

## Chapter I

### 1. Introduction

This dissertation studies non-farm employment and related issues among rural households in the lower Himalayas of north eastern region of India. The motivation for this research comes from the fact that the agriculture alone cannot provide livelihood to the increasing population and that there is lack of quantitative research on non-farm activities in the rural areas of the north-eastern Himalayas.

Traditionally, policy makers and academicians viewed the rural economy as purely agricultural but in reality rural economies are based on both agricultural and non-agricultural sectors as it integrates into the market economy, which is complex and diverse. In recent years there has been an increasing interest on rural non-farm employment as a route out of the viscous circle of poverty which is highly prevalent in rural areas of developing countries.

Nowadays economists and policy makers have recognised the importance of income diversification among rural households and that farming households have a number of activities and portfolios of income sources. Rural income diversification and its significance for development has gained attention from scholars in recent times. (For evidences see Haggblade et al. 1989, von Braun and Pandya-Lorch 1991, Bernstein et. 1992, Saith 1992, Reardon 1997, Ellis 1998, Reardon et al. 1998, Reardon et al. 2000).

Several empirical studies have documented the importance of rural non-farm activities on rural livelihoods. For example, in a study based on 100 farm households from 1970s to 1990s, Reardon et al. found that on an average non-farm income contributes to 42 percent of the total income in Africa, followed by 40 percent in Latin America and 32 percent in Asia. Lanjouw P (2002) finds that in India approximately 34.4 percent of rural households are employed in the non-farm sector.

A majority of researchers have argued that the rural non-farm employment is an important source of income for the landless and rural poor in developing countries (Ellis 1998, Reardon et al. 1998, Reardon et al. 2000). According to the World Bank estimates over 70 percent of the poor live in rural areas of the developing world (World Bank 1999); hence appropriate policy research on the various important issues of rural non-farm activities is likely to help improve the livelihood of a large section of the rural population.

Non-farm activities are typically pursued by a majority of the rural poor, both because they lack access to sufficient land to make agriculture a viable income strategy and because of market failures for credit and insurance. Even richer households take up lucrative non-farm activities so as to maximise the marginal productivity of the household labour and to reduce vulnerability.

In rural areas, the number of poor exceeds by far the capacity of the land to provide sustainable livelihood opportunities through agriculture. Thus non-farm employment provides rural households with a prospect of improving their livelihoods. In other words, rural non-farm employment also contributes to the agricultural development by providing the farmer with cash incomes that could be reinvested to increase agricultural productivity. Given the importance of the non-farm employment, particularly to the rural poor, the promotion and enhancement of access to this activity is of great importance in rural development.

The asset position across the household plays a crucial role in the kind of non-farm activities that household can access in order to generate income for livelihood. Assets that are available to rural households include education, skills, labour, land, livestock, savings, generational transfers, social capital etc.

As a result of the high degree of the heterogeneity in the assets position across the rural households, traditional rural development programmes, focusing on agriculture as the solution to rural poverty and on the role of the government in delivering services to enhance productivity, have met with limited success and not been sustainable.

This research seeks to explore in great detail the importance and the determinants of non-farm employment and income, rural non-farm livelihood diversification strategies and its impact on inequality and welfare. The study analyses the role of asset endowments on participation in rural non-farm employment. One of the contributions of this research is that it assesses the role of variety of assets endowments and other household characteristics, like remittances, pension, farm income, intergenerational effects, inherited land, other assets, socio-ethnic-reservation etc. on rural non-farm diversification (explained in detail in subsequent chapters).

Most of the past research has failed to capture the heterogeneous nature of rural non-farm employment in their model. Therefore, this research incorporates the heterogeneous nature of rural non-farm activities in its analysis.

This research creates several income portfolios using different basis of classification to study the determinants of activity choice by rural households since they do not take up a single activity but a portfolio of activities.

The region selected for the field research has been least explored and to the best of my knowledge a quantitative livelihood research has never been conducted in rural hills of Sikkim and Darjeeling Gorkha Hill Council

### **1.1 Rural non-farm economy**

Contrary to the conventional view, rural households from developing countries have a number of income generating activities to choose from (as shown in the column 2 of Chart 1). Households in rural areas derive livelihood from sources other than agriculture. Income diversification is the norm and specialization is an exception (Barrett et al. 2001).

Broadly speaking, rural activities can be divided into two main categories, namely farm and non-farm activities. A rural non-farm activity is defined as all those income generating activities (including income in kind) that are non-agricultural. Farm activities include self-employment in agriculture, wage employment in agriculture, livelihood from forestry resources. Farm activities can be divided into cash cropping, food cropping, livestock rearing and off-farm (wage in agriculture). Rural non-farm activities encompass a wide range of activities like self-employment in non-farm/rural non-farm enterprise (which could be further classified in two categories – small and micro scale rural non-farm enterprise), wage employment in non-farm (which could be further classified in two categories – skilled high paying and non-skilled low paying employment). Non-farm activities also include processing and trade of farm products.

A household's ability to choose from these non-farm employment opportunities depends on its assets position and the availability of these activities (see column 1 in Chart 1.1). Internal assets available to households are education, land, livestock, technical skills, savings, generational transfers, social capital and external assets are natural resources and market opportunities.

Based on household assets position and the availability of opportunities, households take certain non-farm livelihood strategies which are accessible to them for income generation and improved livelihood. There are several sources of income such as farm income, off-farm income, non-farm income and unearned income. Unearned incomes are those which do not involve allocation and hiring of labour. Unearned incomes include rental income, transfers, gifts, pension and subsidy (see Chart 1.1).

The location of the rural non-farm activity is not important as far as it is commutable from the village. The motor does not have to be local, as long as the local economy is open in which the worker can commute and the local farm and non-farm firms can sell to the area where the motor is providing job opportunities and generating growth (Davis 2003).

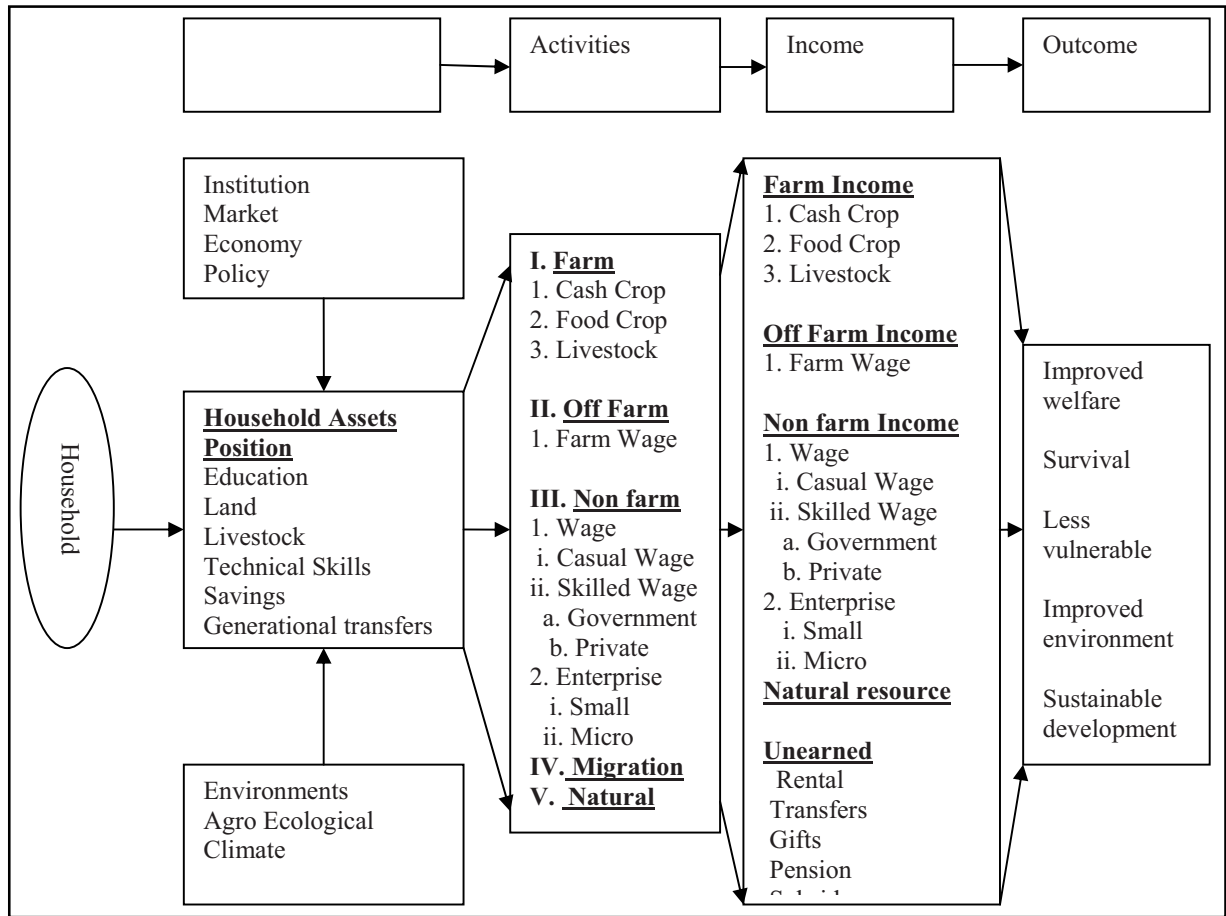
From a policy perspective, it is important to understand determinants of participation in rural non-farm activities, particularly participation by the poor. It is explicitly important for policy makers and other actors of rural development to understand and distinguish between the low remunerative and high remunerative non-farm rural employment in order to highlight the underlying determinants of these two different types of rural non-farm employment.

Low remunerative (some authors call it as distress pulled) non-farm employment basically results from lack of assets endowments (low assets endowment) in order to make both ends meet (survival) while abundance of assets endowments (high asset endowment) results in high remunerative (demand pulled) non-farm employment in order to take advantage of the opportunities and improve their welfare.

Richer households will enter into lucrative non-farm employment like skilled wage employment, and larger enterprises while the poorer households will enter into low entry cost non-farm employment like wage employment and micro non-farm enterprise.

Non-farm livelihood strategies that households take up; results in income generation and improved livelihood and reduced vulnerability.

**Chart 1.1: Rural Non-farm economy of households in eastern Himalayas**



**1.2 Background of the research area and motivation**

The field research was conducted in the eastern Himalayan region of India i.e. in Sikkim and Darjeeling Gorkha Hill Council. The area is nested in the Himalayas with China in the north, Bhutan in the east, Nepal in the west and the plains of the Indian state of West Bengal in the south. The region has a unique history, ethnicity and cultural background compared to the rest of India. It is multi-ethnic with Nepalis, Lepchas, Sherpas, Bhutias as the main inhabitants.

Roads are in poor condition because most of them are exposed to landslides and flooding by nearby streams. The northern part of Sikkim, being the inner mountain ranges of the Himalayas, is inhabitable. Only 22 percent (1561.12 sq km) of the total area of Sikkim (7096 sq km), i.e. up to 2100 meters above sea level, is habitable.

The region is largely agrarian, based on the traditional farming methods, on terraced slopes. Most rural communities of the hills depend on farming but over the years they have diversified out into the non-agricultural sector. Most of the rural households practice traditional subsistence farming relying on monsoon rainfall.

The main crops are ginger, cardamom, orange, potato, rice, maize, millet, pulses, apple, tea, orchid, tulip, barley and vegetables. Households also rear livestock such as yak, cow, sheep and goat. They also participate in formal and informal non-farm activities. Cash crops like ginger, cardamom, orange, and potato are sold to local traders and exported to the nearby towns. Vegetables are also sold to local vendors. The poorer farmers also have opportunities to work on wage in orange and cardamom farms.

The rural areas of Sikkim and Darjeeling Gorkha Hill Council are economically backward due to its geographical location and fragile ecosystem. Over the years, with increasing population the per capita landholding has been declining (Lama, M. P., Sikkim Human Development Index 2001) and the situation in Darjeeling Gorkha Hill Council is not any better.

Since land fragmentation and the nature of the land do not allow farmers to go for mechanisation most of the farmers follow traditional agricultural practices. Too much pressure on natural resources through over grazing, agricultural encroachment and firewood collection has resulted in landslides which has become major problem of the region.

In order to reduce the burden on subsistence farming and the fragile ecosystem the non-farm employment is an important alternate livelihood strategy. Therefore, one of the underlying motivations to study non-farm employment and income in this region is to look into non-farm activities as an alternate source of income generating activities for the rural household. Table 1.1 shows the general characteristics of the area of research.

**Table 1.1: General characteristics of the field area**

<b>Characteristics</b>	<b>Sikkim</b>	<b>Darjeeling Gorkha Hill Council</b>
Area	7096 sq km	3149 sq km
Latitude	27 <sup>0</sup> 05' N to 28 <sup>0</sup> 7' N	26 <sup>0</sup> 27' N to 27 <sup>0</sup> 13' N
Longitude	88 <sup>0</sup> 01' E to 88 <sup>0</sup> 55' E	87 <sup>0</sup> 59' E to 88 <sup>0</sup> 53' E
Population	540,493 (2001)	16,05,900 (2001)
Density	73 per sq km	413 per sq km
Literacy	69%	59%

### **1.3 Research objectives**

On the basis of the above background, this study will seek to find out the importance of the various types of rural non-farm employment opportunities available, and the determinants of non-farm employment and incomes in the eastern Himalayan region of India. It also attempts to explore the determinants of income diversification strategies by creating different types of income portfolios. This research also analyses the impact of non-farm income and employment on inequality and welfare. Most of the literature in rural non-farm employment is ambiguous about issues of the heterogeneous nature of rural non-farm activities. In brief the basic research objectives are as follows:

1. To identify the determinants of household participation in non-farm employment and income.
2. To explore the factors influencing the choice of non-farm livelihood diversification strategies.
3. To assess the impact of non-farm income on total income distribution.
4. To ascertain the effects of non-farm activity on household welfare.



#### **1.4 Research question**

The study takes a comprehensive view of the variety of income sources that rural households in the eastern Himalayan region of India rely on. The focus is on understanding the determinants of participation in non-farm activity and of the levels of incomes derived from these activities by different categories of farm households. The second focus is on determinants of non-farm income portfolio diversification and the third focus on impact of non-farm activities diversification on inequality and welfare.

The following research questions are dealt with:

- a. Why do rural households engage in rural non-farm employment?
- b. How important are rural non-farm activities for livelihood?
- c. What types of non-farm employment opportunities are accessible to households? What determines access to non-farm employment? What are the non-farm income portfolios available and what are the determinants of different kinds of non-farm income portfolios?
- d. What should be the main focus of strategies to get rural households out of poverty?
- e. What is the impact of non-farm employment on inequality and welfare?