



# Impact Of Floods On Material Culture In A Flood Prone Area: A Case Of The Mishing Community In The Dhemaji District.

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## Abstract

**Keywords:** Material culture, flood, Mishing community, indigenous knowledge.

Floods have ravaged portions of India from times immemorial. Though floods are one of the very few well recorded natural phenomena, the catastrophic damages caused by them attracted focused attention in recent decades. With increasing population pressure and accelerated economic development, the adverse effects of floods are being increasingly felt now. Flood cause great distress whenever they damage material objects and endanger lives.

Assam is one of the highly flood prone state in India. In Assam vast stretches of land are submerged under water and other adverse effects are caused, such as destruction or damage to houses, cultivated land, property, bridges, roads and other means of communications, lives lost etc. year and year.

Flood damages are the combined result of the natural phenomenon of floods coupled with the human activity in the flood plains. The fertile river silt has promoted large-scale settlements and cultivation of lands near the river banks and the adjacent areas or even the river bed region. While these activities are increasing on hand, on the other river continue to experience varying magnitudes and intensities of floods which cause damages, sometimes in the disastrous proportions.

In the present study the focus was placed on studying the impact of flood on material culture of Mishing community living in a flood prone area and understanding the way members of the community are adapting to flood using their indigenous knowledge. A field work was conducted among the Mishing people of Archi Majorbari village inhabiting on the bank of river Dimow under Sissiborgaon Development Block of Dhemaji district.

## Introduction:

Water is a source for all life forms. Without water no life is sustainable. Ironically the same water in the form of floods takes away thousands of lives. It is a condition when the rain water gets accumulated at a place, flooding populated areas. At times, it can be highly dangerous and can wipe off an entire village or city. A flood is a condition when an area is fully or partially submerged in water for a period of time due to man-made or natural causes. The natural reasons behind floods can be heavy and continuous rain for an extended time period. One cannot stop floods but it can be avoided by constructing dams. One can definitely reduce the effects of floods and can reduce the damage caused by floods. Planting more trees in flood-prone areas and constructing dams might be helpful in controlling the adverse effects of floods.

The effects of flood on the affected population are manifested in the form of inundation marooning, drowning, loss of habitats, roads, communications, destruction of crops, industrial shutdown, loss of wages, diarrhea diseases, respiratory infections etc. and most of the affected population is among the poor sections.

Some floods develop slowly, while others such as flash floods, can develop in just a few minutes and without visible signs of rain. Additionally, floods can be local, impacting a neighbourhood or community, or very large, affecting entire river basins.

However, a number of communities around the world have tried to reorient their life-style to cope with this hazard with the help of indigenous coping and adaptive strategies and in many cases they seem to be successful.

#### **Micro-field:**

The site selected for the project work is Aarchi Majorbari village which is under Sissi Bargaon Development Block and it is located on the bank of river Dimow which is about 6 to 7 km from Silapathar Town. This village has a long history of floods and associated hazards going at least three decades and inhabited by one of the most suffered indigenous community i.e., Mishing community which have learnt to live with floods by adapting various strategies.

#### **Objective of the studies:**

1. To focus impact of flood on the socio-economic life of the Mishing population of Aarchi Majorbari village and also to understand how the people of the village have been living within such flood prone area with their specific coping and adaptation strategies especially in the context of socio-economic scenario.
2. To understand and highlight how the Mishing community in the remote isolated pockets which are at highly flood risk have lived with and adapted to flood and associated water induced hazards, and whether they will be able to cope with the same disasters in future, and what can be done to strengthen their relevant coping strategies and adaptation capacities for the present and the future.

#### **Methodology:**

The data mainly collected are the primary data from the selected area for this paper. For collection of empirical data for this paper we mostly used interview method. Informants are so chosen on the basis of their sex, age and their knowledge on economic and social activities. Primary data were also been collected on the basis of social survey schedule, observation and case study methods. Digital camera, boat and raft were also used for collecting data. The secondary data has been collected at the village and block level concerning the physiographical, environmental, socio-economic, and vulnerability of the sites and surrounding areas.

A large amount of secondary information and data has also been collected through review and analysis of the available literature such as news paper reports and articles, articles published in local magazines and souvenir publications written in local languages.

#### **Our findings may be discussed as follows:**

Agriculture is the main source of occupation and people mostly depends on agriculture as their primary source of income and livelihood. The flood affects their crops every year destroying their source of income. So, their coping strategy also includes generating alternatives source of income, if any opportunity they get it is turned into earning source with limited available resources. Some people collect driftwood and logs floating down the river, risking their lives at times, and selling these illegally to sawmills, furniture stores, or to local markets.

Due to the impact of floods on the Mishing community of Archi Majorbari village I have observed many behavioral changes on their habits.

#### **Behavioral change as coping and adaptation strategies**

Due to floods and flash floods people leave homeless and displaced, destroy their crops, damage their public property, and damage development infrastructure; therefore, people have to face many problems in adjusting with the disrupted environmental condition. The indigenous communities living in the areas have developed some mechanisms over times that have become ingrained in their lifestyles and traditions. To cope with the flood situation the people have adopted different strategies. The strategies are in the form of behavioral change related to food habits and sanitation habits. A study undertaken at the studied village observes that when flood hits, the food habit of the people changes both in quality and quantity.

#### **A. Role of family members during flood:**

As flood is an annual phenomena in the village, every member in the family are well aware of their role in coping with the flood. People are also well coordinated in their role in the preparation for flood. Before flood each family member distributes their works. Generally women take care for storing and preserving food while men repair their house and make raised platform inside their house to keep their necessary items, collect banana trees for making raft, store fodder for cattle and shifted their cattle and livestock to a higher and safer

places. Children also plays an important role during the disaster by helping their dear and near ones that makes them to feel as a part of the family and prepared themselves to cope with this situations for future.

### **B) Kinship as a social capital :**

Kinship plays a very important role in the social organization of Archi Majorbari village. The kin member of the village of selected site has social cohesion, amicable relationships and strong bond of clanship that motivated the people to help each other during flood distress. Kinship plays an important role in flood risk mitigation, and is an important source of social capital that helps communities adapt to flooding. The kin members who have boat lend them to other in need, the kin members provide shelter to those who are displaced. The kin members who reside in towns or nearby villages bring pregnant women and school going children to their house. They send food items, money, clothes, medicines, and any other necessary requirements to their kin members. During flood behavior pattern like avoidance relation between kin members are hardly observed. This kind of cooperation and mutual understanding helps to survive better in times of needs.

### **C. Change in food habit:**

Food becomes scarce during every flood and most households have to suffer for lack of adequate food due to inundation of flood water in whole area of the village. The Mishing people have their own food habits and usually take meal thrice a day with fish or meat but during flood instead of three meals a day, at best, they could manage two meals. Generally every households of the village try to store dry food such as *chira-muri*, *gur*, rice, dal, oil, and salt etc. But during flood sometimes, they cooked for one day and the same food is judiciously taken for two to three days. A few others tried to survive on dry food like '*muri*', '*chira*' etc., or had rice with only green chili and salt. Some people have to spend whole day partaking only '*apong*' (rice-beer). At the time of flood if there was no alternative source of managing food the people of the study area eats '*posola*' (tender inner stem of banana plant). Some of them also starve in spite of having food materials due to lack of fuel.

Women are severely affected both during and after floods because of the physical and mental hardships they face in looking after the family kitchen and the children. Usually it is the women who arrange for or collect water for drinking and other domestic purposes during floods. When the people failed to have any dry food or *apong* or could not have any food to cook then the female members of the household also tried to collect leafy vegetables and kinds of roots from surroundings and boiled them to eat.

### **D. Change in sanitary habit:**

In this area inundation of toilets by flood water, disruptions of entrance to toilets are the severe problem of the villagers. Several risk behavior were identified in the flood affected area which can have severe implications on the health of the community. Maintaining health and sanitation is the greatest challenge for women during floods. Owing to these impacts people need to change their normal defecation practices. The adult males use raft made of banana tree trunks (called '*bhur*' in Assamese) or country boats to go out to the jungle for answering the call of nature; children manage do it in near the house by using raft or sometimes relieve themselves inside the house. In this study area toilets are located relatively far away from the dwelling place, at a lower place from the ground level of homestead and preferably near the water body. Therefore every year at the time of floods most of the toilets become inundated. Women of the village had to wait till dusk or have to row their rafts to the isolated places or to places covered by trees to bathe or to respond to nature's call. People, who take shelter in the nearby refugee camp or on the roadside making make-shift shelter, are forced to take bath in open space without caring for privacy or modesty. Children are suffered from diarrhea and pneumonia which are the top two killers during floods.

### **E. Change in economic activity:**

i). Agriculture is their primary means of subsistence. They practices wet rice cultivation for which they use draft animals, plough, fertilizer and irrigation. The people have adopted a rice cropping technology of bullock-ploughed land preparation, dry field broadcasting, mixed cultivation, weeding and thrashing using bullocks which are all typical features of the Indian type of rice cropping technology, especially for *Ahu* and *Bao* rice cultivation. They grow the tall, bold-grained indigenous rice varieties, which do not require much care. People living in this areas grow seasonal rice varieties like '*sali*' (summer variety), *ranjit* (summer variety) etc. They also grow '*bao*' (deep water paddy) in normal flood water. '*Bao*' is a local variety adapted to a watery environment and it is not easily affected by floods.

A mixed variety of summer rice (ahu) and deep water rice (bao) is also cultivated by some farmers in the flood affected areas to keep option in case one variety fails and to optimize the use of land. However, early flooding in April or May might damage the summer rice while the better-adapted *bao* survives and ensures food security. Sand deposits covered the entire landmass up to an average height of four to six feet and made totally unfit for any type of conventional agriculture. This has made them to try locally-developed techniques for growing vegetables in homestead gardens. As a result, many villagers have started growing vegetables like potatoes, pumpkins, gourds, green chilies, black gram and lemons using pit culture. They also cultivate mustard in large quantity.

ii). Most of the people of the village are labourers. Daily wages earning opportunities becomes limited during and after the floods. So, most of the people go out of the village in search of work and at the end of the day what they earn could feed the family for the night. Economic insecurity, social insecurity and political volatility of the recent past and decline resources due to climate induced flood and river bank erosion compounded by a population increase in the community has propelled a large chunk of their youth to migrate to faraway places like Kerala for work in the last three decades.

iii). During heavy flood most of the people of the village collect timber from the Dimow river risking their lives at times, and sell the timbers. A few people kept it to make wooden furniture from driftwood.

From the preceding discussion we can say that the community under study faces many problems during floods specially the women. Women are considered the most vulnerable in times of flood because they are exposed to more dangers due to their various roles, such as taking care of children, older family members, and the people with disabilities before, during and after the flood. But now they have learned how to live with flood by making optimum use of indigenous technology.

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