

CHAPTER I

INTRODUCTION

1.1 Background

Food insecurity has always been a major concern at different levels in Nepal. But, conversely, at national level the data has shown that country has been producing consistently sufficient cereal grains than that of requirement from year 1999/2000 to 2002/2003 (Table 1.1). But, at the same time, another data have shown as much as 50.5 percent malnourished children under five years' of age were found chronically malnourished in the year 2001 (UNDP, 2004). This is one of the key indicators to measure the food insecurity. The United Nations Development Program (UNDP) further states that the percentage of malnourished children were found higher in rural than urban areas. But, while looking at agro-ecological zones the percentage of malnourished children was higher in mountain than hill and *Tarai* area. Additionally, percentage of malnourished children increases while going from east to west part of the country (UNDP, 2004). In the Kailali district the percentage of malnourished chronically malnourished children was found 43.2 percent for the year 2001; which is slightly lower than the national average percentage, despite the fact that the district is one of the food sufficient districts in the country. These two contrasting reality showed that there was a mismatch between sufficient production and state of food insecurity.

Undoubtly, agriculture has been playing a key role on maintaining food security by providing food and/or income; especially when the country is agriculture based. So this sector has been significantly contributing to the overall economy and livelihoods of the people. Unfortunately, whatever picture of food availability shown at the macro level does not truly reflect the real picture of household food availability.

Therefore, in reality there could be some households that might have been trapped on the vicious cycle of food insecurity despite the food is sufficient at the district level. These households could not meet the demand consistently over the period due to inherited social, technical and institutional constraints especially on agriculture. Therefore, by and large, for those households food insecure condition has been perpetuating from one generation to another generation.

Table 1.1 Edible cereal grains production and requirement in Nepal.

Year	Amount in metric tones.					
	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03
Total	4,027,349	4,097,612	4,451,939	4,513,179	4,543,049	4,653,385
Production.						
Total	4,178,077	4,279,491	4,383,443	4,424,192	4,463,027	4,619,962
Requirement.						
Total	-150,728	-181,879	68,496	88,987	80,022	33,423
Balance						

Source: MoAC, 2003

Usually food insecurity is widely assessed at the macro level using indicators such as food availability, trade balance, per capita income and other social economic indicators. But, these macro level indicators do not truly reflect the food insecurity at the household level. There are many intertwined factors that make food insecurity as a complex phenomenon especially at household level. In other word, household level is multi-level construct that makes assessment complex. Besides, food is actually produced and consumed at household level. Recent studies have shown that poverty, illiteracy, malnutrition and environmental degradation can be direct causes, as well as direct effects, of food insecurity (FAO, 2001).

Kailali district lies 28° 22' to 29° 05' north latitude 80° 30' to 81° 18' east longitude. Most of its area lies in the *Tarai* region; but seven, out of total 44 Village Development Committees (hereafter VDC) / municipalities are in the foothill. Since, the whole *Tarai* region of Nepal that covers about 17 per cent of total area of the

country is a tract of low, flat land, ranging in altitude from 22 meters below, to 600 meters above, mean sea level (Gill, 1996). It stretches along the southern boundary of the country and forms the entire boarder with India. Grossly, the soils of the *Tarai* are alluvial soil and fine to medium-textured. The climate is hot and monsoonal, with annual rainfall ranging between 1,000 mm and 2,700 mm (Gill, 1996). Due to high potentiality high production *Tarai* is considered as “granary of Nepal”. The total area of Kailali district is about 3,235 square kilometer, which about two percent of the total area of country. The total population of this district is 0.61 million, in which about 38.8 percent population are economically active (CBS, 2003). Out of 0.61 million population, 0.31 million are male and 0.30 million are female (CBS, 2003). Similarly, there are about 94,430 households in the district and each household's average family size is about 6.53 members per family; which is higher than the national average (5.44 members per family). There are two municipalities in the district that contain about 19 percent of the total households and about 17 percent of the total population of district.

In term of development indicators, life expectancy at birth was found 58.39 years in this district against the national average 60.98 years. Similarly, adult literacy was found 46.5 percent against national average 48.6 percent in the year 2001 (UNDP, 2004). The GDP per capita of this district was 1,184 (US\$ PPP), whereas at national average was 1,310 (US\$ PPP) for the year 2001. Human Development Index (HDI), which is a composite index of life expectancy, literacy and income, of the district was found to be 0.442 against the national HDI of 0.471 that makes district at 46th rank out of 75 districts for the year 2001 (UNDP, 2004). But, looking at the Human Poverty Index (HPI) the district rank was 24th position out 75 districts, which shows higher degree of incidence of poverty than other district. The position of the district on Gender-related Development Index (GDI) was found below than the national average and it ranked 41st out of 75 districts. GDI rank reveals that development indicators for male were better than that of female. While looking into the contribution of different sectors to the Gross Domestic Production (GDP), agriculture was the most contributing sector on its total GDP and followed by trade, restaurant and hotel and then finance and real estate (Table 1.2). So, better performances of agriculture sector could ensure to have wider impact on the

livelihoods of the people in the district and could substantially contribute to the food availability and income of the households.

Table 1.2 Contribution of different sectors on GDP of Kailali district.

Value in Nepalese Rupees (NRs.) (in millions)

Sectors	Value	Percentage
Agriculture, fishery and forestry	5,436	57.4
Mining and quarrying	18	0.2
Manufacturing	258	2.7
Electricity gas and water	65	0.7
Construction	425	4.5
Trade, restaurant and hotel	1,193	12.6
Transport communication and storage	568	6.0
Finance and real estate	1,040	11.0
Community and social service	472	4.9
Total economy (Total value added)	9,477	
GDP at market price	9,879	
Per capita income (in US \$)	217	
Per capita income (in PPP US\$)	1,184	

Source: UNDP, 2004

The major cereals such as paddy, wheat and maize were found mainly grown in the district. In cash crops oilseed (rape seed), potato and sugarcane; in pulses lentil, chickpea and black gram were mostly grown. But, in case of fruits mango, banana, guava, and litchi were principally grown in the district. Moreover, in some places there were small commercial vegetable pockets were also seen. In livestock, cattle, buffaloes, goat, sheep, pig and fowls were mainly raised. The major problems in agriculture were inadequate irrigation facilities, inadequate accessibility of inputs, pest and diseases and poor infrastructure base such as road and market. In livestock major problems were inadequate access to improved breed and veterinary services.

1.2 Rationale of study

Food security has long been used as a macro-level indicator of agricultural stability by both agricultural and economic researchers (Gittelsohn *et al.*, 1998). Therefore, many findings of the studies come up with macro level indicators of food insecurity. These indicators mainly related with the food availability situation at macro level. But, unfortunately, food sufficiency at macro level does not guarantee that all households have equal access to the available food, because of there so many intertwined socio-economic factors and their inter-linkages. In more strict sense food availability at aggregate level is neither the necessary condition nor the sufficient condition for food security. But, food availability at household level is one of the very important enabling conditions. That might be the reason still a significant number of children under five years' of age are chronically malnourished despite the district is food sufficient. Looking food insecurity problem only from the angle of food availability is to look at it as a uni-dimensional aspect. The problem examined in such way tends to be attacked by mono-disciplinary actions. It may sometimes be incomplete particularly for solving the complex problems such as poverty, food insecurity, hunger, and malnutrition etc.

Moreover, the household level is appropriate level for studying the factors affecting food insecurity; because at this level food is actually produced and consumed. Additionally, there has been little work done to operationalize the concept at the household level in Nepal (Gittelsohn *et al.*, 1998). So, such kind of study is very much needed in Nepalese context. Besides, this study was conducted food self sufficient in the district. So, under such condition it would be easy to spell out other factors, apart from food sufficiency. Moreover, temporal dimension of food insecurity and its manifestation can be observed at household level under different socio-economic conditions. Such analysis would help to identify the concealed food insecurity that may exist even in the food secured households at annual basis. Finally, by exploring factors that determine food insecurity at the household level will help to the policy makers and development workers for further interventions in order to get rid of this problem in the future.

1.3 Objectives of study

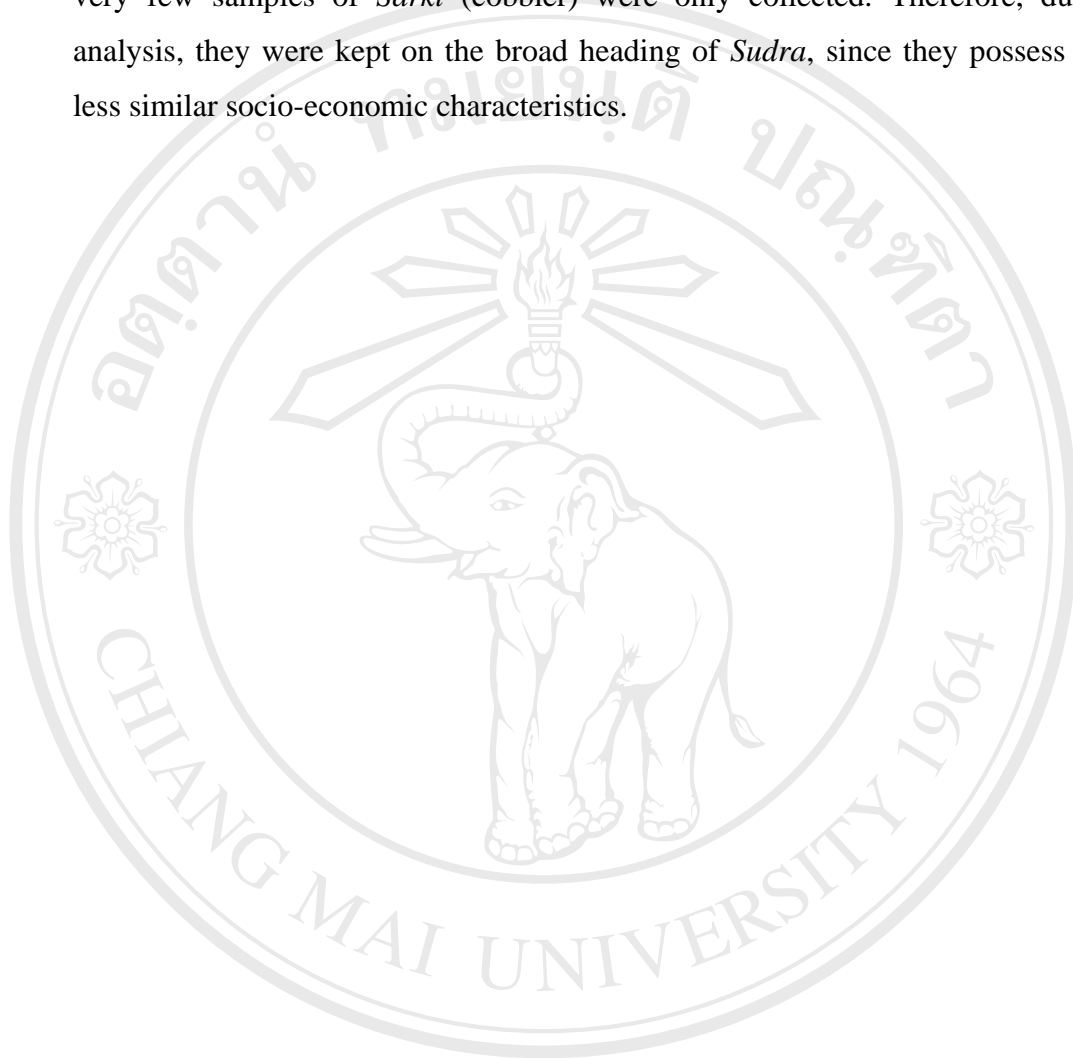
Few studies have been conducted on food insecurity at household level in Nepalese context. Therefore, identifying major factors is crucially important to understand the phenomenon completely so that future interventions can be made in order to get rid of food insecurity problem at this level. Specifically, in this study, the main objective is to find out the major factors that are affecting food insecurity at the household level where food is surplus at the aggregate level. The specific objectives are as follows.

1. To assess the extent of food insecurity of the households under different socio-economic conditions.
2. To identify the factors affecting food availability at the household level of the study area.
3. To identify the factors affecting food insecurity at the household level.

1.4 Scope of study

There are two approaches used for assessment of food insecurity at the household level i.e. nutritional approach, and socio-economic approach. Nutritional approach that concern with the anthropometrics analysis (biological) is generally done by nutritionists. Socio-economic approach mainly considers food availability, food access. In case of food availability, the study has analyzed at the household level availability, not availability at the aggregate level. This study has used only the socio-economic approach for analyzing the food security at household level. Additionally, the study has taken households as the study unit and district as its boundary. Since, production and consumption behaviors are different from one caste/ ethnic group to another; the analysis therefore was done on the basis of different households under different castes/ ethnic groups. *Brahmin*, *Chhetri* and *Sudra* are the different castes while *Newar*, *Gurung*, *Magar* and *Tharu* are ethnic groups. However, in this study, only *Brahmin*, *Chhetri*, *Sudra* and *Tharu* were included. These caste/ethnic groups constitute more than 90 percent of the total population of the district. Moreover,

Sudra caste consists of number of sub-castes such as *Kami* (metal worker), *Damai* (Tailor) and *Sarki* (cobbler). During the sampling, *Kami* (metal worker) and very few samples of *Sarki* (cobbler) were only collected. Therefore, during the analysis, they were kept on the broad heading of *Sudra*, since they possess more or less similar socio-economic characteristics.



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