

# A Study On Livelihood Diversification Among The Mising Tribe Living In Riverine Areas Of Majuli District Of Assam

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## Abstract

The Mising of Assam are regarded as the riverine tribal group constituting about 17.5 per cent of the total scheduled tribes population in the state as per 2011 census. Census 2011 shows that about 83.7 per cent of the Misings man works as cultivators. But agriculture is one of the sector most vulnerable to climate change impact. Rural development is no longer be based only on traditional agricultural activities, permanently restricted to risk. Uncertainty, improvisement factors of production. The livelihood diversification id, therefore, an integral dimension of development agenda for strengthen rural livelihood and sustaining livelihood security. The present study is an attempt to understand the prevailing livelihood scenario of Mising population group being located in riverine areas Brahmaputra and its tributaries. The study is based on primary sources of data. Multi stage sampling method is being used to select the blocks, villages as well as respondents. The location of the study was Majuli district, the largest river island in the world. A total of 143 respondents were selected randomly for the study. The findings show that incidence of shift of occupation to low paid work and wage earning activities stand as serious problem in the study area. Incidence of migration for smaller job in outside Assam is also visible in the study area. Ensuring fundamental right of the people is a democratic right.

**Key words:** Mising, Livelihood, Diversification, Workers, Vulnerable, Tradition, occupation

## INTRODUCTION

As per 2011 census the total scheduled tribe population in the state is 38.84 lakh constituting about 12.4 per cent to the total population of Assam. Despite taking a number of steps by the central and state government to uplift the socio-economic status of the tribal communities, the development gap between scheduled tribes and other groups still persists. Census 2011 shows that about 65.9 per cent of scheduled tribes main workers still working as cultivators, which indicates higher dependency on agriculture sector of the population group. Flood in Assam has become a recurring feature. The severity of flood problem of the state has been further aggravated by the acuteness of erosion on both banks of the river Brahmaputra and its tributaries. According to Economic Survey, Assam (2012-13) an area of 4.27 lakh hectare has been eroded by the rivers in Assam since 1950, which is calculated as 7.4% of the total land mass of the state. (Economic Survey of Assam, 2012-13). The flood and erosion are also responsible for displacement of people from their usual dwelling places resulting into varying impacts on infrastructure, crops, health, education, environment as well as damage to property. So, flood and erosion led to a

transformation of the economy of the tribal people living in the riverine areas. The Misings of Assam are regarded as the riverine tribal group, constituting about 17.5 per cent of the total scheduled tribe population in the state as per 2011 census. Census 2011 shows that about 83.7 per cent of the Misings main workers engaged as cultivators. But, agriculture is one of these sectors most vulnerable to climate change impact. Padilha and Hoff (2011) pointed out that rural development can no longer be based only on traditional agricultural activities, permanently restricted to risk, the uncertainty and impoverishment factors of production. The “livelihood diversification” therefore is an integral dimension of development agenda for strengthening rural livelihood and sustaining livelihood security. The present study is an attempt to understand the prevailing livelihood scenario of the Mising population group living in the riverine areas of Brahmaputra and its tributaries.

The main concentration of the Mising population has been found in the riverine areas of Dhemaji, Lakhimpur, Majuli, Jorhat, Golaghat, Sonitpur, Biswanath, Tinsukia, Sivasagar and Dibrugarh districts of Assam. The study is confined to Majuli district of North Brahmaputra valley. The choice of the tribe for the present study is to provide a thorough understanding of prevailing livelihood scenario of the population group being located in natural calamities prone area.

#### **Livelihood Assets:**

Livelihood is highly depending upon livelihood assets hold by an individual or households. Livelihood assets are categorised as tangible and intangible. Examples of tangible assets are- food stores and cash savings, as well as trees, land, livestock, tools, and other resources. Intangible assets consist of claims one can make for food, work, and assistance as well as access to materials, information, education, health services and employment opportunities. These assets are very important to pursue a livelihood strategy of an individual or households. Another way of understanding the assets, or capitals, that people draw upon to make a living is to categorize them into the following five groups: human, social, natural, physical, financial, and political capitals (UNDP, 2005).

- **Human capital:** Skills, knowledge, health and ability to work
- **Social capital:** Social resources, including informal networks, membership of formalized groups and relationships of trust that facilitate cooperation and economic opportunities
- **Natural capital:** Natural resources such as land, soil, water, forests and fisheries
- **Physical capital:** Basic infrastructure, such as roads, water & sanitation, schools, ICT; and producer goods, including tools, livestock and equipment
- **Financial capital:** Financial resources including savings, credit, and income from employment, trade and remittances

Thus, these sets of livelihood resources are very important for constructing sustainable livelihood strategies for a household.

### 1.1.1 Objectives:

The specific objectives of the present study are-

- i. To understand the socio-economic status of the sample Mising households in the surveyed area;
- ii. To study the pattern and extend of livelihood diversification among the sample households;
- iii. To examine the determinants of livelihood diversification among the sample households;
- iv. To suggest some measures to improve livelihood opportunities for the study group;

### DATA BASE AND METHODOLOGY:

The study is based on the secondary and primary sources of data. Secondary data were collected from the Census of India, Statistical Hand book of Assam, Economic Survey of Assam, Reports of government and non- government agencies, books and journals etc. The field investigation was conducted in order to generate primary data.

The field study locations were selected from the areas with concentration of Mising tribe population. In order to select sample districts, development blocks, villages and sample households a multi-stage sampling technique was adopted. In the first stage, Dhemaji district has been purposively selected, which is situated in the north bank of Brahmaputra, In the second stage, two development blocks have been selected on the consideration of high concentration of Mising population. In the third stage, from each of block three villages were selected on the consideration of representing different types of habitats of the Mising population. Two sample villages were from chronically flood and erosion affected villages. Another two villages represent the moderately flood affected habitats. The last two villages were mixed population villages having Misings households and other communities. Thus, villages were classified as (i) chronically flood and erosion affected (ii) moderately flood affected and (iii) mixed population village. Altogether 6 villages were selected from the two locations.

In the fourth stage, from each selected village, 7 per cent to 25 per cent of households belonging to Mising tribe were selected randomly for household survey. Thus, a total 122 sample households were selected randomly from the two study locations. The survey was conducted during the months of May to July 2022. The selection of sample village and sample drawn has been presented in Table 1.1. The village category-wise sample households have been shown in Table 1.2.

### Tools for Data Collection:

Primary data have been collected by using- household schedule and village schedule. The household schedule was used to collect information on population size and structure, educational attainment, access

to basic amenities, assets and diverse livelihood

resources of the sample households. The village schedule was used to gather general and background information, socio-economic profile of villages, including its physical and institutional infrastructure etc. Apart from schedules relevant information has been explored through interview and consultation.

**Analytical Framework:**

Usual statistical tools like -ratios, percentages, averages and graphs have been used to analyse the quantitative data. In order to determine the main contributing factors of livelihood diversification among the sample households a regression analysis has been carried out.

**Table1.01: Sampling Procedures**

District	Development Block	VillageCategory	Sl. No.	NameofVillage	Total Household	Sample Size	% of sample HH
Majuli	Majuli	Chronically Flood and Erosion Affected	1	Abhhoypuria	422	30	7.1
		Moderately Flood Affected	2	Aboni Chapari	215	23	10.69
		Mixed Population	3	Alengi Gaon	206	24	11.65
	Ujani Majuli	Chronically Flood and Erosion Affected	4	Auniati Chapari NC	124	21	16.93
		Moderately Flood Affected	5	Baghar gaon	180	24	13.33
		MixedPopulation	6	Bebezia	275	21	7.63

Source: Field Survey

**Review of literature**

Ellis (1999) defined livelihood“ as the activities, the assets, and the access that jointly determine the living gained by an individual or household“. According to Chambers et.al.(1991)”livelihood“comprisesthecapabilities,assets(includingbothmaterial and social resources) and activities required for a means of living. Oraon (2012)pointed out that livelihood is the dynamic term with respect to time and place, its meaning vary from place to place and depend upon availability of recourse in particular geographical area, people culture and practice. According to Chambers et.al. (1991) “A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base” (Chambers & Conway, 1991).

According to Hussein et.al. (1998) the sustainable livelihood can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

Regarding “sustainable livelihood“ Bhattacharjee (2009) opined that livelihood is sustainable when it can maintain the different elements which determine living of an individual or group of people. In addition to it, the livelihood must also be capable to

cope and recover from stress and shocks for sustainability. Assets capabilities, activities and access to these things are the basic elements affecting livelihood“

In different contexts, sustainable livelihoods are achieved through access to a range of livelihood resources (natural, economic, human and social capitals) which are combined in the pursuit of different livelihood strategies (agricultural intensification or extensification, livelihood diversification and migration).

Thus, livelihood diversification in the present context has been conceived as a process by which household members construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living as pointed by Ellis (1998). On the other hand, it may also include the shift of occupations of the sample households. The shift of occupations may be horizontal or vertical. The vertical shift of occupation is associated with the shift of occupation to more rewarding and or less painstaking and or socially higher rank occupation. On the other hand, due to lack of resources and lack of capital (physical, financial and human), coping with shocks, marginalization of existing occupation, an individual or household may be compelled/induced to diversify occupation horizontally (Morang, 2015).

The study of Nelson et.al (1998) indicate that livelihood diversification is normal for most people in the majority of rural areas of developing countries in both Africa and Asia, and non-agricultural activities are critical components of the diversification process. Livelihood diversification activities are very likely to be central to the construction of sustainable livelihoods, and their importance will not diminish in the near future. Rather, we expect their importance to increase. Second, livelihood diversification is pursued for a mixture of motivations, and these vary according to context: from a desire to accumulate to invest, to a need to spread risk or maintain incomes, to a requirement to adapt to survive in eroding circumstances, or some combination of these. It cannot and should not be characterized by the nature of short- term outcomes associated with it as these are too diverse to categorize, they rely upon a multitude of interdependent factors, and their long-term effects are little understood. Third, and linked to above, the character of livelihood diversification is dependent primarily upon the context within which it is occurring - this includes the differential access to diversification activities and the distribution of the benefits of diversification.

Donye et al (2016) analyzed the environmental factors affecting rural livelihood diversification in Adamawa State, Nigeria. The analytical tools used were descriptive (frequencies and percentages) and inferential statistics (Tobit regression). Tobit regression was employed to determine the environmental factors affecting livelihood diversification. The major findings were that: the frequency of natural disasters (X1)and season of the year (X5) were positive and significant for livelihood diversification at 5% level of significance. The number of natural resources (X3) available in an environmentwaspositiveandsignificantforlivelihooddiversificationat1%level of significance.

Abimbola et.al. (2014) examined rural livelihood strategies and their contribution to the overall income inequality of households in Akinyele local government area of Oyo state. The distribution of respondents by type of livelihood strategy adopted revealed that almost half of the respondents adopted the combination of farm and non- farm strategy while 14.3% and 40.0% adopted only farm and non-farm strategy respectively. Income inequality was the highest among non-farming households and the lowest among farming households, implying that income from non-farm activities contributed most to income inequality in the study area. The study revealed that the major factor which negatively influenced the choice of farming as a livelihood strategy was household size while factors such as age and land ownership had positive and negative effects on the adoption of the non-farm strategy respectively.

### Results & Discussion

An attempt has been made to discuss briefly some of the socio- economic variables such as demographic features, access to basic amenities, educational level, size of land holding, financial resources, livestock asset, participation in SHGs and cooperative societies etc. This will also facilitate the overall ownership or access to livelihood assets by the sample households.

#### Population:

The village-wise distribution of sample respondents have been shown in Table 1.2.

**Table 1.02 :Village-wise Sample Population in Majuli District**

Sl. No.	Nameof Village	Person	Male	Female
1	Abhhoypuria	30	14	16
2	Aboni Chapari	23	11	12
3	Alengi Gaon	24	13	11
4	Auniati Chapari NC	21	11	10
5	Baghar gaon	24	14	10
6	Bebezia	21	12	9
Total		143	75	68

Source: Field Survey

#### Households Size:

The average household size of the sample households in the study location is estimated to be 5.1. The average size of the sample households in Murkongselek is 5.12, followed by Bordoloni (4.84). Average Size of the sample households in the surveyed locations has been presented in Table 3.6.

**Table 1.03. :Average Size of Sample Households in the Surveyed Locations**

Blocks	Household Size
Majuli	5.16
Ujani Majuli	4.84
Total	5.00

Source: Field Survey

### Workers and Workforce Participation:

Workforce participation rate is defined as the percentage of total workers (main and marginal) to the total population. As Table 1.4. shows that total workers constitute about 60.26 per cent of the total population in the surveyed area. Non-workers constitute about 39.74 per cent of the total population. Block wise distribution of workforce participation shows that Majuli block has the highest workforce participation rate (64%) as compared to Ujani Majuli Block.

**Table 1.04: Workers and Work force Participation rate(%)**

Category	Majuli	Ujani Majuli
Total Workers	64.00	59.18
Non-Workers	36.00	40.82
Total	100.00	100.00

### Size of Land Holding:

Land is the most important factor of production, since agricultural production depends upon the cultivable land area available. Land does support the diversified activities taken up by the farmer household namely dairy, fishery, poultry and piggery farming. The socio- economic status of a household is highly depending upon the extent of land possessed. Data presented in Table 1.05 shows that the average size of land holding in the surveyed areas is 1.99 hectares. The average size of landholding among the sample households of Majuli ( 2.11hectare) is higher than Ujani Majuli(1.86 hectare)

**Table 1.05: Average Size of Land Holding among the Sample Households**

Districts	Size of Landholding(in hectares)
Majuli	2.11
Ujani Majuli	1.86
Overall	1.99

Source: Field Survey

The distribution of sample households according to size of land holding has been presented in Table 1.06. Overall data shows that majority of the sample households (53.59) belonged to the category of marginal land holding (0-1 hectare). About 35.64 per cent of the sample households were small holders(1-2hectares),10.52 per cent

Were under category of semi medium size (2-4 hectares)land holdings and 0.24 percent of the sample households possess land within 4-10 hectares.

**Table 1.06::Distribution of Sample Households according Size of Land Holding**

Size of Land (in hectares)	Majuli	Ujani Majuli
Marginal(0-1)	46.45	59.42
Small(1-2)	41.29	29.71
Semi Medium(2-4)	12.26	10.14
Medium(4-10)	0	0.72

Source: Field Survey

The present study tries to find out the pattern and extent of livelihood diversification among the sample households in the study area. The extent of occupational shift among the sample households has been examined from traditional occupation point of view. Traditionally, the Misings of Majuli depend mainly on agriculture and allied activities for their livelihood. Sharma Thakur (1998) pointed out that the Misings are primarily agriculturists and the product of the field is the chief means of livelihood (1998:110- 121). Similarly, Mipun (1998) also pointed out that the economic structure of the Misings is based on agriculture. According to Bordoloi (1991) “agriculture is the principal source of livelihood of the Misings. Thus, agriculture and allied activities are considered as the traditional occupation of the tribe.

The shift of occupation may be horizontal and vertical. The vertical shift of occupation is associated with the shift of occupation to more rewarding and or less pain staking and or socially higher rank occupation. On the other hand, due to lack of resources and lack of capital (physical, financial and human), coping with shocks, marginalization of existing occupation, an individual or household may be compelled/ induced to diversify occupation horizontally.

**OCCUPATIONAL CATEGORIES:**

Occupational categories taken into account for the study are shown in Table 4.1. The different occupational activities taken as a source of livelihood by sample households are classified into four categories (i) only traditional (ii) traditional +non-traditional (iii) traditional +non-traditional occupation and (iv) only non-traditional. The household engaged in only traditional occupation indicates no shift of occupation. Traditional occupational activities are cultivation, livestock rearing, piggery and poultry rearing, weaving etc. Traditional + non-traditional occupations combined the activities like- wage labourer, agricultural wage-labourer, construction worker, carpentry, tailoring, fish selling, selling rice beer along with agriculture and allied activities. This combination indicates horizontal shift of occupation. Traditional +non-traditional occupational category includes- salaried job, contractor, own trade/ business, which further indicates vertical shift of occupation. The last category of occupation is „only non-traditional“ which includes- salaried job, contractor, own trade and business indicating vertical shift of occupation.

**Table 1.07: Classification of Occupation**

Sl. No.	Occupational Category	Nature of Shift of Occupation
(i)	Only Traditional (Cultivation, Piggery, Poultry, Livestock, Weaving)	No Shift
(ii)	Traditional + Non-traditional(wage labourer, agricultural wage-labourer, construction worker, carpentry, tailoring, Fish selling, selling rice beer)	Horizontal Shift
(iii)	Traditional+ Non-traditional(salaried job, contractor, own trade/ business)	Vertical Shift
(iv)	Only Non-traditional(salaried job, contractor, own trade and business)	Vertical Shift

**INCIDENCE OF OCCUPATIONAL SHIFT:**

The different occupations found among sample households in the three districts have been presented in Table 1.08. The table shows that the occupations found to be practice among the sample households are multiple in nature.

**Table 1.08: Distribution of Sample Households by Occupational Categories**

Occupational Category	Majuli	Ujani Majuli
Only Traditional(Cultivation, Piggery, Poultry, Livestock, Weaving)	21	18
Traditional+ Non-traditional(wage labourer, agricultural wage-labourer, construction worker, carpentry, tailoring, fish selling, selling rice beer)	26	12
Traditional+ Non-Traditional(salaried job, contractor ,own trade/ business)	28	30
Only Non-traditional(salaried job, contractor, own trade and business)	2	6
Total	77	66

Source: Field Survey

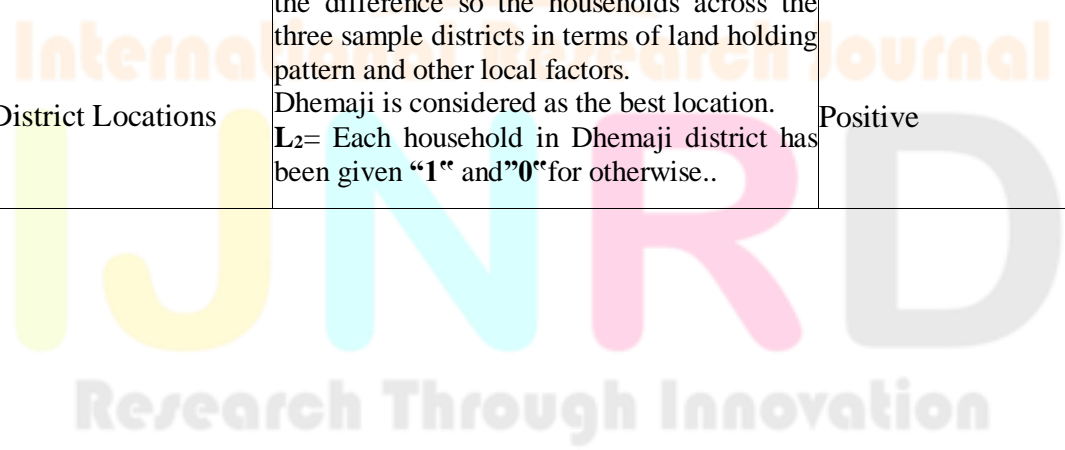
The percentage distribution of sample households according to their occupational shows that on the whole only 28 per cent of the sample households engaged in only traditional occupation. A large majority of the sample households (72 per cent) were diversifying their occupation horizontally.

**FACTORS CONTRIBUTING LIVELIHOOD DIVERSIFICATION:**

There are various factors contributing to livelihood diversification among the sample households in the surveyed area. A regression analysis has been carried out to examine the determinants of livelihood diversification of the sample households. The explanatory factors used in the analysis are (i) Education (ii) Erosion Effect (iii) village type(iv)District location(v)Bank account(vi) Access to Credit (vii) Participating in Self Help Groups (SHGs)etc. The explanatory factors and corresponding explanatory variables are specified in Table 1.09

**Table 1.09 : Description of Explanatory Factors and Variables for Ordered LOG IT Analysis of Occupational Categories**

Sl. No.	Explanatory Factor	Explanatory Variables	Expected Sign of Coefficient
1	Education	<b>ED</b> = Highest education attained by the sample households is taken into account. Educational level attained by the members of sample households was codified into scores. The total scores may vary from <b>0-5</b> , depending on the attainment of highest education of the household.	Positive
2	Whether Erosion Effected	<b>EE</b> =Each household in the erosion affected villages has been given "1" and "0" for otherwise.	Positive
3	Village Type	<b>VT</b> = Village Type is included to understand the extent of the households contact with people of other communities. Each household has been given, "1" under mixed population village and, "0" for otherwise.	Negative
4	Bank Account	<b>BAC</b> =Each household has been given 1 for having bank account and 0 for otherwise.	Positive
5	Access to Credit	<b>ACD</b> =Each household has been given 1 for accessing loan and 0 for otherwise.	Positive
6	SHG	<b>SHG</b> =Each household has been given 1 for participating SHGs and 0 for otherwise.	Positive
7	District Locations	District locations, which takes into account the difference so the households across the three sample districts in terms of land holding pattern and other local factors. Dhemaji is considered as the best location. <b>L<sub>2</sub></b> = Each household in Dhemaji district has been given "1" and "0" for otherwise..	Positive



**Ordered Log it Model:**

For specification of the model-

$Y_i$  is the observed occupational category of the households,

$Y_i$  is linked to the latent variable  $Y_i^*$  in the following way-

$$Y_i = 1 \text{ if } Y_i^* < K_1$$

$$Y_i = 2 \text{ if } K_1 < Y_i^* \leq K_2 \quad Y_i = 3 \text{ if } K_2 < Y_i^* \leq K_3 \quad Y_i = 4 \text{ if } K_3 \leq Y_i^*$$

$Y_i^*$  is linked to the explanatory variables by the following equation-

$$Y_i = \alpha + \beta_1 ED_i + \beta_2 EE_i + \beta_3 VT_i + \beta_4 L2_i + \beta_5 L3_i + \beta_6 BAC_i + \beta_7 CD_i + \beta_8 SHG_i + \mu_i$$

$\mu_i$  is the random term, which has logistic distribution

**Table 1.10: Results of Ordered Logistic Regression**

Variables/Items	Estimated Coefficients/Values	Standard Error	z
Education	.7414819	.1341416	5.53***
Erosion Effected	-.2424704	.2502846	-0.97
Village Type	-.3364467	.2584378	-1.30
Bank Account	1.373701	.486297	2.82***
Credit	1.479459	.3584166	4.13***
SHG	-.0835641	.2137081	-0.39
L1	.5451161	.2656792	2.05**
K1	2.140748	.6101762	
LR Chi Square	78.01***		

\*, \*\*, \*\*\* indicates significant 0.10 level.

**4.1 RESULTS & DISCUSSION:**

The results show that the educational level in the households is proved to be the most statistically significant influencing factor for moving up to higher occupational categories. The persons having highly level of education diversify their livelihood options through opting for salaried jobs, self-employment activities, etc., whereas low- educated and illiterate persons engage themselves in wage earning activities. It may happen, because the average land holding among sample households in Majuli district is low.

The other statistically significant factors influencing occupational shift are having a savings account and access to credit. The coefficients for both of the variables are positive and significant at 5 percent level. This indicates that sample household having access to banking facility is more likely to shift to higher occupation categories. Similarly, as the resource-base is very poor for most of the households, providing credit to households will improve their livelihood.

**SUMMING UP:**

- The analysis of occupational shift among the sample households shows that a large majority of the sample households diversifying their occupation only horizontally. The incidence of horizontal shift of occupation is significantly higher.
- Very less percentage of the sample households diversifying their occupation vertically.
- Very few of the sample households dependent on only traditional occupation was found
- Analysis indicated that the percentage of the sample households engaged in only non-

traditional occupation (vertical shift) is very poor in the study areas.

- Education is the most significant influencing factor for moving up to higher occupational category of the sample households. District location, which takes into account the differences of the households across the district in terms of land holding pattern and other local factors also statistically significant factor. The other statistically significant factors influencing occupational shift are having a savings account and access to credit.

Findings suggest that investment in education is vital for strengthening livelihood base of households. Improvement in the educational level will increase the probability of engagement in higher occupational categories. Access to credit will also help the households to engage in alternative income generating opportunities.

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