

## CHAPTER 2

### RESEARCH DESIGN

#### 2.1 INTRODUCTION:

This study attempts a holistic analysis and understanding of rural livelihood systems. As already discussed, the fundamentals of ‘Sustainable Livelihoods Framework’ were adopted as the guiding model for the study. Early literature on livelihood systems shows methodologies followed in such research were either rich in quantitative or were adamantly qualitative. However, from the beginning of the current century there evolved a mixed approach of understanding livelihoods (Murray, 2001). Decentralisation, policy implementation, and the power relations that permeate policy process and impact are some of the recent focus areas of Sustainable Livelihoods Research (Hussein, 2002). There are, however, many parts of India where very few detailed village-based studies of agrarian conditions have been conducted over the last two decades (Rawal, 2013).

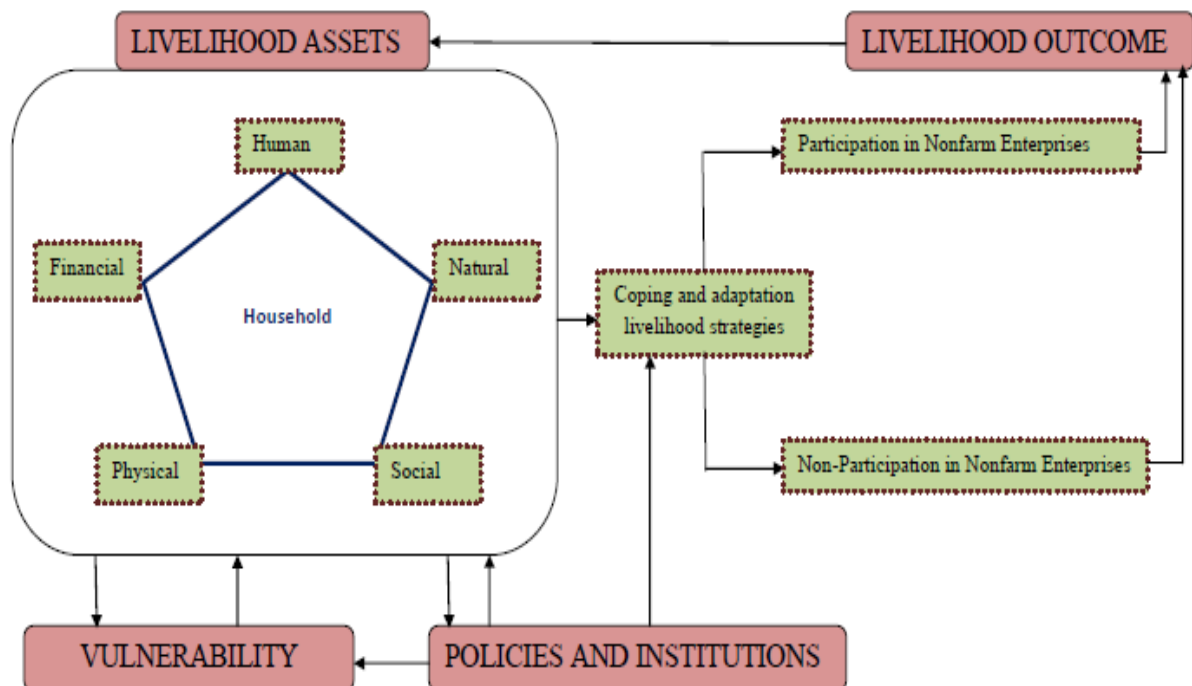


Figure 2.1- Sustainable Livelihood Framework adapted for the study

## 2.2 STATEMENT OF THE PROBLEM:

From the review of existent literature it is clearly evident that there is some anomaly in the overall approach of development planning and implementation in the hill districts of Assam. The fact that majority of their population are tribals, having their own indigenous way of living and are dependent on a wide variety of natural resources for their livelihoods makes it an important and interesting subject to study so as to have a deeper understanding on their livelihoods. Gumoi (2010) opined that the poor tend to be the most dependent (directly and indirectly) on natural resources and the environment. Their livelihood strategies are diverse and often complex reflecting the variation in opportunities available.

This study attempts to divulge a micro-level understanding of the livelihood situation in the districts by the analyzing the components of livelihood capitals determining the livelihood options of the poor. It also seeks to understand the role played by nonfarm enterprises in livelihood development in these areas. Finally, it attempts to investigate constraints for livelihood development and offer some policy suggestions.

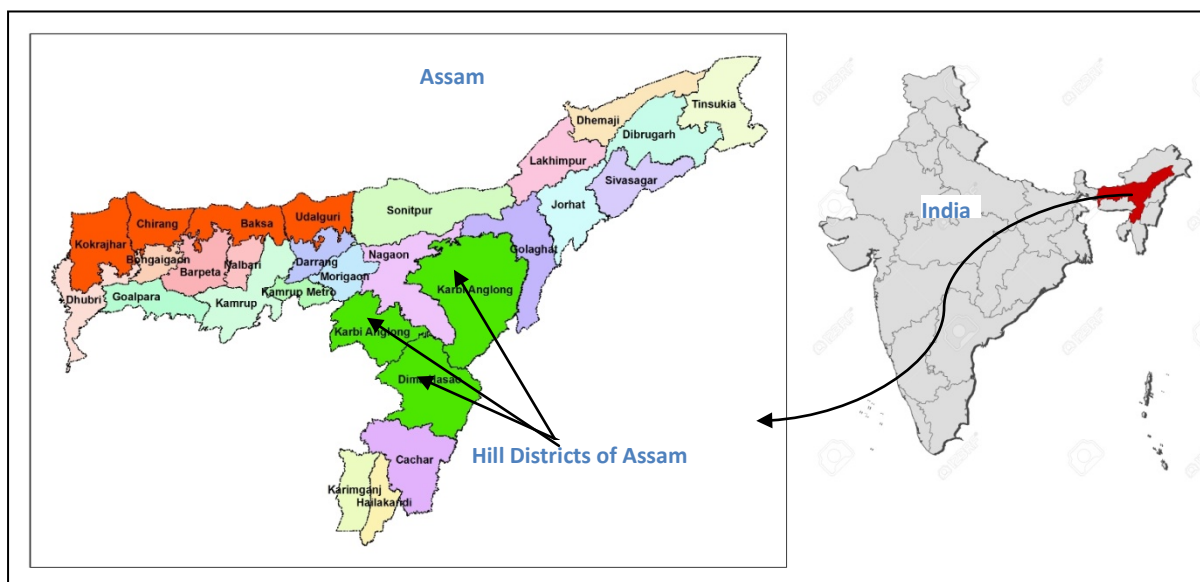


Figure 2.2-Map showing Hill Districts of Assam

Source: Assam Map ([www.brandbharat.com](http://www.brandbharat.com)), India Map ([www.123rf.com](http://www.123rf.com))

Studies have shown that rate of adoption of nonfarm enterprises vary with respect to the geographical location of the population, those in close proximity to urban areas have shown higher incidence of nonfarm enterprises as compared to those far away from urban areas (Ellis, 1999). A similar methodology was employed a study of 50 villages located in the peri-urban areas of Tanzania's six largest cities and it was found that the most distant group had only half the per capita income of the nearest group (Lanjouw et al., 2001). Another study in Thailand showed differences in participation in regional nonfarm agricultural wage employment in peri-urban and remote rural areas (Lohmann and Liefner, 2009). Speaking about spatial livelihood differences based on spatial gradients such as urban and rural centres, valley-bottom and mountain-top etc., Bahadur (2011) stressed the importance of studies based on different spatial gradients of an area so that location-based problem solving strategies can be tested. Variation in nature of rural nonfarm livelihoods was also reported in Romania (Bleahu and Janowski, 2002) and in a study by Foster (2011). Therefore, for better and detailed understanding, we have tried to have sample representations from both near and far from urban centres.

From ecological conservation point of view, the study has tried to address and propose a better sustainability strategy for nonfarm enterprises in the hill districts, thus, presenting an alternative 'weaning-away' strategy from traditional *Jhum* cultivation.

### **2.3 OBJECTIVES OF THE STUDY:**

1. To undertake livelihood assessment and to examine the role of nonfarm enterprises in livelihood development in hill districts of Assam.
2. To examine the effectiveness of livelihood development initiatives in nonfarm enterprise sector in the hill districts.
3. To determine the barriers and constraints for the sustenance and development of nonfarm enterprises in hill districts.
4. To propose a strategy for sustainable nonfarm enterprises in hill areas.

## 2.4 RESEARCH QUESTIONS:

The research questions addressed by the study are:

1. What is the current livelihood situation<sup>1</sup> in the Hill districts?
2. What is the current state of nonfarm enterprises in Hill districts of Assam? What is the share of nonfarm income to total household income?
3. What is the role of nonfarm enterprises in asset holding of households?
4. Which factors influence, acting as “pull” and “push” factors, adoption of entrepreneurial activities?
5. What are the initiatives taken by various agencies for the development of livelihoods through nonfarm enterprises in the study area?
6. What is the effectiveness of such initiatives in the study area?
7. What are the specific barriers and constraints faced by the entrepreneurs in hill areas?
8. What are the potential nonfarm enterprise-subsectors that may be adopted in the study area?
9. What kind of strategy will be useful to bring in sustainability to the nonfarm enterprises with special reference to hill areas?

## 2.5 SCOPE:

The study mainly focuses on livelihoods in hill districts of Assam – Karbi Anglong and N.C Hills.<sup>2</sup> It tries to understand the variability of access to various livelihood capitals by households located near and far from urban centres and its effect on livelihood strategies in both type of locations. It also tries to divulge understanding of nonfarm enterprises, their role in the overall livelihoods of households, initiatives facilitating such enterprises and the problems faced by in the hill districts.

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<sup>1</sup> Situation analysis is generally, going to a specific context as ‘blank’ as possible-i.e. with few preconceived notions about the nature of the interactions between and among people, institutions and eco-systems and attempting to understand the key issues and processes relevant to the context.

<sup>2</sup> On 15<sup>th</sup> August, 2015, Ex-Chief Minister of Assam, Tarun Gogoi declared the formation of a new administrative hill district named. ‘West Karbi Anglong’ with Hamren as its headquarters. However, it shall remain under the official jurisdiction of Karbi Anglong Autonomous Council. Therefore, will be no implication on the current study as development activities taken up 30 departments will still be under KAAC’s jurisdiction and findings and suggestions have been made with a macroscopic view of hill districts.

## **2.6 LIMITATIONS:**

The study focuses only on the livelihood development through nonfarm enterprises and avoids detailed investigation on farm based, NTFP based and ‘salaried’ livelihoods in the hill districts. Since, only rural areas were covered, nonfarm enterprises present in such areas qualified for the study.

## **2.7 METHODOLOGY:**

The study was exploratory, as it tried to define the research problem more precisely, identify alternative courses of action and develop research questions based on secondary data and primary qualitative exercises. It was also descriptive in nature because hypotheses developed through exploratory research needed to be statistically tested. A primary household survey was conducted to quantify key variables and derive inferences through statistical tests.

The study achieved its first objective of understanding the livelihood situation and the role played by non-farm enterprises in livelihood development of the hill population by conducting Participatory Rural Appraisal (PRA) exercises, employing other qualitative tools and primary household survey in the selected villages of both the hill districts. Participatory research methods are inherent in the SL approach (Lax and Krug, 2013). The qualitative information was triangulated with quantitative information from primary household survey. Further, necessary statistical analysis were undertaken to divulge the role played in nonfarm enterprises. At the end of this analysis, the characteristic features of nonfarm enterprises, which operate in the hill districts, were discussed. This included their sectors, type, location, seasonality etc.

Upon establishing the nature and characteristics of nonfarm enterprises that exists in the hill districts, attempt was made to achieve the second objective of the study. Hence, the effectiveness of development initiatives undertaken to support the nonfarm enterprises, of the nature and characteristics that existed in the hill districts, was studied. This was based upon secondary based information as well as field based case studies from both the hill districts.

This was followed by an attempt at understanding the barriers and constraints for sustenance and development of nonfarm enterprises in hill districts. And finally, the study concluded with a proposed strategy for sustainable nonfarm enterprises in hill

areas. Both the third and fourth objectives were achieved from information and inferences generated while researching first two objectives.

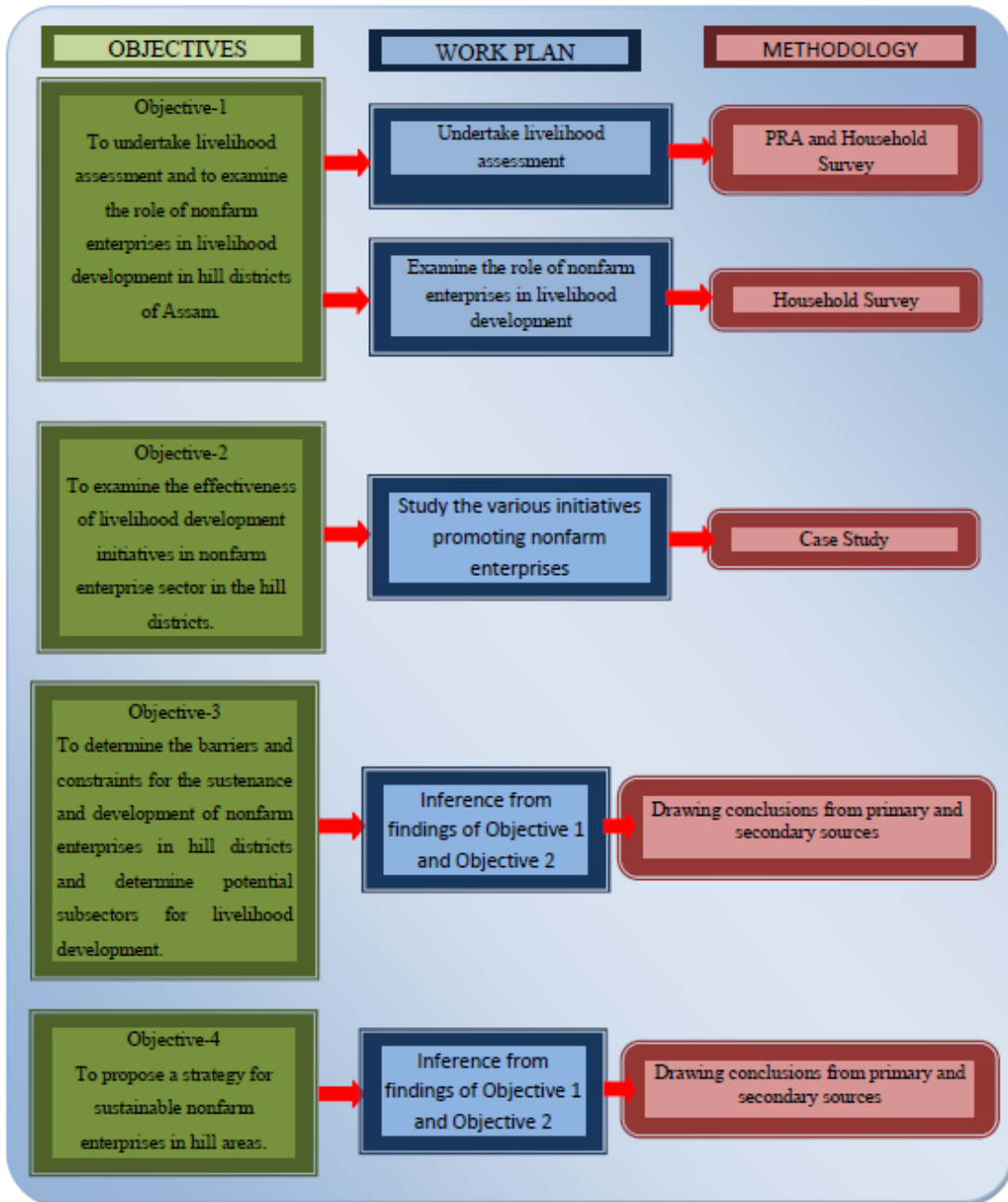


Figure 2.3- Diagrammatic Representation of Research Methodology

### 2.7.1 Sources of Data:

Data required for meeting the objectives can be categorized into primary and secondary sources.

### **2.7.2 Primary Sources:**

In order to have a field level understanding of matters relevant to the study objectives, both qualitative assessments through PRA exercises and participant's observation method, as well as household survey was carried out. The observation method allows much more effective access to information about activities which people are reluctant to discuss or about which they are likely to report inaccurate data for various reasons (Bleahu and Janowski, 2002). The data collection and PRA exercises begun from January, 2014 and continued up to May, 2015.

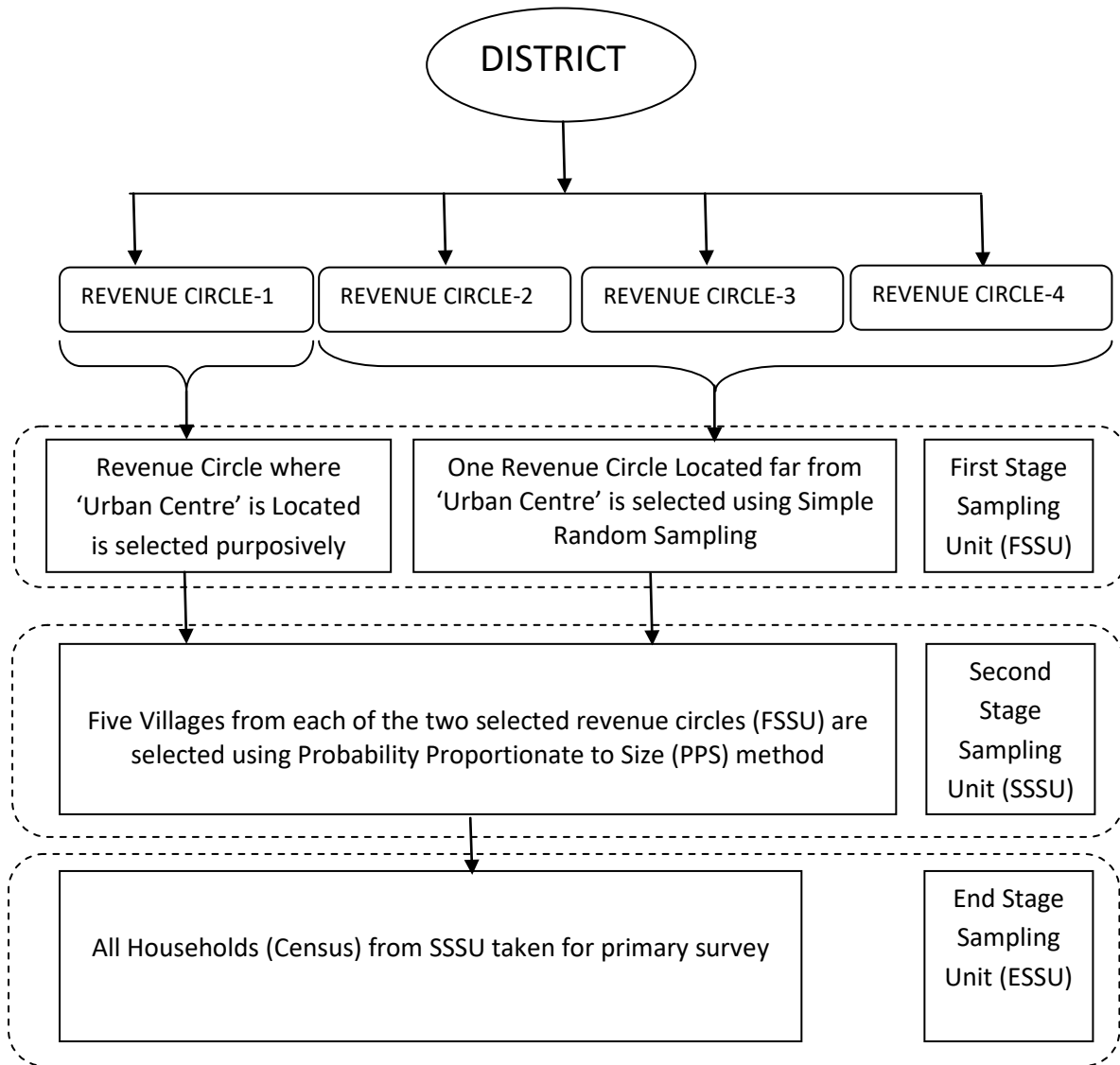
#### **i. Participatory Rural Appraisal (PRA) Exercises:**

The fact that rural areas are diverse and that there cannot be uniform model solution to rural problems have given way to the need for a participatory approach. Development planning in such situations requires engagement of the local population to gain understanding of local resource base and potentialities. This approach has gained appreciation both in developing countries as well as western economies (Warren & Jackson, 2004). It is semi-structured, with room for flexibility and innovation. Any team using PRA should invent and adapt their own methods, and they should determine the best sequence and combination of methods rather than adopt a ready-made manual (Zeeuw and Wilbers, 2004). During PRA exercises, 'Focus Group Discussions' (FGD) were also held. This is a relatively low cost and quick qualitative research method to gain understanding of local perceptions, opinions, beliefs and attitudes to the issues being studied.

In order to assess the livelihood scenario in the study area, PRA exercises engaging various tools were carried out in sample villages. The village headmen were the key persons for coordinating these exercises. Researcher had to consult with him the venue, time and day for planning the exercises. Accordingly, he would inform the villagers to gather at the decided venue and time. During such exercises, researcher with the help of interpreter would inform the gathering about the purpose of these exercises. Separate teams were then made for carrying out the various exercises such resource mapping, FGDs with women members, seasonal calendars etc. Care was taken that these groups had equal representation of women, people from different age groups and

also that everyone participated in the process. After the PRA exercises, researcher started his household survey in the village.

**ii. Household Survey (Sample Size and Sampling Technique):**



**Figure 2.4: Diagrammatic Representation of Sampling Procedure**

The sample for the primary household survey was drawn using a combination of purposive and stratified sampling method, in which the first stratification created two principal domains – ‘near urban centre’ and ‘far from urban centre’, categorised on the basis of revenue circles and their nearness to the district headquarters, hereinafter referred to as ‘urban centres’. There are four revenue circles in each of the hill districts.



In both the districts, the revenue circle of the district headquarter was selected purposively for representation of villages from ‘near urban centres’. In this way Diphu Revenue Circle and Haflong Revenue Circles were selected for drawing samples from near urban centres. Among the rest of the three revenue circles in district, located far from the district headquarter one is selected randomly from each of the districts. Thus, four revenue circles, two each from each of the hill districts, formed the first stage sampling units.

The second stage sampling units consisted of five villages each from the selected revenue circles<sup>3</sup>. These villages were selected by employing probability proportionate to size sampling (PPS)<sup>4</sup> method.

Probability proportional to size (PPS), also known as ‘PPS Cluster Sampling’ is a multistage-sampling technique for use with surveys or mini-surveys in which the probability of selecting a sampling unit (e.g., village, zone, district, and health center) is proportional to the size of its population (McGinn, 2004; Yeo, 2005). The instructions

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Table 2.1  
Population of Town Committees in hill districts of Assam

Sl. No.	Karbi Anglong	Population	Dima Hasao	Population
1	Diphu	61797	Haflong	43756
2	Hamren	8747	Umrangso	10376
3	Donkamokam	9116	Mahur	2121
4	Bokajan	19877	Maibong	6236
5	Laharijan Natun Basti	2508		
6	Howraghat	5443		
7	Dokmoka	5478		

Source: Statistical Handbook of Assam, 2014

In the Census of India 2011, the definition of urban area adopted is as follows:

(a) All statutory places with a municipality, corporation, cantonment board or notified town area committee, etc.

(b) A place satisfying the following three criteria simultaneously:

i) a minimum population of 5,000;

ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and

iii) a density of population of at least 400 per sq. km. (1,000 per sq. mile).

It was observed that the both the district headquarters had significantly high population as compared to other towns in the district. In addition to population, the presence of district level head offices of various line departments, banks, and other institutions helps in easy classification of these two towns as urban centres.

<sup>4</sup> All the villages in a district are not of same size. Especially in hill districts, some villages are very small, some large and some very large. In such situation Simple Random Sampling will not be able to make a distinction between them and all units will have the same probability of selection. An ideal situation would be to assign probabilities proportional to their size. The larger units are expected to make greater contribution to the population total. The PPS methodology ensures this condition.

prepared by McGinn (2004) have been followed for drawing sample villages from both the hill districts. Steps Applied under PPS methodology (ANNEXURE III):

- a. List of all villages (Column A) located within selected revenue circle (FSSU), with their corresponding number of households (Column B), prepared from Census, 2011 data.
- b. The running cumulative figure for number of households is prepared (Column C). Finally, a total cumulative household number is reached.
- c. The cumulative household number is divided by the number of villages to be selected (here, we need five villages from each revenue circle). Hence, the final figure in Column C is divided by 5. The result is called the Sampling Interval (SI).
- d. A random number between 1 and Sampling Interval (SI) is generated using online 'Random Number Generator'. This is the Random Start (RS).
- e. The following series is generated:  
$$RS, RS+SI, RS+2SI, RS+3SI, RS+4SI$$
- f. Each of these 5 numbers corresponds to a site on the list of villages. The villages selected are those for which Column C, the cumulative population, contains the numbers in the series we calculated.
- g. All households within the 5 selected villages qualify for the primary household survey.

Thus, data were being collected from heads of 1126 households from the 20 selected villages using structured interview schedules. Based on secondary research an interview schedule was designed. The schedule was divided into eleven sections containing questions and seeking information on general profile, amenities, assets, exposure to shock incidents, health, hygiene, food security, access to government services, access to financial services, land ownership, household income pattern and nonfarm enterprises. The interview schedule used for data collection was pre-tested in non-sample area and modified to reduce ambiguity in the questions.

The interview schedule was administered in all the 20 sampled villages of the hill districts. The responses were taken from the heads of surveyed households. There were two bottlenecks which had to be overcome while conducting the field investigations. Firstly, communication was inhibited by lack of a common language between the researcher and the interviewed respondents. Particularly, in the villages located far from

the urban centres, respondents could communicate only in their mother tongue i.e. either Karbi or Dimasa language. In the other villages, respondents had marginal knowledge of some or either of Assamese, Hindi and English language. However, for better clarity and understanding, seven local youths were engaged as interpreters during the survey. The youths engaged were well conversant in English language and were trained during pilot surveys. All the seven interpreters were males because of non-availability of females who were fluent in English or were ready to take up the surveys in the remote villages marred with logistic hindrances.

The second bottleneck was getting appointment with the respondents as most of them, more intensely in villages located far from urban centres, were dependent on shifting cultivation. Such practice kept most of the villagers out of their homes during cultivation and harvesting. During such seasons, interviews were possible only in the evenings. During other seasons, interviews were conducted during early mornings.

**Table: 2.2**  
**Details of Sample for Household Survey**

<b>District –Karbi Anglong</b>				<b>District- Dima Hasao</b>			
<b>Diphu Revenue Circle (Near Urban Centre)<sup>5</sup></b>		<b>Donka Revenue Circle (Far from Urban Centre)</b>		<b>Haflong Revenue Circle (Near Urban Centre)</b>		<b>Umrangso Revenue Circle (Far from Urban Centre)</b>	
<b>Village</b>	<b>HH</b>	<b>Village</b>	<b>HH</b>	<b>Village</b>	<b>HH</b>	<b>Village</b>	<b>HH</b>
Mongoldhar Chakma	11	Borpu	73	Hojai Khasiba	56	Kalaidisa	21
Mohong Diza	33	Langteng	28	Choto Wapo	58	Kungkruwari	35
Het Tisso	35	Umdap	132	Moti Phonglo	21	Surangdisa	13
Hidim Teron	121	Langsomepi	110	Delaisa	31	Railing Hadi	59
Kanghter Basti	93	Tirkim	95	Hojai	33	Majowari	68
Circle Total	293		438		199		196
District Total			731	District Total			395
Grand Total							1126

Information, thus gathered from both survey and PRA methods, was triangulated during analysis for cross-checking and increasing reliability of the results.

<sup>5</sup> It was found that among villages sampled (Simple Random Sampling), while Kanghter Basti was the nearest to its urban centre, Diphu (3 Km), Delaisa was the farthest village from its urban centre, Haflong (25 Km). Similarly, among villages located far from urban centres, while Surangdisa in Dima Hasao is the nearest in distance to its urban centre, Haflong (70 Km), Langteng was the farthest village from its urban centre, Diphu (137 km).

### **iii. Case Study Method:**

While studying migrants' livelihoods Deborah Potts (2011) stated that qualitative case studies allow for richer analysis than quantitative surveys. Therefore, qualitative case studies were carried out to assess the effectiveness of the initiatives in the nonfarm sector. The effectiveness is measured in terms of improved access to the livelihoods in the household as well as in the community level, as outlined in the study framework given earlier (Figure-2.1).

Similarly in order to efficiently and effectively conduct PRA exercises, pilot exercises were also conducted in one non-sample village so that a structured and smooth plan of conducting these could be worked out.

### **2.7.3 Secondary Sources:**

Initially in order to finalise the study framework and methodology, relevant literature was reviewed. These included visits to libraries of Gauhati University, North Eastern Hill University (NEHU), Directorate of the Tribal Research Institute, Assam and Tezpur University. In order to draw the profile of the hill districts, statistical data were sourced from statistical reports from the Directorate of Economics and Statistics, Assam, Census Reports and other reliable published sources. Such sources were both in the form of online publications and printed publications.

### **2.7.4 Statistical Tools used:**

The data were collected, compiled and analyzed using frequency, percentage, chi-square, independent sample 't' test and ANOVA to arrive at conclusions. The attitudes of the respondents regarding agreement to various influencing factors affecting adoption of nonfarm enterprises etc. were measured by using Likert Scales. Besides, diagrams and graphs are also used in order to make the data attractive and vivid.

### **2.8 Conclusion:**

In order to pursue its attempt to analyse and understand rural livelihood systems in the hill districts, the study has adopted the 'Sustainable Livelihoods Framework' as its guiding model. The study attempts to have an understanding of the livelihood situation in the hill districts by divulging information on the components of the 'Sustainable Livelihoods Framework'. This includes information on the access to various livelihood resources, vulnerabilities, policies which ascertain the livelihood options of the hill people. It also attempts to understand the role played by nonfarm enterprises in the overall livelihoods of the households surveyed. In order to achieve the

above, in addition to secondary investigations, primary data needed to be collected. A primary household survey was conducted in all the 1126 sampled households and PRA exercises were conducted in all 20 sampled villages of the hill districts. In order to assess the effectiveness of livelihood development in the nonfarm sector, case study method was employed. Drawing conclusions from the findings of primary and secondary sources, the study finally attempts to reveal the barriers and constraints for sustenance and development of nonfarm enterprises and determine potential subsectors in the nonfarm sector which can be explored in the future. Based on overall findings, the study finally has attempted to propose a strategy for sustainable nonfarm enterprises in hill areas.

### **Reference:**

1. Basant, R., & Kumar, B. L. (1989). Rural Non-Agricultural Activities in India: A Review of Available Evidence. *Social Scientist*, 17: 13-71.
2. Bhowmick, S. K. (1988). Development Perspectives for Tribals. *Economic and Political Weekly* 23(20): 1005-1007.
3. Bleahu, A., & Janowski, M. (2002). *Rural Non-Farm Livelihood Activities in Romania: A Report on Qualitative Fieldwork in Two Communities*. Kent: Natural Resources Institute.
4. Bond, R., Kapondamgaga, P. H., Mwenebanda, B., Yadav, R. P., & Rizvi, A. (2007). Monitoring the livelihood platform: reflections on the Operations of Livelihood Asset-Status Tracking method from India and Malawi. *Impact Assessment and Project Appraisal*, 25(4): 301–315.
5. Burman, B. K. (1989). Problems and Prospects of Tribal development in North East India. *Economic and Political Weekly*, 693-697.
6. Chen, H., Zhu, T., Krott, M., Calvob, J. F., Shivakoti, G., & Makotod, I. (2013). Measurement and evaluation of livelihood assets in sustainable forest commons governance. *Land Use Policy* 30, 908-914.
7. Elasha, B. O., Elhassan, N. G., & Ahmed, H. (2005). *Sustainable livelihood approach for assessing community resilience to climate change: case studies from Sudan*. AIACC.
8. Ellis, F. (1999, April). Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications. *Natural Resources Perspective*, page 6.
9. Foerster, S., Wilkie, D. S., Morelli, G. A., Demmer, J., Starkey, M., Telfer, P., & Mathew, S. (2011). Human livelihoods and protected areas in Gabon: a cross-

- sectional comparison of welfare and consumption patterns. *Fauna & Flora International, Oryx*, 45(3): 347–356.
10. Foster, A. (2011). *Creating Good Employment Opportunities for the Rural Sector*. Manila: Asian Development Bank.
  11. Government of Assam. (2015). *Statistical Hand Book Assam 2014*. Guwahati: Directorate of Economics and Statistics.
  12. Gumoi, M. T. (2010). *Towards a Holistic Understanding of Rural Livelihood Systems: The Case of the Bine, Western Province, Papua New Guinea*. Christchurch, New Zealand: Lincoln University.
  13. Hussain, M. (1987). Tribal Movement for Autonomous State in Assam. *Economic and Political Weekly*, 22(32): 1329-1332.
  14. Hussein, K. (2002). *Livelihoods Approaches Compared: A multi-Agency Review of Current Practices*. London: DFID.
  15. Krantz, L. (2001). *The Sustainable Livelihood Approach to Poverty Reduction: An Introduction*. Stockholm: Swedish International Development Cooperation Agency.
  16. Lanjouw, P., Quizon, J., & Sparrow, R. A. (2001). Non-Agricultural Earnings in Peri-Urban Areas of Tanzania: Evidence from Household Survey. *Food Policy* 26(4).
  17. Lax, J., & Krug, J. (2013). *Livelihood Assessment : A participatory tool for natural resource dependent communities*. Hamburg: Johann Heinrich von Thunen-Institut.
  18. Lohmann, C., & Liefner, I. (2009). Location, Non-Agricultural Employment, and Vulnerability to Poverty in Rural Thailand. *Erdkunde* 63( 2): 141-160.
  19. Madhab, J. (1999). North-East: Crisis of Identity, Security and Underdevelopment. *Economic and Political Weekly*, 320-322.
  20. Makar, A., Ghosh, S., & Nyekha, C. (2009). Institutional Barriers in Tribal Hill Areas for Agricultural Finance: A Case Study in Nagaland. *Studies of Tribes and Tribals*, 7(2), 143-147.
  21. Munyua, H., & Stilwel, C. (2010). A mixed qualitative-quantitative-participatory methodology : A study of the agricultural knowledge and information system (AKIS) of small-scale farmers in Kirinyaga district, Kenya. *Library Management*, 31(1/2): 5-18.
  22. Murray, C. (2001). *Livelihood Research: Some Conceptual and Methodological Issues*. Chronic Poverty Research Centre, University of Manchester.

23. National Committee on Development of Backward Areas. (1981). *Report on the Development of North Eastern Region*. New Delhi: Planning Commission, Govt. of India.
24. NCEUS. (2007). *Report on the conditions of Work and Promotion of Livelihoods in the Unorganised Sector*. New Delhi: National Commission for Enterprises in the Unorganised Sector (NCEUS).
25. Osmani, S. R. (1989). Limits to the Alleviation of Poverty Through Non-farm Credit. *The Bangladesh Development Studies*, 17(4):1-19.
26. Partap, T. (1999). Sustainable Land Management in Marginal Mountain Areas of the Himalayan Region. *Mountain Research and Development*, 19(3), *Poverty, Rural Livelihoods, and Land Husbandry in Hillside Environments, Part 1 (Aug., 1999)*, 251-260.
27. Planning Commission . (2010). *Report of the Evaluation Study on Hill Area Development Programme in Assam and West Bengal*. New Delhi: Govt. of India.
28. Planning Commission. (1966). *Outlays and Programmes for the Hill Region of Assam for the Fourth Plan*. New Delhi: Govt. Of India.
29. Potts, D. (2011). Making a Livelihood in (and Beyond) the African City: The Experience of Zimbabwe. *The Journal of the International African Institute*, 81(4): 588-605.
30. Rahman, M. M., & Ahmad, F. (2010). Impact of microfinance of IBBL on the rural poor's livelihood in Bangladesh: an empirical study. *International Journal of Islamic and Middle Eastern Finance and Management*, 3(2): 168-190.
31. Rawal, V. (2013). *Socio-Economic Surveys of Selected Villages in Rajasthan*. University Grants Commission.
32. Reid, R. (1944). The Excluded Areas of Assam. *The Geographical Journal*, 102(1/2):18-29.
33. Talukdar, R. K., Gogoi, P. K., Brahma, T., & Borah, P. (2012). Livelihood Up-gradation: A Case of Integrated Approach for Resource Management. *Indian Research Journal of Extension Education, Special Issue II*, 179-183.
34. Varte, I. Z., & Neitham, E. L. (2013). People and development: With special reference to the tribal peoples of north-east India. *International Journal of Development and Sustainability*, 2(1): 46-51.
35. Warren, I., & Jackson, S. C. (2004). Women creating wealth through rural enterprise. *International Journal of Entrepreneurial Behavior & Research*, 10(6): 369 - 383.

36. Zeeuw, H. d., & Wilbers, J. (2004, March). PRA Tools for Studying Urban Agriculture and Gender. *Resource Center on Urban Agriculture and Forestry – RUAF*, page 3-36.
37. Zhuge, R., & Tisdell, C. (1999). Sustainability issues and socio-economic change in the Jingpo communities of China. *International Journal of Social Economics*, 26(1/2/3): 21 - 45.