A Study on

Livelihood Diversification Among the Tribals Living in Riverine Areas of Assam

Sponsored by-

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CHAPTER-1

INTRODUCTION:

1.1 MOTIVATION OF THE STUDY:

As per 2011 census the total scheduled tribe population in the state is 3884371, 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 the 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.

1.2 SCOPE AND OBJECTIVES:

1.2.1 Scope:

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 Golaghat, Majuli and Lakhimpur districts of Upper 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.

1.2.2 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 extent of livelihood diversification among the sample households;
iii. To examine the determinants of livelihood diversification among the sample households;
iv. To assess the government schemes and programmes meant for enhancing livelihood opportunities; and
v. To suggest some measures to improve livelihood opportunities for the study group;

1.3 DATA BASE AND METHODOLOGY:

The study is based on the secondary and primary sources of data. Secondary data were collected from 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.

1.3.1 Sampling Procedure:

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, three districts namely-Golaghat, Majuli and Lakhimpur have been purposively selected, while, Lakhimpur is on the north bank of Brahmaputra, Golaghat is on the south bank, Majuli, the largest river island in the world.

In the second stage, one development block from each of the three districts has been selected on the consideration of high concentration of Mising population.

In the third stage, from each of block six villages were selected on the consideration of representing different types of habitats of the Misings 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 18 villages were selected from the three 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 418 sample households were selected randomly from the three study locations. The survey was conducted during the months of May to July 2017. 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.

1.3.2 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 sources

of livelihood 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.

1.3.3 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.

Table 1.1 Sampling Procedures

District	Development Block	Village Category	Sl. No.	Name of Village	Total Household	Sample Size	% of sample HH
Golaghat	Golaghat West	Chronically Flood and Erosion Affected	1	Bonkowal	422	30	7.1
			2	Dhansiri Temera	290	30	10.34
		Moderately Flood Affected	3	N.1 Pathori	215	23	10.69
			4	No.2 Pathori	199	23	11.55
		Mixed Population	5	Mishimiati	206	24	11.65
			6	Alami Gaon	131	25	19
Majuli	Majuli	Chronically Flood and Erosion Affected	7	Barun Chitadharchuk	300	22	7.33
			8	Malual Miri	330	24	7.27
		Moderately Flood Affected	9	No. 1 Borgaya	180	24	13.33
			10	No.2 Borgaya	138	23	16.66
		Mixed Population	11	Kamalabari Satra	275	21	7.63
			12	Molual Kaibarta Miri Gaon	143	24	16.78
Lakhimpur	Dhakuakhana	Chronically Flood and Erosion	13	Ekuria Matmora	155	20	12.9
			14	Janji Dangdhara	136	20	14.7
		Moderately Flood Affected	15	Arkep Baligaon	194	21	10.82
			16	Alimur Dangdhara	300	21	7
		Mixed Population	17	Bahpara	285	21	7.36
			18	Bahpara Chumpara	280	22	7.85
Total /Average					4179	418	10

Source: Field Survey

Table1.2 Village Category-wise Distribution of Sample Households

Sl. No.	Village Category	Survey Location			
		Golaghat	Majuli	Lakhimpur	Total
1	Chronically Flood and Erosion Affected	60	46	40	146
2	Moderately Flood Affected	46	47	42	135
3	Mixed Population	49	45	43	137
	Total	**155**	**138**	**125**	**418**

Source: Field Survey

1.4 LAYOUT OF THE REPORT:

The report has been organized in 6 chapters. Detailed research agenda of the study has been outlined in Chapter-1. Chapter-2 is designed for drawing conceptual framework of the study. The idea of livelihood and the concept of livelihood diversification are discussed in this chapter. The last part of this chapter reviews the issues presented and available findings in the relevant empirical studies. Chapter-3 gives a detailed account of the socio-economic status of the Mising population group. The overall ownership or access to livelihood assets by the sample households have been analyzed in this chapter. Chapter-4 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. Chapter-5 tries to assess the delivery and implementation process of various schemes and programmes of state as well as central governments. Chapter-6 is meant for summarising broad conclusions derived from the study and discussing the policy implications thereof.

CHAPTER-2

LIVELIHOOD DIVERSIFICATION: CONCEPTUAL FRAMEWORK AND REVIEW OF EMPIRICAL STUDIES

2.1 INTRODUCTION:

This chapter has been designed for drawing conceptual framework of the study. The idea of livelihood diversification and its determinants are discussed in the first part of the chapter. The second part of this chapter reviews the issues presented and available findings in the relevant empirical studies. The concluding section sums up the implications of the review for the study.

2.2 THE CONCEPT OF LIVELIHOOD DIVERSIFICATION:

2.2.1 Definition of Livelihood:

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 & Conway (1991) a 'livelihood' comprises the capabilities, assets (including both material 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 & Conway (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 and Nelson (1998) the 'sustainable livelihood' is a livelihood that 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' (Bhattacharjee, 2009: 1).

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).

2.2.2 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.

2.2.3 Livelihood Diversification:

The notion of ‘diversification of livelihoods’ came up during the 1990s, with significant contributions from the Overseas Development Group of the University of East Anglia, led by Frank Ellis. At the end of the 1990s, Ellis wrote an excellent review of the literature on diversification. One of his initial statements was that the idea of diversification stands in contrast to the accepted notions of sectorial differentiation (agriculture vs. industry) and specialisation (i.e., division of labor), which orthodox views of processes of economic change take to be essential for the transformation of economies (Sharma, 2012). Ellis (1998) therefore defined ‘livelihood diversification’ 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’ (Ellis, 1998). Diversification takes place in order to overcome risk and seasonality of in natural resource based livelihoods, but it also affects the failure of agriculture to deliver improving livelihoods in the post liberalisation era. Poverty and vulnerability are often are associated with undue reliance on agriculture rather than converse.

According to World Bank (1990) the purpose of diversification is two-fold: first, to increase household incomes; and second, to minimize risks of livelihood failure. Diversification reduces the risk of livelihood failure by spreading it across more than one income source. It also helps to overcome the uneven use of assets caused by seasonality. Diversification assists to reduce vulnerability, to generate financial resources in the absence of credit markets, and confers a host of other advantages in the presence of widespread market failures and uncertainties. Broadly, the rationale for diversification emanates from the opportunities for more employment and generation of higher incomes through more efficient use of resources and through exploitation of comparative advantage (World Bank, 1990).

There are two fundamental factors responsible for livelihood diversification. Push reasons for livelihood diversification corresponds to the emergence of improving labour market opportunities outside agriculture, while push reasons refer to the deteriorating conditions within agriculture itself.

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).

2.3 REVIEW OF EMPIRICAL STUDIES:

In this section, the research work done so far by various scholars in India and abroad has been reviewed, in order to have a clear and in depth understanding of issues relating to livelihood diversification at macro and micro level.

The study of Nelson & Hussein (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. These likewise need to be examined as hey change over time. Fourth, and finally, the

poorest rural groups probably have the fewest opportunities to diversify in a way that will lead to accumulation for investment purposes. This does not mean that they will not be able to diversify to this end over the long term, or that they will not make investments of, for example, labour, to build up their assets, or that they will not be able develop access to diversification opportunities via social means. These issues have not been adequately addressed by research. Rather, the fact of rural people's engagement in livelihood diversification activities has been used by some researchers to demonstrate the vulnerability of these groups – the implication being that this type of diversification is mainly associated with a negative set of circumstances. As was seen above, this is not necessarily true. In fact is it probably untrue in many situations. This provides an essential focus for further research into livelihood diversification.

Gebreyesus (2016) study in Kembata Tambaro Zone, Southern Ethiopia found that livelihood diversification is determined by different factors in the study area. The finding of the survey result indicates that ninety seven percent of the respondents in the study area diversified in to non-farm activities. The Composite w3Entropy Index has been used for measuring livelihood diversification. The livelihood diversification index of 0.260 showed that majority of the household heads undertook one form of livelihood diversification strategies or another. Multiple regression model was applied to investigate the determinant factors influencing the households' level of livelihood diversification. In this regard, the econometric analysis demonstrated that out of the total 15 variables included in the model, only 7 variables including age, education, number of non-farm activities, market distance, number of livestock, credit cost and farm size are found to be the significant determinants. The results of this study suggested that there is a need to develop a number of strategies for the smallholders to facilitate successful livelihood diversification. This includes the development of rural infrastructure in terms of road connectivity, market and credit facility. Hence, a comprehensive development plan including both agricultural intensification and non/off-farm diversification should be strengthened.

The study of Nasa'i et al (2010) was carried out to analyze factors influencing rural farmer's engagement in livelihood diversification activities in Giwa Local Government Area of Kaduna state, Nigeria. The specific objectives were to identify farmer's reasons

for engagement in livelihood diversification activities determine the institutional and environmental factors influencing livelihood diversification and examine the effect of livelihood diversification on rural households poverty reduction (food security). The result of this study has revealed that farmers' involvement in livelihood diversification activities is as a result of overwhelming need to increase households' income portfolio and to maintain livelihood. Data for the study were collected from 120 randomly selected respondents and analyzed by means of descriptive statistics, logistic regression model and Chi-square. The logistic regression analysis indicates that membership to farmers organizations (8.42) and natural disaster (5.59) had greater contributing influence on farmers engagement in livelihood diversification activities at 0.05 percent level of significance. Chi-square analysis for cumulative food security index indicates that diversified farmers were relatively food secured (Z_c^2=87) than undiversified farmers (Z_c^2=13) at 0.05 percent level of significance. It is therefore, the general conclusion of this study that livelihood diversification is a positive undertaken and an antidote to the chronic menace of poverty ravaging rural areas. This is because it enables rural people increase their income portfolio and insures households from insufficiency of food, thereby improving their food security status, while equally lessening their vulnerability to hunger, diseases and sudden deaths. Based on the findings of the study, it is recommended that rural farmers should be given opportunity to participate in varied income generating activities in both agriculture and non-agricultural ventures and rural development programmes. Enabling environment in relation to electricity, small scale industries, access roads, training centres be provided to enable rural farmers, actively engage in varied livelihood sources in addition to farming so as to increase their income sources and address their poverty situation.

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 environment was positive and significant for livelihood diversification at 1% level of

significance. The distance between state headquarters, local government headquarters and major towns (X2) and where a respondent lives was found to be not significant. Similarly, distance between markets (X4) and where a respondent lives was also found to be not significant for livelihood diversification. It was concluded that the number of natural disasters that occur and the number of natural resources available in the study area are strong factors that affect livelihood diversification. The occurrence of natural disasters and the availability of natural resources in the study area were strong factors that influenced livelihood diversification among the respondents. The environmental factors are responsible for the differences in the extent of rural livelihood diversification among the respondents in the study area. Livelihood diversification has contributed meaningfully to the betterment of the living standard of rural dwellers. The dry season period is more favourable for livelihood diversification in the study area when compared to the rainy season period. Provision of infrastructure can facilitate livelihood diversification across the dry and rainy seasons and will hence, improve the living standard of the rural dwellers. It was recommended, among others, that the prevailing environmental factors in a given area should be considered at the planning stages for any rural development or empowerment projects meant for livelihood diversification. Livelihood diversification opportunities should be made available and possible during dry season periods in the study area.

Abimbola & Olaniyi (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. This study has also revealed that among low, middle and high income earning households in the study area, there were high disparities in income distribution of male-headed households aged

46 to 55 years and those engaged in non-farm activities. Also, income was more inequitably distributed among household heads with secondary education and high income households that own land. While the major factor influencing the choice of farming as a livelihood strategy was household size, factors such as age and land ownership influenced the adoption of the non-farm livelihood strategy. Based on these findings, the study recommends that policies targeted at rural dwellers should centre on improved access to productive assets such as land for the landless farmers as well as the provision of improved technology, which could encourage the ageing farming population to continuously engage in farming activities.

Sylvia (2014) study aimed at investigating the determinants of participating in livelihood diversification in Uganda. Data were analyzed at three different levels namely univariate, bivariate and multivariate levels. At bivariate level; age, sex, marital status, level of education, region and participation in entrepreneurship training were significant to participation in livelihood diversification. While at multivariate level, all age groups ranging from below 19 to 59 years, females, widows/widowers, the singles, the illiterates, those with lower primary, and A level +, the Easterners, Westerners and those who had not participated in entrepreneurship training were significant to participation in livelihood diversification. She recommended that any intervention aimed at bringing improvements in rural livelihoods through the rural non-farm sector should target these individual specific factors. Then also the insignificant factors in Uganda but very important variables according to other studies like belongingness to an association should be considered also. This will help to increase the incomes of the peasant farmers at household level and improve their standards of living which will bring about development at all subsequent levels.

Oraon (2012) study tried to explore the traditional pattern of livelihoods and their changing scenario in a tribal dominated village of Sundargarh district, Odisha. He found that the occupations of the tribe changed a lot in course of time. During the British period the villagers were mostly depending on forest resources for their livelihoods. They used to collect various forest based products and fuel woods from nearby forest. The villagers were managing the forest. Apart from forest resources they used to do some cultivation in forest land. Mostly it was a system of mono cropping. Their

economy was subsistence in nature. They were struggling to feed them. In course of time slowly this forest got degraded because of lots of reasons. The rise of industrialization, intervention of outsiders and rise of population became major threat for these communities. The degraded resources failed to suffice the needs of the villagers. It compelled the tribal inhabitants to look for other alternatives. In the initial days it was only agriculture, which gave them an alternative source of livelihoods. But the small land holding size and traditional technology failed to meet the rising needs of villagers. Due to increase the population and requirement of industrial needs the forest depletion rate is very fast in study area. Peoples are now travelling long distance to collect the firewood. They have engaged themselves in various small industries in their locality. Most of the young children in the study area have engaged themselves in non-agriculture sector. The geographical situation and conditions of the study area like low land holding size, low fertility of land, no irrigation facilities and human factor are near to urban landscape and railway station, well communication system play an important role in influencing the trends of livelihood sources.

The study of Khatun & Ray (2012-13) has shown that household-head experience (age), educational level, social status, training, asset position, access to credit, rural infrastructure, agroclimatic condition and the overall level of economic development of a region are the main driving force towards livelihood diversification in the state. The study has also shown that several constraints act as obstacles to livelihood diversification but the nature of these constraints differ across regions and livelihood groups. The resource-poor are particularly vulnerable and unable to diversify because of the entry barriers imposed by their weak asset base. The main constraints faced by the households in diversified area are: poor asset base, lack of credit facilities, lack of awareness and training facilities, fear of taking risk, lack of rural infrastructure, and lack of opportunities in non-farm sector, while the main constraints in less diversified area are: poor transport facilities, poor asset base, unfavourable agro-climate, lack of credit facilities, lack of awareness and training, and lack of basic infrastructure. The study has suggested the need to develop a number of strategies especially for the poor people to facilitate successful livelihood diversification. This includes the development of rural infrastructure in terms of road, market, electrification, telecommunication, storage facilities, etc. and also institutional innovations to reduce entry costs and barriers to

poor livelihood groups. A comprehensive development plan, including increasing the scope for non-farm activities, for the backward regions is most urgent.

Dutta (2008) study shows the various income generating activities of selected households. Some rural households engage in multiple activities and relied on diversified income portfolios. Most household's diversification is just on-farm. A common pattern is for very poor and the comparatively well off to have the most diverse livelihoods, while the middle ranges of income display less diversity. The finding shows that the main reason why rural people engaged in livelihood diversified activities was to raise household's income portfolio. This is because among the reasons for engaging in livelihood diversification, income had the highest percent as the first, against the other reasons for engaging in livelihood diversification.

The UNDP study in Rajasthan confirms that agriculture extensification and intensification, diversification into nonfarm activities and migration were the main livelihood strategies adopted by households in various combinations in different regions. In particular, the livelihood strategies adopted by the poorest rural households are reviewed, in the context of their access to certain basic livelihood resources. The Aajeevika survey identifies six main sources of household incomes : agriculture, animal husbandry, wage labour, household industry, other incomes (including activities in the non-farm sector, other than migration), migration. An important finding from the Aajeevika study is that even at the current conjuncture, caste identities and access to social and political networks are important factors governing access to productive livelihoods. In this context there is an important role for education in helping individuals overcome such barriers and constraints. In addition, the study identifies migration as another important strategy, used especially by the backward and poor sections in the rural economy, to gain access to productive livelihoods and break away from social oppression.

The empirical results of the study of Bhuyan (2011) indicate that livelihood diversification is influenced by average education year, distance from market, landholding and penetration of market forces. One, access to education calculated in terms of the average education year of the households is rather making the households concentrate more on the livelihood options present in the tertiary sector, mostly salaried

jobs and business, contract and petty trade thereby limiting diversification. It is observed that higher the level of education, greater is the concentration of the households in livelihood options in the tertiary sector rather than diversifying into the other two sectors. Two, it is also observed that distance has a bearing on diversification as the households near to the market centre are found to be more diverse in terms of livelihood options than the households far off. Three, a positive though insignificant influence of landholding is observed on livelihood diversification. This may be because the influence of factors like market participation, education and distance are more prominent on livelihood diversification than landholding. Four, on analysing livelihood diversification in relation to index of market access, it is observed that villages situated near to the market centre are found to be more diverse than those far off. The study observations infer that market forces have an influence on diversification of livelihood options, especially on non-traditional livelihood activities. Market forces thus seem to aid in livelihood diversification and income of the rural households rather than delineating livelihood options. The households across the study villages who are able to access the market are also able to diversify in terms of livelihood options thus integrating better with the larger economy. But there is also a significant section of the households who have not been able to significantly integrate with the market economy. Marginalisation of these households is not so much because of lack of market access but because of other factors like delayed institutional reforms in case of land distribution, lack of spread of education among the rural households and lack of connectivity and therefore accessibility to the market.

2.4 CONCLUSION:

The studies made by various scholars of India, aboard and specific to the tribe have able to provide the basis and fundamentals to the research problem. It has also helped to find out the research gap of the studies. The review of literature indicates that the households in less developed region have adopted livelihood diversification as a coping strategy to minimize the price risk, weather risk, and crop failure. Studies further show that poor asset base, lack of credit facilities, lack of awareness and training facilities, fear of taking risk, lack of rural infrastructure and lack of opportunities in non-farm sector are the main constraints faced by the households.

CHAPTER-3

SOCIO-ECONONOMIC PROFILE OF THE SAMPLE HOUSEHOLDS: EXTRACTED FROM FIELD SURVEY

3.1 INTRODUCTION:

This chapter presents the socio-economic status of the sample Mising tribe households in the surveyed area. 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 of three districts.

3.2 DEMOGRAPHIC FEATURES:

3.2.1 Population:

Data as presented in the Table 3.1 shows that the overall sample population among the 18 sample villages under survey is 2134. Out of the total population male is 1098 and female is 1036. The female population constitutes about 48.54 per cent of the total population. The sample village-wise distribution of sample population has been shown in Tables 3.2-3.4.

Table-3.1: District-wise Sample Population

Sl. No.	Name of Districts	Person	Male	Female
1	Golaghat	800	418	382
2	Majuli	669	337	331
3	Lakhimpur	665	343	322
	Total	2134	1098	1036

Source: Field Survey

Table 3.2: Village-wise Sample Population in Golaghat District

Sl. No.	Name of Village	Person	Male	Female
1	Bonkowal	152	82	70
2	Dhansiri Temera	144	73	71
3	No.1 Pathori	131	69	62
4	No.2 Pathori	109	55	54
5	Mishimiati	144	72	72
6	Alami Gaon	120	67	53
Total		800	418	382

Source: Field Survey

Table 3.3: Village-wise Sample Population in Majuli District

Sl. No.	Name of Villages	Person	Male	Female
1	Barun Chitadharchuk	110	59	51
2	Malual Miri	102	54	48
3	No. 1 Borgaya	114	53	61
4	No.2 Borgaya	117	55	62
5	Kamalabari Satra	102	52	50
6	Molual Kaibarta Miri Gaon	124	64	60
Total		669	337	333

Source: Field Survey

Table 3.4: Village-wise Sample Population in Lakhimpur District

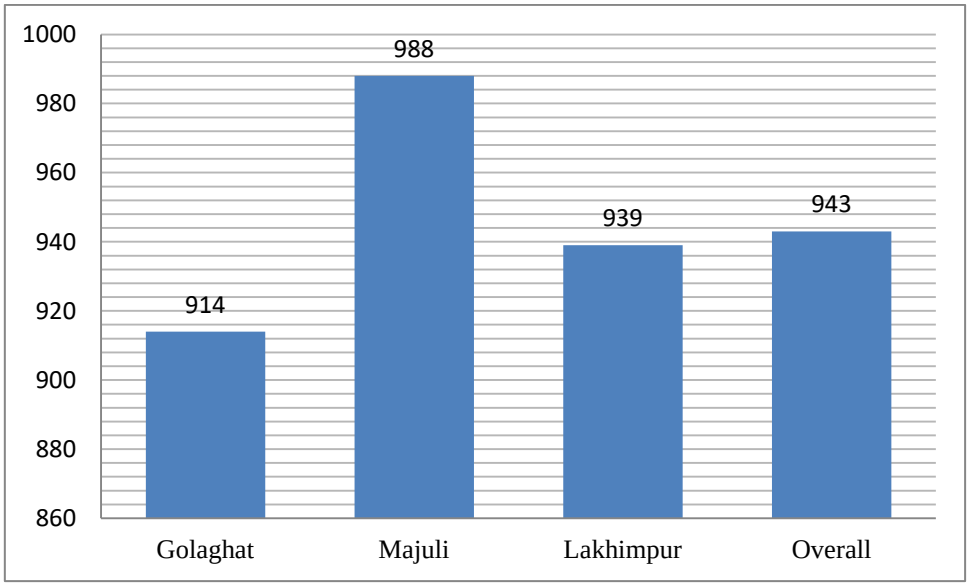
Sl. No.	Name of Villages	Person	Male	Female
1	Ekuria Matmora	118	60	58
2	Janji Dangdhara	96	50	46
3	Arkep Baligaon	94	48	46
4	Alimur Dangdhara	128	64	64
5	Bahpara	100	54	46
6	Bahpara Chumpara	129	67	62
Total		665	343	322

Source: Field Survey

3.2.2 Sex Ratio:

The overall sex ratio of the sample population is 943. The number of female population per thousand male is the highest in Majuli (988) district as compared to Lakhimpur (939) and Golaghat (914) districts.

Figure 3.1: Sex Ratios in the Surveyed Areas



Data presented in Figure 3.1 shows that Majuli district has the impressive sex ratio. The sex ratios of Lakhimpur and Golaghat districts are somewhat adverse in comparison to Majuli district.

3.2.3 Age Group:

The distribution of sample population according to different age groups is presented in Table 3.5. The child (age 0-6) population constitutes about 12.14 per cent of the total population. About 15.08 per cent of the sample population belonged to the age group of 7-14. Only 6.27 per cent of the sample population belonged to the age group above 60. Majority of the sample population belonged to the age group 26-40 followed by age groups 15-25 and 40-60.

Table 3.5: Distribution of Sample Population as per Different Age Groups

Age Group	Nos. of Sample Population	Percentage (%)
0-6	259	12.14
7-14	322	15.08
15-25	419	19.63
26-40	612	28.63
40-60	388	18.18
Above 60	134	6.27
Total	2134	100.00

Source: Field Survey

The age groups of 0-6, 7-14 and above 60 years are considered as non-working age group. The combined percentage of these groups is 33.49. Thus, the significant percentage of sample population falls in the non-working age group.

3.2.4 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 Lakhimpur district is 5.32, followed by Golaghat (5.16) and Majuli (4.84) districts. Average Size of the sample households in the surveyed locations has been presented in Table 3.6.

Table 3.6: Average Size of Sample Households in the Surveyed Locations

Districts	Household Size
Golaghat	5.16
Majuli	4.84
Lakhimpur	5.32
Overall	5.1

Source: Field Survey

3.2.5 Head of the Household:

Data presented in the Table 3.7 shows that the majority of the sample households (91.86%) head are male headed, only 8.13 per cent are female headed. In Golaghat district, male headed household is 88.38 per cent and female headed household is 11.61 per cent of the total. About 90.57 per cent of the sample households head is male and 9.42 per cent head is female in Majuli district. In Lakhimpur district, almost all the households head is male, only 2.4 per cent households head is female. Thus, the percentage of female headed households is more in Golaghat district as compared to Lakhimpur and Majuli districts. Percentage of male headed households is more in Lakhimpur district.

Table 3.7: Percentage Distribution of Head of the Sample Households

Districts	Male	Female
Golaghat	88.38	11.61
Majuli	90.57	9.42
Lakhimpur	97.6	2.4
Overall	91.86	8.13

Source: Field Survey

3.2.6 Workers and Workforce Participation:

Census of India (2011) defined 'work' as participation in any economically productive activity with or/without compensation wages or profit. Such participation may be physical and/or mental in nature. Work involves not only actual work but also includes effective supervision and direction of work. All persons engaged in 'work' as defined above are workers. Workforce participation rate is defined as the percentage of total workers (main and marginal) to the total population. As Table 3.8 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. District-wise distribution of workforce participation shows that Golaghat district has the highest workforce participation rate (64%) as compared to Majuli (59.18%) and Lakhimpur (58.79%) districts.

Table 3.8: Workers and Workforce Participation rate (%)

Category	Golaghat	Majuli	Lakhimpur	Overall
Total Workers	64	59.18	58.79	60.26
Non-Workers	36	40.82	41.20	39.74
Total	100.00	100.00	100.00	100.00

Source: Field Survey

3.2.6.1 Main Workers and Marginal Workers:

Workers are further classified into two categories-main workers and marginal workers. Main workers are those who work for more than 6 months in a reference year. On the other hand, workers who work for less than 6 months in a reference year are considered as marginal worker. The percentage distribution of main and marginal workers has been shown in Table 3.9. On the whole, the main workers constitute about 61.2 per cent of the total workers. About 63.17 per cent of the total workers were engaged as main workers in Lakhimpur district followed by Golaghat (59.77%) and Majuli (59.18%) districts.

Table 3.9: Distribution of Main and Marginal Workers

Category	Golaghat	Majuli	Lakhimpur	Overall
Main Workers	59.77	59.18	63.17	61.2
Marginal Workers	40.23	40.82	36.82	38.8
Total	100.0	100.0	100.0	100.0

Source: Field Survey

3.3 BASIC AMENITIES:

Housing, sanitation, access to electrification, use of clean fuel etc., are the important indicators to understand living conditions of households.

3.3.1 Dwelling Type:

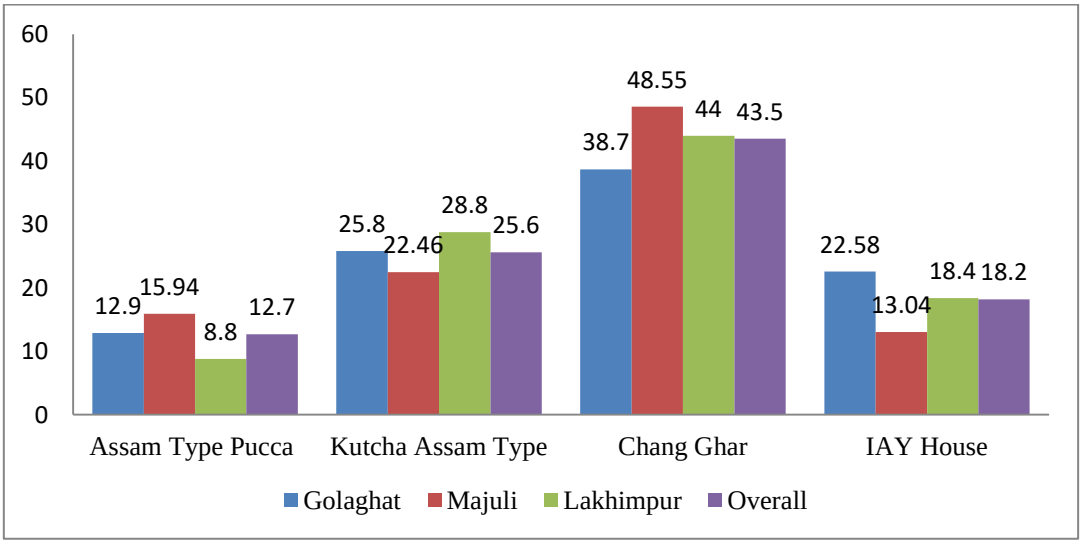
Percentage distribution of sample households according to their dwelling type as a whole is presented in Table 3.10 shows that most of the sample households (43.5 per cent) reside in ***chan-ghar*** (traditional raised platform type), 25.6 per cent reside in kutcha Assam type house and only 12.7 per cent have Assam type pucca house. The percentage of sample households live in houses provided under Pradhan Mantri Awaas Yojana (PMAY) is 18.2.

Table 3.10: Percentage Distribution of Sample Households according to Dwelling Type

Type	Golaghat	Majuli	Lakhimpur	Overall
Assam Type Pucca House	12.9	15.94	8.8	12.7
Kutcha Assam Type	25.8	22.46	28.8	25.6
Chang Ghar	38.7	48.55	44	43.5
PMAY House	22.58	13.04	18.4	18.2

Source: Field Survey

Figure 3.2: Percentage Distribution of Sample Households according to Dwelling Type



Relatively smaller proportion of the sample households (8.8 per cent) found to live in Assam type pucca house in Lakhimpur district as compared to Majuli (15.94 per cent)

and Golaghat (12.9 per cent) districts. About 22.46 per cent of the sample households in Majuli, 25.8 per cent in Golaghat and 28.8 per cent in Lakhimpur districts were residing in kuthcha Assam type pucca house. The percentage of sample households reside in traditional pattern (*chang-ghar*) house is comparatively more in Majuli (48.55 per cent) district than Lakhimpur (44 per cent) and Golaghat (38.7 per cent) districts. Significant percentages of sample households in Golaghat (22.58 per cent), Majuli(13.04 per cent) and Lakhimpur (18.4 per cent) districts were residing in houses as provided under PMAY scheme.

3.3.2 Sanitation:

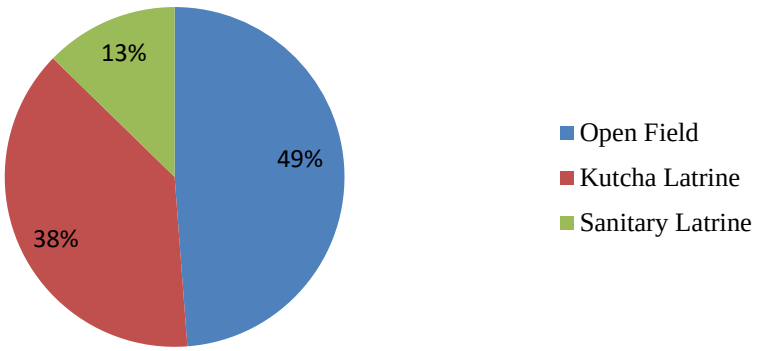
Access to sanitation has been considered as one of the most important social determinants of health. The percentage distribution of sample households as per toilet facilities is presented in the Table 3.11**.** Overall percentage distribution of sample households as per toilet facilities as presented in Figure 3.3 shows that almost half of the sample households in the study areas do not have any toilet facilities and practice open field defecation. Only 13 per cent of the sample households have accessed to sanitary toilet and 38 per cent have kutcha toilet.

Table 3.11: Percentage Distribution of Sample Households as per Toilet Facilities in the Surveyed Locations

Type	Golaghat	Majuli	Lakhimpur	Overall
Open Field	47.74	50.72	48	48.8
Kutcha Toilet	38.7	33.33	44	38.5
Sanitary Toilet	13.54	15.94	8	12.7

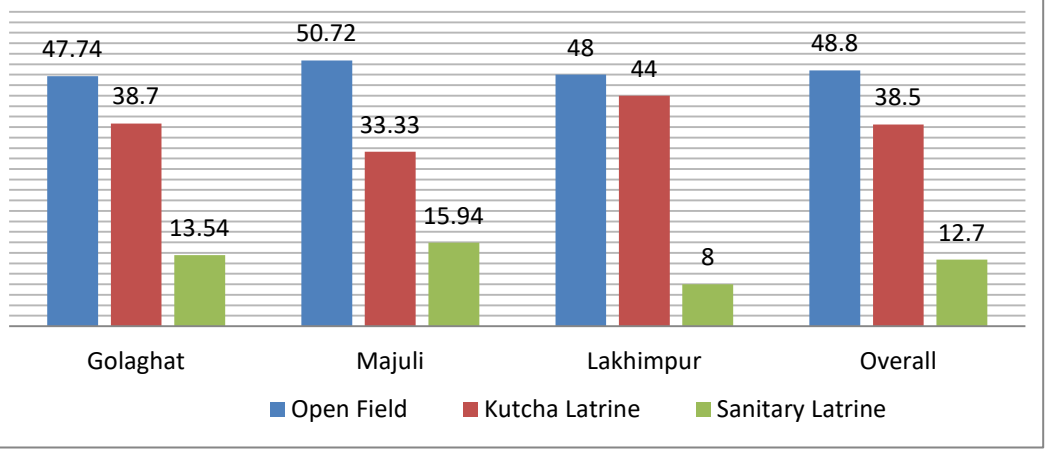
Source: Field Survey

Figure 3.3: Percentage Distribution of Sample Households as per Toilet Facilities



District-wise sample data shows that the sample households resorted to open field for defecation is slightly high in Majuli district (50.72 per cent) as compared to Lakhimpur (48 per cent) and Golaghat (47.74 per cent) districts. Percentage of sample households having sanitary toilet is the highest in Lakhimpur district (44 per cent) followed by Golaghat (38.7 per cent) and Majuli (33.33 per cent) districts. Sample households in Majuli district have the highest percentage of 'kutcha latrine' as compared to Golaghat (13.54 per cent) and Lakhimur (8 per cent) districts. District-wise percentage distribution of sample households as per toilet facilities has been shown in Figure 3.4.

Figure 3.4: District-wise Percentage Distribution of Sample Households as per Toilet Facilities



3.3.3 Electric Connection:

The percentage distribution of sample households as per electric connection is presented in Table 3.12 shows that the electrification has been extended to about 74.4 per cent of sample households. A comparison further shows that Golaghat district has the highest percentage of sample households with access to electric connection. It was followed by Lakhimpur (76.8%) and Majuli (60.86 %) districts. District-wise and village category-wise percentage distribution of sample households is presented in Figures 3.5-3.6.

Table 3.12: Percentage Distribution of Electrified Sample Households in Surveyed Locations

Village Category	Golaghat	Majuli	Lakhimpur	Overall
Chronically Flood and Erosion Affected Villages	83.33	30.43	72.5	79.0
Moderately Flood Affected Villages	80.43	74.46	66.66	74.0
Mixed Population Villages	89.79	76.74	90.69	85.9
Overall	84.51	60.86	76.8	74.4

Source: Field Survey

Figure 3.5: District-wise Percentage Distribution of Electrified Sample Households

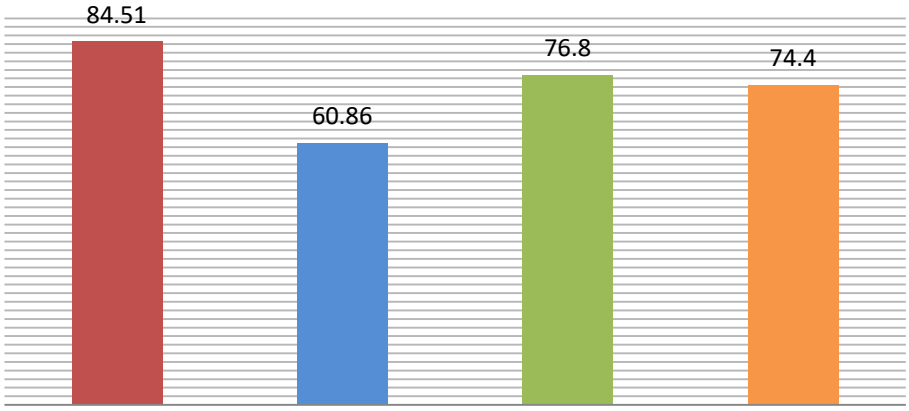
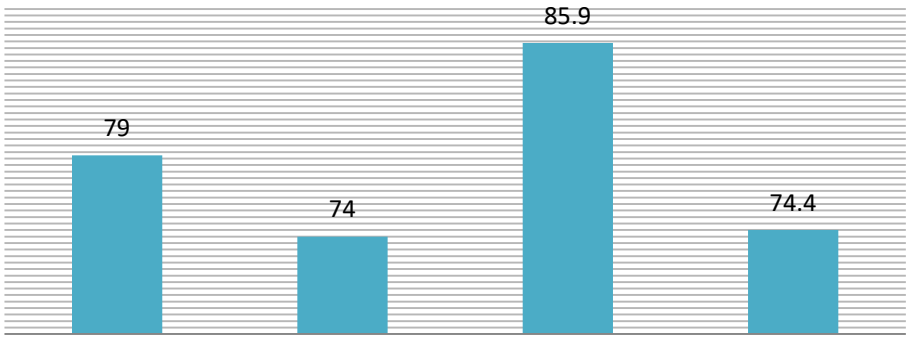


Figure 3.6: Village Category wise Percentage Distribution of Electrified Sample Households



Village category-wise percentage distribution as presented in Figure 3.6 shows that about 85.9 per cent of the sample households have electric connection in all sample mixed population villages followed by chronically flood and erosion affected villages (78 per cent) and moderately flood affected villages (74 per cent) in the surveyed locations.

3.3.4 Cooking Energy:

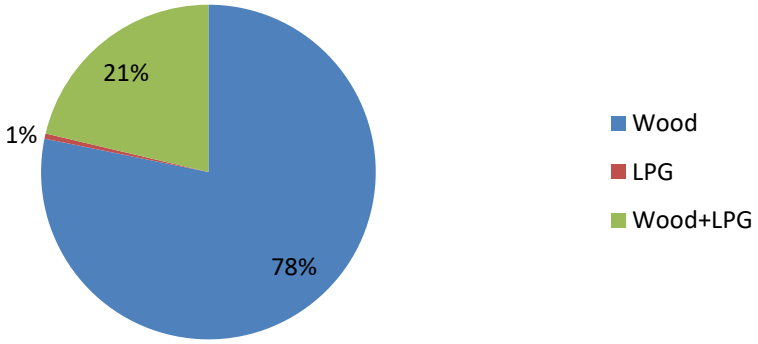
Quality of cooking fuel is one of the important factors determining quality of life of people. The use of biomass energy is still quite common. Cooking with biomass fuel on open fires causes significant health problems. The use of wood, cow dung and crop residue as cooking fuel generates indoor air pollution. Studies show that indoor air pollution is a major public health problem in developing countries, where it accounts for much ill health and well over a million deaths annually. The percentage distribution of sample households as per source of cooking energy as presented in Table 3.13 shows that the most widely used cooking fuel is the firewood as used by 78 per cent of the sample households in the study areas. About 21 per cent of the sample households used both commercial and non-commercial source of energy (firewood + LPG) for cooking and 1 per cent household used LPG as only source of cooking energy.

Table 3.13: Percentage Distribution of Sample Households as per Source of Cooking Energy

Source of Energy	Golaghat	Majuli	Lakhimpur	Overall
Firewood	78.06	79.71	76.8	78.2
LPG	0	0.72	0.8	0.5
Firewood+LPG	21.93	19.56	22.4	21.3

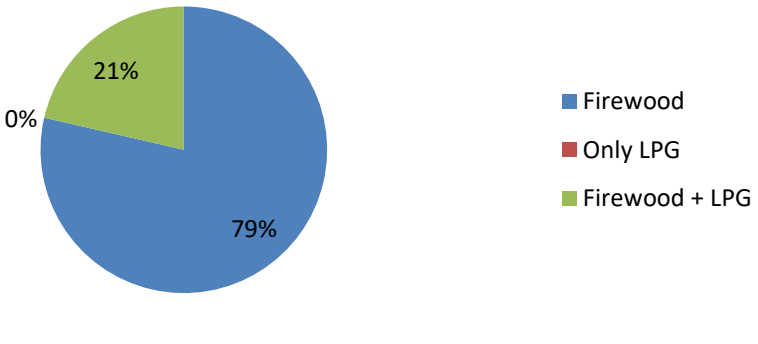
Source: Field Survey

Figure 3.7 : Percentage Distribution of Sample Households as per Cooking Energy Used



The percentage distribution of sample households as per fuel use for cooking has been presented in Figures 3.8-3.10. In Golaghat district, majority of the sample households (79 per cent) used firewood for cooking, 21 per cent of the sample households used both 'firewood +LPG' and none of the sample households used only LPG for cooking.

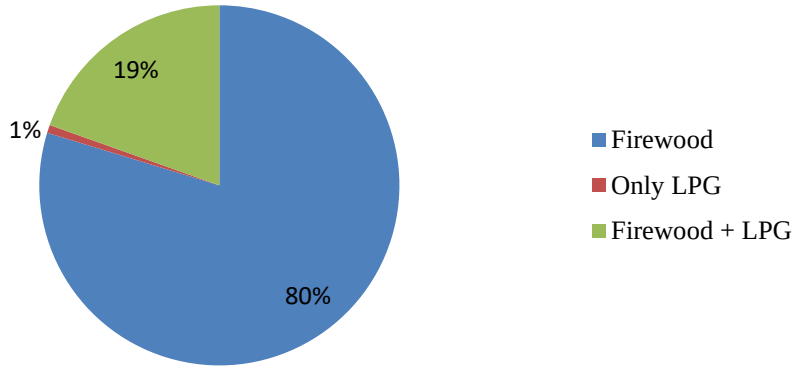
Figure 3.8: Percentage Distribution of Sample Households as per Fuel Use for Cooking in Golaghat District



In Majuli district, majority of the sample households (80 per cent) have used conventional energy (firewood) for cooking. Only 1 per cent of the sample households

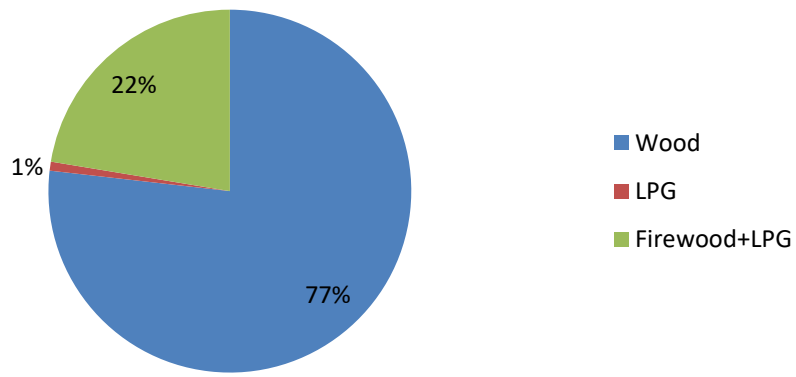
used LPG as only the source of cooking energy, 19 per cent have used both commercial and non-commercial (Firewood+ LPG) energy for cooking.

Figure 3.9: Percentage Distribution of sample Households as per Use of Cooking Energy in Majuli District



Firewood (79 per cent) is the major source of cooking energy in Lakhimpur district. Firewood +LPG are used by 21 per cent of the sample households in the district. On the other hand, none of the sample used LPG as only the source of cooking energy.

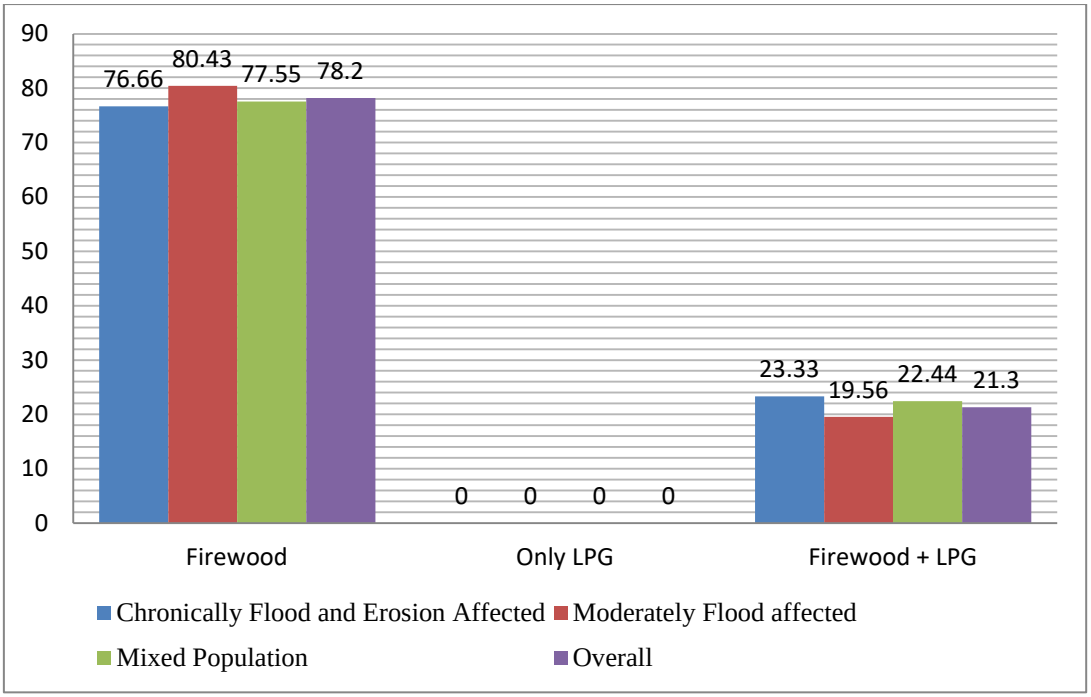
Figure 3.10: Percentage Distribution of Sample Sample Households as per Use of Cooking Energy in Lakhimpur District



Village category-wise presentation of data at Figure 3.11 shows that about 78 per cent of the sample households used firewood as cooking energy, 22 per cent have used both

'firewood+LPG' in the chronically flood and erosion affected villages. But, none of the sample households in those sample villages were used LPG as the only source of cooking energy. Similarly, majority of the sample households in moderately flood affected villages used firewood as cooking energy, 16.29 per cent have used both firewood +LPG and negligible percentage (0.74 per cent) has used only LPG those samplefor cooking. Mixed population villages have the low percentages of sample households (68.88 per cent) using firewood as the source of cooking energy in comparison to other two categories of villages under survey.

Figure 3.11: Percentage Distribution of Sample Households as per Source of Cooking Energy



3.4 EDUCATIONAL STATUS:

3.4.1 Educational Level of the Head:

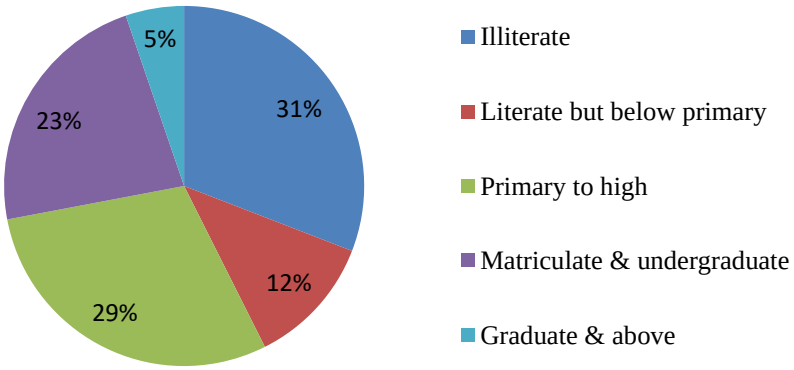
As Table 3.14 shows that 'illiterate' households constitute largest group of head of the sample households followed by 'primary to high' (29 per cent), 'matriculate and undergraduate' (23 per cent), 'literate but below primary' (12 per cent) and graduate and above' (5 per cent) household.

Table 3.14: Percentage Distribution of the Head of the Household by Educational Level

Educational Level	Golaghat	Majuli	Lakhimpur	Overall
Illiterate	34.83	33.33	23.2	30.86
Literate but below primary	15.48	10.14	8.8	11.72
Primary to high	28.38	36.23	23.2	29.42
Matriculate & undergraduate	17.41	17.39	35.2	22.72
Graduate & above	3.88	2.89	9.7	5.25

Source: Field Survey

Figure 3.12: Percentage Distribution of Sample Head of the Households as per Educational Level



Data presented in Table 3.15 revealed that 34.83 per cent of the head of the sample households of Golaghat district, 33.33 per cent of Majuli and 23.2 per cent of Lakhimpur district were illiterate. The educational level of 15.48 per cent of the head of the sample households of Golaghat district, 10.14 per cent of Majuli and 8.8 per cent of Lakhimpur district were 'literate but below primary'. About 28.38 per cent in Golaghat, 36.23 per cent in Majuli and 23.2 per cent head of the sample households in Lakhimpur district have obtained education 'primary to high school level'. The head of the sample

households completed educational level ‘matriculate & undergraduate’ is 17.41 per cent in Golaghat district, 17.39 per cent in Majuli district and 35.2 per cent in Lakhimpur district. Only 3.88 per cent of Golaghat district, 2.89 per cent of Majuli and 9.7 per cent of head of the sample households in Lakhimpur district have obtained education ‘graduate and above’.

3.4.2 Educational Level of Sample Population:

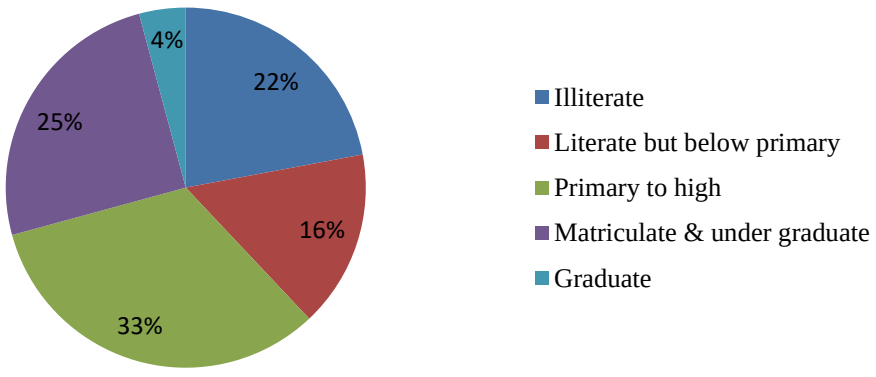
The overall data as presented in Table 3.15 shows that on the whole 22 per cent of the sample populations are illiterate, 16 per cent are ‘literate but below primary’, 33 per cent are ‘primary to high’, 25 per cent are ‘matriculate and undergraduate’ and only 4 per cent are ‘graduate and above’ in the surveyed locations.

Table 3.15: Distribution (%) of Sample Population by Educational Level

Level of Education	Person	Percentage (%)
Illiterate	471	22.04
Literate but below primary	340	15.91
Primary to high	700	32.77
Matriculate & under graduate	535	25.04
Graduate	90	4.21

Source: Field survey

Figure 3.13: Overall Percentage Distribution of Sample Households as per Educational Level



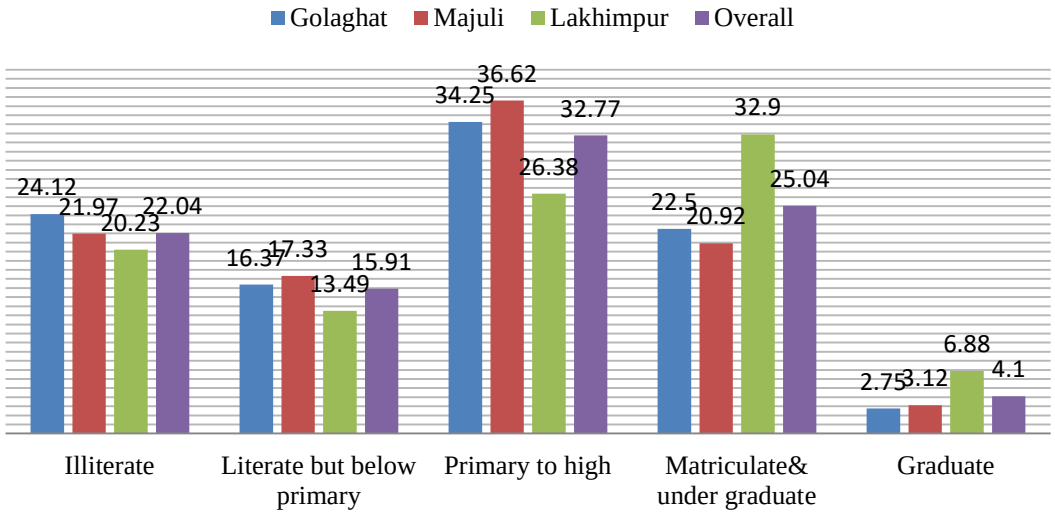
District-wise distribution of sample population by educational level as presented in Table 3.16 shows that the percentage of illiterate population is high under Golaghat district (24.12 per cent) as compared to Lakhimpur (20.23 per cent) and Majuli (21.97 per cent) districts. Percentage of population 'literate but below primary' is high in Majuli (17.33 per cent) district followed by Golaghat (16.37 per cent) and Lakhimpur (13.49 per cent) districts. Educational level of 36.62 per cent of the sample population in Majuli, 34.25 per cent in Golaghat district and 26.38 per cent of Lakhimpur district are 'primary to high'. 'Matriculate and undergraduate' percentage of population is high in Lakhimpur district (32.9 per cent) as compared to Golaghat (22.5 per cent) and Majuli (20.92) district. Only 6.88 per cent of the sample population in Lakhimpur, 3.12 per cent of Majuli and 2.75 per cent in Golaghat district are graduate and above.

Table 3.16: District –wise Percentage Distribution of Sample Population as per Educational Level

Level of Eduction	Golaghat	Majuli	Lakhimpur	Overall
Illiterate	24.12	21.97	20.23	22.04
Literate but below primary	16.37	17.33	13.49	15.91
Primary to high	34.25	36.62	26.38	32.77
Matriculate& under graduate	22.5	20.92	32.9	25.04
Graduate and above	2.75	3.12	6.88	4.1

Source: Field Survey

Figure 3.14: District-wise Percentage Distribution of Sample Population by Educational Level



3.5 LAND HOLDING:

3.5.1 Size of Land Holding:

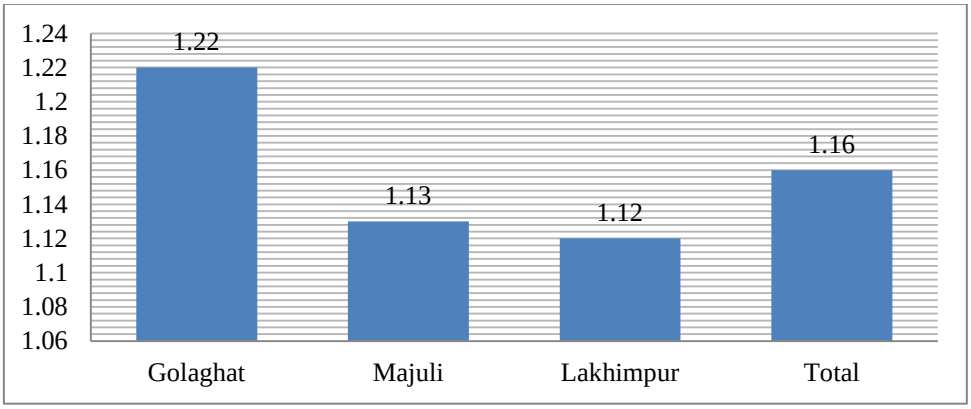
Land is the most important factor of production, since agricultural production depends upon the cultivable land area available. Land does support the allied activities taken up by the farmer household namely dairy, poultry and piggery farming. The socio-economic status of a household is highly depending upon the extent of land possessed. Data presented in Table 3.17 shows that the average size of land holding in the surveyed areas is 1.16 hectares. The average size of landholding among the sample households of Golaghat district (1.22 hectare) is higher than Majuli (1.13 hectare) and Lakhimpur (1.12 hectare) districts. Data further revealed that the average size of landholding among the sample households of Majuli and Lakhimpur districts is lower than the overall average size of holdings. The average size of land holding among the sample households in the three districts has been shown in Figure 3.15.

Table 3.17: Average Size of Land Holding among the Sample Households

Districts	Size of Landholding (in hectares)
Golaghat	1.22
Majuli	1.13
Lakhimpur	1.12
Overall	1.16

Source: Field Survey

Figure 3.15: Average Size of Land Holding among the Sample Households



The distribution of sample households according to size of land holding has been presented in Table 3.18. 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 (1-2 hectares), 10.52 per cent

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

Table 3.18: Distribution of Sample Households according Size of Land Holding

Size of Land (in hectares)	Golaghat	Majuli	Lakhimpur	Overall
Marginal (0-1)	46.45	59.42	56	53.59
Small (1-2)	41.29	29.71	35.2	35.64
Semi Medium (2-4)	12.26	10.14	8.8	10.52
Medium (4-10)	0	0.72	0	0.24

Source: Field Survey

District-wise distribution of sample households according to size of land holding further shows that the percentage of sample households possesses marginal land is the highest in Majuli district (59.42 per cent) as compared to Lakhimpur (56 per cent) and Golaghat (46.45) districts. The percentage of sample households possess small size of land is the highest in Golaghat district as compared to Lakhimpur and Majuli districts. The possession of land within 2-4 hectares by the sample households in Golaghat district is also highest as compared to Majuli and lakhimpur districts. Only 0.72 per cent of the sample households have land between 4-10 hectares in Majuli district. Figure 3.16 gives graphical presentation of sample households according to size of land holding in three districts.

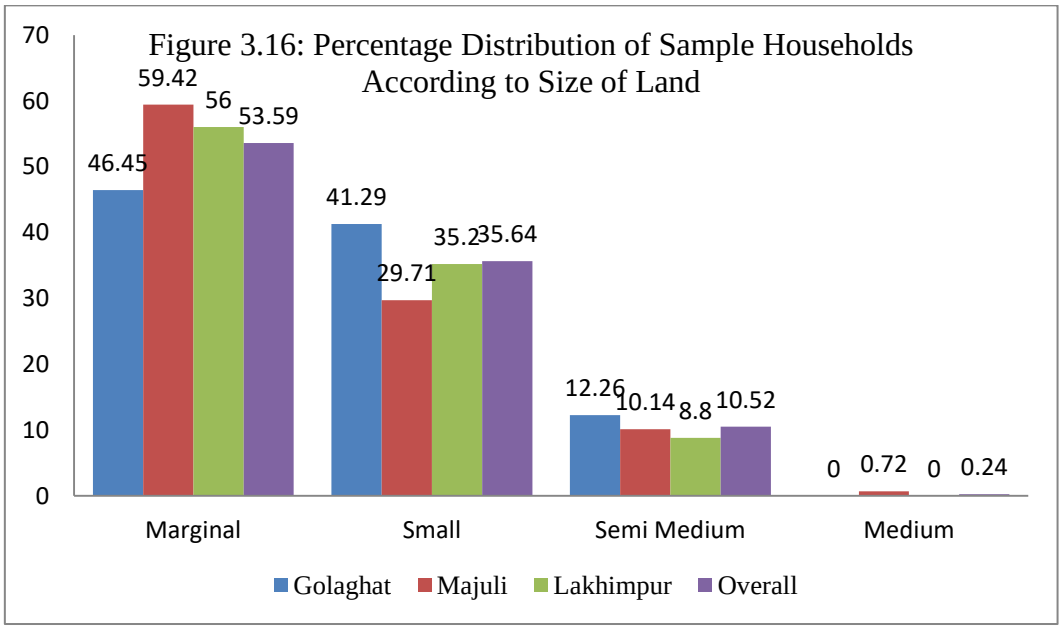


Figure 3.16: Percentage Distribution of Sample Households According to Size of Land

3.6 FINANCIAL INCLUSION:

Financial asset status of the sample households has been examined by collecting information whether they possess bank account and accessed credit from financial institutions and whether they are included under Pradhan Mantri Jan Dhan Yojana.

3.6.1 Bank Account

As Table 3.19 shows that about 95.45 per cent of the sample households possess bank account in the surveyed areas. Almost all the sample households (99.35 per cent) in Golaghat district possess bank account followed by Majuli (93.47 per cent) and Lakhimpur (92.8) districts.

Table 3.19: Percentage Distribution of Sample Households by Having Bank Account

Districts	Percentage (%)
Golaghat	99.35
Majuli	93.47
Lakhimpur	92.8
Overall	95.45

Source: Field Survey

3.6.2 Pradhan Mantri Jana Dhana Yojana (PMJDY):

Pradhan Mantri Jan Dhan Yojana (PMJDY) is national mission for financial inclusion to ensure access to financial services, namely, banking/ savings & deposit accounts, remittance, credit, insurance, pension in an affordable manner. Accounts opened under PMJDY are being opened with zero balance. Data presented in Table 3.20 shows that about 51.91 per cent of the sample households members were reported to open bank account under 'Dhana Jana Yojana' scheme**.** It has been noticed that larger percentage of the sample households' members in Golaghat district were covered under 'PMJDY' scheme followed by Majuli (31.88%) and Lakhimpur (27.2%) districts.

Table 3.20: Percentage Distribution of Sample Households by Having Bank Account under Dhana Jana Yojana

Districts	Percentage (%)

Golaghat	89.67
Majuli	31.88
Lakhimpur	27.2
Overall	51.91

Source: Field Survey

3.6.3 Access to Credit:

The credit is a catalyst that lubricates the process to accelerate the farm and non-farm sector development (Patel, 2013:10-14). Limited access to institutional credit continued to be a matter of concern in rural areas. Data presented in Table 2.22 shows that only 11.24 per cent of the sample households as a whole able access credit from formal credit institutions. Significant percentages of the sample households in Golaghat district have accessed credit from institutional sources. Relatively smaller percentage of the sample households has accessed credit from institutional sources as shown in Table.

Table 3.21: Percentage Distribution of Sample Households as per Access to Credit from Institutional Sources

Districts	Percentage (%)
Golaghat	25.16
Majuli	2.89
Lakhimpur	3.2
Overall	11.24

Source: Field Survey

3. 7 DURABLE ASSETS:

Households' standard of living can also be measured by basic assets they possessed. The possession of these consumer durables has been shown in the Table 3.22.

Table 3.22: Percentage Distribution of Sample Households as per Possession of Consumer Durables in Surveyed Areas

Items	Golaghat	Majuli	Lakhimpur	Overall
TV	40	26.08	25.6	31.1
Mobile	89.67	86.95	90.4	89.47
Computer/Laptop	0.64	5.07	0	1.91
Bicycle	87.74	76.08	83.2	82.53
Motorcycle/Scooter	16.12	20.28	26.4	20.57
Car	1.93	3.62	0	1.9

Source: Field Survey

The overall data presented in Table shows that about 31.1 per cent of the sample households have access to television (TV), 89.47 per cent have mobile phone and only 1.91 per cent have access to computer/laptop. In case of possession of transportation related durables, it is to be noted that only 1.9 per cent have car, 20.57 per cent have motorcycle/scooter and most of the sample households (82.53 per cent) possess bicycle in the surveyed location.

District-wise data further shows that Golaghat district has the highest percentage of households (40 per cent) possessing TV as compared to Majuli (26.08 per cent) and Lakhimpur district (25.6 per cent). About 89.67 per cent of the sample households possess mobile phone in Golaghat district, 86.95 per cent in Majuli district and 90.4 per cent in Lakhimpur district. Only 5.07 per cent of the sample households possess computer/laptop in Majuli district, 0.64 per cent in Golaghat district and none of the sample households possess computer/laptop in Lakhimpur district. Bicycle is found in 87.74 per cent of the sample households in Golaghat district, 83.2 per cent in Lakhimpur district and 78.74 per cent of the sample households of Majuli district. Motorcycle/scooter is found in 26.4 per cent of the sample households in Lakhimpur district, 20.28 per cent in Majuli district and 16.12 per cent of the sample households in Golaghat district. None of the sample households possess car in Lakhimpur district. Only 1.93 per cent of the sample households in Golaghat district and 3.62 per cent have possess car in Majuli district. The overall and district-wise percentage distribution of sample households as per possession of these consumer durables in the have been shown in the Figures 3.17-3.18.

Figure 3.17: Overall Percentage Distribution of Sample Households as per Possession of Consumer Durables

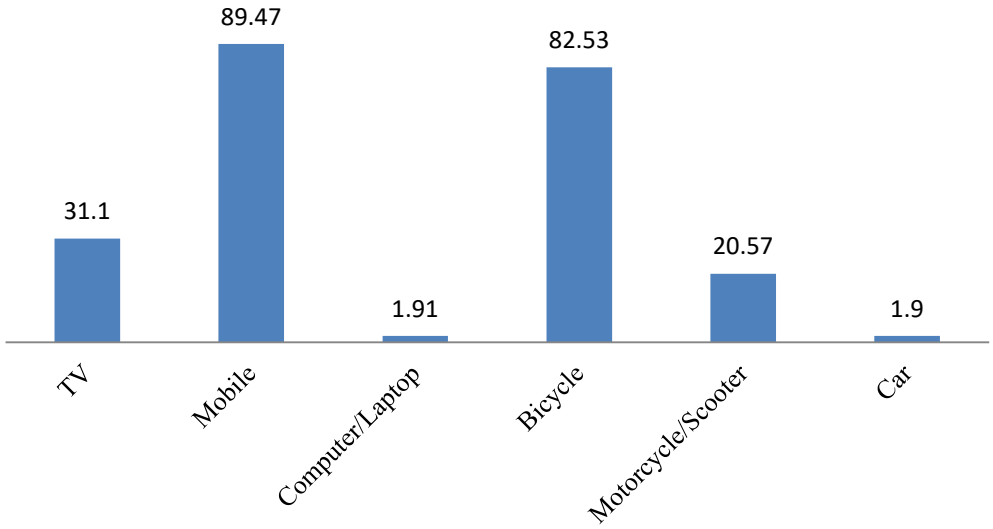
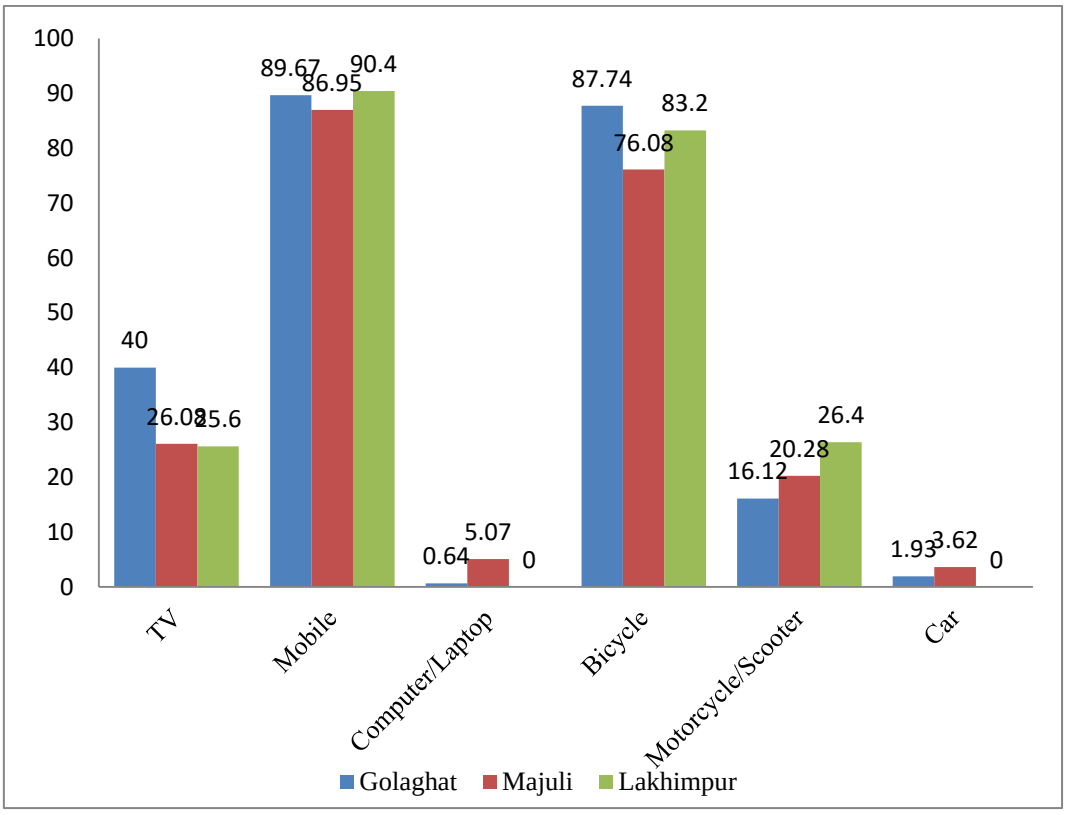


Figure 3.18: District-wise Percentage Distribution of Sample Households as per Possession of Consumer Durables



3.8 LIVESTOCK OWNERSHIP:

Livestock plays a very important role in the economy of the tribal people. There are 1120 cattle, 486 pigs, 400 goats and 1860 poultry found in the surveyed area. District – wise population of livestock has been shown in Table 3.23.

Table 3.23: Number of Livestock in the Surveyed Areas

Livestock	Golaghat	Majuli	Lakhimpur	Overall
Cattle	337	512	227	1120
Pig	181	138	167	486
Goat	138	126	136	400
Poultry	587	546	727	1860

Source: Field Survey

The average number of livestock owned by the sample households in the study areas has been shown in Table 3.25. Data revealed that the average number of cattle found in Majuli district (5.7) is the highest as compared to Golaghat (5.7) and Lakhimpur (1.81) districts. Though the pig rearing is one of the traditional activities of the Mising tribe, the average number of pig owned as a whole in the surveyed area is only 1.16. The average number of pig holding among the sample households in Lakhimpur district is 1.33, Golaghat district 1.16 and only 1 in Majuli district. In case of goat, the average size of holding is very poor, only 0.95 in the surveyed area. The average number of goat found in Lakhimpur district (1.08) is more than Majuli district (0.91) and Golaghat district (0.89).

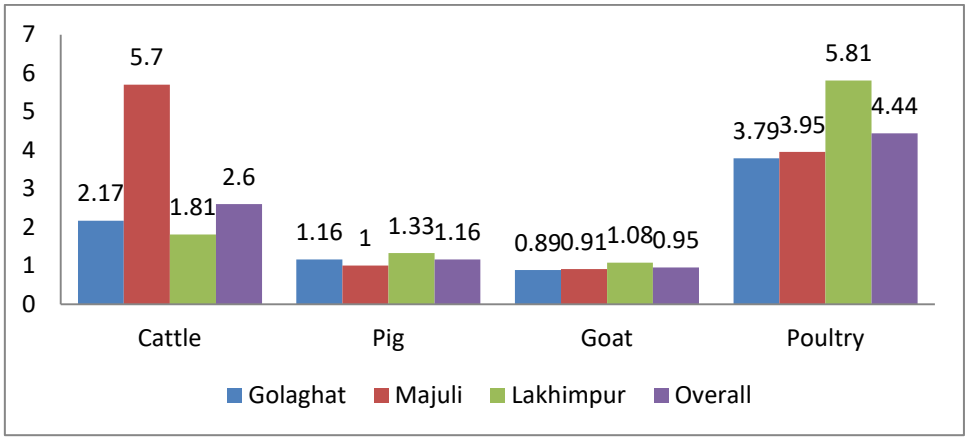
Table 3.25: Average number of Livestock Holding

Livestock	Golaghat	Majuli	Lakhimpur	Overall
Cattle	2.17	5.7	1.81	2.6
Pig	1.16	1	1.33	1.16
Goat	.89	.91	1.08	.95
Poultry	3.79	3.95	5.81	4.44

Source: Field Survey

On the whole, the average number of poultry owned by the sample households in the surveyed area is 4.44. The average number of poultry holding by the sample households of Lakhimpur district (5.81) is the highest as compared to Majuli (3.95) and Golaghat (3.79) districts.

Figure 3.19: Average number of Livestock Holding



The percentage distribution of sample households as per having livestock as presented in Table 3.25 shows that about 82 per cent of the sample households have cattle, 66.49 per cent have pig, 42.09 per cent have goat and 78.67 per cent household possess poultry.

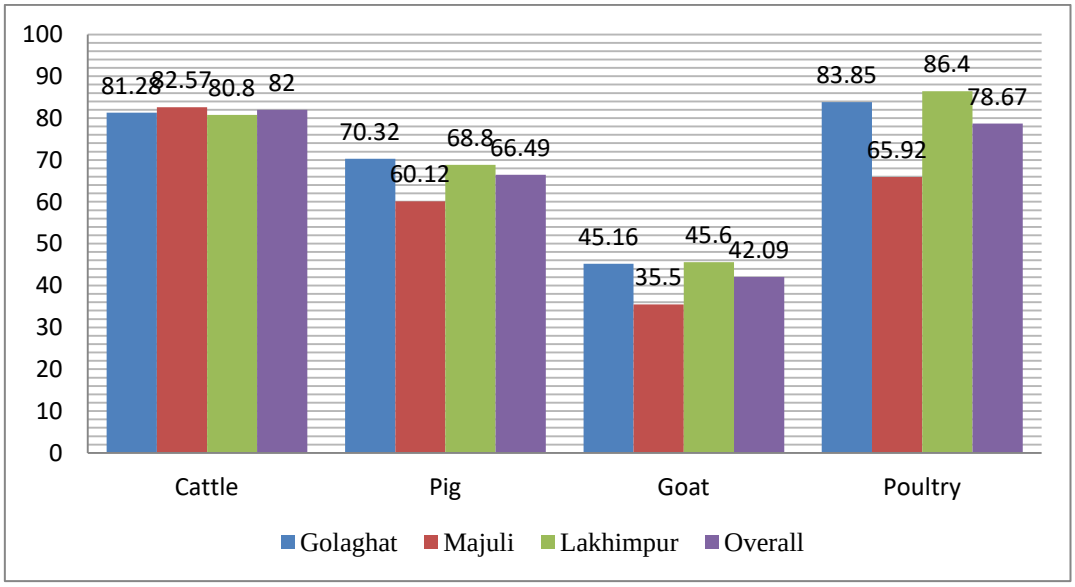
Table 3.25: Percentage Distribution of Households as per having Livestock

Livestock	Golaghat	Majuli	Lakhimpur	Overall
Cattle	81.28	82.57	80.8	82.00
Pig	70.32	60.12	68.8	66.49
Goat	45.16	35.5	45.6	42.09
Poultry	83.85	65.92	86.4	78.67

Source: Field Survey

District-wise distribution further shows that the percentage of sample households having cattle is slightly more in Majuli district (82.57%) as compared to Golaghat (81.28%) and Lakhimpur (80.00) districts. The percentage of sample households rearing pig is the highest in Golaghat district (70.32%) as compared to Lakhimpur district (68.8%) and Majuli district (60.1%). About 45.6 per cent of the sample households have goat in Lakhimpur district followed by Golaghat (45.16%) and Majuli (35.5%) districts. In case of poultry, the possession is more in Lakhimpur district (86.4%) as compared to Golaghat (83.85%) and Majuli (65.92%) districts. The percentage distribution of sample households as per having livestock has been presented in Figure 3.20.

Figure 3.20: Percentage Distribution of Sample Households as per Having Livestock



3.9 MIGRATION:

Assam human development report-2014 pointed out that 'migration due to the floods, erosion and sand deposition from villages for employment has now become a significant phenomenon in Assam'. Data presented in Table 3.26 shows that among sample households 10.28 per cent have reported about migration of their members. The incidence of migration in search of temporary job outside Assam is more in Golaghat district (11.61%) as compared to Lakhimpur (6.4%) and Majuli (5.79%) districts. Those who migrate outside the state of Assam have largely gone to the cities like-Bangalore, Kerala, Mumbai, Chennai etc.

Table 3.26: Percentage distribution of Sample Households as per Migrants Member

Districts	Percentage (%)
Golaghat	11.61
Majuli	5.79
Lakhimpur	6.4
Overall	10.28

Source: Field Survey

3.10 PARTICIPATION IN SELF-HELP GROUPS AND COOPERATIVE SOCIETIES:

SHGs has proved to be a strategic tool for organizing rural women in groups and promoting savings and thrift habits to gain access to institutional credit for their socio-economic development and empowerment (Sing, 2013:9-11). SHGs organize the poor and the marginalized to join hands to solve their problems and helped in increasing the incomes of the poor through collective performance. SHGs perform the role of collective banks and enterprises and better access to loans with lower rate of interest to start a micro unit enterprises. Thus, SHGs are one of the forces to diversify the occupation of the poor in a sustainable manner. Data presented in Table 3.28 shows the active participation of the sample households in SHGs and cooperative societies. On the whole 40.43 per cent of the sample households have reported their participation in SHGs and 44.73 per cent of the sample households are active member of cooperative societies. Distribution of sample households according to their participation in SHGs shows that Majuli district has the highest percentage of sample households participating in SHGs followed by Lakhimpur (40.8%) and Golaghat (35.48%) districts. In case of participation in cooperative societies the percentage is high in Lakhimpur district (49.6%) followed by Golaghat (45.8%) and Majuli (39.13%) districts.

Table 3.28: Percentage Distribution of sample Households as per Participation in SHGs and Cooperative Societies

Districts	SHG	Cooperative Society
Golaghat	35.48	45.8
Majuli	45.65	39.13
Lakhimpur	40.8	49.6
Overall	40.43	44.73

Source: Field Survey

3.11 SUMMING UP:

Some of the main findings as emerged in the analysis are discussed below.

- The number of female population per thousand male is the highest in Majuli district as compared to Lakhimpur and Golaghat districts. The sex ratios of

Lakhimpur and Golaghat districts are somewhat adverse in comparison to Majuli district.

- The analysis of different age groups revealed that the significant percentage of sample population falls in the non-working age group.
- The average size of the sample households in Lakhimpur district is the highest as compared to Golaghat and Majuli districts.
- The majority of the sample households head are male headed.
- Analysis of workforce participation rate shows that Golaghat district has the highest workforce participation rate as compared to Majuli and Lakhimpur districts.
- Most of the sample households reside in chan-ghar (traditional raised platform type house). The percentage of sample households reside in traditional pattern (*chang-ghar*) house is comparatively more in Majuli district than Lakhimpur and Golaghat districts. Relatively smaller proportion of the sample households found to live in Assam type pucca house in Lakhimpur district as compared to Majuli and Golaghat districts. Significant percentages of sample households in Golaghat, Majuli and Lakhimpur districts were residing in houses as provided under PMAY scheme.
- Most of the sample households in the study areas do not have any toilet facilities and practice open field defecation. The sample households resorted to open field for defecation is slightly high in Majuli district as compared to Lakhimpur and Golaghat districts.
- Majority of the sample households found electrified in the surveyed area. Golaghat district has the highest percentage of sample households with access to electric connection followed by Lakhimpur and Majuli districts.
- Analysis revealed that the most widely used cooking fuel is the firewood.
- Educational level of the head of sample households shows that ‘illiterate’ households constitute largest group of head of the sample households followed by ‘primary to high’, ‘matriculate and undergraduate’, ‘literate but below

primary' and graduate and above' household. Illiterate head of the households is more in Golaghat district as compared to Lakhimpur and Golaghat districts.

- The analysis of educational level of the sample population in the surveyed area shows that on the whole significant percentage of population is still illiterate. The illiterate population is high under Golaghat district as compared to Lakhimpur and Majuli districts.

- The average size of land holding among the sample households of Golaghat district is higher than Majuli and Lakhimpur districts. Majority of the sample households in the surveyed area owned marginal and small holdings. The percentage of sample households possesses marginal land is the highest in Majuli district as compared to Lakhimpur and Golaghat districts. The percentage of sample households possess small size of land is the highest in Golaghat district as compared to Lakhimpur and Majuli districts.

- On the whole the percentage of households having bank account in the surveyed area is very impressive. Almost all the sample households in Golaghat district possess bank account followed by Majuli and Lakhimpur districts.

- Regarding implementation of 'PMJDY', it has been noticed that majority of the sample households were opening their bank account under 'Prime Minister Jana Dhana Yojana'**.** Percentage of sample households covered under 'PMJDY' scheme is the highest in Golaghat district followed by Majuli and Lakhimpur districts.

- Limited percentages of households have accessed credit from institutional sources in the surveyed area. Of course, significant percentages of the sample households in Golaghat district have accessed credit from institutional sources.

- Analysis indicates the significance expansion of mobile phone connectivity in the study area. Percentage of households having mobile phone is more in Golaghat district than Lakhimpur and Majuli districts. Golaghat district has the highest percentage of households possessing TV as compared to Majuli and Lakhimpur district. Percentage of households possessing computer/laptop is very low in the study area.

- In respect of livestock possession, the analysis indicates that the average number of cattle found in Majuli district is the highest as compared to Golaghat and Lakhimpur districts. Pig owned by the sample households in Lakhimpur district is more than Golaghat and Majuli districts. The average number of poultry owned by the sample households of Lakhimpur district is the highest as compared to Majuli and Golaghat districts. The average size of goat holding is very poor in the study area. The average number of goat found in Lakhimpur district is more than Majuli district and Golaghat district.

- Analysis of percentage distribution of sample households as per possession of livestock shows that cattle is found more in Majuli district as compared to Golaghat and Lakhimpur districts. The percentage of sample households rearing pig is the highest in Golaghat district as compared to Lakhimpur district and Majuli district. The percentage of sample households owned goat is more in Lakhimpur district as compared to Majuli and Golaghat districts. The percentage of sample households possess poultry is comparatively higher in Lakhimpur district than Majuli and Golaghat districts.

- The incidence of migration in search of temporary job outside Assam is significant in the study area. Percentage is more in Golaghat district as compared to Lakhimpur and Majuli districts.

- Active participation in SHGs and cooperative societies has been noticed in the study area. Majuli district has the highest percentage of sample households participating in SHGs followed by Lakhimpur and Golaghat districts. In case of participation in cooperative societies, the percentage is high in Lakhimpur district in comparison to Golaghat and Majuli districts.

CHAPTER-4

PATTERN AND EXTENT OF LIVELIHOOD DIVERSIFICATION: EXPERIENCE FROM FIELD SURVEY

4.1 INTRODUCTION:

The present chapter 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 Assam 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.

People's occupations are in a sense the most important indicator of its socio-economic development. Occupation is an economically productive pursuit and occupation provides income, social status as well as personal satisfaction and thrust in life. In fact, the knowledge of occupational structure and transformation of workforce may provide a most authentic idea about the pattern and extent of development (Sing, 1986:27). In a wake of development, a region registers change in structure of its workforce, experiencing a shift from primary to secondary and tertiary functions (Sing, 1986). But, this universally operative process of transformation at the macro level fails to capture at the household level. Hence, the occupational shift of sample households has been taken into account for addressing livelihood diversification of the group.

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 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.

4.2 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 4.1: 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

4.3 INCIDENCE OF OCCUPATIONAL SHIFT:

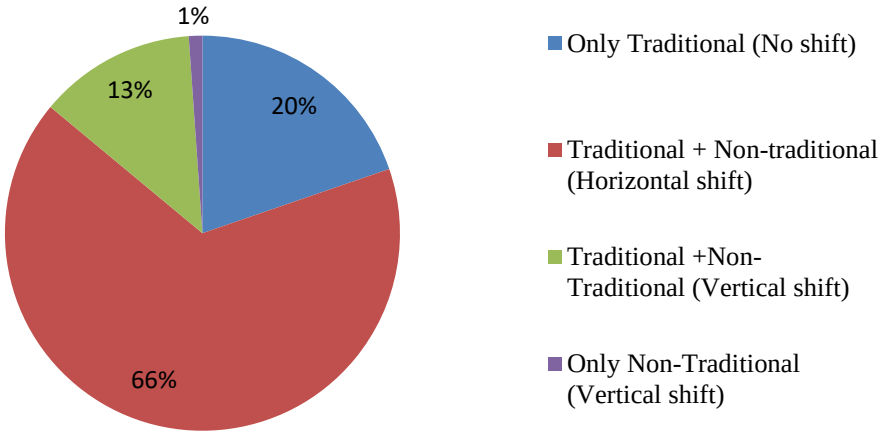
The different occupations found among sample households in the three districts have been presented in Table 4.2. The table shows that the occupations found to be practice among the sample households are multiple in nature.

Table 4.2: Distribution of Sample Households by Occupational Categories

Occupational Category	Golaghat	Majuli	Lakhimpur	Overall
Only Traditional (Cultivation, Piggery, Poultry, Livestock, Weaving)	43	35	11	89
Traditional + Non-traditional (wage labourer, agricultural wage-labourer, construction worker, carpentry, tailoring, fish selling, selling rice beer)	85	82	99	299
Traditional +Non-Traditional (salaried job, contractor, own trade/ business)	25	18	15	58
Only Non-traditional (salaried job, contractor, own trade and business)	2	3	0	5
Total	155	138	125	418

Source: Field Survey

Figure 4.1: Overall Percentage Distribution of Sample Households according to Occupational Categories

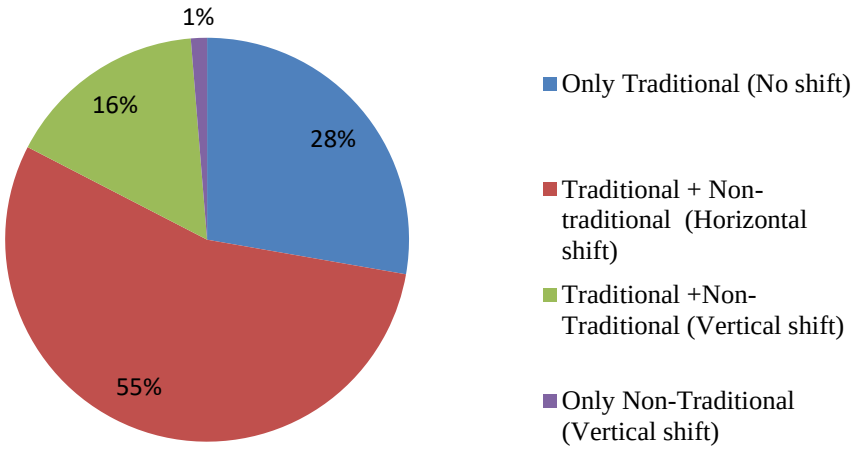


The percentage distribution of sample households according to their occupational categories as presented in Figure 4.1 shows that on the whole only 20 per cent of the sample households engaged in only traditional occupation. A large majority of the sample households (66 per cent) were diversifying their occupation horizontally. Vertical shift (traditional+non-traditional) of occupation taken place among 13 per cent

of the sample households. Only 1 per cent of the sample households relied on only non-traditional occupation.

The percentage distribution of sample households according to their occupational categories in Golaghat district as presented in Figure 4.2 shows that in all 28 per cent of the sample households relied on only traditional occupation. About 55 per cent of the sample households are diversifying their occupation only horizontally. Only 16 per cent of the sample households engaged in traditional+non-traditional occupation and 1 per cent relied on only non-traditional occupation.

Figure 4.2: Percentage Distribution of Sample Households as per Occupational Categories in Golaghat District



The percentage distribution of sample households according to their occupational categories in Majuli district as presented in Figure 4.3 shows that no shift of occupation taken place among the 25 per cent of the sample households. A large majority (60 per cent) of the sample households were shifting their occupations horizontally. Only 13 per cent of the sample households were diversifying their occupation vertically and 2 per cent have resorted to only non-traditional occupation.

Figure 4.3: Percentage Distribution of Sample Households as per Occupational Categories in Majuli District

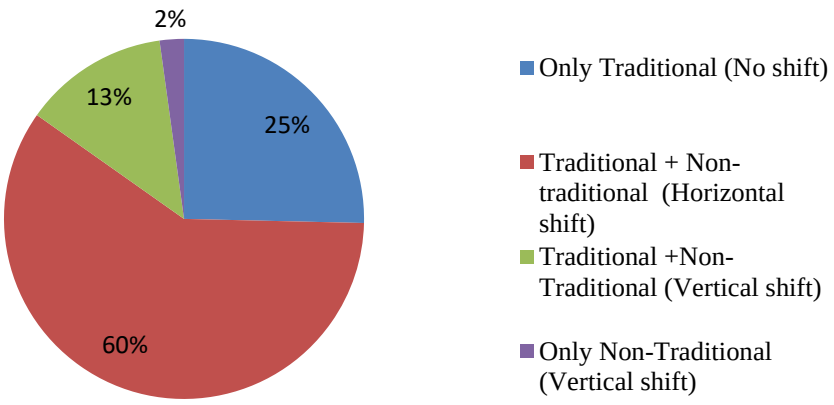


Figure 4.4 shows that a large majority (79%) of the sample households dependent on traditional+non-traditional occupation. Only 9 per cent of the sample households engaged in agriculture and allied activities (traditional). About 12 per cent of the sample households were dependent on traditional+non-traditional occupation. None of the sample households relied on only non-traditional occupation.

Figure 4.4: Percentage Distribution of Sample Households as per Occupational Categories in Lakhimpur District

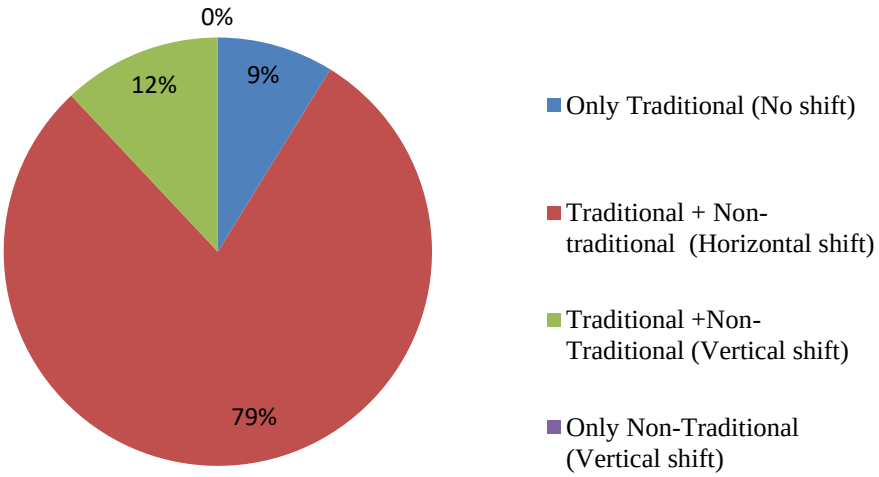
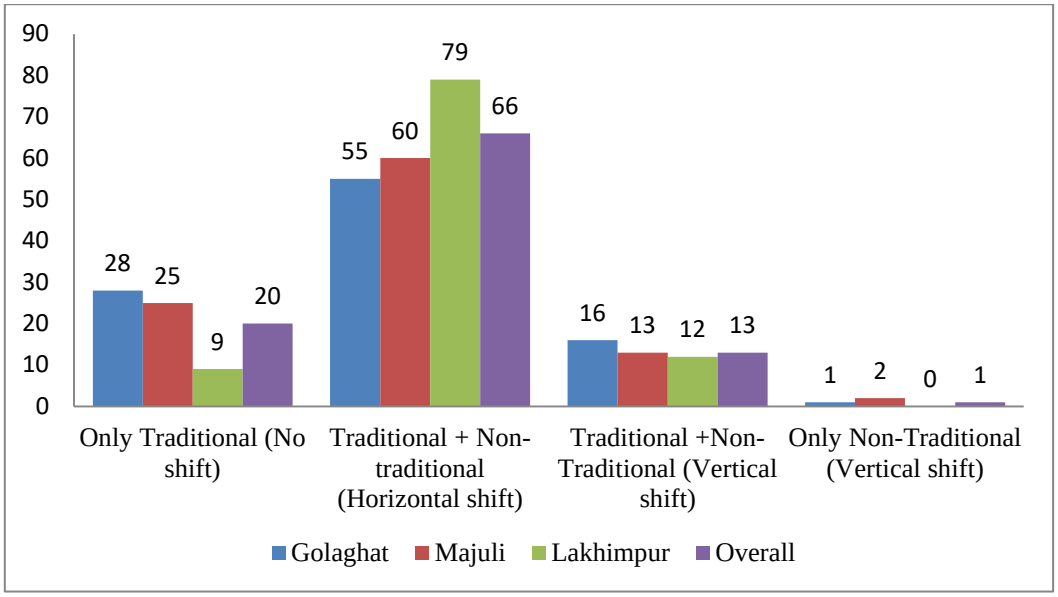


Figure 4.5: Comparison of Occupational Shift among Sample Households in Three Districts



A comparison of occupational shift among the sample households in the three districts further shows (Figure: 4.5) that the percentage of sample households stick on only traditional occupation is high in Golaghat district as compared to Majuli and Lakhimpur district. The incidence of horizontal shift of occupation is significantly high in Lakhimpur district as compared to Majuli and Lakhimpur districts. As far as traditional+non-traditional occupation (vertical shift) is concerned, relatively higher percentage of the sample households of Golaghat district were diversifying their occupations vertically as compared to the sample households of Majuli and Lakhimpur districts. Lesser percentages (1% & 2%) of the sample households involved in only non-traditional occupations in Jorhat and Golaghat districts. None of the household found engaged in only non-traditional occupation.

4.4 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 Effection (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 4.3.

Table 4.3: Description of Explanatory Factors and Variables for Ordered LOGIT Analysis of Occupational Categories

Sl. No.	Explanatory Factor	Explanatory Variables	Expected Sign of Coefficient
1	Education	**ED**= 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 **0-5**, depending on the attainment of highest education of the household.	Positive
2	Whether Erosion Effected	**EE**= Each household in the erosion affected villages has been given **'1'** and **'0'** for otherwise.	Positive
3	Village Type	**VT**= 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.	Positive/Negative
4	Bank Account	**BAC**=Each household has been given 1 for having bank account and 0 for otherwise.	Positive
5	Access to Credit	**ACD=** Each household has been given 1 for accessing loan and 0 for otherwise.	Positive
6	SHG	**SHG=** Each household has been given 1 for participating SHGs and 0 for otherwise.	Positive
7	District Locations	District locations, which takes into account the differences of the households across the three sample districts in terms of land holding pattern and other local factors. Golaghat district is considered as the best location. Other two districts were codified into scores on the basis of locations as following way- $\mathbf{L_2}$= Each household in Jorhat district has been given **'1'** and **'0'** for otherwise. $\mathbf{L_3}$= Each household in Lakhimpur district has been given **'1'** and **'0'** for otherwise.	Positive/Negative Positive/Negative

Ordered Logit 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-

$$Y_i = 1 \quad \text{if} \quad Y_i^* < K_1$$
$$Y_i = 2 \quad \text{if} \quad K_1 < Y_i^* \leq K_2$$
$$Y_i = 3 \quad \text{if} \quad K_2 < Y_i^* \leq K_3$$
$$Y_i = 4 \quad \text{if} \quad K_3 \leq Y_i^*$$

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

$$\mathbf{Y_i}=\alpha+\beta_1 ED_i+\beta_2 EE_i+\beta_3 VT_i+\beta_4 L_{2i}+\beta_5 L_{3i}+\beta_6 BAC_i+\beta_7 CD_i+\beta_8 SHG_i+\mu_i$$

μ_i is the random term, which has logistic distribution

Table 4.4: 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
L2	.5451161	.2656792	2.05**
L3	.6275209	.276289	2.27**
K1	2.140748	.6101762	
K2	5.65791	.6710865	
K3	8.516	.817076	
LR Chi Square	78.01***		

, **, ** indicates significance at 0.10, 0.05 and 0.01 level respectively.

4.5 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.

The coefficients of L_2 and L_3 are positive and statistically significant. It indicates that households from Lakhimpur and Majuli districts are more inclined to occupational shift. It may happen, because the average land holding among sample households in Lakhimpur and Majuli districts are lower than the average land holding size of Golaghat

district. Relatively smaller possession of land may have forced the sample households in Lakhimpur and Majuli district to non-traditional occupation.

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.

4.6 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 in Lakhimpur district than Majuli and Golaghat districts.
- Very less percentage of the sample households diversifying their occupation vertically. Golaghat district has the highest percentage of sample households diversifying their occupation vertically as compared to Majuli and Lakhimpur districts.
- Percentage of the sample households dependent on only traditional occupation is found more in Golaghat than Majuli and Lakhimpur districts.
- Analysis indicates 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 three sample districts 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.

CHAPTER-5

DELIVERY OF GOVERNMENT SCHEMES AND PROGRAMMES

5.1 This chapter throws light on the implementation of various schemes and programmes by the state as well as central government. The schemes and programmes taken into account for assessing are MGNREGA, SGSY, PMAY, DDUGJY, FOIGS and EDS.

5.2 SCHEMES AND PROGRAMMES:

5.2.1 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):

The MGNREGA was initiated in 2005 with the objective of enhancing livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work". Another aim of MGNREGA is to create durable assets (such as roads, canals, ponds, wells). Apart from providing economic security and creating rural assets, MGNREGA can help in protecting the environment, empowering rural women, reducing rural-urban migration and fostering social security among others.

5.2.2 Swarnajayanti Gram Swarojgar Yojana (SGSY):

The scheme was launched on April 1; 1999. This programme aims at providing self employment to villagers through the establishment of Self Help Groups. Activity clusters are established based on the aptitude and skill of the people which are nurtured to their maximum potential. Funds are provided by NGOs, banks and financial institutions. The programme was merged with National Rural Livelihood Mission from April 1, 2013.

5.2.3 Pradhan Mantri Awaas Yojana (PMAY):

Rural housing programme, as an independent programme, started with Indira Awaas Yojana (IAY) in January 1996. Although IAY addressed the housing needs in the rural areas, certain gaps were identified during the concurrent evaluations and the performance Audit by Comptroller and Auditor General (CAG) of India in 2014. To address these gaps in the rural housing program and in view of Government's commitment to providing "housing for all'' by the scheme 2022, the IAY has been re-structured into Pradhan Mantri Awaas Yojana (PMAY) w.e.f. 1st April 2016. The immediate objective of the scheme is to cover 1.00 crore household living in kutcha house/dilapidated house in three years from 2016-17 to 2018- 19.

5.2.4 Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY):

Government of India has launched the scheme "Deendayal Upadhyaya Gram Jyoti Yojana" for rural electrification. The earlier scheme for rural electrification viz. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) has been subsumed in the new scheme as its rural electrification component. Under DDUGJY, Ministry of Power has sanctioned 921 projects to electrify 1,21,225 un-electrified villages, intensive electrification of 5,92,979 partially electrified villages and provide free electricity connections to 397.45 lakh BPL rural households. As on 30th June 2015, works in 1,10,146 un-electrified villages and intensive electrification of 3,20,185 partially electrified villages have been completed and 220.63 lakh free electricity connections have been released to BPL households.

5.2.5 Family Oriented Income Generating Scheme (FOIGS):

This scheme has been implemented to cover the BPL scheduled tribe (P) families of the state. Under the scheme inputs like tractor, power tiller, and financial grants to individual beneficiary are provided for their income generation as well for self employment. This scheme is implemented not only to generate income but also to create self employment amongst the tribal people with an aim to remove poverty. The scheme is implemented through the ITDPs & SDWOs.

5.2.6 Educational Development Scheme (EDS):

The pre-matric scholarship is a state government scheme where 100% fund is provided by the Government of Assam. The scheme is meant for ST (P) students. Post-matric scholarship is a centrally sponsored scheme fully funded by the Government of India.

5.2.7 Old Age Pension:

Under the scheme BPL persons aged 60 years or above are entitled to a monthly pension. The National Social Assistance Programme (NSAP) is a centrally sponsored scheme of the Government of India that provides financial assistance to the elderly, widows and persons with disabilities in the form of social pensions.

5.3 STATUS OF IMPLEMENTATION OF SCHEMES AND PROGRAMMES IN THE STUDY AREA:

The distribution of sample households as per availing of different schemes and programmes has been shown in Table 5.1. The overall percentage of sample households availing MGNREGA is 72, PMAY is 19.85, FOIGS is 9.33, EDS is 8.87, Pension Scheme is 7.65, DDUGJY is 4.06 and SGSY is 3.34.

Table 5.1: Distribution of Sample Households as per Availing of Schemes

Schemes/Programmes	Golaghat	Majuli	Lakhimpur	Overall
MGNREGA	88.38	56.52	68.38	72.24
PMAY	27.09	13.04	18.70	19.85
FOIGS	7.74	4.35	12.90	9.33
EDS*	4.5	7.25	12.25	8.85
Pension Scheme	9.67	6.52	7.74	7.65
DDUGJY	8.38	0.0	2.58	4.06
SGSY	2.58	0.72	5.16	3.34

Source: Field Survey

*Educational Development Scheme

As shown in Figure 5.1 Golaghat district has the highest percentage of sample households (88.38%) got wage employment under MGNREGA and it was followed by Lakhimpur (68.38%) and Majuli (56.52%) districts.

Figure 5.1: Percentage Distribution of Sample Households as per Availing of MGNREGA

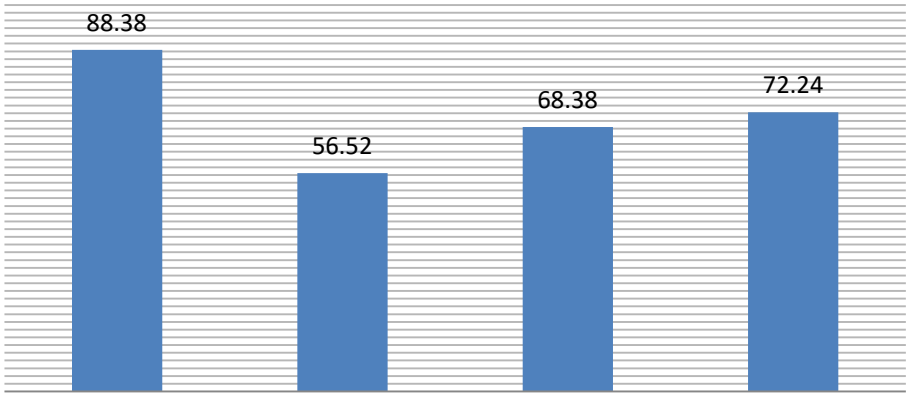
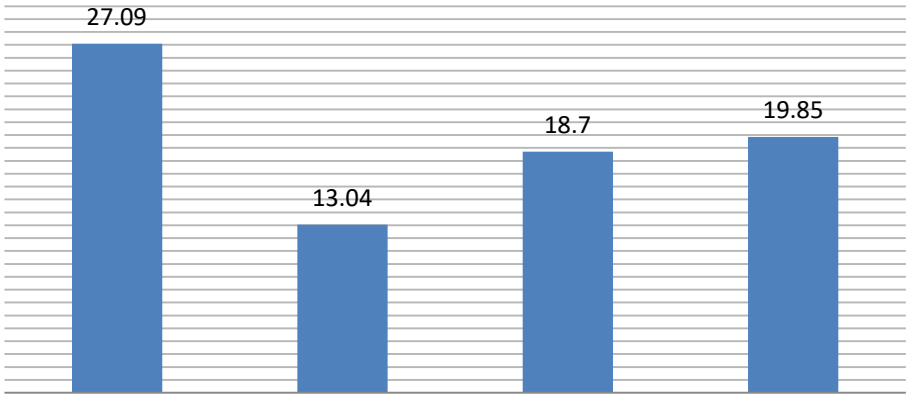


Figure 5.2 shows that in all 19.85 per cent of the sample households have availed house as provided under PMAY scheme. The percentage of sample households availing PMAY scheme is higher in Golaghat district (27.09%) when compared to Lakhimpur (18.7%) and Majuli (13.04%) districts.

Figure 5.2: Percentage Distribution of Sample Households as per Availing of PMAY



FOIGS is specially meant for scheduled tribe (P) BPL households in the state. The coverage of this scheme is remained limited as shown in Figure 5.3. Under the scheme inputs and financial grants have been availed by only 9.33 per cent of the sample households in the surveyed area. Lakhimpur district has the highest percentage of sample households (12.9%) availing the scheme as compared to Golaghat (7.74%) and Majuli (4.35%) districts.

Figure 5.3: Percentage Distribution of Sample Households as per Availing of FOIGS Scheme

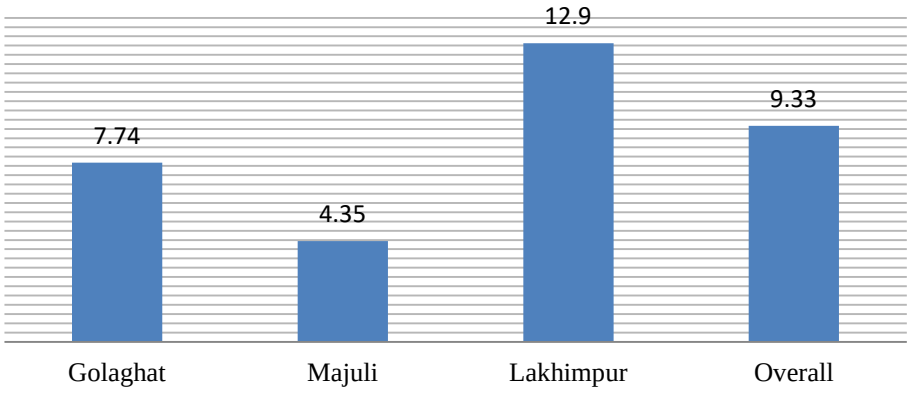
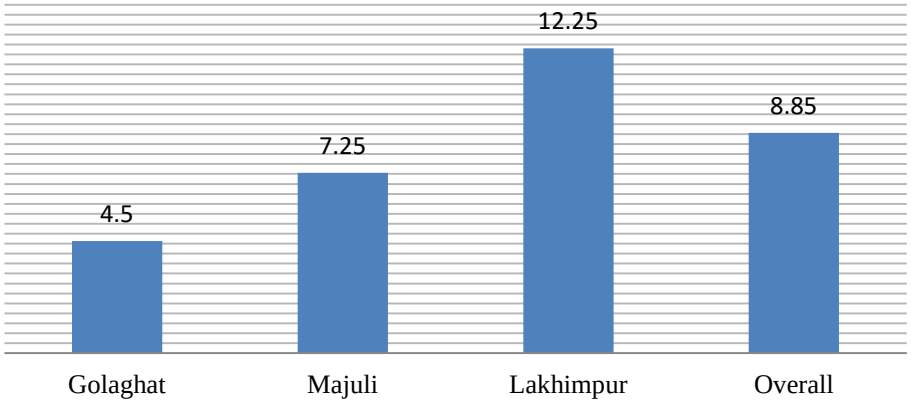


Figure 5.4 shows that only 8.85 per cent the sample households have reported about the receiving of pre & post matric scholarship from ITDPs and SDWOs. The percentage of sample households covered under educational development scheme is more in Lakhimpur district (12.25%) than Golaghat (4.5%) and Majuli (7.25%) districts

Figure 5.4: Percentage Distribution of Sample Households as per Availing of Educational Development Scheme



In case of SGSY, it has been noticed that only 3.34 per cent of the sample households were covered under the scheme. The members of households got benefited under the scheme is more in Lakhimpur district (5.16%) than Golaghat (2.58%) and Majuli (0.72%) districts. Percentages of sample households in surveyed villages receiving benefits under these programmes are shown in Figure 5.5.

Figure 5.5: Percentage Distribution of Sample Households as per Availing SGSY

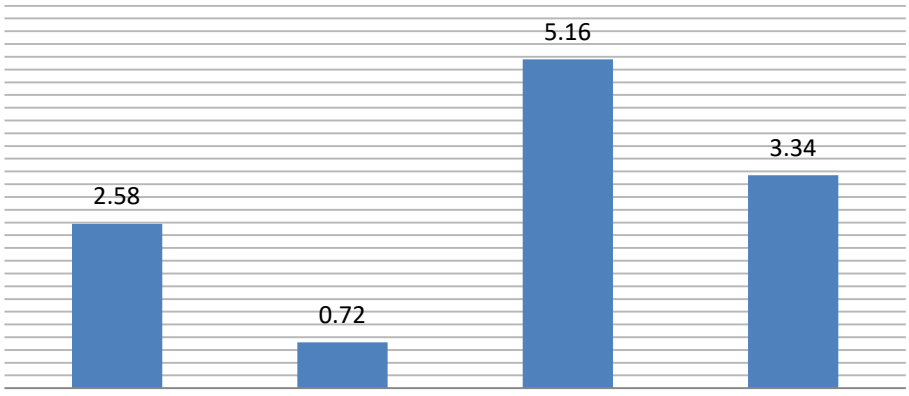
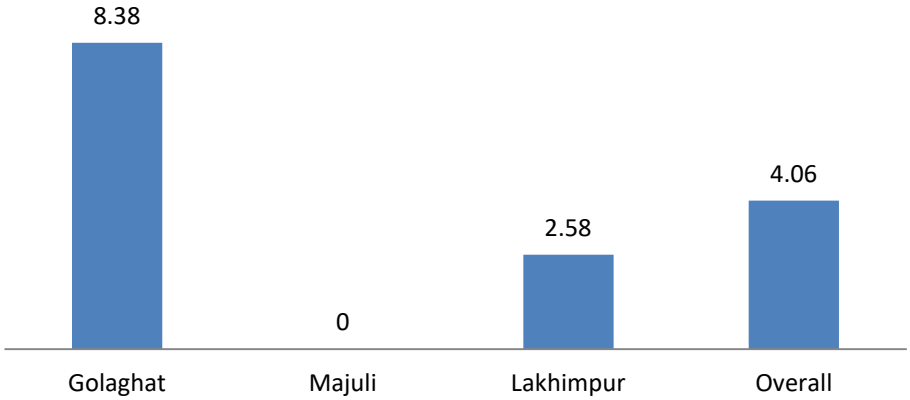


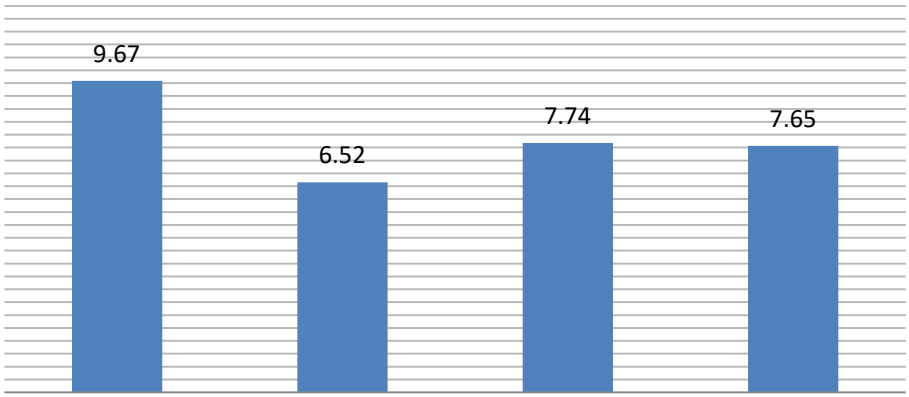
Figure 5.6 shows that on the whole, only 4.06 per cent of sample households were electrified under DDGJY scheme. The percentage of sample households access electric connection under DDGJY scheme in Golaghat district is 8.38 and only 2.58 per cent in Lakhimpur district. But, none of the sample households found electrified under the scheme in Majuli district.

Figure 5.6: Percentage Distribution of Sample Households as per Availing of DDUGJY scheme



Overall, only 7.67 per cent of the sample households were found to have received benefits under pension scheme as shown in Figure 5.7. Figure shows that about 9.67 per cent of the sample households were benefited under the pension scheme in Golaghat district followed by Lakhimpur (7.74%) and Majuli (6.52%) districts.

Figure 5.7: Percentage Distribution of Sample Households as per Availing of Pension Scheme



5.4 CONCLUSION:

The main findings of this chapter are as follows:

- MGNREGA has able to benefit most of the sample households in the study area. Among three districts, a higher percentage of sample households have been noticed in Golaghat district followed by Lakhimpur and Majuli districts.
- The percentage of sample households availing the SGSY, which aims at providing self employment to villagers through the establishment of Self Help Groups is very low.
- Significant percentage of sample households availed PMAY house in the study area. Such percentage is high in Golaghat district as compared to Lakhimpur and Majuli districts.
- The scheme FOIGS, which is specially meant for development of scheduled tribe people of Assam, is not implemented properly in the surveyed area, as limited percentage of households were availing the scheme.

- Analysis indicates that the percentage of sample households reported about the receiving of pre-post matric scholarship by their students is also very low. The percentage of sample households covered under educational development scheme is more in Lakhimpur district than Golaghat and Majuli districts
- Very low percentages of sample households were electrified under DDUGJ scheme in the surveyed area. None of the sample households were covered under the scheme in Majuli district.

CHAPTER-6

CONCLUSION:

6.1 This chapter has been designed for drawing the broad conclusion of the study and extracting policy implications. To facilitate the process the principal findings of the study have been listed out. Hence, this chapter consists of two sections-summary of findings and broad conclusion and policy implications.

6.2 Summary of Findings

The important findings of the study has been summarised as follows:

- The number of female population per thousand male is the highest in Majuli district as compared to Lakhimpur and Golaghat districts. The sex ratios of Lakhimpur and Golaghat districts are somewhat adverse in comparison to Majuli district.
- The analysis of sample population according to different age groups revealed that the significant percentage of sample population falls in the non-working age group.
- The average size of sample households in Lakhimpur district is the highest as compared to Golaghat and Majuli districts.
- The majority of the sample households head are male headed. Percentage of female headed households is more in Golaghat district as compared to Lakhimpur and Majuli districts.
- The overall workforce participation rate is noticeably high in the surveyed area. Golaghat district has the highest workforce participation rate as compared to Majuli and Lakhimpur districts.

- Most of the sample households reside in chang-ghar (traditional raised platform type house). The percentage of sample households reside in traditional pattern (*chang-ghar*) house is comparatively more in Majuli district than Lakhimpur and Golaghat districts. Relatively smaller proportion of the sample households found to live in Assam type pucca house in Lakhimpur district as compared to Majuli and Golaghat districts. Significant percentages of sample households in Golaghat, Majuli and Lakhimpur districts were residing in houses as provided under PMAY scheme.

- Most of the sample households in the study areas do not have any toilet facilities and practice open field defecation. The sample households resorted to open field for defecation is slightly high in Majuli district as compared to Lakhimpur and Golaghat districts.

- Majority of the sample households found electrified in the surveyed area. Golaghat district has the highest percentage of sample households with access to electric connection followed by Lakhimpur and Majuli districts.

- Analysis revealed that firewood still the most widely used cooking fuel in the surveyed area. Golaghat district has the highest percentage of sample households using firewood as a source of cooking energy followed by Majuli and Lakhimpur districts.

- Educational level of the head of sample households shows that ‘illiterate’ households constitute largest group of head of the sample households followed by ‘primary to high’, ‘matriculate and undergraduate’, ‘literate but below primary’ and graduate and above’ household. Illiterate head of the households is more in Golaghat district as compared to Lakhimpur and Golaghat districts.

- The analysis of educational level of the sample population in the surveyed area shows that on the whole, significant percentage of population is still illiterate. The illiterate population is high under Golaghat district as compared to Lakhimpur and Majuli districts.

- The average size of land holding of the sample households in the surveyed area falls in the small size category. The average size of land holding among the sample households of Golaghat district is slightly higher than Majuli and Lakhimpur districts. Majority of the sample households in the surveyed area owned marginal and small holdings. The percentage of sample households possesses marginal land is the highest in Majuli district as compared to Lakhimpur and Golaghat districts. The percentage of sample households possess small size of land is the highest in Golaghat district as compared to Lakhimpur and Majuli districts.

- On the whole, the percentage of households having bank account in the surveyed area is very impressive. Almost all the sample households in Golaghat district possess bank account followed by Majuli and Lakhimpur districts.

- Regarding implementation of 'PMJDY', it has been noticed that majority of the sample households were opening their bank account under 'Prime Minister Jana Dhana Yojana'**.** Percentage of sample households covered under 'PMJDY' scheme is the highest in Golaghat district followed by Majuli and Lakhimpur districts.

- Limited percentages of households have accessed credit from institutional sources in the surveyed area. Of course, significant percentages of the sample households in Golaghat district have accessed credit from institutional sources.

- Analysis indicates the significance expansion of mobile phone connectivity in the study area. Percentage of households having mobile phone is more in Golaghat district than Lakhimpur and Majuli districts. Golaghat district has the highest percentage of households possessing TV as compared to Majuli and Lakhimpur district. Percentage of households possessing computer/laptop is very low in the study area.

- In respect of livestock possession, the analysis indicates that the average number of cattle found in Majuli district is the highest as compared to Golaghat and Lakhimpur districts. Pig owned by the sample households in Lakhimpur district is more than Golaghat and Majuli districts. The average number of poultry

owned by the sample households of Lakhimpur district is the highest as compared to Majuli and Golaghat districts. The average size of goat holding is very poor in the study area. The average number of goat found in Lakhimpur district is more than Majuli district and Golaghat district.

- Analysis of percentage distribution of sample households as per possession of livestock further shows that cattle is found more in Majuli district as compared to Golaghat and Lakhimpur districts. The percentage of sample households rearing pig is the highest in Golaghat district as compared to Lakhimpur district and Majuli district. The percentage of sample households owned goat is more in Lakhimpur district as compared to Majuli and Golaghat districts. The percentage of sample households possess poultry is comparatively higher in Lakhimpur district than Majuli and Golaghat districts.

- The incidence of migration in search of temporary job outside Assam is significant in the study area. Such percentage is more in Golaghat district as compared to Lakhimpur and Majuli districts.

- Active participation in SHGs and cooperative societies has been noticed in the study area. Majuli district has the highest percentage of sample households participating in SHGs followed by Lakhimpur and Golaghat districts. In case of participation in cooperative societies, the percentage is high in Lakhimpur district in comparison to Golaghat and Majuli districts.

Livelihood Diversification:

- 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 high in Lakhimpur district as compared to Majuli and Golaghat districts.

- Very less percentage of the sample households diversifying their occupation vertically. Golaghat district has the highest percentage of sample households diversifying their occupation vertically as compared to Majuli and Lakhimpur districts.

- Percentage of the sample households dependent on only traditional occupation is found more in Golaghat than Majuli and Lakhimpur districts.
- Analysis indicates that the percentage of the sample households engaged in only non-traditional occupation (vertical shift) is very poor in the study areas.

Implementation of Schemes and Programmes:

- MGNREGA has able to benefit most of the sample households in the study area. Among three districts, a higher percentage of sample households have been noticed in Golaghat district followed by Lakhimpur and Majuli districts.
- The percentage of sample households availing the SGSY, which aims at providing self employment to villagers through the establishment of Self Help Groups is very low.
- Significant percentage of sample households availed PMAY house in the study area. Such percentage is high in Golaghat district as compared to Lakhimpur and Majuli districts.
- The scheme FOIGS, which is specially meant for development of scheduled tribe people of Assam, is not implemented properly in the surveyed area, as limited percentages of households were availing the scheme.
- Analysis indicates that the percentage of sample households reported about the receiving of pre-post matric scholarship by their students is also very low. The percentage of sample households covered under educational development scheme is more in Lakhimpur district than Golaghat and Majuli districts.
- Very low percentages of sample households were electrified under DDUGJ scheme in the surveyed area. None of the sample households were covered under the scheme in Majuli district.
- Limited percentage of sample households get benefitted under the pension scheme.

6.3 Conclusion and Policy Implications:

- It has been observed that the workforce participation rate in the surveyed area is significantly high. This collaborates the finding of Sing (1986:140-141) that in general the proportion of workforce in the tribal population in India is comparatively much more than that of non-tribals". It does not really mean that tribals are better placed in terms of employment. Educational status shows that significant percentage of sample population is still illiterate. Ownership of livelihood assets like land, livestock etc., reveals the poor state of asset base of sample households as a whole in the surveyed area. The standard of living in terms of housing and other basic amenities presents a mix picture. Use of clean fuel is still limited in the study area. Significant percentages of households still defecate in open. Although the majority of sample households have bank account, the access to credit from any institutional sources remains low. Account opened under PMDJY is encouraging. Huge expansion of mobile phone connection has been noticed. Participation in SHGs is somewhat encouraging.

- Incidence of shift of occupation to low paid work and wage earning activities stand as serious problems in the study area. Such activities are often on the threshold of level of subsistence and vulnerable to risk. Such incidence of horizontal shift of occupation is more prominent in Lakhimpur district.

- The incidence of migration in search of temporary job outside Assam has been noticed in the study area. The existing physical environment condition of the areas is the significant influencing factor for such type of incidence. Particularly, flood and erosion of land are the root cause of temporary migration of youths. Ensuring gainful employment is fundamental in improving the quality of life of people.

- Except MGNREGA, the accessibility of other schemes and programmes- like SGSY, DDUGJY, and PMAY has been very limited in the study area. The coverage of special scheme (FOIGS) meant for creating self employment opportunities among the scheduled tribe people has been very limited and

unsatisfactory in the study areas. It shows that the agency involved in execution of special programmes has not been effective in the study locations.

Policy Implications:

- Weak delivery of special schemes meant for uplifting socio-economic status of scheduled tribe population has been the serious matter of concern as reflected in the study. There is an urgent need to rethink the implementation procedure of the schemes for which resources spent for this purposes to give better returns. The agencies involved in execution of tribal development programme need to be strengthened and suitably equipped in terms of wider responsibilities, accountability to people and transparency in functioning (Somasekhor, 2008:135). A proper monitoring mechanism of these schemes may also assure the transparency and accountability of the implementing agencies. There are still many gaps in the coverage of extension services of extension agencies in the study areas.

- The schemes and programmes implemented through Panchayati Raj Institutions (PRIs) have also been found to be less effective in the study area. The SGSY scheme, which aims at strengthening livelihood base of rural people by forming SHGs is not implemented properly. The implementing agencies may ensure the availability of such services to all the poor Mising households. Thus, there exists a strong case for strengthening of Panchayati Raj Institutions, as the socio-economic transformation of rural Mising population group is highly depending upon meaningful functioning of these bodies.

- Emphasis may be given to strengthen the traditional agricultural base economy of the Mising population group to a more resource base economy. Allied activities like poultry, piggery, cattle rearing have the ample scope, which may contribute to their economy to a great extend. There is a strong need of agrarian economy into resource based value added economy (Tiwari, 2013: 28-31). Traditional weaving is another prospect area to need special attention. It has been noticed that most of the households in Lakhimpur district has been engaged in weaving activities. Along with traditional activities of the households

emphasis may be given to create alternative income-generating activities by providing affordable financial services to the people.

- Migration of youths in search of low paid work is the serious matter of concern in the study areas. Flood and erosion are the root cause of such incidence. Educated youths may also be imparted skill development training for better employability. In order to increase employment opportunities and enhance the quality of employment for the growing working age population, adequate training of the youth, and skill formation are essential (India HDR, 2011).

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A. Household Schedule:

Govt. Of Assam
Directorate of Assam Institute of Research for Tribals and Scheduled Castes, Khanapara, Guwahati-22

Research Study on-
Livelihood Diversification among the Tribals Living in Riverine Areas of Assam

1. IDENTIFICATION

(i)	Name of Respondent:	
(ii)	Age	

(iii)	Village:	
(iv)	Gaon Panchayat:	
(v)	Police Station:	

(vi)	Dev. Block:	
(vii)	Sub- Division:	
(viii)	District:	

2. DEMOGRAPHIC PROFILE OF THE HOUSEHOLD: **i) Household Size:..... Male:..... Female:.....**

ii) Details of Household Members:

Sl. No.	**Relationship to Head of the Household**	**Sex 1=Male 2=Female**	**Age**	**Marital Status** [1]=Married [2]=Never Married [3]=Widowed [4]=Separated [5]=Divorce	**Level of Education**	**Occupation/ Activity (Actual Work)**	**Characteristics of Worker**			**Vaccine children Below age-6 (Yes/No) Yes/No**	**Chronic disease (Yes/No)**	**Respiratory Problem Yes/No**	**No. of Sick Days in last 6 months**	**Type of Sickness**	**Source of Health Adviser**
							Work any time during last year 1.<6months 2.>6months	**Migration 0=Temporary 1= Permanent [Mention the Place]**	**Reason 1.Seeking Job 2. For Settlement 3.For study 4. Other**						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)	(11)	(12)	(13)	(14)	(15)
1															
2															
3															
4															
5															
6															
7															
15															

(6) Educational Level (Code)	**(7) Occupation (Code)**		**(11) Chronic Diseases:**	**(15) Source of Health Adviser**
[0] Drop-out	**[0]=**Non-Worker (including infant, student, pensioners, old and disabled)	[7]= Household industry worker	[1]=Diabetics	[1]= Govt. Doctor
[1]=Illiterate (also 0-6 age)	[1]=Cultivation	[8]= Other daily wage labourer	[2]=Malaria	[2]= Private Doctor
[2]=Literate but below primary	[2]= Agricultural labourer	[9]=Carpentry	[3]=Leprosy	[3]= Alternative Practitioner
[3]=Primary to High	[3]= Poultry/Piggery rearing/Cattle Rearing (Animal Husbandry)	[10]= Driver	[4]=TB	[4]=Pharmacist/Nurse etc.
[4]=Matriculates and under graduate	[4]= Service (Govt./Semi Govt.)	[11]=Fishing/Fish business	[5]=Cancer	[5]=Village quack
[5]=Graduate	[5]= Private Service	[12]=Weaving	[6]=HIV/AIDS	[6]=Govt Doctor+ village quack
[6]=Post-Graduate [7] Other (specify)	[6]=Trading &Business(Self Employed)	[13]=Selling Rice Bear	[7]=Jaundice	

3. LANDHOLDING PATTERN:

Sl. No.	Type of ownership	Area (in bighas)
i.	Homestead	
ii.	Cultivable Own	
iii.	Leased-in	
iv.	Leased-out	
v.	Fishery /Orchard	
vi.	Other (specify)	

4. BASIC AMENITIES:

Sl. No.	Category	Type		Use tick (√)
A.	House Structure:	i.	R. C. C	
		ii.	Assam Type Pucca House	
		iii.	Kathca Assam Type	
		iv.	Pucca Chang-Ghar	
		v.	Thatched Roof Chang-ghar	
		vi.	PMIAY provided	
B.	Toilet facility:	i	Sanitary Latrine	
		ii	Katcha Latrine	
		iii	Open	
		iv	Any other (Specify)	
C.	Electrification:	i.	Electrified	
		ii.	Not Electrified	
D.	Sources of Drinking Water:	i.	Piped water	
		ii.	Tube- well	
		iii.	Well	
		iv.	Pond	
		v.	Rivers/Streams	
		vi.	Any other (Specify)	
	Availability of Drinking water source	i.	1=Within the premises	
		ii.	2=Near Premises	
		iii.	3 =Away	
		viii	Do you use any water purifier? Yes/ No	
E.	Fuel Use for Cooking	i.	LPG	
		ii.	Electricity	
		iii.	Kerosene	
		iv.	Firewood	
		v.	Bio-mass	
		vi.	Others (Specify)	

5. POSSESSION OF CONSUMER AND CAPITAL GOODS:

Sl. No.	Consumer Goods	Nos.
1	TV	
2	Cell-Phone	
3	Bi-cycle	
4	Motor cycle/ Scooter	
5	Car	
6	Computer / Laptop	
7	Washing Machine	
8	Refrigerator	
9	Others (specify)	

Sl. No.	Capital Goods	Nos.
1	Sewing Machine	
2	Pump-Set	
3	Power tiller	
4	Tractor	
5	Sprayer	
6	Harvester	
7	Wooden Boat/Ferry	
8	Fishing Net etc.	
9	Others (specify)	

6. PARTICULARS OF HOUSEHOLD LIVESTOCK AND POULTRY:

Sl. No.	Livestock	Nos.	Whether rear for Commercial purpose? Yes/No	(Sold last year)
(i)	Cattle			
(ii)	Buffalo			
(iii)	Goat			
(iv)	Pig			
(v)	Poultry			
(vi)	Others (Specify)			

7.1 EXPENDITURE ON FOOD ITEMs:

Sl. No.	Item	Consumption Pattern (Last week)				Approximate Expenditure (in Rs.)
		Total consumed (in K.G/Nos./ Litre)	Sources (√)			
			Own	Purchased	PDS	
1.	Egg					
2.	Milk/Salt					
3.	Rice					
4.	Sugar /tea leave					
5.	Fish/ Meat					
6.	Pulses					
7.	Edible Oil					
8.	Potato					
9.	Fruit					
10.	Any other (specify)					

7.2 EXPENDITURE ON NON-FOOD ITEMS:

Sl. No.	Head	Category	Approximate Expenditure (in Rs.)
1.	Fuel item (last months)	Fees of Electricity Lighting	
		Kerosene/Gas Cylinder	
2.	Education (last six months)	School fee etc.	
		Other reading materials etc.	
		Any Other (specify)	
3.	Communication (last six months)	Phone bill (**last month**)	
		Travelling	
		Any Other (specify)	
4.	Health (last six months)	Health Consultation	
		Any other (specify)	
5.	Intoxicants (last six months)	Tobacco	
		Liquor / Wine	
		Rice beer	
		Any other(specify)	
6.	Dress/ Ornaments (last six months)		
7.	Socio-Religious Functions (last six months)		
8.	Entertainment		
9.	Construction of Houses (last six months)		
10.	Any other (specify)		

8. CROPS DETAILS:

Sl. No.	**Crops**	**Area** (in bigha)	Irrigated **Area** (in bigha)	**Fertilizer Used Yes/No**	**Pesticide Used** (Yes/No)	**Marketable Surplus (Yes/No)**
(i)	Autumn Rice **(Ahu)** Traditional					
	Autumn Rice (**HYV)**					
(ii)	Winter Rice **Sali**					
	Bao paddy					
	Winter Rice (**HYV)**					
(iii)	Summer Rice **(Boro paddy etc.)** Traditional					
	Summer Rice (**HYV)**					
(iv)	Wheat					
(v)	Pulses (pea, black gram)					
(vi)	Oil seed (mustard)					
(vii)	Jute					
(viii)	Vegetables					
(ix)	Sugarcane					
(x)	Any other (specify)					

(B) If irrigated,

What type of Irrigation facilities mainly use for cultivation?

Sl. No	Item	Owned/ not owned	Total No.
(i)	Pump set		
(ii)	Shallow Tube well		
(iii)	Man power		
(iv)	Govt. Schemes		
(v)	Others		

(C) Did you receive any assistance from Govt. /MAC/NGOs etc.? Yes/No

(D) Sources of Extension Service:

Sl. No.	**Items**	**Source***
(i)	Advice regarding crop/variety to be grown	
(ii)	Dose of fertilizer application	
(iii)	Pest & pest control	
(iv)	Other farming matters	

* 1: Self advice 2: Fellow farmers 3: Extension worker/officer4: trader 5: FMC or any other farmers' organization 6: Marketing agencies including contract farming

(E) Sources of Agricultural Finance:

Sl. No.	**Sources**	Yes/No
(i)	Self finance	
(ii)	Borrowing from money lenders	
(iii)	Borrowing from traders	
(iv)	Borrowing from Bank	
(v)	From SHG	

9. Is there any Cottage Industry in the Household?

Sl. No.	Type	Yes/No
(i)	Weaving	
(ii)	Bamboo and Cane	
(iii)	Silk industry	
(iv)	Carpentry	
(v)	Rice mill	
(vi)	Others.(specify)	

Did you receive any assistance from Govt. /MAC/NGOs etc.? ☐ ☐

10. FINANCIAL INCLUSION STATUS:

10.1 Particulars of Savings:

(i) Do you have any Savings Accounts in Post Office/Bank etc.? Yes ☐ No ☐

If Yes, Do you save money regularly? Yes ☐ No ☐

(ii) Since when the household is having bank account?.....

(iii) Whether Account is opened under "**Dhana Jana Yojana"**? Yes ☐ No ☐

10.2 Whether household is having ATM Card? Yes ☐ No ☐

10.3 Particulars of Access to Credit:

(i) Did you receive any loan in cash or kind from any sources during the last five year?

Yes ☐ No ☐

If yes, Give Details of the Following-

Sources	**Institutions**	**Use Tick(√)**	**Purpose of loan**	**Outstanding (Yes/No)**
Institutional	(i) State Bank of India			
	(ii) Assam Gramin Vikash Bani			
	(iii) United Bank of India			
	(iv) Punjab National Bank			
	(v) Self-Help Groups			
	(vi) Samabay Samittee			
Non-Institution	i) Village Moneylender			
	ii) others (specify)			

11. MIGRATION:

(If any member of household migrated)

i) Since when the member of household migrated -
(a).....
(b).....

ii) Whether migrant send money regularly? Yes ☐ No ☐

iii) If Yes, Whether remittance received from migrant is sufficient? Yes/No

iv) Remittance received per month [Use tick (√)]
[Below Rs. 5000] [5000-10000] [10000-15000] [15000-20000] [above 20000]

12. PARTICIPATION IN PRIs:

A) Gaon Panchayat:

(i) Do you know the -
a) President of Panchayat? Yes/No
b) AP member? Yes/No
c) ZPC member? Yes/No

(ii) Do you know your Panchayat member? Yes/No

(iii) Has he/she visited in your house last sixth months? Yes/No

If yes,
How many times during last sixth month? (One time /2 times/3 times/ 4 times)
State……

13. Whether household is associated with the following organizations-

Sl. No.	**Organizations**	Yes/No
(i)	SHG	
(ii)	Cooperative Societies	
(iii)	NGO	
(iv)	Member of Govt. Committee (SMC/FMC)	
(v)		

14. Whether household member has received any formal training on skill development?

Yes ☐ No ☐

15. Subscription of Newspaper (Use Tick):

(0) None (i) Assamese Daily (ii) English Daily (iii) Weekly (v) Magazine

16. COMMUNITY SUPPORT PRACTICES:

Sl. No.	Cooperation in-	Participated Yes/No	Received practices (Yes/No)
i.	Ploughing		
ii.	Harvesting of paddy /cleaning of paddy field etc.		
iii.	Construction of House / providing materials		
iv.	Socio-religious function		
v.	Any other (specify)		

17. ROLE OF AUTONOMOUS COUNCIL:

(a) Are you aware of the various Schemes/programmes implemented through Mising Autonomous Council (MAC) meant for your community? Yes/No

(b) Have you benefited from following Schemes/Programmes implemented by MAC?

Sl. No.	**Sector**	**Sector-wise Activities**	**(Yes/No)**
i.	Agriculture	Power Tiller/Tractor, Procurement of Seed, distribution of seed etc	
ii.	Education	Any educational facilities	
iii.	Handloom and Textile	Cotton yarn, infrastructure of weaver	
iv.	Sericulture	Muga reeling Machine, Seed Distribution	
v.	Health and Family Welfare	Any health facilities	
vi.	Any other (Specify)		

18. DEVELOPMENT PROGRAMMES AND SCHEMES:

Under which of the following schemes/ programmes of Government, you and your family members covered?

Sl. No.	Schemes/Programmes	Yes/No
i.	MGNREGA	
ii.	PMG Awaaj Yojana (IAY)	
iii.	Family Oriented Income Generating Scheme (FOIGS) of WPT&BC (through ITDPs and SDWOs)	
iv.	Deen Doyal Upadhyay Electrification Scheme	
v.	Pradhan Mantri Ujjwala Yojona	
vi.	Scholarship (through ITDPs and SDWOs)	
vii.	Old-age Pension Scheme	
viii.	SGSY	
Ix	Maternity benefit Scheme	
x.	Any other scheme (specify)	

Govt. of Assam
Directorate of Assam Institute of Research for
Tribals and Scheduled Castes, Khanapara:: Guwahati 22
Research study on
"Livelihood Diversification among the Tribals Living in Riverine Areas of Assam"

B. Village Schedule:

1. Identification:

i)

Name of the informant	Age	Sex	Caste/Tribe	Education	Occupation

ii) Name of the Village ……..
iii) Gaon Panchayat ……..
iv) Police Station ……..
v) Development Block ……..
vi) Sub-Division ……..
vii) District ……..
viii) Total No. of Household
:……

i	Total no. of Mising Tribe household	
ii	Total no. of ST household	
iii	Total no. of SC household	
iv	Others (Name of other Communities)	

ix) Total no. of **BPL** house hold …….
x) Population

Sl. No.	Category	Population		
		Population	Male	Female
i	Mising			
ii	Scheduled Tribe			
iii	Scheduled Caste			
iv	Others			
v	Total Population			

2. Total Area of the Village : …… (In Hectare/ Bigha)

3. Transport and Communication facilities:

Sl. No.	Distance from the Village:	In Kilometer
i	Nearest motorable road	
ii	Nearest Transport Station	
iii	Nearest Railway Station	
iv	Block office	
v	Sub-Divisional Head quarter	

4. Conditions of Road to the Village:

Sl. No.	Conditions of Road to the village	Use Tick(√)
(i)	Foot Track	
(ii)	Katcha fair weather motorable road	
(iii)	Katcha all weather motorable road	
(iv)	Graveled road	
(v)	Other (Specify)	

5. Main Sources of Drinking Water Facilities:

Sl. No.	Sources	Use Tick(√)
(i)	Tube-well	
(ii)	Water Supply Scheme	
(iii)	Tank/ Pond/River	
(iv)	Well	
(v)	Other (specify)	

7. Village Electrification:

Sl. No.	Village Electrification	Use tick(√)
(i)	Not Electrified	
(ii)	Electrified and Regular supply	
(iii)	Electrified but Irregular supply	

8. Educational Facilities:

Sl. No.	Educational Institution	Total Nos.	Distance (in km.)from the Village (if not in the village)
(i)	Primary School		
(ii)	Middle School		
(iii)	High School		
(iv)	HS School		
(v)	College		
(vi)	Anganwadi		

9. Heath Facilities:

Sl. No.	Health Institutions	Yes/No	Distance (in km.)from the Village (if not in the village)
[i]	Sub-Centre		
[ii]	Primary Health Centre		
[iii]	Govt. Dispensary		
[iv]	Private Clinic		
[v]	Private Hospital		

10. Civic, Banking and Other Facilities:

Sl. No.	Facilities	Within Village/Distance from the Village (in K.m)
(i)	Post Office	
(ii)	Bank	
(iii)	Pharmacy/Medical Shop	
(iv)	Weekly Market	
(v)	Fair Price Shop	
(vi)	Agro-service centre	
(vii)	Book stall	
(viii)	Mobile repairing centre	

11. Is there any common land/beel in the village?

Yes ☐ No ☐

If yes, who is responsible for control over and management of land/beel?

……

ii) Do you think that they are capable of solving any socio-economic matters in the village?

Yes ☐ No ☐

12. Religion:

a)

Sl.No.	Religion	Use Tick (√)
i)	Hinduism	
ii)	Christianity	
iii)	Buddhism	
iv)	Any other (Specify)	

b) Religious Institution:

Sl. No.	Name of Religious Institution	Total Nos.
i.		
ii.		
iii.		

13. Whether the village is having any tourist place:
Yes/No

If yes, mention the name of places.

i) ……..

14. Nearest River in the Village:

Sl. No.	Name of River	Distance from the Village
i		
ii		

15. Socio-Cultural and Political Institutions in the Village:

A) Gaon Panchayat:

i) Do you have Gaon Panchayat in your village? Yes ☐ No ☐

iii) Have the President of GP/ GP Member visited in your village during last sixth month?

Yes ☐ No ☐

If yes, a) How many times during last sixth month?
State……..

b) Have you discussed any socio-economic problem of the village?

Yes ☐ No ☐

vi) Does the Panchayat take active part in promoting welfare of the families in the village?

Yes ☐ No ☐

B) Gaon Sabha:

i) Is there any Gaon Sabha in the village? Yes ☐ No ☐

If yes,
Whether meeting held regularly? Yes ☐ No ☐

If yes, how many times last six months?
……..

C) Socio-Cultural Institution:

Sl. No.	Institution	Yes/No
1	Murong Ghor	
2	Community Hall	
3	Any other (specify)	

16. Grass Root Level Organization:

(i) Are there any following organizations, working in the village?

Sl. No.	Name	Nos.	How many are functional?
i.	NGO		
ii.	SHG		
iii.	Youth Organisation		
Iv	Mahila Somittee		
V	Farm Management Committee		
vi	Matri Gut		

17. Role of Mising Autonomous Council:

a) Whether villagers get benefited from the following activities of Mising Autonomous Council?

Sl. No.	Sector	Sector wise activities	Get Benefited (Yes/No)
i.	Agriculture	Power Tiller/Tractor, Procurement of Seed	
ii.	Education	Construction and Repairing of School, hostels	
iii.	Handloom and Textile	Cotton yarn, Infrastructure of weaver	
iv.	Sericulture	Muga reeling Machine, Seed Distribution	
v.	Health and Family Welfare	Construction of Health institution, Health Camp	
vi.	Water Resources	Protection of erosion	
vii.	PWD	Construction of Bridge/ Culvert/ Road etc.	
viii.	Any other (Specify)		

b) Do you think that the schemes are implemented properly?

Yes ☐ No ☐

17. Implementation of Govt. Schemes in the Village:

a) Whether the following schemes are implemented in the village?

Sl. No.	Schemes/Programmes	Yes/No
i.	MGNREGA	
ii.	PM Awaaj Yojana (IAY)	
iii.	Pradhan Mantri Gram Sadak Yojana	
iv.	Infrastructural Development Scheme (through **ITDP** & **SDWO**) Construction of Bridge/ Culvert/ Road etc.	
v.	DDUGJY	

Any other information:

Collected by:……..

Date:……

Supervised by:…….

Date……