

**HEALTH BENEFITS OF TRADITIONAL FOOD AND PLANTS: A  
STUDY AMONG THE ASSAMESE COMMUNITY OF JORHAT  
DISTRICT**

*Dissertation Submitted to Jawaharlal Nehru University in partial  
fulfilment of the requirements for the award of the degree of*

**MASTER OF PHILOSOPHY**

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**2017**



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DATE: 21 July 2017

DECLARATION

I declare that the dissertation entitled “**Health Benefits of Traditional Food and Plants: A Study among the Assamese Community of Jorhat District**” submitted by me for the award of the degree of **Master of Philosophy** of Jawaharlal Nehru University is my own work. The dissertation has not been submitted for any other degree of this University or any other university.

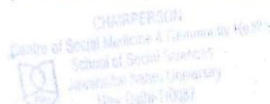
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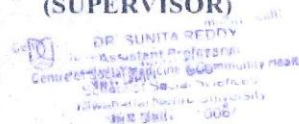
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## **ACKNOWLEDGMENT**

A completed dissertation entitled “Health Benefits of Traditional Food and Plants: A Study among The Assamese Community of Jorhat District”, bears the contribution of several individuals without whom this journey would not have completed. I wish to express my warmest gratitude to all those persons whose comments, questions, criticism, support and encouragement, personal and academic, have left a mark on this work.

First and foremost, I would like to thank my supervisor, Dr. Sunita Reddy, Associate Professor of CSMCH, JNU for accepting me as one of her research students. During my tenure, she contributed her valuable time and suggestions for smooth running of the work. Her constant support and guidance motivated me to learn different ideas and perspectives which helped me throughout the journey of my M.Phil.

I sincerely owe my gratitude to the Centre of Social Medicine and Community Health and all the faculty members for their inspiring words and guidance to understand Public Health and associate aspects of it. The entire time period of M.Phil was a great learning opportunity for me. Coming from a small locality in Jorhat, Assam and adjusting in a wonderful university in New Delhi, the CSMCH family helped me a lot. They have profoundly influenced my way of thinking about the subject of this thesis in many ways. The centre helped me a lot to broaden my perspective in the area of Public Health and to understand the global scenario related to it.

I wish to acknowledge a special debt to my uncle Suresh Ch. Bora, my sister Shradha Smita Bora and my childhood friend Swapnali Bora for their unconditional support and help during the entire field work. Without their help it would have been difficult for me to reach out the traditional healers including the other participants and the remote places especially in the bad climatic situation. I am grateful to Kangkan Saikia for his patience and time to read my study and correcting the errors during his busy schedule. Your support and encouragement brightens my journey of dissertation.

I wish to thank my mother and grandmother for their help in collecting the different plants from the remote places and to make me understand about their health benefits along with the culinary process. My gratitude to them is beyond words.

A special thanks to Mr. Satyajit Borah, accountant and programme manager of Dhekorgorah MPHC for his help in understanding the present health status of the people of Monaimaji Gaon and for providing the related sources to conduct the study.

I am grateful to Dr. Diganta Kumar Phukan, Assistant Professor of Jorhat College and Mr. Dipankar Sharma, Assistant Professor of M. D. K. G. College for their help and support in my study especially for help in constructing the secondary sources.

Thanks must also go to Nibedita, Aien, Indrani, Simrandeep, Sangli, Neha, Amarendra and Nikunj for their support. My special thanks to Tshering Lepcha for his immense support in writing the dissertation specially in formulating the structure of my chapters. My sincere gratitude towards Amitabha Sarkar, Ajit Lenka and Caroline C. Netto for their guidance in the journey of writing the dissertation.

I am highly grateful to all the participants like the elderly generation who without thinking of their ill health gave me the interviews, the traditional healers who gave time to perform the study during their busy schedule and the younger generation for their valuable time and friendly interactions with me. The entire respondents and their simple nature helped me conduct the interviews in a given time.

Regrettably, but inevitably, I may have missed out to mention a few names at this moment, but I hope and pray that they will forgive me, and will still accept my sincere appreciation of their influence on my work.

Sneha Smita Bora

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### **List of Abbreviations:**

ANC	Antenatal Care
ANM	Auxiliary Nurse Midwives
ASHA	Accredited Social Health Activist
BP	Blood Pressure
BPHC	Block Primary Health Centre
CAM	Complementary and Alternative Medicine
CHC	Community Health Centre
DH	District Hospital
DLHS	District Level Household and Facility Survey
EU	European Union
GNM	General Nursing Midwifery
HHG	Herbal Home Garden
IMR	Infant Mortality Rate
LPG	Liquefied Petroleum Gas
MMR	Maternal Mortality Rate
MO	Medical Officer
MLA	Member of Legislative Assembly
MPHC	Mini Primary Health Centre
NHM	National Health Mission
NRHM	National Rural Health Mission
NSSO	National Sample Survey Organisation
PHC	Primary Health Centre
SC	Sub-Centre
SDCH	Sub-Divisional Civil Hospital
SHG	Self-help Group
TBA	Traditional Health Attendant
TBS	Traditional Bone Setter

## **CHAPTER: 1**

### **INTRODUCTION**

#### **1.1 Background:**

‘Let food be thy medicine and medicine be thy food’ (Smith, 2004), this was quoted by Hippocrates during the 5<sup>th</sup> Century BC. According to Richard Smith (2004), by this quotation Hippocrates showed his philosophy ‘food as medicine’ which depicts the importance of good food to maintain a healthy life. But Richard Smith (2004) also mentioned that, at contemporary time this philosophy of Hippocrates is highly neglected at various points. Therefore, the researcher also tried to find out the present status of the traditional food pattern among the people of Assamese community residing in Monaimaji Gaon of Jorhat district.

The consumption and quality of food not only impacts upon the bodily functions of an individual but also impacts upon the state of mind (Lupton. 1996:68). This opinion clearly shows that good dietary pattern plays a significant role in leading a healthy mind and a body. The concept of good health or maintaining a good health has always been experiencing a number of heterogeneous opinions like ‘How one can maintain a good health?’ by focusing on diet or food pattern on the basis of community perception, is the theme of this dissertation. The study looked at the food and the plants which are considered as the traditional food by the people of the Assamese community residing in the Monaimaji Gaon of Jorhat district. As we know that, food is the basic necessity of human life to continue a healthy and disease free lifestyle. Therefore, the significance of food and plants cannot be excluded from the periphery of the concept: health. It has been explored that, almost fifty percent of treatment conducted by an herbalist is based on modification of dietary pattern (Eldin and Dunford, 1999:37). Authors like Sue Eldin and Andrew Dunford (1999) in their work revealed that, even the mainstream allopathic medication shows better results when it starts emphasizing on good diet.

Food is the foremost element of human life. Food is the most important source of survival of the human beings and the animals as well.

Considering Aristotle's view "Man is a social animal", it has been seen that food plays a vital role in evolution of human civilization. The change in the food habits from the early period to the present time has been holding the identity of human society and its culture. On the basis of the food that a community consumes and on the basis of the cooking method, one can identify that particular community. Food can be considered as the mirror of a society and it distinguishes one society from another. Food is the most powerful symbol to indicate who we are. Each community or society has its own way of cooking and the different kinds of food products in their food basket. Therefore we can see the various ways of use and cooking of the same food. The way of cooking also has a great impact on our health. Use of different ingredients and their process of mixing also play a beneficial role in our health.

Anthropologists mentioned that, there is the existence of diversity within a same community in the entire world. People are allowed to practice both the western and traditional system of treating illness. Anthropological view on medicine stems from the fact that health and disease though scientifically understood as biological in nature but they are yet related to people's belief systems (Nanjunda et al. 2009).

There are many factors that influence our food habit. It is very difficult to provide a definite reason for our food choice or food habit. But there are certain elements which impacts upon our food habit such as accessibility of the food products, the ecology of that particular geographical area, traditional practices and so on. In the due course of time, we have been experiencing a huge change in the food habit of the people, especially in India. India is diverse in terms of food as it is diverse in terms of its culture as well. Food is the basic identity of a community in India and it has a very strong ground in the international market as well. In recent times, packaged and stored food items, fast food culture etc. has greatly influenced the traditional food habit of the people.

Medicinal plants are the oldest form of health care system which has been practiced by the human beings in all over the world and it is an inevitable part of indigenous system of medicine (Tandon and Yadav, 2017). The study emphasizes on the traditional food and plants which are a part of the dietary pattern of the Assamese community that have positive impact upon health. Assamese food variety is really vast. The community have their own perception, belief and practices regarding the

traditional food and plants and how they work as a healing system. The traditional knowledge of the health benefits associated with the food items of Assamese community has been described in details in the later parts (chapters) of the dissertation. The study has included both the cooked and non-cooked food items. The term food here indicates the locally and homemade food items along with the non-leafy vegetables. Whereas, the term plants basically denotes the leafy vegetables or herbal plants which are practiced in the dietary pattern of the community people.

It was found that, Assamese food culture is basically based on fresh green vegetables and plants. The vegetables are mostly organic and community people perceived them as containing medicinal or healing values. There are varieties of plants which are regularly used in the Assamese cuisines and also used in making traditional medicines for various diseases. Apart from consuming the plants, the cooking method also have some traditional touch which helps in keeping up the nutrition of that particular item. The dissertation focuses on the edible plants that are used by the community people and believe them as good for health or for different illnesses.

It is reported that the plants which are used in Assamese cooking have a great influence in preventing and curing different diseases. Each herb has its own medicinal quality. These herbs are useful for the diseases like; high blood pressure, diarrhoea, low blood pressure, asthma, anaemia, piles, heart disease, respiratory diseases and so on. To explore and understand the above is the very purpose of this study.

## **1.2 Purpose of the Study:**

Purpose of the study is to analyse the health benefits of food and plants used by the Assamese community. The researcher came across various studies which were conducted to find out the medicinal value or to understand the nutritional or mineral components in the vegetables and plants. There were also studies found which focused on the medicinal properties of wild herbal plants (edible and non-edible) to cure different illnesses that are used by the traditional healers of rural and tribal India. But the researcher found in existing literature that, there were very few studies conducted in Assam that considered the traditional food and plants and their healing usage from the perspective of community people. Most of the studies were focused only on the plants and their medicinal value but the traditional food items that contain a number of health benefits, were found neglected. Therefore this study tried to fulfil

the gaps that were found in the previous works and researcher also tried to document the health benefits of traditional food and plants on the basis of community perception and their practices that are based on their traditional knowledge.

The study will focus on the people of Monaimaji Gaon of Jorhat district of Assam. The people mostly comprised of general caste, OBC (other backward classes) and schedule caste (SC) categories. The Assamese people residing in the study area are deeply influenced by traditional food habits and the healing systems as well. Assamese people are highly fond of consumption of traditional food and plants. The traditional cooking method and the preparation of the food products work as healing process for various diseases. But mostly they are found in non-codified structure which is passing from one generation to another on the basis of the traditional knowledge.

To achieve the purpose of the study, the **objectives** are given below:

1. To understand the community beliefs and perceptions of using traditional food and plants in living healthy life among the Assamese community of Jorhat district of Assam.
2. To understand the healing effects of the traditional food and plants and community practices related to it.
3. To explore the knowledge of utilization of the traditional food and plants among the younger generation.

### **1.3 Problem Identification:**

Being an Assamese, the researcher had the privileged of growing up with her grandparents in a semi-rural area. The childhood was same just like the other kids of the community, especially with those who were staying with their grandparents. Growing up by seeing two traditional healers nearby and seeing them were providing

the traditional medicines which basically included wild plants and some *Mantras*<sup>1</sup> and listening to different folktales related to the traditional food items from grandparents.

The study entitled, “Health benefits of food and plants used by the Assamese Community; Special reference to Jorhat district of Assam”, following the rigor of the research according to Ratcliff (1988) with the help of review of literature and observation (pilot study) the problem identification has been conducted. The flora of north-eastern states of India has a great position in the entire globe. The flora (plants) has been used for the healing power for many illnesses. If we look at the NFHS3 data, then it has showed that IMR (Infant Mortality Rate) and under 5 mortality rate is better in the north-eastern states than the all India average and the percentage of breast feeding is also higher (Lalneizo and Reddy, 2010). But the report also shows that the coverage of immunization is very poor along with the health care services. Soit can be hypothesized that, the locally available edible products and healing systems are the best option for the people of Assam to avoid the different diseases. It is pertinent to explore that without adequate health services if the maternal and child health indicators are good then the reason behind it may be the food practices of the people.

According to NFHS (National Family and Health Survey) data Assam has the highest IMR (Infant Mortality Rate) and MMR (Maternal Mortality Rate) compared to the other states of India. But it has been evident that better breastfeeding practices, lower rate of vitamin A deficiency is found in Assam due to the consumption of nutritious food. NFHS3 data shows that the nutritional status of the children under 3 years has been raised than the NFHS2 data (Lalnezo and Reddy, 2010). The problem which lies in this situation is that, after experiencing the privilege of the plants and food with healing power, why the overall health situation is poor. During the pilot study it has been found that the traditional food culture has undergone some changes. The consumption of food and plants has been reducing especially among the younger generation. The botanical knowledge of the food products has been found in a greater percentage among the older generations (Sandhu and Heinrich, 2005).

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<sup>1</sup> Mantras: They are some religious chanting which are prevailing in the Assamese society since time immemorial. They are basically used to provide relief from bodily pain or illness and also to get rid of from evil spirits or other supernatural entities. They are found in both codified and non-codified form in the society. Mantras are mostly practise by the traditional healers in the community.

It was found from reviewing available literature that, there are a huge number of research studies conducted in the field of nutritional values of the vegetables and plants. But very less number of studies was found which emphasizes on the community perception, their traditional knowledge, beliefs and practices associated with consumption of locally available and cultivated food items. The previous studies were based on clinical research, ethnobotanical surveys, ethnopharmacological studies etc. Therefore, this study is taken up to understand the community perception, their practices and belief and also to document the traditional food and plants that the community people perceive as good for health.

#### **1.4 Problem Formulation:**

Every society has its own way of dealing with the illness and most of them are based on plants (Kala et al. 2005). This consumption or use of the traditional medical system depends upon the need of that particular community and their access to those particular plants. Introduction of different conservation policies restricts the use of the natural resources and as a result of this most of the knowledge related to it is went lost (Kala et al. 2005).

From this scenario we can understand the condition of the people of a community who are mostly dependent upon those plants for healing purposes and also for consumption purpose, have lost their most of their old traditional plants. Other than this, these people are those who have poor access to the modern health care services. In those plants they have their traditional culture which is lost due to different interferences. Again, as the knowledge of those plants are being confined within a certain age group (older) of people it is also seen that it has less importance among the younger generation. It is a very important issue to understand the role and importance of the health benefits of the food and plants and also to find out its present day situation in the society. On the basis of the previous discussion the research questions are formed as mentioned below:

##### **1.4.1 Research Questions:**

1. What is the opinion of the community regarding utility of traditional food and plants in maintaining health and seeking health care under the practice of multiple healing systems?



2. What is the role of traditional food and plants in their dietary pattern and during any health related crisis?
3. What are the most prominent food and plants perceived as good for health and seen as medicine in addressing different health issues?
4. What is the level of awareness about the utility of the traditional food and plants among the younger generation?

### **1.5 Conceptualization:**

The conceptualization of the study has been basically focused on different themes that help to fulfil the objectives of the study. The study tried to reveal the health benefits of the traditional food and plants focusing on community perception and belief. To frame the conceptualization the researcher had reviewed secondary literatures that are available according to the themes.

The themes that the researcher had worked on to conceptualize the study are; understanding traditional food and plants, health benefits associated with the consumption of traditional food and plants and understanding community belief and perception.

With the help of secondary literature, the study tried to conceptualize the understanding of food culture and how it has been practising in a particular society and also the role of traditional food items in shaping the food culture and history of a society. It has been explored that, dietary pattern is also associated with the customary beliefs and religion (Kwon and Tamang, 2015). The concept of food culture has a significant role in each society of the globe. It was found that every human society has some socially recognized food whereas there are also food items which are considered as taboos to that society as well (Fox, 2002). Adaptation of special food culture also indicates the status of the individual in that society (Fox, 2002).

Reviewing the existing literature, the conceptualization of community perceptions and belief has been framed. Understanding community perception and belief associated with the traditional food and plants and their health benefits is a major emphasis of the study. Because, the community perception and belief system help us to find out their practices, different rituals that are associated with food and the traditional

knowledge to treat a disease with the help of home remedies or by using traditional food items. It helped to conceptualize the practice of traditional dietary pattern as medicine which also can be considered as home remedies, during the time of health crisis especially among the rural and tribal communities. It has been explored that every community practice their own methods of preparing home remedies for different illnesses.

The healing effect or the health benefits of consumption of traditional food and plants has been seen as a very significant topic at contemporary time. Many clinical researches, ethnobotanical and pharmacological studies have been undertaken by the various scholars. These studies also showed the medicinal values or nutritional components and minerals that are available in the vegetable, fruits and plants. Exploring traditional knowledge helps to understand how the community people perceives illness and identify it and also treat it with the help of accessible food items. It also revealed the community experience with different illnesses and the traditional healing patterns that are based on home remedies.

## **1.6 Rationale of the Study:**

The researcher came across many studies that have been conducted in Assam and on various medicinal plants. The studies were basically based on experimental laboratory studies conducted by various botanists and pharmacologists. It was found that these studies mainly emphasised on the chemical and medicinal substance that were available in the plants and for various ailments for which they are useful, according to the amount of the chemical substances. However, understanding of food and plants as medicine and their utilization have been hardly researched. Therefore, the researcher embarked on this research to fulfil the gaps that were found in the process of reviewing the literature. The researcher chooses to do an empirical study on the community beliefs, practice and perception associated with consumption of traditional food and plants and their health benefits. The study included the traditional healers, elderly population, younger generation and health professional of the community to achieve the objectives of the study.

The village, Monaimaji Gaon of Jorhat district is known for its rich traditional knowledge and natural resources. In the context of healing the people of the village

along with the healers, were found practicing traditional knowledge in dietary pattern and also in the treatment. The study revealed their perceptions on the traditional food and plants and their beliefs on its healing effects. The study also focused on the practice of different rituals and festivals that were associated with the traditional food patterns and community perception on how these impacted upon people's health in different stages of their lives. The study also tried to explore the understanding of the younger generation on traditional dietary pattern. The researcher tried to reveal their knowledge on the utilisation of the traditional food and plants with the older generation and also the present status of the traditional dietary pattern in present time by the youth.

### **1.7 Research Methodology:**

Qualitative research design has been used by the researcher to conduct the study. To get the understanding of the community perception, practices and belief related to the traditional knowledge of using traditional food and plants that contain health benefits, tools and techniques of qualitative research have been used. The study tried to cover different aspects that play significant roles in moulding belief and practices of the community people regarding the use of traditional food and plants in health related issues, festivals and rituals associated with the consumption of traditional food items. It also captured the hidden meaning behind them, documentation of traditional food and plants that community perceives as good for health and also different ailments or diseases that are believed to be get cured with the use of these food items. The researcher conducted in-depth interviews with the respondents to understand their different views on the topic and also tried to collect the understanding of the knowledge of the younger generation regarding the use of traditional food, plants and their health benefits.

#### **1.7.1 The study area:**

The study is conducted for the purpose of an M.Phil dissertation. Considering the limitation of the time period the study was undertaken in the village called Monaimaji Gaon, of Dhekorgorah Block, Jorhat district of Assam. The field study was conducted during the month of November and December in the year 2016.

The study area Jorhat district was the last capital of Ahom dynasty and one of the major districts among all the 33 districts of Assam. Jorhat district comprises of total 1,092,256 population (Census, 2011), including 123,134 ST (Scheduled Tribe) population and 78,668 SC (Scheduled Caste) population. The population composition of Jorhat is heterogeneous in nature. In the study village Monaimaji Gaon total number of population is 800 and the existing caste groups are general, OBC (Other Backward Classes) and SC. The majority of the total population in the study area is found belonging to the OBC caste. The economy and occupation of the study area is mainly concentrated on agriculture, especially cultivation of rice and vegetables and plants.

In the study area, there is Mini Primary Health Centre named Dhekorgorah MPHC and it covers a total population of 18,459 from 18 different villages. The MPHC was under construction/renovation during the time of visit by the researcher. It was found that, the health care services in the remote areas were not satisfactory and that is one of the main reasons of domination of traditional healing system and also increases the dependency on traditional dietary pattern to deal with the health issues on the ground of traditional knowledge.

In the study area Monaimaji Gaon, traditional healing system has a strong ground. Mostly the traditional healers belong to the elderly generation and the process of passing the healing lessons and medicines are basically carried out within the family members itself. There were very few codified forms of traditional medicines available that include both food and plants. Mostly they were found in a non-codified form and the process of serving the community people with the help of traditional knowledge have been practising on the basis of intergenerational process. The uses of the different plants and food products have been prevailing from one generation to another generation. Grandmothers and grandfathers are the main sources of knowledge in a household to give the lessons regarding the health benefits of the food products and the plants which are mostly non-codified. .

### **1.7.2 Sources of Data Collection:**

Interview schedule was prepared to collect the data from the respondents. The questions on various aspects of belief and practices have been prepared to fulfil the objectives of the study. It basically concentrates on the community perceptions,

beliefs and practices regarding the use of traditional food and plants for a healthy life. The study also emphasized on the community understanding about the healing effects of the traditional food and plants (edible) for various health conditions and diseases like blood pressure (high and low), diabetes, diarrhoea and immunity building and also the effect of traditional food and plants on their health and other relevant aspects.

The data was collected from both the primary and secondary sources. Primary data collection was done in the field by conducting in-depth interviews with the participants. Primary data are analysed using thematic framework to full fill the objectives of the study. For the secondary sources various journals, articles, books, research reports, government reports etc. were reviewed.

The researcher did non-participant observation and conducted in depth interviews with the community during the time of the field work for the collection of primary data. The respondents were the elderly people (61 years and above) and also the younger generation (15-29 years). Traditional healers were included too as the respondents, but they were seen as a part of that community not particularly as a healer or health practitioner.

### **1.7.3 Tools of Data Collection:**

The tools for data collection were made on the basis of the semi-structured interview schedule to collect the data from the field. A common set of questionnaire were made for the participants belonging to each category (traditional healers, elderly generation and younger generation) but there were some specific sets of questions which were added differently for each group to get a detailed understanding of the objectives.

Interviews were conducted in Assamese language and then it was translated to the English language for the study. Community people were very informative and gave the details to identify the food and plants for the research purpose. Different technical devices were used to record the field work activities such as; recorder, video clips and photographs.

### **1.7.4 Sampling Technique:**

To achieve the objectives of the study the researcher selected the samples using purposive sampling technique. The researcher purposively selected the respondents

from the study area of Monaimaji Gaon. The researcher tried to include both male and female participants from each of the groups of respondents.

The researcher conducted interviews with total 33 participants from the community. The participants belonged to traditional healers, elderly generation and younger generation. The total number of respondents representing each group has been mentioned in the table 1.1 below;

**Table: 1.1 Total numbers of respondents representing each group**

<b>Traditional Healers</b>		<b>Elderly Generation</b>		<b>Younger Generation</b>		<b>Total</b>
<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	
2	1	6	9	5	10	33

#### **1.7.5 Key respondents:**

The respondents of the study were basically taken from the three groups among the Assamese community of Monaimaji Gaon. They were the traditional healers and community people belonging to the both elderly (60 years and above) and younger generation (15 years to 29 years). The traditional healers interviewed were all belonging to the age category of above 60 years. The reason for taking the traditional healers in the study is to understand and document the medicinal plants and their belief in their dietary pattern to maintain good health and how they practice in the community.

The researcher also conducted interviews with some key informants like the accountant cum programme manager of the Dhekorgorah MPHC, ASHA of the Monaimaji Gaon, school teacher and college lecturers as the key respondents of the study and also to receive in depth understanding on some of the health problems and diseases in that specific area, an information useful for the study.

During the time of interview, the researcher received full cooperation, a very pleasant interaction and comfortable environment from the participants and their family members. Along with the participants, the family members also showed their interest in the interview and they also provided some of their experiences and knowledge with the researcher, which was found to be valuable information for the study.

## **1.8 Pilot Study:**

In the pilot study an attempt was made in the month of July 2016, to interact with the people of Monaimaji Gaon for a very brief period of time to build rapport. The pilot study was conducted in the monsoon season. Almost all the roads of the village were filled up with rain water and clay. The environment was pleasant and surrounded by greenery. The main purpose of the visit was to get an idea about the locality and the people residing in that village. The researcher mentioned about the purpose of her visit to the villagers and received inspiring words from the community people. The community people also showed their happiness and willingness to participate in the study. A small interaction was conducted with the local elderly people to have a basic knowledge about the consumption of traditional food and plants and to understand their perception regarding its health benefits. Mostly the diseases for which the plants were useful are; blood pressure (high and low), diabetes, diarrhoea, immunity building etc.

## **1.9 Interpretation and Data Analysis:**

Data never “speak for themselves” (Ratcliffe, 1988). Researcher tried to present the data in a systematic manner so that it will fulfil the objectives that were sought for the study. As a qualitative study, the dissertation describes the beliefs, perception and practices and tried to analyse, interpret the primary data that were collected from the study area. The data was collected with the help of interviews, experiences, observations and informal interactions. The interpretation of the data was done after giving the descriptive analysis of food as medicine and plants used for maintaining health and curing diseases, validating with the earlier literature and scientific study. To get in depth understanding of the collected data the researcher also presented some narratives from the interviews, which helped in describing and analysing the data in a proper manner. The researcher also used the local terms of the food items, festivals and rituals which were translated into English and were given in the footnotes.

## **1.10 Ethical Consideration:**

The ethical consideration is a very important part of any research study. The research studies, which basically rely on data collection requires prior approval from the

participants to ensure their consensus for participation and the confidentiality of the information given by them. In this study the researcher also asked for their consent (verbal) after giving information about the purpose of the research to the participants by visiting each participant's households a day prior to the interview. The researcher also took permission from the programme manager of the Dhekorgorah MPHC to conduct an informal interaction with the patients and also an interview with him to get an understanding about the health infrastructure and health status of the people of Monaimaji Gaon. The researcher also took telephonic approval from the ASHA of the study village to conduct an informal interview. Telephonic permission was taken from the lecturers and the school teacher to conduct informal interactions. During the time of interview, the researcher also asked the participants for their consent regarding taking photographs and recording the interviews. Few of the participants agreed to click photographs for the study.

### **1.11 Challenges and Limitation of the Study:**

It is a well known fact that, almost all the studies have faced different kinds of challenges, criticism and limitation. Considering 'Learning is a never ending process', the researcher will look forward to provide more appropriate results by considering the challenges and limitation in mind in the future studies, as M.Phil is a time bound research. The study faced number of challenges and limitations while doing the field work. These are mention below,

1. 27 households among the 30 households of the participants were found living in a joint family system. During the time of interview, interference has been faced by the researcher from the other family members especially from the kids of the houses. Due to such a situation, there was a problem while recording the interviews. Though some times the information given by other family members were also useful. After conducting the interviews, when the researcher played the recorder it was almost non comprehensible. It was challenging for the researcher to identify the participants and their answers, through the interview notes and transcribe it.
2. During the time of primary data collection, few participants also refused to give interviews even after their approval on the prior day of the interview. Due to such a situation the planned time schedule of the researcher for data collection became very



difficult. In that situation, the researcher had to find other participants and it consumed a lot of time.

3. The researcher also faced problems during the field work like; the participants asked for some economic compensation for giving the interviews. Few participants also refused to give permission as they came to know that the study is basically conducted for research purpose and no benefits will be given to the participants for their interviews.

4. The study was conducted in the month of December 2016. Though it was a winter season, but heavy rainfall was one major problem in the study area. As the roads of the village were not Pakka therefore, the conditions of the roads were very poor and accessibility became very difficult.

5. During the winter the sun sets around 4 p.m. in the evening. Therefore, the researcher had to finish the field work before 4 p.m., because after 4 p.m. it was very difficult to get any transportation from that area. The researcher had to walk to reach main road Malow Ali to get an auto or a tempo before it got dark.

6. While taking the interviews, the researcher documented the name of the food items and plants in their local terms. In the later period they were translated into English. The problem that researcher faced during the time of translation is that, the name of the food items were not available in English. Later with the help of the college lecturers and searching from secondary sources, the researcher was able to get the English translation of the local food items.

7. The researcher also experienced the situation where the traditional healers could not recall the name of the traditional plants and their medicinal values because most of them are prevailing in oral form (non-codified). Apart from this the researcher could not take photographs of few documented plants due to unavailability in that particular season or due to erosion of that plant from the study area.

The study could not draw an exhaustive list of all the foods' and plants used as medicine due to the limitation of time. Therefore, few drawbacks are remaining in documenting all the traditional food and plants and their health benefits. The scope of this study is to explore traditional food and plants as medicine. Here food is important variable from public health perspective. The study was limited to a certain area and possibly there are more rich food and plants in other regions of Assam, which could not be explored. The dissertation does not explore the inequalities in food and

nutrition at the household or the issue of poverty as it was beyond the scope of the study.

### **1.12 Experience of the Field Work:**

It was the month of November and December, and the prime time for the sowing of the crops. The people of the study area were busy at that time. On the other hand the food festival of the Assamese community the *Magh Bihu* was also about to be held in the month of January second week. Therefore, people from all ages were found busy in their respective fields.

Regarding the stay in the study area, the researcher stayed in her maternal uncle's house for few days which is about 1.5 kilometres away from the study village. The transportation cost was cheap from the house where the researcher stayed. But from the household of the researcher though the transportation cost is not very high, the researcher had to change tempo or auto in two different places and then had to walk to reach the village from the main road Malow Ali. Researcher took the help from one of her old friends who belonged to that village to reach to the participants. The researcher had taken help from her known people for the purpose of transportation during the time of crisis.

Regarding conversation and interaction, the researcher did not find any difficulties since all the people of the study area and the researcher speak the same language. The people of the village were very friendly and simple in nature. Even after very low formal educational status, the people perceived good understanding about the symptoms of different illness and their home remedies. It was also found that the male members were not that much interested in taking part in the interviews, but the female participants were found much more excited compared to the male participants. The female participants also provided in-depth understanding of the food and plants and their mode of preparation and so on. The traditional healers that the researcher had visited were friendly in nature. They shared their experiences and stories related to their healing practices. They gave the researcher the list of the plants which they asked their patients to consume during the time of treatment and prescribed them their regular dietary pattern. The researcher received the list of the traditional plants from one of the healers in a written form. According to him, since the researcher came to

take the approval for the interview in the prior day, therefore the traditional healer kept the list of the plants in a written form thinking it will be beneficial for the researcher.

The researcher received warm welcome from the household members of the participants. The researcher was served tea in each household and in few household the researcher also asked to have lunch with the participants and their families. The overall experience of the field work was very good and welcoming. The participants and their family members (sometimes) also shared their life stories and personal experiences after finishing the interviews. They also mentioned about their interest on attaining higher education which unfortunately they did not pursue due to different personal circumstances. Participants also appreciated the study that the researcher had taken to conduct. The researcher visited the Dhekorgorah MPHC and had interaction with the programme manager. That was a very informative interactive session for the researcher. Data on the health status of the village people like; the diseases that they suffer most, the result of awareness camps and people's perception towards seeking medical services. The programme manager also showed the present working schemes in the MPHC (Mini Primary Health Centre) which helped the researcher to get a general understanding of the health programmes. The overall journey of the field work was very interesting and a very good learning experience for the researcher. It also helped the researcher to understand the rural environment and the lifestyle of the rural community.

## **CHAPTER: 2**

### **REVIEW OF THE LITERATURE: FOOD AS MEDICINE**

Review of existing literature gives the background and the context in which the study needs to be done. It also helps in understanding the perspectives with which the subject has been studied and what are the issues researched so far. It identifies the gaps in the literature, which forms the scope of the current study. The researcher searched the anthropological, sociological and public health literature with key words of ‘traditional knowledge and food’, ‘food as medicine’, ‘plants as medicine’, ‘food medicine’, ‘traditional food and medicine in Assam’. Attempt has been made to get an idea about the related and available sources that helps to carry out the topic ‘food as medicine’. In the later part of the chapter, it has been tried to cover the drawbacks and the gaps that have been found in the available literature.

The review of literature has been conducted with help of various secondary sources. Apart from the journals in Anthropology and Sociology, other journals included; *Economic and political weekly*, *Indian journal of traditional knowledge*, *Journal of environmental planning and management*, *Journal of ethnopharmacology*, *International journal of pharmaceutical and biological achieves* etc. Different articles, books, reports (District Level Household and Facility Survey), magazines etc. are some of the secondary sources. It helps to understand the concepts like traditional food and plants and their health benefits, people’s perception and beliefs related to traditional food items, traditional knowledge, generational changes in the dietary pattern and present status and the view point of the community people along with the scenario of health service system in the rural India.

The chapter tried to explore different understandings and concepts related to traditional food and plants. It has given the idea of food culture, traditional medicine and healing systems and codified and non-codified systems. Different anthropologists and researchers have worked on different countries and societies to understand their food habits and their perceptions and understanding regarding the use of the food products. Studies also show that traditional use of food and plants has some healing effects on human body and that is generally practiced by the people of that community. Garro (2000) mentioned how homemade remedies and the dietary pattern of the people work as treatment for different ailments at the time of health crisis.

Authors like Upadhyaya et al. (2014) cited the highest prevalence of non-codified systems of local or traditional medical care among the elderly generation and continuation of it from generation to generation in an oral form.

Review of different literature has been done to understand the health benefits of the edible plants. The studies were basically drawn from different works of the different authors to understand the medicinal value and to identify the authenticity with the traditional beliefs of the common plants. It also gives the understanding of the prevalence and knowledge of different generations regarding the use of traditional food plants. Community has the perception that consumption of traditional vegetables and plants has the potential to fight with different illness (Pieroni et al. 2007).

The chapter also refers different research work and different books on the North-East India and Assam as well. The sources provide the knowledge of different documented plants of the North-Eastern region and their use in health crisis and mode of preparation. This section also provide the basic idea of the environment and available food plants (locally grown) and people's traditional knowledge about their different uses.

With the help of reviewing the existing literature, the researcher has tried to achieve the objectives of the study. Though a number of studies have been taken for the purpose of reviewing, only few of them are mentioned below due to constrain of time. The literatures that have been taken for the study are mostly found in the area of ethnobotany, botany, pharmacology, ethnopharmacology, pharmaceutical, anthropology and laboratory based medical study. The inclusion criteria and key words selected in the literature in this chapter is based on traditional knowledge, ethnomedicinal use and values, community beliefs and perception, dietary pattern and food culture, mode of preparation and the health benefits of the common plants and food. The study excluded the herbal plants and other traditional substances that are used for medicinal/healing purposes in a non-edible form. It only includes the both cooked and non-cooked food items bearing health beneficial value in it.

## **2.1 Understanding Traditional Food and Plants:**

### **2.1.1 Food Culture:**

In this study the concept of food culture has been used to receive a better understanding about the traditional food and plants. The concept of food culture is being related with other existing literature associated with the understanding of traditional food and plants.

As we know that culture is considered as the mirror of a society. Culture displays the lifestyle, food habit, language etc. of a community which helps to identify a specific community across the globe. According to Johnston and Cappeliez (2012), the ideas of food culture is complex, when people consider the highly individualised ideas of eating that dominate the public sphere, ideas that put emphasis on the choice and personal responsibility. But in recent times food culture has changed in due course of time. Food culture is the practices and beliefs of people towards their food habits. The food habits can be the composition of both the traditional and newly adopted. The types of food and plants the community consumes or the ingredients that the community uses, the way of their cooking etc. all comes under the food culture. In our daily life it has been noticed that people always adopt the food culture which is socially accepted by that particular society and the resources available in that region. It indicates that the institutionalisation of food and plants which is largely consumed by that particular society or the community of that region.

Another important related concept with food culture is the religious ethnic food system. Religious ethnic food can be defined as those food items that are carrying a cultural aspect or ritualistic process of any particular ethnic group or community. The specific dietary pattern indicates the socio-cultural aspects of that particular community or ethnicity. The mode of preparation and the products that are used in culinary process are based on different factors such as; environment, geographical location, availability and accessibility of food products etc. Religion and customary beliefs put a great impact upon dietary pattern of the human being (Kwon and Tamang, 2015).

Food culture defines the culture of a particular community or a society. Food culture has been seen as a form of tradition and history of that particular community.

Originality or formation of a community can be defined with the help of its food culture. Food culture carries the entity of the people of a community.

According to general European Union (EU) food legislation, there is no such specific definition for the “traditional” regarding food. But Directorate General for Agriculture legislation (EU) on “Traditional Speciality Guaranteed” products mentioned, the proven usage of food from the community market with the transmission between the generations can be called as traditional food. It also mentioned that the time period should not be less than 25 years. That means the food products which are locally available and have been consumed by generation to generation for more than 25 years of time come under the umbrella of traditional food.

Robin Fox (2002) in his article; ‘Food and Eating: An Anthropological Perspective’ has mentioned how food can become a taboo. As a member of a society we have experienced some taboos associated with the food. It means there are some foods which are socially accepted by that particular society or community and there are some foods which are not socially recognized or accepted by that community. The Assamese society is also not different in this matter. The Assamese society too has food taboos which are associated to some situations. Fox mentioned, what we eat becomes a more powerful symbol of what we are. Our food represents our culture and our identity. Fox also mentioned how adaptation of different food beyond the community also impacts upon the status of the people. Food also determines the economic status of the individual in that particular society.

The traditional food and plants can be considered as those, who are having almost same pattern of cooking method along with the use of the same ingredients and also with the similar time of consumption. Traditional food and plants are seen as closely related with the healing patterns of that particular community. Community people hold a strong belief regarding the health benefits of the traditional food and plants during health crisis from generation to generation and they are closely related to the traditional knowledge of medicine of that community.

### **2.1.2 Traditional medicine and healing system:**

The concept of traditional medicine and healing system has taken into this ground to relate it with the traditional food and plants and their health benefits. The traditional food and plants of the Assamese community carry a diverse ground of healing

effects to various acute and chronic illnesses. The reason of putting them into the sphere of the traditional medicine is that, the traditional food and plants are believed as carrying medicinal benefits in it. People of the Assamese community perceives that, regular or frequent consumption of them help in curing and also prevent the body from different minor and major illnesses. In the context of defining traditional medicine; according to WHO (2011),“ The sum total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness” (Sato, 2012: 4).

Each culture has its own way of treating the diseases. The health care system of a society defines the nature of that society and their outlook towards health. Traditional medicine or healing system indicates the indigenous or folk ways that people use to treat illness. Group of healers also found in the respective communities to treat illness in their traditional way.

### **2.1.3 Codified and non-codified system:**

The concept of codified and non-codified system of medicine has been used in the context to portray the use of traditional food and plants among the people of the Assamese community based on their beliefs and perception towards its health associated benefits. The research study has showed that, in the area Monaimaji Gaon of Dhekorgorah, Jorhat district of Assam, the people are highly influenced and practiced traditional food and plants in their daily dietary pattern. The people from the elderly generation holds a detailed and in depth knowledge of the health benefits of them. These knowledge and its health benefits have been continuing mostly verbally and very few written document has been found. In the contemporary time many scholars had conducted research study on the medicinal benefits of the traditional plants of the Assamese community along with the help of ethnobotanical and pharmaceutical knowledge and equipments. These studies help in documenting the healing effects of the age old traditional plants. But the researcher came across with very few studies that were conducted on the area of traditional food and plants in the



daily dietary patterns of the community and how the present generation is changing the dietary patterns which may have huge health implications.

Traditional medicine in India has been classified into two types; codified (Ayurveda, Unani, Siddha, Homeopathy) and non-codified (folk medicine) system (Upadhyaya et al. 2014). This study has showed that the elderly people (above 61 years) are the people who are the highest user of non-codified healthcare tradition. The non-codified system has been continuing from generation to generation. Most of the community people who practices non-codified system generally learnt from their forefathers and the others either through experimentation or reading and learning. The system also includes the use of animal products along with the other plants which have health benefits. The study has showed that the preference has been decreasing among the younger generation due to migration from the villages and deforestation emerges as a cause of medicinal plants depletion.

When it is about the codified traditional medical system AYUSH, it was too merged with National Rural Health Mission (NRHM) to expand the health care practices thinking it will be helpful for the masses as it also look into the personal, social and cultural dimensions of the illness and care along with the individuals (Mukadam R, Towards the National Health Assembly, 2006). In this booklet (2) on Towards the National Health Assembly II, it was mentioned that, due to privatization and globalization the commodities and services of AYUSH has been increasing. Due to this increasing demand of the herbal products on the commercial market sector the local and traditional medicinal plants are having the problem. Such increasing demand leads towards the depletion of the plants of the land. In the research area depletion of the forest area and also the loss of their cultivated land became one of the reasons for losing the traditional plants the reasons for this situation has been discussed in the Chapter 5.

## **2.2 Understanding Health Benefits of Traditional Food and Plants:**

Manchali et al. (2012) have discussed about the health benefits of cruciferous vegetables considering them as nutritious and rich in health beneficial secondary metabolites. Their study disclosed that cruciferous vegetables contain low fat and they are very heart friendly diet. Cruciferous vegetables contain cancer preventive and

cardio protective activity. But in the study area during interview it has been found that, very few populations cultivate these vegetables and they did not know about the cancer preventive benefits of the cruciferous vegetables. Major nutritional components of them are protein, vitamins and carbohydrates.

Many direct and indirect researches provided evidences that cruciferous vegetables are beneficial for the prevention of metabolic disorder, asthma and Alzheimer's disease (Manchali et al. 2012). Regarding Alzheimer's disease Butterfield et al. (2001) conducted a study, where it was demonstrated that, bioactive molecule that are found in cruciferous vegetables prevents oxidative stress associated with Alzheimer's disease. Manchali et al. has mentioned in the work about a 12 year follow up study conducted by Heet et al. in 2004. The study has been conducted upon the middle aged women and the various vegetables that were taken are; broccoli, cabbage, cauliflower and brussels sprouts. From the study the researchers found out that the incidence of obesity can be reduced by increasing the intake of vegetables (Manchali et al. 2012).

Singh et al. (2001) conducted a study to understand the nutritional components of selected green leafy vegetables, herbs and carrots. They mentioned that the leafy vegetables and the herbs are rich in several nutrients such as iron and  $\beta$ -carotene. Their study shows the most essential elements that are available in the cruciferous vegetables. They are like; iron, calcium, selenium, copper, manganese, and zinc. The study also brought that, all the green leafy vegetables contain vitamin, iron, calcium, ascorbic acid, riboflavin, folic acid and adequate amount of other minerals. In India consumption of mangoes and green leafy vegetables provides a massive dosage of vitamin A and helps in nutritional status.

Scholars like; Ramashankar et al. (2012) have also carried out the study in the North-Eastern states of India and their traditional healing practices. North-eastern states are blessed with flora, fauna and rich biodiversity. The states are heterogeneous in its culture, language, food habits, and lifestyle and also how they see and treat health with various traditional ways. 80% of the community people in this region are dependent upon traditional healing practice (Ramashankar et al. 2012). Mostly the tribal and rural people are highly fond of the traditional healing sources which are easily accessible such as; local food and plants. The traditional food habits and the lifestyle cure and prevent many health issues and provide relief. The authors also

mentioned the number of plants that are being used to cure different diseases in these North-Eastern states. The numbers of plants used in Assam are given below in the table 2.1:

**Table: 2.1: Documented number of plants used in Assam for different diseases**

<b>Malaria</b>	<b>Stomach trouble</b>	<b>Diabetes</b>	<b>Gynaecological disorder</b>	<b>Disease related to child care</b>
07	08	04	04	05

*Source: Ramashankar et al. 2012*

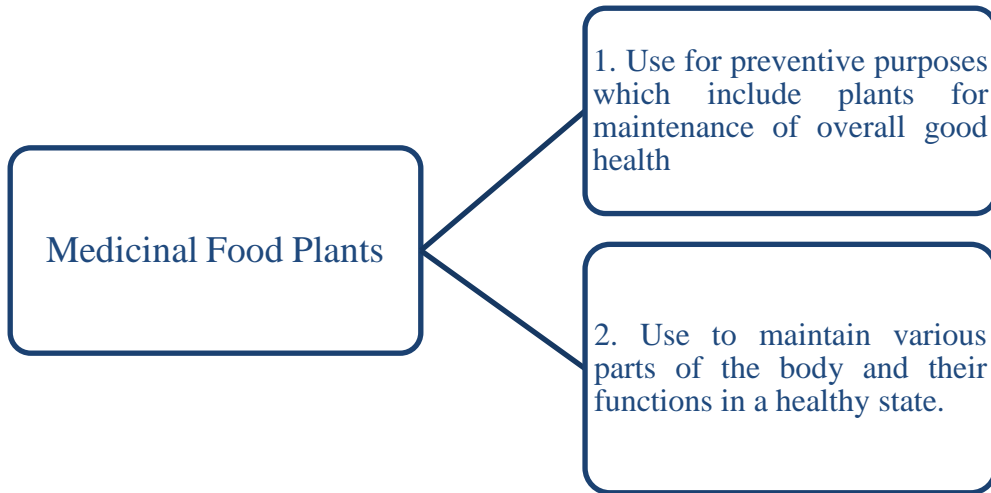
They concluded that the traditional medicinal system/treatment has great strength and sustainability but the young generations are not showing interest in this practice due to modernization of the society.

The study conducted in Rawain valley of Uttarkashi of Uttarakhand by Negi et al. in 2011, has documented 63 plants belonging to 43 families which are used for therapeutic purposes of more than 41 diseases in the region. They mentioned the therapeutic use of their leaves, roots, fruits, bark and the entire plant for different ailments. The people of the valley themselves hold a rich knowledge about the use of the medicinal plants, but they also practice visiting and seeking treatment from the Vaidyas (local medicinal practitioners) for any kind of health crisis. Authors found some of the plants can be used directly to the wound or the infected area of the body. This study documented the indigenous knowledge of the Vaidyas and the other knowledgeable people using these wild resources for different purpose. The study explores that the inhabitants of the villages of the Rawain valley use a number of medicinal plants for healing purposes of various diseases. People preferred to consult the Vaidyas to diagnose their health problems. Study also revealed that, the knowledge of the medicinal plants and therapies was composed verbally and passes orally from generation to generation (Negi et al. 2011). This is the scenario which is also prevalent in the Monaimaji Gaon of Dhekorgorah, Jorhat district of Assam (the research study area). Regarding the conservation and promotion of the medicinal plants the authors cited like this,

*Since the knowledge of various medicinal plants being used is confined to mostly local healers, it is of utmost importance to document this knowledge for future generation, otherwise it will be lost forever with the death of local healers/knowledgeable person. Therefore, there is a need to develop an appropriate mechanism for benefit sharing and also to protect the rights of the tribal and non-tribal communities over indigenous knowledge of medicinal plants used in healthcare system in the region (Negi et al. 2011: 537).*

Ethnobotanical explorations have been conducted during the time span of 2002-2003 among the tribal communities of different forests located in the Eastern Ghats of the Andhra Pradesh. This survey was carried out by Venkata Ratnam and Venkata Raju, concentrating on the common ailments namely Leucorrhoea and Menorrhoea among the women of the tribal communities inhabiting there. It has been documented from the survey that, there are 25 species of plant and among them 2 are used for menorrhoea, 7 are used for leucorrhoea and menorrhoea and 16 are only used for leucorrhoea. Mode of production and consumption of time has clearly mentioned to get relief and prevent these diseases. Tribal practitioners mostly prefer the plants parts like; leaf, stem bark, root and whole plant in the form of decoction, powder and paste in their formulation (Ratnam et al. 2005). The authors through their report try to make an attempt to provide new sources of herbal drugs and promote awareness among the people to use them as remedy for healthcare purpose.

An important ethnomedicinal study was conducted by Rahmatullah et al. (2010) among the Kavirajes (folk medicinal practitioners) in three villages of Sreepur Upazilla of Magura district of Bangladesh. The study focuses on to gather information on the plants having medicinal values for therapeutic and preventive purposes and used by the Kavirajes. They have documented two categories of usage of the medicinal food plants practiced and prescribe by the Kavirajes. Such as;



The second category of the medicinal food plants are considered as functional food<sup>2</sup> or nutraceuticals and commonly practiced by the Kavirajes and have rarely documented or reported (Rahmatullah al. 2010).

Bamboo shoot is one of the most important and traditional food of the north-eastern states of India, including Assam. It has a great place in the traditional food pattern of the Assamese community. It is a very nutritious food and is used in many forms. In the article “Value Addition to Bamboo Shoots: A Review” by Choudhury et al. in 2012, has provide the beneficial components of bamboo shoots and its health benefits. They discussed the nutritious elements available in bamboo shoot such as; carbohydrate, potassium, dietary fibres, vitamins and active materials. Along with its health benefits the article provides the insight of the global market of bamboo shoots and bamboo shoot based food products and their consumption pattern. Authors mentioned that bamboo shoots generally grow in two ways. Either they naturally grow or they are being cultivated. In the study area, Monaimaji Gaon of Dhekorgorah, Jorhat district the bamboo shoots is naturally grown. There were no households and individuals which were found cultivating bamboo shoots. These naturally grown bamboo shoots are sometimes taken to the market for selling. Bamboo shoots contain

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<sup>2</sup>According to Rahmatullah et al. (2010), the functional food or nutraceuticals food denotes the use of various species which worked as digestive aids and also helped in prevention of various diseases. These food species are included in the regular dietary pattern of the people and very rarely documented.

the properties which help in the growth and development of the children and also work as anti-aging component.

## **2.3 Understanding Community Beliefs and Perception:**

### **2.3.1 Related Concepts and Studies:**

It is very well known fact that every culture and community has its own way of dealing with the health issues. On the basis of the cultural, economic and social dimensions a particular community people responds to different diseases and its remedies. The research study mainly focuses on the beliefs and perception of the Assamese community people and how they deal with the health issues with the help of using the traditional food and plants in their dietary pattern. In the study mainly the edible plants and the locally or homespun food items were included who carries health benefits. Many studies and concepts have been drawn from previous literatures and it helps to draw the framework of the community beliefs and perception toward the use of the traditional food and plants of the Assamese community.

A study was conducted by Mark Zborowski (1952) and he took the Old Americans, Italians and the Jews as his study group. This study determined the responses of the individuals of these three categories and their responses towards pain. His study explores that individual from each cultural group has different perceptions and expression towards pain. He mentioned that, the Jews and the Italians perceived and expressed pain in a more sensitive way, whereas, the old Americans did not express their pain in public. After the study he cited that, in spite of pain as a biological phenomenon, it can also be determined by the 'ethno-cultural' factors.

To understand the community belief towards health issues and the practices among the population, a cross-cultural study was carried out by Garro (2000) in Pichataro of west-central Mexican state of Michoacan and other one is in Manitoba of Canada with the Anishinaabe community. The study mainly focuses on exploring the cultural knowledge in regard to illness and the application of that knowledge in evaluating the illness and its treatment. In Pichataro the study was conducted during the time span of 1975-1977. The study explores that, the community people are influenced with the traditional pattern of healing the illnesses. It was found out that the people of the community generally practiced four types of treatment alternatives and they are based on the availability. These treatments are home remedies which included dietary

pattern and locally used remedies. The second one is, visiting the folk curers, third one is treatment by local unlicensed biomedical practitioners and the fourth one is treatment by physicians.

In her other study in Manitoba in Canada with the Anishinaabe community found out that, the health service system was really poor and in the health centre, physicians visit only three afternoons in a week. The author discovers two types of community curers to treat illness. They are such;

(a) The women of the community who take care of the ill person. The women are found more knowledgeable and they prepare home remedies for the ill person. The women of the family and community as well learnt the knowledge of the treatment from the elders of their family or from the other local healers. Mostly they practiced herbal plants and other home remedies.

(b) The “gifted” curers (Garro, 2000). They practiced herbal remedies for some specific treatment and they are also believed as the communicator with the supernatural forces to cure illness.

Pironi et al. (2007) in the study of medicinal perception of the traditionally used vegetables by the South Asian community in Bradford of Northern England, has given an inside picture of the community perception towards the consumption of the traditional vegetables and their medicinal benefits. The authors documented the emic descriptions and definition of their findings to understand the medicinal properties of the vegetables according to the community beliefs. Study shows that the, bitter or the aromatic tastes are perceived as good to fight against diabetes (Pironi et al. 2007). The study also revealed that, the women of the households and the community are the one who holds the knowledge of the medicinal benefits of the traditional vegetables and the one who practices it in the highest amount. The women are carrying the culinary processes of the traditional food and also the consumption period/time during any illness. In the study the youngest participants provided the least information regarding the medicinal knowledge of the traditional vegetables that they consumed. Most of the vegetables that are documented have medicinal properties like; anti-diabetic, for digestion, for strengthen the body, well for blood etc. The community perceived that, the use of the traditional vegetables by adopting their own (cultural) strategies can prevent or counteracting diseases (Pironi et al. 2007).

There is a relationship between food and health. Meera Chatterjee in her famous work “The Food of Healing” (1985) has discussed about the importance of diet as medicine in the Ayurveda tradition. Ayurveda considered diet as the second most important medicine for health after religious acts and mantras (Chatterjee, 1985). Food is believed as the source of life and the classification of food is available on the basis of its mode of cooking (Kaccha or Pukka) or other qualities have great importance upon our health and disease. The author narrated,

*Use of food and diet as therapy for health had highly developed in Ayurveda and Chinese medicine and to diagnose and treat the disease the taste sensations is really important* (Chatterjee, 1985: 134).

Author explained about the neighbour country China and how they use food to treat diseases. The traditional Chinese physicians and their treatment are generally related to taste and food. On the basis of taste sensation, the Chinese physician enquires about the patient’s health condition and unusual taste in the mouth is believed as the malfunction between a set of five organs (Chatterjee, 1985). To understand the health situation they have five main tastes such as; bitter, sour, sweet, pungent and salty. In the Chinese tradition the diet occupies a very important place with regard to build good health. Inappropriate dietary pattern such as; quality of food, irregular eating habit, amount of food are some causes of disease (Chatterjee, 1985).

McKim Marriott in the year 1955 had conducted a study in the village Kishan Garhi of Uttar Pradesh. In the study the author gave the understanding of the social world of the village people. The village is basically a conservative agricultural region. The study explores the perception of the community people towards the understanding of health and illness and also their deep faith to the local traditional healers for any kind of health treatment. The western medical facilities were available but they were largely ignored by the residents of the Kishan Garhi, whereas the indigenous folk medicine has a great place in the health service system (Marriott, 1955). Establishment of western medical clinic did not run. The poor economic condition of the village people to afford the medicine cost was found as a result of the failure of the western medicine in the village. Apart from this, the community people perceived their traditional medicine and healers are better and most importantly the healers were



the people from their own village community. The doctors were considered as outsider who does not stay in village and therefore the doctors have no common understanding about the life of the village people and they are the practitioners of Europeanized culture (Marriott, 1955). The community people of the village Kishan Garhi have a deep faith in traditional healing practices and medicine. In the study the researcher also observed similar kind of environment. It was found that the community shows their faith towards traditional healing system especially which are associated with food and plants. Utilisation of traditional knowledge and preparing home remedy was the primary care for the people of the study area. The people perceived that, consumption of traditional food can treat health better than the modern biomedicine.

A study was carried out to find out the practice of Complementary and Alternative Medicine (CAM) among the immigrant Sikh community in London by D. S. Sandhu and Michael Heinrich. Practice of herbal medical products among different communities is a part of self-treatment and it is related to the cultural belief system (Sandhu and Heinrich, 2005). The cultural belief system basically includes the food habit, religion, way of life etc. of a particular community. The study explores that, the knowledge about mode of preparation and their medicinal values has been achieved from their childhood experiences and tradition. The traditional knowledge has been passed through one generation to another. It is revealed that, the community people especially the elder generation are fond of using indigenous or traditional herbs/leaves in food items. Authors mentioned that the people also ignore biomedical public services due to the use of herbal remedies derived from the traditional or cultural sources. Public health care services (NHS) also mentioned that, people are delaying seeking medical care because of their traditional herbal remedies drawn from their traditional and cultural sources (Sandhu and Heinrich, 2005).

## **2.4 Studies on North-East:**

The North-Eastern region is considered as the most bio culturally diverse region of the India and each state of this region have their own definite culture and tradition (Singh et al. 2010). A research project was carried out by Singh et al. during the time span of 2003 to 2008 in the two states of north-east namely; Arunachal Pradesh and Meghalaya. The study mainly focuses on the documentation of the traditional

knowledge along with the knowledge holders and establishing village traditional knowledge banks and community knowledge gardens to promote and enhance the traditional knowledge and biodiversity conservation. The study explored and documented more than 200 traditional practices related to food, medicines, agriculture and overall community approach to the biodiversity conservation. The study shows the community women with the help of Self-help group (SHG) the traditional food practices have been brought to the market and promoting their traditional knowledge. The community knowledge holders also cultivated total 16 medicinally and culturally used plants for the purpose of community use, on the private lands which are voluntarily donated by the tribes. Again for the purpose of food, medicinal and cultural use total numbers of 26 indigenous plants have been cultivated in the community forest (Singh et al. 2010). The study also revealed that the knowledge of the recipe related to the culinary use of the medicinal plants were higher among the women compared to the male participants of the community. There was a highly significant difference found between the age groups regarding the practice and use of the traditional food (Singh et al. 2010). The study explores middle to old aged women were having higher experience of preparing traditional food and the associate medicinal knowledge related to the traditional food.

Dutta and Dutta (2005) mentioned that the north-eastern region of India is a great heritage of herbal remedies and the people of this region, especially the tribal and the rural community inhabiting in the remote area are highly dependent upon the indigenous system of medicine and cultivation. The study focuses on the ethnobotanical aspects of the North-East region to provide a promotional aspect towards the traditional herbal medicinal plants for the benefits of the mankind at a larger extend. The authors mentioned that there is lack of ethnobotanical study in the North-Eastern region despite of its rich natural heritage. The geographical situation of the region which is mostly hill area, keeps the region apart from the ethnobotanical studies as it turns difficult for the researcher to reach and communicate with the areas and community (Dutta and Dutta, 2005). The study expresses that the people of the region share a close relationship with the nature and the forest, and it is displayed through their traditional beliefs, knowledge on the medicinal values of the plants that they use and their culture. In the north-east region of India 665 numbers of plants have been documented that are used for culinary purpose by different authors from

the North-East region (Dutta and Dutta, 2005). The authors concluded by mentioning that, the indigenous knowledge are very important source for the documentation of the plants and the community people are the most important source of the various knowledge that are related to the plants and their components.

Mao et al. (2009) in their work “Plant Wealth of Northeast India with Reference to Ethnobotany” gives detailed accounts of the ethnobotanical information that are found among the tribes of the North East region of India. The study shows that as an agricultural based society, the region has a rich variety of crops. The tribal communities have variety of festivals that are connected to agriculture and food. The communities have rich traditional knowledge about the usage of the components of the biodiversity in their daily life, in the form of food, shelter, healthcare and fodder (Mao et al. 2009). Each community has their definite traditional knowledge of the usage of the plants in the daily life and it depends on the availability of that particular plants. The authors included the health benefits of the traditional plants, fruits and vegetables and their culinary methods to cure and prevent diseases. Along with culinary process it also described the other methods of preparing that particular plant and the parts of the plant that are being used to treat the disease by the community. It documented both edible and non-edible plants along with the method of application. Author also mentioned that, various studies has been conducted on the rich bio-resources of the North-Eastern region and the medicinal benefits of the plants has also been documented in a written form, but there are no economic benefits from those studies to the region and the community people as well.

Chandra et al. (2016) carried out a study based on biochemical analysis of eight non-conventional leafy vegetables and scarcity food plants of North-east India. As a biodiversity hotspot of the world, North-East India has a great variety of non-conventional food plants. The traditional wild and non-conventional leafy vegetables are nutritionally very rich but the saddest part is that, the consumption of them is generally considered as “poor man’s food” and face negligence in contemporary time. These plants are widely use in everyday dietary pattern of the different ethnic groups of the north-eastern region therefore these plants become an important part of the food habit and traditional culture of the community people (Chandra et al. 2016). The authors mentioned that, these food plants are also used as stand by source of food

during any scarcity or natural hazards. The rural and tribal communities are the loci of knowledge and consumption of non-conventional food plants. Due to such convenient as well as healthy reasons these plants are a part of traditional knowledge and culture of various ethnic groups. But in recent period due to the growing tempo of urbanisation and impact of the urban culture upon the community people, the traditional ethnic knowledge has been facing erosion along with the availability of non-conventional food plants (Chandra et al. 2016).

A study was conducted to understand the health status of the children of north-east India by D. Lalneizo and S. Reddy (2010). The study shows according to NFHS II and NFHS III, the IMR (Infant Mortality Rate) and under 5 mortality rates are much better in north-eastern states than all India average. The study also revealed that the immunisation coverage and vitamin A supplementation is poor and as a result of this high morbidity levels are found (Lalneizo and Reddy, 2010). But food products of the region and rich breastfeeding practices provide more vitamin A than vitamin A supplementation. The rural areas of the region have been facing the maximum amount of problem. The communication network and accessibility of water facility in the rural areas are very poor along with poor accessibility towards health care facility.

## **2.5 Studies Conducted in Assam:**

Borah et al. (2009) had conducted a study (botanical) to examine the various nutritional components available in the leafy vegetables that are consumed in Assam. It has been observed that, people of Assam consumed highly nutritious vegetables in their general dietary pattern which are locally grown (Borah et al. 2009). The study focuses to determine the five important nutritional components that are found among the widely used leafy vegetable of the Assam. The five nutritional components are; magnesium, calcium, potassium, iron and phosphorus. This study shows that, among their total 15 numbers of selected vegetables the highest amount of nutritional component found was calcium followed by magnesium. The amounts of these components are almost equivalently fulfilling the internationally recommended dietary needs of the human (Borah et al. 2009). Such environment is also responsible for the different health issues related to malnutrition is less in this region (Borah et al. 2009).

A study has been carried out in the field of Assamese traditional plants and their medicinal nutritional usage and the festival associated to it by the authors Samim Sofika Begum and Rajib Gogoi during the time span of 2004 to 2005. As an agricultural based society Assam has the festivals which are related to food. The authors mentioned that, being a moist tropical weather Assam is a region of various seasonal epidemics. Therefore, to tackle them the community people celebrate festivals where the tradition of preparing the 101 medicinal plants is practiced. The state has a rich amount of medicinal and nutritional plants and each of the plant carries some phytochemicals that helps in increasing the immunity power of the human body (Begum and Gogoi, 2007).

A case study has been carried out by Amit Pandey et al. during the year 2012 in Jorhat district of Assam. The objective of the study was to document the available oral literature for the benefits of the masses and also to preserve and promote the declining state of the local health tradition along with the local healer's knowledge and the present status of the traditional medicinal plants. The study shows, in the people inhabiting in the rural areas are highly depended upon the Traditional Health Practices which are basically based on oral knowledge. The authors have documented total 126 species of plants (edible and non-edible) and all the species holds botanical evidences and 50% (61nos) species have found with Ayurvedic reference. Total 70% of the plants have been cultivated in the home gardens. The authors also mentioned about the importance of establishment of Home Herbal Garden (HHG) for the sustainable use and conservation of the medicinal plants. Due to the decreasing number of the people having the traditional knowledge about the medicinal usage and identifying the plants in the community, the traditional healing practices have been found declining. Most of the traditional knowledge has been rooted among the elderly people and among the traditional healers, and it has very less importance among the younger generation of the community (Pandey et al. 2013).

An ethnomedicinal study was carried out by Barua et al. (2007) in two districts of Assam to explore the wild edible plants. Assamese community apart from cultivation, also dependent upon various wild plants and these plants are edible in nature and also work as ethnomedicine. The region has a large variety of herbal plants, trees and shrubs with edible leaves and these comprise a huge amount of nutritional value (Barua et al. 2007). The study explores that, the community people maintain a balance

system of their lives by consuming the indigenous wild edible plants that also works as ethnomedicine. The authors mentioned that, despite the availability of the health care system the people prefer to consume folk medicine for any major or minor health issues (Barua et al. 2007). It has been documented that the elderly people of the society is the major source of the traditional knowledge. They hold the information regarding any ailments and the use of the medicinal plants for that particular ailment. Larger amount of these plants are used for culinary purposes as medicine and it has been found that, women are the main source of collecting and preparing the food product.

A study was conducted by Jubilee Purkayatha and Nath (2006) to make an understanding about the positive correlation between biological activities and the folklore claims of the plants growing in Assam. The study has documented total number of 65 plant species. As a traditional agricultural based society, the people of Assam mostly depended upon on the plant species that are available on the surrounding for their daily dietary pattern. Resources available in the forest play an important role in collecting food products and other necessary goods (Purkayatha and Nath, 2006). The result revealed that, there is positive co-relation between the documented ethnobotanical uses of the plant species and their biological activities. The study explores that, there is high possibility of utilizing them for greater economic use.

An important study was carried out by Bhattacharjya et al. (2015) during the time span of 2009-2010 in the nearby villages of Manas National Park. The area is one of the richest biodiversity areas (Bhattacharjya et al. 2015). The villages comprised of different ethnic groups. The study was conducted with the objective to document the medicinal plants that are used by the villagers as primary health care system. The study was based on the indigenous knowledge of the people on phylomedicine. The study revealed that, the area is experiencing poverty and under development and the people that inhabit in the nearby villages are depended upon the forest resources. The forest resources comprise; medicinal and food plants, wood and other necessary forest products for day to day life. The authors explore that, the traditional knowledge of the method of preparation and doses of the medicinal plants are very common among the people of the study area. But authors also questioned about the safety and efficacy of the medicinal plants which are in practise by the common people. Therefore, in this

regard the authors suggested that, there should be some proper tests for their uses and to identifying the chemical substances available in the medicinal plants. The study included both the edible and non-edible plants. Among the edible plants, most of the plants were used during illness to cure it. There are very less plants documented that can be used on a regular basis in the dietary pattern.

## **2.6 Changes in the Food Pattern and Reasons:**

Author Dinesh Baishya in his book published in 2009 give detail amount of information the traditional science and material culture of Assam. The author discussed about the traditional crop cultivation of Assam. Rice is the prime cultivation of Assam due to its wet weather. It was mentioned that, thousands of varieties of rice has been cultivated in Assam, but in due course of time with the development of modern agricultural system the varieties and the qualities of rice has been degraded. As a result of this, huge amount of endemic rice varieties have gone lost (Baishya, 2009). Author discussed about the proverbial saying and those sayings give the information of the traditional plants and also the food along with their healing effects. These sayings give the idea of the traditional beliefs, awareness and knowledge of what food is good for health and which is not (Baishya, 2009). Author mentioned the rich indigenous knowledge about the healing system of different diseases by using the plants that are easily accessible in the nearby jungles. The tradition of using indigenous knowledge to treat ailment is a very common scenario in the villages of Assam. The *Bej* (traditional healers) are still the prime source of this knowledge but unfortunately the *Bej* are old and their population is decreasing with their death. In this way the knowledge and the information also going to get lost with time (Baishya, 2009).

Vasanth et al. (2015) mentioned that, changes in the lifestyles of the people have been experienced in a very rapid way. Such changes impact upon the dietary/food pattern of the people. The processed food of present time has a significant impact upon the health of the human being. These food stuffs contain a huge amount of calorie content, sugar and salt and it is considered as one of the reasons for the occurrence of the non-communicable diseases (Vasanth et al. 2013). The study also reveals that, physical and economic access also impact upon dietary pattern or

preference for food. Changes in family and social environment, there were changes found in the eating habit of the children (Vasantha et al. 2015).

Kuhnlein and Receveur (1996) revealed in their study that, changes have been taken place in the process of traditional harvesting and it is happening due to the economic transition. As a result of this, the traditional harvesting and its economy shifted to wage economy (Kuhnlein and Receveur, 1996). Similar picture was experienced by the researcher in the field. The younger generation of the study area at present time shows their interest in different sectors of earning sources by not confining within the traditional occupation of the area which was agriculture. Kuhnlein and Receveur's study concluded by mentioning that, influence of cultural, ecological and different other factors led to the changes in traditional food pattern.

Doley (2014) found in her study that due to modernisation the traditional food habits of the Mising tribe of Assam has been undergoing changes.

## **2.7 Function of Health Service System:**

People of India have been experiencing the malfunction of health service system in many ways. Especially the people that are residing in the rural or tribal areas are the ones who have the highest amount of problems in using the health care services. The various issues related to this context are discussed below with the help of available literature.

Imrana Qadeer (2011), in her work talked about the challenge of building health services in the rural areas. Qadeer mentioned that, despite of the Bhore Committee's proposal on 3-tier health system in rural India the priority has driven towards urban health services. The public health care system was not able to motivate the doctors to work in the rural settings rather the doctors seek to work in the cities (Qadeer, 2011). As a result of this scarcity of health care provider along with health services have been found in rural areas. The poor public health care services make the people to rely on the folk medicine or other private health services. In contemporary time India's rural health service can be considered as inadequate and poor in nature (Qadeer, 2011). It was analysed that, the rural people rely on their own indigenous knowledge when it is about curing any ailments and also for the prevention of diseases in the form of appropriate food at appropriate time.



Zurbrigg (1984), in her book described the story of a dalit woman named Rakku. She was working in the field of landowner. She belongs to a poor family with almost no access to any kind of health care facility, education and proper diet (nutrition). Her 11 months son died due to diarrhoea and malnutrition and she could not save his life due to her miserable economic and social condition. The picture of poor public health care services and corrupt workers had been described by the author Zurbrigg. This story has very beautifully expressed the different issues of the society like; negligence due to being a lower caste, poor economic condition of the workers, poor transportation and communication in the rural areas and most importantly the failure of the public health care structure that took the life of her son.

## **2.8 Gap in the Literature:**

This section of the chapter basically tries to identify the gap in the literature on the topic and the critic part of the existing literature related to the research study. These are mentioned below:

The literature that has been conducted and the researcher had referred are mostly based on Pharmaceutical, ethnobotanical, botanical and chemical laboratory studies. Very few studies have been found on the basis of traditional knowledge belief system and community practices from sociological and anthropological perspective. The present study has been trying to understand and include the community beliefs, perceptions and practices about using of traditional food and plants. The study also tries to trace the loss of such traditional food and the reasons behind it like social - cultural change and ecological changes.

The studies emphasize on the medicinal or herbal plants that are consumed by the people of a certain society of community. In the existing literatures that are being reviewed, there is no description of the traditionally or locally prepared food items that bears health benefits or medicinal values. This study tried to include both plants and the food items consumed by the Assamese community along with special emphasis on traditional knowledge and the beliefs of the community people. The study has also included the practices of different rituals and festivals that are based on food and the community perception about their health related events.

Very few studies have been found in reviewing the existing literature that had equally taken inter-generational perception to understand the traditional knowledge regarding food and their medicinal values. The present study has taken equal number (15 no and 15 no) of participants from both elderly (60 years and above) and younger generation (15 to 29 years).The traditional healers (3 no) also among the key respondents, are found under the category of elderly generation.

## **CHAPTER: 3**

### **SOCIO-DEMOGRAPHIC PROFILE OF THE STUDY AREA**

The chapter tries to give a detailed understanding of the field study area of the research. The chapter starts with the introduction of the Assamese community from an inclusive perspective. The term Assamese community denotes the people residing in the study area Monaimaji Gaon of Jorhat district. In some specific areas the term Assamese community also refers to the people belonging to Assam in a larger manner. The chapter has tried to give a broader understanding of the geographical and environmental understanding, caste and religion, educational level of the inhabitants, the available health care facility and health care institutions, physical and social infrastructure, administrative profile and other important aspects related to the study.

#### **3.1 The Assamese Community: An Introduction**

Defining Assamese community is very difficult at present time. The researcher was notable to find any concrete definition on Assamese community. Assamese community is very heterogeneous in nature. Different ethnic and tribal groups such as; *Tiwa, Mising, Karbi, Rabha, Khamti, Deori* etc. comes under the Assamese community. Ethnic groups like; *Tiwa, Mising, Karbi, Rabha* etc. also have their own dialects but the official language is Assamese and Bengali is considered as the additional official language in three districts of Barak valley.

The literal meaning of the word *Axom* (Assam) is *AA-Xomo* (Uneven land) because geographically it constitutes both hill and plain areas. According to historian E.A Gait, the native people indicated the *Ahoms* by the word *Axom* which means the warriors or undefeatable (Nath, 2009). The people of Assam have always witnessed different division within the people itself for preserving or distinguishing their identity from ages. The process of making the heterogeneous Assamese society within the umbrella of Assamese community has been found from the time of Srimanta Sankardeva, a 14<sup>th</sup> century Bhakti saint. After that during the time of pre-colonial, colonial and post-colonial period contribution of great warriors and reformists namely; Lachit Borphukan, Moniram Dewan, Jyotiprosad Agarwala, Kolaguru Bishnu Prasad Rabha, Dr. Bhupen Hazarika and many others had contributed in different ways to maintain the umbrella term Assamese community safe irrespective of caste, ethnic groups, tribes and religion. According to Nagen Saikia (2013), the

concept of Assamese community gets strengthened from the colonial era, before that Assam was under the reign of different kingdoms.

Defining Assamese community or Assamese people has been a very complex issue in contemporary time. Assam Sahitya Sabha (2015), a prominent literary faction of Assam considered those people as belonging to Assamese community, who accepted Assamese language as their mother tongue or either their second or third language irrespective of community, language, religion and place of origin (The Telegraph, 12 March 2015). By opposing this definition given by Assam Sahitya Sabha, the Assam Sanmilita Mahasangha, an organisation said, “The direct descendants of people belonging to various ethnic groups, communities and tribes who were residing within the geographical territory of Assam on the day ( February 24, 1826) the British annexed Assam through Yandaboo treaty are indigenous people” (The Telegraph, 12 March 2015). The issue of defining Assamese people or Assamese Community has been undergoing a number of debate and criticism and yet it is an unsolved matter.

Here the researcher tries to give an understanding of the Assamese community from an inclusive perspective with the reference of the works done by Dr. Bhupen Hazarika. Dr. Hazarika in his classic songs, during the colonial and post-colonial period described the different ethnic groups/community that together constitutes the Assamese community and his song put fuel in the formation of Assamese nationality. Reference has been taken from his different songs to make an inclusive understanding. His songs such as;

*Axom dexor bagisare suwali,  
Jhumur jhumur nasi koru dhemali...*

I am girl of a tea garden of Assam,  
I enjoy dancing *Jhumur*...

This song talked about the life style of a girl who is born and brought up in the tea gardens of Assam. She called herself an Assamese and enjoys dancing *Jhumur*<sup>3</sup> dance. In his another song,

*Mohabahu Brahmaputra, Mohamilonor tirtho  
Koto jug dhori aahise prokaxi, xommonoyor ortho...*

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<sup>3</sup>*Jhumur* dance: It is the traditional dance of the tea tribe community of Assam.

Mighty Brahmaputra, the place of assimilation  
Place of age-old unity and harmony...

He mentioned about the great old Assamese Srimanta Shankardev, Lachit Borphukan, Bishnu Prasad Rabha and Azan Fakir as the ideal of unity and brotherhood. This song also describes the mighty river Brahmaputra as the milestone of assimilation of different individuals in the lap of mother Assam irrespective of caste, tribes and religion.

The researcher had put the question regarding the people's understanding about Assamese community. It was found that, almost all the participants have given a similar understanding about it. By asserting the answers that were given by the participants, the researcher tried to give the basic features which will be helpful to understand the Assamese community from the perspective of the participant. They are such;

- (a) Residing in the geographical territory of Assam from generation to generation.
- (b) Speaking Assamese as their mother tongue.
- (c) Practising and believing in Assamese tradition and culture in daily life.

### **3.2 The Study Area: An Introduction**

**Assam:**

*Axom aamar rupohi gunoru nai xexh,  
Bharotore purbo dixor xurjya uthaa dexh...*

*Our Assam is lovely so, there is no end of her qualities,  
It is the land where the sun rises...*

-by Dr. Bhupen Hazarika

These beautiful words written by Dr. Bhupen Hazarkia describe the beauty of Assam. The meaning of the song goes like this; Our Assam is so lovely that there is no end to her gifts and qualities. It is the eastern region of Bharat (India) where the sun rises. Assam is the land of natural flora and fauna. The people of this region have been blessed with the greenery and a vast variety of natural resources since the time immemorial. Assam is one biodiversity hotspot of the world including the other north-eastern states of India. In the east side of Assam Nagaland, Manipur and Myanmar are located, in the West part West Bengal and Meghalaya and Arunachal Pradesh and

Bhutan are located in the North and Meghalaya, Tripura, Mizoram and Bangladesh in the Southern part of the state. The total area of the state is 78,438 sq.km. Total population of Assam according to Census 2011 report is 3, 11, 69, 272 and sex ratio is 954 against 1000 male population. Assam is based on agrarian rural setting and 85.92% of the total population of Assam residing in the rural areas. A total number of 1,826,000 SC populations and 3,309,000 ST populations have inhabited together and keeping the cultural heritage since time immemorial. Assam is consisted of total number of 33 districts and they come under the 5 regional division of the state. The regional divisions are Upper Assam, Lower Assam, North Assam, Central Assam and Barak Valley. Apart from the regional division, Barak Valley and Brahmaputra Valley are two other division of Assam based on natural region.

### **Jorhat:**

The study area Jorhat comes under the Upper Assam region of the Brahmaputra valley and it is the divisional office of the Upper Assam division. Jorhat is located at 26.75°N 94.22°E with the total population of 1,092,256 (Census, 2011).79.81% of the total population of Jorhat district inhabiting in the rural areas (Census, 2011). According to census 2011 report, average literacy rate of the district is 83.42 and the sex ratio is 962:1000. The total geographical area of the district is 2851 sq.km and the major river of the district is the mighty Brahmaputra. The historians and the different scholars termed the district as **“The Cultural Capital of Assam”**.

Reviewing the history of the Jorhat district, it is pertinent to mention here that the Ahom Kingdom's last capital was Jorhat. Another significant feature is associated with the name of the Jorhat district which is, by merging two *Hats* (weekly market) namely; *Masor hat* and *Chowki hat* the name Jorhat has been formed. The district was previously known as *Disoi Bahor* which means temporary resort.

The study has been conducted in a small village called Monaimaji Gaon located in the Dhekorgorah Block of North West Jorhat district. The village is basically agriculture based and the economy is dependent upon agriculture, private carpentry, blacksmith, construction workers and private driver. Rice is the main cultivated food item and almost each household of the village holds a minimum amount of land along with a kitchen garden. The village is located between two small rivers namely; *Bhogdoi* and *Tokolai*. The Monaimaji Gaon is consisted of total number of 800 populations.

According to census 2011 report, 16.41% of total rural population living in villages within the population size of 500-999. In the study village the entire population belong to Assamese community and the native language of the people of the village is *Axomia* (Assamese).

### 3.3 Caste:

Assam is a land of different ethnic, tribes and caste groups. The caste groups are divided into sub-caste groups on the basis of position in the society or in the king's service, occupation etc. The caste groups that are found in Assam are General, Other Backward Classes (OBC), Scheduled Caste (SC) and Scheduled Tribe (ST). In the Jorhat district the total number of ST population is 123,134 and SC population is 78,668 (Government of Assam, Jorhat district). In the study area caste wise distribution of the total village population (800) have been mentioned below in the table: 3.1

**Table: 3.1: Caste wise distribution of total village population**

General	OBC	SC	ST
Kalita (12.13%)	Sutiya (26.13%)	Koibarta (2.5%)	
Brahmin (.25%)	Koch (24%)		
	Ahom (22.5%)		
	Keot (12.38%)		

Source: Dhekorgorah MPHC, December 2016

The table: 3.1 clearly shows that, population wise *Sutiya*, *Koch* and *Ahom* that come under the OBC category are the dominant caste group of Monaimaji Gaon. In the study area there are no individuals or households found from the ST category. From the interviews with the participants, it was found that the people of the village has been inhabiting in this area for the past 45 to 48 years. A specific feature that has been observed in the study area is that, the people belonging to the same sub-caste group mostly live in a specific geographical territory. For instance, there is a small territory within the Monaimaji village called *Kalita Suk* (residents of Kalitas) and in that

specific location people belonging only to the *Kalita* sub-caste resides. Marriage between different sub-caste groups is a common phenomenon in the study area.

### **3.4 Religion:**

Hinduism has been seen as the dominant religion from the size of population of Assam and Jorhat as well. Different ethnic groups and tribes of Assam such as; Mising, Bodo and Deori population have been found to have converted to Buddhism and Christianity in contemporary time. It has also been observed that, the ethnic groups or the tribes along with their present religious activities also practising their old age traditional pattern of worshiping such as; animism, worshiping to the nature etc. For instance it has been evident that, the prominent ethnic group of Assam the Mising<sup>4</sup> people have been converted to Hinduism and Christianity in a larger amount. But they keep their faith and have been seen practising their ethnic religious belief called *Donyi Polo*<sup>5</sup> along with the other religious rituals of Hinduism and Christianity. In the study area Monaimaji Gaon, there is no population found that have converted to other religion and practising animism or so. The Assamese community of the study area is the follower of Hinduism and no other people from different religion or ethnic community had been found. There are some features which have been found in the practice of religious activities as a different form of Hinduism is existent in the society. As followers of Hinduism, the people of the study area also show their faith and belief towards Neo-Vaishnavism and have been practising the rituals and activities that are associated with it since the time of its evolution in Assam. A study conducted on Misings shows that, the people have now become a mixture of both Neo-Vaishnavism and Animism (Doley, 2014). The total number of population (percentage) of Assam and Jorhat (religion wise) has been mentioned in the figure: 3.1 below which is based on census data of 2011.

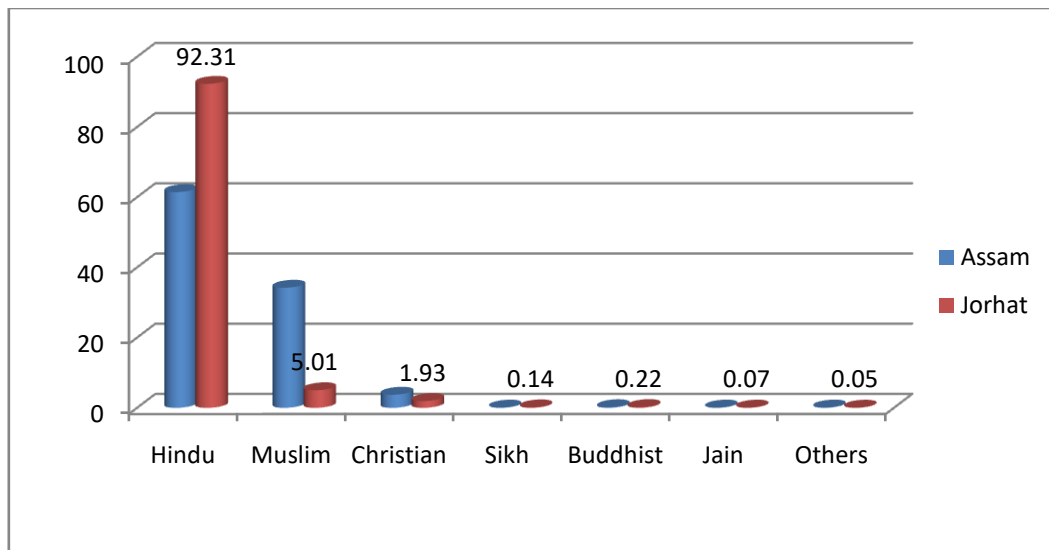
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<sup>4</sup> Mising is the second largest ethnic tribal group of North-East India with more than 1 million populations. They were basically the inhabitants of the river banks in the early ages. The meaning of the word Mising is 'Man of Worthiness'.

<sup>5</sup> *Donyi Polo*: Mising's Traditional religious belief and faith in the Sun (Donyi) and Moon (Polo) considering them as the supreme power. It has been seen mostly assimilated with Hinduism at present time. It is basically an animistic practise conducted by the people belong to Mising community.



**Figure: 3.1: Religion wise distribution of total population of Assam**



Source: Census, 2011

The people of Assam have their community *Namghar* (prayer house) and *Satra* (monastery). That is introduced by the saint Shankerdeva, *Mondir* (temples). In the study area, there are two *Namghar* and two Lord Siva temples. People of the village and from nearby villages also come to worship there during the time of any festival or religious ceremonies that are arranged by the village people. One *Namghoria* (Priest) is appointed in each *Namghar* to conduct the morning and evening prayers and community people annually collect donation for the maintenance of the *Namghar* and to provide salary to the *Namghoria*. The *Namghoria* generally belongs to the same village. The *Namghar* also plays the role of village meeting point for discussing different issues and helps in keeping the people united by different get together ceremonies.

### 3.5 Education:

Assam has been experiencing lower rate of literacy than the overall India. The overall literacy rate of Assam is 72.19% where male literacy rate is 77.85% and female literacy rate is 66.27%. The literacy rate is much lower among the female compared to the male population of the state. Regarding the educational institution, Assam has total 18 universities including 2 central universities in both Brahmaputra (Tezpur Central University, Tezpur) and Barak Valley (Assam University, Silchar), 11 State Universities and 5 Private Universities. There are 27 Law colleges that are affiliated

to Gauhati University, Dibrugarh University and Assam University. There are total 8 Medical Colleges (Hospitals) in Assam. The colleges (H.S and undergraduate) are located in each district of Assam comes under the Gauhati University, Dibrugarh University and Assam University. A large amount of government and private schools are located in Assam.

In the Jorhat district, according to Statistical Handbook Assam, 2011 the number of educational institutions are;

**Table: 3.2: Total number of educational institutions in Jorhat**

Category	Numbers
Primary School	1566
Middle school	322
Secondary and Senior Secondary school	175
Colleges	12
Industrial Training Institute (ITI)	2

Source: Statistical Handbook Assam, 2011

In the study area Monaimaji Gaon, there is only one lower primary school available and in the next village which is around 1.3 kilometres away have one lower primary school and one high school. The children of the village attend these schools in their own respective villages since it is the nearest to their village and also located in a walking distance. Few students are also found in the village that are going to private schools for attaining lower primary education and these private schools are located in the urban areas. The people of the study area showed their interest in providing higher education to their children. It has been found that, the younger generation also went to the urban places to attend college as there is no college available within or any nearby villages. The colleges that the younger generation of the villages attended are JB College, Jorhat College and DCB girl's college. These are the state government run colleges. These three are the nearest colleges from the village and it takes around 20-30 minutes to reach, each of the colleges by private transport service like tempo or auto. The people have to reach the main road to take any of these services since there is no transportation available in some areas of the village. During the field work it has been found that, among the elderly generation the formal educational level is very

dissatisfactory compared to the younger generation. In the table: 3.3 educational level wise distributions of participants (both generation) has been mentioned,

**Table: 3.3: Distribution of participants on the basis of educational level**

Educational level	Younger generation		Elderly generation		Traditional healers		Total
	Male	Female	Male	Female	Male	Female	
Illiterate	-	-	-	2	-	-	2
Primary	-	-	2	5	-	-	7
Secondary	-	2	3	2	-	1	8
Higher Secondary	2	3	1	-	1	-	7
Graduate	3	4	-	-	1	-	8
Post-graduate	-	1	-	-	-	-	1
<b>Total</b>	<b>5</b>	<b>10</b>	<b>6</b>	<b>9</b>	<b>2</b>	<b>1</b>	<b>33</b>

Source: Primary data collection, December 2016

The above-mentioned table shows the educational scenario very clearly among the participants (33) of each group. Among the elderly generation the maximum level of education among the female is Secondary level education and among male participants it is upto graduation level. Comparatively male participants acquired more upper level education than the females. It is explored that, the female of the elderly generation experienced less access to attain education than the males. But among the younger generation participants, it was noticed that a female participant is available with a post-graduation degree and also among the participants in graduation level, three male were there whereas, four female are there in the same category. So from this analysis it can be said that, the perception of the people towards attaining education has been changing for both male and female.

It is also revealed from the table that, among all the younger generation participants there is only one female participant who has completed post-graduation in the subject Philosophy. Sapna (pseudonym) during the time of her interview she was working as a home tutor to two children in the village and three more children from the next

village. She is eldest of the family and she has three younger siblings. After the death of her father, it was the mother that was taking care of the home and the children with a very little amount of money. The mother was working in a lower primary school as a teacher. Her mother was thinking after finishing her M.A. that, Sapna will get a good job and she will be able to help her mother in taking care of the house. In Sapna's word,

*'Now a day there is no value of doing M.A., I gave interviews in many government and non-governmental jobs. But I did not get any of them. My mom struggled so much for our education, but it seems everything went in vain. Now I am thinking that I should not have enrolled myself for M.A., at least I could have saved some money.'*

It was also found that, among the younger generation male participant Bijit (pseudonym) was a college dropout. He attended his under graduation course for nearly one and half years and then he left the college and started working as a personal driver. According to him, he had to support his family and going college for three years would not help him to support his family financially. While mentioning the scarcity of jobs in Jorhat, he added that he also came across with few people who were working as a personal driver even after completing their graduation from the same collage and one of them gave him the idea of working as a personal driver.

The above statement also shows the dismal situation of unemployment and underemployment in the Jorhat. It also helps us to find out that, people of the study area do not want to invest huge amount of money in the higher level study, because of the fear of wasting it since there is almost negligible opportunities for jobs. So it can be understood that, the people were in dilemma whether to send the kids to higher education or save the money for the future of their kids, since the people of the Monaimaji Gaon are not economically sound.

Assam Development Report of Planning Commission<sup>6</sup> also revealed that Assam has a higher number of unemployment rate compared to the all India overall unemployment rate. According to the report population growth is one of the major reasons of this. According to, Assam Human Development Report of 2014, the unemployment rate is high in Assam. The report shows that, Assam has 13.4 percent of total unemployment

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<sup>6</sup> [http://planningcommission.nic.in/plans/stateplan/sdr\\_assam/sdr\\_assch4.pdf](http://planningcommission.nic.in/plans/stateplan/sdr_assam/sdr_assch4.pdf)

rate where 8.0 percent is constituted male population and 33.9 percent is female population. The report also added that, the Assam has the highest amount of unemployment rate among the youth generation (15-24 years) which is 37.7 percent. It was found that highest unemployment rate prevails in the rural areas.

From the field work it was revealed that, there are also drop out cases in the village. Each household of the key respondents have one or more drop out cases. Most importantly the drops out cases are higher among the female population than the male. According to few elderly participants regarding the drop out cases in their family they mentioned that, what a girl will do by attaining higher education, because one day she has to get married and take care of her family. Therefore, they emphasize on teaching them household works such as, weaving, embroidery, cooking etc. for the future life of the girl.

Regarding out migration in education, the male population of the village is higher in numbers than the females. They migrated to different districts for higher studies. It has also been found that they migrated to different states of India like; Kerala, Bangalore, Punjab and Delhi for jobs.

### **3.6 Infrastructure of Health Care Facility:**

Health is the foremost element of human life. Each nation emphasizes on the health of its population to lead a progressive environment. Assam also put importance on uplifting the health of the population living there. There has been a lot of change taking place after the introduction of National Rural Health Mission (NRHM) in the year 2005. The mission helps to spread the health care services to the grassroots level. Numbers of Primary Health Centres (PHC) and Sub-centres (SC) have been working for improving the health condition of the people of Assam, especially those who are living in the rural or tribal area. The total numbers of public health institutions of Assam are mentioned in the table: 3.4 below;

**Table: 3.4: Total number of public health infrastructure in Assam**

<b>Health Institutions</b>	<b>Numbers</b>
Medical College	6
District Hospital (DH)	25
Sub-Divisional Civil Hospital (SDCH)	13
Block Primary Health Centre (BPHC)	149
Community Health Centre (CHC)	108
Primary Health Centre (PHC)	975
Mini PHC (MPHC)	379
Sub-Centre (SC)	4609
<b>Total</b>	<b>6264</b>

Source: [http://www.nrhmassam.in/health\\_facilities.php](http://www.nrhmassam.in/health_facilities.php)

In the study area, people believe in leading a healthy life by consuming healthy food, by which most of the people indicate the locally produced traditional food items and also in an available good health care services. In the study area it has been found that, many elderly people believe in seeking treatment by home remedies or by consulting traditional healers. But there were also cases found when the healer is not able to cure the disease then he refers the patient to visit biomedical practitioner. A traditional healer who is famous for his medicine for pneumonia mentioned in his interview that,

*‘Many people get cure by my medicine during pneumonia. That’s why people came from different villages to take treatment from me. Pneumonia is a very dangerous disease. It has the capacity to kill people because you cannot see how serious or deep it is. You should be very careful with your diet during the illness. I look at to the severity of it and then I give medicine. First time I give the medicine for 2 days and again I give it for next 2 days by looking at the condition of the patient. And even after the two sets of my medicine if the patient does not get relief I ask them to consult a doctor. Because my duty is to serve the people by using my knowledge and medicine, but I don’t have the right to play with the life of a patient just to show off my treatment. But in most of the cases the patient gets relief by the first set of my medicine.’*

People of the village basically prefer to take home remedies for minor illnesses like; mild cold, cough, diarrhoea, dysentery and mild fever. But if the severity of the

diseases turns major then they prefer to consult the doctor. They also mentioned that, since there is the health centre which is not too far from the village, then it is better to visit a doctor, because they also know about the inside condition of the body which the traditional healers fail to recognise.

**Table: 3.5: Total number of public health infrastructure in Jorhat**

<b>Health Institutions</b>	<b>Numbers</b>
Medical College	1
Homeopathic College	1
Block Primary Health Centre (BPHC)	7
Mini Primary Health Centre (MPHC)	18
State Dispensary	9
Community Health Centre (CHC)	4
Sub-Centre (SC)	144
Sub-Divisional Civil Hospital (SDCH)	2
<b>Total</b>	<b>186</b>

Source: nrhmassam.in/health\_facilities.php

The study area Monaimaji Gaon comes under the Dhekorgorah MPHC. The MPHC (Mini Primary Health Centre) covers total 18,459 populations from 19 villages (Dhekorgorah MPHC). The MPHC has the facility of 24\*7 normal delivery services, OPD services and DOTS. The delivery room and the ward were renovated few years back. In the MPHC contraction and renovation was going on during the time of field work. Construction of washrooms and also a small breastfeeding area has been noticed. According to the ANM, the mothers find difficulties to feed their babies in front of the other patients. Therefore the MPHC build a small breastfeeding room from their own side to help the mothers to feed their child. A woman came for her post natal check-up also appreciated this initiative taken by the MPHC. There were two beds in the general ward and they mostly refer the patients with serious health problems to the Jorhat Medical College and Hospital. During the time of field visit, the researcher came across a woman that came for her ante-natal care (ANC). In an informal conversation with the researcher she mentioned that, the ASHA workers are very good and they are giving advice to do the regular check-up in the health centre. The woman also mentioned that the ASHA also talked about the different issues

which they found awkward to discuss with other family members. According to her, ASHA and the awareness camps also teach them about the protective measures to be taken and also to keep at least a gap of 3 years between the children. It shows the well-functioning of the ASHA workers in the villages. DLHS-3 report also showing that Assam has more than 83 percent ANC irrespective of socio-economic condition.

Different awareness programmes also conducted by the Dhekorgorah MPHC such as; STD, anaemia control and blindness control. The services that the MPHC is rendering seemed quite satisfactory during the visit. But apart from the positive point few malfunctions also came to the notice of the researcher. When the researcher had visited the MPHC, both the doctors were not available in the health centre. The researcher was only able to make a conversation with the accountant and with an ANM in the MPHC. The other staffs were not available along the doctors. Such situation depicts the picture of providing poor quality of service despite of having adequate facilities in rural public health sectors.



**Table: 3.6: List of the staffs according to position**

<b>Position</b>	<b>Numbers</b>
Medical officer	1
MBBS	1
ANM	6
ASHA	19
ASHA facilitator	2
GNM	1
Lab technician	1
Pharmacist	2
Accountant cum Assistant Block Programme Manager	1
Health Educator	1
Vaccinator	1
Sanitary inspector	1
Malaria department	3

Source: Dhekorgorah MPHC (Displayed chart), December 2016

Regarding different health issues that have been found in a maximum amount, among the people of the village has been documented by the researcher on the basis of the conversation with the accountant cum block programme manager of the Dhekorgorah MPHC. Though the researcher was unable to collect the data of the Monaimaji Gaon but get an overall data of the population that comes under the MPHC. The different types of health issues that come to the Dhekorgorah MPHC have been mentioned below:

Talking to the elderly, the accountant of the Dhekorgorah MPHC, very less people came to seek for treatment from this age category. The health issues that are reported from them are; high BP, diarrhoea and diabetes. The accountant also mentioned that, it is sometime difficult to make them understand to take medicine regularly. They take medicine for 2/3 days and when they feel little relief, they stop taking the medicine. The elderly people have faith in traditional way of treating the illness. During the time of field work it has been found that, this generation including the traditional healers,

have very less or no trust on the doctors and bio-medicine. They keep a different outlook towards the modern health care system. According to them these are “*Bidexi bostu*”, the foreign things that they do not understand and do want to apply them. According to one participant, people were healthier and had fewer diseases in the early ages and such kind of innovations and medicine made the people sick.

Related to the younger generation, it was found in the report that, the younger generation utilizes the MPHC services more than the elderly generation. The documented health issues that have been found are; viral fever, gastric, diarrhoea, dysentery, minor accidents (cuts and wounds), ante-natal and post-natal services, blood test and other primary care services.

The DLHS 3 (District Level Household and Family Survey) report also shows an unsatisfactory result of Assam in terms of utilization of health care services. Report shows that in Assam, population of rural women is much higher in terms of not going for institutional delivery and on the basis of religious category Hindu women are the highest in numbers. According to the ASHA, of the study area Monaimaji Gaon, there has not been any home delivery taken place since 2006. The Dhekorgorah MPHC report also shows that there are no maternal mortality and infant mortality cases which have been registered from the village since 2006. But according to the accountant cum programme manager of the MPHC, highest number of MMR and IMR cases took place in the nearby tea garden areas and most of the victims are the workers of the tea gardens.

The above reported health issues and the perception of the village people towards seeking treatment from the health centre shows a clear picture of the community belief on treating illness. It has been noticed that the elderly people showed interest towards the traditional knowledge of treating like home remedies or by consuming traditional food items that they perceive as good for that illness. Whereas, the opposite picture has been noticed regarding the perception of treating illness among the younger generation. They visit health care for both minor and major health issues. But during the time of interview, participants from both generations are found complaining about the unavailability of medicine in the Dhekorgorah MPHC and ultimately they have to buy it from the market. It was also revealed by the participants that, they experienced ignorant behaviour from the health professional of the MPHC,

when they ask the doctors about their illness. According to them doctors do not give much importance to give details of the disease to the patient and simply wrote the prescription which mostly creates disappointment among the patients.

### **3.7 Transportation and Communication:**

The transportation and communication system in the village is not very poor. The village road is basically kutchra but linked to the pakka road Malow Ali. The Malow Ali road is the main road that leads to the town area of Jorhat. There is no government transportation facility available. Private transportation facilities such as tempo and auto travel to the town area from the pakka road Malow Ali are available. The village people have to reach the Malow Ali road from by their personal vehicles or by walking to catch an auto or a tempo.

Regarding the communication with the health care service, there is no ambulance service available in Dhekorgorah MPHC for emergency health crisis. People have to contact the private ambulance services, available in any private hospital by paying them money. There is 108 Mrityunjay ambulance service available by the government of Assam but most of the time the service is unavailable for their prior engagement. Because there is only one 108 ambulance service available that covers that particular area and population is very high to cover by one ambulance service. The researcher also faced difficulties, while collecting the primary data in the village. It was the month of December and the sun sets very early in the winters. By the time it's 4 o'clock in the evening the environment became silent and dark which was difficult to get any tempo or auto. There was no facility of street lights in the village and even on the main road Malow Ali. The village has a river Bhogdoi towards its western part and Bhogdoi sometimes become as a curse for the village people due to the floods. Last time the village people experienced the flood in the year 2015. It has been found that, due to flood and heavy rainfall the conditions of the roads are not good (kutchra).

The other public communication facilities such as fax, scanning of documents, post office, print outs, internet cafe and PCO are not available in the village area. To use these facilities either they have to go to Dhekorgorah MPHC or to the town. The stores in the nearby semi-urban area get closed very early. It has been found that, each household have at least one mobile phone connection, though the entire households

do not have the television service. But the overall connectivity to the main road and private transportation services are good in the study area.

### **3.8 Climate:**

Assam is blessed by the Mother Nature at its best. The greenery of the region has the power to heal the human body and mind. Assam has a large number of rivers in her natural treasure. The mighty Brahmaputra is the river of Assam and Majuli, the second largest river island of the world is located within the river.

The climate of Assam is very pleasant and its natural beauty is the reason of invitation for tourists. The people of Assam have been experiencing a humid tropical climate. The temperature of Assam is bearable due to heavy rainfall. The rivers get overloaded due the heavy amount of rainfall during the summer and it leads to huge floods in various districts of Assam. The flood is the burning issue of the people who are living nearby any river, specifically Brahmaputra.

The study area Jorhat district experiences minimum humidity of 98% to 65% along with maximum temperature of 38 degree Celsius to minimum 10 degree Celsius. The average amount of rainfall in the area is 2100 m.m. mainly from the southwest monsoon during the period from May to August.

### **3.9 Agriculture, Natural Resources and Minerals:**

Agriculture is the prime source of livelihood among the people of Assam. A different variety of rice, gram, pulses, jute, sugarcane, mustard, jackfruit, pineapple, coconut, different variety of lemons, organic vegetables and plants, mangoes, banana etc. are the some common and highly cultivated food items of Assam. In the study area Monaimaji Gaon, cultivation of rice, vegetables and plants, jackfruit, pineapple, mangoes and lemon has been found. In almost every household people cultivated few of these food items in their lands and kitchen garden.

The land of Assam is very fertile and a variety of natural resources and minerals have been found in the region. Formerly in the rivers of Assam like; Dhansiri, Sowansiri and Dihing gold had been found. During the medieval period production of iron was also found in different writings (D. Nath, 2009). It has also been noted that, in the forest areas of Assam, a number of valuable woods have been found. But in due

course of time few of these resources has been lost due to deforestation. The different varieties of natural resources and minerals that are available in the land of Assam are; ivory, natural gas, crude oil, coal etc.

The type of the land that the study area has been experiencing is alluvial soil with the composition of pebble, silt, clay and sand gravel. The district has Gibbon Wildlife Sanctuary with the area of 20.98 sq. km and a total forest area of 29497.420 hectares. Jorhat has a very few minor minerals in its land. They are sand, soil, bolder and Murom<sup>7</sup>.

### 3.10 Administrative Profile:

Jorhat is one of the fastest growing districts of Assam. Prior 1983 Jorhat was a sub-division of undivided Sibsagar district. Jorhat district has always been playing an active role in administrative level. The administrative profile of Jorhat is mentioned below,

**Table: 3.7: Administrative Units of Jorhat**

<b>Administrative Unit</b>	<b>Numbers</b>
Assembly constituency	6
Sub-division	3
Gaon Panchayats	110
Municipalities	1
Development block	8
Revenue circle	6
Town committee	3
Towns	4
Villages	853

Source: Statistical Handbook Assam, 2011

### 3.11 Occupation and Economy:

The occupation and economy of the study area is basically based on forest resources, agriculture and fishing. It has been also found that, the younger generation shows their interests on different occupations of different sectors. Cultivation of rice,

<sup>7</sup> Brief Industrial Profile of Jorhat District: Ministry of MSME, Government of India, 2013-2014

different vegetables and plants and mustard is the prime source of earning of the people residing in the Monaimaji Gaon. Individuals of the village were also found engaged in different private and public sector occupation such as school teacher, personal driver, electrician, animal husbandry, petty shopkeeper, construction workers, carpenter and daily wage earner. The people belong to *Koibarta* sub-caste was known as the fisherman community of the Assamese community and their occupation was fishing. But in due course of time the younger generation are not showing interest to adopt their traditional occupation. Therefore, the community has been losing its traditional occupation in each passing days. Same scenario has also been found among the other agricultural based families.

While discussing about the negligent attitude of the today's generation towards the traditional occupation, a number of factors have been found that are responsible for it. These factors include; present economic value of the traditional occupation, availability of natural resources like land and forest area, attainment of higher and technical education, development of private sector construction work etc. Therefore it has been noticed that, community people are moving to different occupation according to their interest and efficiency along with the opportunity of better employment and pay.

Animal husbandry has been noticed as one of the economically profitable business. The younger generation of the village shows their active participation in this field of occupation. It has been found that, 4 boys from the village community established their business (shops) in the town area and these shops are running well according to one participant from younger generation.

### **3.12 Housing and Sanitation:**

A house or a shelter is a basic human need. Life of an individual depends a lot on the basis of the housing pattern and the basic facilities that are available in the house. The housing pattern of people reflects a lot about the community that the people belong to. The housing pattern of Assam is formerly constructed with woods and bamboos due to the availability and accessibility of these resources. The traditional houses were building with mud plaster whereas at present time it has been seen that cement plaster is also used with bricks.

In the study area 3 types of household has been noticed. Such as;

- (a) Pakka : Build with bricks and cement plaster
- (b) Kutcha: Build with bamboo, woods and mud plaster
- (c) Semi-Pakka: It is a combination of both pakka and kutcha housing pattern.

Regarding sanitation, in the study area it has been found that, households of the entire participants have proper sanitation facility. In each household of the Monaimaji Gaon has the scientific latrine facility (Dhekorgorah MPHC).

### **3.13 Food Habit:**

Food habit or food pattern of a society or community reflects the culture, natural resources, health and many other aspects of human life. The food pattern of the entire north-eastern population is similar (Nath, 2009). Due to the same natural and geographical environment and the cultivation of similar crops is the reason for this. The fertile land and the natural resources of Assam never disappointed her children in adopting a healthy diet. While few parts of India suffered from famine during the medieval and colonial era, Assam had not shared any tragic history like that (Saikia, 2013).

Rice is the staple food of the Assamese people. There are varieties of rice available and each quality carries its own features. Apart from rice, the other food items are basically collected or naturally grown in the local areas. The Assamese people developed their unique food habits with the locally available edibles (Arani Saikia, 2013). The different side dishes and sauces made by the locally grown food items are a very specific feature of Assamese food plate. These dishes have a great importance in every household and provide a traditional touch to the meals. The highly used sauces are; *Kharoli* and *Panitenga*. These items are prepared by grounded fresh mustard seeds and serve with salt in it. It is a very beneficial traditional dish to cure blocked nose, cold and fever. Consumption of *Bahor gaj or Khorisa* (bamboo shoots), *Khar* (alkali), *Tenga* (sour) and *Teeta* (bitter) is the prime feature of Assamese community and this food practice was also found in a higher amount among the households of the study area. There is also a phrase as “*Khar khua Axomia*” which means ‘the *Khar* consumer’. It shows the picture of Assamese community’s fondness towards *Khar* (alkali). But consumption of *Khar* is restricted during pregnancy and

menstrual cycle. Another very famous and healthy traditional dish of the community is *Poita Bhat*. Boiled rice is put in the cold water for the overnight and serves it as a breakfast in the next morning. It is basically served with *Aloo pitika* (smashed potato), onion, green chillies, salt and mustard oil. It is believed that, this food keeps the stomach cool and also keeps the person away from any kind of stomach problem that generally happens during the summer season. It is basically a summer dish. Other different traditional food items are such; *Pithaguri*<sup>8</sup> (rice powder), *Xandohguri*<sup>9</sup> (powder of coarse rice), *Sira*<sup>10</sup> (pounded rice flakes), *Muri*<sup>11</sup> (puffed rice), *Aakhoi*<sup>12</sup>, *Kumol Saul*<sup>13</sup> (kind of Tiffin rice) etc. All these food items are prepared by different variety of rice. The food items in Assamese community generally served in the traditional bell metal utensils. In Assamese community each meal concludes by serving *Tamul paan* (raw betel nut) and it is also a symbol of respect and gratitude towards the food that had been eaten and also towards the elders of the family. *Saah* (tea) is an indispensable item of Assamese culture. Tea is served in each and every occasion in the Assamese community. It is served in its different form such as; black tea, milk tea and lemon tea in the study area. The researcher was also served with a cup of tea in each household while doing field work.

It has been found that, the woman is the head of the kitchen. The women of the family is basically found as the expert in all culinary process and also about the traditional use of the food items and plant during the time of illness or other health issues.

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<sup>8</sup>*Pithaguri* is prepared by grounding the white rice. Then the rice powder is cooked until it gets dry and then it is served with hot milk, salt, sugar or jaggery and butter. It is basically consumed as breakfast and early evening meal by the community people.

<sup>9</sup>*Xandohguri* is prepared by grounding the coarse rice. Then it is served with hot milk or water, salt, sugar or jaggery and butter. It is basically consumed as breakfast by the community people.

<sup>10</sup>*Sira* is basically the parched rice pounded and consumed with hot milk, banana and sugar and jaggery and curd.

<sup>11</sup>*Muri* is the puffed rice. It is prepared by cooking the rice in hot sand. It is served with hot milk and sugar and it is also consumed with *Sira*.

<sup>12</sup>*Aakhoi* is prepared from the sticky rice by cooking it in hot sand. Method of preparation and consumption is similar with *Muri*.

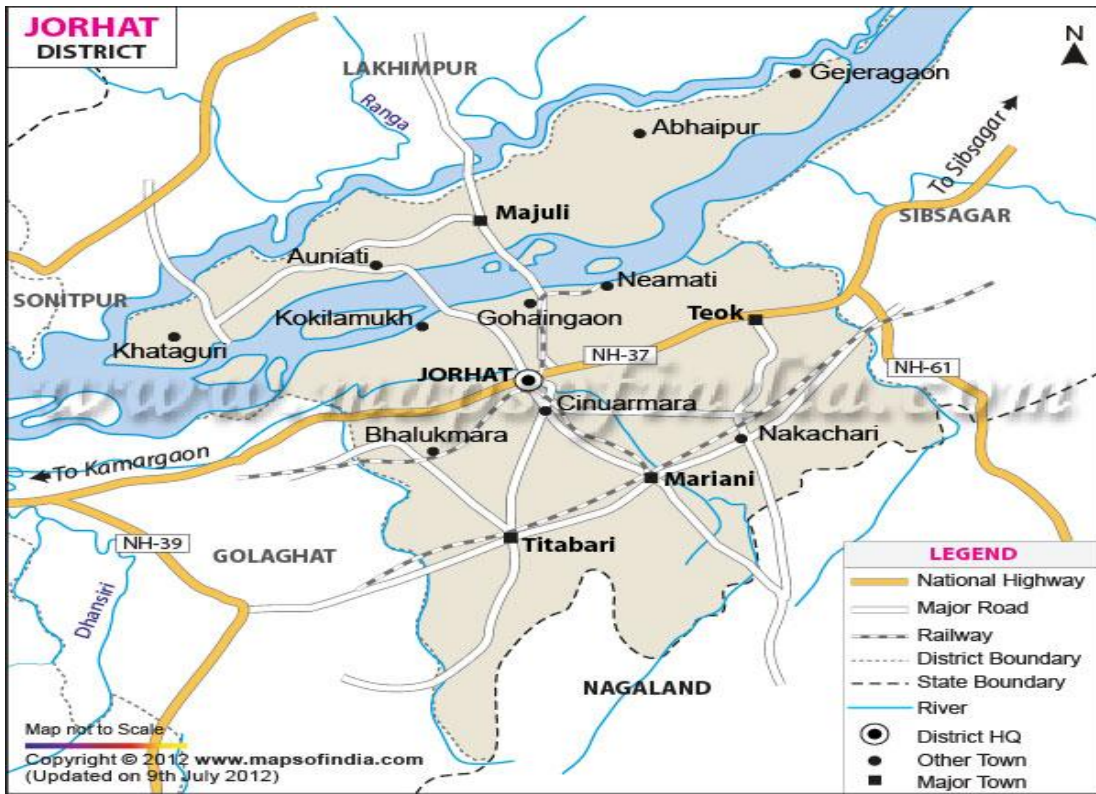
<sup>13</sup>The literal meaning of *Kumol Saul* it is 'soft rice'. It is generally soaked in water overnight and then consumed it in the morning with curd or milk and jaggery. Also consume with smashed potato, onion, chilli and salt



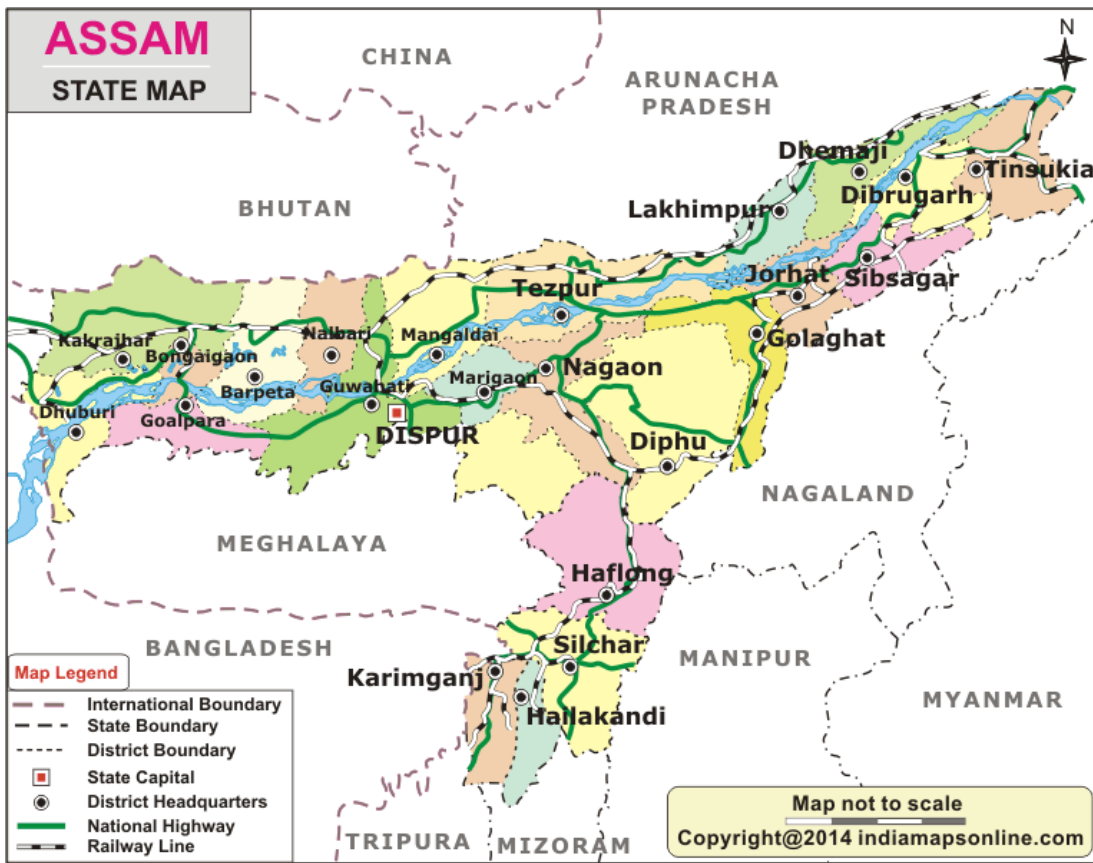
The kitchen of an Assamese household has a unique traditional structure. It is basically constructed with clay and mud. Woods and bamboos were collected from the nearby forest to light the fire. But in recent time the use of woods and bamboos has been seen degraded due to the introduction of LPG (Liquefied Petroleum Gas) cylinder services. According to participants, in the village there has been a lot of deforestation, since last decade and therefore woods are not easily accessible but the community people were able to manage the bamboos (tree) and other branches of trees for fire. But in the study area it has been observed that use of traditional method of cooking yet prevailed in a satisfactory way. In the NSSO 61<sup>st</sup> round it was mentioned that, use of LPG had been increasing in the rural places of India compared to the urban areas during the time span of 1993-1994 to 2004-2005.

The chapter tried to give an understanding of the socio demographic profile of the study area. It has discussed the state of Assam, the district Jorhat and the study area village Monaimaji Gaon. The data that the researcher had documented in the chapter were collected from the primary field work and also from the available secondary sources such as; state, district and central level report on the necessary grounds. The chapter starts with the very sensitive and complex phenomena of contemporary time; the Assamese community and its definition. The researcher had taken help from academicians/historians and also reviewed available literatures that were in Assamese language to make an inclusive idea about the Assamese community. In the later part, by giving an introduction of the study area, the chapter focuses on the different socio-demographic factors like; religion, education, caste, administrative profile, health care sector, food habit, transportation and communication, climate of the region, occupation of the community people etc.

### Map of Jorhat district



### Map of Assam



## **CHAPTER: 4**

### **BELIEFS AND PRACTICES ASSOCIATED WITH THE USE OF TRADITIONAL FOOD AND PLANTS**

Beliefs and practices have its own features depending upon the society and the culture. It can be defined as a continuous system of a society that is acquired by learning and experience method by the people of that particular society. The belief system and the practices are basically adopted by the people who are belonging to the same community and culture. Talking about the use of traditional food and plants and the beliefs and practices associated with it, the same scenario has been found in the field area. The people of the Monaimaji Gaon showed preferences towards the utilization of easily accessible food and plant stuff in that region. Beliefs and practices differ from one community to another and each community shares their traditional way to express it.

Use of traditional food and plants carries a deeper faith and meaning among the people of a particular community. In the study area Monaimaji Gaon of Jorhat district, use of traditional food and plants has been observed as a prime feature of the people. There are various aspects associated with the community beliefs and practices with regard to the use of traditional food and plants. The health of the people inhabiting in the study area has been influenced by various aspects. It includes; socio-cultural, geographic and educational aspects. These aspects are discussed below on the basis of the findings of this research.

#### **4.1 Socio-Cultural Aspects:**

Socio-cultural aspects have a great importance in the field of using traditional food and plant among the people of the Assamese community. People have their own understanding of health and treating health issues with the help of traditional knowledge. Traditional healers are one of the most important personnel in the Assamese culture. The traditional healers of the community are called as *Bej* and they have a respectful position in the society. The importance of the *Bej* and their traditional knowledge on health issues and use of different traditional home remedies are very popular among the people residing in Monaimaji Gaon of Jorhat district. During the field work the researcher came across with two types of traditional healers

and their traditional knowledge, experiences, beliefs and practices have been documented and mentioned below as a part of the socio-cultural aspects.

#### **4.1.1 Traditional Healers:**

The traditional healers play a significant role in the study area. It was found from the field work that, the community carries deep faith for them and their treatment. The researcher wished to include them in the study to understand their perception and their belief in using and prescribing traditional diet along with the medicine to their patients during the time of treatment. Another reason of taking the traditional healers as key informants is to document the traditional food and plants and their healing effects. It also helped the researcher to understand the traditional practice and scientific reason behind the practice of the food items. Their perception on traditional food and plants are discussed in the next section. The researcher also tried to include some narratives of them which were considered as beneficial for the study. The researcher came across two categories of traditional healers in the village and those are discussed below.

##### **The Bone Setters**

This category of the healers only focuses on the joining the broken bones of the body by using different herbal leaves. They also prescribe special diet list to their patients that are believed to be helpful in fixing the broken parts quickly. A woman bone setter was one the participants and she has been practising it since last 10-15 years. Her husband was a bone setter of the village and after his death; the woman has been practising this healing process. She mentioned she learnt the entire treatment process from her husband and her prior experience by observing and helping her husband before his death. According to her she is now more experienced and learnt few more healing processes to set the broken or displaced bone than her late husband did. She mentioned that beliefs and faith of the people help her to cure the patients and it makes her more responsible towards her work as a bone setter. Patients from different villages and districts also came to her for treatment. The former MLA of Jorhat district helped her by providing her with a good building, a *Pakka* house to treat the patients.

During an informal conversation with a patient aged 66, who came to seek treatment of her broken wrist, mentioned that, she fell down while she was bringing water from the pond and broke her wrist. In the first day she did not give any importance to her wrist, but from the same day especially during the night her pain increased and the wrist swelled a lot. Therefore in the morning, her son took her to the Dhekorgorah primary health centre. But there was no provision of any x-ray and the doctor was also not available. Since her pain was increasing beyond her tolerance and her son arranged a tempo and took her to the Jorhat medical college and hospital. After spending almost the entire day it came in the report that the wrist got broken and they put a plaster on it. Even after opening the plaster in the given time the wrist displaced again after few days. Then she decided to visit the traditional bone setter who was a woman. The healer checked the x-ray report of her broken wrist and ground herbal leaves and tie it on her wrist. She was asked to keep the medicine for 24 hours and asked to visit her the next day. This scenario shows the integration of modern scientific technology in traditional healing process, where the traditional healers studied the x-ray and gave medicine. Such treatment not only increases the trust of the people but also strengthens the process of traditional healing in the society. The healer also asked her to eat some specific vegetable/plants along with goat and pigeon meat that are believed to be good for her broken wrist. After 7 days of treatment, she went for another x-ray and it was showed an improvement. This incident happened 5 months before the interview was done and on that day she brought her neighbour to the healer for the treatment of her broken wrist. She mentioned that the healer is a very kind and friendly woman and responded to her problem very well and gave enough time to examine her hand. Most importantly she herself put the medicine on her wrist. . The patient said,

*"Our own things have blessings of God. We never realise that our local food has so much healing power until we face any health crisis. Remember that, our own people always help us during the crisis rather than the outsiders with some new techniques. These are the only strategy to make money but own people never show greed for money."*

This incident shows the people's faith and trust towards the traditional healers and traditional food. The village people are mostly depended upon the traditional knowledge rather adapting to any biomedical assistance. It also depicts the

psychological frame of the people where they have deep faith in the healing processes that are conducted on the basis of traditional knowledge. The study of Marriott (1955) has given us the same picture where the villagers neglected and refused to seek treatment from the biomedical practitioners and visit the health care unit established by them, but trust their own people who live in proximity and care at any time. However, important observation is that people do seek modern allopathic treatment in the first instance, but when it is non-functional, non-accessible and when they are not satisfied, they resort to their own healers. The improvement in their conditions by the healers further repose faith in them.

### **The spiritual or faith healers:**

This type of traditional healers is known as *Bej*. They basically treat the patients with the help of chanting Mantra<sup>14</sup>, offering to God, conducting rituals and providing herbal medicine to the people. They are very specific to their treatment ground. They mostly treat the patients on the basis of their spiritual power. They conduct *Jora Fuka*<sup>15</sup>, *Tel Jora*<sup>16</sup> and *Pani Kota*<sup>17</sup> to treat their patients. They provide herbal medicine for the diseases like; Jaundice, pneumonia, dog biting, snake biting, piles, *Mukh Loga*<sup>18</sup> (evil eye) etc.

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<sup>14</sup> Mantras are the holy chants and preferably used by the traditional healers and the priest.

<sup>15</sup> *Jora Fuka* is basically practice by the spiritual or faith healers. It is conducted by chanting some Mantras and by using some wild herbs when the individual is suffering from any kind of illness. It mostly conducted when the patient is not getting positive results from the previous treatment and when the community perceived its occurrence due to some supernatural forces.

<sup>16</sup> *Tel Jora* is a very common treatment in the community. In this process the healer takes a required amount of mustard oil and chanted some Mantra in it. *Tel Jora* basically used for body aches, joints pains or broken bones of the any of the body parts.

<sup>17</sup> *Pani Kota* generally conducted by almost all the traditional healers. It is conducted by chanting Mantras in to the water and then the water is given to the patient either to take bath or to drink. *Pani Kota* process is considered as a treatment for pneumonia and to get relief from the effect of evil eye. This is believed as very beneficial among the people of the community and has been practising since time immemorial.

<sup>18</sup> *Mukh Loga* takes place to an individual when he/she is the victim of evil eye. It is believed that, when someone is giving a bad stare at the person, it become the cause of illness. The symptoms of the bad eye are; loss of appetite, loose motion and vomiting.

A spiritual healer, aged 84 mentioned in the interview that, he has been working in this field since he was 20-25 years old. He learnt the mantras from his father and from his grandfather who was also well-known healer in the village. In the beginning, he was doing the healing processes by observing his father and grandfather and after that he got formal training by his father. According to him, these are very pure and sacred things and his father handed over it to him by conducting a small ritual to God for the blessing because he is going to help the people. Currently two of his sons are also learning the processes of healing but they are not practising it widely, due to their other occupational engagements. From the field survey, it has been found that, the traditional knowledge of healing or treating the people is passed from one generation to another generation through oral tradition.

In the interview regarding his opinion on the use of traditional food and plants for healing purposes mentioned that the Assamese food culture is very rich from curing and preventing disease point of view. He has given a list of traditional food plants that contains a number of medicinal values and people can include them in their regular dietary pattern. He also checked his age old book and given some names of the traditional plants with sufficient amount of medicinal values and those was used in the culinary process but at the contemporary time those food plants were almost not accessible for the community people due to various reasons. The factors which are found by the researcher as the major reason for this erosion are discussed in the next chapter: 5. Therefore either people are looking for an alternative or totally forget about them. While asking for the reason of erosion of the food plants at present time he replied,

*"The Village was famous for its natural resources and we had enough access to use them for our daily usage. We had never experienced buying foodstuffs from the market except for salt and sugar. All the food items are prepared in the homes and cultivated in our own fields and sometimes shared with friends and relatives. Most importantly there was an adequate amount of land in our hands and each member of the family helped each other to grow/cultivate them. But look at the village now, it has experienced a rapid change almost within a decade. Families got larger and land also distributed on that basis. So there is very minimum amount of land left to cultivate varieties of vegetable and plants. In such situation, we don't have any other option than relying on the market in buying foodstuffs despite knowing their harmful effects*

*on our health. Our generation mostly finds difficulties to cope up and adopt them as we are not used to consuming food plants or vegetables harvested with the help of chemical."*

The healer mentioned that he and his elder generation have never visited any modern health practitioners even for once. His forefather died without seeking any health care treatment from doctors. He also mentioned that around 20-25 years prior, there was no health care service or any doctors available in the village. Remembering the early period of his life, he also mentioned that in the entire district there were only a total of 3 or 4 doctors available. In such crisis, people mostly depended upon the home remedies that are based on traditional knowledge and experience.

From the field data analysis, it is found that both the traditional healers along with their respective fields of healing, also practice and prescribe, to consume the locally grown organic food and plants. From the interviews with the traditional healers it can be understood that the beliefs and practices associated with health and use of traditional food and plants have been playing a very important role to maintain an emotional as well as socio-cultural bonding among the people of the Assamese community. The researcher used the term emotional to describe their belongingness towards the practice of traditional dietary pattern. The emotional bond starts from the time of cultivation, gathering them from forest or fields and then preparing them for the family considering good health for them in mind. Another important fact is that the use of traditional knowledge in dietary pattern and community perception on their health benefits have been passing on from one generation to another with their experiences, beliefs and faith.

#### **4.1.2 Historical Oral Tradition:**

In Assamese community, consumption of traditional food items bears a sign of respect towards the community and the culture as well. Gathering the plants from the kitchen garden and nearby fields or forest has been given the place of giving respect to the elders and traditional knowledge of the previous generation. Because the traditional knowledge of the food and the plants used by the Assamese community have been found in an oral history form. The interview with a male participant, aged 78 mentioned,



*"Our food is not only for the purpose of just to fill the stomach and survive. The food that we consume has a great history. It has not come from here and there. It has a very healthy components and that is the reason for our good health and energy. Our people were very good warriors in the early times. This is all because of the food habits that we had acquired in the early time. In my life, I have never been to any doctor. I always eat homemade food and plants from my own kitchen garden. Eating home prepared food is our culture. Assamese people have varieties of food items and they are cooked in the houses by our family members. Not using or neglecting our own tradition is an insult to our culture and our people's hard work."*

From the above-mentioned narrative, a clear picture came out that, an emotional and community bonding is related to the food practices of the community. People of the community have the pride of experiencing the largest running dynasty of Ahom (600 years) and the history of the bravery and good health of the Assamese people. The Ahom reign played an important role to strengthen the pillar of the Assamese culture and community on the ground of food and plants. From the field work, it has been found that the innovation and the culinary process of many food items had been prevailing in the Ahom era. As rice is the staple food of the Assamese people, therefore, the food items are also prepared by varieties of rice. Most importantly each variety of rice carries health benefits. The health benefits of the rice also depend on the preservation and quality of the seeds along with land quality and methods of preparation for the consumption purpose. Different types of rice have been used to prepare different food items and they are a part of the culture that has been prevailing prior and after the Ahom era. Few beliefs and practices that are still prevailing in the Assamese community with regard to the use of traditional food items have been discussed below.

As an agrarian society, the food practices are basically focused on energy and immunity building. For instance, consumption of *Kumol Saul* (soft rice) in breakfast bears scientific logic behind. The *Kumol Saul* is prepared by soaking it into the water overnight and consume it in the next morning with *Doi* (curd) and *Gurr* (jaggery) or *Aloo Pitika* (smashed potato) and onion. People believe that consumption of *Kumol Saul* provides adequate energy to go for cultivation and it also takes a longer duration to get it digested. Therefore the people can work in the paddy fields for long hours.

Consumption of *Luthuri* which is prepared by boiling the rice powder in water with salt, sugar and milk is considered as a very prominent food for the infants and the children. It is believed that consumption of *Luthuri* provides immunity and also strengthens the bones of the infants and children. It can relate to the universal immunisation system because the community believes that consumption of *Luthuri* in the early ages works in the body for many years. It is the foundation builder of the human body along with the immunity. In the words of one woman participant,

*"Luthuri is the best food for kids. I and my siblings grew up by eating luthuri and our parents and grandparents too. From our childhood, I have been experiencing it in my own home and in the neighbourhood. When we fell sick the only medicine that we used to get is our home cooked food of our mother. By eating luthuri, pithaguri with bhim kol (banana) and other food items we got relief. For fever, bitter taste foods are served. Because the bitter taste food items help to reduce the body temperature. But bitter food should not be eaten at the night hours. It is said that eating bitter food at night can cause deafness. In this way, we grew up with the help of eating the food that our elders told to be good for health. Now I have 3 girls, but they are grown up and do not find this food tasty because they are tempted by the Chips, Maggie, Bhujia and all these kind of packaged food. While in their childhood I followed the diet, as I did during my childhood. These food patterns have been prevailing since long ages because people are getting benefited by them, otherwise our elder generation would have never been so healthy. Our elders are much more experienced and they always advised for good and this is the way the traditional beliefs are going in our society."*

This is how the age old tradition and history impact upon the dietary pattern of the people of the Assamese community residing in Monaimaji Gaon. From the above-mentioned narratives, it can be analysed that, people's beliefs and practice of using traditional food and plants have been deeply influenced by the early history and the experience of the elders of the community and these can be considered as the source of the traditional knowledge of the community people. But during the field study it was found by the researcher that, the availability of readymade food or packaged food has a huge impact on the younger generation. The younger generation found them more preferable for various reasons and as a result of this the present status of the traditional dietary pattern has been undergoing some changes which are mentioned in the Chapter 5.

#### 4.1.3. Religious Faith and Beliefs:

Religion plays an important role in people's food choice. The food choice or the dietary pattern of the Assamese people residing in Monaimaji Gaon of Jorhat district has basically practised two kinds of dietary pattern. It includes; *Kaccha*<sup>19</sup> food and *Pakka*<sup>20</sup> food. Though this concept of kaccha and pakka food has been seen as related to the hierarchy<sup>21</sup> of the caste system, but in the study area it has been found more religious than caste based. There have not been any restrictions found in taking food from different castes groups, on the contrary people prefer and practices taking kaccha food in any kind of religious occasion or festivals. For instance, during any ritual, the member of the family who is conducting the ceremony either keeps fast or eats kaccha food. In Assamese community of Jorhat, the Kaccha food basically includes both rice and vegetables especially potatoes which are cooked in water or fruits. In the religious ceremony, the Assamese community has practice similar to offering of food and it is called as *Mah Proxad*<sup>22</sup>. The *Mah Proxad* consists of kaccha and not cooked food items. This food pattern (*Mah Proxad*) is introduced in the community by the Srimanta Shankardeva (1449-1568). He introduced the Eksarana Naam Dharma and led the neo-vaishnavism movement in Assam and later established Namghar the community prayer house and *Satra* the monastery. Srimanta Shankardeva played the foremost role in the formation of Assamese culture. He was a saint scholar and social-religious reformer. His contribution to the society was based on scientific ground and the introduction of *Mah Proxad*, which carries a huge amount of health benefits. Therefore has been a part of *Xokam* (religious ceremony) since the time of Srimanta Shankardeva. The health benefits of *Mah Proxad* are discussed below on the basis of community perception and traditional knowledge.

*Mah* (green gram) is one of the highly used food items by the Assamese community. It is used in a raw form in every kind of religious ceremonies. It is soaked in the water

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<sup>19</sup>*Kaccha* food are basically consumed as raw such as fruits or cooked in water which means the boiled food items.

<sup>20</sup>*Pakka* food items are cooked in oil or butter and there is also use of different spices in *pakaa* food.

<sup>21</sup>In the caste hierarchy, the upper caste people cannot take pukka food from the lower castes; however, they don't mind taking the kaccha food. This is related to the notions of purity and pollution concept.

<sup>22</sup>*Mah Proxad* is consisted of green gram, chickpea, salt, coconut, banana and other varieties of fruits. It is the offerings to God and then it is distributed to the people. It is prepared during all kinds of religious events and serves in a raw form.

from the previous night before the day of the ceremony and they clean the peel of the pulse and serve it with different fruits and *Payox*. *Payox* is cooked with the help of water, sugar and milk and is considered as one of the most sacred food to offer God. The health benefit of consumption of *Mah Proxad* (raw) is that it is good for stomach and it helps to cure and prevent constipation. During the time of religious ceremony the family members either keep fast or consume very light and kaccha food, therefore there is a high chance of having stomach cramps or gastric problem for not eating for a longer duration. In such situation, *Mah Proxad* is considered as a very cold and light food that prevents our stomach to face any kind of such difficulties.

In an Assamese society, the community people deals with chicken pox from a religious perspective. It is called as *Boxonto* or *Aai ulua*. The patient is considered as a sacred person until the day of the ritual. The patient and the entire family members eat only kaccha food because the pakka food is believed as hot which takes time to heal the patient. During the time of chicken pox, it is believed that the stomach of the patient remains hot and digestion of food takes a lot of time. Therefore, highly cooked kaccha food is preferred for the patient in such sensitive time. Offering *Payox*<sup>23</sup> is the foremost ritual that takes place during the period of chicken pox. The *Payox* is offered to the patient and the women of the village chants prayers and worship the patient. *Payox* helps in drying the chicken pox from the body. The community people perceives that white is the colour of *Aai Matri* the goddess of chicken pox and offering her white food (*Payox*) gives the patient relief from sufferings and then she leaves the body of the patient. It is believed that *Aai Matri* has come inside the body of the patients and offering *Payox* and *Mah Proxad* will satisfy her and then she leaves the body of the patients. The ritual generally takes place in odd days like day 3 or 5 or 7, after the symptoms have appeared in the body of the patient. During the interview, while talking with one healer, he mentioned about the hidden meaning of offering *Payox* has a scientific reason to cure chicken pox. He said, during chicken pox, body becomes very sensitive and it has the high probability of getting infection easily. Therefore the patient is requested to wear soft white clothes with full coverage

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<sup>23</sup>*Payox* is prepared by rice, milk and sugar by cooking them together. It is basically practiced as a holly food and therefore in most of the religious rituals community people offers *Payox* to God and then it is distributed to the other people.

to get comfort and stay safe. *Payox* tastes sweet and it is considered that sweetness and the smell of *Payox* help in curing/getting dried the chicken pox.

#### **4.1.4 Food Taboos and Preferences:**

It is important to understand the general meaning of the word taboo before the discussion on food taboos prevailing in the Assamese society that has been documented on the basis of primary data collected from the Monaimaji Gaon of Jorhat district. The word Taboo can be defined as some kind of restrictions or prohibition that are generally constructed or practised by any particular society, community or religion. The taboos can be varied from one community to another and have been continuing since ages. In the same way, food taboos can be defined as the restriction of prohibition in choices of food or dietary pattern by any particular community. According to Victor B. M. Rochow (2009), the food taboos are some unwritten social rules that exist in every society of the world in one or another form. Practice and beliefs related to food taboos have been found among the people of Monaimaji Gaon of Jorhat district.

It is a well-known fact that the lives of the people residing in rural areas are influenced by the climate and the environment, soil quality, accessibility to natural resources and urban centres, the traditional knowledge and beliefs system of the people and so on. Such influences in human life help in the formation of food culture or adopting food choices by the people inhabiting in that particular geographical territory. As an agrarian rural society, the people of Monaimaji Gaon depended upon the locally grown and prepared traditional food items for the daily dietary pattern.

There are some rituals and events that are prevailing in Assamese society that is related to food taboos. In the same way, the people of the village also practices some taboos related to food. It has been found from the analysis of the field data that, these taboos are varied to the different category of people. For instance, there are some taboos that are applicable for the pregnant women, women after giving birth, during menstrual cycle etc. The events that are related to food taboos are discussed below with the help of community beliefs and traditional knowledge.

**Pregnant Women:** In the early periods the community women during their time of pregnancy were asked to consume less food to get rid of from the pain of giving birth

to a child. It was believed in the community that consumption of healthy diet will lead to giving birth to a healthy child and delivering a normal child is much more painful than giving birth to a less healthy child. In the early period, there was no institutionalised health care unit available in the rural areas. Therefore home delivery is the only system available in the village and it was conducted by *Dhai* the traditional Birth Attendant (TBA). During the interview, a woman participant age 68 narrated,

*"I gave birth to my five children on my own with the help of Dhai. But in the case of my third child, the Dhai was unavailable in the village so my mother-in-law and other neighbouring ladies helped in birthing process. . There was only one Dhai in our village and she looked after other three villages as well. So sometimes it was hard to get her appointment because of the busy schedule. She also looked after and gave advice to the pregnant women regarding diet and health of the both mother and the child. She was highly experienced and familiar figure and had been working in this field for many years. She learnt the system from her mother who was also a professional Dhai. But both of them were not literate. Her mother helped in delivery of my mother during my birth. It was their family tradition but after her death around 9/10 years back there is no Dhai in the village yet. Therefore people prefer to visit the hospital or the delivery operated by the neighbouring ladies who know the process."*

From different interviews with the female participants, especially belonging to the elderly community experienced maximum number of home deliveries either by the TBA or by the other elderly women of the community. It was expressed by the ANM (Auxiliary Nurse Midwives) in the health centre that, due to some traditional beliefs and customs pregnant women or women in ante-natal period face lot of nutritional deficiencies about whom they are unaware. In the name of food taboos, both the mother and the child have been suffering from different health complications. For instance, consumption of raw Papaya, pineapple and alkali is considered as bad for the health of both the mother and child. It is believed that consumption of these food items leads to abortion of the foetus. The table: 4.1 documented the edible product and the community belief on restrictions on those different food items during pregnancy:

**Table: 4.1: Edible products and community belief on restrictions during the time of pregnancy**

Edible products		Community Beliefs On Restrictions
1.	Papaya	Cause of loose motions and abortion
2.	Alkali	Cause of abortion and heavy bleeding
3.	Pineapple	Reason of itching inside the stomach and can be the reason of abortion
4.	Brinjal and mushrooms	Allergic reaction to both the mother and the foetus
5.	Chillies and different spices	Create irritation on the foetus and results in damage skin of the child
6.	Twin fruits or vegetables	Can be the risk of having twin babies
7.	Jackfruit	It is a hot fruit and the foetus feels hot inside the womb
8.	Sour fruits	Risk of irritation in the skin of the foetus
9.	Wild fruits and plants	A touch of evil spirit and wild toxic animals like; snake.
1.	Pithaguri (Rice powder)	Prohibits before a month of delivery for the purpose of cleanliness of the foetus and to protect its eyes from the powder.

Source: Primary data from the field work

According to NRHM (National Rural Health Mission) and NHM (National Health Mission) guidelines, gaining weight during pregnancy is very important for the good health of the mother and the child. 10-12 kilogramme weight is the basic requirement for the woman during her pregnancy according to the guidelines. During field work it has been found out that after the introduction of the delivery system in Dhekorgorah Mini Primary Health Centre nearby the village, the women are showing interest in institutional delivery. The women were also getting cash assistance for conducting institutional delivery. A participant, mother aged 26 mentioned that, in her initial days of pregnancy her mother-in-law and other elderly women of the neighbourhood advised her to go for normal delivery at home. She mentioned that they also asked her to eat less and put many restrictions on her diet, so that she never had to bear much pain in giving birth. But during her ante-natal check-up, it was found that, the level of

haemoglobin in her blood is very low. The ASHA described her health condition to her family members and stated how it might lead to complications for the mother and the child. Then the family members provided her local food items that are believed to be good for her health condition along with the medicine that the doctor prescribed. She was then given injection and tablets and also consumed local food items like; banana flower, *Jilmil Xaak* (white goosefoot), pigeon meat etc. This example shows clearly that, in the name of custom and beliefs health becomes the object of negligence and the purpose of suggesting eating less food is to make sure that the baby is smaller in size for easy and normal delivery. In this case, the role of ASHA also played a commendable job to provide necessary information to both mother and the child. It has been also understood that, the community people including both the elderly and the younger generation deeply believe in the medicinal values of the traditional food and plants, though they have certain taboos. In this case, though they ignored the biomedical system of health care and practice food taboos but in the later part it has been found out that, they adopted both the biomedical treatment and also continued their traditional dietary pattern that they believed to be beneficial for the health of the mother in case of any complication.

In this context, a similar study was conducted by Lakshmi (2013) among the tribal women of North Coastal of Andhra Pradesh. This study explores that, due to traditional beliefs and taboos, loss of valuable nutrients have been found during antenatal period among the tribal women. The result shows that, the women are suffering from protein-energy malnutrition and other deficiencies that lead to health complications of the mother and the child. Pregnancy is considered as one important life event of women and generally characterized by various cultural and religious beliefs and practices which are associated with food and health (Alonso, 2015).

**After Delivery** there are few restrictions on the dietary pattern of the women. There is a prohibition of consumption of sour food items such as lemon to prevent infection inside the stomach, chillies, meat, sweet foodstuff and different spices in food at least for a month. Because it is believed that the inside part of the stomach has become weak and sensitive after giving birth to a child and the system of our body is not ready to take the responsibility of such food. A ritual has been conducted after the delivery of the child by the people of the village and that is mentioned in the next part of the chapter.



Menstruation period is considered as an impure stage in the Assamese society like in many other societies in Asia. It is deeply practised by the people of Monaimaji Gaon. A woman is considered as impure until the fifth day of her menstrual cycle. A number of restrictions have been found among the members of the community and these customs have been prevailing since long ages. A woman is socially boycotted during her menstrual days. Especially she was strictly prohibited from entering in to the kitchen and cooking food. It is believed that if a married woman cooks during her menstrual cycle, it brings bad luck for her husband and decreases his life span. If an unmarried girl cooks during her menstrual days and serves it to any elders of the society then it is believed as a curse for her future and her married life as well. The food taboos and the related restrictions during menstruation have been mentioned below in the table: 4.2.

**Table: 4.2: Food taboos and restrictions during Menstruation**

Name Of The Food Items		Community Beliefs On Restrictions
1.	Hot and spicy food	Increase the temperature in the body and also create stomach ache
2.	Sour food stuff	Increases the bleeding amount
3.	Egg	Risk of having menstrual cramps
4.	Red meat	Bad for the sensitive stomach condition

Source: Primary data from the field work

The above-mentioned food taboos have been documented during the time of primary data collection from the field. It has been observed that, these taboos are highly practised by the elderly generation people and the other elders of the family. It has also been found that in the nuclear family these taboos are comparatively flexible than the joint family. From the analysis of the findings the common factors that are found associated with the practice of the food taboos are discussed below.

**Educational status:** In the area of Monaimaji Gaon the formal educational level is very low especially among the elderly generation. The field data reveals that, the maximum educational level among the elderly generation is higher secondary. Among women highest level of education is up to class 6th while among men it is 12th pass.

Due to the low educational knowledge, they are mostly unaware of the scientific facts of the food, that they are perceived as taboos. And it leads towards the occurrence of different complications. However, their traditional wisdom of the benefits of food are unquestionable.

**Fear of abortion:** From the above findings it has been explored that a maximum number of food taboos are associated during the time of pregnancy. The restrictions of certain number of food items carry the reason of their prohibition is the probable cause of abortion. Some old family or community history and experience is also found as a factor of practising these taboos among the community people during the antenatal period.

**Economic condition:** Poor economic condition is also an associated factor of practising food taboos. As a rural area, the people of the Monaimaji Gaon are mostly depended upon agriculture. Participants also explain about their inability to afford good food and fruits from the market. Sometimes it also becomes difficult for them to buy the medicines that their doctors prescribe. In such situations, due to the fear of upcoming health crisis the people avoid and also adopt special dietary pattern in some special health condition. These are mainly home remedies. Poor availability of health care system is also a factor of this adoption of food taboos.

**Health care system:** It has been a history since time immemorial that, the health care service/facilities are very poor in the rural areas of India. Even after the long years of independence and ongoing development in the globalisation era, the health of the rural people is still bad due to inaccessible health services.. In the field area participants mentioned about the unavailability of doctors and medicines in the health centre. Therefore, most of the elderly generation keeps their faith with the traditional knowledge on food habits and food taboos. During the informal interview with the Assistant Block Programme Manager and the Accountant of the Dhekorgorah Mini Primary Health Centre narrated,

*"Most of the time it is a big challenge to make the people understand the misconceptions associated with the food taboos. The elderly people are the big risk in this matter. They hold their age-old customs based on others experiences or some stories which are not even scientific, and then passes it to their next generation to*

*follow. Sometimes I feel bad for the pregnant women for listening to the elders of their family and putting their and the child's health in danger."*

He also mentioned the kind of health problem that the women face in the village during the ante-natal and post-natal period. These problems are as follows;

1. Weakness of the mother stays for longer duration after giving birth to child.
2. Problems/complications in the next pregnancy.
3. Anaemia
4. Low blood pressure level
5. Low haemoglobin level

Therefore it can be said that, the above can be possible due to food taboos and restrictions that the community people practiced.

#### **4.2 Geographical Aspect:**

The geographical condition has a great importance in the process of using traditional food and plants. The traditional food habit or dietary pattern is mostly depended upon the native food plants and the crops. The people of that particular geographical territory included them in their staple dietary routine. In the field area the researcher has found a number of local food items and plants that are used by the people of the Monaimaji Gaon in their dietary pattern and they considered them as the traditional food plants.

With the help of reviewing the literature on the available food plants in Assam, it has been explored that in Assam there are few common food plants that are consumed by the entire inhabitant of Assam since ages and they have become symbolic to the tradition. In this way, the locally available food plants can be considered as the traditional plants of the community people.

Along with geographical aspect, traditional food and plants are also influenced by the climate and soil quality of the region. As mentioned earlier there are few plants or crops that are suitable for that particular climate and naturally or easily grown in that region. Assam is famous for different variety of rice and it is the staple diet of the people living in Assam. The research study reveals that, the food items that are prevailing in the study are found in both *kaccha* and *pakka* category and they are

prepared by the different variety of rice. These food items contain their specific time for consumption on the basis of traditional knowledge. The common food items that are prepared by rice and consumed in the study area have been documented during the field work are mentioned below in the table: 4.3

**Table: 4.3: The common food items prepared by rice and consumed by the community**

Local name of the food items		Consumed as
1.	Xandohguri, Pithaguri, Sira and Muri	Breakfast and early evening meal.
2.	Kumol saul	Breakfast and lunch.
3.	Luthuri	Staple food for the infants and early evening meal for the others.
4.	Til Pitha, Ghila Pitha, Tel Pitha, Narikol Pitha and Malpura	Snacks and serves with tea.

Source: Primary data from the field work

The above-mentioned table shows the documented food items that are practised by the people residing in the Monaimaji Gaon. The table did not include the food items that are consumed during lunch and dinner. It has only shown the food items that are prepared by the different variety of rice. The above-mentioned food items are either consumed as kaccha food or in its raw form. Consumption of *Bhat* (Rice, Curry and other side dishes including fish or meat) is the staple diet of the entire Assamese community inhabiting in different places of Assam. *Bhat* is consumed as lunch and also as dinner. In some cases people also consume *Bhat* as breakfast. It has been found out that, with the three times meals the snacks are also prepared by the rice in its different forms. It has clearly proven that highly produced and cultivated crops and plants become the staple diet of a community and the production and cultivation depend on the climate and the soil quality of the region. Since Assam's climate and soil quality is suitable for rice cultivation, therefore, the maximum numbers of food items are prepared by rice. Due to the wet climate of the region large number of green leafy vegetables grown naturally in the region. Many ethnobotanical, pharmaceutical research studies have revealed the medicinal values of those available plants that are found in the study area. In this way it can be argued that, geographical aspect plays an

importance role in practising traditional food and plants among the people of Assamese community.

In the context of consuming fruits in the study area, it has been found that cultivation of papaya, different variety of bananas such as; *Bhim kol*, *Malbhug kol*, *Senia kol* and *Aathia kol*, jackfruit, mangoes, guava and *Aamlokhi* (Indian gooseberry) is available in almost every household of the village. Consumption of fruits like apple, oranges, pomegranates etc. are found low. During the summers, consumption of mango is very high along with jackfruit. But the people who are suffering from high BP and diabetes, seems avoid eating jackfruit as they believe it increases the BP level. The reasons of low consumption of fruits which are not locally grown mentioned below on the basis of primary data:

(a) The fruits that are available in the market are high in cost. Most of the people in the village are not economically better off to afford them. Because most of the fruits that are available in the market are imported from different states of India.

(b) The elderly generation people especially, do not prefer to consume the fruits that are not locally grown. They believed that, chemical fertilizers have been used to make them ripe earlier to sell them in the market. Eating them can cause the problem of indigestion, loss of appetite and gastric problems. Therefore, they prefer the fruits that grow naturally without using chemical fertilizers and they are better for the stomach and they also provide more energy than the fruits available in the market.

Regarding the health status of the children of north-east India, Lalneizo and Reddy (2010) has mentioned that despite poor immunization coverage in the region, the level of Vitamin A is very good among the north-eastern people due to their highly Vitamin A rich food consumption. From this study it can also be mentioned that, the people of the study area is believing in practising locally grown food items in their dietary pattern and it helps in providing basic nutrition to their body. The traditional vegetables of Assam play an important role in maintaining a good health with the help of its organic photochemical that are found in the vegetables (Borah et al. 2009).

### **4.3 Educational Aspect:**

Education influences our society on different grounds. It has been influencing human life in all possible way. It has been seen that educational level has a great impact in

the process of practising traditional food and plants among the people of Monaimaji Gaon. From the analysis of the field data, it is found that, the educational level among the younger participants is higher than the elderly generation. In elderly generation higher secondary is the maximum level of formal education, whereas in the younger generation it reached to master degree.

The primary data reveals that, the younger generation participants and their practices and beliefs are flexible with regard to use of traditional food and plants compared to the elderly generation participants. It has been understood that, the elderly generation practices the traditional food and plants on the basis of the traditional knowledge that is verbally passed on and it has been adopted as custom and belief. On the contrary, the younger generation participants are aware of the nutritional values that are available in the food and plants. To make this point an example of an interview has been mentioned. A male participant of 17 years of age living in a joint family was very clearly answering the health benefits of the food and plants that have been using in his family. The participant was not only giving the name of the nutrients but also the traditional use of those particular food plants. In his words,

*"Now I realise that, the food and the plants that my mother and grandmother cook are very healthy. I used to hate them when I was a kid. But in our science class, the teacher told us about the vitamins and protein that are found in those food items. He also told us the functions of vitamins and protein and how they help us to get rid of from falling sick. Therefore, I started eating them now. In the beginning I did not like the tastes but now I like them. Now I understand that the things that I used to hate contain great medicinal values. I think all the Assamese food items that we consume have different types of health importance. I will eat everything that my mom cooks for me as I don't want to fall sick. It will hamper my studies."*

Another perception also found in regard to the practice and use of the traditional food and plants among the younger generation. In the above-mentioned narrative, the participant shows his interest in consumption of traditional food in his regular dietary pattern to keep himself far aside from falling sick. But a different perspective also came out from the same category of the key respondents. A female participant of 19 years of age living in a nuclear family has given a different perspective in this regard. According to her,

*"Yes, I know that eating home prepared food is good and our parents also want us to follow that diet but they always taste same. How come it is possible to eat food that almost tastes same with each other. I can't even differentiate them from one another. After a long and tiring day at college, I do not feel like eating them at all. Before leaving for college and again after returning from college the same kind of food is not preferable. I need something tasty and spicy to eat such as; Maggie, chowmien, aloo chop kind of food. Though, I know that regular consumption of them is not good for my stomach and I will also get fat soon but still I like them to eat. They look good and taste good. And if in case something happens to me then doctor and medicine are there to cure me."*

From the both above-mentioned narrative, the analysis that has come out is, even though they belong to the same category but they perceive different beliefs in regard to the practice of traditional food and plants. . In one narrative the participant is talking in favour of consumption of the traditional food and plants whereas the other participant is showing his preferences towards packaged food and fast food consumption. Another picture reveals that, the younger generation do not want to invest time in treating illness by home remedies. They prefer to visit bio-medical practitioner for any kind of health issues rather than visiting traditional healers or using home remedies as it takes time in healing.

From the field study, it is understood that such situation can also be considered as the result of the higher education that keeps the younger generation busy in their studies and work. In such situation they hardly get time to collect the plants and prepare the food items. The family pattern also plays an important role which is experienced in the field area. Data shows that living in a nuclear family can also be a reason of unawareness of the younger generation regarding the health benefits of the traditional food and plants and also finding difficulties in identifying them. Whereas, in a joint family system the elder members of the family such as; grandmother and grandfather often talk about the values of the traditional food and plants and how they consume it and other related things. It has also been observed that the grandparents also assist in collecting and preparing the food items and food plants for the daily meal of the family.

## 4.4 Rituals And Festivals Related To Traditional Food And Plants:

### 4.4.1 Rituals:

Rituals and festivals are the soul of a community. It reflects the beliefs, custom and traditions of a particular community. There are many festivals that describe the history of a community. The Assamese community is also not different from this. In Assamese community that is residing in the Monaimaji Gaon of Jorhat district, practices a number of rituals and ceremonies that are associated with the consumption of traditional food items and plants. And each of them carries some important health message through their work and ceremonies. It has been found that, the people of Monaimaji Gaon practices different rituals and ceremonies for women and infants. Festivals are also celebrated that are related to the traditional food practice of the village people. These are mentioned below in a life cycle approach at various stages.

**Infants:** Among the people of Monaimaji Gaon, there is a ritual practice for the infant when he/she turns 5 or 7 months and before their teething. This ritual is known as *Annaprasanna*. It is the first ritual of feeding rice to the infant. In this ritual a plate of *Bhat* is prepared for the infant like the other members of the family. The plate of *Bhat* includes any kind of local fish items, meat especially duck and goat, a variety of locally grown vegetables and the plants as side dish, egg, and variety of *Pitha*<sup>24</sup>, *Satni*<sup>25</sup>, *Payox* and other variety of traditional food items. According to the ritual, the infant should taste all food items that are available on the plate and all the utensils that are used are made of *Kanh* (Bell metal) which is the traditional utensils of Assamese community. The belief behind the ritual is to introduce the infant to the food item of the community people. It also means that, the infant is now prepared to eat all the food items and eating in utensils of bell metal help in digestion and other possible stomach issues of the infant.

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<sup>24</sup> In Assamese community there are varieties of *Pithas* found which are made from different varieties of rice powder. It is basically stuffed with shredded coconut and sugar and sesame seeds and jaggery. It is basically consumed as day snacks and serves with tea. It is available in both fried and baked form.

<sup>25</sup> *Satni* is basically a type sauce which is made from grounding different herbal plants with onion, garlic and chillies and consumed with meal. The highly used plants for satni are curry leaf, heartleaf, skunk vine and mint plant.



**Pregnant women:** The pregnant women have maximum number of rituals compared to any other in the life cycle of human life. The first ritual takes place in the 5th month of pregnancy. This ritual is known as *Ponchamrit*. The term means: Fifth (Poncha) and 'Sacred food' (Amrit). That is 'Sacred food that serves in the fifth month' for the pregnant women. This ritual only takes place during the period of first pregnancy. The food items that are included in the ritual are; *Gheeu* (clarified butter), honey, curd, milk, *Malbhug Kol* (banana) and sugar. These food items are mixed together and after praying to the God and greeting the pregnant woman, the food is served to her. This ritual is only conducted by the women of the community. Men do not participate in this ritual. This ritual is conducted with the belief that, the woman in her first pregnancy becomes physically weak and providing this food will give her energy to bear the weight of the children that starts increase from the 5th month onwards. The meaning of the religious part of the ritual is that the child is the gift of God and by worshipping the woman and the child, they are thanking the God.

The second ritual is known as *Bhat pitha*. This ritual takes place in the 7th month of pregnancy. The food items that are serving in this ritual are curd, jaggery and *Pithaguri* (rice powder). The *Pithaguri* is boiled in water and then it is transformed into small pieces with the help of a spoon. Then it serves with jaggery and curd. *Bhat pitha* provides energy to both the mother and the child in the womb, so that the new born does not have to face any kind of complications after coming to a new world.

The third and last ritual that has been taken place among the people of the field area is known as *Kesa pitha*. This ritual is basically conducted in the 9th month of the pregnancy to thank God for keeping the mother and the child safe throughout the months. The food items that are used in this ritual are banana, milk and sugar or jaggery. It is believed as a cold food that keeps the baby cool and also gives the mother a relaxed feeling by keeping the body temperature cool. It also gives energy to the both mother and the child.

In the community, pregnancy is considered as an important event. Because, it is the woman who is carrying the future generation of the family. Therefore in this stage special care along with various restrictions of different foods are given to her as they are the most vulnerable during these days. International organisation, Child In Need Institution also declared that pregnancy is the most vulnerable stage of women's life

in India and therefore they promote consumption of healthy home foods during this time period.

**Post Partum:** The community people of Monaimaji celebrate a ritual after 5th or 7th day of the delivery of the child. This ritual is basically a social welcoming function for the new born baby and feeding the mother for her weakness after giving birth to the child. In the ritual the food items that serve has great medicinal values to give relief from the delivery pain and all the cuts and wound that had happened during the time of delivery. The food items include; *Kosu Xaak* (taro) which is cooked as curry with salt and black pepper along with *Borali Mass* a kind of local fish. It is a fish curry and serves with plain rice. Consumption of this food is very useful to the women of the community. During an interview, a woman aged 62 mentioned that, it is the best medicine that a woman can ever have after a delivery. According to her,

*"The smell of the food increases the appetite of the woman because most of us could not eat properly during the last days of our pregnancy. The black pepper helps in the drying process of the wounds and also reduces the body pain. It is also helpful in refilling the blood amount in our body. After my delivery my mother-in-law feeds me this and I found it so tasty that even now I cook it sometimes for myself. This food really works well. You know one thing; I never visited the doctor during my pregnancy period or after my delivery. Everything that I ate was all the home cooked food and whatever my mother-in-law or the elders asked me to eat. I always obey them and thank the God that he helped me in all my four deliveries. I passed those phases without any complications because I ate a proper amount of our own fresh and local food".*

It shows that the community people have great belief in the healing process of the rituals that are prevailing in the society. They rely on and keep deep faith in the healing effect of those rituals and the food item and therefore these rituals are still successfully continuing among the people of the village. Practice of local food patterns or dietary habits has a significant role in the process of shaping the nutritional status of people's health. Many secondary sources admitted the contribution of it and an international humanitarian organisation named Child In Need Institution (CINI) is working for sustainable development of health, nutrition and education of children, adolescent and women. The organisation has found that consumption of home

available food helps to mitigate malnutrition from children and pregnant women. Therefore, the organisation with the help of its members has taken this initiative in India for the pregnant women and infants. The amount of nutrition that the child received during the time of pregnancy and during the childhood helps in determining the health status of the individual in the adulthood. Work of this organisation has showed that, none can deny the important role that played by the traditional diet in maintaining a good health.

#### **4.4.2 Festivals:**

Assam is the land of agriculture and most of the festivals of the region are influenced by it. "*Bihu*" is the main festival of Assam and it projects the lifestyles of the Assamese people. There are three types of *Bihus* celebrated in Assam and they are *Bohag or Rongali Bihu, Kati Bihu or Kongali Bihu and Magh Bihu or Bhogali Bihu*. The *Bohag Bihu* marks the beginning month of the Assamese calendar and it starts from the middle of the April every year. In the first day of the New Year, the entire people of the Assamese society collected 101 types of herbal plants and prepared them for dinner. In each household of Assam, this herbal recipe is prepared on this special day. The significance of consumption of this recipe is that, these 101 herbal plants protect the body from various kind of illness. This practice of herbal recipe has been prevailing since time immemorial (Begum and Gogoi, 2006). These herbal plants are not only included in some specific plants that are supposed to be eaten on that occasion but they can also be consumed in the regular dietary pattern. This shows how the plants are used since time immemorial to prevent illness among the community people. A botanical study conducted by Samim Sofika Begum and Rajib Gogoi (2006) also has proven the medicinal values of the different plant's specimens that are used as recipe during the *Bohag Bihu*.

#### **4.5 Role of Home Remedies:**

The existing literature shows that, people inhabiting in rural or tribal areas are still dependent upon home remedies to treat ill health. In the field are the community people who are also dependent upon the consumption of traditional food and plants as home remedies to treat and also to prevent different health problems. It has been found in the field that the people of the Monaimaji Gaon show preference for home remedies than Allopathic treatment and almost every family residing in the village

were aware of the usage of them. One important analysis that is revealed from the field is that, the younger generation participants were negligent towards the use and knowledge of the home remedies. The experience and knowledge about the traditional food and plants and the home remedies prepared by them are much higher among the elderly generation. Apart from this, it was noticed that, the women participants are more active in preparing the home remedies and taking care of the family members and also they were having more knowledge on the healing properties of them. The researcher came across with some participants who had shared some of their experiences of illness and how they tackle them with home remedies.

A woman participant of the elderly generation shares her experience of having high blood pressure (BP) with the researcher. She mentioned that, once she was suffering from a headache and vomiting for two days. Then her husband by looking at her symptoms said that, she is suffering from *Bayu Utha* (high BP). Therefore her husband asked the daughter-in-law to prepare juice of *Jati lau* (bottle gourd) and feed her twice a day and to consume raw garlic with lunch and dinner. She also stopped consuming bitter items like; *kerela* (bitter gourd), pumpkin leaf, meat and salt in her food. She was taken to the doctor by her son and doctor diagnosed her with high BP but the doctor also complimented her husband for his traditional knowledge on diagnosing disease and providing treatment to it. The woman then told the researcher that she is fine now and not taking any biomedicine for her high BP. But she still avoids eating the food items that can cause high BP. But if in case she consumes meat or other bitter food items then in the later part she also consumes the juice of bottle gourd.

Another woman participant shares her experience with the researcher about the chicken pox that happened to her 21 year old son. She said that, her son was complaining of weakness for continuously 3 or 4 days and did not want to eat anything. The son was also complaining by saying that his stomach is turning warm from inside as if he is having fever. But his body temperature was normal. After seeing the symptoms the mother (participant) fed him honey twice or thrice a day and *Methi guti* (Fenugreek) soaked water and fed him in empty stomach. She continued this routine for two days and in the next day, the chicken pox came out in the whole body of her son. Then she became sure about it and also showed it to the neighbouring lady, and they also agreed with her. Then they conducted two rituals in

the 3<sup>rd</sup> and 7<sup>th</sup> day of his suffering. The participants told the researcher that, after that her son started recovering soon and now he is totally fine.

From the field area it was also found that, the traditional healers too are suffering from different health issues. One old male traditional healer stated that he has been suffering from low BP and diabetes. He mentioned that his low BP frequently create problem in his professional and also in his personal life. While asking about his perception about his diseases he said,

*“Disease never asks for permission to enter into your body nor does it care who you are or what you do. The modern doctors also fall sick even after working so hard to cure disease of others. Our profession is to serve the community people without thinking of personal greed or benefits. As a healer I have to visit people of different villages along with mine. Sometimes in emergency I have to serve the patient for a longer hour. Either I have to visit or the patient comes to my place. We don’t have any specific hours for giving service. We render our service whenever it is needed. In such situation I also skip my both time meals and my personal health suffers. While you are serving to the community you never realise or give importance to yourself. That is what happening in my case too. But, I never take any medicine, yet my sons forcefully took me to the doctor and then all these diseases came out in my body. Why do I need to take some unknown medicine while we are so rich to treat all our diseases, isn’t it?”*

The healer told the researcher that his wife and his sons keep complaining him about his busy schedule. They want him to leave the practice since he was getting old and his health condition was also not very good. But he refused and says, *“I cannot say no to help my own people. It is disrespect to our profession and to the traditional knowledge and beliefs of the community people that has been prevailing since time immemorial.”* The healer also explains the researcher what are the remedies that he is taking for his illness and also give her some dietary advice to stay healthy. He also mentioned that,

*‘If we continue our diet on time then we will never fall sick. In my case frequent skipping of meal allowed my body to invite low BP and diabetes. Though I visited the doctor, but I never took their medicine. Now I am more concern about taking meal on time according to my health condition and my health is doing well. But I am also*

*grateful to the doctor that he diagnosed what is happening in my body which I was not aware.'*

The above-mentioned experiences are given by the participants showed that the people always give first preference to home remedies during any kind of illness. The people have their old traditional belief and practices to treat the illness. The usage and the belief are found higher among the elderly generation than the younger generation. He also gave his perception towards the use of biomedicine. He does not believe in modern health care practice system. According to him they are not at all a part of the tradition of the Assamese society and the allopathic medicine rather makes the patient more sick. It is also true that, the traditional or home remedies are time consuming, but it does not have any side effects nor it makes the patient weak according to the healer. From the narrative of the traditional healer, the researcher also analysed that somewhere the importance and advancement of the modern health care practice has been accepted by the traditional healer which helped him in certain point of his life.

Few documented home remedies have been mentioned below, that are collected during the field work. These are the remedies that are practicing in a maximum amount, in almost all the households of the study area.

- (a) *Methi Guti* (fenugreek) soaked water for fever.
- (b) *Modhuri Kunh* (the soft leaves of guava) and *Mosundari* (heart leaf) for diarrhoeal condition.
- (c) Old preserve salted *Gul Nemu* (lemon) for stomach ache and loose motions.
- (d) Regular consumption of *Poka Omita* (Raw papaya) for constipation.
- (e) Honey for Chicken pox
- (f) *Noroxingho* (curry leaf) for digestion problem and keeping the temperature of stomach low.
- (g) Regular consumption of raw garlic to control high BP.
- (h) Rubbing bowl of *Kanh* (Bell metal) in the foot with mustard oil to reduce fever.
- (i) Rubbing grounded bamboo shoot and jaggery in the area of honey bee or wasp bite to reduce the pain.

The above-mentioned remedies are not applicable for the children. The people believe that, the internal function of the children specifically below 10 years of age, are very

soft and sensitive. So providing them the all home remedies (the edible) may hamper their lives. So the community people are very selective in giving the children all kinds of home remedies. Therefore, they practice special diet for the children such as; *Pithaguri, Luthuri, Bhat* and other less spicy and home cooked food as a protective measure to avoid different health issues. It is a well known fact that, every culture irrespective of its simplicity and complexity has its own belief and practices toward illness. In the early ages the people acquired the knowledge of medicinal properties of many medicinal plants with the help of trial and error method and hence they accumulate the knowledge of the components that are prevalent in the nature (Negi et al, 2011). On the context of documentation of these traditional plants and different homes remedies, there were few books were found and these books were written by Dinesh Baishya (2009) and Dr. Gunaram Khanikar (2007). Though these books not completely talked about the home remedies but different medicinal usage of the traditional plants were given there.

While talking with the ASHA worker of the village, she also admitted of the practice of home remedies in the village by the community people. She also told the researcher that, sometimes she also advised the children though they did not come under her service guide, to consume the home prepare food. According to her, the unhygienic food that are available in the commercial areas are the main reason of different stomach problem among the children and adult of the village because they are more exposed to those food while leaving for school and colleges. While going for her regular ante-natal and post natal service in the village, she seems to give advice to the women on dietary pattern and it includes the traditional food and plants. It shows that along with the people of study area the village ASHA worker also deeply believe in the health effects of the traditional food culture of the Assamese community.

The chapter basically focuses on the beliefs and practices that are prevailing among the people of Assamese community of Monaimaji Gaon. The entire analysis of the finding that are discussed in the chapter gives us the understanding of the different aspects, that are associated in maintaining the practice of traditional food and plants that helps to deal with different health issues. The findings are collected on the basis of traditional knowledge, beliefs and practices that the community people perceives as beneficial for health. This chapter shows that despite of the advanced medical system, they believe in their traditional remedies first to treat illness and it is comparatively

found high among the elderly generation people. Different beliefs and practices are described including; the knowledge and experiences of the healers, faith of the community people, prevailing food taboos, religious ritual and ceremonies and other factors that help to fulfil the objectives of the research study in this chapter.



## **CHAPTER: 5**

### **COMMUNITY PERCEPTION AND PRACTICE ON HEALTH BENEFITS OF TRADITIONAL FOOD AND PLANTS**

The chapter starts with the community perception regarding their understanding of health. Then it deals with the traditional knowledge and the perception that have been carried out by the Assamese people residing in the study area Monaimaji Gaon of Jorhat district. The chapter also bring out the health benefits of the traditional food and plants that were documented during the time of field work. It also expressed the community perception about the ailment or the disease for what the food and the plants are good for.

#### **5.1 Perception of Health:**

To understand the people's perception of health it is an important task to have an overall idea about health. According to WHO (World Health Organization), "Health is a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity" (Callahan, 1973). An important understanding of health was given by Qadeer (2011), and according to her, environment is the social reality created by human beings which influences the ecological pattern and perception and evolution of knowledge and their impact upon health. People over the period of time developed perception and knowledge about the health conditions on the basis of the environment where they live. Environment and health both cannot be understood without each other as they are interrelated (Qadeer, 2011). The perception of health is a very subjective understanding and it is an important aspect to know their perception of health and also the role of traditional food and plants to maintain the health. Participants presented their understanding when asked about their perception of health. It was noticed that, the participants were referring to different factors according to their perception that helps in shaping their understanding on health. The factors that were considered as important elements in maintaining a good health were; the natural resources or environment, social, cultural or traditional and economical and educational.

According the people residing in the Monaimaji Gaon, a good health can be understood if the human body is free from physical as well as mental pain. Their

perception towards health is such that; when the body is able to do all the daily activities without facing any difficulties, when the person does not have to think twice about his/her health condition before doing any activity or eating any food, when a body can move without any pain and tension. According to them, food is the foremost element of human life that helps an individual to maintain a good health from his/her childhood. Therefore maintaining a good diet from childhood helps in shaping the immunity of that individual which ultimately helps to fight against *Bemar Aajar*<sup>26</sup>(diseases). The researcher found that, the people of the study area were very proud of their dietary pattern as they perceived the traditional food as a perfect element to keep the people healthy by including food items for all age group people. The community people also believe in keeping the members of the family safe from getting diseased therefore each family member takes good care of the health of the others.

While discussing the perception of health, it is also an important aspect to find out the belief and perception of the people of the study area about the causes of disease. The people of the study area generally deal with illness by practising home remedies as a primary care and depending on the severity of the illness they consulted traditional healers or doctors. But from the interview it was found that, the people along with their treatment also continue practising the traditional food and plants that they perceived as good for that particular disease. It shows people's faith on preventing and curing disease by consumption of traditional dietary pattern. The first preference of the people of Monaimaji Gaon during the time of health crisis always moved around a healthy dietary pattern.

## **5.2 Traditional Knowledge and Food:**

This section of the chapter tries to give the understanding of the traditional knowledge. The concept has been used to identify the people's understanding, beliefs, practises and experiences that have been prevailing in the society since time immemorial. The traditional knowledge associated to health has been passing through generation to generation and the home remedies, especially healing by consuming traditional food and plants have a great importance among the community people.

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<sup>26</sup>The term *Bemar Aajar* is used in Assamese society to indicate any kind of disease or illness. The term includes both chronic and acute illness.

The researcher synonymously used the term traditional knowledge and indigenous knowledge. The traditional knowledge exists in the society as the foremost element of its cultural identity.

It has been understood that, the traditional knowledge is associated with the surroundings such as; natural environment, natural resources, history of the origin or migration of any community, folk tales, agriculture etc.

In the overall Assamese community it has been found that, almost every caste, tribal or ethnic group shares similar pattern of food habit and also found followers of almost similar traditional knowledge regarding treating illnesses by using available food items.

In the study area, it was found that the community people followed the above-mentioned scenario in their daily life. The traditional knowledge carries emotion of the people since the time immemorial. During the time of interview the researcher documented some age old folklores which are famous in the entire Assam and people from different places of Assam follows them. It is known as *Dakor Boson* (saying of Dak). *Dakor Boson* describes not only about the agricultural ideas but also the medicinal values and also the applications of the food items and plants. It gives the people recommendation on preparation, presentation and selection of traditional food items (Saikia, 2013).

The traditional knowledge depicts the lifestyle of the indigenous people. The dissertation has tried to discuss the traditionally consumed food items and plants by the Assamese community that carry medicinal value or health benefits. The food items and the plants that are documented were based on the community perception that has been continuing from long ages and it has taken very important part in Assamese traditional knowledge. So from different existing literature and field study, the features that have been found out about traditional knowledge are such;

- (a) Depicts the indigenous or traditional lifestyle of the people of a community.
- (b) It has been prevailing from generation to generation.
- (c) Traditional knowledge is associated with natural environment of the community and access to its resources.
- (d) It is based on experiences, beliefs and practises.

It has been observed in the field that, the practice of the traditional knowledge had undergoing some changes or erosion in due course of time and these changes will be discussed in the later part of the chapter.

### **5.3 Perception on Practice of Traditional Food and Plants and Present Status:**

Traditional food system of the indigenous people is understood as those which are local and found in the natural environment and are also culturally accepted (Kuhnlein and Receveur, 1996). Adaptation of traditional food and plants or practice of traditional dietary pattern in every life has a great significance among the people of Assamese community residing in the Monaimaji Gaon of Jorhat District. Practising traditional dietary pattern is considered as a part of cultural heritage. It has been seen that, the concept of traditional food of a particular society has been influence by many factors. Therefore, the traditional dietary pattern cannot always be considered as a static phenomenon.

This section of the chapter tried to look at the people's perception on regular consumption on the traditional food and plants, and what are the benefits that they have received till date by consuming them. The researcher also tried to find out what were the changes that the community people have experienced in the dietary pattern and also their opinion on the changing scenario.

It was found from the field work that, the participants from the elderly generation and also the traditional healers have in-depth understanding about the usefulness of the traditional dietary pattern in their day to day life. The various studies that are conducted by scholars like; Upadhyia (2014), Pandey (2013), Ramshankar et al. (2012), Pieroni et al. (2008) and Baruah et al. (2006) also revealed the fact that, the traditional knowledge associated with traditional food pattern is basically found among the elders of the community. The participants were asked about their belief in the importance of traditional food and plants in leading a healthy life. It was found that, both elderly generation along with traditional healers and the younger generation has different perspective regarding the traditional food.

From the interview with the people of the Monaimaji Gaon, the researcher had found out that, the traditional food of Assamese community generally comprises with locally

grown or available vegetables and the plants that have been continuing since early ages using the same method of preparation. According to one female participant from the elderly generation, the dietary pattern of the community people are highly influenced by the geographical location and the availability of the food items. She also added that, the culinary process of the Assamese community is different than the others. The food items are cooked with very less oil and without any spices. Cooking in the fire gave the food a different value in the society. Community perception associated with the cooking process will be discussed in the later part of this section.

There have been a number of studies found that are conducted in the field of the nutritional value of the food items especially the vegetables and the plants. The plants and the vegetables that these studies had included were also cultivated in the study area Monaimaji Gaon. There are some common vegetables and plants around the world which were practiced as traditional in the study area which are discussed in the later part of the chapter. Here the important analysis that comes under the notice is that, at contemporary Assamese society different food items such as the packaged food, fast food or any kind of processes food which are basically not considered as the traditional food of the Assamese community people residing in the Monaimaji Gaon have been adopted by the younger generation into their dietary pattern. From the works of Vasantha et al. (2015) and Kuhnlein and Receveur (1996) it was understood that, modern food items consist of less nutritional values and more oil, sugar and salt. Therefore, the situation of nutritional deficiency has been seen among the youth of the community and it leads to an ill health and from the interviews with the Programme Manager of the Dhekorgorah MPHC and the participants, the researcher explored that the younger population of the community falls sick more often than the elderly population. According to the Dhekorgorah MPHC report (as reported during the interview) the number of younger generation was higher in number who came to seek treatment mostly for non-communicable diseases especially stomach ache, diabetes, high BP, low BP, gastric, diarrhoea and dysentery

It has been discussed before that, the younger generation are more active in seeking the modern health care facilities for each major and minor illness. So in this case apart from considering it as awareness, the researcher tries to look it from a different perspective. Such awareness towards seeking modern health care facilities also depicts the poor health status of the youth of the Assamese community compare to the

elderly generation. This scenario came under the notice of the researcher during the time of interview, while the younger generation spoke about their preferences towards the consumption of market food along with meat (mostly broiler chicken). It was found that the consumption of traditional food items including plants is decreasing in the dietary list of the younger generation. The participants from the elderly generation revealed that, the food plate has been gone through a lot of changes. The traditional food plate has been replaced by the modern food items (though not entirely). The food plate of breakfast which is called as *Jolpan* was generally *Pithaguri*, *Xandohguri* or *Kumol Saul* is replaced by the Roti, breads, biscuits and noodles. While discussing about this issue, according to one participants of age 82 that,

*‘They (grandchildren) don’t like the local food instead they love the Bidexi (foreign) food. The strength that our food provides, these food (market food) are not going to give you that amount of strength. They are only going to give you fat and bad stomach with lots of health issues. But nobody cares. They will eat what they want because we are old and illiterate and nobody listens to us.’*

The above-mentioned narrative shows the pain of an old man when he had been an evidence of a change in the food pattern among the community people. Though, this change cannot be taken in a positive way from the perspective of the elderly generation.

### **5.3.1 Present Status:**

According to Kuhnlein and Receveur (1996; 417) there has been a rapid change taking place in the traditional dietary pattern of the indigenous people. In the study area this change has clearly analysed among the younger population. It was explored that, the young generation played more active role in bringing changes towards the exiting food habit. Authors Goyal and Singh (2007) revealed in their study that, for the sake of bringing some changes in the daily dietary pattern, the youngsters adopted the fast food consumption habit. To understand the present status of the practice of traditional food habits, the researcher had gone through the available literature which helps to find out the major factors that are responsible for the change in the food practices. This section of the chapter also tried to understand the third objective of the study which includes the knowledge of utilization of traditional food and plants among the younger generation. It was mentioned earlier in the chapter that, the concept of

traditional food is a dynamic phenomenon. Changes have been found in the consumption pattern of the traditional food and plants among the Assamese community residing in Monaimaji Gaon. The factors that are responsible for the change have been explored by the researcher are the following.

**Cultural change:**

Cultures are never static; they are dynamic and keep changing. There are many definitions and perspectives through which cultural change can be understood. The basic idea which is propounded in all of these perspectives is that, culture or societies go through a process of development. The culture change occurs through the process of diffusion with new cultures or assimilation into the new cultures.

Cultural change denotes the transformation that has been found in the study area on the ground of consumption of traditional food and plants in dietary pattern that the community people perceived as good for health. Good for health signifies the features like; curing or preventing diseases among the human beings. It is a well known fact that, the food culture or the dietary pattern plays the major role in building the health of an individual. The nutritional status of a human being largely depends upon the food items that she or he had taken in the childhood. The dietary pattern of a family is impacted by the society or the community that they belong to. They adopted the food pattern that they have been familiar or practising since the time they are born. In the Assamese community the same scenario has been noticed by the researcher. The food and the plants that the community people practised in their dietary pattern were similar in each and every household of the study area. Apart from this, the mode of preparation and the use of common food items for ailments or diseases shared similar processes. During the field work the researcher observed that, the traditional food and plants that were practiced by the people of Assamese community have undergone some changes. The major reason that researcher could explore is the impact of Globalization among inhabitants of Monaimaji Gaon.

The impact of globalization has a significant role when it is about culture or traditional process of human society. Globalization played major role in bringing cultural changes in the study area Monaimaji Gaon. There is no doubt in the contribution of globalization in shaping the market economy and spreading the global market to every corner of the country. Such condition made the things of the global

market easily accessible to all. But when it comes to influence the traditional lifestyle or dietary patterns which are considered as the cultural identity of a community or society, globalization did not seem to have any positive influence upon it. The participants also mentioned about the different elements of globalization which are considered as the reasons of the erosion of practice of traditional food and plants in the dietary pattern among the younger generation of Monaimaji Gaon.

Globalization also helps in shaping or expanding the area of market food items. The market food items indicate the food products like; fast food or packaged food items that are available in the market. The researcher would like to refer the food items also as commercial food.

A variety of food items have been easily found in the market. One important analysis that was found from the primary data collection is that, the participants from the younger generation put forward their opinions on adopting the fast food or packaged food culture. The researcher found that all the 15 participants from that group were consumers of market food items. The participants also mentioned the reasons of adaptation of these food items despite of their knowledge on the health benefits of the traditional dietary pattern.

### **Taste:**

Taste is the foremost element of food. The taste of a particular food determines the number of the followers of it. Taste of food shares close relationship with urban culture and this relationship has impacted on the food choice of the people (Vasanth et al. 2015). Demand of different food of different tastes and its amount of utilization by the people influenced the food habit.

It was discovered from the field work that, the younger generation participants are a great follower of different tastes. Taste is the prime source of a food item that attracts them to consume it or including it to their dietary pattern. To understand the importance of taste in food items the researcher mentioned few narratives below;

Pratima (pseudonym), a 19 year old participant mentioned, *'I too believe in the eating of our regular traditional food pattern. But trust me, I have been eating them since my childhood and now I am bored with it. How come someone eat the same food which*



*tastes same every time. I cannot eat them just because they contain a number of nutritional values. For this reason I always have fight with my mother'.*

Satya (pseudonym) was 25 years old boy who run a meat shop in the town area said, *'I love our food. I grown up by consuming these food items and now I cannot say that they are bad. But I completely agree with the fact that we don't have many choices on food. Wherever you go you will served the same food. There is neither unique taste nor any unique method of cooking. They all look green seems like you are eating the same food every time. Now I don't have time to eat breakfast and lunch in home due to my work therefore I eat in the nearby food stall. The modern food items are easy to cook and you can add taste as you like though they are not that healthy.'*

From the above mentioned narratives it can be understood that, not every participants from the younger age category denied the health benefits of consuming traditional food items. But due to availability of different taste, they prefer to eat the market food items in a frequent manner. Apart from taste, it was also found that same cooking method and use of same ingredients also one of the major reason that the younger generation are losing their interest in them. They perceived that this culinary process gives almost all the food items same taste in every time.

### **Variety:**

Variety among the food items can be considered as an important element that helps in the continuation of traditional dietary pattern. But from the study area it was found that, the variety among the traditional food and plants have been undergoing rapid erosion. From the interview with the elderly community it was found that, at present a huge decrease had been evidenced by the people of the Monaimaji Gaon with regard to availability of traditional food and plants. The elements that were considered as responsible for this situation will be discussed in the later part of the chapter. From analysing the data that were collected from the field the researcher found that, it was a matter of concern for the community people because the upcoming generation were not able to recognize and utilize the traditional plants which were carrying medicinal properties and play a major part in the regular dietary pattern. The elderly participants also pointed this as a factor of degrading health status of the present generation and their increasing preferences towards fast food and packaged food culture.

The picture becomes very clear from the above-mentioned narratives of participants Satya (25) and Pratima (19). Satya mentioned about the availability of same food almost everywhere and similarities in cooking method and ingredients taste the same. Pratima also mentioned about her fight with her mother due to the regular consumption of the same food which according her taste same and she had been eating them since her childhood as a regular dietary pattern.

In the Assamese community the food items that are generally consumed as breakfast, evening snacks or sweets are prepared with different rice quality. For instance; *Pithaguri*, *Xandohguri*, *Kumol Saul*, variety of *Pitha* etc. It shows the availability and level of production of rice in the area which leads to use of rice in almost all the food items. This can also be called as the reason of lack of variety among the food items. In the context of vegetables and plants, the village is blessed with very fertile quality of soil and many plants were growing naturally. Varieties of vegetables were cultivated by the community people in their respective kitchen gardens and in the fields. It was found that, most of the vegetable and plants which were documented by the researcher were found in specific seasons. They were not available in their entire year and therefore, the community believed them a highly nutritious and included in their daily dietary pattern during that season. They perceived that, consumption of them helped them to stay away from the seasonal diseases.

#### **Advertisement:**

Globalization exposed everyone to the world of internet and medium. Television is one of the examples of this. It was found that, in the study area almost every household had a connection to a television. The different advertisement and different shows that present different food items that were available in the market have impacted the younger generation. The younger generation found as a strong consumer of the products shown in television.

A huge number of tempting advertisements of food items are available in the television for the commercial purpose. These food items are mostly spread into the market to gain profit and their impact upon health became neglected. It was analysed from the primary data that, these food items contain sufficient amount of fat and availability of different preservative and spices that create different stomach problems. The elderly generation also found complaining about the frequent stomach

problems that were taking place with their younger family members due to consumption of fast food and packaged food items. The participants also mentioned about their curiosity towards the food items that were showed in the advertisement.

**Time of consumption:**

The time of preparation and consumption is an important factor that impacted on the practice of traditional food and plants. The amount of time that takes to prepare and collect a food items determine the number of the consumer of that food item especially during people's busy schedules. According to Sapna (pseudonym) who was a post graduate and working as a home tutor said,

*'I always try to eat our local food items. But preparing them takes a lot of time. For example if I want to eat Pithaguri, it takes almost a whole day to prepare it and you cannot even prepare a huge amount because it will get spoiled. Therefore I eat Roti and Sabji for breakfast. Because you do not have to give lot of time to prepare it. I generally buy the packaged of Aata (Flour) from the market and it is an easy process and not even time consuming. And most importantly, I do not have to worry much to prepare because Aata packaged is available even in the small shops of our village.'*

The above mentioned narrative of Sapna showed that, preparing traditional food takes a huge amount of time and also it does not last for longer period. For instance, the food item like *Pithaguri* as mentioned by the Sapna take a huge amount of time to prepare. Because, to prepare it the rice has to be soaked in the water over night and then it has to be transformed to powder by grinding and after that the rice powder has to put in the sunlight to get dried. In the final stage, the rice power is cooked without any oil or water. After these four steps the *Pithaguri* is prepared and then it is served with milk, hot water, salt, sugar/jaggery and butter. *Pithaguri* is the highly consumed food item in the study area. It is perceived as good for the people of all the ages. It is believed as an energy provider and also helps in building the immunity of the people. It was practiced as a special diet for the children. It is served as a breakfast and also in the late afternoon with tea. During the field work the researcher found that, the consumption of *Pithaguri* is decreasing among the younger generation and among the infants *Pithaguri* is replaced by Cerelac or other baby food that are available in the market.

**Accessibility:**

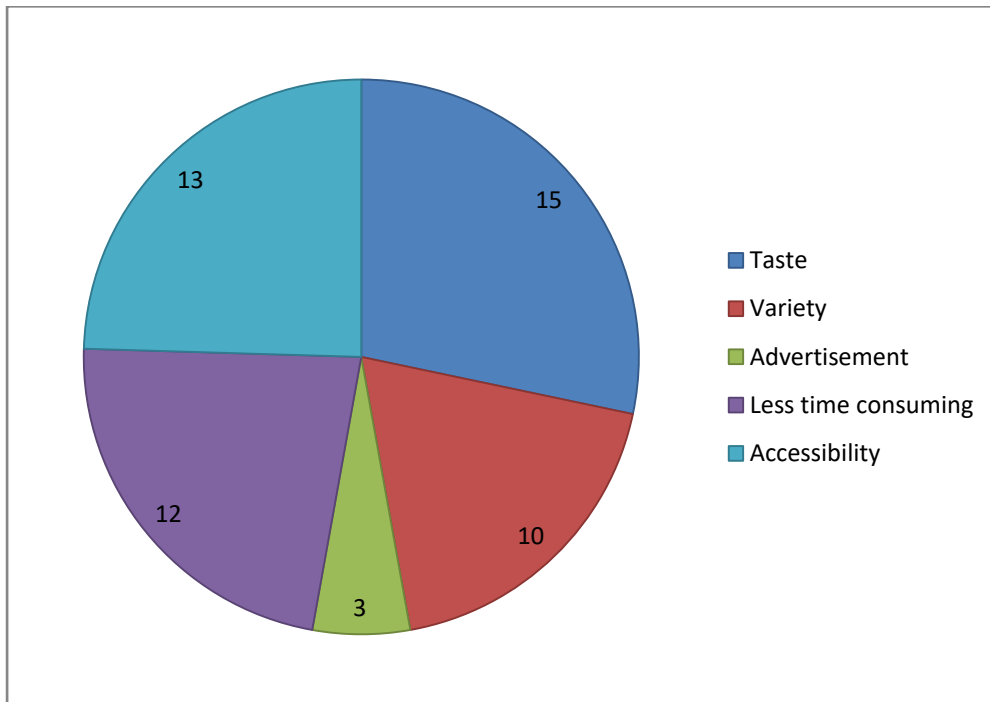
Accessibility and availability of traditional food items shared a close relationship with the dietary pattern that a society or a community practice. The food habit or the dietary pattern of a rural community is generally shaped on the basis of the food items that grows and cultivates in the nearby places and which is easily accessible for them and also affordable in terms of money. The community people also look into the fact that, whether the food item is suitable for the human beings in specific season or environment. In this way these locally grown food items become the cultural or traditional food of that particular community.

It was found in the study area that, participants from the elderly generation mentioning about the degradation of the traditional dietary pattern which they had been practising since ages. According to them many of the traditional plants which were available during their early ages were not available at current time. The study found the reasons for the disappearance of the traditional food plants are; deforestation, lack of adequate amount of land and changes in the climate. According to Saxena et al. (2016) changes in the climate influence the farmers to adopt different choices for planting crops which plays significant role in shaping the nutritional status of the people and it leads to the changes in the human health. The researcher also found that, in due to the lack of manpower people of the study area, especially the younger generation cultivation of traditional food items have undergone erosion. Kuhnlein and Receveur (1996) also mentioned in their work that, due to economic transition, transformation took place in traditional harvesting and it shifted to wage economy. As mentioned earlier the younger generation people of the village are mostly engaged in different occupations in various working sector. Qadeer (2011), mentioned that natural disaster also plays important role in shaping the health status of the people of a particular area. It was found that, natural disaster like flood and heavy rain in the study area, destroyed large numbers of paddy and vegetables and plants cultivation. Land erosion also became the reason of loss of many traditional plants in the nearby river areas. As a result of this, the people were confined within some limited food items which were nutritious (according to their perception) and seasonal. Due to natural disaster the price of the food items i.e. vegetables and plants raised and the people could not afford to buy them from the market due to poor economic condition. Such circumstance was one of the major reasons which impacted

on the health status of the people. Experiencing this scenario, the elderly participants expressed their disappointment as they were unable to show to the younger generation and make them understand about the utilization of those highly nutritious plants. The elderly participants also mentioned that lack of accessibility towards the traditional food and plants is also a major hindrance that leads to the erosion of the practice of traditional food and plants in dietary pattern of the present generation.

The different reasons that led to the adaptation of fast food or packaged food culture among the younger generation (15 no) has been put into the figure 5.1 below;

**Figure: 5.1 Reason of adaptation of fast food or packaged food culture among the younger generation participants (15 no- multiple responses)**



As the livelihood patterns of the people are changing, the influence of it has been also found in the dietary pattern of the people. In the Monaimaji Gaon where the traditional occupation of the entire village population was agriculture has been changed to different sectors. People went beyond their traditional occupation and engage in different sectors, according to their interest and efficiency. Vasantha et al. (2015) in their research article also revealed that, changes have been found in the food consumption pattern of the individuals and the traditional food practices has been replaced by the modern processed food which are high in salt, sugar and calorie. The

authors also explored that due to such changes in the food pattern, the people are suffering from non-communicable diseases. The prevalence of non-communicable diseases were also found among the people of the Monaimaji Gaon. Interview with the accountant of the Dhekorgorah MPHC revealed the number of non-communicable diseases that the people of the village were suffering from. The interview also revealed the fact that, younger generation people are the highest users of the health care services than the elderly people. The participants from the elderly generation also blame the modern food habits and the application of chemical fertilizers in the vegetables and plants that were being used for the development of different health problems. At the same time the participants from both the generations also agreed about the reduction of the cultivation of vegetable and plants in by their own. According to them, lack of manpower, land and time are the main factor that hinders in cultivating organic vegetables and plants.

From the primary data analysis in the above-mentioned section it can be understood that, there has been changes that have taken place in consumption of traditional food and plants in the dietary routine of the Assamese community residing in Monaimaji Gaon. The changes were more distinct among the younger generation than the elderly generation. Adaptation of market food (fast food and packaged food) culture was very high among the younger generation. It was found from the study area that, due to various factors that were mentioned earlier are some reasons for the change. The researcher explored that, the knowledge of utilization of the traditional food and plants was also comparatively low among them. Very few participants provide their understanding on the medicinal values of the common traditional food items. The researcher came across with some participants who accepted the health benefits of practising traditional dietary pattern but their inability to follow them during their busy schedule.

#### **5.4 Cooking Method and Present Scenario:**

Cooking is believed as one of the major consequences of human civilization. It is the process of preparing food with the help of fire. In cooking, selecting and preparing the combination of different food items and spices is an art and gives not only taste but also nutrition to human being. The cooking method and the use of different

ingredients are different according to different societies and in this way one can identify that particular society or community.

The process of cooking is associated with moral process where a raw product from the 'nature' has been transferred to the state of 'culture' by applying heat or other methods (Lupton, 1996; 2). Therefore cooking process not only provides taste to any raw product but also it symbolizes the culture of that particular society. The cooking method, combination of food items, use of utensils, the structure of the kitchen etc. of Assamese community is a bit different from the other communities of India. It was found that, use of spices is very less in the food items and the community people do not prefer to consume highly cooked food. They believed cooking in fire for longer period destroys the nutrition of the food and after that there were no healthy substances left in that food item to consume. Use of different spices in the food was very limited among the people of the Assamese community. It was also perceived by the community people that, adding different spices in the vegetables or plants are harmful for the stomach. Therefore, in the cooking process of vegetable and plants the community people only use turmeric, salt, little amount of oil and fresh green chillies (if needed). The community people also practice boiling of mixed vegetable and plants and then consumed it, which was perceived as good combination to prevent diseases and to build immunity. This situation can be considered as the reasons that, the elders of the community did not find the modern food items preferable and also comparatively suffered from less stomach issues. Such scenario shows the benefits of consumption of traditional food items.

It was found that, people of the Assamese community prefer to eat vegetable and plants from their own kitchen garden. According to the participants the reason behind their preferences for kitchen garden is that, the vegetables and plants that they cultivated were completely organic in nature because the only manure that they use is cow dung and there were no fertilizer used. In the vegetables that were available in the market were basically filled with chemical fertilizers which according to them are the major reasons of having gastric problem and overweight issues. The pattern of preparing food is very simple and light among the Assamese community, which they believe is helpful for digestion and keeping the individual physically active.

In the process of food consumption and serving, the last stage where use of utensils plays a significant role. In Assamese community food are served in the utensils that are made of *Kanh* (Bell metal). Use of *Kanh* represents the rich culture of Assamese society. Use of utensils of *Kahn* is symbol of respect and therefore in social or religious events people use *Kanh*. *Kanh* is as an expensive product and the people of the Assamese community of the study area are not able to afford eating in the utensils of *Kanh* but they all hold few numbers of utensils of *Kanh* to use in any social occasion or religious rituals. Use of *Kanh* as utensil is believed as containing a great impact on human digestion process and preventing stomach issues. People believed that, serving hot food in bell metal utensils absorb the minerals of Bell metal which are perceived as good for health by the people of Monaimaji Gaon. While asking the participants about the available minerals or substances in bell metal they could not provide a definite answer.

The traditional method of cooking was basically conducted by the women of the family. The construction of the old traditional Assamese kitchen was Kutcha and woods and branches of trees were used to light the fire to prepare food. The community people believe that cooking in fire helps to maintain the nutritional elements within the food and also provide better taste than cooking in gas. They also mentioned that cooking in gas cylinder is also problematic for the people with the back pain issue. Standing for long hours and cooking put pressure on the back and also on the knees. Therefore, they also mentioned that the traditional method of cooking was convenient for the people. There were no facilities of LPG (Liquefied Petroleum Gas) cylinder or use of electric power to cook food. But during the time of field work it was found that almost all the household of the village has the connection of LPG cylinder. NSSO (National Sample Survey Organisation) report also shows that use of LPG has been increased in the rural area.

From the interviews the researcher found that, the elderly generation participants suffer from less communicable diseases. Therefore considering this entire scenario and also on the basis of analysis of data the researcher found that, the traditional food and plants have greatly impacted upon the health of the people. Taking the example of the elderly people it was found that, more than half of their life they had been eating only homely prepared food items and fresh vegetables and plants. The vegetable and the plants that they were consuming during their times were completely organic and it



helped in building energy and immunity among them. According to them their childhood practice of dietary pattern had been continuing till their old ages and it helped them to stay away from different diseases which they first came to know in contemporary times. Few of the participants also found, who considered the modern food habit as the responsible factor for developing diabetes and high blood sugar among them. From the interview with the Programme Manager of the Dhekorgorah MPHC it was revealed that, the amount of the patients with problem of diabetes, high blood pressure, low blood pressure, haemoglobin deficiency have been increasing. He also mentioned that, middle aged and younger generation population was higher in number than the elderly population. An important study conducted by Vasantha et al. (2005) explored that, modern food habit which are basically processed food items contain a large amount of salt, sugar and calorie and consumption of them are the major reasons for non-communicable diseases. Kuhnlein and Receveur (1996) found that changes in the traditional and cultural food systems and reduced physical activity are the cause of different non-communicable diseases such as diabetes, cardiovascular etc. After analysing this scenario the researcher found that, changing status in the practice of traditional dietary pattern and also changes in the physical activity of the younger generation are responsible factors for development of non-communicable diseases among the people of Monaimaji Gaon. It was also revealed that, changes in the socio-cultural activities which occupied the lifestyle of the human life, depriving the younger generation to understand the utilization of the traditional food and plants and their health benefits. There were also studies conducted which showed the changes in the dietary pattern from traditional to modern food items causes a large number of health issues like; diabetes, obesity and cardiovascular disease among the native people of Canada and United States (Kuhnlein and Receveur, 1996).

## 5.5 Understanding the Healing Effects of Traditional Food and Plants from Community Perspective:

**Table 5.1: Community perception on practice of traditional plants in dietary pattern:**

Plants ( Local and English names)	Scientific names	The ailment/ disease are it consumed for?	How is it consumed/ preparation, composition and time of eating	For whom it is beneficial?
1. Ronga laaor	<i>Cucurbita</i>	Highly cultivated	This plant is	This plant is

aag (Pumpkin leaf)	<i>maxima Duch.</i>	in most of the households of the community. Community people consumed it for the ailment like: 1. To control and increase low blood pressure.	basically prepared as side dish with garlic, salt and chilli (if needed) to eat with meal. But community people prefer to eat it mostly during the day time (during lunch). Because it helps in increasing the blood pressure so people avoid it to eat at the night hours.	basically preferable for those people who are not having or suffering from high blood pressure, otherwise people from all age group enjoy consuming it.
2. Kosu Xaak(Taro)	<i>Colocasia esculenta</i>	It is a wild plant which is highly available. It grows in the damp places only. It contains adequate amount of <b>Iron</b> . The health benefits of it: 1. Energy provider 2. Cures wounds 3. Fever 4. Body pain 5. Cold	It is consumed as curry with the meal. It is prepared with fish (head part) and black pepper which is good for fever, cold and body pain. It can also be consumed with mixing up with pulses and eat with rice.	It is one of the favourite food items of the community. Children to the old aged people can easily consume it with rice. But people who are having the problem of cough, they are advised to avoid this item. It is offered to the women after delivery of the child as curry cooked with black pepper.
3. Mosundori (heartleaf)	<i>Houttuynia Cordata</i>	Beneficial for the disease like; 1. Prevent diarrhoea, 2. Cures dysentery 3. Cures pneumonia.	Can be used regularly with meal as <i>satni</i> to prevent the stomach issues. It is mostly prepared with garlic, chilli and onion for the regular consumption with meal as <i>satni</i> and also consumed by boiling it with salt and takes it in the empty stomach during the illness.	It is good for all age group of people including the pregnant women. But children who are mostly below 5 years of age they are not supposed to take it in a regular basis. Frequent consumption with meal is considerable for the children.
4. Manimuni	<i>Centella</i>	It is basically a	Regular	Individuals of all

(Asiatic pennywort)	<i>asiatica</i>	wild plant and it is one of the highly consumed plants by the community. It is called as the King of all plants as it holds highest amount of health benefits (antiseptic). It is beneficial for diseases like; 1. Cures worm, 2. Prevent mental disturbance, 3. Cures nerve problem, 4. Reduce depression, 5. Cures wound 6. Provides Immunity.	consumption of its 15 to 20 leaves in the empty stomach can cure many diseases. The leaves can be eating as its raw form and also by making juice of it. It is believed to be more useful when taking with warm water. It is cook with garlic and salt and then serves it as curry (gravy) with plain rice.	age group can consume it regularly but for the children the amount of leaves is comparatively less (the exact amount of consumption of the leaves for the children was not able to document)
5. Noroxingo (curry leaf)	<i>Murraya Koenigii</i>	Beneficial for all the stomach related disease. It works as 1. Blood purifier, 2. Cures cold, 3. Cures fever, 4. Prevent malaria 5. Prevent anaemia 6. Reduce diabetes, 7. Cures menstrual cramps/pain and 8. Cures body aches.	Regular consumption of the plants as <i>satni</i> , juice or curry is highly beneficial for various functions of the human body. During the menstruation, consumption of the plant as warm juice with salt provides relief from the menstrual cramps/pain. Consumption of it with black pepper as juice or curry with rice helps in reducing body aches.	Good for the people of all ages. It can be consumed regularly with rice as curry.  It is especially beneficial for the pregnant women, lactating women and elderly people.
6. Bhedailota (Skunk Vine)	<i>Paederia Foetida</i>	It is a wild plant. The health issues that it	This plant mostly found in the forest or	Highly believed as energy provider. Therefore it is

		works for are like; 1. Rheumatism, 2. Provides energy to the body, 3. Increase immunity, 4. Strengthen the bones and joints. 5. Cures loose motion.	dense areas. It grows naturally. Consumed as Juice and Curry. Basically prepared with garlic, black pepper or chilli with salt. Regular or frequent consumption provide prevention and cure from the mentioned health issues.	served as curry with fish (black) to the pregnant women, children and elderly people during lunch and dinner.
7. Xukloti (Indian patchouli)	<i>Pogostemon heyneanus</i>	This plant is very rare to found at present time. It has a very important health benefit. 1. Cure wound 2. Cures the cuts/wound that happened during delivery including both inside and outside of the body.	It is cooked with garlic and salt. And served with rice during meal. It plant is not consumed in a regular basis. This plant grows naturally mostly in dense areas.	This plant is believed as antiseptic for wounds and cuts that happened inside or outside of human body. It helps in drying the cuts and wound. Highly beneficial and recommended for the women after giving birth.
8. Dhekia (Fiddlehead fern)	<i>Pteridium aquilinum</i>	It is a wild plant. Grows in wet places. The ailments/ disease where it is beneficial are; 1. Cures and prevent anaemia. 2. Control low blood pressure. 3. Nutritious.	It is not available in all the seasons. Prepared with gram and potato is a traditional style of cooking and it is served with both meals as side dish. And also cooked with pulses as curry to consume with rice.	It is good for all age people but pregnant women are not allowed to have this plant as it is believed to be itchy for the child.
9. Modhusulen g(English translation not found)	<i>Polygonum chinense</i>	This leaves of this plant is perceived as beneficial for all kinds of stomach related issues.	It is one of the highly consumed plant leaves. The leaves of the plan cooked with fish curry and pulses	Consumption of this is beneficial for all the age group of people.

			and also consumed as side dish with meal. And it is believed that, regular or frequent consumption of this helps the individual to stay away from stomach diseases.	
10. Bonjaluk (English translation not found)	<i>Oldenlandia corymbosa</i>	The leaf of this plant tastes hot. The health benefits of the plant are; 1. Cures Skin eczema and 2. Prevent different stomach problems.	It is used as paste in the affected areas of the skin to cure skin eczema and it is consumed as juice with salt and also as curry with plain rice during lunch or dinner to prevent any kind of stomach problem. There is no any particular time of eating this plant.	Individuals from all ages can consume it. But regular consumption of it as juice is not preferable for the children age 3-5 as it is believed that, the internal organs are very soft during that age. It is believed that, it may create problems in their stomach as it is very strong when consumes it as juice.
11. Tengesi (Purple wood sorrel)	<i>Oxalis corniculata</i>	This plant tastes little tangy. It is believed to be very beneficial for different stomach related issues. Such as; 1. Helps to keep the stomach clean and cool. 2. Useful to prevent urinary problem and 3. Cures and prevent Fever.	This plant can also be use regularly in the diet. It is highly use as curry with plain rice and also as soup with salt and black pepper. It is also used as <i>satni</i> . It works as an ingredient and put it with other vegetables or with curry for its various medicinal values.	It is considered as a highly nutritious plant among all. So community people use it in many ways. People from each age group can use it as it is not very strong in its tastes. Therefore, it is highly preferable among the children and also among the lactating women. But because of its tangy taste pregnant women are asked to avoid it from their third trimester of pregnancy.
12. Jilmil Xaak	<i>Chenopodium</i>	This plant	This plant has a	This food item is

(white goosefoot)	<i>m album</i>	contains highly medicinal value. The disease/ailment it is beneficial are; 1. Provides relief for Rheumatism, 2.Cure Constipation 3. Control/ stops bleeding 4. Provides energy 5. Increase appetite 6. Cure and prevent gastric. 7. Increases the blood amount in the body. 8. Purifies the blood.	great importance in community. The plant is consumed mostly with the both meals as a side dish. It is cooked with turmeric powder, salt, garlic and onion (if necessary). It is generally cooked with potato and brinjal with mustard oil.	good for the individuals of all the generation. Especially for the pregnant women, children and the anaemic person.
13. Paleng Xaak (Spinach)	<i>Spinacia oleracea</i>	It is believed one of the highly health beneficial plant among the community. According to the community perception its health benefits are; 1. Prevent urinary problem 2. Cures body pain. 3. Smoothen the skin 4. Highly nutritious 5. Helps in the growth and immunity formation of the children	The plant is used in different ways. It is consumed as both salad and <i>satni</i> with other different vegetables and plants. Mostly prepared as curry with rice and also served as soup with black pepper and salt.	This plant is one of the most frequently used plants among all. As believed to be the highly nutritious plant, it is favourable for the individuals of all age categories. Regular consumption of the plant as curry with rice is believed to be energy provider especially for the pregnant women and for the children.
14. Lai xaak (Mustard Spinach)	<i>Brassica juncea</i>	It is highly cultivated by the people of the study area. The community believes the plant	The plant is used in preparing variety of cuisine. Mostly cooked with ginger and serves with rice. It	Individuals of all age group categories consume it according to their will and availability of the plant.

		is beneficial for; 1. Curing cold and cough 2. Curing fever 3. Helps in immunity building 4. Provides energy	is one of the favourite side dishes of the community people.	
15. Kolmou xaak (Water Spinach)	<i>Ipomea eriocarpa</i>	The health issues that it is believed as beneficial are: 1. Curing chicken pox 2. Cures syphilis	This plant is only served as curry with rice during lunch or dinner.	Regular consumption of this plant as curry is highly beneficial for the pregnant women and especially for the lactating women. It helps in the milk formation.
16. Ponownua (English translation not found)	<i>Boerhavia diffusa</i>	This is a rare traditional plant of the Assamese community. The health benefits of this plant are; 1. Cures jaundice 2. Cures urinary problem 3. Cures oedema 4. Control or increases low blood pressure. 5. Helps in curing/drying the internal wounds of the women after giving birth. 6. Increase concentration power of the children.	This plant is used as side dish with meal (rice) by cooking its leaves with salt, turmeric and chillies (if needed) in regular dietary pattern. It is also served as soup by boiling the entire plant including the roots during the time of illness as medicine. The soup is not included in the regular dietary pattern.	Consumption of the plant as side dish is for all the people. Regular consumption of the plant is basically refers to the women during their postpartum period and to the individuals who are having the diseases that can be cured by the plant. Consumption of the soup which includes the roots of the plant does not perceive as good for the children.
17. Matikanduri (sessile joyweed)	<i>Alternanthera sessilis</i>	The leaves of the plant are used for the diseases like; 1. Gastric 2. Stomach Ache 3. Loose motions 4. good for lactation	The entire plant is cooked with pulses. While cooking curry the plant is put in the curry and serves with rice. Juice of the leaf is believed as good for lactation.	The consumption of the plant is beneficial for all the people from different age groups. Regular consumption is highly beneficial for lactating women.

			Regular consumption of the plant keeps stomach problems away.	
18. Neem	<i>Azadirachta indica</i>	It is a highly available plant in the study area. The health issues that can be treated by Neem are such; 1. Skin diseases 2. Diabetes 3. Cures worm	The leaves of the plant are used in cooking. Basically it is cooked in oil and salt and it becomes crunchy. Then it is consumed with meal. A Limited consumption of the leaves is considered as good the mentioned ailments. But it is also perceived by the people that, regular consumption of the plant may cause gastric problem. Making paste of the leaves is useful for various skin problems.	This plant is one of the most preferable food items among the community for the all the people. The community people perceived the plant as holy plant that also keeps the negativity and bad air apart from the house and keeps the family healthy.
19. Darun Bon (English translation not found)	<i>Leucas aspera</i>	The leaves and the root of this plant are beneficial for diseases like; 1. Cuts and Wounds 2. Stomach problems 3. Cures fever 4. Cures cough 5.Cures Pneumonia	Making paste of the raw leaves and consume it with salt is beneficial. The entire plant can also be cooked with oil, salt, black pepper and garlic as the raw leaves are very strong in taste. It helps in curing fever and cough. Consumption of root It is beneficial for curing pneumonia. Basically for	This plant is basically consumed by the adults and the elderly people. Consumption of this plant is believed as strong for the children. Therefore, children are not given to eat this plant without any consultation with the traditional healers.



			pneumonia the traditional healers provide the root in specific amount according to the severity of the disease.	
20. Nefafu paat (English translation not found)	<i>Clerodendron glandulosum</i>	The ailment that the plant works for is, 1. High Blood pressure.	The leaves of the plant are prepared as soup or cooked with garlic and salt without using any oil. Consumption quantity of the plant could not document.	The plant is regularly/frequently consumed by the high BP patients. Other people also consume it occasionally whereas the low BP patients are advised to avoid its consumption.

The above-mentioned table: 5.1 tried to give an understanding about the use of traditional plants in dietary pattern of the people living in the study area. From the table it becomes perceived that, the traditional plants that have been a part of the dietary pattern contain a great amount of health benefits. It was found from the field work that, a single plant has the ability to cure multiple ailments. The researcher was able to document 20 traditional plants that are used in culinary process of the people. It has been found that, highest numbers of plants are perceived as good to prevent and cure diseases associated with the following.

- (a) Stomach issues such as for; gastric, diarrhoea, dysentery, loose motion etc. A total 8 plants were documented that were consumed for various stomach problems.
- (b) 5 types of plants were documented which were used to deal with the issue of curing cuts and wounds. It includes both the internal and external wounds that were caused by accidents or delivery.
- (c) To build the immunity and to provide energy to the human body, the people of the study area practices 6 types of plants which were documented in the table; 5.1
- (d) Documentation of 5 plants for fever and 4 plants for body pain has been found in the table: 5.1 which were perceived as beneficial for health if included in the dietary pattern.

Apart from the above-mentioned ailments, the other diseases that the traditional plants are perceived as beneficial are urinary infection, menstrual cramps or pain, diabetes, low blood pressure, blood purification, anaemia etc. It was found from the interviews that, the people of the study area were not completely aware of the scientific or modern terms of the above-mentioned diseases. But based on their traditional knowledge and experiences they identify the diseases and its symptoms. For instance, the community people called high blood pressure as *Bayu Utha* and low blood pressure as *Bayu Noma* or *Bayu Komain* the body. However, these are basically the perceptions that the researcher explored during the time of study but many studies were reviewed which were based on lab experiments by pharmacologists and botanists. The studies by Negi et al. (2001), Dutta and Dutta (2005), Barua et al. (2006), Borah et al. (2009), Mao et al. (2009), Singh et al. (2009), Bhattacharjya (2014) etc. showed the medicinal values of these food and plants and how they are beneficial for different ailments.

In the next table: 5.2 the list of the traditional food that include both traditionally consumed vegetables and other homemade items. The table also tries to document the people's perception and practice associated with that particular food item and its medicinal value or health benefits.

**Table: 5.2: Community perception on practice of traditional food items in dietary pattern:**

Food items (Local and English names)	Community perception on consumption	How is it consumed/ prepared and time of eating	For whom? All people/ women (lactating, pregnant)/ children/ old
1. Pithaguri (Rice powder)	It is beneficial for, 1. Reducing fatigue, 2. Reducing weakness and 3. Stomach related issues like; gastric and loose motion.	It is a breakfast item. Consumed with milk, Bhim kol (heavily seeded banana), sugar, salt and butter (if needed).	It is considered as the most energy giving food item of the community. It can be consumed by the all age group of people. Especially children and elderly people.
2. Xandohguri (coarse powder of parched rice)	It has been practising since long ages for	It is basically prepared by frying the rice	The food is believed as beneficial for everyone. But the elderly people are

	<p>breakfast. Perception related to its health benefits are,</p> <ol style="list-style-type: none"> <li>1. Not easily digestible</li> <li>2. Energy provider</li> </ol>	<p>and then it is transformed to powder. It is served with hot milk or water with salt, sugar and butter (if needed).</p>	<p>asked to avoid its consumption from evening. They perceived that it might create gastric problem to the elders as it does not digest easily.</p>
<p>3. Kumol Saul (Soft Rice)</p>	<p>Community perception on the health benefits are such,</p> <ol style="list-style-type: none"> <li>1. Prevent Gastric,</li> <li>2. Prevent and cure weakness</li> </ol>	<p>It is mostly use as breakfast item. The rice put into the water in the previous night to get soft and fluffy. Morning it is served with curd/milk and jaggery during the summer. In winter can be used with Aloo pitika (smash potato, onion, chilli and salt).</p>	<p>It is believe to be useful for the people of all ages.</p>
<p>4. Luthuri (boiled pithaguri)</p>	<p>This food has a great importance among the people of the study area.</p> <ol style="list-style-type: none"> <li>1. Helps in growth of the children</li> <li>2. Gives energy to diseased person</li> <li>3. Helps in making the bones stronger</li> <li>4. Helps in immunity building</li> </ol>	<p>It is cooked with water, milk, sugar, salt and butter (if needed) until it turns to a thick mixture (kind of jelly)</p>	<p>Considered as one of the tasty food items of the community and also believed that it is edible for every illness by considering the proportion of milk in it. For instance a pneumonia patient will serve this food without milk.</p>
<p>5. Sira (Flattened rice)</p>	<p>Believed as beneficial for,</p> <ol style="list-style-type: none"> <li>1. Keeping the stomach cool</li> <li>2. Beneficial if suffering in loose motion</li> </ol>	<p>It is consumed as a breakfast and serves with hot milk, jaggery, banana and <i>Muri</i> (if needed). In social occasion it</p>	<p>It is one of the famous and highly practice traditional food item of the community people. It is preferable of people belonging to each age group but people who are</p>

		is served with jaggery and curd.	suffering in gastric problem are suggested to avoid eating <i>Sira</i> with curd because of its acidic content.
6. Muri (puffed rice)	Not found	It is a very light food item. It is basically consume with <i>Sira</i> . It is also serves with hot milk and sugar as early evening meal.	Preferred food item for all.
7. Hurum (Fried pounded rice)	Not found	Use of <i>Hurum</i> and <i>Muri</i> is same. It is also consume with <i>Sira</i> .	Preferred food item for all.
8. Koni dhan (Tiny rice)	Community people considered it as one of the healthy food items. But specific health benefits were not found.	It is one of the oldest food items of the community people and at present time it is rare to find. Prepared by washing the millet. Cooked with water, salt and sugar and serves it as hot. Mostly consumed as breakfast or early evening meal.	It is preferable food item for all the members of the community. There were no restrictions found regarding the consumption of this food item.
9. Bhim kol (Heavy seeded banana)	The health benefits are such; 1. It helps in keeping the stomach cool 2. Cures loose motion 3. Helps in immunity building 4. Energy provider	Soaking the banana in cold water for few hours and drinking the water helps to keep the body temperature and stomach cool. Consumption of it with <i>Pithaguri</i> helps in gaining energy and it is also helps in	It is beneficial for all. Especially for the children and elderly people. But consumption of seed of the banana caused constipation. Therefore, in regular diet people avoid consuming the seeds. But it does not have any other side effects.

		gaining weight. It is also served with boiled rice and milk (if needed). Perceived as good to attain energy after suffering in illness.	
10. Malbhug kol (A type of banana)	Considered as one of the healthiest traditional fruit. The health benefits are such; 1. Helps in gaining weight 2. Provides energy to the body	It is consumed in its raw form like the other bananas. Consumption of food in the leaves of <i>Malbhug kol</i> is also considered as healthy and believed it helps in keeping the diseases away.	Beneficial for all the age group people. But it is suggested to the elderly people to avoid eating it after evening since this fruit does not digest easily, may create problem in the stomach of them.
11. Koldil (Banana flower)	The ailments that can be cure by the consumption of banana flower are; 1. Anaemia 2. Diabetes 3. Regulate menstrual cycle 4. Beneficial for low blood pressure patients 5. Cures constipation 6. Prevent iron deficiency 7. Increase haemoglobin level.	It is a side dish which known as <i>bhaji</i> and eat with rice. It is generally prepared with turmeric, salt, oil and potato. Cooking of it with pigeon meat one of the traditional and famous item of the entire Assamese society. It helps in many ways and perceived as one of the highly valued food.	Good for all age group people. Best food for the people suffering from anaemia and diabetes. Very rich food for the lactating mothers. ASHA of the study area also mentioned her advice to the pregnant and postpartum women to consume it especially when they were suffering in anaemia and iron deficiency.
12. Posola (Banana shoot)	The community perception on its health benefits are such;	It is basically the banana tree. The inside part (soft) of the tree is used to eat which is called as <i>Posola</i> .	It is preferable food item for all among the community people. But during pregnancy, postpartum and menstruation cycle

	<p>1. Prevents and cures constipation</p> <p>2. Rich in iron</p>	<p>It is also eat as side dish with rice. It is cooked with salt, turmeric and potato (if needed) and alkali (if needed).</p>	<p>consumption of it with alkali is restricted as it is believed as cause of heavy bleeding which is bad at such situations.</p>
13. Kosu (Taro corms)	<p>Perception of its health benefits are such;</p> <p>1. Rich in iron</p> <p>2. Provides energy</p>	<p>As a seasonal food item <i>kosu</i> has a great demand among the community. One of the favourite food items of the entire age group. It is cooked with <i>dal</i>(pulses) for longer duration as it takes time to get cooked. It is serves with rice during the meals.</p>	<p>It is believed as one of the healthy food</p>
14. Jaluk (Black pepper)	<p>The health beneficial elements of this item are such;</p> <p>1. Gives relief in cold and cough</p> <p>2. Beneficial for viral fever</p> <p>3. Helps in digestion</p>	<p>It is basically used in the community as spice. It is put in different curries. During the time of fever and body pain, cold and cough black pepper powder is used in different food items. Especially it is believed as beneficial to drink black tea with black pepper powder and salt to heal viral fever and cough.</p>	<p>There are no specific categories or age group found for whom consumption of black pepper is restricted. It is one of the highly used spices of Assamese community and edible for all.</p>
15. Kordoi (starfruit)	<p>It is perceived as beneficial for such reasons;</p>	<p>It is fruit that tastes sour. It is consumed with salt and green</p>	<p>It is a very basic fruit of the study area that found in most of the households. Because of its sour taste</p>

	<p>1. Jaundice 2. Control diabetes</p>	<p>chillies in the study area. During the summer it is prepared as juice and drink in the evening after coming from the paddy field by the people. They perceived it helps in maintain the body temperature and keeps the stomach cool.</p>	<p>the pregnant women from their third trimester are suggest to avoid eating it as they believed it might create irritation in the skin of the baby.</p>
<p>16. Bah Gaj or Khorisa (Bamboo shoots)</p>	<p>The benefits of consumption of bamboo shoot is such; 1. Control hair fall 2. Control diabetes 3. Beneficial for respiratory disease. 4. Reduces fat</p>	<p>Community perceived it as highly nutritious. It is one of the highly used food items in the community. It grows naturally in the study area and consumes in various forms. The raw form is generally serves as side dish with meal, and dried form is used as spice. Pickle of it is very famous in the study area which is call as <i>Khorisa</i></p>	<p>It is one of the favourite food items of the entire community. Each household preserve it in different ways. Either in dried form, or raw or by making pickle of it.</p>
<p>17. Phul kobi (Cauliflower)</p>	<p>The community perceptions on its benefits are 1. Good for heart 2. Good for brain</p>	<p>It is consumed as side dish with meal. It is basically cooked with salt, oil, onions, turmeric, chillies and potatoes.</p>	<p>It is consumed by all the community people from all age group. People do not consume it after evening. They believed it cause gastric and takes time in digestion since people do not engaged in hard physical labour after dinner.</p>
<p>18. Bondha kobi (cabbage)</p>	<p>People believed it is good for 1. Blood</p>	<p>It is also consume side dish with meal and cooking</p>	<p>It is one of the favourite and highly consumed vegetable in the community. Perceived as</p>

	<p>production</p> <p>2. Good for heart function</p> <p>3. Increase energy</p>	<p>method is similar with cauliflower. It is also consumed as salad.</p>	<p>beneficial for pregnant and post partum women as it helps in production of blood.</p>
19. Bengena (Brinjal)	<p>It is among the highly cultivated vegetables in the area. Community perceived it good for brain.</p>	<p>It is consumed as side dish with meal. Cooked with oil, salt, turmeric, chillies and potatoes. Also consumed it by deep frying. One traditional way of eating it is by grilling. Then it is smashed with onions, coriander leaves, chillies and grilled potatoes (if needed).</p>	<p>It is consumed by the all the age group of people. But people avoid consume it if they are suffering from cough. It is believed that, its increases the suffering during cough.</p>
20. Jika (Ridge gourd)	<p>Community perception on its health benefits are;</p> <p>1. Increase eye sight</p> <p>2. Improve immunity</p> <p>3. highly nutritious</p>	<p>It is consumed a side dish and also as curry. It is cooked with potatoes, salt, oil, turmeric and chillies.</p>	<p>Beneficial for all the community people from different age group. Highly referable for children to improve and maintain a good eyesight.</p>
21. Jati lao (Bottle gourd)	<p>Benefits are; 1. Control high BP</p> <p>2. Keep the body temperature cool</p> <p>3. Good for losing weight</p> <p>4. Cures urinary infection</p>	<p>Consumed as curry and side dish. For side dish it is cooked with either potatoes or eggs with oil, salt and turmeric.</p>	<p>Beneficial for people from all the age group. Advised to consumed it in a regular basis for the people who are suffering from high BP.</p>
22. Kumura (White gourd)	<p>Health benefits are such;</p> <p>1. Helps in</p>	<p>It is consumed as curry and also as side dish. One</p>	<p>Perceived as beneficial for all the community people.</p>



	digestion 2. Cure worm problem in stomach.	traditional way of cooking it is with duck meat.	
23. Kerela (Bitter gourd)	Community believed it health benefits are; 1. Beneficial for controlling diabetes 2. curing all kinds of skin problem	It is consumed as boil and also as cooked with oil, salt and potatoes.	It basically asked to avoid during dinner. Community perceived that, its bitter taste cause gastric if taken during the night hours.
24. Kunduli (Ivy gourd)	The community believed it one of the nutritious and tasty vegetables. Perceived as good for building immunity.	It is cooked with salt, oil, chillies and potatoes (if needed) and serves with meal.	Beneficial for all the people from all age groups.
25. Bhat kerela (Teasle gourd)	It is perceived as good for; 1. Control diabetes 2. Prevent season illness.	It is consumed as side dish by cooking it with oil, salt, turmeric and potatoes. The boiled form of it is consumed by smashing it with onion, coriander leaves and chillies.	Preferable for people of all age groups.

In the above-mentioned table: 5.2, documentation of the traditional food items (including vegetables) and community practices linked to them has been drawn. It was showed in the table that, the people of the study area perceived eating of these traditional food items which include local vegetable, fruits and homemade food products which were believed as helpful in keeping the human body healthy by keeping them away from different diseases. It was documented that eight among sixteen documented food items are used as both breakfast item and early evening meal. These food items were prepared by varieties of rice. For instance, from

*ukhuwa*<sup>27</sup>rice *xandohguri* is being prepared and from *aaroi*<sup>28</sup> rice *pithaguri* is being prepared. It was found from the table: 5.2 that the common health benefits of the food items for which the community is practising eating them are such; to gain energy, to increase the immunity level, control or prevent diabetes, to control high BP, to keep the body temperature cool and to avoid different stomach issues.

From the analysis of table: 5.1 and table: 5.2 the features that were revealed by the researcher with regard to their health benefits on the basis of community perception and practice are mentioned below;

- (a) On the basis of cultivation, rice is practiced as the staple food of the study area and therefore, almost all the food items were found as prepared from different quality of rice.
- (b) As an agricultural society, the people of the study area are found as engaged in paddy cultivation and it happens during the summer. Therefore, the people adopted those food items who help in keeping the body temperature cool and also keep them away from different stomach problems.
- (c) It was found that, the paddy fields were not near to their houses. They are located in far remote places and therefore they prefer to eat food which does not digest easily and also provides energy to the body so that they can work for longer hours without weakness.
- (d) Most of the local plants of the study area are seasonal in nature.
- (e) Almost all the food and plants of the community are preferable for all the people of the community. But there were few restrictions found in consumption of some particular food items for pregnant women, postpartum period and during menstrual cycle. There were few food items and plants which were generally suggested to avoid by those who were suffering in any kind of illness.
- (f) The researcher also explored that most of the food and plants that are used by the community people are mostly beneficial for the children, elderly, pregnant and lactating women.

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<sup>27</sup>*Ukhuais* is a type of rice which is bigger in size than the normal rice and is prepared by boiling the paddy and dried it in the sun and husked with the help of traditional wooded grinder called *Dheki*

<sup>28</sup>*Aaroi* is the white rice and prepared by drying in the sun and then husked with the help of *Dheki*.

The chapter tries to give the understanding on community perception and practises regarding the use of traditional dietary pattern. The researcher tries to provide the understanding on health by the people of Monaimaji Gaon. The researcher also tried to find out their understanding on a healthy life and how they perceive a good health by depending on diet.

In the next phase researcher tries to give a brief understanding on traditional knowledge as an important theme of the dissertation which emphasises on influence of traditional knowledge on food and their impact upon health. To understand the knowledge of utilisation among the younger generation, the researcher included few narratives of them. The importance of maintaining traditional dietary pattern to maintain a healthy life was accepted by the people of the study area whereas, they also mentioned about the present status of it. While discussing the present status of it among the people, few factors were revealed which are responsible for the changing trend in the traditional dietary pattern. The chapter also focuses on the cooking method and its present scenario. The researcher concluded the chapter by giving the details of the documented food and plants of the community people that were found during the time of field work and also included their health related aspects considering the perception of the people of study area.

## **CHAPTER: 6**

### **SUMMARY AND DISCUSSION**

The dissertation emphasises on health benefits of traditional food and plants among the Assamese community of Jorhat, Assam. In the previous chapters the researcher tried to achieve the objectives of the study through analysing the primary data and the objectives that were taken for the study were as follows;

1. To understand the community beliefs and perceptions of using traditional food and plants in living healthy life among the Assamese community of Jorhat district of Assam.
2. To understand the healing effects of the traditional food and plants and community practices related to it.
3. To explore the knowledge of utilization of the traditional food and plants among the younger generation.

To achieve the above-mentioned objectives, the researcher adopted qualitative research design and selected the samples with the help of purposive sampling technique. Interview scheduled were prepared to collect the data from the respondents.

This chapter tried to give overview of the entire study and the analysis of the findings that have been achieved through both secondary and primary data collection. The study included the Assamese community and their perception on health and understanding their opinion in relation to practice of traditional dietary pattern to maintain a good health, different health practices associated with traditional food and plants, practice and belief in home remedies for health care and use of traditional knowledge. Researcher also tried to understand the practice, perception and related traditional knowledge from the traditional healers to document the traditional food and plants and also their health benefits. Elderly and younger generation and their perception on this have been taken to fulfil the research objectives.

The term Assamese community is a very diverse and heterogeneous in nature. It comprises with different ethnic, tribal and non tribal population belonging to different caste groups. Moving towards their socio-demographic condition it was found that,

certain changes have been taken place. The foremost element that impacted in this context was the growth of population in the study area. The population growth has changed the economic pattern, availability of land and so on. It was found from the interviews that, there were very less population in the village. The population has started growing since last 15 to 20 years of time span. As a result of this, large number of deforestation took place. The land where paddy cultivation was taken place was occupied by new houses of the new generation. In the context of economy and occupation it has been revealed that, the main occupation and earning source of the people was cultivation. The main cultivation was paddy and vegetables. But in contemporary time the traditional occupation of the people has been undergone some changes and it also impacted in the economic condition. The poor and broken condition of the roads has been constructed, transportation facility (public and private) has been upgraded and the few households of village also own their own two wheelers and four wheelers vehicles, electricity facility has been connected and most importantly development of public health care service which is Dhekorgorah MPHC was functioning well.

In the area of politics and administration, the village people were found taking active and major role. They became more active than the early times. People also started taking interest in different socio-political issues and showed their awareness towards the society. They also mentioned the impact of electronic media like news channels from where they received news from every corner and according to them it is helpful for the elderly generation since most of them could not read. Regarding health programmes, the local news channels also advertise about the recent health schemes that were adopted by the government and were available in the health centres. From this point it can be analysed that, awareness regarding institutional delivery in the village can be one reasons of the media which introduced them to the benefits of it and as a result of this the village has not experienced any infant and maternal mortality cases since 2006 (Dhekorgorah MPHC).

### **6.1 Perception of Health:**

People have very subjective understanding on the perception towards health or good health. According to the people of Monaimaji Gaon, it can be called as good health if the body is able to do daily activities without facing any difficulties, when there won't

be any second thought necessary towards the health condition before doing any work or eating any food, when the body is free from all kinds of pain and tensions.

While discussing their perception on the use of traditional food and plants to maintain a healthy life, they responded in a very positive way. They strongly believe in the practice of traditional dietary pattern to lead a healthy life. They preferred to maintain a good diet from the childhood which they believe as the foundation for the entire lifetime. Emphasizing on good food helped in shaping the immunity and also provides long lasting energy to fight against different diseases.

In almost around the world rural or indigenous people considered food as medicine (Garcia, 2006). It denotes their perception that food can heal everything. The people of the study area also showed their deep faith in the home remedies as primary health care. This depicts the people's dependence on traditional health care system even after the presence of modern health care unit. Studies conducted by the scholars namely Marriott (1955) and Carstairs (1955) shows almost similar kind of picture. In these two studies it was explored that, people of rural India preferred to seek treatment through their traditional ways, mostly by the traditional healers because the people considered the healers as one among them and the doctors and the modern medical care providers as the outsiders or less trustworthy. The doctors and the modern medical treatment are very new to the people especially for the elderly population of the study area. They also showed their fear towards taking injections or taking medicines. According to them the tastes and the look of these medicines are different and also not locally produced. So they hesitate to take them believing that it might create side effects in their bodies. Such situation is seen by the health care providers as the cause of low development of modern health care unit or unawareness, and illiteracy in the rural areas.

Understanding of the causes of disease or etiology of disease is an important part while discussing about the perception of health. Because perception of health shapes from the understanding on how the people see and believe the diseases and the causes of disease. The researcher found that, the people believed in three types of elements that caused illness. The classification of these causes that were based on the people's perception is given below;

(a) Natural cause: Natural causes are those which they can identify by looking at it. For instance, the illnesses that happened due to change in the environment or climate. It was found that, some specific allergic reaction of eye is perceived as due to the budding of some specific flower. People also believe the cause of high blood pressure is over eating, sudden change in the weather, humidity and high temperature.

(b) Magic: *Jadu montra* or *kola jadu* basically denotes the witch craft or black magic. It is believed that, if a healthy person suddenly falls in a severe illness and there are no benefits of any kind of medication, then it is due to some kind of witch craft or black magic. The prime symptoms of such illness are; heavy vomiting along with blood, severe headache and body ache, sudden loss of consciousness and sudden mental misbalance. In such situation the community people first preferred to take the patient to the spiritual healer.

(c) Supernatural cause: supernatural causes are basically identified in the community by changes in the physical and mental behaviour, high fever, complete loss of appetite, weakness and sever body ache and joint pains.

## **6.2 Food Practice, Perception and Assamese Community:**

In the context of food consumption, the researcher observed the practice of the concept of social food in many cases. According to Cecil G. Helman (2001; 37) social food can be defined as those food which are consumed with the other people of the society and also carried a symbolic as well as nutritional values in it. Helman (2001) also mentioned that, each culture decides what food to be eaten and which are not. The similar picture was observed by the researcher in Monaimaji Gaon. It was found that, in the study area consumption of alcohol is restricted in any kind of social events. There was also prohibition in consumption of pork in any social events. It was also found that, almost all the households of the study area socially avoided consumption of pork and they also did not allow them to cook in their kitchen. It was found from the primary data that, the traditional meat according to the participants were mutton, duck, pigeon and chicken. While the younger generation participants mentioned that, they consumed pork as well though their parents and other elders of the family did not eat it. As a result of this, argument with the elder family members was common phenomenon in the study area. But on the contrary few families were also found as liberal in consumption of pork by the other family member even though

the entire family members did not consume it. The researcher found that, peer group and working environment were some of the major factors that influenced in adopting new food items to their dietary pattern. Apart from these, influence of media and availability along with affordability cannot be ignored. The researcher found that, the cost of pork and other fast food item is comparatively cheaper than the duck or pigeon meat. Therefore the present generation considered to consume these food items and added them in their dietary pattern. The younger generation mention that, these food items were very easily accessible due to their rising demand among them. Change in the selection of food was one of the major findings of the dissertation.

### **6.2.1 Role of women:**

Women always play the major role in the process of preparing food and also in their use during the health related crisis. One significant feature of the study area is that, women are the head of the kitchen and they also involved in providing primary health care to the other family members of the family by preparing home remedies.

The women of the study area comparatively more engaged in cultivation of vegetables and plants in their kitchen gardens. In the paddy cultivation the women contributed a major part of their labour. From such scenario it is analysed that, women took a major role in all the processes that are associated with food, starting from the production to preparation and then serving it to the others (Helman, 2001; 32). The men were first served with meal while women and children often did not enjoy it at the same time (Lupton, 1996; 59). In a study by the Pieroni et al. (2007) also revealed that, women of the households and the community are the one who holds the knowledge of the medicinal benefits of the traditional vegetables and the one who practices it in the highest amount. The women are carrying the culinary processes of the traditional food and also the consumption period/time during any illness. The researcher observed in the field that, even after significant contribution to the entire process it is the women of the family who eats at last. She serves everything that she cooked to the other family members and then she consumes the food that she prepared. Serving food to the husband or other members of the family first and cooking food for them according to their preferences is considered as a kind of reward, because it is the husband who works in public domain and is the only source of earning (Lupton, 1996; 59). According to the feminist critics, compared to men, women have historically been



deprived of food and even the amounts of food they eat were also counted. Such circumstance not only shows us the prevalence of the patriarchy in the study area but also women take the prime role to keep the family healthy by giving traditionally rich food to all the members.

According to a dietary survey in a community of Fort Seven, Ontario, a higher number of women were documented that were suffering in lack of adequate nutrients in their body such as; Vitamin B12, B6, iron etc. It shows due to the decline in the traditional food consumption it leads to such a situation. A traditional diet and active lifestyle protect individuals from chronic diseases i.e. diabetes, heart disease, cancer and other health problems (Assembly of First Nation, 2007). This study clearly depicts the same picture that the researcher analysed from the field work. From the reports of ASHA workers and programme manager it was clear that women of the village do suffer from different nutritional deficiencies such as; anaemia, low haemoglobin, underweight, low weight of the new born and low blood pressure level. It is a very serious issue to understand the reason of such situation even after practice of traditional dietary pattern which they perceived and experienced as good for different health related issues. The reason that were analysed are stated below:

- (a) Consumption of food which is already cooked long hours back do not help in shaping the health of the women as they turn cold and lost the taste.
- (b) Cooking the food and serving it to others and waiting till her turn takes a large amount of time and during this time period the women lost their appetite and could not able to eat properly.

### **6.2.2 The Traditional Dietary Pattern:**

Why it is called as ‘traditional dietary pattern’? The researcher found that, the dietary pattern of the Monaimaji Gaon was based on traditional knowledge and the experiences of the elders of the community. The term experience is used because during the field work researcher found that, there were many traditional plants, vegetables and fruits in the community that were found by experience of the people. The people during the time of need ate those food items and they received their effects and they then decided whether to continue consumption of them or not.

The Dietary pattern of the people is influenced by the different elements such as; accessibility to natural resources, climate, traditional knowledge and belief system of the people and so on. These elements help in shaping the dietary pattern or the food culture of the Assamese community. Apart from these elements impact of Ahom dynasty in the dietary pattern is very significant. Those impacts were still practiced by the people of Assam. The traditional dietary pattern of the people is consisted of different varieties of local fishes and locally grown vegetables and plants, rice, pulses and meat. According to the community people, consumption of meat was less around 15-20 years back in the study area. But in recent time the consumption of meat has been increased along with the choices of meat especially among the younger generation. According to Basic Statistics of North Eastern Region, 2015, production of meat has been increased from 31 tonnes in 2008-2009 to 34 tonnes in 2011-2012. The data clearly justify the fact that, due to rise in consumption pattern the production of meat also increased in Assam.

In the historical oral tradition, the sayings of Dak which is called as *Dakor Boson* is very significant in understanding the medicinal values of the food which are locally grown and included in the regular dietary pattern of the people of the study area. It also talks about the ailments and preferable food for any particular ailment which can be used in as regular diet. In the work of Arani Saikia (2013), the sayings of Dak were found where she mentioned about its significance in preparation, presentation and selection of traditional food items.

### **6.3 Healing effects or health benefits:**

The healing effects or the health benefits of the traditional plants that are used in the dietary pattern by the people of the study area has been documented by the researcher on the basis of community perception and practices in the Chapter 5. The researcher has documented 20 plants which are used in the dietary pattern and it was found that each of the plants that were documented carries multiple healing values. It was found that, most of the plants were beneficial for immunity building, curing and preventing stomach related issues, providing energy to the body, controlling blood pressure and blood sugar and so on.

Ramashankar et al. (2012) mentioned in their study that, 80% of the community people of the north eastern region are depended on traditional healing system which is

based on local food and plants. Traditional food habits and the lifestyle cure and prevent many health issues and provide relief. A survey conducted by Ratnam and Raju (2005) shows that consumption of local plants that were found in the forests of Eastern Ghats of Andhra Pradesh helps in curing common ailments. The tribal communities of the village used those plants in their dietary pattern to keep them away from the common disease of the area which is namely Leucorrhoea and Menorrhoea. The documented local plants help in providing relief and prevention of the diseases.

In the study area it was documented that, there were many naturally grown plants which are used by the people in culinary processes and those contain number of health benefits. These are mentioned in the previous Chapter 5. For instance, Bamboo shoot is a famous traditional food item of the community which grows naturally in the study area and highly consumed by the people in different forms. According to Choudhury et al. (2012), in many countries it is used as traditional delicacy and contains large amount of nutritional values. They perceived it as nutritious and therefore used it in their dietary pattern. People also showed their faith in the healing effects of it which are discussed in the Chapter 5. It has been used as medicine since time immemorial (Choudhury et al. 2012). The researcher also found that the people have their faith in their traditional food that can prevent disease than the medicines. In the interviews it was revealed that, the community people did not prefer to consult medical practitioners rather they prefer to maintain a healthy diet by including those food items which they perceived as beneficial for that particular health issue. But due to lack of accessibility and the awareness of the younger generation few people started taking medication from the doctor but they also do focus on their traditional diet along with it.

Almost all the documented plants in the Chapter: 5 were found in particular season. It was analysed that, the seasonal food and plants were given more importance than the regular one. People believed that, the seasonal food items contain more nutrition and health benefits and therefore it is very much essential to consume it in that particular season. Community perceived that, seasonal food and plants were the main source of keeping the people healthy and also help with the seasonal diseases. They mentioned that, due to the reduction in the production and consumption of these traditional

seasonal food items, the people of the current generation faced frequent health issues which were not found during the early periods among the elderly population.

#### **6.4 Present status of the traditional dietary pattern:**

It was found that, the traditional Assamese cuisine is basically based on traditional knowledge and almost all the food items including vegetable, fruits, plants and homemade food product has some health benefits and these are deeply followed by the people. The wild and the semi-domesticated food that the people are using are known as traditional food (Garcia, 2006). The people's perception on traditional dietary pattern has always given us positive notions about it. The researcher explored that, the practice of traditional knowledge that is associated with health and food habits of the people have been passing through generation to generation. The home remedies which are basically the healing process by consuming the traditional food items, seems to have a significant importance among the community people. One interesting picture that was explored during the field study was that, almost every caste, tribal or ethnic groups of Assam shared similar pattern of food habits and also practiced similar traditional knowledge regarding treating illness by using local food items. For instance, the sayings of Dak or *Dakor Boson* which talked about the medicinal values of traditional food habit of the people and how it is helpful in preventing/curing different ailment by using it the normal dietary pattern. It gives recommendation, presentation and selection of traditional food items (Saikia, 2013). But from the younger generation the researcher received a different point of view regarding the regular consumption of them. According to them, there was no mention about the proper amount of consumption of these items. For example if one plant contains a multiple medicinal values then regular consumption of that plant might be harmful for our body. If the proper amount and health effects were unknown to them, they avoid practicing. The similar finding was mentioned by Victoria R. Garcia (2006) in her review on the book 'Eating and Healing: Traditional Food as Medicine'.

The researcher has drawn the understanding of the present status of the traditional dietary pattern of the Assamese community with the help of the words given by Kuhnlein and Receveur (1996) and according to them; there has been a rapid change taking place in the traditional dietary pattern of the indigenous people. The researcher

came across with some factors that caused changes in the practice of traditional dietary pattern of the community people. The factors are viz.

**Globalisation** as an element of cultural change has influenced the traditional lifestyle or the food habit of the people. The changes that took place in the cultural aspects of the community, people did not consider it in a positive sense of the study area. Due to globalisation erosion has been noticed in the practice of traditional food and plants in the dietary pattern especially among the younger generation. Access to global food market has impacted upon the traditional food products. A variety of different food items easily available in the market and those became the preferable food for the kids and younger population. The younger generation also mentioned their preference towards consumption of packaged food and fast food. According to them, adaptation of new food culture is all about the changes that took place in the society. So it is not that complex phenomenon for them. In the study conducted by the Pieroni et al. (2007) among the South Asian migrants of Bradford about their perceptions on consumption on traditional vegetables and their medicinal values, it was revealed that, the younger generation are attracted towards the new food culture than their traditional one. In both the cases same situation has been seen among the younger generation. But the difference that came to the notice is that, living/brought up in a different country and adopting their food culture is considerable in few circumstances but in the case of the Monaimaji Gaon, the younger generation are living/brought up in the same place and have less knowledge about the utilization of the traditional food and plants. So it can be understood that such situation can be cause of erosion of the traditional knowledge and also there is probability of degradation of the health status of the people by increasing the rate of non-communicable diseases. The researcher reviewed few studies which explored similar results. The studies conducted by Vasantha et al. (2015) and Kuhnlein and Receveur (1996) revealed that, due to adaptation of modern dietary habit instead of traditional dietary pattern, the younger generation population were suffering from various non-communicable diseases i.e. diabetes, obesity etc. Studies conducted by Barua et al. (2007), Pieroni et al. (2008), Ramashankar (2012), Pandey (2013) etc. revealed that, the younger generation population also have less knowledge about the utilization of traditional food and plants and also their medicinal values.

It was discovered from the field that, the young generation was keen to experiment with different **tastes** and **variety** of food items. Availability of different taste in the market food products was one of the reasons for negligence of them. According to them, the traditional food items were cooked in the same method by using same limited ingredients. They were also dissatisfied with the very less variety of the traditional food item. Variety of food items with different tastes and spices attracted the young generation towards the consumption of market food and these are one of the major factors that are responsible for the erosion of consumption of traditional food and plants in the society. Most importantly these factors were not discussed in any of the reviewing literature which is a matter of people's concern.

It was found from the empirical study that, almost all the households have television connection which is beneficial to making the people aware about the current situation of the society. The impact of **advertisement** in television, newspaper or magazines introduced the people of the study area to the new stuffs available in the market at present time. A huge number of tempting advertisements of food items are available in the television for the commercial purpose and to gain profit. In such a situation health of the people become a topic of negligence. As a result of this the population of the study area included these food items in their dietary pattern which replaced the traditional food items. The elders of the community also found dissatisfied with this situation in the society and they also mentioned their fear of losing their tradition.

The traditional food items are very **time taking** during the time of preparation and collection. The participants also mentioned this as one of the reasons that they prefer to consume the easy cooking packaged food like noodles. It specially becomes a problem in the nuclear family of the area where people have to go for everyday work and have very less time to collect and prepare them. It was also found that, nuclear family members have less knowledge of utilization about the traditional food and plants. Busy schedule for them and also lack of elders in the family to give the knowledge about those food items is also a reason for the degrading status of its consumption.

One of the common reasons that received by the researcher was the **accessibility and availability** of the traditional food items. Both shared a close relationship with the dietary pattern of the people of a particular geographical territory. The food habits of

the rural people are based on the locally available and easily accessible food products. But it was found in the study area that, due to the deforestation, and the recurrent floods, these traditional plants are lost in the present time which they have been practising historically. It was mentioned by the elders of the community that, many of the traditional plants that they were using during their early ages went missing now. Change in the climate is also found as one of the major reasons for this. According to Saxena et al. (2016), changes in the climate influenced the farmers to adopt different choices for planting crops which plays significant role in shaping the dietary plan of the people. Kuhnlein and Receveur (1996) also mentioned in their work that, due to economic transition, transformation took place in traditional harvesting and it shifted to wage economy. As mentioned earlier the younger generation people of the village are mostly engaged in different occupations in various working sector. Experiencing this scenario, the elderly participants expressed their disappointment as they were unable to show the younger generation and to make them understand the value of the utilization of those highly nutritious plants.

By analysing the present status of the traditional dietary pattern, it was found that, the community did not deny the benefits that were gained from the utilization of traditional food, but at the same time the elderly members also expressed their dissatisfaction and concern for the younger generation towards the changing food habits. Though the utilization of traditional food is not completely taken over by the modern dietary pattern but the changes that took place were very distinct and the community perceived it as harmful for the health of the people and also believed it as a threat towards the disappearance of traditional knowledge. The knowledge of utilization among the younger generation was not completely demolished but there was found ignorance and negligence about their health benefits. The researcher also found that, there was a crisis of identification of the traditional food and plants among the younger population that were being interviewed. The elders of the community believed that due to the changing processes of the society from simple to complex was one of the major reason for this and they also revealed their fear that, the next generation of the community would not be able to enjoy a healthy life due to the erosion of their traditional dietary pattern. Different studies conducted by scholars like; Upadhyya (2014), Pandey (2013), Ramashankar et al. (2012), Pieroni et al. (2008) and Barua et al. (2007) also explored that, the traditional knowledge associated

to dietary pattern and their health benefits are available among the elders of the community whereas, the young generation have showed very less knowledge and practice of them.

### **6.5 Cooking Method and Culinary Process:**

Considering as a major result of human civilisation, cooking method symbolizes the culture of a particular community. The traditional cooking method and kitchen has been changed and use of LPG cylinder was found in the study area. But the traditional kitchen where woods and branches of trees were used to light the fire was available in each household. According to the community cooking in LPG cylinder is not possible at all time, due to its high price. They also mentioned about the traditional belief associated with the cooking method. According to them, cooking in fire helped to maintain the nutritional elements within the food and also provides better taste than the food cooked in gas.

The people of the study area perceived that, change in the cooking method has brought health issues in recent time. Cooking in LPG cylinder in a standing position was the cause of back pain among the people of all ages. The researcher also found the perception of the elderly community which said, they suffer from less non-communicable diseases than the younger population of the community due to their continuity of the traditional diet. There are studies which revealed that, due to changes in the traditional dietary pattern and adaptation of modern food culture which contains sugar, oil, fat and salt in a high amount causes a large number of health issues. Reduction in the traditional dietary pattern causes huge health problems among the population of a society such as; diabetes, obesity and cardiovascular disease among the native people of Canada and United States (Kuhnlein and Receveur, 1996).

Therefore, by analysing the entire scenario and the findings, the researcher found that, there is a great significance of consumption of traditional food and plants in daily life. Though practice of it completely do not keep the people away from all kinds of diseases but it has some positive impact upon our health which helps in controlling, curing and preventing some ailments of human body.



## **6.6 A few Concluding Words:**

### **Limitations that came across:**

The researcher tried to explore and analyse the objectives of the study within a limited period of time and within this short span of time there were many drawbacks. Therefore, the researcher tries to give a brief understanding of the limitation of the study. The study is basically emphasized on the Assamese community residing in the Monaimaji Gaon of Jorhat district. The empirical study shows the rich traditional knowledge of local food and their health benefits which represented the perception, beliefs and practices of the community people of that area. This study is basically confined within a small geographical location with small population. In such circumstance, the study cannot be generalized to larger geographical area of Assam. Due to limited time many seasonal and beneficial vegetables were not documented since they were not available at that period. However, there is a need for further study that can include the diversity of food and food culture across the state and the country to recognize the traditional food items, which are getting lost and make them ready to eat processed food for the consumption of younger generation.

### **A few recommendations and suggestions for further work:**

Criticism, recommendations and suggestions are inevitable part of research journey. By considering this, few analyses have been observed from the both primary and secondary sources which are given below in the form of recommendations and suggestions;

1. In the era of globalisation electronic and social media are good source of information. Therefore, with the help of them, promotion of the traditional food and plants and their health benefits can be shared among the people of the entire globe and such initiative will also help to pass the traditional knowledge among the younger generation.
2. As a rich area of biodiversity, the local people and also the governing bodies should take some initiatives that help to motivate and encourage the people to cultivate more of these food products and also to maintain a regular dietary pattern by including them.

3. It was found that, the Self- help Group (SHG) of the study area were taking initiatives to introduce the food into the market and such initiative providing them financial aid as well. But to make the food items more popular and also to provide and introduce the present generation about the benefits of them will be helpful. Preparing variety with different tastes from the traditional food can be one good initiative to continue the traditional dietary pattern among the younger generation.

4. Natural disaster plays a significant role in moulding people's health status and also to the natural resources of that particular geographical location. Due to natural disaster like flood, many vegetables and plants along with crops have faced erosion. Due to floods, the landslide took place in the nearby river area of the study village and in that situation the community lost many beneficial traditional plants. Therefore, it is a matter of concern to look into this area and should take initiatives to mitigate the floods and to preserve the natural resources which bear the cultural heritage of the area. As part of the rebuilding process, the traditional plants should be grown post disasters under the MGNREGA (The Mahatma Gandhi National Rural Employment Guarantee Act) schemes.

5. By analysing the perspectives and beliefs of the people it can be understood that, rural people keep more faith for the traditional healing systems. Their low faith towards modern medicine was the fear of having side effects. If the medical research institutions and the government show interest and encourage the communities for cultivation, promotion and preservation of these beneficial food and plants then the health complications can be mitigate to a certain level, especially in those areas where health care system is poorly accessible.

It is said that, the youths of a community or a country are the future of the nation and it is also believed that they have the responsibility to lead the community or the country along with its tradition. In such scenario, it will be very effective if the younger generation express their interest to involve in research of this area or to work so that the traditional knowledge and its practices continue further and also enlarge the scope for its cultivation, conservation and promotion.

The researcher deeply believes that, there is no conclusion of learning and research. But as part of a formal education system the dissertation has to reach a concluding

point and the researcher tries to conclude this study by stating a few line of the poem “Birthplace” written by famous poet Mamang Dai on the natural beauty and people of the North East India.

*We are the children of the rain  
Of the cloud women,  
Brother to the stone and bat  
In our cradle of bamboo and vine  
In our long houses we slept,  
And when morning came  
We were refreshed...*

-by Mamang Dai

## BIBLIOGRAPHY:

- Alam, G., & Peppelenbos, L. (2009). Cultivation of Medicinal plants in Uttarakhand. *Economic and Political Weekly*, 99–104.
- Assembly of First Nations. Environmental Stewardship Unit. (2007). *Traditional Foods, are they Safe for First Nations Consumption?* Assembly of First Nations, Environmental Stewardship Unit. Retrieved from <https://books.google.co.in/books?id=GMZqAQAACAAJ>
- Baishya, D. (2009). Traditional Science and Material Culture of Early Assam. *Guwahati: EBH Publishers*.
- Barua, U., Hore, D., & Sarma, R. (2007). Wild Edible Plants of Majuli Island and Darrang districts of Assam, *Indian Journal of Traditional Knowledge*, 6(1), 191-194.
- Begum, S. S., & Gogoi, R. (2007). Herbal Recipe Prepared During Bohag or Rongali Bihu in Assam, *Indian Journal of Traditional Knowledge*, 6(3), 417-422.
- Bharati, S. R. (2003). Beliefs and practices related to parturition among the Konda Reddis of Andhra Pradesh. *Man in India*, 83(3–4), 315–336.
- Bhattacharjya, D., Kar, A., Sarma, H., & Patowary, K. (2015). Notes on Herbal Treatment Practiced by the People Of Fringe Villages of Manas National Park, India, *Indian Journal of Traditional Knowledge*, 1(1), 155-160.
- Borah, S., Baruah, A. M., Das, A. K., & Borah, J. (2009). Determination of Mineral Content in Commonly Consumed Leafy Vegetables. *Food Analytical Methods*, 2(3), 226–230.
- Bode, M. (2006). Taking Traditional Knowledge to the Market: The Commoditization of Indian Medicine. *Anthropology & Medicine*, 13(3), 225–236.
- Briones Alonso, E. (2015). The Impact of Culture, Religion and Traditional Knowledge on Food and Nutrition Security in Developing Countries (pp. 1–81). Presented at the Food Secure Working Paper Series.
- Callahan, D. (1973). The WHO definition of health'. *Hastings Center Studies*, 77–87.
- Cardenas, D. (2013). Let Not Thy Food Be Confused With Thy Medicine: The Hippocratic Misquotation. *E-SPEN Journal*, 8(6), e260–e262.

- Carstairs, G. M. (1955). Medicine and Faith in Rural Rajasthan. *Health, Culture and Community*.
- Chandra, K., Gogoi, D., Gautam, K., & Handique, A. (2016). Nutritive Values of Some Non-Conventional Leafy Vegetables and Scarcity Food Plants Of North East India. *African Journal of Food Science*, 10(11), 340–343.
- Chatterjee, M. (1985). The Food of Healing. *India International Centre Quarterly*, 12(2), 129–140.
- Choudhury, D., Sahu, J. K., & Sharma, G. (2012). Value Addition to Bamboo Shoots: A Review. *Journal of Food Science and Technology*, 49(4), 407–414.
- Choudhury, N., & Ahmed, S. M. (2011). Maternal Care Practices among the Ultra Poor Households in Rural Bangladesh: A Qualitative Exploratory Study. *BMC Pregnancy and Childbirth*, 11(1), 15.
- Cosminsky, S. (1975). Changing Food and Medical Beliefs and Practices in a Guatemalan Community. *Ecology of Food and Nutrition*, 4(3), 183–191.
- Das, A. K., Dutta, B., & Sharma, G. (2008). Medicinal Plants Used by Different Tribes of Cachar district, Assam. *Indian Journal of Traditional Knowledge*, 7(3), 446-454.
- Doley, P. (2014). Changing Cultural Practices among the Rural and Urban Mising Tribe of Assam, India. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 19(11), 26–31.
- Dominic, R. A., & Nayak, M. G. (2013). Health Seeking Behavior of Rural Adults. *Nitte University Journal of Health Science*, 3(3).
- Dutta, B., & Dutta, P. (2005). Potential of Ethnobotanical Studies in North East India: an overview. *Indian Journal of Traditional Knowledge*, 4(1), 7-14.
- Dutta, B. (2015). Food and Medicinal Values of Certain Species of Dioscorea with Special Reference to Assam. *Journal Of Pharmacognosy And Phytochemistry*, 3(5)
- Eldin, S., & Dunford, A. (1999). *Herbal Medicine in Primary Care*. Butterworth-Heinemann.
- Etkin, N. L. (1996). Medicinal Cuisines: Diet and Ethnopharmacology. *International Journal of Pharmacognosy*, 34(5), 313–326.
- Garro, L. C. (2000). Cultural meaning, explanations of illness, and the development of comparative frameworks. *Ethnology*, 305–334.

- Girija, K. P. (2015). Attiring Local Tradition for the Global Market. *Economic and Political Weekly*, Vol. 50, Issue No. 50
- Goyal, A., & Singh, N. (2007). Consumer Perception about Fast Food in India: an Exploratory Study. *British Food Journal*, 109(2), 182–195.
- Gurib-Fakim, A. (2006). Medicinal Plants: Traditions of Yesterday and Drugs of Tomorrow. *Molecular Aspects of Medicine*, 27(1), 1–93.
- Gwalwanshi, D. R., Salunkhe, O., Shukla, A., Bishwas, A. J., & Vyas, D. (2014). Indigenous Knowledge and Documentation of Ethno-Medicinal Plants of Panna District, Central India: A Case Study. *The Journal of Ethnobiology and Traditional Medicine. Photon*, 122, 868–876.
- Herbal Medicine for the Primary Health Care Team by Sue Eldin and Andrew Dunford: Butterworth-Heinemann 9780750640534 - Castle Rock. (n.d.). Retrieved June 16, 2017, from <https://www.abebooks.co.uk/Herbal-Medicine-Primary-Health-Care-Team/19863593872/bd>
- Hazarika, R. (2012). Ethno Medicinal Studies of Common Plants of Assam and Manipur. *International Journal of Pharmaceutical & Biological Archive*, 3(4).
- Health Facilities in Assam. Retrieved from [http://www.nrhmassam.in/health\\_facilities.php](http://www.nrhmassam.in/health_facilities.php)
- Johnston, J., & Cappeliez, S. (2012). You are What You Eat: Enjoying (and Transforming) Food Culture. *Critical Perspectives in Food Studies*, 49–64.
- Kala, C. P., Farooquee, N. A., & Majila, B. (2005). Indigenous Knowledge and Medicinal Plants Used by Vaidyas in Uttaranchal, India. *Natural Product Radiance*, 4(3), 195-206.
- Kalita, D., Dutta, M., & Islam, N. F. (2005). Few Plants and Animals Based Folk Medicines from Dibrugarh District, Assam. *Indian Journal of traditional Knowledge*, 4(1), 81-85.
- Kuhnlein, H. V., & Receveur, O. (1996). Dietary Change and Traditional Food Systems of Indigenous Peoples. *Annual Review of Nutrition*, 16(1), 417–442.
- Kuhnlein, H. V., Receveur, O., Soueida, R., & Egeland, G. M. (2004). Arctic Indigenous Peoples Experience the Nutrition Transition with Changing Dietary Patterns and Obesity. *The Journal of Nutrition*, 134(6), 1447–1453.
- Kwon, D. Y., & Tamang, J. P. (2015). Religious ethnic foods. *Journal of Ethnic Foods*, 2(2), 45–46.

- Lakshmi, G. (2013). Food Preferences and Taboos during Ante-Natal Period among the Tribal Women of North Coastal Andhra Pradesh. *Journal of Community Nutrition & Health*, 2(2), 32–37.
- Lalneizo, D., & Reddy, S. (2010). Health Status of Children in North Eastern States of India. *Indian Anthropologist*, 37–52.
- Leonti, M. (2012). The Co-Evolutionary Perspective of the Food-Medicine Continuuma and Wild Gathered and Cultivated Vegetables. *Genetic Resources and Crop Evolution*, 59(7), 1295–1302.
- Lupton, D. (1996). *Food, the Body and the Self*. SAGE.
- Manchali, S., Murthy, K. N. C., & Patil, B. S. (2012). Crucial Facts about Health Benefits of Popular Cruciferous Vegetables. *Journal of Functional Foods*, 4(1), 94–106.
- Mao, A., Hynniewta, T., & Sanjappa, M. (2009). Plant Wealth of Northeast India with Reference to Ethnobotany. *Indian Journal of Traditional Knowledge*, 8(1), 96–103.
- Marriott, M. (1955). Western Medicine in a Village of Northern India. *Health, Culture, and Community*, 239.
- Milburn, M. P. (2004). Indigenous Nutrition: Using Traditional Food Knowledge to Solve Contemporary Health Problems. *The American Indian Quarterly*, 28(3), 411–434.
- Nanjunda, D.C. (2009). Medical Pluralism and Health Seeking Behaviour of Primitive Society: A Medico-Anthropological Study. D.C. Nanjunda (eds.) *Social Anthropology in India: An Ethnography of Policy and Practice*, Vol. 3, pp. 696-711. New Delhi.
- Nordström, K., Coff, C., Jönsson, H., Nordenfelt, L., & Görman, U. (2013). Food and Health: Individual, Cultural, or Scientific Matters? *Genes & Nutrition*, 8(4), 357.
- Ogle, B. M., Tuyet, H. T., Duyet, H. N., & Xuan Dung, N. N. (2003). Food, Feed or Medicine: The Multiple Functions of Edible Wild Plants in Vietnam. *Economic Botany*, 57(1), 103–117.
- Pandey, A., Mavinkurve, R. G., & Garg, J. (2013). Revitalizing Traditional Health Care Practices by Exploring Medicinal Plants: A Case Study of Jorhat, Assam, India. *Bull. Env. Pharmacol. Life Sci*, 3(1), 158–164.

- Pieroni, A., Houlihan, L., Ansari, N., Hussain, B., & Aslam, S. (2007). Medicinal Perceptions of Vegetables Traditionally Consumed by South-Asian Migrants Living in Bradford, Northern England. *Journal of Ethnopharmacology*, *113*(1), 100–110.
- Pieroni, A., Sheikh, Q.-Z., Ali, W., & Torry, B. (2008). Traditional medicines used by Pakistani migrants from Mirpur living in Bradford, Northern England. *Complementary Therapies in Medicine*, *16*(2), 81–86.
- Puoane, T., Matwa, P., Hughes, G., & Bradley, H. A. (2006). Socio-Cultural Factors Influencing Food Consumption Patterns in the Black African Population in an Urban Township In South Africa.
- Purkayastha, J., & Nath, S. C. (2006). Biological Activities of Ethnomedicinal Claims of Some Plant Species of Assam. *Indian Journal of Traditional Knowledge*, *5*(2), 229-236.
- Qadeer, I. (2011). The Challenge of Building Rural Health Services. *The Indian Journal of Medical Research*, *134*(5), 591.
- Qadeer, I. (2011). *Public Health in India: Critical Reflections*. Daanish Books.
- Rahmatullah, M., Mollik, M. A. H., Islam, M. K., Islam, M. R., Jahan, F. I., Khatun, Z. Miajee, Z. (2010). A Survey of Medicinal and Functional Food Plants Used By the Folk Medicinal Practitioners of Three Villages in Sreepur Upazilla, Magura District, Bangladesh. *American Eurasian Journal of Sustainable Agriculture*, *4*, 363–373.
- Ratcliffe, J. W., & Gonzalez-del-Valle, A. (1988). Rigor in Health-Related Research: Toward an Expanded Conceptualization. *International Journal of Health Services*, *18*(3), 361–392.
- Ratnam, V. K., & Raju, V. R. (2005b). Folk Medicine Used For Common Women Ailments Adivasis in the Eastern Ghats Of Andhra Pradesh. *Indian Journal of Traditional Knowledge*, *4*(3), 267-270.
- Reddy, S. (2004). Ecosystems Approach to Human Health: A Case of Konda Reddi Tribes And Womens Health. *Journal of Human Ecology*, *16*(4), 271–282.
- Reyes-García, V. (2006a). Eating and Healing. Traditional Food as Medicine.
- Reyes-García, V. (2006b). [Review of *Review of Eating and Healing. Traditional Food as Medicine*, by A. Pieroni & L. L. Price]. *Economic Botany*, *60*(4), 389–389.



- Saikia, A., Padma, K., Karthikeyan, M. K., Manivannan, L., Karthi, M. G., Singh, S.Maity, S. B. (2013). Food-Habits in Pre-Colonial Assam. *International Journal of Humanities and Social Science Invention*, 2(6), 01–05.
- Sandhu, D. S., & Heinrich, M. (2005). The Use of Health Foods, Spices and Other Botanicals in the Sikh Community in London. *Phytotherapy Research*, 19(7), 633–642.
- Sato, A. (2012). Revealing The Popularity of Traditional Medicine in Light of Multiple Recourses and Outcome Measurements from A User’s Perspective in Ghana. *Health Policy And Planning*, 27(8), 625–637.
- Saxena, A. K., Fuentes, X. C., Herbas, R. G., & Humphries, D. L. (2016). Indigenous Food Systems and Climate Change: Impacts of Climatic Shifts on the Production and Processing Of Native and Traditional Crops in The Bolivian Andes. *Frontiers in Public Health*, 4.
- Setalaphruk, C., & Price, L. L. (2007). Children’s Traditional Ecological Knowledge of Wild Food Resources: A Case Study in A Rural Village in Northeast Thailand. *Journal of Ethnobiology and Ethnomedicine*, 3(1), 33.
- Shankar, R., Deb, S., & Sharma, B. (2009). MEETING REPORT: Traditional Healing Practices in Northeast India. *Current Science*, 97(1), 12–13.
- Shankar, R., Lavekar, G., Deb, S., & Sharma, B. (2012). Traditional Healing Practice and Folk Medicines Used By Mishing Community of North East India. *Journal of Ayurveda and Integrative Medicine*, 3(3), 124.
- Sheehan, H. E. (2009). Medical pluralism in India: patient choice or no other options.
- Singh, G., Kawatra, A., & Sehgal, S. (2001). Nutritional Composition of Selected Green Leafy Vegetables, Herbs and Carrots. *Plant Foods for Human Nutrition (Formerly Qualitas Plantarum)*, 56(4), 359–364.
- Singh, H. B., Prasad, P., & Rai, L. (2002). Folk Medicinal Plants in the Sikkim Himalayas of India. *Asian Folklore Studies*, 295–310.
- Singh, B., Singh, J. P., Kaur, A., & Singh, N. (2016). Bioactive Compounds in Banana and Their Associated Health Benefits–A review. *Food Chemistry*, 206, 1–11.
- Singh, R. K., Pretty, J., & Pilgrim, S. (2010). Traditional Knowledge and Biocultural Diversity: Learning from Tribal Communities for Sustainable

Development in North East India. *Journal of Environmental Planning and Management*, 53(4), 511–533.

- Smith, R. (2004). Editor's choice: "Let food be thy medicine ...". *BMJ: British Medical Journal*, 328(7433). Retrieved from <http://www.jstor.org/stable/41708668>
- Statistical Handbook Assam, 2011. Retrieved from [http://planassam.info/contents\\_sub.php?username=&status=&q=25&link\\_name=25&ID=68&link\\_caption=Economic%20Survey%20&%20Statistics](http://planassam.info/contents_sub.php?username=&status=&q=25&link_name=25&ID=68&link_caption=Economic%20Survey%20&%20Statistics)
- summary\_89\_EN\_indigenous\_methods.pdf. (n.d.). Retrieved from [http://www.fao.org/fsnforum/sites/default/files/files/90\\_indigenous\\_knowledge/summary\\_89\\_EN\\_indigenous\\_methods.pdf](http://www.fao.org/fsnforum/sites/default/files/files/90_indigenous_knowledge/summary_89_EN_indigenous_methods.pdf)
- Tandon, N., & Yadav, S. S. (2017). Contributions of Indian Council of Medical Research (ICMR) in the Area of Medicinal Plants/Traditional Medicine. *Journal of Ethnopharmacology*, 197, 39–45.
- Upadhyaya, V., Hegde, H. V., Bhat, S., & Kholkute, S. D. (2014). Non-codified Traditional Medicine Practices from Belgaum Region in Southern India: Present Scenario. *Journal of Ethnobiology and Ethnomedicine*, 10(1), 49.
- Vasantha, S., Vijaylakshmi, S., & Kiran, P. (2015). Review on impact of changing lifestyles on dietary pattern. *Int J Curr Aca Rev*, 3, 135–147.
- What is a Culture of Health? What does it take for a Community to Get There? | IT'S TIME TEXAS. (n.d.). Retrieved May 12, 2017, from <https://itstimetexas.org/culture-health-take-community-get/>
- Zborowski, M. (1952). Cultural Components in Responses to Pain. *Journal of Social Issues*, 8(4), 16–30.
- Zwahlen, R. (2009). Traditional Methods: A Guarantee for Sustainability? D.C. Nanjunda (eds.) *Social Anthropology in India: An Ethnography of Policy and Practice*, Vol. 1, pp. 306-312.
- Zurbrigg, S. (1984). Rakku's Story: Structures of Ill-health and the Source of Change (Bangalore, Centre for Social Action). SUMMARY AND CONCLUSIONS. *The Population Situation in India Is a Matter of Grave Concern*.

## APPENDICES

### Appendix: 1: Glossary of Assamese words

#### Assamese Terms

*Aai ulua*

*Annaprasanna*

*Bayu Utha*

*Bej*

*Boxonto*

*Bohag Bihu or Rongali Bihu*

*Dhai*

*Dheki*

*Jolpan*

*Kati Bihu or Kongali Bihu*

*Kahn*

#### English Terms

Chicken pox

In this ritual the child is first introduced to the traditional food of the community. It takes place before teething of the child when he/she child is either five or seven months old.

High Blood Pressure

Traditional healer of the Assamese community.

Chicken pox

The main festival of the Assamese community. It is the beginning of the Assamese new year.

Traditional Birth Attendant of Assamese community

It the traditional grinder used by the Assamese community. It is a large wooden mortar.

It means light food especially consumed as breakfast and early evening meal.

It is the second main festival of Assam among three. It takes place during the mid November. In this festival the community people worships the paddy fields for good production of rice.

Bell metal. The traditional utensils are made of bell metal. Serving in bell metal utensils also symbolised respect to the person and also to any kind of social or religious events.

*Khar*

English translation of this food item is alkali and it is one of the traditional food items of Assamese community. It is prepared by grilling the banana peel and the inside part of the banana tree.

*Magh Bihu or Bhogali Bihu*

The third and the last festival of the Assamese community. It is celebrated in the second week of January. It is basically a community feast. People celebrate it with the others by preparing varieties of traditional food items.

*Pitha*

Sweet dish of the community which are basically prepared by varieties of rice powder by stuffing coconut, sugar, jaggery and sesame seeds.

*Satra*

Monastery associated with Eksarana Naam Dharma of neo-vaishnavism. Srimanta Shankardeva introduced it in Assam.

## **Appendix: 2: Interview Schedule for the Respondents**

### **[A] BACKGROUND:**

1. Age:

2. Sex:

(a) Male (b) Female

3. Marital status:

(a) Married (b) Unmarried (c) Others

4. Religion:

(a) Hinduism (b) Islam (c) Christianity (d) Others

5. Caste:

(a) General (b) OBC (c) SC (d) ST

6. Occupation:

(a) Service (b) Business (c) Agriculture (d) Others

7. Income source:

8. Family type:

(a) Nuclear (b) Joint

9. House type:

(a) Kutcha (b) Pucca (c) Others

### **[B] BASIC INFORMATION:**

1. Since when do you staying in this village?

2. What is the source of water supply?

(a) Government supply (b) Private supply (c) Pond/well (d) others

3. Do you have any agricultural land?
4. Do you have kitchen garden?
5. Do you cultivate vegetables and plants? If yes, who among the family members take initiatives in it?
6. Do you practice animal husbandry or poultry farming? If yes, what are they?

**[C] BELIEFS AND PRACTICES:**

1. What is your understanding about a healthy life?
2. Do you believe in the importance of traditional food and plants in living a healthy life? If yes, explain?
3. From where you access for traditional food and plants?
4. How many times you consume vegetables and plants in your daily diet?
5. Do you have any traditional meat?
6. How many times you consumed meat in your meal?
7. What are the frequently consume meat in your diet?
8. Do you have any community salad? If yes, then what are they?
9. How frequently you use salad in your meal?
10. What is your belief about the health benefits of consumption of salad in your diet?
11. Do you eat any kind of packaged or fast food?
12. What is your opinion about the consumption of packaged or fast food?

**[D] COMMUNITY PERCEPTIONS ON TRADITIONAL FOOD AND PLANTS:**

1. How do you want to define Assamese community in your own words?
2. What is your understanding about traditional food and plants of Assamese community?

3. What is your understanding or beliefs regarding the health benefits of using traditional food and plants on your diet?
4. From whom you get the understanding/knowledge about the healing effects of the traditional food and plants?
5. If you diagnosed with any disease like; high or low blood pressure or diabetes what is your opinion regarding the treatment?
6. What is your belief on using biomedicine for treating illness like; high or low blood pressure or diabetes or other diseases?

### **Appendix: 3: Interview Schedule for the Traditional Healers:**

1. From when you are engaged in this system of healing?
2. Is your work is related or based on your generational practice of healing?
3. What is your source of acquiring the knowledge on healers?
4. What type of treatment you provide to your patients?
5. Do you prescribe to consume traditional food and plants for any disease? If yes, what are the most common diseases for this?
6. Do you include traditional food and plants in your diet for any of your health crisis? Please explain.
7. Do you refer to visit doctors and use of biomedicine?
8. Do you use any plants for your treatment which are also edible in nature? If yes, what are those plants?
9. From where you collect medicinal herbs for treating illness?
10. Have you noticed any changes in the practice and beliefs of the community people in regard to use of traditional food and plants? Please explain.
11. Do you have any community specific food practice for pregnant women? If yes, please explain.
12. Is there any specific traditional food or diet plan for the women after giving birth to child? If yes, what are they?
13. Do you have any special traditional food or plants which are considered good for lactating women? If yes, please explain?
14. Is there any community food related ritual or ceremony which is associated to any health event or something related to health of the community people?

15. Do you have any food taboos in the community for specific health condition? If yes, what are they?

#### **Appendix: 4: Interview Schedule for the Elderly People:**

1. Have you notice any changes in the practice of traditional food and plants among the community in due course of time? If yes, please explain.
2. Do you have any specific traditional food for elderly people? If yes, what are they?
3. Where do you prefer to go first for your illness?
4. Do you prefer to go to the biomedical practitioners for your illness?
5. Do you notice any difference in food practice among the younger generation? If yes, please explain.

#### **Appendix: 5: Interview Schedule for Younger Generation**

1. What is your perception on the use of traditional food and plants for health related crisis?
2. Do you think that there has been changed in practicing traditional food and plants among the younger generation?
3. What is your preferable food at present time? Do you believe in the practicing of traditional food culture in present time? Please explain.
4. What is your perception on going to the traditional healers for health related issues?
5. Do you prefer to consume traditional food and plants for any illness?
6. Is there anything that you would like to add?



**Appendix: 6: List of images collected by the researcher from the study area**



Image: 1: Traditional plants; *Paleng xaak* (spinach), *Lai xaak* (mustard spinach), *Dhonia paat* (coriander leaves) collected by the researcher from the field



Image: 2: *Darun Bon* collected from the field by the researcher



Image: 3: *Xukloti* (Indian patchouli) collected by the researcher from the field



Image: 4: *Matikanduri* (sessile joyweed) collected from the field by the research



Image: 5: Cultivation of traditional plants in the study area



Image: 6: Picture of participants in their kitchen garden. Image taken by the researcher during the field work



Image: 7: Researcher with participant during interview



Image: 8: *Dheki*, the traditional wooden mortar used by the Assamese community. Image taken by the researcher during field work

