



Research Paper

An Analysis of the Household Choice and Determinants of Livelihoods Diversification Activities of the Galo Tribal People, India

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Abstract

Though many scholars have written several articles on the livelihoods activities of the tribal population, only a few have tried to offer an outsider in-depth analysis of the livelihoods of tribal people, specifically those in North East India. The few research on this topic mainly focused on the challenges being faced by tribal communities without paying attention to how the tribes are manoeuvring their vast challenges in their livelihoods, opportunities and the constraints they face in doing so. The study is very significant as no study has been done; it will fill the literature gap in providing livelihood options analysis using the rural sustainable livelihood approach. This research triangulate both qualitative, quantitative, and records review methods of data collection to try and give a detailed analysis of the livelihoods activities of tribal populations of India. The data was analysed using logistic regression model. This study has identified that a variety of livelihood options and skills determine the type of the economy in an area with most people adopting a combination of different options. There is need for formulation of policies that programs to assist tribal people with skills trainings, market linkages and support as a way of streamlining their livelihood options as most of them does not have access to the markets outside of their tribal areas.

Keywords: Livelihood activities; Household; Choice; microeconomics

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I. INTRODUCTION

The research seeks to do an analysis of the livelihoods activities of the tribal communities of Arunachal Pradesh, specifically paying attention to the Galo Tribal people of Upper Siang, Arunachal Pradesh, India.

II. METHOD OF STUDY

The Research employed a mixed methods approach in which qualitative and quantitative approaches were utilised to do a comparative analysis of the livelihood's activities of the tribal communities. The Galo tribe was purposively selected as the researcher believes that their inclusion was to be able to portray a complete picture of all the tribal communities of the North East India context. Both Primary and Secondary data sources were used be explored in this research. A survey method with purposively selected 100 respondents was used to collect statistical data. 3 Key Informant Interviews with tribal leaders were conducted to collect key information about the tribal people (Manyange *et al.*, 2021). Secondary data sources such as government publications, international publications as well as other secondary data sources were used. Primary data sources such as observation, Key Informant interviews with tribal populations and Focus group discussions with people from tribal villages was also used to gather livelihoods activities of the tribal populations. Thematic data analysis

approach was used to analyse qualitative data and logistic (logit model) regression model was used to analyse quantitative data.

2.1 Study Area and Target Population

The study was conducted in the Borajan Adigaon area of West Siang district of Arunachal Pradesh State, Northeast India. According to government official sources, there are 87 households and a total population of approximately 500 Galo tribal people living in this area. Historically these people are known to have migrated from Tibet to settle in the Lowe Siang Region of the Arunachal Pradesh, India. The study area is presented in Figure 1.



Figure 1: Map showing the study Area.

III. RESEARCH FINDINGS

From the respondents given by participants, the researcher noted that, the reason for engagement into a specific livelihood option varies depending on the socio-demographic background of the respondents.

Table 1: Socio-Demographic Distribution of Respondents

Characteristics	Number
Age	
20-25	20
25-30	30
35-40	27
40+	33
Sex	
Male	57
Female	43
Marital status	
Never married	10
Married/ In Union	80
Divorced	10
Income	
1000-10 000	21
10 000-20 000	33
20000-30000	18
30000-40000	28
40 000+	
Total	100

Distribution of Respondents by Education levels

The majority of the respondents had secondary and higher secondary qualifications. The least had graduation qualifications. This is represented by Table 2.

Table 2: Distribution of respondents by level of education

		Frequency	Percent
Valid	Never been to school	23	23.1
	Primary	15	15.4
	Secondary/High School	54	53.8
	Graduation	8	7.7
	Total	100	100.0

Distribution of Respondents by religion

The majority of respondents were of Hindu Religion (53.8%) and Christians were only 46.2%. This is diagrammatically shown by Table 3.

Table 3: Distribution by Religion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hindu	54	53.8	53.8	53.8
	Christian	46	46.2	46.2	100.0
	Total	100	100.0	100.0	

Distribution of Respondents by Tribe

The respondents mainly were members of Scheduled tribe (ST), this can be shown by 56.6% of the respondents who belongs to the S T category and only 46.6% who belonged to the S. C category. This is shown in table 4 below.

Table 4: Distribution of respondents by tribe

		Frequency	Percent
Valid	S.T	54	53.6
	S.C	46	46.4
	Total	100	100.0

Distribution of Respondents by Family Size

The majority of respondents (53.8%) had the family size of 4-5 members; this was followed by 30.8% of the total respondents who had 2-4 members. This information is shown in Table 5.

Table 5: Distribution of respondents by family size

Family Size	Frequency	Percent
1	7	7.7
2-4	31	30.8
4-5	54	53.8
5+	7	7.7
Total	100	100.0

Prevalence of livelihood activities and skills

The researcher identifies 8 prevalent Informal trading livelihood activities that are considered important in the study area. As evident from the table 6, Vegetable marketing and Livestock meat are some of the most prevalent forms of trading.

Table 6: Main Informal trading activities

Main Trading Options	Percentage	Frequency
Vegetables Marketing	20%	20
Fish Marketing	10%	10
Marijuana Trading	20%	10
Traditional Beer Trading	20%	20
Small shops	20%	20
Chicken Trading	20%	20
Pork trading	9%	9
Cooked food Marketing	2%	2

Other Livelihood Activities

It was observed that, the Galo tribal people exercised livelihoods diversification to foster sustainability and resilience. Different livelihood options observed by the researcher in the study area includes livestock rearing, gardening and home construction, informal trading, formal trading, Formal employment, remittances were the most prevalent livelihood activities in the study area.

The researcher observed that, the main 4 livelihood options that formed the backbone of the economic activities of the Galo tribal people were cropping, livestock rearing, home construction and market gardening. These according to the male respondents were the livelihood activities that give them the most income. Of importance is that the predominant livelihood activities among females and males are the same, but the priority order differed according to gender. Also, men were dominant in the livelihood activities such as, fishing and hunting, Chicken selling, Pork selling and women were predominantly engaged in Beer selling, small shops and vegetables marketing. However, the importance of fishing and hunting activities has been put in check by the fact that the activities are rather specialized and the fact that fishing and hunting have become progressively restrictive.

Diversification of livelihood activities

Livelihood diversification strategies are pursued by both males and females while others are gender specific. For instance, formal employment, agriculture, piecework, and other activities are carried out by both male and females. On the other hand, the selling of poles, devils claw and conservancy are either carried out by males or females.

Table 7: Distribution of respondents on livelihood diversification options

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agriculture	77	76.9	76.9	76.9
Remittances	23	23.1	23.1	100.0
Total	100	100.0	100.0	

Factors affecting the choice of livelihood activities

The researcher has identified different factors that were highlighted by respondents as determinants of the choices of livelihood option to engage in. The majority of the respondents (38.5%) highlighted that; the inadequacy of the family income has pushed them to engage into livelihood options diversification. When asked why they engaged in informal marketing as a livelihood option, one researcher observed that:

“my husband is a teacher, and the income is not enough for us to take care of our parents and children, therefore, we engage in informal trading during the weekends and holidays to supplement our family income”

23% of the respondents highlighted that there were no employment opportunities, thus their they did not have much of choice but the hardships of life forced them into their livelihood option. One young man who engages in Marijuan farming as a livelihood option highlighted:

“I have no education, there is no company that can employ me, I am the only child taking care of my elderly parents, this ganja business is our only source of hope and only livelihood option, my whole family survives from the income I get from this business”.

Table 8: Factors affecting the choice of livelihood activities

Reason for Diversification	Frequency	Percent	Valid Percent	Cumulative Percent
It is my only source of income	23	23.1	23.1	23.1
To supplement family income	39	38.5	38.5	61.5
No education to get formal education	15	15.4	15.4	76.9
No employment opportunities	23	23.1	23.1	100.0
Total	100	100.0	100.0	

Assets from Livelihood option

The participants reported that because of Informal trading, they purchased different assets. This was identified as one of the livelihood options that gave them enough to buy resources. One respondent indicated that that: *‘ever since I started engaging in informal trading, I have been able to by a motorcycle, something I was not able to do from the 10 years I have been farming’*.

Types of assets bought from informal trading can be shown by table below.

Table 9: Types of Assets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bicycle	23	23.1	23.1	23.1
	Bike	15	15.4	15.4	38.5
	Building	23	23.1	23.1	61.5
	Building h	39	38.5	38.5	100.0
	Total	100	100.0	100.0	

IV. DISCUSSION OF RESEARCH FINDINGS

Livelihood activities and skills are important in determining the livelihood opportunities, improve family income, decrease poverty, enhance employability, and promote sustainable development of tribal populations. In order to improve the availability of livelihood options among the tribal people, research by (Woldenhanna, and Oskam, 2001) observed that, there is need for coordinated efforts by all sectors of the economy to build and integrated approach that improves the education and training of all rural tribal households.

It has been observed that, livelihood skill development in tribal areas requires a mix of types of skills provisions using innovative methods of delivery through social institutions (Hussein, Karim and John Nelson, 1999). The patterns of livelihood options and income sources diversification among tribal households in Galo community showed, to have a sustainable lifestyle, the majority of the households have diversified income sources using a combination of livelihood activities and skills.

In terms of the ability to pursue different livelihood activities and skills, respondents were asked to list activities and skills available in their households. As expected, respondents indicated that they combine a variety of livelihood activities and skills to access new opportunities for income generation to improve their diverse livelihoods. Prominent livelihood activities and skills mentioned include cropping and livestock rearing, home construction and gardening, all three of which are part of the culture. However, other livelihood activities such as weaving, wood carving, fishing, traditional medicines, sewing, hunting, craft making, and carpentry are flexible and easy to carry out.

Analysis of the types of livelihood activities of respondents revealed that more than half were engaged in agriculture as their primary occupation, indicating that the skills associated with cropping and livestock rearing are predominant. This is expected as most households in rural areas in the Northeast India Region depend mainly on agriculture as their primary source of livelihood. However, literature has shown that diverse income portfolio creates more income and distributes income more evenly (Hussein, Karim and John Nelson, 1999). Thus, it is easier to adopt the combined livelihood activities than switching full time between either of them. In line with this, only 5 % of the respondents obtained income from one source (cropping and livestock rearing), whilst 95 % of the respondents engaged in a combination of farming and non-farming activities.

Most of the respondents had various reasons for diversifying into other activities. Some of these reasons include limited agricultural income, limited skills, large family size, and availability of opportunities, seasonal nature of agricultural produce, favourable demand for goods and services or a combination of these (Ouru & Mose, 2021). The most important reason for diversification highlighted by the respondents, that is consistent with the findings of the research by (Barrett, Reardon and Webb, 2001) was the limitedness of the agricultural income and limited skills availability among the tribal populace (Ouru & Mose, 2021).

In an interview, one of the Key Informants said “If people do not get good returns on crops, they engage in other activities such as home construction, informal trading.... Instead of wasting on less beneficial less income activity”. The findings of the research are in line with other research such as that conducted by (Chambers and Conway 1992) which observed that; education and government job are the most important contributors of more remunerative and skilled employment in India. Thus, societies where education opportunities are few, there is a tendency of the people to engage in less lucrative livelihood options as the case with the Galo tribal people.

Thus, education has consistently been highlighted as the pathway for better paying job opportunities that require formal schooling. The significance of education as established in the study both formal academic education and workplace skills, for improving livelihood prospects is established by a great number of studies (Makunika, 2020) and poverty is closely associated with low levels of education and lack of skills. By consequence, educated household heads were expected to understand better livelihood requirements and have the capacity to analyse the net benefits of activities before they make final adoption decisions (Toner, 2002) As such, they are likely to adopt more activities than the illiterate households.

The research has shown that, rural households’ access to education and training is often limited by financial barriers (such as training and transportation costs) and non-financial barriers (such as scarce education and training infrastructure and inflexible training schedules) (Makunika, 2020), this was consistent with the findings of this research. On the other hand, the opportunity costs for education and training for tribal children and adults may be too high to give up their income-generating activities may be too high to give up their livelihood-generating activities and uncompensated duties to sustain the family income. As indicated by the research findings, most tribal people do not attain higher levels of education, this reduces their access to technical and vocational training or skills that are essential for entrance into formal employment and livelihood options (Niehof and Price, 2001).

From the findings of the research, it can be noted that, there is need to integrate skills development into rural development policies and strategies, such as Agricultural policies, entrepreneurship policies, tourism management and development policies. Furthermore, there is need to strengthen coordination and collaboration between tribal and non-tribal development initiatives to attract private sector investment into tribal areas development initiatives to increase the relevance of training, and to improve and facilitate its delivery among tribal households. Other research by Makunika (2020) concurred with the findings of this study and reiterated that, the collaboration between government, non-governmental organisation, and communities in a platform where they can harmonize their skills, capacities and resources is indispensable to facilitate effective capacity development in tribal population centred efforts. This will enhance communities set up their own capacity needs and aspirations based on what they identify and aspire for their community development.

V. REGRESSION ANALYSIS OF FINDINGS

The output of the study’s logistic (logit) regression model showed that after adjusting the effect of factors, age and gender were reported to highly impact the choices of livelihood options ($p < 0.005$). Despite the influence of age, on livelihood option, the odds reduced by a factor of 0.449 with a unit increase in age. Be that as it may, it was observed that, marital status, education and family background has minimal impact on the livelihood options by the tribal people ($p > 0.005$). Informal trading was significantly influenced by sex and age ($p < 0.005$). House making (Building) and weaving as alternative livelihood options were observed to be significantly influenced by the education levels and age of the respondents (participants). ($p < 0.005$) where the odds were 1.642 more likely with a unit increase in age; whereas type of trading as a livelihood option was significantly influenced by gender and marital status ($p < 0.005$).

VI. CONCLUSION AND RECOMMENDATION

In conclusion, this study has identified that a variety of livelihood options and skills determine the type of the economy in an area with most people adopting a combination of different options. The findings of the study contribute to an already rich body of knowledge that seeks to address rural development in India and other tribal areas under the same levels of economic and social conditions. The study highlighted that, cropping alone is not an adequate source of income, thus communities need to diversify in order to ensure sustainability and resilience in tribal societies and households. To fight against household poverty, the diversification of livelihood option proved to be a viable option that enables families to buy asserts, something that proved difficult when only relying on traditional sources of income.

The introduction of Agricultural technology and innovative solutions to rural livelihoods has been identified as key in creation of supplementary family income. This can be achieved through training of rural people of supplementary sustainable rural livelihoods options that gives the rural people skills that can enable them to venture into non-agricultural economic activities.

The key research findings in the study were that there were various determinants of livelihood options among the tribal people, the options available to people varied according to Gender, age, education level, family background among other factors. Thus, there is need for demographic factors-based interventions that try to address the disparities between different age groups to enhance their participation in high income livelihood options.

This study can act as a baseline that inform policy formulation that inspired by the need to further support the tribal populations as most of them does not participate in the mainline economy of their countries. There is need for formulation of policies that programs to assist tribal people with skills trainings, market linkages and support as a way of streamlining their livelihood options as most of them does not have access to the markets outside of their tribal areas. More so, there is need for deliberate efforts by the private sector to invest rural based income generating activities to enhance the diversification and living standards of the tribal societies.

Areas for Further Research

Similar case studies should be conducted across various regions of Northeast and India in general, to understand how livelihood skills impact rural households to make informed decisions for sustainable livelihood development.

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