CHAPTER – 1

INTRODUCTION

1.1 Flood: An Overview

The present study is an attempt to find out the impact of flood on the Mishing society and culture of the Mishings – the second largest Scheduled Tribe living in the plains of Assam. Humanity has been living and making adjustments with natural events including natural disasters like, volcanic eruptions, earthquakes and floods since the dawn of civilisation. Many of these bring have disastrous consequences for human beings all over the world at different periods of time. Of all these disasters mentioned above, floods are unique in the sense that the floods have both positive and negative effects on the growth and decline of human civilisations like Egyptian, Mesopotamian and Harappan civilizations (Das, 2013). According to an estimate, in 2012 an estimated 32.4 million people across the world were being affected by floods, earthquakes, cyclones, tropical storms and forest fires; 98% of which were weather-related. Natural disasters in that sense are ubiquitous. While natural disasters impact the developing world more, the developed world is not completely immune to them. It was in 1989 that the United Nations had declared the decades of the 1990s as the International Decade for Natural Disaster Reduction or IDNDR (United Nations General Assembly Resolution, 1989).

Floods are one of the most common hydrological phenomena in the world. According to MSN Encarta Dictionary, “A flood is an overflow of water that submerges land which is usually dry” (2009). Overbank flooding of rivers and streams – the increase in volume of
water within a river channel and the overflow of water from the channel onto the adjacent floodplain – represents the classic flooding event that most people associate with the term “flood.” In fact, this is also the most common type of flood event. Hundreds of riverine floods, great and small, occur annually in India.

While episodic and flash floods may occur almost anywhere with devastating effects, there are some parts of the world such as China, Bangladesh, the Indian subcontinent and North American coasts where regular floods are very common (Miller & Miller, 2000 cf Das, 2013).

**Flood in India and Assam**

India is the second largest flood affected country in the world. India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Table 1.1 shows the extent of damage due to Flood/Heavy Rain during 1953 – 2011 in India.

**Table 1.1 Statement Showing Damage due to Flood during 1953 – 2011 in India**

<table>
<thead>
<tr>
<th>Yrs. 1953-2011</th>
<th>Area affected in m. ha</th>
<th>Population affected in million</th>
<th>Damage to Crops</th>
<th>Damage to House</th>
<th>Cattle lost in Nos.</th>
<th>Human lives lost in Nos.</th>
<th>Damage to Public Utilities Rs. Crore</th>
<th>Total damages crops, houses &amp; public utilities in Rs. Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>426.255</td>
<td>1913.386</td>
<td>223.573</td>
<td>66009.635</td>
<td>7402227</td>
<td>33373.319</td>
<td>5699000</td>
<td>110203.287</td>
</tr>
<tr>
<td>Average</td>
<td>7.225</td>
<td>32.430</td>
<td>3.789</td>
<td>1118.807</td>
<td>1254954</td>
<td>565.649</td>
<td>96593</td>
<td>1653</td>
</tr>
<tr>
<td>Maximum</td>
<td>17.500</td>
<td>70.450</td>
<td>12.299</td>
<td>7307.230</td>
<td>3507542</td>
<td>10809.795</td>
<td>618248</td>
<td>11316</td>
</tr>
</tbody>
</table>

*Source: Central Water Commission, GOI, 2012*
A survey conducted by Central Water Commission, Government of India 2012 indicated that the area liable to be flooded is 426.255 million hectares while the average area affected by floods annually is about 7.225 million hectares (Ref. via letter no. 3/38/2011-FFM/2200-2291, dtd.2012, Central Water Commission). The Table 1.1 shows that the total damage to property damages crops, houses and public utilities in terms of money comes to as high as Rs 213114.905 (Ibid).

However, the most vulnerable states are Uttar Pradesh, Bihar, Assam, West Bengal, Gujarat, Orissa, Andhra Pradesh, Madhya Pradesh, Maharashtra, Punjab and Jammu & Kashmir (Ibid).

According to the Dartmouth Observatory, the north eastern parts of India, the northern banks of the Ganga and its tributaries in Bihar and West Bengal are the most flood prone areas in India (ibid). Scholars have identified the Brahmaputra-Ganges- Meghna basin as one of the worst perennial flood affected areas of the region.

**Nature of flood in Brahmaputra – Ganges –Meghna basin:**

The annual normal flood between June and October, related with the monsoons rain into the entire Brahmaputra- Ganges-Meghna basins, makes the land fertile by “providing moisture and fresh silt to the soil that are vital to crop production; thousands of species of fish also spawn during this time of year. Peasants of this region, awaits this predictable, normal, annual event that benefits their crop cycle and virtually rejuvenates their lives” (Das, 2013). This normal rainy season is called “barixa”or barisha in both Assamese and Mishing language. However, in case of high or abnormal floods, which are referred to as baan, banpani, lead to widespread damage to standing crops, properties, and loss of human life are viewed as a calamity or disaster. Such floods of severe intensity are often described in Assamese as boliya baan (boliya means mad or madness).
Flood in Assam

In Assam flood is the chief natural calamity that ravages the state every year. The mighty river Brahmaputra under the influence of the Southwest monsoon is subject to recurrent floods. Assam is full of natural resources and agricultural state. Above 80% of people depends on agriculture but since more than 60 years Assam has been facing huge river erosion problems, which is closely related to flood problem. Erosion along with flood has destroyed lots of agricultural production and other fruits and house land of the people (Khan, 2012). Khan says that “river erosion means current of river or wave of water of the river broken the banks of the rivers which accumulates huge mud and siltation in river bed and holding capacity of water decline in the river and creates flood and erosion Assam” (ibid).

The recurrence of flood and erosion continued to be the burning problem of Assam. Every year in Assam the floods leave a trail of destruction, washing away villages, submerging paddy fields, drowning livestock, besides causing loss of human life and property in billions. The flood hazard created by Brahmaputra river and its tributaries causes havoc in the valley leading to huge loss and destruction of life and property of the people and deterioration in the quality of environment (Sabhapandit, 2003).

Bhattacharya (2000) revealed that millions of people are subject to traumatic lives though flood is limited to only a few months and sometimes a few days in different parts of the state. The flood situation changes every year because its intensity varies depending on the precipitation received in the catchment areas and agradation of river and consequent breach of embankment in different places. The state of Assam is affected by the floods of the river Brahmaputra and Barak which have their own peculiarities. The catchment of Brahmaputra is characterized by very steep hills slopes with light texture and unstable soil mass in the recent years. This causes high instantaneous run-off, heavy siltation in the tributaries as well as main stem of river Brahmaputra. It has 41 important tributaries-26 located on the Northern bank
and 15 on the Southern bank in addition to the 3 main tributaries—the Dehang, the Dibang and Lohit. The river flows for a length of 640 Kms in Assam. Similarly, the Barak river which causes flood problems in Cachar valley has a catchment area in Meghalaya, Manipur, Mizoram and Tripura. The Barak is a meandering type of river and changes its course at many points eroding fertile lands and causing severe flood hazards.

Brahmaputra valley has always been flood prone. Even when the Himalayan watershed was uninhabited and the forest cover was intact, major floods did occur in the valley. The geologically youngest lithology of the Himalayas under the influence of intense rainfall and seismicity, load the main river and the tributaries with enormous amount of sediment. The northern tributaries with coarser and higher sediment load create more floods and siltation problem than the southern bank of the main river.

Floods and shifting of the river courses is thus inevitable. As the volume of water is greatly increased during the flood, so increases its erosive power and the river carries a much higher sediment load. Water and sediment move out of these mountains in explosive waves (Mahanta, 2000). Anthropogenic floods are caused by failure of man-made dams and breaching of artificial embankment. Floods created by breaching of artificial embankment or dykes are a common features in the Brahmaputra basin. Initiation of construction of artificial dykes took place in 1954 and from that time Assam has the longest system of dykes constructed so far in India. Most of the dykes have been constructed very close to river and with sandy loose materials. These dykes are not properly maintained. As a result, they got breached due to high pressure of flood water. Breaching of dykes caused extensive damage because the current of the flood water entering into the plains happens to be very high (Sarma, 2000).

The recurring floods of characteristically high magnitudes have assumed devastating dimensions heavily affecting the agricultural lands, crops, people and cattle and above all
the agrarian economy of the state. As regards flood damages in the Brahmaputra valley, the frequency and time of flood occurrence are of great significance. The valley commonly receives severe floods of different orders occurring at least 4-5 times in a year. Normally about 40% area of the valley is affected by flood. The flood of 1988 has been recognised as the year of most severe flood occurring in four waves (Bora, 2000).

Assam is possibly India’s most flood-prone state and has experienced at least 12 major floods since 1950 excluding the regular annual episodes of flood. Although always prone to floods, the frequency of disastrous floods was increased in the area after the 1950 Assam-Tibet earthquake, also referred to as the "1950 Great Earthquake”.

Table 1.2 presents a summary of the flood damages in Assam for the period 1953-2011. It may be seen that the total area affected by flood during the period was 50.624 hectre while population affected was 163.369 million and total damages crops, houses and public utilities in Rs. 4659.472 Crore.

Table 1.2 A Summary of the Flood Damages in Assam (1953 – 2011)

<table>
<thead>
<tr>
<th>Yrs. 1953-2011</th>
<th>Area affected in m. ha</th>
<th>Population affected in million</th>
<th>Damage to Crops</th>
<th>Damage to House</th>
<th>Cattle lost in Nos.</th>
<th>Human lives lost in Nos.</th>
<th>Damage to Public Utilities Rs. Crore</th>
<th>Total damages crops, houses &amp; public utilities in Rs. Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>50.624</td>
<td>163.369</td>
<td>25.018</td>
<td>2046.831</td>
<td>4334987</td>
<td>439.312</td>
<td>673329</td>
<td>1813.329</td>
</tr>
<tr>
<td>Average</td>
<td>0.858</td>
<td>2.769</td>
<td>0.431</td>
<td>40.794</td>
<td>77410</td>
<td>7.707</td>
<td>11412</td>
<td>47</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.820</td>
<td>12.637</td>
<td>9.840</td>
<td>463.304</td>
<td>663168</td>
<td>103.920</td>
<td>497.000</td>
<td>566.243</td>
</tr>
</tbody>
</table>

Source: Central Water Commission, GOI, 2012

The table shows that during the period between 1953-2011 in Assam 50.624 million hectares of area and 163.369 million people were affected due to flood. Total financial loss to crops, houses and public utilities comes to around 4659.472 crores of rupees.
It has been observed that out of all the Districts of Assam, the frequency and intensity of the area now covered by Dhemaji District has always been very high. Because every year, the District has been subjected to at least It may be mentioned that the present Dhemaji District was carved out of the undivided Lakhimpur District in 1989, it was declared as a separate district of Assam including Jonai Bazar and Dhemaji sub-divisions

Table 1.3 District-wise Damage Data caused by flood for the year 2000

<table>
<thead>
<tr>
<th>District</th>
<th>Nos. of village affected</th>
<th>Area affected in hac</th>
<th>Cropped area affected in hac</th>
<th>Population affected in Nos.</th>
<th>Nos. of houses damaged</th>
<th>Nos. of cattle lost</th>
<th>Nos. of lives lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhubri</td>
<td>625</td>
<td>131400</td>
<td>31090</td>
<td>800</td>
<td>10021</td>
<td>110</td>
<td>03</td>
</tr>
<tr>
<td>Kokrajhar</td>
<td>35</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Bongaigaon</td>
<td>58</td>
<td>3980</td>
<td>NA</td>
<td>53</td>
<td>NA</td>
<td>NA</td>
<td>02</td>
</tr>
<tr>
<td>Goalpara</td>
<td>265</td>
<td>53168</td>
<td>NA</td>
<td>400</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Barpeta</td>
<td>142</td>
<td>95100</td>
<td>35000</td>
<td>210</td>
<td>NA</td>
<td>NA</td>
<td>03</td>
</tr>
<tr>
<td>Nalbari</td>
<td>247</td>
<td>NA</td>
<td>NA</td>
<td>257</td>
<td>NA</td>
<td>NA</td>
<td>01</td>
</tr>
<tr>
<td>Kamrup</td>
<td>329</td>
<td>65931</td>
<td>3500</td>
<td>377</td>
<td>NA</td>
<td>NA</td>
<td>09</td>
</tr>
<tr>
<td>Darrang</td>
<td>131</td>
<td>20302</td>
<td>9533</td>
<td>178</td>
<td>105</td>
<td>1500</td>
<td>01</td>
</tr>
<tr>
<td>Sonitpur</td>
<td>330</td>
<td>43282</td>
<td>7175</td>
<td>241</td>
<td>5000</td>
<td>3100</td>
<td>10</td>
</tr>
<tr>
<td>Lakhimpur</td>
<td>821</td>
<td>149765</td>
<td>112856</td>
<td>581</td>
<td>3938</td>
<td>775</td>
<td>18</td>
</tr>
<tr>
<td>Dhemaji</td>
<td>810</td>
<td>103601</td>
<td>28084</td>
<td>306</td>
<td>3200</td>
<td>578</td>
<td>29</td>
</tr>
<tr>
<td>Morigaon</td>
<td>30</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>58</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Golaghat</td>
<td>156</td>
<td>93238</td>
<td>18337</td>
<td>174</td>
<td>NA</td>
<td>566</td>
<td>05</td>
</tr>
<tr>
<td>Jorhat</td>
<td>415</td>
<td>92559</td>
<td>20497</td>
<td>287</td>
<td>7056</td>
<td>1000</td>
<td>05</td>
</tr>
<tr>
<td>Sibsagar</td>
<td>153</td>
<td>45433</td>
<td>NA</td>
<td>209</td>
<td>79</td>
<td>NA</td>
<td>04</td>
</tr>
<tr>
<td>Dibrugarh</td>
<td>123</td>
<td>11000</td>
<td>NA</td>
<td>112</td>
<td>NA</td>
<td>20</td>
<td>NA</td>
</tr>
<tr>
<td>Tinsukia</td>
<td>61</td>
<td>4933</td>
<td>NA</td>
<td>29</td>
<td>81</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Nagaon</td>
<td>30</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>253</td>
<td>NA</td>
<td>01</td>
</tr>
<tr>
<td>Karbi Anglong</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
The Table shows that Dhemaji Districts happens to be one of the worst hit by the flood problem amongst all the districts of Assam. It occupies the second position next to Lakhimpur District so far as ravages of flood are concerned.

**Flood in Dhemaji District**

Amongst all the districts of Assam Dhemaji happens to be one of the worst affected district due to flood. The district has five main tributaries of Brahmaputra namely Simen, Demow, Jalakiasuti, Gai, and Jiadhal causing flood havoc every year. The NH 52 which connects Dhemaji District with rest of the country through roadways usually breached at various points due to massive erosion by the Sili River at Santipur Village, Demow and Jalakiasuti River at Silasuti thereby cutting-off Jonai Sub-division as well as a huge area of Sissiborgaon Block (Dhemaji Sub-Division) with rest of the country through roadways. Similarly, the River Jiadhal has caused severe damage to the NH 52 at two points at Samarajan thereby causing great threat to the roadways connectivity of the District with rest of the country. (Das, 2012), “Farm Productivity Loss due to Flood-Induced Sand Deposition: A Study in Dhemaji, Assam” widely believed that the decline in agricultural productivity in the Dhemaji district is due to flood-induced sand depositions in paddy fields. The flood of 2013 Dhemaji has been hit by floods with 25 villages in flood-prone Dhemaji district inundated. The flood water has inundated 25 villages under Noruathan and Ghughua circles in west Dhemaji affecting more than 30,000 people.
Dhemaji district is the worst affected in terms of frequency and duration of flood. The saddest suffering of the people here during floods continue and gets complicated even after the floods recede in the form of sand deposits over the highly productive agriculture lands. The last major natural calamity of 1998 converted prospering landlords into agricultural labourers overnight (Baruah, Vadivelu and Bhaskar, 2000).

Table 1.4 shows the ravages of flood in Dhemaji District just before the beginning of field work of the present study.

**Table 1.4 Floods in Dhemaji District in 2011**

<table>
<thead>
<tr>
<th>Village Affected</th>
<th>291 Nos. Out of 1319 villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Affected</td>
<td>28,295 Hectres</td>
</tr>
<tr>
<td>Population Affected</td>
<td>16,0517 Nos.</td>
</tr>
<tr>
<td>Nos. of Families Affected</td>
<td>10,000 Nos.</td>
</tr>
<tr>
<td>Human Life Lost</td>
<td>2 Nos.</td>
</tr>
<tr>
<td>Total House Damaged</td>
<td>1500 (Fully)</td>
</tr>
<tr>
<td>Nos. of Relief Camps</td>
<td>5 Nos.</td>
</tr>
</tbody>
</table>

*Source: ASDMA*

The Table 1.4 shows that out of 1319 villages 291 villages covering where more than 16 thousand people were affected by flood in a single year ie 2011. The table indicates the flood situation of the Dhemaji District.

The Table 1.4 shows the extent of effects of flood only for one year. This is only an example. In fact, flood and erosion have become major problems of riverine villages of Dhemaji district. Around 1,50,000 people of riverine villages belonging to different tribal and non–tribal groups and communities are regularly facing problems of flood and erosion every year. After every rainy season, the flood-affected families here move from one place to another. It may be mentioned that the population has been adopting gypsy lives in Dhemaji.
In 2012, alone around 26,000 families have already lost their agriculture land due to flood and heavy erosion of rivers like Simen, Dimow, Brahmaputra, Sikari, and tributaries of Brahmaputra river. The erosion has led to displacement of the affected families. (Ibid: 2013).

People practicing AHU (an early variety of rice) cultivation usually face a jolt as they yet to complete harvesting and the impact of the sudden disastrous condition damage a huge lot of standing AHU crops. On the other hand the people practicing Sali crops (Monsoon variety) either completed the transplanting of seed or yet to do the same, come under great threat out of the intensive inundation and water logging in the paddy fields. The other critical aspect is sand deposition the paddy fields.

Flood can produce widespread impacts in both rural and urban areas but it is the villages, property damage caused by flood can be devastating to farmers. When flood occurs during the growing season, farmers can suffer widespread crop loss. In some cases, there may be an opportunity for a second planting of a less profitable crop. Livestock farmers may lose livestock if they are unable to find safety from rising floodwaters. This threat is primarily associated with flash flooding where the monsoons flood. Any type of agricultural, commercial, or residential development located in a floodplain is vulnerable to flooding.

Flood can pose several threats to residential and commercial properties. In villages thatched houses are damage to the extent of beyond repair. Even some pucca buildings experience significant damage, sometimes beyond repair, due to flooding. Household furnishings and business inventories can be lost if there is not adequate time to remove items to safe locations. In addition to being at risk because of floodwater, people face the threat of explosions and fires caused by leaking gas lines along with the possibility of being electrocuted. Even wild animals, forced out of their homes and brought into contact with humans by floodwaters, can be a threat.
Severe flood can cause extensive damage to public utilities and disruptions to the delivery of services. Loss of power and communications can be expected. Drinking water and wastewater treatment facility may be temporarily out of operation.

Thus, all these enhance the sufferings of the people. Social system gets affected, as families in large number come to reside in temporary camps leaving their all belongings behind. Their inundated houses get damaged. Camp life provides a completely different system of environment where there is neither any social control mechanism nor any social institution to rely on. Social economic and political institutions remain defunct and even after recession of floods it takes time to re-establish and reviving these institutions.

1.2: Statement of the Research Problem

In order to make an in depth anthropological study on the issue of impact of flood on a traditional tribal community’s culture and society of Assam, the research problem has been entitled as “Impact of Flood on the Mishings of Dhemaji District, Assam: An Anthropological Study”.

1.3: Reason for Selecting the Mishings of Dhemaji

Taking into consideration of the objectives of the research problem no other district could be better place for research work to see the socio-economic impact of the Mishing people due to flood from anthropological perspective. Because, this particular district has gained fame nationally due to flood havoc. Among all the district of Assam, Dhemaji has the highest Mishings population of 2,20,042 persons out of total population of 680424 persons. The district is situated on the north bank of river Brahmaputra of Upper Assam sharing boundary with Arunachal Pradesh. Here, in this district the Mishings have been dwelling very close to the river banks. So, due their close proximity to the river banks and tributaries they easily become victims of summer flood that occurs every year affecting the socio-economic life of the
Mishings. And also it is easily reachable by roads and railways for conducting the field work. Hence, the title of the research is thus entitled as “Impact of Flood on the Mishings of Dhemaji District, Assam: An Anthropological Study”. Moreover, the researcher belonging to the Mishing community of Dhemaji District happens to be another reason for the selection of the area and the community.

1.4: Objectives of the Study

The main objectives of the study are to

i. Find out the impact of flood on the settlement pattern of the study villages

ii. Shifting and migration of families due to flood

iii. Know about the changing economy and occupational pattern of the people of the study villages

iv. Know about the impact of flood on family and some other aspects of social and cultural life.

v. To know about their coping strategy before, during and after flood including the role of kinship network.

1.5: Review of Literature

The present study is related to the question regarding how a geographical phenomenon in the form of recurring flood of the Brahmaputra and its tributaries have affected the culture and society of the Mishings of Dhemaji District Assam. Therefore, during the review of related literature the researcher had to cover different trends of theoretical and other research studies as mentioned below:
1.5.1 Environment, Culture and Culture Change : Theoretical Overview

People have always been concerned about the relationship between the habitat, human experience and culture since time immemorial. A folklore material from all around the world testifies to this. Scholars and philosophers throughout centuries have also developing their views in theoretical terms. It was during the mid and later part of -19th Century, the role of environment on human biology and culture became the focal point of Anthropological studies due mainly to the influence of Darwinism and the works of anthropo-geographers like Friedrich Ratzel (1844 to 1904). According to Ratzel the story of any species including man is the story of its changing patterns of adaptation to its geographical surface. In Ratzel’s view, man’s primary means of adaptation to environment was culture, by which he meant technology, intellectual traits and social organisation (Woodruff D Smith WD cf Baruah: 2012).

During the first few decades of the 20th century, the influence of Darwinism and anthropo-geographers continued with environmental deterministic approach which was based on the assumption that environmental factors determine the human social and cultural behaviours (Milton:1997). However, the detailed ethnographic accounts of anthropologists belonging to American school of Diffusion like Boas, and Kroeber and Functionalist school represented by Malinowski and others led to underline the fact that environmental determinism could not sufficiently account for all aspects of cultural phenomena.

During the same period when American school of Diffusion led by Franz Boas and the Functional school of Malinowski was at their peak, in 1922, the concept of cultural lag was coined by sociologist William F. Ogburn in his 1922 work *Social change with respect to culture and original nature*. According to him the theory of cultural lag is a common societal phenomenon due to the tendency of material culture to evolve and change rapidly and
voluminously while non-material culture tends to resist change and remain fixed for a far longer period of time (Ogburn: 1957: 167-174).

According to Milton (1997) a weaker form of environmental determinism became popular until the works of Steward (1902-1972) who coined the term Cultural Ecology, with his materialistic approach to culture rekindled the interest in the nature-culture dialogue in a new positive way (Netting:1996:267). In contrast, White (1900-1975) focused on the process of general universal evolution, is best known for his strict materialist approach (Barfield 1997:491). According to White, the evolution of culture develops when energy use per capita increases. Human beings, since early times have gradually increased their harnessing of energy from the environment that resulted in cultural evolution. He proposed to explain cultural evolution, C=E × T (where C=culture, E=energy, and T=technology). White also subscribed to a technological determinism, with technology ultimately determining the way people think (Balée 1996).

Steward, (1955) in his Theory of Culture Change: The Methodology of Multilinear Evolution. Urbana: University of Illinois Press writes on his method of multilinear evolution that "certain basic types of culture may develop in similar ways under similar conditions but that few concrete aspects of culture will appear among all groups of mankind in a regular sequence" (Steward 1955:4). According to Steward, the causes or factors of culture change could be identified by devising a “method for recognizing the ways in which culture change is induced by adaptation to the environment (Ibid : 1955:4). He has termed this process of adaptation as cultural ecology. He says that "The cross-cultural regularities which arise from similar adaptive processes in similar environments are … synchronic in nature" (Steward 1955:4). The fundamental problem of cultural ecology is to determine whether the adjustments of human societies to their environments require particular modes of behavior or whether they permit freedom for a certain range of possible behaviors (Ibid : 1955:36). Thus
cultural ecology is the study of the adaptation of human societies or populations to their environments. Emphasis is on the arrangements of technique, economy, and social organization through which culture mediates the experience of the natural world (Winthrop 1991:47). Another closely related concept is that of cultural core which Steward (1955:37) had defined as “the features of a society that are the most closely related to subsistence activities and economic arrangements. Furthermore, the core includes political, religious, and social patterns that are connected to (or in relationship with) such arrangements” (Steward 1955:37).

Steward also describes the method of cultural ecology, variation in ecological adaptation, development of complex societies, and various examples of the application of cultural ecology. This pioneering work of Steward had influenced many anthropologists and led to the formation of new, more holistic theories and methodologies.

Harris (1966) in his work “The Cultural Ecology of India’s Sacred Cattle” tried to apply cultural materialism, specifically to the Hindu taboo against eating beef. He demonstrates that this taboo is meaningful in terms of the local environment, where cattle are important in several ways (Milton 1997) by providing dung, milk, labour. They are also the single most important means of traction for farmers. According to Harris "The principal positive ecological effect of India's bovine cattle is in their contribution to production of grain crops, from which about 80% of the human calorie ration comes" (Harris 1966:53). By studying cattle of India with a holistic perspective, Harris provides a strong argument against the claim that these animals are useless and economically irrational.

Panakhyo and McGrath, 2009 His theory of cultural materialism centers on the notion that technological and economic features of a society have the primary role in shaping its particular characteristics. He assigned research priority to concepts of infrastructure over
structure and superstructure (Barfield 1997:137). The infrastructure is composed of the mode of production, demography, and mating patterns. Structure refers to domestic and political economy, and superstructure consists of recreational and aesthetic products and services. Harris’s purpose was to demonstrate the adaptive, materialist rationality of all cultural features by relating them to their particular environment (Milton 1997).

Rappaport (1968)’s “Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People” examines a small group of isolated community consisting of about 200 people called the Tsembaga Maring in New Guinea. They rear pigs as their primary resource. Rappaport observed that as pigs consume the same food as humans in this environment. Therefore the Tsembaga are forced to produce a surplus in order to maintain their pig populations in the same habitat. As an adaptive mechanism, they have devised a mechanism where pigs are slaughtered for different social and religious purposes as bride price, ending of wars, and more particularly their kaiko ritual. The kaiko is a ritual of the Tsembaga during which they slaughter their pigs in the name of their dead ancestors and partake in feasting. The kaiko can be understood easily as "ritual pig slaughter." According to Rappaport, indigenous beliefs in the sacrifice of pigs for the ancestors were a cognized model that produced operational changes in physical factors, such as the size and spatial spread of human and animal populations" (Netting 1996:269). Thus, religion and the kaiko ritual are cybernetic factors that act as a gauge to assist in maintaining equilibrium within the ecosystem (Netting 1996:269). This study is the beginning of a new trend in cultural anthropology known as ecological anthropology in contrast to Steward’s cultural ecology (Barfield 1997:137).
1.5.2 Review of Literature on Flood and Natural Disasters Outside Assam

Gruntfest (1995) “Term Social and Economic Impacts of Extreme Floods” deals with impact of extreme floods and its serious social and economic impacts. The author gives a detailed account of the impact of floods in European context. The author mainly concentrates on the issue of damage of the public utility services and the traumatic experience of the people and suggests some remedies.

Adger (1996) emphasized that social vulnerability to climate variability is the key dimension in the constitution of vulnerability. This parameter shifts importance on underlying causes of vulnerability from the biophysical to the human consequences. He mentioned that vulnerability to climate change includes change in individual and collective vulnerability over time, associated with the changing incidence of extreme events.

Anderson and Wamsley (1996)’s “Reflection of the hearts: the Big Thompson Canyon flood of July 31, 1976” is a compilation of descriptive account of the situation before, during and after the occurrence of flood. The authors narrated the stories of a few long term residents from the night of the flood indicating how the flood changed so many lives, the flood occurred on a summer Saturday night. Damages exceeded $30 million. Research soon after the flood identified which residents were having the most difficulty coping. There have been no follow-ups to this study to evaluate long-term impacts. The book was written twenty years after the occurrence of the flood.

Oliver-Smith (1996) defined a disaster as a process/event involving the combination of a potentially destructive agent(s) from the natural and/or technological environment and a population in a socially and technologically produced condition of vulnerability. From this basic understanding three general topical areas have developed: (a) a behavioral and organizational response approach, (b) a social change approach, and (c) a political economic/environmental approach, focusing on the historical-structural dimensions of
vulnerability to hazards, particularly in the developing world. Applied anthropological contributions to disaster management are discussed as well as research on perception and assessment of hazard risk. The article closes with a discussion of potentials in hazard and disaster research for theory building in anthropology, particularly in issues of human-environment relations and socio-cultural change.

Montz and Tobin (1997) in their essay “The impacts of a second catastrophic flood on property values” examined how the floods have affected real estate prices. They found that in houses that had been completely inundated at a depth of 10 feet, housing prices have not recovered to pre-flood levels. Some houses with same flooding did appreciate in price more than other houses in particular neighbourhood because all the appliances, floors, furnaces, and other features were new following the flood.

Hanchett, Akhter and Akhter’s (1998) essay on “Gender and society in Bangladesh’s flood action plan, in Water, culture and power” is an evaluation of the official flood action in Bangladesh. Study findings demonstrate that men and women participate in programs related to the Flood Action Plan. The authors argue that development programs, social problems and gender inequality should be separate from flood mitigation programs. Their studies showed that socio-economic class was a key factor in determining people’s ability to cope with severe floods. Economics caused more problems than flood water.

According to Smith and Ward (1998), there is more evidence that the flood problem is getting worse in terms of the damage caused by flooding. Despite massive expenditure on flood defense, flood damage losses continue to rise in many countries. Although most floods are more or less natural phenomena (albeit intensified by human action such as land use change), the flood hazard is largely of human origin. Most floods results from moderate to large events, occurring within the expected range of stream flow. Floods constitute a “hazard” only where human encroachment into flood prone areas has occurred.
When severe floods occur in areas occupied by humans, they can create natural disasters which involve the loss of human life and property plus serious disruption to the ongoing activities of large urban and rural communities. Flood losses are therefore essentially human interpretations of the negative economic and social consequences of natural events. The impact of the flood hazard will, in part be determined by the magnitude of the events and the duration of the event. But the true significance of the flood disaster will depend primarily on the vulnerability for the local community. The relationship between physical exposure and human vulnerability is highly dynamic and can change through time (Smith and Ward, 1998).

Parker (2000) argues that the damaging effects of flood on African societies are complex. Extreme events affect both the formal and informal economics, making it difficult to assess impacts which include direct and indirect ones. The most tangible form of damage caused by floods is structural damage to homes, shops and public buildings and their contents and loss of crops and livestock. Depending on how well they are constructed and the severity of the event, buildings may be partially or totally destroyed by flooding.

Rashid (2000) described the 1998 floods that hit Bangladesh as the worst in the last country. Almost two-thirds of the country was submerged under water and millions were affected. A total of 33 million people were marooned of whom 18 million needed emergency food and health services in 52 districts. The floods continued for more that 65 days. They destroyed basic infrastructure like roads and bridges as well as houses, crops, animals and cattle. The most damaging aspect of the flood was the destruction of people’s means of livelihood. The response to the floods included distribution of food, medicine and clothing for the poor.

Cannon (2002) in his “Gender and climate hazards in Bangladesh” has mentioned that poverty is both a cause of vulnerability, and a consequence of hazard impacts. Evidence that
the impacts of disasters are worse for women is inconclusive or variable. However, since being female is strongly linked to being poor, unless poverty is reduced, the increase in disasters and extreme climate events linked with climate change is likely to affect women more than men. In addition, there are some specific gender attributes which increase women's vulnerability in some respects. These gendered vulnerabilities may, however, be reduced by social change.

Pellinga, Ozerdem and Barakat (2002) in their “The macro-economic impact of disasters” say that despite 30 years of study, international development policy appears to be little closer to generating protection to vulnerable people from the preventable losses of disaster. In their paper they set out and use a framework that allows a more holistic accounting for the macro-economic impacts of disaster, and is a step towards a deeper integration of disasters and development.

According to Meyer (2002) natural disasters devastate the United States through both economic loss and loss of life. The worldwide economic damage that results from natural disasters has more than tripled in the last thirty years. Of these natural disasters, floods are the most chronic and costly disasters, comprising an average $5 billion dollars of damage each year.

Dixit (2003) points out that vulnerability are the condition of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard. Even in normal times people live in vulnerable conditions. Vulnerable conditions and families find it hardest to reconstruct their livelihood following a disaster. Families do not live in conditions that are vulnerable to disasters out of ignorance about the hazards or their erroneous perceptions of risk. Instead, most have little freedom to choose how and where they live. Vulnerability therefore is not static but a dynamic process that depends upon the social, economic and political contexts that change overtime, which will consequently affect
the probability of loss. On the other hand, he suggests that strengthening social resilience capacity would reduce vulnerability. These social, political and economic conditions and their interrelationships during normal “times” determine why certain sections of the societies are more vulnerable to disasters than others.

Mirza (2003) states that flood disaster have different impact on individuals, households and communities. People cope in different ways. Those who have the capacity after being hit by a disaster emerge faster while those without such capacity sink deeper into the spiral of impoverishment. Coping strategies include actions such as migration from floods affected areas, flood forecasting, flood insurance of animals and crops, food stockpiling, providing emergency health services and building flood shelters. They have, however, not been woven systematically into the approach to achieve security from flooding.

According to Mohapatra and Singh (2003), among all natural disasters, floods are the most frequent to be faced in India. On an average, floods have affected about 33 million persons between 1953 and 2000. This figure may have risen due to population growth.

Anderskov (2004) had made a significant analysis of current trends within anthropological disaster research, and attempted to construct an approach that facilitates theory building and applied practices - analyzed with vantage point in a case-study from the flood-prone Mutarara District in Mozambique.

Manuta and Lebel (2005) in their “Climate change and the risks of flood disasters in Asia: crafting adaptive and just institutions” say that flood disasters are the most frequent and devastating natural disaster in the Asia region, and like disasters in general, their impacts have grown in spite of our improved ability to monitor and describe them (White et al. 2001). For the past thirty years the number of flood disasters has increased compared to other forms of disaster (Dutta & Herath 2005). China and India are the most frequently affected followed
by Indonesia, the Philippines, Bangladesh, Iran, Thailand, Sri Lanka, Vietnam and Pakistan. Climate change compounds the existing challenges of managing floods.

Vaghani (2005) in his “Flood Impact Analysis using GIS: A case study for Lake Roxen and Lake Glan-Sweden” comments that floods are common natural disaster occurring in most parts of the world. These result in damage to human life and deterioration of environment.

Ologunorisa and Abawua (2005)’s paper entitled “Flood Risk Assessment: A Review” reviews some of the techniques of flood risk assessment using case studies from different countries in the world. These techniques are meteorological, hydrological, hydro-meteorological, socio-economic and those based on Geographic Information System (GIS). The paper concludes that GIS technique appears to be most promising as it is capable of integrating all the other techniques of flood risk assessment.

Baker (2006) suggests that from its origins as a geological study of flood erosion and sediments the science palaeoflood hydrology matured to become an indispensable means for understanding the hydrology of very large, rare floods. Such floods are increasingly posing risks to human habitation.

Nott (2006) correctly points out that a flood event is not considered to be a natural hazard unless there is a threat to human life and/or property. The most vulnerable landscapes for floods are low-lying parts of flood plans, low-lying coasts and deltas, small basins subject to flash floods. Rivers offer human populations transport links, a water source, recreational amenities, fertile plains and are an attractive place for settlements. Floods then become a major natural hazard because of the high human population densities that inhabit these lands. He indicated that the direct impacts of a flood are closely related to the depth of inundation of floods water. The extent of a flood has a direct relationship for the recovery times of crops, pastures and the social and economical dislocation impact to populations.
Nott (2006) further stated that physical damage to property is one of the major causes for tangible loss in floods. This includes the cost of damage to goods and possessions, loss of income or services in the floods aftermath and clean-up costs. Some impacts of floods are intangible and are hard to place a monetary figure on. Intangible losses also include increased levels of physical, emotional and psychological health problems suffered by flood-affected people.

Khan (2007)’s study of “Flood Management in Bangladesh” aimed to find out solutions to prevent floods to take over built areas. The information which is provided in his thesis is based on experiences gained during several years in flood management in Bangladesh, with strategies that have been observed after a number of disastrous floods.

Mercera, Howes, Kelman and Lloyd (2007) in their “The potential for combining indigenous and western knowledge in reducing vulnerability to environmental hazards in Small Island developing states” found that the benefits of indigenous knowledge within disaster risk reduction are gradually being acknowledged and identified.

Oliver (2007) “Natural disasters and economic development: A neoclassical review of theoretical perspectives and empirical evidence” discusses what are the macroeconomic implications of natural disasters?


Jimoh and Iroye (2011) “Adaptive Responses to Flooding Incidents in Ilorin, Kwara State, Nigeria” revealed that incidents of floods which are mainly caused by changes in land
use is fast becoming a city life experience in Ilorin as in most urban centres in Nigerian causing untold hardships and sometimes loss of lives.

**1.5.3 Studies on Flood in Assam**

Sabhapandit, (2003) in his book “Flood Problem of Assam: Cause and Remedies” has tried to highlight the flood problems of Assam and also Cause and Remedies of flood hazard. His book was a compilation of different scholars who have presented their papers in a national seminar on “The Flood Problem of Assam: Its Causes and Remedies on 4th & 5th February, 2000, Jorhat, Assam.

Singh (2005)’s “Impact of floods on the vulnerable groups in Brahmaputra and Barak river basins” is an essay on flood situation in Assam. The essay describes the vulnerability of the capital assets and warns about a probable disastrous situation if appropriate remedial measures are not taken.

Gogoi (2008) “Flood Hazards in Assam and Their Impact on Human Occupance” says flood is a complex phenomenon, which bears complex meaning and applicability. In India, the term ‘flood’ is generally used to mean the river floods created by certain fluvio-geo-morphological condition in combination with rainfall of a region. He revealed that in this country flood occur very frequently during rainy seasons. Some of these floods are hazardous. The book is case study of Sadiya region of Tinsukia district. It mainly focuses on the flood problems of Sadiya. It further discusses physical basis of Sadiya Region, population basis of Sadiya Region, floods and their characteristics, major causes of floods in Sadiya Region, impact of floods on human occupance in the Sadiya Region and human response to flood hazards.
Khan (2012)’s study entitled “River Erosion and Its Socio-Economic Impact in Barpeta District with Special Reference to Mandia Development Block of Assam” revealed that 80% of people of Assam depends on agriculture but last 40 years Assam faces huge river erosion problems, which has destroyed a lots of agricultural production and other fruits and house land of the people.

Das (2012)’s study on “Farm Productivity Loss due to Flood-Induced Sand Deposition: A Study in Dhemaji, India” describes that the decline in agricultural productivity in the Dhemaji district of Assam, India, is due to flood-induced sand depositions in paddy fields. Increased sand content reduces the water retaining capacity of soils and reduces crop productivity.

Sharma, Rao and Bhanumurthy (2012) in their “Development of village-wise flood risk index map using multi-temporal satellite data: a study of Nagaon district, Assam, India” reveals that the Nagaon district in Assam is in a sub-humid region with a greater part of the district comprising alluvial soil ranging from pure sand on the banks of the Brahmaputra to stiff clay. The area is subjected to frequent flooding by rivers during a spell of 4 months in a year.

Gogoi, Goswami and Phukan (2013) in their “Flood risk zone mapping of the Subansiri sub-basin in Assam, India” highlights that flood plain zoning of a river basin is an essential management strategy to regulate land use in order to restrict the damages in frequently flooded areas. The river Subansiri is one of the largest north bank tributaries of the Brahmaputra which creates flood havoc almost every year bringing untold miseries for the people living in the lower part of the basin, i.e. the part which falls in the Dhemaji and Lakhimpur districts of Assam. Flood plain zonation of this area is done in this study on the basis of the flood inundation map of 2004 collected from the Dartmouth Flood Observatory website and the flood inundated areas during the flood of 2008 where water remained
stagnant even in the post flood period. These areas are delineated from post flood season imagery of October 2008. The final flood zonation map includes three zones viz. the chronically inundated, occasionally inundated and rarely inundated zones. A large part of the agricultural lands and villages of Dhemaji and Dhakuakhana lying on the left bank of the river Subansiri were submerged by flood compared to the right bank. This may be because of the low-lying nature of the basin in Assam where these parts are always vulnerable not only to the floods of the Subansiri and its tributaries, but also to breaching of the embankments of the river Brahmaputra.

Saikia (2013)’s study “The Flood in Golaghat District: Causes, Impacts and its Remedies” discusses the causes, impacts and its remedies in Golaghat. The literature reviewed from various sources gives us a clear idea that the increasing population of our planet is leading to the increasing exposure of people and property to hazards of flooding. With the increased population on our planet, it may be expected that the effects of climate change will further aggravate this.

The literature suggests that socially vulnerable or disadvantaged households have lower levels of disaster preparedness. Flood risk is expected to increase substantially in coming years as a result of both climate change and continued socio-economic development.

1.5.4 Review of Literature on the Mishings

Though various papers works have been done on the Mishings of Assam on socio-cultural aspects published in the form of books, journals and magazines but very rare papers have found regarding flood disaster on the Mishings of Assam. Some contribution made by various writers on the Mishings have been discuss below-
The British ethnographer E.T. Dalton (1872) who first tried to draw a distinction between Hill Miris and the Plain Miris has given a brief account of the Mishings (Plain Miris) in his Descriptive Ethnology of Bengal. Dalton’s predecessor William Robinson (1841) also referred to the Mishings in his A Descriptive Account of Assam. Among the works that contained such brief accounts, History of Relations of Government with the Hill Tribes of the North-east Frontier of Bengal by Alexander Mackenzine (1884), A History of Assam by E. Gait (1905), Linguistic Survey of India (Vol. III, Part-I) compiled by G.A. Grierson (1927), In Abor Jungle of North-East India by A Hamilton (1912) are the books that deserve to be mentioned.

Payang-kotoki (1936), Nath (1985), Yonggam (2009), Payeng (2009) and Doley (2014) have clearly portray the chronological migration of the Mishings to the plain of Assam and playing a vital role in the culture and economy of the greater Assamese Society and tribal society in particular.

Pegu (1956) “The Miris or the Mishings of the Brahmaputra-Valley” and Medok (1997) “The Mishing (Miri) Tribes and Their Land” focuses the birth of the Mishing tribes and migration and their settlement. It also describes the legends of the Mishing (Miri) tribes about the tributary river of Brahmaputra (A: NC) in the North-Eastern part of India.

Bordiolo, Thakur and Saikia (1987) “Tribes of Assam” highlights about the Mishings origin, economy, hunting and fishing, food and drink, dress, clan, kinship, family, property and inheritance, social organisation, marriage, religious beliefs, disposal of dead, festivals and changing trend in the Mishing society. Of the Ahom chronicles, the first historical reference as to the Mishings occurs in the Deodhai Asom Buranji edited by Bhuyan (1990) followed by the Puroni Asom Buranji by Goswami (1992). Then ample references are found in the later periods in ethnographic and administrative records of the British rule in Assam.
Kuli (2004) “Murong: Its significance for Misings” says that in the Mising society Murong is a symbol of village unity, integrity and assimilation. The performance of collective social functions, feasts, festivals, training of dancing and singing etc. are some usages of Murongs. It can also be used as a guest house for some honorable guests and as a court of social justice.

Bhandari (1992) “Kinship Affinity and Domestic Group: A Study among the Mishings of Brahmaputra Valley” focus on the kinship system of the Mishing Society.

Sharma (2004) “Folk Culture of the Misings of Assam: Tradition and Change” made an in-depth study of the socio-cultural life of the Mising tribe of Assam by studying their oral narratives. It deals primarily with the factors that influence the material culture of the tribe including their folk art, craft, architecture, costumes and ornaments and food.

Lego (2005) briefly focused the close affinities among the Mishings of Assam and Adis of Arunachal Pradesh from a historical perspective.

Yien (2005) have given very vividly descriptions of festivals and pujas ceremonies of the Mishings. The showcase of the Mishing Ali A:ye Ligang festival celebration which marks the beginning of the sowing season which falls in the month of February , whereas the closing of the harvest is marked by another celebration called ‘Po:rag’. Dobur puja which performed for the well being of the whole village is also well mentioned in Pamegam 1961 and Pegu 2014.

Pegu (2005) says that during the post independence era of more than half century-the Misings have traversed some distances. Typically a riverine tribe in the Brahmaputra valley, a large section of the community expressed the harrowing tales of erosion and devastation and the villagers rendered landless and no dwellings left have learnt to look for more permanent areas of settlement. This has sometimes led to encroachment and conflict with the administration. As a result of annual floods and erisions, the Misings living on the banks of
the Brahmaputra and the Subansiri suffered economically. Lots of schools were also affected by flood and erosion.


Doley (2012) mentioned that the habitats of the Miris (Mishings) are generally located along the banks of rivers mainly that of the Brahmaputra and the Subansiri for which they are aptly described as riverine people of Assam. Thus, they are always exposed to floods and erosions which cause extensive damage to their land, crops and other properties. This is one of the chief reasons of their poverty and economic backwardness.

Kuli (2012), has highlighted the history of the Misings, social and economic life, language and literature and so on.

Mipun (2012, reprint) “The Mishings (Miris) of Assam” the book analysed the traditional social system, acculturation, impact of modern communication and socio-economic development of the Mishings.

Pegu (2012) has reflects the educational problems of the Misings showcasing varied factors.


Doley (2014) observed that Mishing society is changing not only in the aspects of socio-economic and political areas but also in traditional beliefs and cultural practices in both rural-urban context.
Kuli (2014) “Mising Folklore” is an attempt to piece together folklore materials from different publications, resource persons, internet source, as well as his personal field work and experience.

Kaman (2014) have describes about the latest trend of agricultural practices in the community showing shifting agricultural techno from simple traditional plough cultivation to modern technology like tractors and power tillers and so on. He also mentioned about the uses of various high yield seeds in their fields.

Morang Doley (2015) “Mising Women Role and Status” examined the socio-economic role of the womenfolk of the Mising.

Payeng (2015) “The Mishings” reveals about the origin of the Mishings and their dwelling family system, rites and rituals, economy and occupation. It gives a vivid picture of cultural, economy, polity and religious way of the Mishings in the past and its transition at present and also their relationship with the Ahoms.

Pegu (2016)’s “Mising Samaj Sanskriti Aru Parampara” describes about the Mising society, Culture and Tradition of the past and present.

After reviewing the literature works of the Mishings, it has been clearly understood that majority of the writers has given an account of migration of the Mishings from the hills of Arunachal Pradesh to the plain of Assam. Some has focuses on the socio-cultural life of the Mishings during the British rule and processes of development of the Mishings society after independence. It has been found that no indepth study has been made on the impact of flood on the society and culture of the Mishings. Therefore it has been attempted to take up the present study.
1.6 Methods Adopted Reference Village to Compare

1.6.1 Selection of the Villages

In order to study the impact of flood on the different aspects of the Mishing community, three villages have been carefully selected from the five Development blocks of the Dhemaji District. Two of these villages are regularly flood affected while one village has never been affected by flood. The non-flood affected village has been taken as the reference village for comparison. Bahir Tapit and Sunarigaon are the two flood affected village while Akajan is the non-flood affected village. The name Akajan comes from a stream of the same name which had caused flood in Akajan village prior to 1950. It may be mentioned that Akajan has not experienced any flood since 1950 when the great earthquake had shifted the course of the Akajan stream away from the village site.

Of the two regularly flood affected village Bahir Tapit with 52 families is situated in the Machakhowa Development Block under Dhemaji Revenue Circle while Sunarigaon having 55 families falls under Muktiar Gaon Panchayat of Sissiborgaon Development Block. Akajan is the name of the other village which has not been affected by the ravages of regular flood. It has 48 families and is situated in the Sissiborgaon Development Block under Akajan Gaon Panchayat.

These three villages were selected after a careful pilot survey and discussion with Revenue officials of the respective Circles like Circle Officers and village headmen.

1.6.2 Collection of Background Information

The initial six months were spent in collecting background materials for the proposed study. This was achieved mainly through library work, collection of secondary data from different Government Departments, non-Government institutions and other agencies. Circle
offices of all the four revenue circles of Dhemaji districts were of great help. Simultaneous
effort was also made to meet and discuss the issue with different people of different social
standings so as to collect information on all possible sources. Special mention may be made
of Dr. JJ Kuli, Professor in Assam Medical College and eminent book writer in Mishings;
Mr. Jalendra nath Doley and Juwel Pegu, both member of Mising Agom Kebang and writer
in Mising Magazines; Mr. Poteswar Doley (age 70 years), retired school teacher, Oikoi Doley
(Age 75 years) a shaman by profession and Boidonath (Age 72 years) a traditional healer
were interviewed to know the status of the Mishings before and after 1950 earthquake. More
over data from different village headmen (Gaon burahs) were of much help.

Besides, KKH Library of GU, SKB Library of Cotton College, District Library,
Kamrup Metro District, Library of AIRT&SC (TRI Library) was used for the present work.

1.6.3 Tools of Data Collection

Standard ethnographic methods have been adopted in the present study. Apart from
observation method, case study interview, household schedules are used for collection of
data. The primary data was collected by using observation (both participant and non-
participant method), household survey schedule, interview (both individual as well as group
interview method), case study, genealogical method, photographic, video graphic methods
and telephonic conversations. As the researcher belongs to the same community and the same
District, it was possible to get an an insider’s view of the impact of flood on the Mishing
community. Besides, use of native language in collection of data was an added advantage.

1.6.4 Period of Field Work

A period of one and half years was taken for conducting the field work. From March
2012 to July 2013 background study of the district was done. During the next phase,
collection of household data from the selected village was collected for study was obtained (i.e. October 2013 to September 2014).

1.7 Presentation of the Thesis

The thesis has been presented in six chapters. The first chapter is the Introductory Chapter. In this chapter an attempt has been made to discuss in general about flood and its havoc and Dhemaji district in particular. The chapters also include statement of the problem, a review of literature, objectives, methods adopted, and presentation of the thesis.

The Second chapter has been divided into two parts. Part A deals with an ethnographic note on the Mishings while Part B describes Mishing Society and Flood.

The Third chapter deals with the study area with different sub-headings such as a brief overview of the district, and its socio-economic background of the district and brief profile of the three study villages.

The Fourth chapter is divided into two parts. Part A presents the general description of the study villages describes while part B focuses the demographic characteristics of the villages along with tables, and analysis.

The Fifth chapter deals with the major findings of the study. The impact of flood on the different aspects of Mishing life in the study villages including settlement pattern, shifting/migration of families due to impact of flood, occupational pattern and economy, family size and type, material culture, religion and observance of rituals and festivals. The preparedness and coping strategy for flood of the community happens to be another area covered in this chapter

In the sixth summary and conclusion is presented.
1.8 Local Terms and Terminologies Used

Abo/Tani : father of human beings
A:bang : devotional or religious songs
Ago-golung : burial ground of the Mishings
A:né : a mighty river, the Brahmaputra
Ali : roots of plants that are edible / it also meant small parallel dam constructed in agricultural fields
Ali–aye-Ligang : agricultural festival of the Mishings
Apong : domestic rice beer/fermented rice beer
Asi : water
A:ye : fruit
Bahir : outside
Banggo Kébang : block council
B:re : readymade bamboo walls
Bazaar : small commercial place
Bigha : land measuring unit. One bigha = 0.33 acre
Bitor : inside
Bhur : raft made of trunks of banana trees
Chang ghar : house having raised platform made of bamboo, cane etc. with a heavy thatched roof and walls all around/ chang means a platform and ghar mean a house. A chang ghar is a typical Mishing dwelling built on stilts of bamboo or wood (now-a-day with RCC pillars).

Chaporis : the river islands formed of sands and covered by grass or thatched, subjected to frequent inundation by floods.

Dobur : a sacrificial function for appeasement of the inimical spirits causing epidemics other diseases

Boliya pani : it is an abnormal flooding which brings havoc and disaster

Do:lung Kébang : village council

Do:nyi : the Sun

Gero : a variety of designed cloth

Ghat : a spot on the river bank for keeping ferries or boats

Gumrag : a type of traditional dance

Gu:mín : the ancestors

Hunari : it’s an Assamese term meaning jewelers moving from village to another to sell their products

Ka:ré : its a constructed raised platforms or Chang used by the people. It constructed according to the needs of the people.

Kébang : meeting, organization, association etc.
Kopak Bhur : banana raft

Mibu : the priest in the Mishing community

Mimbir : young girl

Murong : an open house for performing festivals etc.

Namsing : it a special type of preserved dry fish in a bamboo tube. The dry fishes are grinded, mixing with Engé anné etc. and kept in a bamboo tube, the mouth of which is closed tightly to prevent air entering into it.

Nogin : white variety of rice beer

Okum : house

Opín : a group, gutro

Otlung : boat (in Mishing)

Po:lo : Moon

Po:ro : a variety of domestic beer

Po:rag : Po:rag is a agriculture festival. The festival marks the harvesting time of paddy

Purang : boiled rice wrapped in leaves in sizeable packets

Sédi-Mé:lo : the worldly beings, the sky and earth

Sibir Dunam : emergency camp life of the Mishings when hits by severe flood
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tani</td>
<td>Man, Tani group of Arunachal and Assam</td>
</tr>
<tr>
<td>Taléng</td>
<td>above, the supreme</td>
</tr>
<tr>
<td>Taleng okum</td>
<td>it is a type of long house having raised platform made of bamboo, cane etc.</td>
</tr>
<tr>
<td></td>
<td>with a heavy thatched roof and walls all around.</td>
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</tbody>
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