the community. The difference between GDI and HDI among the *Rabhas* is 0.049 which indicates that women don't have the same level of development opportunities as men.

CHAPTER - 6

SUMMARY AND CONCLUSION

This chapter reviews the major findings of the present research and suggests certain policy measures. Section 6.1 reviews the major results obtained in the previous chapters. On the basis of these results the answers to the research questions are given. Again section 6.2 provides the policy suggestions for the upliftment of the *Rabhas.*

6.1 Summary of the Major Findings –

Chapter wise major findings of the study are outlined below –

The first chapter is an introductory one. It summarizes the concept of Human Development. After that a brief description about the study area and the tribe under the study is provided followed by the importance of the study, objectives of the study, research questions and methodology of the study.

The second chapter reviews the exiting literature relating to human development. Here literature survey has been divided into three parts – firstly, review of Global, National and State Human Development Reports; secondly, reviews of studies made by individual researchers on Human Development and thirdly, review of studies relating to the socio economic conditions of the *Rabhas*.

The third chapter is related to the socio economic and demographic features of the sample *Rabha* households. The major findings of this chapter are –

1. In the present study it is found that 266 households (i.e. 96.73 percent) follow Hindu religion and the rest 9 households (i.e. 3.27 percent) follow Christianity.
2. According to this study nuclear family is becoming more common among the *Rabhas.* Out of the 275 households 72 percent households (i.e. 198 households)

have nuclear family and 28 percent of the sample households (i.e.77 households) have joint family.

3. The sex ratio of the *Rabha* community has been found 919 which are lower than national average and the state average according to both 2001 and 2011 census. On the other hand, the child sex ratio (0-6 years) is estimated at 954 for the *Rabhas* which is slightly lower than the state average (957) and higher than the national average (914) in 2011.

4. Male literacy rate among the *Rabhas* is 85.6 percent which is higher than the national average of 80.9 percent and 78.81 percent of Assam (According to census 2011). On the other hand, female literacy rate among the *Rabhas* is 75.1 percent which is also higher than Assam (67.27 percent) and national average (65.46 percent) according to 2011 census. Again the literacy rate for the entire sample population is 80.6 percent which is higher than the state (73.18 percent) and National average (74.04 percent) as per 2011 census.

5. The *Rabhas* are predominantly agriculturalists. It is found that 34.06 percent of the total sample population is agriculturalists. On the other hand, only 4.37 percent is government employees; 2.91 percent are private employees and 2.50 percent is businessmen.

6. The average per capita income of the sample population is estimated to be rupees 2686/- per month, which shows that each *Rabha* person earn on an average of Rupees 89.53/- per day.

7. On the basis of the primary data Gini Coefficient has been calculated for the *Rabha* community to measure the inequalities in the distribution of income among them. Gini Coefficient is estimated as 0.24 which indicates less skewed distribution of income among the *Rabhas*. Again Gini Coefficients for the three

sample revenue circles have also been calculated in order to compare the relative income inequalities in the distribution of income among the three revenue circles. It is found from the primary data that Gini Coefficient of *Balijana* Revenue Circle is 0.39 which is considerably higher than the Gini Coefficients of *Krishnai* Revenue Circle and *Kusdhowa* Revenue Circle which is 0.15 and 0.14 respectively. Thus we can say that the inequality in the distribution of income is higher in *Balijana* revenue circle than in *Krishnai* and *Kusdhowa* revenue circle.

8. It is found most of the sample households i.e. 36.73 percent households have monthly consumption expenditure up to Rupees 5000. Again, 35.27 percent households have monthly consumption expenditure between rupees 5001 to 10000; 14.91 percent sample households have monthly consumption expenditure between rupees 10001-15000 and 8.71 percent sample household have monthly consumption expenditure between rupees 15001-25000. 3.63 percent sample households belong to the group of rupees 25001-35000 and only 0.73 percent sample households have monthly consumption expenditure above rupees 35001.

9. Asset possession of the sample households is not satisfactory. It is observed that only 4 percent of the households have power tiller and 2.9 percent of the sample households have pump set which indicates the use of traditional methods of cultivation by the *Rabha* people. Again 10.9 percent households have radio; 47.64 percent households have T.V.; 12.63 percent have refrigerator, 5.1 percent households have computer; 46.19 percent households have L.P.G stove; 7.64 percent have inverter; 98.91 percent have mobile phones; 89.82 percent households have bicycle and 9.45 percent sample households have mixer

grinder. Again 32 percent sample households have motor cycles, 1.45 percent have car and 92 percent have fan.

10. It is found that percentage of the sample households having pucca houses is 24.73 percent; percentage households having semi pucca houses is 37.82 percent and percentage of households having kutcha houses is 37.45 percent.

11. Use of electricity is a very important socio economic variable and sometime it is used as an indicator of socio economic progress. Majority of the sample households (95.27 percent) use electricity as the main source of lighting. On the other hand, only 3.27 percent households use kerosene as the main source of lighting. On the other hand, 1.45 percent households use solar energy as the main source of lighting.

12. Most of the *Rabhas* are still using firewood as a source of cooking energy. It is found that 27.27 percent of the sample households use L.P.G as fuel for cooking. On the other hand, 53.82 percent households use firewood for their cooking purposes. Again, 18.91 percent sample households use both L.P.G and firewood as cooking fuel.

13. Survey data show that majority of the sample households i.e. 55.6 percent households (153 households) use Tube Well as the main source of drinking water while 40 percent i.e. 110 households use Well water as the main source of drinking water. On the other hand 4.3 percent households i.e. 10 households use Pond water as the main source of drinking water.

14. It is found that only 29.45 percent households have sanitary toilet. On the other hand, majority of the households i.e. 62.5 percent households have pit toilet. Again 8 percent sample households don't have toilet facility.

15. Primary survey reveals that percentage of households having pucca bathroom facility is 16; percentage of households having kutcha bathroom facility is 26.54 and majority of the households i.e. 57.41 percent households don't have bathroom facility.

16. In order to measure the level of deprivation among the *Rabhas* Deprivation Index has been constructed from primary data. The deprivation index is found 56.3 which indicate higher level of deprivation among them.

17. It has been observed that 8.37 percent of the households have own less than 1 acre of land, while 51.27 percent households own land between 1 to 2 acres; 26.2 percent of the households own land between 2-3 acres; 7.64 percent households hold between 3 to 5 acres of land; 2.55 percent of the sample households hold between 5 to 7 acres of land and 4 percent of the sample households hold more than 7 acres of land. Moreover, the average size of land holding among the sample household is found 2.56 acres.

18. It is found that 10.54 percent respondents use only chemical fertilizers in the crops, while 42.18 percent respondents use only organic fertilizers in the crops. On the other hand, 47.27 percent respondents use both chemical and organic fertilizers in their agricultural field. Again only 4.7 percent of the sample respondents practice double cropping pattern indicating that agricultural sector is still poor among the *Rabhas* of Goalpara district. At the same time irrigational

facility is also not adequate among the farmers. It is found that 6.5 percent of the total respondents have irrigation facility which can be regarded as a main factor of poor agriculture among the *Rabhas*. Again most of the respondents use bullocks to plough their land instead of using tractors and power tillers.

The forth chapter is related to the status of Human Development among the *Rabhas*. The major findings of this chapter are –

1. The Infant Mortality Rate of the community is found as 47.17 per thousand live births which is higher than the state average of 44 and national average of 34 in 2016 as per the NITI Ayog data.

2. The Maternal Mortality Rate of the community is found 943 per 100000 live births which is much higher than the national average of 130 and state average of 237 in 2014-16 as per NITI Ayog data.

3. The estimated Crude Death Rate of the sample population is 5.01 per thousand population which is lower than the state average of 7.01 and Indian average of 6.50.

4. The estimated Crude Birth Rate for the sample population is 17.15 per thousand population which is lower than the state average of 20.8 and national average of 19.27 in 2015.

6. In the present study the Growth rate of the population is found 12.2 which is slightly lower than the national average of 12.77 and the state average of 13.7 in 2015.

7. It is found from field survey data that 34.18 percent of the sample respondents still depend on the *Bej* or *Kabiraj* for treatment of diseases. On the other hand, the remaining respondents i.e. 65.81 percent use to visit doctors for the treatment of diseases.

8. In our study Mean Years of Schooling is found as 8.1 years for the sample population of 15 + age group.

9. In the present study, yearly per capita income of the sample population is found rupees 32241.

10. The Human Development Index for the *Rabha* community of Goalpara district is estimated at 0.489 which fall in the low human development category. The HDI value of the *Rabhas* is lower than the national average of 0.640 and state average of 0.605 in 2017 (source: Sub national HDI – Area Database – Global Data Lab).

The fifth chapter is related to the gender gap prevailing among the *Rabhas*. The major findings of this chapter is mentioned below –

1. According to the sample survey data the female infant mortality rate among the *Rabhas* are 54.54 which is higher than the male infant mortality rate of 39.21.

2. It is found that male literacy rate is 85.6 percent and female literacy rate is 75.1 percent among the sample population. The gap between the male literacy rate and female literacy rate is 10.5 percent which is very high and warrants immediate attention.

3. The female adult literacy rate among the *Rabha* tribe is found 71 percent and male adult literacy rate is found 82.3 percent. Thus we can see a huge gender

gap in terms of Adult literacy rate among the *Rabhas* of Goalpara district of Assam.

4. In case of Gross Enrolment Ratio, there is no discrimination or disparity between male and female population of the *Rabhas*.
5. It has been found that the per capita income of the male population is Rs. 40178/- while the per capita income of the female population is Rs 23606/-. Thus there is a clear difference between the per capita income of the male and female population. Here per capita income gap is Rs. 16572/-.
6. The work participation rate among the male population is higher than the female population among the *Rabhas*. Thus there is gender gap with respect to work participation rate among the *Rabhas* of Goalpara district of Assam.
7. The proportion of female headed households among the *Rabhas* of Goalpara district is only 8.36 percent which is lower than the national average of 13.17 percent and state average of 10.23 percent in 2011.
8. The GDI of the community has been calculated as 0.440 which is lower than the HDI of the community. The difference between GDI and HDI among the *Rabhas* is 0.049 which indicates that women don't have the same level of development opportunities as men.

6.2 Policy Recommendations for the Upliftment of the *Rabhas*

The following suggestions are given for the development of the community –

1. Though literacy rate of the sample population is higher than the national and state average, percentage of population having higher education is negligible. Again quality of educational infrastructure is not up to the mark in different

Rabha villages. Therefore, the government should take necessary steps to improve the standard and quality of education among the *Rabhas*.

2. The unemployment rate among the *Rabhas* is 8.625 which is much higher than the national and state average. Therefore the state should adopt measures to reduce the rate of unemployment by creating avenues for employment.

3. In spite of having very high literacy rate, most of the *Rabhas* are superstitious. Most of them still believe in witch craft and black magic. Again the proportion of people using traditional and non scientific methods of treatment of diseases is very high among *Rabhas.* So necessary steps should be taken by the government and concern bodies to remove all the superstitious believes.

4. As we know that most of the *Rabhas* are agriculturalists and they are using the traditional methods of cultivation. Therefore provisions must be created to develop the agricultural sector. It is not possible to develop the community without developing the agricultural sector.

5. Provisions of irrigational facility, Pucca houses, sanitary toilet, bathroom facility etc. are not adequate among the *Rabhas*. Provisions of such facilities should be provided to all the needy people of the community.

6. The HDI value of the community fall in the low human development category which indicates attainment in health, education and income of the *Rabhas* are not satisfactory. So measures should be taken for the expansion of human capabilities among the *Rabhas*.

7. Gender gap is prevailing among the *Rabhas*. There is huge gender gap inn literacy rate, adult literacy rate, mean years of schooling, infant mortality rate

and work participation rate. Again the practice of witch hunting is quite common among them. So necessary steps should be adopted by the government for the development of the *Rabha* women.

8. Disaggregated HDI should be calculated by the government so that the level of development of different tribes and communities can be measured. Because sometime it happens that in the process of constructing state level or national level HDI, the real picture of development of different sections of the society being missed out or remain suppressed. So in order to get the real picture of development and thereby take appropriate policy for the development of the under privileged section of the society, disaggregated HDI should be calculated by the government.

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QUESTIONNAIRE

Confidential and for Research Purpose Only

Human Development among the Rabhas: A Study in Goalpara District of Assam

Name of the Investigator……. Date of Investigation……

Name of the Village…… Name of the Block…….

Name of the District……..

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1. **Identification and family details** :
   a. Name of the Respondent: …….
   b. Religion: ……..
   c. Type of Family: ☐ (Nuclear =1, Joint =2)
2. **Details of the family:**

No of person (1)	Relation with Respondent (2)	Sex (3)	Age (Years) (4)	Education Level (5)	Personal status (6)	Occupation (7)

Codes used:
Column (2) – Self=1, Spouse=2, Son=3, Daughter=4, Father= 5, Mother=6, Grandfather=7, Grandmother=8, Other=9
Column (3) – Male=1, Female= 2

Column (5) – Illiterate=0, Primary=1, Middle=2, High School=3, Higher Secondary=4, Graduate=5, Post graduate and above=6, Other=7
Column (6) – Child=0, Unemployed=1, Student=2, Housewife=3, Retired=4, Employed=5, Self employed=6
Column (7) – Govt. Service=1, Private service=2, Business=3, Agriculture=4, Agro based industry=5, Daily wage earner=6, Professional=8, Other(specify)=9

3. Cause of illiteracy:

Lack of opportunities for education =1, Economic cause =2, Lack of interest =3, Social cause =4, Other =5 ☐

4. Housing condition:

a. Type of house: Pucca =1, Semi pucca=2, Kutcha=3 ☐

b. Number of rooms in the house: ……

c. Source of drinking water: Pond=1, Well=2, Tube well=3, Water supply=4, common source=5, Own pump=6, River=7 ☐

d. Do you treat water before drinking? Yes=1, No=2 ☐

If yes, how: Boiling=1, Electric filter=2, Non electric filter=3, pills=4 ☐

e. Source of lighting: Electricity=1, kerosene=2, solar=3 ☐
f. Toilet facility: Scientific flush toilet=1, pit toilet=2, No toilet facility=3 ☐
g. Type of fuel you used for cooking: LPG=1, Kerosene=2, Woods=3, Other=5 ☐
h. Drainage facility: Yes=1, No=2 ☐

3. Enrollment status:

Total number of children eligible For enrolment (6-11 years)			Nos of children enrolled		
Male	Female	Total	Male	Female	Total

4. Information Relating to Family Income

Income Earning Members of the Family	Sex	Income from the main occupation (Monthly)	Income from the Secondary Occupation (Monthly	Total Income (Monthly)
1				
2				
3				
4				
5				
6				
7				
Total				

5. Particulars of Households' Expenditure:

SL. No.	Heads	Rs. Per month
1	Food	
2	Cooking Fuel	
3	Clothing	
4	Health	
5	Transportation	
6	Education	
7	Electricity Bill	
8	Telephone Bill	
9	Others	
	Total	

6. Health Condition:

a. Do you have a health centre nearly? Yes=1, No=2 ☐

b. When sick where do you go for the treatment? Government Hospital=1, Private Hospital=2, Bej or Ojah=3 ☐

c. Is there any physically or mentally handicapped person in the household?

Details of Handicapped persons:

SL No	Sex	Type of Handicap

d. Whether any member of the household suffered from any acute disease during the last month?

Details of ailments during the last 30 days

SL No	Sex	Name of the diseases	Number of days affected

e. Whether any member of the household suffers from any chronic disease?

Details of the chronic diseases:

SL No	Sex	Name of the diseases	Duration

f. Was there any birth took place in your household during last 5 years (2014, 2015, 2016, 2017, 2018) Yes=1, No=2 [ ]

If yes, how many? Male…… Female……. Total……

Details of Birth:

Sl. No. of Birth	Year	Birth Order	Sex of the new born

1			
2			
3			

g. Was there any death within one year took place in your household during last 5 years (2014, 2015, 2016, 2017, 2018) Yes=1, No=2 ☐

If yes, how many? Male…… Female…… Total……..

Details of deaths:

Order of Death	Year of Death	Sex Male=1, female=2	Age at Death	Cause of Death (Specify)	Place of Death (specify)

h. Did you register the incidence of birth or death in your family? Yes=1, No=2 ☐

i. Did you vaccinate your children? Yes=1, No=2 ☐

7. Banking / Credit/Investment:

a. Do you have bank account? Yes=1, No=2 ☐

b. Do you have ATM card? Yes=1, No=2 ☐

c. Have you taken loan? Yes=1, No=2 ☐

d. If yes, amount taken in Rs.

e. Loan taken from: Bank=1, Relative=2, Friend=3, Moneylender=4 ☐

f. Do you have any savings? Yes=1, No=2 ☐

g. If yes, amount in Rs ……..

h. Saving in: Bank=1, Home=2 ☐

i. Any other lending: yes=1, No=2 ☐

j. If yes, amount lent (in Rs)……..

8. Social and life style related information:

☐

a. Is any member of the family having any type of addiction? Yes=1, No=2

b. Frequency of addiction: Regularly=1, Occasionally=2 ☐

c. Do you insist about male child? Yes=1, No=2 ☐

d. Is any kind of gender discrimination having in your family? Yes=1, no=2 ☐

e. Is your family favorable for girls' education? Yes=1, No=2 ☐

9. Land holding (in Bighas) ……

Details of land utilization:

Homestead	Cultivable land	Barren Land	Others (Specify)	Total

a. Have you adopted double cropping pattern? Yes=1, No=2 ☐

b. Do you possess irrigation facilities? Yes=1, No=2 ☐

If yes, type of irrigation facility: Cannel=1, Pump=2, Tube well=3, well=4, others (specify)= 5 ☐

c. Do you use any kind of fertilizers/ insecticides/pesticide in your crop fields? ☐

……

If not, reasons behind it

……

d. Do you use organic fertilizer in your cultivation? Yes=1, No=2 ☐

e. Nos. of Cattle you have……..

10. Transport and communication

a. Access to information: Yes=1, No=2

Radio= ☐

Television= ☐

Telephone= ☐

Newspaper= ☐

Internet= ☐

b. Mode of transport: Foot=1, Bicycle=2, Motor Bike=3, Bus=4, other=5 ☐

c. Road condition of the village: Pucca=1, Kutcha=2, Sand graveled=3 ☐

11. Possession of the consumer durable:

Item	How many	Expected current selling price	Item	How many	Expected current selling price
Television			Refrigerator		
Mobile			LPG stove		
Motorcycle			Mixer Grinder		
Car			Computer		
Bicycle			Electric Fan		
Tractor			Inverter		
Radio			Sewing Machine		
Solar Battery			Pump set		
Electronic Heater			Other(Spcify)		

12. Livestock

Item	How many	Expected price	Item	How many	Expected Price
Bullock			Goat		
Cow			Hen		
Buffalo			Duck		
Sheep			Other(Specify)		

13. Witch Hunting

a. Do you personally belief in witches? Yes=1, No=2 ☐

b. Have you ever witnessed witch hunting? Yes=1, No=2 ☐

c. If the 'Ojha' or 'Bez' of your community identify someone as witch do you belief him? Yes=1, No=2 ☐

d. If an incident of witch hunting occurs in your locality will you cooperate the hunters to kill the witch? Yes=1, No=2 ☐

e. If an incident of witch hunting occurs in your community will you help the victims? Yes=1, No=2 ☐

f. Are witches predominantly women? Yes=1, No=2 ☐

g. Do you think that witch hunting and practices are sustained because they benefit the community or a particular group? Yes=1, No=2 ☐

h. Should the local police or authority interfere in the incidents of violence and deaths related to witch hunting? Yes =1, No=2 ☐

14. Political Participation:

a. Are you a member of any political party? Yes=1, No=2 ☐

b. Are you a member of any organization other than the political party?

Yes=1, No=2 ☐

c. Did you participate in the political process of voting? Yes=1, No=2 ☐

d. Do you know about the composition of Panchayats? Yes=1, No=2 ☐

15. Are you happy with the present standard of living?

If Yes, How much? Very much happy=1, Happy=2, Average=3, Not happy at all=4 ☐

If not, why?

Family related matter=1, Poverty=2, Diseases=3, Unemployment=4 other=5 ☐