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**HOUSEHOLD DECISION-MAKING
IN RURAL NEPAL: A STUDY OF
THE EFFECTS OF
GENDER ROLES AND ETHNICITY**

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ABSTRACT

Gender disparity in household decision-making is common in developing countries. Ethnicity, culture and geographical location also influence decision-making processes in rural communities. Household decision-making processes in central rural Nepal were examined with a primary focus on gender roles and involvement in the context of three distinct ethnic communities--*Brahmin/Chhetri*, *Gurung* and *Tharu*. Three Village Development Committees (VDCs) of the Chitwan district of Nepal were purposively selected for the study. A combination of participatory rural appraisal (n=6), gender analysis (n=6), key informant interviews (n=14) and household socio-economic surveys (n=123) was used to gather information and data for the study. At the household level, men and women were interviewed separately.

The results indicated that both men and women consistently carried out certain crop production activities. Other activities were either male or female dominated, but some activities were insensitive to gender and ethnicity. Ethnic variation impacted on gender roles and involvement of household members. For example, both males and females from the *Brahmin/Chhetri* and *Gurung*, and all family members from the *Tharu*, were involved in manure application to farmland. Fertiliser application was carried out by *Brahmin/Chhetri* and *Tharu* men, but jointly by the *Gurungs*. Crop harvesting was mostly completed by all household members, but with a low level of participation by men, and a high level of participation by women for all ethnic groups. Males dominated crop marketing in the *Brahmin/Chhetri* and *Gurung* communities, but this was jointly shared by the *Tharus*. Livestock-related work was primarily within the domain of women, but variation existed in gender roles across the ethnic groups. For example, *Brahmin/Chhetri* and *Gurung* men were less involved in grazing and fodder collection, but all members of *Tharu* households were jointly involved. Women were more involved than men in household management in all three ethnic groups, with the highest level of participation amongst the *Tharu* women.

Decisions were reached by household members through general discussion. In some cases, however, such as in the marketing of large ruminants, the decision was made solely by the men. Household decision-making also depended on the level and source of

income. Within the higher income *Brahmin/Chhetri* households decisions were largely made independently by males; for the lower income *Gurung* and the *Tharu* households joint decision-making was more common. Thus, the underlying male dominance in these communities tended to be related to income level. In relatively affluent households, women were largely restricted to household chores and were less involved in decision-making processes.

With respect to crop income, the *Gurung* women exercised control, whereas the *Brahmin/Chhetri* males, and both men and women for the *Tharus*, had a dominant influence over such income. For all ethnic groups, men overwhelmingly dominated the access to agricultural and veterinary services, community activities, and off-farm employment opportunities.

Rural and agricultural development activities in Nepal were shown not to be gender or ethnically neutral. However, the extent of this varies by activity. Thus, differences in gender and ethnic roles need to be specifically accounted for in rural policy formulation and planning. A pre-project analysis of gender and ethnicity involvement is recommended to provide better local knowledge of these factors before designing and implementing any project or developmental work.

Keywords: Household decision-making, gender roles, ethnicity, gender analysis, participatory rural appraisal, Nepal, rural development

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*In memory of my father,
Bhumi Nanda Parajulee,
who used to encourage for my higher study*

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CHAPTER ONE – INTRODUCTION

This research set out to examine the roles of gender and ethnicity in decision-making processes at the household level in rural Nepal. Anecdotal evidence suggests that gender roles vary significantly by ethnicity, and that household decision-making processes tend to be uniquely related to ethnicity. However, little empirical work exists in this area. Chapter One provides background information on this topic by introducing the reader to Nepal as a country, local issues of gender and ethnicity and the research objectives.

1.1 Nepal

The kingdom of Nepal covers about 147,181 square kilometres along the Himalayas between latitudes 26° 22' and 30° 27' North and longitudes 80° 4' and 88° 12' East. Geographically, Nepal is a small country wedged between India and China. Ecologically, it is divided into three regions: the Mountains (35 percent of the total area and 7 percent of the population), the Hills (42 percent of the area having 46 percent of the population) and the Terai (23 percent of the area having 47 percent of the population). Administratively, Nepal is divided into 75 districts, 14 zones and five development regions (CBS, 1997a).

Nepal's land use can be categorised as 21 percent cropland, 42 percent forest, 12 percent pastures and grasslands, and 25 percent for other uses. Forests are the main source of energy in Nepal, and about 98 percent of the rural, and 83 percent of the urban, people depend on forestry (AsDB & ICIMOD, 1992).

In 1996, 21 million people lived in Nepal and the rate of population growth was recorded at 2.1 percent per annum (CBS, 1997a). The demographic composition of households varies across the country. For example, in comparison to an urban household, a typical rural household has a larger proportion of 0-14 year old members and a smaller proportion of males in the productive age groups (CBS, 1997b). Similarly, the dependency ratio [defined as the share of younger (<14 years) and older

(>65 years) people compared to those in the productive age group (14-64)] also varies significantly across the urban and rural areas: it is 117 percent in rural areas compared with 89 percent in the urban areas. Thus, there are more dependants in rural households. However, the gender composition of the population is similar in rural and urban areas. Approximately 52 percent of the males and 48 percent of the females are in the rural areas, compared with 51 and 49 percent, respectively, in urban areas (CBS, 1997b).

Nepal is primarily an agricultural country: nearly 90 percent of the population live in rural areas. Agriculture plays a dominant role in the economy, contributing slightly more than two-fifths of the Gross Domestic Product (GDP) (CBS, 1997a), and is a major supplier of raw materials to local industries. Nepal's overall economic performance has been poor (ADB & ICIMOD, 1992). In 1995/96, per capita GDP was only US \$220 (CBS, 1997a). Agriculture is labour intensive, and employs 91 percent of economically active women and 72 percent of the men. The official statistics indicate that the proportion of females in the labour force in agriculture increased from 30 percent in 1971 to 36 percent in 1981, and further to 45 percent in 1991. However, the contribution of women to family farms is not fully accounted (Acharya, 1994).

1.2 Ethnicity and gender in Nepal

Nepal's population is multi-ethnic¹ with a range of cultural and religious backgrounds. More than 40 ethnic groups live in the diverse range of agro-ecological zones, from the tropical lowlands to the arctic mountains. The majority of people (86 percent) are Hindus. About 7.8 percent are Buddhist, 3.5 percent are Islamic, and the rest identify themselves as "other religions" (CBS, 1997a).

Ethnic variation is common in Nepal and is similar to that found in other South Asian countries. Similarly, substantial differences in gender roles do exist. However, the

¹ An ethnic group is defined as a "collectivity" within a larger society having real or so-called common ancestry, memories of a shared historical past, and a cultural focus on one or more symbolic elements defined as the characteristics of their ancestors (Hutchinson & Smith, 1996). Therefore, any group of people which is dissimilar from other peoples in terms of cultural criteria such as language or dialect, distinctive dress or diet or customs, religion or race, can constitute an ethnic group (Paul, 1996).

degree of disparity varies by geographical location, ethnicity and culture. For example, among the hill/mountain people, a woman takes more responsibility for, and can make more decisions about, farming activities than does a man (Tuladhar, 1996).

Differences in the household decision-making process are typically associated with gender differences (Acharya, 1993; Bajracharya, 1994; Shrestha, 1994). Sattaur (1996) claimed that Nepalese society values women less than men in all caste and ethnic groups. Nepalese women are still confined to their traditional roles, have a lower status and are subordinate to men within socio-cultural, economic, political and legal frameworks. Women are more confined to household chores and agricultural activities than are men in rural areas (Shtrii Shakti, 1995; Subedi, 1997). Women work longer hours in a day than do men, both in rural and urban areas, and rural women work longer hours than do urban women (Shtrii Shakti, 1995).

Women are exploited and oppressed due to the prevailing religious and cultural traditions (Subedi, 1997; Tiwari, 1997). Women have no power to make decisions on whether to be educated or not, whom to marry or when to marry. Women also have no power in decisions related to property, family size, participation in the political process or control over their bodies (ABC Nepal, 1995). However, elderly women in most of the households, irrespective of their caste and ethnicity, enjoy respect and often have their say in regulating the family and guiding overall household management (Felmy, 1993).

The majority of rural women are still illiterate. This is partly because Nepal has one of the lowest overall literacy rates in the world (Subedi, 1997). The education of a girl often depends on her parents granting her a special favour. In the past 30 years Nepal has made substantial progress in increasing the literacy rate. However, a disparity in literacy still exists between rural and urban areas, and between men and women. For example, 77.3 percent of males and 50.5 percent of females in urban areas are literate, compared to 50.1 percent of males and 22.4 percent females in rural areas (CBS, 1997b). The illiteracy of parents, as well as social taboos and role expectations, limit a girl's access to education. If a family suffers from economic constraints it is common to

reduce the daughter's education before the son's. Girls are mainly involved in providing help to their mother and other members of the household, and demands for their assistance can lead to their losing schooling opportunities (Subedi, 1997).

The extent of decision-making power which women have, though always less than that of men, may vary according to caste and ethnic group (Varma, 1992; Acharya, 1993). Gender differences in workload and household decision-making processes may be better observed with respect to differences in ethnicity. Among the Hindus and some *Tibeto-Burman* hill communities, for example, women have less power than in other groups to make decisions regarding in household activities. In contrast, women from the *Tibetan-speaking* mountain communities have more power over decisions in agricultural activities than do the Hindu women (Sattaur, 1996). Among *Brahmins* and *Chhetris*, most of the household decision-making processes have been monopolised by the adult males, but in the case of *Gurungs*, women look after the household finances that are derived from agriculture (Sainju, 1996; Sattaur, 1996). Women's participation in the market economy has increased their status in some of the communities among the *Tibeto-Burman*, while women from the more orthodox Hindu communities (*Brahmin*) are largely confined to non-market domestic and subsistence production, and have a much less significant role in major household decision-making (UNICEF, 1992).

In general, women, irrespective of their ethnic variation, have less access to income, wealth, employment and education than do men, and have fewer legal rights, especially in relation to property and family matters. This is true of all developing countries (Shrestha, 1994; Shtrii Shakti, 1995; Waring, 1996; Subedi, 1997). Research indicated that women in rural Nepal are not independent in terms of their use of resources. For example, they have very little control over cropland, livestock or daily wages (Shtrii Shakti, 1995). This also differs with ethnicity (Bajracharya, 1993). For example, in rural eastern Nepal, *Magar* and *Gurung* women have comparatively more access and control over these resources than do women from other ethnic communities (*ibid.*, 1993).

In general, rural women are less able than men to make choices over the use of their time. This has meant limited opportunities for their personal development, especially their involvement in activities for creativity, recreation, training or higher education. It also reinforces their mental state of dependence on males for survival, which tends to suppress them in daily life (Shtrii Shakti, 1995; Subedi, 1997).

1.3 Problem statement

Research on gender roles in agriculture and allied activities is at an infant stage in Nepal. Gender concerns were not recognised by policy makers until Acharya & Bennett (1981) conducted a study on '*Rural Women of Nepal*', which concluded that farm and household activities performed by women are related to economic status, caste and ethnicity (Timsina, 1990). Bajracharya (1994) then reviewed comprehensively the available information on gender issues and women's specific roles in Nepalese agriculture. She pointed out that the major facets of gender roles should be studied in depth in order to obtain a clear understanding and real appreciation of gender roles and women's contribution to the diverse range of farm and home-related tasks in the different ecological, socio-economic and cultural settings of Nepal. However, household decision-making processes with respect to both ethnic variation and gender are not covered well in Nepal and requires further study: as discussed already, gender and ethnicity are cross-cutting inequalities with regard to rural household decision-making in Nepal.

Also of concern is the fact that rural planning and policy formulation in Nepal are usually done on an *ad hoc* basis, rather than on the basis of specific supporting information. A large gap exists between the formal acknowledgement by government of gender and ethnic issues, and policy implementation. There are, for example, laws sanctioning equal wage rates/ remuneration and rights for both sexes, but in practice these fail to apply. Similarly, development models tend to be usually male-biased. Furthermore, government programmes frequently do not specifically target women, and at the policy-making level there is no prioritisation of needs and problems in the context of gender. Implementation of developmental work under such conditions is poor.

Ethnic and gender variation is marked also in terms of the roles and responsibilities carried out both within a family and in the community according to caste, culture and religions. These issues have not been studied widely. Most development planners implement their projects without analysing either gender-specific situations or the needs of men and women (Bajracharya, 1994; Shrestha, 1994): this could contribute to project failure.

An important focus of this study was thus to investigate gender differences in terms of household decision-making in rural households, taking specific note of the ethnic context ignored in earlier studies. The study, therefore, would provide an improved understanding of the consequences of current patterns of gendered roles, access, control, and decision-making on sustainable agricultural development with respect to on-farm, off-farm and non-economic activities in rural communities of Nepal (Shields & Thomas-Slayter, 1993). This would enable the results to be used in strategic planning for rural household development. The study would initiate a database on household decisions with respect to ethnic variation for use in future research, as well as for planning and policy formulation in Nepal.

1.4 Study objectives

The study was conducted to assess the role of gender in household decision-making processes across three distinct ethnic communities in central rural Nepal. Specifically, the study aimed to meet the following objectives:

1. To investigate the role of gender in decision-making regarding household, agricultural and non-agricultural activities in three distinct ethnic groups (*Brahmin/Chhetri, Gurung and Tharu*);
2. To understand the effects of gender on access to, and control of, resources (for example, land, labour, capital and access to service delivery institutions) in the three ethnic groups;

3. To examine the decision-making processes of men and women with regard to household economic activities (food crops, livestock, horticulture, employment, income and marketing activities) and household expenditure;
4. To recommend gender-specific rural development strategies for ethnic groups that will benefit both rural households and the Nepalese rural economy.

1.5 Research hypotheses

The research hypotheses investigated were:

1. Women contribute more time to agricultural production activities than do men in all ethnic groups.
 - 1a. The time contributed by *Tharu* women in agricultural production activities is greater than that contributed by women in the other two ethnic groups (*Gurung* and *Brahmin/Chhetri*).
2. Men have greater access to, and control over, household resources than do women in all three ethnic groups.
 - 2a. *Gurung* and *Tharu* women have more access to, and control over, resources than do *Brahmin/Chhetri* women.
3. Men dominate household decision-making processes with respect to post-harvest, off-farm income and employment, and the marketing of goods and services produced by the household.
 - 3a. *Brahmin/Chhetri* women are less involved in household decisions concerning marketing activities than are *Gurung* and *Tharu* women.
4. Women manage the household and family well-being to a greater extent than do men in all ethnic groups.

1.6 Background information of the three selected ethnic groups

Nepal is an ethnically diverse country, with many different languages and dialects, and associated different cultures. Topographically, 'the high Mountains' area is dominated by *Sherpa*, *Limbu* and *Bhotiya* people of Tibetan origin; the 'Hills' are inhabited by *Tamang*, *Magar*, *Gurung*, *Sunuar*, *Newar*, *Brahmin* and *Chhetri* ethnic groups; and the

sub-tropical plains of the 'Terai' contain a multi-ethnic composition of people from various backgrounds (Shrestha, 1994). This study was to take place in the Chitwan district, which is located in the Terai region. Reasons for this selection are provided in Chapter Three. The following three ethnic groups were selected for study.

Brahmin/Chhetri

The *Brahmin* people belong to the Aryan stock. They are not the aborigines of Nepal, rather, they migrated from India into Nepal in the ancient times. They are scattered all over the country. However, they speak the same *Nepali* language. *Chhetris* are the descendants of *Brahmins* whose wives belonged to other castes (Shrestha & Singh, 1992), and they have similar kinds of festivals, rituals and cultural norms to the *Brahmin*. Thus, for the purpose of this study, they have been combined as one ethnic group.

Hindus traditionally define *Brahmins* as the highest caste by birth. So all of their social customs are governed by Hindu religious injunctions as laid down in the '*Shastras*' (Hindu scriptures). Historically, *Brahmins* were supposed to be priests and *Chhetris* were to be warriors. However, agriculture is recognised as the primary occupation for both ethnic communities in Nepal.

Gurung

The *Gurungs* are another prevalent ethnic group in Nepal. Though their origin is not known, they are thought to have migrated from the mountains or the foothills of the Himalayas to different parts of the country (Majupurias, 1985). They are found mostly in the western and Himalayan regions of Nepal. *Gurungs* have also migrated to the tropical plain, *Dun* and inner Terai of southern Nepal, but still follow their own culture and religion, and are involved mostly in agriculture. They have their own dialects, which differ from one settlement to another. Most *Gurungs* are engaged in agriculture: the remainder being mainly engaged in trade, services and other occupations. However, *Gurungs* who live in the Himalayan regions are occupationally quite different from

those living in other areas (Shrestha & Singh, 1992). They are mostly engaged in sheep farming and the weaving of woollen apparel and rugs. They enjoy a wide variety of entertainment.

Tharu

The *Tharus* are considered to be the native or aboriginal people of Nepal. They are mostly found in the Terai extending from east to west and some parts of the inner Terai (for example, in the Chitwan and Dang districts). Like *Gurungs*, *Tharus* have different dialects. Their language is a mixture of *Bhojpuri*, *Maghadi* and *Prakrit*. While they look like *Mongoloids*, their ways of living are similar to those of the *Brahmins/Chhetris* (Shrestha & Singh, 1992). *Tharus* are divided into different castes (*ibid.*, 1992), and are assumed to be sincere and to follow simple lifestyles. Their primary occupation is agriculture, though their women engage themselves in making different handicrafts and woven products as well. Their housing style is quite different from that of other ethnic people, as they live in mud huts as opposed to the brick/cement/wooden houses of *Brahmin/Chhetri* and *Gurung* households. They generally believe in ghosts and spirits, and have full faith in *Guraun* (a tribal priest who is supposed to ward off evil spirits and cure diseases).

1.7 Importance of the study

Gender issues in agricultural development have become a common area of concern at global, regional and national levels (Bajracharya, 1994). Many studies in developing countries have highlighted the importance of the agricultural work carried out by women. This is true also in Nepal. In simple terms, increased agricultural production is not possible if women remain ignorant of new technologies, lack access to capital and services, and are excluded from education and training opportunities. In addition, women's knowledge and skills in relation to agriculture have not been acknowledged in the past, meaning that rural extension agents and development programmes have failed to work effectively with rural women.

Studies of gender roles in household decision-making processes in a multi-ethnic context have not been undertaken, yet this information is important for designing strategies to accelerate rural development in Nepal. Ethnic and gender constraints need to be overcome. The findings from this study will therefore, provide guidance to policy makers, programme managers, government organisations, and non-government organisations, as well as identify ways to enhance project planning for rural development. Results will also be useful for formulating gender sensitive plans, especially in the agricultural sector and at the household level.

1.8 Limitations of the study

Since the study was carried out in three ethnic communities, all sets of data for each ethnic group were collected in sequence. Second, the study represented a sample of villages from one district in the central region only, and the results may not be generalisable to the whole country. Similarly, as the study was undertaken in a multi-ethnic context, occasionally there were some difficulties in communicating and understanding local dialects while completing interviews, and thus some answers may have been misinterpreted. The limited time available to collect data was another major constraint. Nevertheless, proper care was exercised to make the study empirically reliable.

1.9 Thesis organisation

The first Chapter of this thesis has provided a brief background to Nepal and the situation with respect to gender and household decision-making amongst different ethnic communities. The study problem was identified, and the objectives were defined. The ethnic groups chosen for the study were briefly described. The importance, and limitations, of the study were summarised in the last part of this Chapter.

A review of literature follows in Chapter Two. The review focuses mainly on studies of gender roles in household decision-making within different ethnic communities, especially in developing countries.

The methodology used in the study is outlined in Chapter Three. This includes a description of the conceptual framework and the associated empirical models used, as well as the research design and an outline of the location of the study area. The procedures for data collection by Participatory Rural Appraisal (PRA) techniques, Gender Analysis (GA) exercise, face-to-face household interview and key informant interviews also are explained in this Chapter.

The results of the study are presented and discussed in Chapter Four. First, the PRA results are presented, followed by the GA exercise and household survey findings. Tables are presented to show general household information about the survey respondents, gender roles in access to, and control of, household resources, and men's and women's participation in the household decision-making processes of the selected ethnic communities.

In the final Chapter of the thesis, the results from the study are summarised and conclusions are drawn. Policy recommendations arising from the research and related areas requiring further research are also presented.

CHAPTER TWO - LITERATURE REVIEW

In most developing countries, policies directed at the household level have generally failed in the past because they did not recognise divisions within a household (Moser, 1993; Safilios-Rothschild, 1991). Consequently, women and children in particular have often missed out on development opportunities, and this has created a major gender inequality in households. There are also ethnic inequalities between households. A review of the literature on gender and ethnicity in relation to household decision-making follows.

This chapter has been broadly divided into five parts: (1) a definition of *household*; (2) an introduction to rural household activities including on-farm and off-farm work; (3) factors influencing decision-making in rural households in the context of cultural and ethnic issues of the developing countries; (4) examples of decision-making processes used in developing countries' households; and (5) a summary of key findings from the literature reviewed.

2.1 Definition of a household

Individuals who share a common kitchen or the same cooking pot and live under the same roof are usually considered to constitute one household (Evans, 1992). According to Harris (1981) a *household* is an institution which provides the primary social venue for people's daily movements (Harris, 1981).

A household has a multiplicity of functions. It is the site of biological and social reproduction, and of economic decision-making which is based around family relationships centred on marriage and parenthood. It is co-residential and is concomitantly the unit of residence and consumption, and is the unit which pools and distributes resources (Evans, 1992; Bryceson, 1995). A household is, therefore, critical for the analysis of gender roles and relationships, as it is the focal point for the gender-based division of labour.

2.2 Activities in rural households of developing countries

A typical rural household is the setting within which family members engage in a variety of activities from dawn to dusk. The rural household is the centre of economic activity and this being the basis upon which its members successfully live (Bryceson, 1995). There is, however, gender variation in the activities undertaken by household members, with women often confined to work inside the house or near the house, while men are normally involved in outdoor work (Bajracharya, 1994; Omari, 1995; Shtrii Shakti, 1995; Waring, 1996). For example, in the Philippines, men work more outside the home as wage workers and in farming, whereas women do work predominantly within the household, which involves taking care of family members including children, the sick and elderly, and performing almost all the domestic chores needed for the survival of household members (Heinonen, 1996). There is, however, sometimes support from male members for some household activities, particularly those related to family and childcare, food processing and household management.

The importance of women's roles in maintaining the household unit is discussed next, first looking at household work and community activities, and then considering on-farm and off-farm work. On-farm and off-farm activities are both centred on the needs and aspirations of the household members.

2.2.1 Household work

In the developing countries, women generally play an active role in every aspect of family life. They have primary responsibility for meeting the family's basic needs for food, water and fuel. Rural women are heavily occupied in unpaid tasks such as child care, fetching water, washing clothes, cleaning the house, and firewood collection (Barrett & Brown, 1993; World Bank, 1995; Waring, 1996). Irrespective of age or gender, women are expected to take care of, and supervise, the old, sick and disabled family members (Chatterjee, 1989). Sometimes women get support from their children in household-related activities. Sama (1994) suggested that the whole day of rural women in Cameroon is occupied and devoted to household chores. The primary

responsibility of men has been to generate sufficient income to feed the family and also to pay for school fees and major capital expenditure for household and farm-related activities (Thomas-Slater & Rocheleau, 1995). Women's involvement in household work is clearly visible in the African context as well. According to Okojie (1996), Nigerian rural women spend about 35 percent of their time on farm work and 40 percent on household activities. Of the time spent on household activities, 47 percent is spent on food production and processing, and the remainder on family care and household management. The other 25 percent of their time is spent on activities such as the marketing of processed foods.

The body of literature consistently suggests that women in all societies constitute an underprivileged group even though their involvement in household activities is greater than that of men. They are heavily involved in multiple tasks throughout their lifetime as producers, reproducers and community workers (Mumtaz & Shaheed, 1987; Acharya, 1993; Bagchi, 1993; Felmy, 1993; Jacobson, 1993; Moser, 1993; Malathy, 1994; Omari, 1995; Okojie, 1996; Waring, 1996). But, women's domestic roles and services are not always recognised as productive work, just because the products of their labour are produced and consumed within the same household rather than being sold for cash (Waring, 1996). For example, cleaning, decoration and maintenance of the home, the servicing and repair of household goods, the preparation and serving of meals to household members, provision of training for, and supervision of, their children, and the provision of hospitality to guests are some of the activities, performed by women normally in the household, but which are not always considered productive (Bagchi, 1993; Waring, 1996).

This uneven division of responsibilities in household-related activities exploits women. For example, women's responsibilities for childcare and most domestic work are typically unpaid. This can also mean that women's work is undervalued (Wimbush, 1987). Thus, women's work is much more confined to household activities and unpaid in comparison to the activities of men (Stolen & Vaa, 1991; Jazairy *et al.*, 1992; Rickson, 1997).

2.2.2 Community activities

In addition to household-related activities, the community roles undertaken by men and women differ. Those roles played by women, however, can be taken as an extension of their reproductive roles. Women often do work that involves the maintenance of scarce resources such as water, health care and education for collective consumption. This is seen as voluntary, unpaid work and undertaken during 'free time'. In contrast, men undertake roles at a formal level. Men's community work is usually paid, either directly or indirectly, through wages or increased status and power (Moser, 1993). This reflects the fact that men are typically more involved in public activities such as participating in social gatherings, meetings, discussions and religious ceremonies than are women. Meanwhile, women in most developing countries are considered primarily to be wives and mothers, and mainly concerned with private services including domestic work (Jacobson, 1993; Moser, 1993; Omari, 1995; Shtrii Shakti, 1995; Okojie, 1996; Waring, 1996).

An example of gender roles in community activity can be seen in Lima (Peru) where men control and lead the *Junta Communal* while women are involved in the *Community Kitchen Associations*. In the Philippines, men are generally given responsibility as *Barangay Captains*, but women's participation is restricted to women's clubs (Moser, 1993). Thus, even when women are involved in community activities, their recognition as community participants is less than that of men. These responsibilities normally do vary according to the nature of the work and the country context as well.

2.2.3 On-farm work

Rural people in the developing countries are often heavily dependent on subsistence agriculture to support their livelihoods through employment and income (Carr, 1991; Okine, 1993; Mrema May, 1996). In a subsistence farming system, labour is one of the most important factors that contributes to sustained agricultural production and management (Bajracharya, 1994). As such, gender roles are a clearly visible feature of both domestic and production activities, therefore, we need to consider the nature of

labour used in on-farm work by gender (Wickramasinghe, 1993).

In most developing countries, rural women play an important role in food production and processing activities (Timsina *et al.*, 1993; Sama, 1994; Ezumah & Di-Domenico, 1995; Gurung, 1995; Sachs, 1996). However, there may be regional variation in the nature and intensity of gender participation in agricultural activities (Acharya, 1993; Sachs, 1996). This variation may depend on land-use patterns (Acharya & Bennett, 1981), ethnicity (Sattaur, 1996), culture and religion (Engle, 1997), the diversity of the cropping system (Bajracharya, 1994), socio-economic factors (Sama, 1994; Adhikari *et al.*, 1993), ability to access traditional productive resources and opportunities for self-employment (Kenig-Witkowsk, 1996). A discussion of men's and women's roles in agriculture into the main activities discussed in the literature can be divided into crop production and animal husbandry (Bajracharya, 1994; Sachs, 1996).

Crop production

Gender involvement in crop production varies according to the location, class, culture and ethnicity of a society, also the labour required by individual crops (Ojha, 1989; Sachs, 1996). In the Asian context, men typically have control over grains (wheat, rice and maize) and exportable non-food products, whereas women have more control over vegetable crops, especially beans and root crops. For example, in Bangladeshi villages, women spend more time on vegetable gardening than do men, although they also engage in crop production activities (Zaman, 1995). The control over a crop by men or women, however, does not directly coincide with a strict gender division of labour. Often women contribute substantial labour to men's crops: the reverse may also occur (Sachs, 1996).

In South Asia, traditional types of farming systems are more common in practice. Women are heavily involved in labour-intensive tasks such as transplanting and weeding, while the relatively heavy, but less time-consuming work of ploughing (using draught power), irrigation management, transport of harvested produce, and threshing the products is usually done by men (Wickramasinghe, 1993). However, seasonal

changes in labour requirements and the availability of paid agricultural labour have a direct impact on the pattern of women's involvement in both agricultural and domestic activities (*ibid.*, 1993). The gender division of labour is also dependent upon the local cropping patterns and seasonality in terms of demand for labour (Ojha, 1989). For example, in Sri Lanka, during the 'slack' season, women's involvement in crop production is comparatively less than that of men and slightly greater during the 'peak' season. In such 'slack' times, male members of the family spend their time in the field while women spend much of their time in home-based activities (Wickramasinghe, 1993).

Women's labour dominates in tasks such as planting/sowing, weeding, harvesting and post-harvest activities of cereal and pulse crops (Pradhan, 1985; Bajracharya, 1994; Gurung, 1995). Such agricultural work, which is heavily time-consuming and involves drudgery, is often officially undercounted in developing countries due to the lack of reporting of 'family workers' who are engaged in both subsistence and market-oriented agriculture (Beneria, 1992; Jazairy *et al.*, 1992; Zaman, 1995). Acharya & Bennett (1981) reported that, in the case of family-owned farms in Nepal, men and women on larger farms contributed almost the same amount of time to agricultural tasks, whereas on medium and smaller farms, men did slightly more agriculture-related work than women. Even on the smaller farms, women spent two to eight hours per day on crop-related farm activities, while they spent three to six hours per day on livestock-related activities-in addition to their household tasks, which men did not share. The average daily number of working hours each day for women (12.07 hours) was 47 percent greater than that for men (8.21 hours).

Livestock production

Livestock production is a major component of agriculture in most developing countries. However, production patterns may vary within and between countries, regions, ecological zones and cultures (Bajracharya, 1994; Tulachan & Batsa, 1994; Sachs, 1996; Timsina *et al.*, 1996). As in crop production, gender involvement in animal husbandry also differs visibly in developing countries (Mrema May, 1996; Sachs, 1996).

Women and men raise animals under different types of systems and circumstances if the livestock are their private assets (Sachs, 1996). For example, the animals tended by women are kept close to the household, where they often subsist on household waste products, whereas 'men's animals are grazed further afield on pasture. Women are commonly involved in poultry raising on a small scale, whereas men are more likely to control the production of a larger number of large animals, especially cattle, oxen and buffalo (Eckman, 1996; Sachs, 1996). However, women in some situations participate substantially in the care and management of these larger animals as well (Bajracharya, 1994; Pradhan *et al.*, 1994).

The involvement of women in livestock production and management as compared to crop production also differs according to the country or area studied (Bajracharya, 1994). For example in Pakistan, women's contribution to livestock care and management is more visible than is their contribution to crop production (Mumtaz, 1995). The choice of livestock species also varies among different ethnic communities and castes (Timsina *et al.*, 1996). For example, in Nepal, the *Brahmin* people much prefer to raise large animals, mostly milking buffaloes or cows, while in other communities the preference is to raise poultry, and/or pigs.

In the African context of Botswana, men's time in livestock activities is used mainly to obtain medication when necessary and to inspect the cattle, whereas most of the other livestock care and management-related activities are done by women with the help of their children (Mrema May, 1996). A similar situation exists in many south-east Asian countries, where women have full responsibility for livestock care. Men are involved mostly in making animal shelters, the buying and selling of animals and the management of animal health. Likewise, women's participation is greater in chores such as fodder collection, feed preparation, water provision, caring for young and sick animals, the grazing of animals, the cleaning of sheds and processing of dairy products (Bajracharya, 1994; Mumtaz, 1995; Sachs, 1996).

2.2.4 Off-farm work

In general, both men and women in the household are involved in some form of off-farm income-generating activity, but even when women do work for pay, their level of compensation and status are likely to be lower than those of men (Acharya, 1986; Mencher, 1993; Cleves Mosse, 1993; Subedi, 1997). Women's wages for non-farm jobs are less than three-fourths of those of men in developing countries such as Thailand, Syria, Argentina and Bolivia, and less than half as much as those of men in Bangladesh (Riley, 1997). Education plays a major role in determining the availability of off-farm opportunities for women. If women are educated, then they have a greater likelihood of earning through off-farm work, especially being involved as a teacher or a nurse in the health-care centres-roles which are not seen to jeopardise their household work (Shah, 1986; Acharya, 1986). Thus, women working off-farm are often expected to work a double day (Waring, 1996).

Men, in general, have better access to education than do women, and have more scope and confidence to seek work outside the village and community to increase the level of off-farm earnings. They often also receive more encouragement to pursue these opportunities. The illiterate population, especially women, usually work only as seasonal labourers.

The review thus far has shown that there are visible and genuine differences in men's and women's activities in terms of both household and community work, and in opportunities for on-farm, as well as off-farm earnings. Much of women's work is either undervalued or is full of drudgery, while men are not only better-paid, but are also more likely to have better access to work outside the community (Sathar & Desai, 1996; Subedi, 1997). This situation also varies with ethnicity as well as with other factors such as the individual's level of education (Subedi, 1997).

2.3 Factors influencing decision-making in rural households of developing countries

Decision-making processes involve a multiplicity of factors and are affected in various ways by the structure of the household and members' relationships to the wider society (Omari, 1995). The participation of men and women in household decision-making varies with ethnicity, gender and country contexts (Varma, 1992; Acharya, 1993; Bajracharya, 1994; Sattaur, 1996). When discussing decision-making in rural households in this thesis, the concern is about both decisions to do with management of the home and those which relate to on-farm and off-farm work.

Household decision-making processes can be organised into three different modes: (a) the 'syncratic', where husband and wife jointly discuss issues that affect them as individuals or the household as a unit, (b) the 'autonomous', where wife and husband make decisions separately on different issues related to the unit's welfare, and (c) the 'autocratic', whereby one party dictates decisions to the other (Omari, 1995). Which of these modes (or combination) applies depends largely on the country context (Bajracharya, 1994; Koda, 1995), family status (Omari, 1995), caste and ethnicity (Sattaur, 1996), and agro-ecological region (Acharya & Bennett, 1981).

Whatever the situation, household decision-making processes may not rely only on husband-wife involvement. Moser (1993) argued that decision-making models focussed only on the husband and wife could be flawed by the neglect of other members of the household, such as children, co-residing members or other relatives. The dynamics of decision-making processes, therefore, can vary. Factors which directly or indirectly influence rural household decision-making processes in developing countries, are discussed next.

2.3.1 Household structure

The way a rural household makes its household management decisions depends on the characteristics of the household, for example, number of men, women, children, their age, health status, abilities to convince their family members, their needs and interests, farming experience, knowledge and skills, and the relations among household members (Reijntjes *et al.*, 1992). Household decision-making processes are usually carried out by the members within a household through negotiation, and balancing decisions between work for income and for self-consumption (Omari, 1995; Wheelock & Oughton, 1996).

Household composition and family size are crucial factors that influence household decision-making processes (Acharya & Bennett, 1981; Omari, 1995; Sathar & Desai, 1996; Wheelock & Oughton, 1996). In most developing countries, especially in rural areas of Asia and Africa, the multi-generational household system is common. Under this system, parents, their children, and their grandchildren, and often relatives live together in the same house. Men are generally considered to be the breadwinners and main decision-makers (Division for the Advancement of Women, United Nations Office at Vienna, 1991). However, sometimes, senior women especially mothers-in-law, can dominate their junior female counterparts (Cleves Mosse, 1993). In addition, the power structure within the household is closely linked to the type of family and the women's position in the complex set of relationships. For example, daughters-in-law in an extended household, is likely to have considerably less power and autonomy than the wife in a nuclear family (Sathar & Desai, 1996).

2.3.2 Economic status, class and caste

A household's economic status can be a major factor influencing household decision-making processes (Acharya, 1993). When the household economy is strong, women are less able to make decisions concerning daily household activities in comparison to their male counterparts (Tiwari, 1997). This is primarily due to the class and wealth of the household. The caste system, which is related to the general concept of class, also influences rural household decision-making processes, especially in the South Asian

countries. In general, in a caste-dominated system, the higher the caste of a woman, the less decision-making power she has (Acharya, 1993; Cleves Mosse, 1993; Murthy, 1996; Tiwari, 1997). For example, lower caste women (e.g. from blacksmith households) are freer to marry after being widowed, and to work outside the home, and even some distance from home than are women from higher castes, who are hardly ever able to become involved in matters outside the home (Tiwari, 1997). The reasons for such actions are not clear, but could be due to the domination of women by men in the higher caste system, which is culturally- rooted in the South Asian societies. In higher castes, the confinement of women within the household is considered to add cultural value and well-being to the family.

2.3.3 Education

Education plays an important role in rural household decision-making processes. Where women lack education, household decision-making power is mostly dominated by the male members of the family (Varma, 1992). Education also changes women's childbearing behaviour (Subedi, 1997). Delaying child-bearing and having fewer children is more common among educated women (Chatterjee, 1989). Men often hide information from illiterate women, even when it could be equally important to share it with them. This makes women less able than men, in terms of knowledge and understanding, to participate in, and take advantage of various activities and services (Rodda, 1991). It also undermines women's confidence to get involved in activities outside the home environment.

2.3.4 Gender

Gender discrimination in household decision-making processes is highly prevalent in most of the developing world. Men usually make overall household decisions (Varma, 1992; Acharya, 1993). Sometimes this situation is so strict that women have to wait for their husband's or male partner's, advice concerning the treatment of their children (Chatterjee, 1989). Nevertheless, both men and women usually have partial involvement in household management-related decisions. However, gender

involvement may vary between ethnic communities.

Women are limited to the drudgery of domestic work due to social norms and values as discussed earlier in this chapter. This deprives women of education, knowledge and experience. Most women in Nepal cannot talk openly, even within the family, about issues which are important to them unless they obtain the consent of senior male members, particularly the husband (Tiwari, 1997). Inequality also exists among women themselves. In some extended family systems of South Asia, households are dominated by in-laws, the daughters-in-law are dominated by their mothers-in-law, and thus are discriminated against in terms of work-load and household decision-making (Lebra *et al.*, 1984; Varma, 1992; Aschenbrenner, 1993; Cleves Mosse, 1993).

A recent study by Shtrii Shakti (1995) revealed a surprisingly downward trend in decision-making by women. In the Nepalese context, women in general had less say in decision-making than they used to, which could be due to the inside/outside dichotomy (Shtrii Shakti, 1995). That is, rural women in Nepal are mostly involved in household chores or roles which keep them close to the home, such as caring for small livestock and home gardens, whereas men are mostly involved in outside activities. Women are thus deprived of new knowledge and information that comes through training, social gatherings and community participation. The ultimate effect is that women's knowledge base is less than that of men, and this impedes their participation in decision-making (Bajracharya, 1994; Subedi, 1997).

Lack of access to technological advice is a major constraint for rural women in the developing world. For example, rural women in Malawi are involved with dual domestic and farming responsibilities, however, they lack labour-saving technologies and thus they must work longer hours in agricultural activities (Mkandawire, 1993). When women in the African context suffer from time constraints due to the lack of labour-saving technology, their decision-making power is undermined because they find it difficult to attend meetings at which either decisions are made, or new information is provided which could help them to make informed decisions. A similar situation exists in South Asia, where women, like their African counterparts, have restricted access not

only to ownership and control of land but also to modern agricultural inputs (Buvinic & Mehra, 1990; Laier *et al.*, 1996). As a result, their farm work continues to be labour-intensive, which yields a lower economic return. In addition, very few extension programmes focus on female farmers. The target group for receiving improved technologies is often male farmers, and it is assumed that female farmers can learn about new technologies through them (Prah, 1997). Furthermore, many rural women are reluctant to interact with male extension workers due to socio-cultural constraints and low levels of confidence (Gurung, 1995; Due, 1997). Technologies are available to reduce women's drudgery, but, due to their lack of knowledge of how to access and use them, along with male domination over resources and the decision-making process, women continue to be deprived of the benefits which new or improved technologies can provide.

2.3.5 Ethnicity, culture and religion

Ethnicity, culture and religion also can influence household decision-making processes. For example in Nepal, the household decision-making power of women appears to be greater in the *Tamang* and *Tharu* communities than in other ethnic communities (Acharya & Bennett, 1981), but this depends on the nature of the activity. Labour allocation in the household mainly comprises the decisions to hire and exchange labour. Exchange labour is more common in rural than in urban areas. On the other hand, decisions concerning wage payment are made in areas closer to urban centres (CBS, 1997b; Subedi, 1997). Decisions on exchange labour in a household may be made jointly by men and women, but this varies according to ethnicity (Acharya & Bennett, 1981; Bajracharya, 1994). In their study regarding ethnicity and women's status in Nepal, the authors found that, in the *Tharu* and *Maithili* ethnic communities, men were entirely responsible for arranging exchange labour whilst in the *Tamang* and *Newar* ethnic communities, the labour management decision-making processes were shared among the household members. In contrast, women held major decision-making responsibility for exchange labour in the *Brahmin/Chhetri*, *Magar*, *Rai*, and *Baragaonle* ethnic communities.

Culture and religion are closely linked (Mukhopadhyay, 1995), and play a central role in shaping the value system and the norms of a society (O'Connell, 1994), which in turn influence rural household decision-making. Cultural restrictions on household decision-making are common in developing countries. This is especially true in Muslim societies where, for example, it is uncommon for women to make decisions about child-bearing activities (Engle, 1997). According to the Muslim religion, family planning measures and sex education to prevent the birth of unwanted children are completely prohibited, and as a consequence, women are expected to accept child-bearing responsibilities whether they want them or not (*ibid.*, 1997).

Religion is often associated with particular values, and this may generate the expectations of men and women (Hall, 1990). It can be considered as a system of symbols, which has both psychological and political effects. It creates deep-rooted attitudes and feelings that lead to the acceptance of social and political arrangements which correspond to the dominant system (Seneviratne & Currie, 1994). For example, Hindu women are suppressed and subordinated in the household by their male counterparts, and are never free from male domination. As children (before marriage), they are under the control of their fathers, and, as young women (after marriage), they are controlled by their husbands (*ibid.*, 1994).

In summary, family size, household economic status, education, caste, class, gender, ethnicity, culture and religion all are important factors that influence rural household decision-making processes. For the purpose of this thesis, however, gender and ethnicity have been chosen for closer scrutiny.

2.4 Decision-making in rural households in practice: Examples from the developing world

Some examples of rural household decision-making processes and gender differences in the context of multi-ethnic communities are discussed in this section. Decisions relating to household expenditure and to on-farm and off-farm works are covered.

2.4.1 Decisions on household activities and expenditure of income

The changing gender composition of the workforce in developing countries is likely to significantly affect the traditional roles of both men and women. However, in both developing and developed countries, fathers usually exercise control over overall decisions about the household and family welfare (Engle, 1997).

Although fathers do not spend much time in household-related activities, they usually control household income, which can be derived from off-farm work, self-employment, investment or the sale of on-farm products. This situation varies from one region to another depending on several factors including the geographical setting and individual household livelihood strategies. Kumar (1987), in her study of rural Sri Lankan women, found that although women work as wage labourers, the earnings from waged work are predominantly controlled by their husbands, who decide the allocation of income to different activities/purposes. Decisions about household expenditure are visibly dependent on the country context and the nature of the activities. For example, Kumar (1987) suggested that decisions concerning further expenditure on agricultural production activities are made jointly by husband and wife in Sri Lanka. However, the head of the household, typically the husband, controls income from the paddy field. While more educated women usually have some involvement in household decision-making, the final word is usually left to men (Shtrii Shakti, 1995). Nevertheless, women and men have their own roles and responsibilities in running the household in a harmonious manner. Men are responsible for decisions on who should participate in different public tasks, including outside work. In contrast, women are preoccupied with childcare, and are involved in decision-making concerning domestic chores such as cooking, cleaning, child care and family management activities, which are time-consuming and dreary (Jelin, 1991; Acharya, 1993; Van den Hombergh, 1993; Stockman *et al.*, 1995; Sattaur, 1996; Rickson, 1997).

Household decision-making processes in rural Nepal mostly involve informal discussions, especially by senior members of the family (Acharya, 1993; Bajracharya, 1993). A similar scenario was found in the Hunza Valley of Pakistan, where household

decision-making processes are partly determined by age. The eldest man in the household has the greatest authority and responsibility for marketing the farm products and resources. He looks after the agricultural equipment and deals with surplus products and money. Meanwhile, the eldest woman is responsible for the management of household food and livestock feed. At other times, all family members come together to discuss issues such as the household work-load and major activities, in order to make decisions (Felmy, 1993).

2.4.2 Decisions about on-farm work

Men generally make decisions regarding crop production-related activities, for example, land preparation, ploughing, land labelling, irrigation and drainage development, the buying of seeds and fertilisers, application of fertiliser and pesticides, and the handling of agricultural machinery. Women, however, sometimes dominate decision-making regarding the use (amount and kind) of farm yard manure and compost, the timing of transplanting, weeding and harvesting, and the storage of products (Acharya, 1993; Ghosh-Ahmed, 1993; Jacobson, 1993; Mencher, 1993; Bajracharya, 1994; Mumtaz, 1995; Rickson, 1997). Decisions on such activities are influenced not only by gender, but also by the farming experience of individuals (Timsina *et al.*, 1993). In most South Asian countries, joint decisions are made by household members regarding activities related to cereal production (Acharya, 1993; Timsina *et al.*, 1993; Bajracharya, 1994; Mumtaz, 1995), but these decisions may vary by the ethnicity (Mencher, 1993; Sattaur, 1996), farm size and crop species (Ezumah & Di-Domenico, 1995), and household economic status (Acharya, 1993; Mencher, 1993). This situation approximates the Nepalese context, where men primarily make decisions on labour for agricultural work, and participate in meetings and programmes related to their children's education and health (Bhattarai *et al.*, 1989).

Decision-making processes can vary also by the nature of crop husbandry. In Nepal, women make decisions related to kitchen gardening, such as vegetable production, while men make most decisions in relation to the cultivation of other food crops (Bajracharya, 1994). Unlike crop-specific decisions, some decisions on post-harvest

activities are reached jointly by men and women. In Bangladesh, joint decision-making is common for threshing as well as for the processing of rice and wheat crops, also concerning the harvesting and storage of vegetable crops (Mumtaz, 1995).

In some situations, decision-making processes take place irrespective of the gendered division of labour. This is obvious in Eastern Africa, where, despite the fact that women play a crucial role in agriculture as subsistence producers and farm managers, overall control of farm decision-making is held by the males even in the absence of male landholders (Kishindo, 1992).

2.4.3 Decisions about off-farm work

In traditional contexts, off-farm employment is largely the domain of men. This is partly due to the fact that women have greater responsibilities for household work than do men. In women's multiple roles as producers, reproducers and community workers, they have less time and flexibility to undertake off-farm work (Sirisambhand & Gordon, 1987; Moser, 1993; Mencher, 1993; Warring, 1996).

There is limited empirical work on decision-making in relation to off-farm activities despite the important role off-farm work plays in the household economy in most developing countries. People are not always busy with farming activities, and this allows them to look for alternative ways to earn income. Off-farm work is often seasonal, and varies with the type of farming system, household economy, size of the family, ethnicity and culture (Agarwal, 1985; Bajracharya, 1993). In general, labour allocation decisions are usually made by the male (head of the household), and occasionally in consultation with other male and senior female members (Sathar & Desai, 1996).

Off-farm employment is an important source of social contact outside the family, which enriches women's lives and can expose them to new ideas and knowledge. However, women in most of the developing countries receive fewer opportunities for off-farm employment than do men, and most face cultural discrimination which impedes their

participation in off-farm work (Agarwal, 1985; Acharya, 1993; Riley, 1997). Women in some Muslim communities are still under *purdah* and are not allowed to mix freely with people of the opposite sex, thus severely constraining their mobility (Acharya, 1993).

Gender discrimination in taking up off-farm work opportunities also varies with caste (Raju, 1993). For example, in India the higher caste women are more restricted from seeking off-farm employment than are lower caste women. In higher caste societies, there is very strong gender discrimination for certain activities, but in the lower caste societies, inequality between men and women in education and skills is always less apparent. Therefore, lower caste women do not face the same societal restrictions on employment opportunities. Furthermore, women in lower caste households are often forced to generate extra income in order to feed their children and pay for basic necessities. In rural Nepal and India, certain off-farm activities, such as blacksmithing, tailoring and shoe-making are performed by a specific caste (World Bank, 1991).

Decisions concerning off-farm activities also vary according to culture and ethnicity. This situation is visible amongst the Indo-Fijian communities, where opportunities for off-farm employment are gender-specific and related to marital status, with unmarried women not being allowed to go far from their homes to undertake off-farm activities (Leckie, 1997).

Variations also exist by agro-ecological region. For example, in the African country of Burkina Faso, off-farm work by women is not common in the north and central region, but is relatively prevalent in the southern region. In the north and central regions, women are mostly involved in agricultural activities and have little time to seek off-farm work, whereas in the southern region they are less involved in agricultural activities and are able to become involved in off-farm activities (Haddad & Reardon, 1993).

Women who are earning off-farm income generally have greater control over the allocation of household resources and over decisions concerning overall household welfare than do those who are not (Moser, 1993). Heyzer (1986) found that, in the

south-east Asian countries, rural women not only contributed more time to household activities, but also generated more income than men did by engaging in different off-farm activities. In Pakistan, women are involved in off-farm activities such as teaching, nursing and midwifery, sewing, weaving and knitting, embroidery, tailoring, wage labour, small businesses and other skilled work (Aschenbrenner, 1993).

2.5 Summary

Women in all societies constitute an underprivileged group, even though their involvement in household activities is greater than that of men. They are heavily involved in multiple tasks throughout their lifetime as producers, reproducers and community workers. However, their domestic roles and services are not always recognised as productive work, simply because the products of their labour are mostly consumed within the same household, and are therefore, not marketed to attract a wage payment.

In the South Asian context, traditional farming systems are common. Women therefore, are heavily involved in labour-intensive tasks such as transplanting, weeding and the harvesting of crops. In contrast, men are involved in the relatively heavy, but seasonally sporadic, work of ploughing, sowing, irrigation management, threshing and transporting of harvested produce.

Decisions about on-farm-related activities in most of the developing countries are basically made by men, but sometimes decisions are also made by joint discussion processes involving both men and women, and other family members. The decision-making processes vary according to the nature of the agricultural activities as well as the farming experience of household members, their ethnicity and the perceptions held of gender in a particular society. In some situations, such as decisions on vegetable production for kitchen gardening, women have an important influence. Decisions related to off-farm activities are largely dominated by men.

The family's status, caste and ethnicity also influence decision-making processes. The higher the economic status of women the lesser their decision-making power over household income. The lower the class or caste of women, the more equal decision-making power they enjoy in the household. In the higher economic groups, although there is a large gender variation in the education and skills of both men and women than in the lower castes, women are usually confined inside household boundaries due to "social prestige". Therefore, they are more restricted from gaining access to new knowledge and information, which would assist them to participate in decision-making than are women from a lower economic status.

Chapter Two has shown how ethnicity, gender and class (or caste), are likely to be key issues influencing household decision-making processes in a developing country in general. A few studies, which have looked at household management in Nepal, confirmed this proposition. Later Chapters will reveal the extent to which the findings of this study support or challenge those reported in the literature.

CHAPTER THREE - METHODOLOGY

This chapter focuses on the methodology used in the research. A conceptual model and an empirical model of the study are specified. Comments are also made on how the field work progressed. After explaining how the study area was selected, a detailed account is provided of the four data collection methods chosen: participatory rural appraisal, gender analysis, key informant interviews and a household survey.

3.1 A conceptual model of household decision-making processes

The conceptual model of household decision-making processes developed for this research is presented in Figure 1. The model draws on the literature reviewed in Chapter Two, but is adapted to Nepal's socio-economic environment. Household decision-making processes are hypothesised to be associated with five broad groups of variables: (a) the demographic characteristics of a household; (b) the household's attributes; (c) the household's resource endowments; (d) the nature of off-farm activities; and (e) the type of on-farm activities. The rationale for each group of variables is discussed next.

3.1.1 Demographic characteristics

Demographic characteristics shown in the conceptual framework (Figure 1), were assumed to influence household members' participation in decision-making processes. These characteristics include age, gender, ethnicity and family position of the household members.

In rural Nepal, the multi-generational household system is predominant. Parents, children, grandchildren and some relatives live together in the same household. Obviously, there are people of different age cohorts and both genders in a typical rural household living in the hierarchy of a family system. In general, older household members are expected to dominate household decision-making processes, as they are respected by the other members of the household because of their experience,

knowledge and recognition in the community. Other adults may have limited roles in decision-making, and children are often excluded from decision-making processes. In some circumstances, the power structure within the household is closely linked to the type of family and to the women's position. Therefore, not only do men dominate household decisions, older women, especially mothers-in-law, also dominate junior female members. For example, a daughter-in-law in an extended household is likely to have considerably less power and autonomy than a wife in a nuclear family.

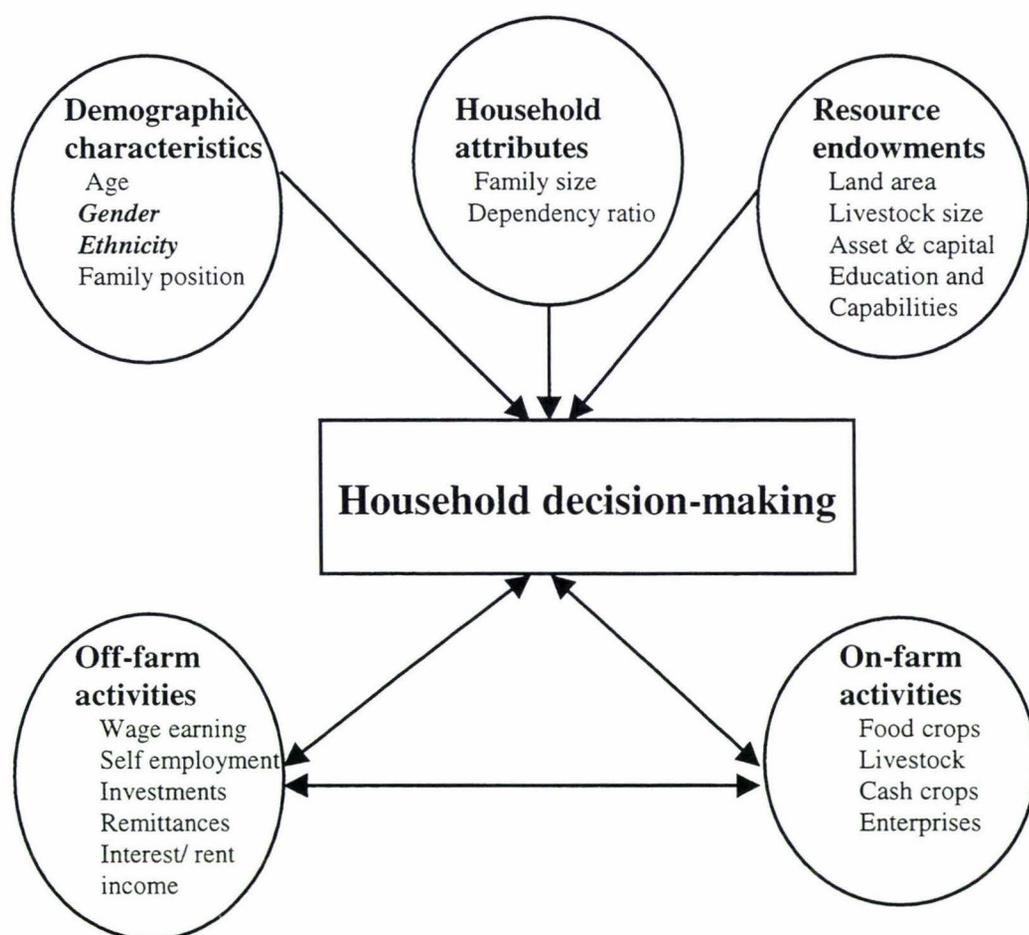


Figure 3.1: A conceptual framework of factors influencing household decision-making in rural Nepal.

Gender discrimination in decision-making is highly prevalent in Nepal due to the influence of a multiplicity of factors identified in Chapter Two including caste, class, ethnicity and traditional culture. However, the intensity of discrimination may vary according to the activities performed and the nature of decisions to be undertaken.

Nevertheless, demographic characteristics play an important role in the household decision-making process.

3.1.2 Household attributes

Household attributes such as family size and the dependency ratio also influence household decision-making processes. In larger households, the head of the household is required to play a greater role in major decisions, and often other members are less involved compared to households with fewer members. Similarly, a household with a high dependency ratio² is likely to have a greater involvement of women in activities related to family well-being decisions, but less involvement in production and marketing activities. On the other hand, households with a lower dependency ratio are likely to involve women in production and marketing decisions. The intensity of women's involvement in decision-making is expected to vary in the three ethnic groups, and according to the nature of activities performed.

3.1.3 Resource endowments

Access to, and control over, household resources also impacts decision-making processes. Land, livestock, other capital assets, education and personal capabilities (for example, knowledge and types of skills), comprise major resource attributes associated with household decision-making processes. In rural Nepal, a 'resource poor' household is expected to involve women and other members of the household in decision-making, while in a 'resource well-off' household, decisions are likely to be made by the head of the household, typically a man. Compared to a 'resource well-off' household, a 'resource poor' household is likely to have more children, less per capita area of cultivable land, fewer livestock and less formal education (with a limited skill base) than one earning a higher level of income. In such households, women can be expected to be more involved in tending livestock and other farm work, while those from 'resource well-off' households may employ extra helping hands.

² Dependency ratio is defined as the number of persons under the age of 15 and over 64 years divided by total number of household members (CBS, 1997b).

3.1.4 On-farm activities

On-farm activities, such as the production of crops, livestock and farm-based enterprises, influence the household's resource endowment position and thus are likely to influence household decision-making. It is hypothesised that women are more involved in on-farm production activities and men are involved more in the marketing of cash crops. In terms of ethnicity, *Brahmin/Chhetri* households are likely to be less involved in on-farm activities compared to the *Gurung* and *Tharu* households because of their higher levels of both education and skill.

3.1.5 Off-farm activities

Off-farm activities carried out by the household members are expected to be influenced by the same variables as those, which influence on on-farm household decision-making processes. There is a two-way relationship between on-and off-farm activities, decision-making and the flow of information and materials. Rural off-farm work in the study area covers paid work, self-employment and salaried employment in the public and/or private sectors. Likewise, pensions and remittances are other sources of off-farm income, which may influence a household's situation. Off-farm activities are also likely to change the flow of information upon which decisions are made to, and from, the household.

3.2 Empirical model

The conceptual model (Section 3.1) was operationalised by defining the context specific dependent and independent variables. Four key decisions and gender roles by ethnicity were examined:

- (a) Family labour allocation;
- (b) Crop and livestock marketing;
- (c) Household management; and
- (d) Household investment and expenditure.

To test the conceptual model empirically, variables representing the characteristics in Figure 1 were identified. The respondent's age was measured in years up to 1998, and gender and ethnicity were based on prior information collected in the field. The number of household members, including children and the elderly, was recorded directly through a household questionnaire, and the dependency ratio was computed as explained earlier. The land area was recorded in a local unit, kattha (1/30th hectare), and later converted into hectares. Livestock classes and numbers were recorded as provided by the head of the household. The annual household working capital and an individual's specific capabilities, such as membership of an organisation or involvement in community leadership, were also recorded. A respondent's educational attainment was recorded in terms of years of schooling. Because of the highly skewed distribution of educational attainment, this was categorised into five groups: illiterate, literate but no formal schooling, up to class five, up to class 10, and higher education. The nature of on- and off-farm activities was recorded as described by the respondent. Gender roles in cultivation practices, livestock production and the marketing of major crops grown in the area were assessed by asking 'Who does what?'. Men and women were interviewed separately. Likewise, gender roles were assessed for activities related to family well-being and in relation to household labour allocation decisions.

Independent variables included *Gurung* for the ethnic group, dependency ratio, type of roof as a household asset (a proxy measure for wealth), female respondent's non-farm employment as a primary occupation, off-farm work as a family labour involvement, and respondents' annual crop income. As for the dependent variables, independent variables were coded 1 and 0. For example, *Gurung* ethnicity was coded as 1-other ethnic groups were coded as 0. Similarly, RCC³/tin as a house roof was coded 1 and other roofing materials were set as 0. Non-farm employment as a female respondent's primary occupation was coded 1 and other employment was coded 0.

³ RCC denotes house made out of rod, cement and concrete.

3.3 Selection of the study area

The Chitwan was selected as a study district for the research based upon the researcher's professional experience of the locality. The Chitwan district is located in the Terai region of Nepal. The total population of the district in 1991 was 354,488 (CBS, 1997a). Approximately 69 percent were *Brahmin/Chhetri*, followed by 12.6 percent of *Tharu* speakers and 2.4 percent in the *Gurung* community. The rest of the population was represented by other ethnic groups (*Maithali, Bhojpuri, Newari, Tamang, Abadhi, Magar, Chepang, Limbu, Rai, Sherpa, Thakali*) (CBS, 1997a). The district is informally known as the "76th" district of Nepal. Here one can find people who have immigrated into the district from all over the country. The district is culturally and socially heterogeneous. The research examined three distinct ethnic groups (*Brahmin/Chhetri, Gurung* and *Tharu*). These ethnic groups were selected on the basis of their similar occupations, but different settlement history. The *Gurung* ethnic group was included in the study because of the compatibility of their occupations with those of the *Brahmins/Chhetris* and *Tharus*.

Three Village Development Committees (VDCs) were purposively selected to represent the ethnic groups for the research. The Bhandara VDC was selected to represent the *Tharu* ethnic group, while the Phulbari and Shivanagar VDCs were selected to study the *Gurung* and *Brahmin/Chhetri* ethnic groups, respectively. Accordingly, ward 2 in Bhandara, and all nine wards in the Phulbari and Shivanagar VDC were covered.

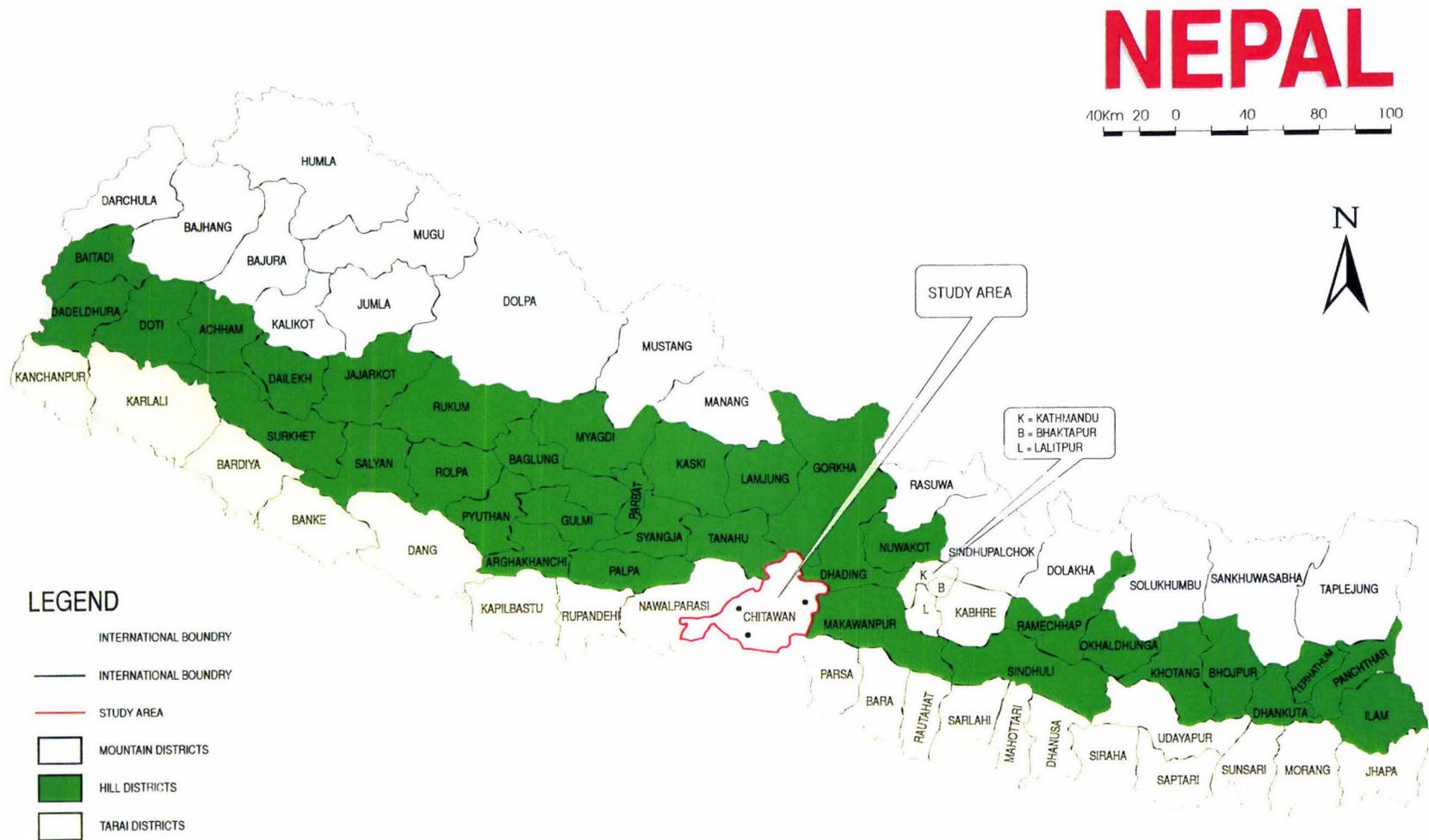


Figure 3.2 Agroecological zones in Nepal and the Study area.

3.4 Data collection methods

Both qualitative and quantitative research methods were applied. The field work for the research was conducted between April and June 1998. This was first completed in the *Tharu* community, followed by the *Gurung* and *Brahmin/Chhetri* communities, respectively.

The process of data collection was divided into three stages. In the first stage, participatory rural appraisal (PRA) and gender analysis (GA) were carried out to obtain a general understanding of the research area, and to gain specific information on the roles of gender and ethnicity in influencing household decisions. These methods are discussed in Section 3.5. The PRA was carried out in each of the three ethnic communities, and altogether three sets of social maps and three sets of seasonal calendars were prepared. A gender analysis (GA) was undertaken with separate groups of men and women in each ethnic community. Altogether, six sets of GA frameworks were derived from the three ethnic communities (Appendix I). In the second stage, semi-structured interviews with 14 key informants were conducted (Appendix II). They included representatives from each ethnic community as well as the officials from different agencies. Questions were asked to derive information on the processes of household decision-making, to compare the gender situation with respect to the past and to understand factors involved in household decision-making. In the third stage, a household survey was conducted with 123 households in order to collect quantitative data on different aspects of individual households (Appendix III). The research instruments (questionnaire and gender analysis frameworks) were pre-tested outside Kathmandu Valley and minor changes were made prior to their field implementation.

Four different data collection methods as discussed in methodology (Section 3.3) namely participatory rural appraisal, gender analysis, key informant interviews and household survey, were used to triangulate the information obtained. *Triangulation* was necessary to verify the information obtain by different methods. The use of different methods allows the researcher not only to cross-reference in order to validate the trustworthiness of data, but also to use information collected from both a group of

people and a large sample of individual household surveys. Robinson stated that “triangulation.... is an indispensable tool in real world enquiry” (1993, 383), because multiple methods of research are used to collect information on the same issues.

The research was designed to study a multi-ethnic group of people speaking different languages and dialects. Therefore, it was necessary to hire local enumerators. Two enumerators, a *Tharu* male and a *Tharu* female from the *Tharu* community were recruited to carry out the survey in the *Tharu* community. Two female *Gurung* enumerators from the *Gurung* community and one man and one woman from the *Brahmin/Chhetri* community were hired to assist the researcher. All the enumerators were trained by using dummy interviews to familiarise them with the questionnaire. The researcher checked every questionnaire for inconsistencies, while she was in the field, to maintain the quality of data.

3.4.1 Participatory rural appraisal (PRA)

Participatory rural appraisal (PRA) involves various tools which can be used to collect information at the community level through group interaction. The main philosophy of PRA is the sharing of knowledge and experience amongst research participants (Chambers, 1997). Through PRA methods, the local people can learn by being involved in active participation and discussion. Although there are a number of PRA tools, such as wealth ranking, matrix ranking, social/resource mapping and seasonal calendars-two PRA tools, social mapping and seasonal calendars, were deemed most appropriate for this research. They were applied to gain general background information about the community. Social mapping is useful for gaining an understanding of the resources and infrastructure related to a particular community. It is also helpful for understanding gender roles and access to resources. Seasonal calendars, meanwhile, are used to describe a whole range of activities that are normally performed on a farm during a year. The participants were asked to discuss gender involvement in these activities. They were asked about 'who does what' and who had the dominant role for each activity. Furthermore, seasonal calendars can also provide information on the labour requirements per unit of land, including the level of men's and women's involvement in

different activities. Altogether, three separate social maps and seasonal calendars were developed: one for each ethnic group.

Social mapping

For the social mapping, participants were asked to come to a consensus on a village, which would be representative of *Tharu* community well enough. Accordingly, the decision was made to map Hardi, a village of the Bhandara VDC. Twenty participants, both men and women, attended the *Tharu* ethnic group for social mapping.

It was difficult to find a representative sample of the *Gurung* community in one hamlet. Therefore, participants first discussed this issue and then decided to draw a map of the Phulbari VDC as a whole to indicate their social boundaries. Sixteen participants, both men and women, attended the group to prepare the social map for the *Gurung* community.

The Shivanagar VDC was selected for the *Brahmin/Chhetri* community for social mapping. Participants were encouraged to draw the map of the VDC as a whole to indicate their social boundaries and the location of existing resources. Fifteen participants, both men and women, attended the mapping of the Shivanagar VDC.

In each ethnic community, the participants discussed issues before beginning to map every household by ethnic group. Since all participants were literate, they chose a sheet of heavy-duty paper and markers to sketch the map rather than using local resources such as sticks and soil. The work of drawing was facilitated by an active and enthusiastic member from each of the communities. After completing the household listing and mapping, schools, roads, health posts and other social institutions were located on the map. The final sketch of the map was verified amongst the group members, and changes were made where necessary. The mapping process took two to three hours to complete in the *Tharu* and *Brahmin/Chhetri* ethnic communities, and approximately three hours for the *Gurung* ethnic group. The social maps, redrawn by the author, are shown in Figures 4.1 to 4.3.



Figure 3.3: Social mapping of the Gurung ethnic group, Chitwan, Nepal (1998).



Figure 3.4: Social mapping of the Tharu ethnic group, Chitwan, Nepal (1998).

Seasonal crop calendar

The seasonal crop calendar in the *Tharu* ethnic community was prepared in the Hardi village of the Bhandara VDC. Twenty community members (10 men and 10 women) participated in the exercise. The seasonal calendar for the *Gurung* community was prepared in the Phulbari VDC. Thirteen community members (six men and seven women) participated in the exercise. The seasonal calendar in the *Brahmin/Chhetri* community was prepared in the Gopalgunj village of the same Phulbari VDC. The Phulbari VDC also represented one of the main sites for the overall study of the *Brahmin/Chhetri* and *Gurung* community. Altogether, 15 community members (nine men and six women) participated in the preparation of the seasonal calendar for the *Brahmin/Chhetri* community. As for the social mapping, participants from all three ethnic communities chose a large sheet of heavy-duty paper and markers to write down their cropping calendar. One person from each group, chosen through the consensus of the participants, undertook the written part.

The participants were encouraged to remember their cropping activities, and both men's and women's involvement in each activity across the season. On one axis of the sheet they indicated the local months (*Nepali*) and on the other different activities were shown. The seasonal calendar thus prepared was verified by the researcher's asking them for specific details within the year. This led to some modifications to the original diagram. The process of preparing a seasonal calendar took two hours to complete. Seasonal calendars for each group are shown in Tables 4.19 to 4.21.



Figure 3.5: Seasonal cropping calendar for the Brahmin/Chhetri ethnic group, Chitwan, Nepal (1998).



Figure 3.6: Seasonal cropping calendar for the Gurung ethnic group, Chitwan, Nepal (1998).

General problems encountered in conducting PRA and how they were overcome

One of the main problems associated with the PRA exercise was unusually hot weather, which led to a low level of participation by the community members. Difficulty in motivating people to attend a gathering, and participants' time constraints also contributed to the low level of participation. During the exercise, some participants drifted from the group, and new participants joined in. Attempts were made to keep a similar number of participants for each ethnic group.

The *Tharu* participants were busy weeding early paddy and collecting logs of wood. Due to the hot weather, they usually performed this work during the early morning and evening hours. This made it difficult for the researcher to gather people for the PRA exercise at a time that was agreeable to the participants. Nevertheless, with the help of the local leaders, especially the ward chairman, people did get involved in the PRA exercise. There were no visible problems associated with the PRA exercise, particularly in the *Gurung* community where the mapping and calendar exercises went very well.

Motivating people to participate in the PRA exercise for the *Brahmin/Chhetri* community was quite difficult because of male supremacy. Being a female researcher, although of *Brahmin* descent presented a challenge in gathering people to one location. The help of one of the local leaders of the Phulbari VDC significantly helped in motivating the participants to attend by explaining that this research was not politically motivated and that they need not be suspicious of the researcher. The assistance of the locally recruited enumerator was equally valuable.

3.4.2 Gender analysis (GA)

Gender analysis is a technique of awakening critical awareness through which the roles, responsibilities, problems and resources of men and women are analysed using different conceptual tools and analytical frameworks (Shrestha, 1994). Different GA tools can be applied to analyse gender roles both at the household level and in relation to agricultural work. GA tools can also be used to understand the structural inequalities that limit

women's access to information or resources (Bajracharya, 1994).

There are a number of different GA frameworks and each uses different tools (Shrestha, 1994). In this research, three GA tools from the Harvard analytical framework (Overholt *et al.*, 1991) that is, the activity profile, the access and control profile, and the time-use profile, were used to research separate groups of men and women in each of the ethnic communities. These tools were selected to gain an understanding of women's and men's involvement in the major agricultural and household activities and decision-making processes, and who had access to, and control over, resources. The activity profile was designed to cover the major cropping activities: rice, maize and mustard. Livestock-related activities, family well-being, and household decisions (including those concerning the marketing activities) were similarly covered. The access and control profile was designed to understand the level of access to, and control over, household resources held by men and women. The time-use profile was used to understand the various activities performed from dawn to dusk in a normal day by men and women.

The GA tools (Appendix I) were prepared and pre-tested with a separate group of men and women in the Goldhunga VDC of the Kathmandu district prior to field implementation. The time-use profile was not pre-tested, because it involved direct observation and monitoring of time-use and was not as potentially problematic as the other tools. The researcher, with the help of a local resident, carried out the pre-testing of activity and resource profiles. This was conducted separately with a group of five women in one gathering, and six men in another, by asking them about activities as defined in the frames. The group comprised people from the *Brahmin/Chhetri* and *Tamang* ethnic groups in the local community. Pre-testing of the survey instrument led to minor changes being made to wording to derive the final shape of the gender analysis tools.

As for the PRA, participants were informed about the researcher's desire to engage them in a GA exercise. They were requested to assemble in separate groups of men and women. The researcher asked a set of questions of each group and encouraged them to discuss their ideas. After a thorough discussion, the researcher received responses to the

questions asked. Only the agreed answers were recorded by the researcher. The activity profile was then prepared by the researcher with the help of group participants, then followed by an access and control profile for each sex and ethnic group.

In the case of the *Tharu* community, there were eight women and nine men participants in the GA. This was carried out in the Hardi village of the Bhandara VDC. Likewise, nine women and six men participants in their respective groups were involved in the GA for the *Gurung* community, which was carried out in the Phulbari VDC. In the *Brahmin/Chhetri* group, 10 women and 11 men from the Phulbari VDC participated in the GA.

A time-use profile was used in the research to determine the pattern of time allocation of each sex to domestic and agricultural, and allied activities completed in a typical household. The people whose activities were monitored were asked for their permission prior to monitoring, and were advised of the purpose of the exercise. Only individuals who agreed to participate in the research were monitored. Altogether, six people (three males and three females) from three different ethnic households were chosen and their activities were monitored from a distance so as not to interfere with their normal routine.

The *Tharu* male enumerator, who was hired for the household survey, recorded the time-use patterns in the case of a *Tharu* man and woman from the same household. The *Gurung* female enumerator carried out the observations on the *Gurung* family's activities, and the researcher herself was involved in monitoring a *Brahmin* household's activities.



Figure 3.7: Gender analysis in the Gurung women's group, Chitwan, Nepal (1998).



Figure 3.8: Gender analysis in the Tharu men's group, Chitwan, Nepal (1998).

3.4.3 Key informant interviews

In order to obtain gender-specific information, on a comparison of changes over the last 10-15 years in terms of access and control over household resources and men's and women's involvement in agricultural and allied activities, key informant interviews were conducted. Key informants were identified on the basis of their position in the community, and/or affiliation with a particular organisation, or local experience. For this study, the village chairperson (local leader), women's group members, a ward chairman, a woman development officer, agricultural development bank and co-operative personnel, and a junior technician (JT) were selected. Altogether, 14 individuals were interviewed. The interviews were designed to triangulate the information related to gender-specific activities in terms of access to, and control over, household resources, previously defined through the PRA/GA exercise. The key informant interviews were also used to validate the results obtained from the household survey. To address the objectives of the key informant interviews, guiding questions were prepared prior to the interviews (Appendix II). The interviews were informal and conversational, but were carefully facilitated to meet the purposes of the research. The interviews ranged from 15 to 65 minutes in duration.



Figure 3.9: Interview with a Tharu informant, Chitwan, Nepal (1998).

With the permission of interviewees, all interviews were tape recorded for the parts of the conversation that related directly to the research objectives. The tapes were transcribed into the local language, and then translated into English for analysis.

3.4.4 Household survey

A household socio-economic survey was conducted to obtain individual household-level data on household characteristics, the economic status and activities of villagers, the pattern of ethnic variation in the communities, and the influence of ethnicity and gender in decision-making. The survey was conducted by a face-to-face interviews. The major aim of the survey was to obtain detailed information on household composition and the various domestic activities performed by each gender in all three ethnic groups. It sought to determine whether differences existed between gender and ethnic groups in terms of access to, and control over, household resources. As noted above, some of these issues, such as gender involvement in agriculture and household-related work, decision-making, and access and control, were also considered by the qualitative methods used (such as the gender analysis). The purpose of sometimes using different methods to collect information on the same issues is to validate the data. This is also known as *triangulation* (Robson, 1993).

A questionnaire comprising 28 questions, divided into five major sections, was drafted in order to obtain the data required (Appendix III), and translated into the local *Nepali* language. The first section of the questionnaire [questions 1-7] covered general information on ethnicity, age, marital status, level of education and the respondent's occupation. The second section [questions 8-16] sought data on resource attributes at the household level. In addition, economic activities performed by the household members were recorded in this section. The third section [questions 17-24] included questions on gender-specific involvement in farming activities and household decisions. The fourth section [questions 25-27] addressed issues of gender-specific access to, and control over, household resources. The final question examined the nutritional status of the household.

The questionnaire was pre-tested on six households in the Goldhunga VDC, Kathmandu, by the researcher with the help of a local resident. During pre-testing, the questionnaire was completed with the heads of the household (male respondent) and, using the same questionnaire, the gender-specific related questions were then asked of a female respondent in the same household without her husband's being present. On the basis of pre-testing, key changes were made to some parts of the questionnaire (for example, questions related to working capital were omitted, and those on fixed capital added, to enable a comparison of household economic status within each of the ethnic groups). Other minor changes were made to the questionnaire to ensure user-friendly wording to assist both the enumerators and the respondents to complete the survey.

All of the enumerators were informed about the type of data sought for each question and were also trained in the methods of questioning, such as probing and cross-checking. Most of the questions were pre-coded in order to minimise mistakes. Furthermore, the completed questionnaires were edited at the end of each day by the researcher, and households were re-visited if it was essential to correct wrongly-recorded data.

The stratified random sampling method was used to identify 123 households (40 households each from the *Tharu* and *Brahmin/Chhetri* communities, and 43 households from the *Gurung* ethnic group). The interview was conducted with two members (one man and one woman) from the same household so as to remove sex bias and to improve the reliability of the results. In a household headed by a woman, the woman and the eldest male member were interviewed. Of the 123 households, two households had "lonely widows", and the questionnaire was administered to them only.

3.5 Data editing, coding and entry

Before proceeding with data entry, the completed questionnaire was carefully edited and coded and inconsistencies were resolved. An EXCEL spreadsheet was used for data entry. The information from key informant interviews was copied exactly in the local dialect and later translated into English. Information from the PRA and GA (time-use

survey) were translated into English, and the results were grouped to simplify the analysis.

3.6 Data analysis and interpretation

Data analysis was carried out in four steps. First, the PRA results were analysed and interpreted accordingly. Second, GA findings were analysed. Key informant interviews were transcribed and analysed with the household survey data. Survey data were analysed using the SAS software package (SAS 1997, v.6.12). Univariate procedures were performed on continuous variables to derive descriptive statistics, and cross-tabulations were used to calculate frequencies for defined categories. Groupings were defined to perform bivariate analysis (Chi-square statistics, correlation analysis). Multivariate analysis was carried out on variables to explain the decision-making processes of households.

3.7 Summary

In this Chapter the methodology used in the study of household decision-making in rural Central Nepal has been discussed. A conceptual model of household decision-making processes was developed by drawing on five broad groups of variables identified through both the literature review in Chapter Two, and the researcher's prior knowledge. A combination of qualitative and quantitative techniques was identified as providing the best means for gathering data in the field. Therefore, in addition to the survey administered to 123 households, the researcher also conducted 14 in-depth key informant interviews, and used PRA (social mapping and seasonal calendar) and GA tools (activity profile, access and control profile, and time-use profile). Thus, a rich database on rural household decision-making processes in Nepal was prepared. The results of the research are presented in Chapter Four.

CHAPTER FOUR - RESULTS AND DISCUSSION

The results from the study are presented and discussed in this chapter. As discussed in Chapter Three (Section 3.3) information and data for this study were collected using participatory rural appraisal (PRA), gender analysis (GA), key informants' interviews and household survey techniques. The household survey data provided quantitative information and was supplemented by qualitative information obtained from the remaining three techniques. Sometimes PRA and GA methods were used to collect information on the same issues raised in the survey as a way of validating the overall results. The results are summarised in five broad sections and the analysis is based on the conceptual framework and empirical model outlined in Chapter Three (Sections 3.1 and 3.2). The final section (4.6) provides an overall discussion of the findings in the context of previous studies.

4.1 Characteristics of rural households and the communities studied

This section covers the results from the face-to-face household survey and the PRA exercise. Results from the survey include characteristics of the survey respondents and their households, resource endowments and sources of household income and expenditure. As discussed earlier in the methodology (Section 3.4.1) the PRA exercise was useful in obtaining an understanding of the attributes of the communities studied. Social maps containing the approximate location of private and communal resources, physical infrastructure, schools, health-posts and service delivery organisations were produced by community members in a participatory framework.

4.1.1 Demographic characteristics of the study groups

The average *Tharu* households were 42 percent larger than the *Gurung*, and 19 percent larger than the *Brahmin/Chhetri*, households (Table 4.1). Similarly, the *Brahmin/Chhetri* households were 20 percent larger than the *Gurung* households. The smaller *Gurung* households reflected the long-term absence of male household members from the community, as evidenced by the gender imbalance for this group (0.86 males

per female compared to 1.08 and 1.04 males per female for the *Brahmin/Chhetri* and *Tharu* households, respectively).

Table 4.1: Household characteristics of survey respondents by gender and ethnicity in the Chitwan district, Nepal.

Characteristics	Ethnicity			Overall
	<i>Brahmin/Chhetri</i>	<i>Gurung</i>	<i>Tharu</i>	
<u>Household size</u>				
Male	3.80 (1.43)	2.83 (1.63)	4.42 (2.31)	3.66 (1.93)
Female	3.52 (1.70)	3.27 (2.00)	4.27 (2.82)	3.68 (2.24)
Total	7.32 (2.40)	6.10 (3.05)	8.69 (4.70)	7.34 (3.64)
<u>Adults per household (No.)</u>				
Male	2.55 (1.08)	1.62 (0.95)	2.02 (1.27)	2.05 (1.16)
Female	2.17 (1.15)	1.93 (1.16)	2.72 (2.03)	2.26 (1.52)
Total	4.72	3.55	4.74	4.31
<u>Age of the respondents (Years)</u>				
Male	47 (12)	41 (17)	38 (10)	42 (14)
Female	42 (10)	41 (12)	33 (8)	39 (11)
Total	44	41	35	40
<u>Dependents per household (No.)</u>				
Male	1.25 (0.89)	1.20 (1.08)	2.40 (1.46)	1.60 (1.28)
Female	1.35 (1.18)	1.34 (1.28)	1.55 (1.37)	1.41 (1.27)
Total	2.6	2.54	3.95	3.01
<u>Dependency ratio¹</u>				
Male	0.32	0.42	0.54	0.44
Female	0.38	0.41	0.36	0.38
Total	0.35	0.42	0.45	0.41

Note: Figures in parentheses are standard deviations.

¹Dependency ratio = Number of dependants under 15 and over 64 years of age groups per household/ household size based on the CBS definition (CBS, 1997b).

Source: A Survey of Gender and Ethnicity Involvement in Household Decision-Making Chitwan District (GEIHDM Survey 1998).

The *Tharu*, followed by the *Brahmin/Chhetri* households, had proportionately more adults than the *Gurung* households. Proportionately more female adults were represented in the *Tharu* and *Brahmin/Chhetri* groups than in the *Gurung* group. The average age of the male respondents ranged from 38 to 47 years, with an overall mean of 42 years, whereas female respondents ages ranged from 33 to 42 years with an overall mean of 39 years (Table 4.1). The *Brahmin/Chhetri* respondents were, on average, three years older than those in the *Gurung ethnic* group, and nine years older than the *Tharu* respondents.

On average, the female respondents were five years younger than male respondents in both the *Tharu* and *Brahmin/Chhetri* groups, while both sexes were of similar age in the *Gurung* group. The *Tharu* households had proportionately more dependent members than the other two ethnic groups and, proportionately more dependants were males in the *Tharu* and *Gurung* groups than in the *Brahmin/Chhetri* group. A smaller household size and fewer younger children in the *Brahmin/Chhetri* households generated a lower dependency ratio.

Gender inequality was highly pronounced in the educational attainment of the respondents (Table 4.2). For example, 51 percent of females were illiterate compared to 15 percent of the males ($P < 0.01$). The illiteracy rate was 60-62 percent among the *Gurung* and *Tharu* female respondents, while twice as many *Tharu* male respondents were illiterate compared with their *Brahmin/Chhetri* and *Gurung* counterparts.

Among the *Brahmin/Chhetri* respondents, half of the males had attained a secondary or higher level of education compared to a meagre 10 percent of the females. Nearly two thirds of the *Gurung* males also had attained a secondary or higher level of education. In summary, the *Tharu* respondents were far less educated, and the *Brahmins/Chhetris* more educated, than the *Gurungs*, while women lagged far behind men in all three ethnic groups.

Table 4.2: Level of education of the respondents by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents reporting).

Characteristics	Ethnicity						Overall	
	<i>Brahmin/Chhetri</i>		<i>Gurung</i>		<i>Tharu</i>			
	Male	Female	Male	Female	Male	Female	Male	Female
Education level (%)	n=40	n=40	n=41	n=43	n=40	n=40	n=121	n=123
Illiterate	10	30	12	60	22	62	15	51
Literate (no formal schooling)	35	45	22	21	28	35	28	33
Primary (1-5)	5	15	2	10	23	0	10	8
Secondary (6-10)	27	8	49	9	15	3	31	7
High school and above	23	2	15	0	12	0	16	1
Chi-Square	male respondents		22.39 (8)**		female respondents		18.16 (8)*	

Note: * P < 0.05 and ** P < 0.01, and *** P < 0.001, respectively.

Source: GEIHDM Survey 1998.

The primary occupation of the respondents varied widely by ethnicity (Table 4.3). Nearly all *Tharu* male respondents reported farming as their primary occupation, while less than 3 percent were engaged in waged labour (P<0.01). Proportionately more *Gurung* men were involved in paid employment (32 percent), and one in eight of the *Brahmin/Chhetri* males was engaged in trading. All of the *Gurungs*, 85 percent of the *Brahmins/Chhetris* and two-thirds of the *Tharus* women reported farming and household work as their primary occupation. None of the female respondents was engaged as a casual worker.

The secondary occupation of the respondents also varied by ethnicity (Table 4.3). Nearly two-thirds of the *Tharu* men reported casual labour as their secondary occupation. The majority of women from all three ethnic communities reported their secondary occupations as farming and household work. However, a relatively higher participation of *Gurung* males (29 percent) and *Tharu* (19 percent) males reported that they had paid employment other than casual labour. Men in all three ethnic communities reported a greater diversity in their secondary occupation than did women.

Table 4.3: Types of occupation of the respondents by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents reporting).

Occupation	Ethnicity						Overall	
	<i>Brahmin/Chhetri</i>		<i>Gurung</i>		<i>Tharu</i>			
	Male	Female	Male	Female	Male	Female	Male	Female
Primary (%)	n=40	n=40	n=41	n=43	n=40	n=40	n=121	n=123
Farming	5	3	29	-	97	30	44	11
Paid employment	30	5	32	-	-	-	21	1
Causal labour	5	-	-	-	3	-	2	-
Trade	13	7	2	-	-	-	5	2
Household work only	-	-	2	-	-	3	1	1
Farming and housework	45	85	34	100	-	67	26	85
Others (Spiritual leader)	2	-	-	-	-	-	1	-
Chi-square	male respondents 84.25 (12)**			female respondents			36.33 (8)**	
Secondary (%)	n=40	n=40	n=41	n=43	n=31	n=22	n=112	n=105
Farming	3	7	37	-	13	5	19	3
Paid employment	5	3	29	-	19	-	17	-
Causal labour	-	-	-	-	68	9	19	2
Trade	7	-	2	-	-	-	1	-
Household work only	-	-	2	-	-	9	1	2
Farming and housework	85	90	29	93	-	77	43	90
Others (volunteer)	-	-	-	7	-	-	-	3
Chi-square	male respondents 112.53 (10)**			female respondents			22.05 (8)**	

Note: * P < 0.05 and ** P < 0.01, and *** P < 0.001, respectively.

- denotes no response was reported for this activity.

Source: GEIHDM Survey 1998.

The majority of the *Tharu* households had thatch dwellings with tile roofing. Although they had separate barns for livestock, they lacked separate kitchen and toilet facilities. More than half of the *Gurung* respondents also had housing and roofing materials similar to those of the *Tharu* households (Table 4.4). The asset structure of the households was reflected in the quality of construction and roofing materials used. It was visibly evident that the *Brahmin/Chhetris* households were better-off than the *Gurung* and *Tharu* households.

Table 4.4: Housing characteristics of survey respondents in the Chitwan district of Nepal. (Percent respondents responding).

Characteristics	Ethnicity			Overall n=123
	<i>Brahmin/Chhetri</i> n=40	<i>Gurung</i> n=43	<i>Tharu</i> n=40	
Housing (%)				
Brick	50	37	-	29
Thatch	15	54	97	55
Cemented	7	-	-	2
Brick and cemented	23	7	3	11
<i>Kacchi</i> (mud house)	5	2	-	3
Roofing (%)				
RCC	10	19	-	10
Tin	65	39	17	41
Thatch	18	28	10	19
Tin and thatch	7	14	-	7
Tile	-	-	73	23
Separate kitchen (%)				
Yes	70	37	17	41
No	30	63	83	59
Separate barn (%)				
Yes	7	12	95	37
No	93	88	5	63
Toilet facility (%)				
Yes	75	37	2	38
No	25	63	98	62

Source: GEIHDM Survey 1998.

4.1.2 Resource endowments

Table 4.5 summarises the major physical resource endowments of the respondent households. The total land area owned by households ranged from 0.63 to 0.98 hectares, with an overall mean of 0.74 ha. Farm size (total land area) was 50 percent larger for the *Brahmin/Chhetri* than the farms owned by the other ethnic households. Very few women had a land ownership certificate in their names. Proportionately more *Gurung* women had land in their names compared to the *Brahmin/Chhetri* and *Tharu* women.

Table 4.5: Physical resource endowment of respondent households in the Chitwan district of Nepal.

Resources	Ethnicity			Overall n=123
	<i>Brahmin/Chhetri</i> n=40	<i>Gurung</i> n=43	<i>Tharu</i> n=40	
<i>Total land area (ha.) (irrigated + unirrigated)</i>	0.98 (0.69)	0.63 (0.67)	0.63 (0.84)	0.74 (0.75)
<i>Land registered in the name of women (ha.)</i>	0.08 (0.21)	0.13 (0.35)	0.02 (0.15)	0.08 (0.25)
<i>Large ruminants</i>				
Cows, buffaloes and oxen (no.)	2.20 (1.50)	1.60 (1.30)	2.00 (1.60)	1.90 (1.40)
Adult	1.20 (0.90)	0.95 (0.84)	0.42 (0.67)	0.88 (0.87)
Heifer				
<i>Small ruminants</i>				
Goats, sheep (no.)				
Adult	1.20 (1.20)	0.79 (1.05)	2.47 (3.07)	1.49 (2.09)
Kid/lamb	1.02 (1.50)	0.69 (1.05)	1.30 (1.89)	1.00 (1.54)
<i>Small non-ruminants</i> Pigs				
(no.)				
Adult	0.07 (0.40)	0.11 (0.54)	0.05 (0.22)	0.08 (0.43)
Piglet	0.05 (0.30)	0.11 (0.39)	0.05 (0.22)	0.07 (0.31)
<i>Poultry and ducks (no.)</i>	30.10 (109.40)	170.20 (638)	17.07 (16.12)	74.86 (386)

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

The *Gurung* households had substantially more poultry, while *Tharus* had proportionately more small ruminants. The coefficient of variation was very high for poultry and duck ownership in the non-*Tharu* ethnic households (>300%) and for small ruminant ownership in all three ethnic groups. Small non-ruminants were less common than large ruminants for all ethnic groups. Overall, the *Brahmin/Chhetri* households were the best resourced.

Adult household members (15-64 years of age) were categorised according to five different activities: on-farm; off-farm; household; on-farm and off-farm; and farming and household work (Table 4.6). This is different from Table 4.3 because here the whole household, not just one adult male and female, is considered.

Table 4.6: Household labour distribution pattern of the survey respondents by gender and ethnicity in the Chitwan district, Nepal.

Characteristics	Ethnicity						Overall	
	<i>Brahmin/Chhetri</i>		<i>Gurung</i>		<i>Tharu</i>		Male n=121	Female n=123
	Male n=40	Female n=40	Male n=41	Female n=43	Male n=40	Female n=40		
On-farm worker	0.25 (0.54)	0.47 (1.01)	-	-	1.40 (1.20)	1.70 (2.06)	0.55 (1.00)	0.71 (1.40)
Off-farm worker	0.25 (0.49)	0.02 (0.15)	0.34 (0.65)	0.02 (0.15)	-	-	0.20 (0.40)	0.01 (0.12)
Household worker	0.07 (0.26)	0.20 (0.46)	0.06 (0.25)	0.04 (0.21)	-	0.52 (0.50)	0.04 (0.21)	0.25 (0.45)
On and off-farm worker	0.75 (0.63)	0.20 (0.46)	0.32 (0.47)	-	0.50 (0.67)	0.07 (0.34)	0.52 (0.61)	0.08 (0.33)
Farming and housework	1.22 (0.99)	1.27 (0.96)	0.88 (0.73)	1.86 (1.12)	0.07 (0.26)	0.40 (0.49)	0.73 (0.86)	1.19 (1.08)

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

Most household members were involved in farming and household work followed by on-farm work. Very few members were involved only in off-farm activities. On-farm, women were involved more than men in farming as well as household activities. When gender involvement was desegregated by ethnicity, *Gurung* women were found to be

more involved in farming and household work, followed by the *Brahmins/Chhetris* and *Tharus* (Table 4.6). None of the *Tharu* males were engaged in off-farm work, while a relatively higher proportion of *Gurung* males was involved in this activity. The proportion of women involved in off-farm employment amongst the *Brahmin/Chhetri* and *Gurung* was similar.

4.1.3 Annual household income and expenditure patterns

Annual household income, as reported in Table 4.7, indicates significant variation between the ethnic groups. Income was derived from five sources: crops/vegetables, livestock, off-farm employment, pensions and remittances, and other sources, such as contract work and small business operations. The average annual household income was reported to be Rs 64,000, Rs 51,000 and Rs 20,000 for the *Brahmin/Chhetri*, *Gurung* and *Tharu* households, respectively.

Table 4.7: Estimated annual income by sources and ethnicity in the Chitwan district, Nepal (Rs/year).

Expense items	Ethnicity			Overall n=123
	<i>Brahmin/Chhetri</i> n=40	<i>Gurung</i> n=43	<i>Tharu</i> n=40	
Crops/Vegetables	17568 (15537)	12921 (27145)	6625 (9731)	12385 (19517)
Livestock	7315 (5760)	5574 (5270)	2208 (3523)	5046 (5344)
Off-farm employment	25898 (26458)	20116 (38398)	8275 (8811)	18145 (28447)
Pension and remittances	688 (2667)	11535 (22078)	0	4256 (14102)
Other income	12478 (44144)	1109 (2055)	3203 (15763)	5487 (26987)
Total annual income	63945	51255	20310	45318

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

Agricultural products and off-farm income were the major sources of household income for the *Brahmin/Chhetri* ethnic group. Additional income was also generated from pensions/ remittances and selling livestock and milk products. A similar scenario was found for the *Gurung* households, where the major sources of income were agricultural produce and off-farm work. Pensions/remittances were also a good source of annual income for *Gurung* households. None of the *Tharu* households had pensions/remittances income. Although additional income was generated from agricultural products, the major source of income in *Tharu* households was off-farm employment.

Household expenditure was grouped broadly into eight categories: education, religious festivals, food, farm equipment, farm inputs, livestock feed and medicine, medicine for household members and community and social activities (Table 4.8).

Table 4.8: Estimated annual household expenditure by ethnicity in the Chitwan district, Nepal (Rs/year).

Expense items	Ethnicity			Overall n=123
	<i>Brahmin/Chhetri</i> n=40	<i>Gurung</i> n=43	<i>Tharu</i> n=40	
Education	11423 (1882)	4772 (8374)	2355 (3972)	6149 (12527)
Religious festivals	7013 (3458)	6488 (7805)	2000 (1473)	5199 (5523)
Food items	1868 (5309)	5898 (5514)	2538 (2603)	5543 (5187)
Farm equipment	299 (514)	1502 (2300)	681 (464)	844 (1494)
Farm inputs	2745 (2576)	2321 (3128)	1693 (1950)	2254 (2624)
Animal feeds and medicine	7163 (16136)	2679 (4618)	763 (1090)	3514 (9902)
Medicine for family members	8543 (10758)	6940 (8869)	2085 (2413)	5882 (8566)
Community and social services	4455 (23934)	519 (919)	0	1630 (13687)
Total annual household expenditure	43509	31119	12115	31015

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

In relation to different levels of income as shown in Table 4.7, it was not surprising to see that the *Brahmins/Chhetris* had the highest overall expenditure, followed by the *Gurungs* and the *Tharus*. The expenditure pattern of the respondent households differed substantially by ethnicity. For example, *Brahmin/Chhetri* households spend more income on children's education and human medicine. Food items accounted for less than 5 percent of total expenditure. They use only a small proportion of their income on food because they produce food for subsistence from their farmland, and therefore do not have to buy so much food as other ethnic households. On the other hand, *Gurung* households spend more on food, medicine and education, and less on farming and farm-related equipment. Results showed that, unlike *Brahmin/Chhetri* and *Gurung* households, the *Tharus* do not spend on community services.

4.1.4 Community attributes

The attributes of the communities from which members were interviewed were assessed using the social mapping technique of the PRA. The social maps produced by the participants of the three communities are presented in Figures 4.1 to 4.3. The locations of schools, VDC offices, health posts, co-operatives, agricultural extension offices, road networks, irrigation systems and concentration of different ethnic groups are identified on the map. The maps reveal settlement patterns and access to different resources. For example, in the Hardi village of the Bhandara VDC, the *Brahmin/Chhetri* tend to be located closer to the all-weather roads and irrigation canals than are the *Gurungs*. The only secondary school is located relatively far away from the community, while the two primary schools are located in a neighbourhood closer to the *Tharu* households. *Tharu* households tend to be located in a hamlet of their own ethnic group. There is no stable electricity supply network. *Tharu* households have mud houses with thatch or tile roofing. The households lack access to a telephone system. The community has no co-operative building, and the forest area is accessible to only about 20 percent of the population (Personal observation, May 1998). Lastly, the community does not have a central meeting place (*Chowk*).

The Phulbari VDC is better resourced than the Hardi village. The VDC is covered with multi-ethnic communities. In this VDC, *Gurung* households tend to be located near the only secondary school in the community and closer to the irrigation canals. *Brahmin/Chhetri* households, on the other hand, tend to be located near the all-weather roads. There are no *Tharu* households in Phulbari VDC, although seven other ethnic groups are present. This VDC has co-operatives and an agricultural sub-centre, and a network of agricultural extension services. There is a health post facility at the centre of the VDC. The VDC has two secondary schools and one primary school. The supply of electricity is limited to a few households, but this being expanded slowly to the other households. People from this area do not have access to telephone services or marketing facilities. Although there is a good network of irrigation channels, not all households are able to benefit from them. The households whose land is near irrigation channels had a good water supply, otherwise they either have to wait their turn or depend on rain-water. No forest resources are available locally. The community had a few meeting places (*Chowk*) where people can gather and share information during their leisure time.

The Shivanagar VDC has several primary schools and one secondary school. Co-operatives, a health post, the secondary school and the VDC office are located within the town area, making them easy to access. The VDC is inhabited also by a number of migrant ethnic communities. The *Gurung* households tend to be located in one hamlet. In contrast, the *Brahmin/Chhetri* households tend to be located across the mix of ethnic households. Forest resources are quite far from the community. Many irrigation channels are present. The VDC has a community meeting place.

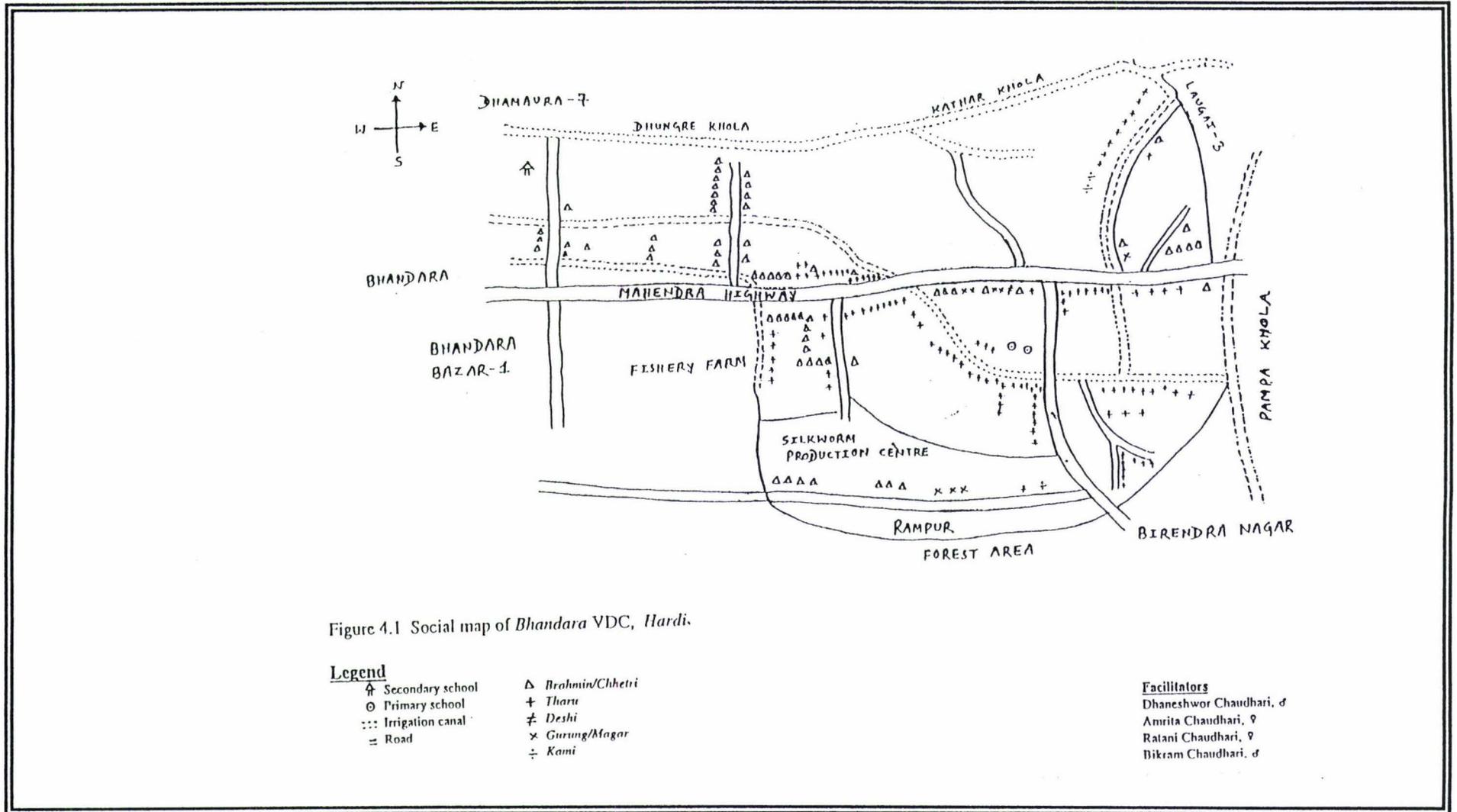


Figure 4.1 Social map of Bhandara VDC, Hardi.

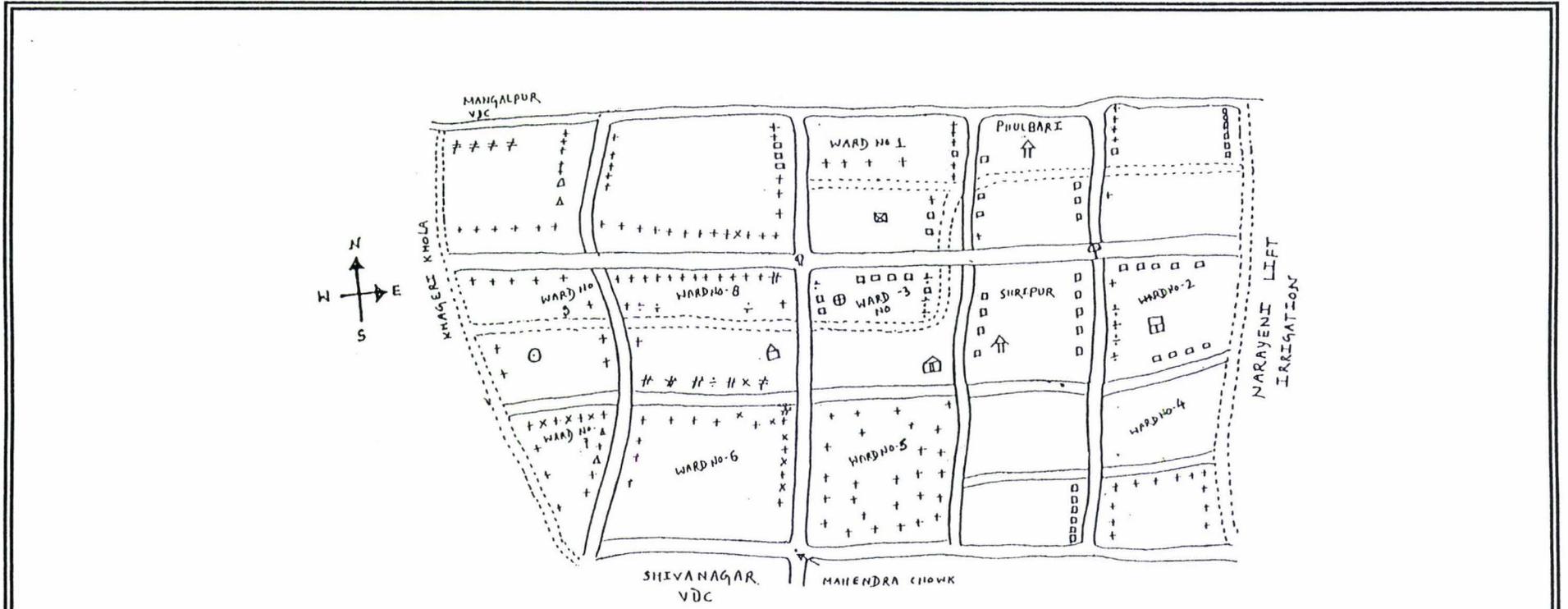


Figure 4.2 Social map of Phulbari VDC

Legend

- | | | |
|--------------------|--------------------|-------------------|
| ⬆ Secondary School | ⬆ Chowk | ♂ Shanyasi |
| ⊙ Primary school | ⋮ Irrigation canal | + Brahmin/Chhetri |
| ⬆ VDC office | ≡ Road | □ Gurung |
| ⊠ Co-operatives | ⊕ Health post | ⊕ Kami/Damai |
| ⊠ Agri. Sub-centre | | × Newar |
| | | △ Magar |
| | | + Tamang |

- Facilitators**
- Khadka B. Gurung, ♂
 - Dambar B. Gurung, ♂
 - Man B. Gurung, ♂
 - Radhika Gurung, ♀

4.2 Activities

The face-to-face individual household survey was carried out with the heads of the 123 households (both sexes from each household) to collect information related to involvement of men and women from each ethnic group in household and agricultural activities. These activities included crop production, vegetable production, livestock husbandry and household management.

Similarly, gender analysis was carried out separately with a group of men and women from each of the three ethnic groups. Information related to men's and women's involvement in crop production, livestock husbandry, household management as well as community services and off-farm activities was obtained. The trends in responses from male and female respondents were similar in both the household survey and the GA, and thus the results will be generalised-except in cases of clear discrepancies.

Time allocation patterns of men and women of the three ethnic groups were also assessed through an observation process. For the better understanding of men's and women's involvement in seasonal activities, cropping calendars were prepared for each ethnic group. First data from the household survey are summarised, followed by relevant information from the GA and PRA.

4.2.1 Gender roles in crop production

Gender involvement with respect to five key crop production activities was recorded separately for male and female respondents through the household survey (Table 4.9). Substantial ethnic variation was noted across the ethnic groups for manure application. For example, manure application was an activity carried out by all members of 86 percent of the *Tharu* households, while in the majority of *Gurung* households, this was carried out jointly by adult men and women.

Table 4.9: Men's and women's involvement in crop production activities by ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender role	Activities									
	Manure application		Fertiliser application		Cash crop harvesting		Cereal crop harvesting		Marketing of crop products	
	Respondents		Respondents		Respondents		Respondents		Respondents	
	M	F	M	F	M	F	M	F	M	F
<i>Brahmin/Chhetri</i>	<i>n=40</i>	<i>n=40</i>	<i>n=39</i>	<i>n=39</i>	<i>n=39</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=38</i>	<i>n=38</i>
Male	10	5	54	46	2	-	5	2	48	66
Female	33	40	10	18	15	30	10	15	5	8
Both	40	30	28	28	35	25	37	33	42	18
All members	17	25	8	8	48	45	48	50	5	8
<i>Gurung</i>	<i>n=41</i>	<i>n=43</i>	<i>n=40</i>	<i>n=42</i>	<i>n=39</i>	<i>n=41</i>	<i>n=41</i>	<i>n=43</i>	<i>n=31</i>	<i>n=33</i>
Male	-	-	22	17	3	2	5	5	42	43
Female	42	47	28	33	18	25	14	26	32	36
Both	56	51	48	48	69	63	71	60	23	18
All members	2	2	2	2	10	10	10	9	3	3
<i>Tharu</i>	<i>n=36</i>	<i>n=36</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=38</i>	<i>n=38</i>	<i>n=39</i>	<i>n=39</i>
Male	-	-	98	98	-	-	-	-	36	36
Female	11	11	-	-	5	2	3	3	-	-
Both	3	3	2	2	13	13	8	10	59	59
All members	86	86	-	-	82	85	89	87	5	5
Overall	<i>n=117</i>	<i>n=119</i>	<i>n=119</i>	<i>n=121</i>	<i>n=119</i>	<i>n=121</i>	<i>n=119</i>	<i>n=121</i>	<i>n=108</i>	<i>n=110</i>
Male	4	2	58	53	2	1	3	2	42	48
Female	29	34	13	18	13	19	9	15	11	14
Both	34	29	26	26	38	34	40	36	43	33
All members	33	35	3	3	47	46	48	47	4	5

Note: M= Male respondents and F= Female respondents. - denotes no response was reported for this activity. The categories of 'male', 'female' and 'both' refer only to adults, while 'all members' includes children and the elderly.

Source: GEIHDM Survey 1998.

Chemical fertiliser was applied primarily by the *Brahmin/Chhetri* and the *Tharu* males, while joint involvement of men and women in this work was common amongst the *Gurung*. None of the *Tharus*, one-tenth of the *Brahmins/Chhetris* and half of the *Gurungs* reported that females were involved in fertiliser application. Just a handful of respondents reported that crop harvesting was only either a man's or woman's job. Like manure application, crop harvesting was identified as a household activity (involving all household members) for the *Tharu*, while male and female adults only were involved in the *Gurung* households (Table 4.9). Very few respondents reported only female members' involvement in crop marketing (11 to 14 percent), while two-fifths to nearly a half considered this to be a "male" activity. On the other hand, one-third to two-fifths defined marketing as a joint activity. The role of other household members in crop marketing was negligible. For the *Gurung* households, both males and females were involved in crop marketing activities, but in some households this involved only the females or the males. There was no "female only" involvement in marketing in the *Tharu* households, but in over half the households both men and women engaged in marketing.

Some variations in *Brahmin/Chhetri* respondents were also noted regarding men's and women's involvement in crop marketing. For example, male respondents stated that half of the *Brahmin/Chhetri* males "only" and 42 percent of males and females were jointly involved in crop marketing, but female respondents put this figure at only 18 percent. This followed the trend for other crop production activities where either men have overstated, or women have understated, about the involvement of both men and women. It was rare for women only to have more responsibility for crop marketing in the *Brahmin/Chhetri* households (Table 4.9).

A gender analysis exercise was also conducted with separate groups of men and women from each ethnic group to understand the roles of gender in crop production activities. Cereals dominate the cropping pattern in Nepal. Rice is the most common and important crop in the country followed, by maize and wheat. Wheat cultivation is limited primarily because of the lack of irrigation infrastructure in most of the Chitwan district. Mustard is the most prominent of the major oilseed and cash crops in the district (CBS,

Female respondents' responses

Who does:	Who is primarily responsible?											
	<i>Brahmin/Chhetri</i>				<i>Gurung</i>				<i>Tharu</i>			
	M	m	F	f	M	m	F	f	M	m	F	f
Rice cultivation												
Ploughing	√√				√√				√√	√√		
Land levelling			√√		√√		√√		√√			
Manure application			√√	√√	√		√√			√√	√√	√√
Fertiliser application	√√				√√				√√			
Transplanting			√√	√√			√√	√√			√√	√√
Irrigation mgmt.	√√		√		√√		√		√√			
Weeding	√		√√		√		√√				√√	√√
Pesticide application	√√				√√		√		√√			
Crop harvesting	√√	√√	√√	√√	√√	√√	√√	√√	√		√√	√√
Threshing	√√		√√		√√		√		√√	√√	√	
Crop storage	√√		√√		√√		√√				√√	
Crop marketing	√√				√√		√√		√√			
Maize cultivation												
Ploughing	√√				√√				√√	√√		
Breaking clods			√√	√√		√√	√√	√√		√	√√	√√
Buying of seeds	√√				√√		√√		√√			
Buying of fertiliser	√√				√√		√√		√√		√	
Manure application	√		√√		√		√√				√√	√√
Fertiliser application	√√		√		√√		√√		√√			
Seed sowing			√√		√		√√		√√		√√	
Hoeing/weeding	√		√√	√√	√		√√				√√	√√
Thinning	√√	√√	√√		√	√√	√√	√√	√		√√	√√
Crop harvesting	√√		√√	√√	√√		√√				√√	√√
Post harvest handling	√√		√√		√√		√√			√√	√√	√√
Mustard cultivation												
Ploughing	√√				√√				√√	√√		
Land levelling	√		√√				√√			√	√√	√√
Buying of seeds	√√				√√		√√		√√		√	
Buying of fertiliser	√√				√√		√√		√√		√	
Manure application	√		√√		√		√√				√√	√√
Fertiliser application	√√				√√		√		√√		√	
Seed sowing	√√		√				√√		√		√√	
Crop harvesting	√√	√√	√√	√√	√√	√√	√√	√√		√	√√	√
Threshing	√√		√		√√		√√				√√	
Grain storage			√√		√√		√√				√√	

Note: M= Male adult, m= Male children, F= Female adult, f= Female children. (√√) denotes strong and (√) weak participation in crop production activities.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

Rice

Both men and women were involved in rice cultivation practices regardless of their ethnic background (Figure 4.4). However, the level of gender involvement varied by ethnicity and the nature of work undertaken. For example, *Brahmin/Chhetri* and *Gurung* women had some participation in fertiliser and pesticide application and irrigation management, whereas *Tharu* women did not participate at all in these activities. *Brahmin/Chhetri* women were excluded from rice marketing, while *Gurung* and *Tharu* women were not. Occasionally, children were also involved in rice production activities. Some of the farming activities of children were gender specific. For example, *Brahmin/Chhetri* male children were involved in manure application, crop harvesting and threshing, while female children were involved in manure application and rice transplanting and harvesting.



Figure 4.4: Joint involvement of men and women in crop production: rice planting, Nepal (1998).

To a large extent, gender involvement in rice cultivation was similar across the three ethnic groups. However, some exceptions were noted. For example, *Gurung* male and female children were involved in harvesting only, while *Tharu* boys were mainly involved in land preparation and threshing, but girls were involved in many more activities such as manure application, transplanting, weeding and crop harvesting.

Maize

Gender involvement in maize cultivation was similar to that for rice cultivation for all three communities. However, women were more responsible for manure application and sowing seeds than were men, who looked after fertiliser application. Men and women were jointly involved in the purchase of fertiliser in all three ethnic groups. Similarly, crop harvesting, hoeing, weeding and post harvest activities were also completed jointly irrespective of ethnicity (Figure 4.5). There was, however, some ethnic variation in the involvement of children. For example, *Brahmin/Chhetri* and *Gurung* children were mostly involved in crop harvesting, while *Tharu* children were more involved in land preparation and the sowing of seeds.



Figure 4.5: Gurung men and women participating in post-harvest activities of maize in the Chitwan district of Nepal (1998).

On the other hand, *Tharu* female children were more involved in several maize cultivation activities compared with the other two ethnic groups. These activities included clod breaking, manure application, hoeing/weeding, thinning and the crop harvest (including post-harvest handling; Table 4.10).

Mustard

Both men and women from the *Brahmin/Chhetri* and *Gurung* groups reported an equal involvement in mustard cultivation, but among the *Tharu*, women respondents clearly felt they had a stronger role than male respondents indicated. Variations between the ethnic groups were clear. For example, manure application was purely a woman's job in all three ethnic groups, but there was no role for *Brahmin/Chhetri* women in seed and fertiliser management. Mustard harvesting is labour-intensive, and therefore all the household members-including children, were reported to be involved for all ethnic groups. In the *Gurung* households, men and women were involved in crop storage, while only women were responsible for this activity in the *Brahmin/Chhetri* and the *Tharu* households (Table 4.10).

4.2.2 Gender roles in livestock production and management

Mixed farming systems are common in Nepal, where livestock are an integral part of agriculture along with crops, fruits and vegetables. Most households keep some livestock. The average number of livestock is comparable to the average household size (CBS, 1997b). Livestock and poultry farming as a business enterprise are relatively new in Nepal. Large ruminants (cow, buffalo and oxen) and small ruminants (goats and sheep) are common throughout the country. Pigs are more common in certain ethnic communities. For this analysis, gender roles were recorded only for the most common livestock.

Thirty percent of the households did not have any livestock, and hence did not respond to questions related to men's and women's involvement in livestock production and management. Three key labour intensive activities were identified separately for male

and female respondents through the household survey for reporting on gender involvement: grazing, fodder collection and milking (Table 4.11).

Table 4.11: Men's and women's involvement in livestock production activities by ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender role	Activities					
	Animal grazing		Fodder collection		Milking	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=39</i>	<i>n=39</i>	<i>n=39</i>	<i>n=39</i>	<i>n=38</i>	<i>n=38</i>
Male	15	5	8	3	34	13
Female	16	36	33	46	29	37
Both	33	20	39	26	29	37
All members	36	39	20	25	8	13
<i>Gurung</i>	<i>n=27</i>	<i>n=28</i>	<i>n=38</i>	<i>n=39</i>	<i>n=30</i>	<i>n=31</i>
Male	22	14	3	2	10	10
Female	48	61	79	80	87	87
Both	30	25	18	18	3	3
<i>Tharu</i>	<i>n=29</i>	<i>n=29</i>	<i>n=35</i>	<i>n=35</i>	<i>n=5</i>	<i>n=5</i>
Male	10	10	-	-	80	60
Female	7	7	20	20	-	-
Both	4	4	3	3	20	40
All members	79	79	77	77	-	-
Overall	<i>n=95</i>	<i>n=96</i>	<i>n=112</i>	<i>n=113</i>	<i>n=73</i>	<i>n=74</i>
Male	16	9	4	2	27	15
Female	22	34	45	49	51	55
Both	23	17	20	16	18	23
All members	39	40	31	33	4	7

Note: - denotes no response was reported for this activity.

The categories of 'male', 'female' and 'both' refer only to adults, while 'all members' includes children and the elderly.

Source: GEIHDM Survey 1998.

Of those who responded, men were less involved in grazing compared to females. Joint or all household member involvement was common for these activities, although some variation between respondents was evident. For example, females reported a higher involvement of women in grazing than did male respondents in both *Brahmin/Chhetri* and *Gurung* communities. For *Tharu* households, it was more or less a household activity. *Gurung* households had a higher level of male involvement in grazing than did the other ethnic groups.

Fodder collection also indicated variation in gender involvement. *Gurung* and *Brahmin/Chhetri* females dominated this work, while it was the work of all *Tharu* family members (Table 4.11). Men rarely completed this work by themselves. Milking animals was almost the sole responsibility of *Tharu* men and *Gurung* women, but there was no gender variation with milking animals amongst *Brahmin/Chhetri* households.

Men's and women's involvement in overall livestock care and management activities reflected a different scenario. In the *Brahmin/Chhetri* and *Gurung* households, men were less involved in animal husbandry and management activities than were women (Table 4.12). *Gurung* women were more involved in the care and management of small and large animals than were both the *Brahmin/Chhetri* and *Tharu* women. In *Tharu* households all members were involved in the various livestock husbandry and management activities, especially for small livestock.

Table 4.12: Men's and women's involvement in livestock management by ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender role	Activities					
	Large animals		Small animals		Poultry	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=39</i>	<i>n=39</i>	<i>n=26</i>	<i>n=26</i>	<i>n=17</i>	<i>n=17</i>
Male	8	2	8	8	-	6
Female	36	49	31	42	23	23
Both	43	36	34	19	18	12
All members	13	13	27	31	59	59
<i>Gurung</i>	<i>n=35</i>	<i>n=36</i>	<i>n=24</i>	<i>n=24</i>	<i>n=23</i>	<i>n=24</i>
Male	3	3	8	8	4	4
Female	51	58	71	71	78	79
Both	46	39	21	21	18	17
<i>Tharu</i>	<i>n=19</i>	<i>n=19</i>	<i>n=26</i>	<i>n=26</i>	<i>n=36</i>	<i>n=36</i>
Male	-	-	-	-	3	3
Female	32	32	15	15	30	30
Both	-	-	4	4	-	-
All members	68	68	81	81	67	67
Overall	<i>n=93</i>	<i>n=94</i>	<i>n=76</i>	<i>n=76</i>	<i>n=76</i>	<i>n=77</i>
Male	4	2	5	5	3	4
Female	41	49	38	42	43	44
Both	36	30	20	15	9	8
All members	19	19	37	38	45	44

Note: - denotes no response was reported for this activity.

The categories of 'male', 'female' and 'both' refer only to adults, while 'all members' includes children and the elderly.

Source: GEIHDM Survey 1998.

Similarly, thirteen key activities related to livestock care and management were identified in the GA, and participants were questioned to identify the roles of men and women across the three ethnic communities through a group exercise. There was little ethnic variation in terms of involvement of men and women in grazing, fodder collection, grass cutting, shed cleaning, feeding water, and liquid slurrp preparation—except that *Brahmin/Chhetri* and *Gurung* children helped with some of these activities while *Tharu* children usually did not help (Table 4.13). These activities were generally the responsibility of women in all of the ethnic communities (Figure 4.6). Activities, such as milking and selling milk products were, however, shared by both males and females of *Brahmin/Chhetri* descent, but were carried out by the *Gurung* women only. Milk animals were not common in the *Tharu* households. *Brahmin/Chhetri* women had no say in livestock marketing, while *Gurung* and *Tharu* women were actively involved in this activity. None of the *Tharu* boys were reported to be involved in livestock care or management activities. However, *Brahmin/Chhetri* and *Gurung* children were involved in animal grazing and fodder collection.



Figure 4.6: Grass-cutting as a woman's domain, Chitwan, Nepal (1998).

Table 4.13: Men's and women's involvement in livestock production activities in three ethnic households from the Chitwan district, Nepal.

Male respondents' responses

Who does:	Who is primarily responsible?												
	Brahmin/Chhetri				Gurung				Tharu				
	M	m	F	f	M	m	F	f	M	m	F	f	
Animal grazing		√√	√√	√√	√	√	√√	√√	√√			√√	
Fodder collection	√	√	√√		√		√√	√√	√√			√√	
Grass cutting			√√	√√			√√	√√				√√	
Feed preparation			√√				√√	√√				√√	
Feeding water			√√		√√		√√					√√	√√
Shed cleaning			√√		√√		√√	√√					
Caring of young/sick			√√				√√						
Milking	√√		√				√√						
Selling milk	√√		√				√√		√√				
Selling milk products	√√		√				√√						
Selling large animals	√√				√√		√√		√√			√	
Selling small animals	√√		√		√√		√√					√	
Selling of poultry							√√					√√	

Female respondents' responses

Who does:	Who is primarily responsible?												
	Brahmin/Chhetri				Gurung				Tharu				
	M	m	F	f	M	m	F	f	M	m	F	f	
Animal grazing	√	√√	√√	√√		√√	√√	√√					
Fodder collection			√√	√√			√√	√√			√√	√√	
Grass cutting			√√	√√			√√	√√			√√	√√	
Feed preparation			√√				√√	√√			√√		
Feeding water			√√		√√		√√				√√		
Shed cleaning			√√		√√		√√				√√		
Caring of young/sick			√√				√√				√√		
Milking	√√		√		√√		√√		√	√√	√√		
Selling milk	√√						√√				√√		
Selling milk products	√√		√				√√				√√		
Selling large animals	√√				√√		√		√√				
Selling small animals	√√		√		√		√√		√√		√		
Selling of poultry							√√				√√		

Note: M= Male adult, F= Female adult, m= Male children and f= Female children.
(√√) denotes strong and (√) weak participation in livestock production activities.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

4.2.3 Gender roles in vegetable production

The PRA exercise and key informant interviews indicated three key activities of interest regarding vegetable production from a gender perspective: seed/seedling management, irrigation management and weeding/hoeing activities. In the survey, responses from the males were largely consistent with those for the females (Table 4.14).

Two-thirds of the households sampled in the survey responded to the questions on gender involvement in vegetable production. Of those who responded, the majority indicated both men and women were involved in seed/seedling management. Inter-ethnic variations were identified. For example, 65 percent of the respondents reported *Tharu* men were responsible for seed/seedling management, while it was more common for both men and women to do this in *Brahmin/Chhetri* and *Gurung* communities.

Over half of the respondents reported that irrigation management was undertaken jointly by men and women amongst the *Brahmin/Chhetri* and *Gurung* households. In contrast, two-thirds of the *Tharu* respondents indicated that “only” men were responsible for irrigation management. It was rare for “only” women to manage the irrigation.

Ninety percent of the households sampled reported that all the household members in *Tharu* ethnic groups were involved in weeding and hoeing. More than 50 percent of the respondents from the *Brahmin/Chhetri* and *Gurung* households agreed that these activities were undertaken jointly. However, none of the *Tharu* men was solely responsible for weeding and hoeing.

Around two-fifths (40 percent) of the households sampled did not grow vegetables, and hence did not respond to questions on vegetable production. However, two-thirds of those who responded agreed that men and women from all three ethnic communities shared this vegetable production task. This was consistent with the overall trend of gender involvement in crop production as reported in Section 4.2.1.

**Table 4.14: Men's and women's involvement in vegetable production activities by ethnicity in the Chitwan district, Nepal.
(Percent respondents responding).**

Ethnicity and gender role	Activities					
	Seed/seedling management		Irrigation management		Weeding/hoeing	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=34</i>	<i>n=34</i>	<i>n=34</i>	<i>n=34</i>	<i>n=34</i>	<i>n=34</i>
Male	15	9	9	3	6	-
Female	17	21	20	32	29	41
Both	65	53	59	44	53	47
All members	3	17	12	21	12	12
<i>Gurung</i>	<i>n=27</i>	<i>n=28</i>	<i>n=27</i>	<i>n=28</i>	<i>n=27</i>	<i>n=28</i>
Male	11	11	11	11	4	4
Female	33	36	15	18	19	25
Both	56	53	74	71	59	53
All members	-	-	-	-	18	18
<i>Tharu</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>
Male	65	65	70	70	-	-
Female	5	5	5	5	5	5
Both	30	30	10	10	5	5
All members	-	-	15	15	90	90
Overall	<i>n=81</i>	<i>n=82</i>	<i>n=81</i>	<i>n=82</i>	<i>n=81</i>	<i>n=82</i>
Male	26	23	25	22	4	1
Female	20	22	15	21	20	27
Both	53	48	52	45	43	39
All members	1	7	8	12	33	33

Note: - denotes no response was reported for this activity.

The categories of 'male', 'female' and 'both' refer only to adults, while 'all members' includes children and the elderly.

Source: GEIHDM Survey 1998.

The household-level information was consistent with the seasonal cropping calendar results (Section 4.2.8), which shows joint involvement in vegetable production. This may reflect the fact that vegetable production is mostly at a subsistence level, and is confined to “kitchen garden work”. The variation in gender involvement across the ethnic groups could be associated with their traditional knowledge and skills for each activity. For example, seed/seedling and irrigation management activities in the *Tharu* communities were completed predominantly by males, while weeding and hoeing activities were normally done by all household members. Women were reported to be more responsible for all of these activities than were men regardless of ethnicity, which is not surprising as women generally work closer to the home than do men. Among the children, girls from all the three ethnic groups were more involved in household activities than were boys (Table 4.14).

4.2.4 Gender roles in household management

The household survey results indicated that gender involvement in household management and family well-being-related activities were highly dominated by women for all three ethnic households (Table 4.15).

The activities examined included childcare, house cleaning, water fetching, cooking and washing. The level of participation varied by ethnic group. *Tharu* women had a dominant role in all activities, except childcare, which was reported to have the joint involvement of men and women. It was similar for the *Brahmin/Chhetri* and *Gurung*, but for the *Brahmin/Chhetri*, joint participation of men and women was more common in other activities than in the *Gurung* and *Tharu* households. However, *Brahmin/Chhetri* male respondents seemed to think that both men and women shared activities more often than female respondents said.

Table 4.15: Men's and women's involvement in household management activities by ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender role	Activities									
	Child care		House cleaning		Water fetching		Cooking		Washing	
	Respondents		Respondents		Respondents		Respondents		Respondents	
	M	F	M	F	M	F	M	F	M	F
<i>Brahmin/Chhetri</i>	<i>n=37</i>	<i>n=37</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>
Male	3	-	5	-	2	-	-	-	2	-
Female	67	76	65	75	83	88	95	95	78	90
Both	30	24	30	25	15	12	5	5	20	10
<i>Gurung</i>	<i>n=38</i>	<i>n=40</i>	<i>n=40</i>	<i>n=42</i>	<i>n=41</i>	<i>n=43</i>	<i>n=41</i>	<i>n=43</i>	<i>n=41</i>	<i>n=43</i>
Male	3	-	2	2	-	-	-	-	-	-
Female	79	80	95	98	93	98	98	100	100	100
Both	18	20	3	-	7	2	2	-	-	-
<i>Tharu</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>
Male	-	-	-	-	-	-	-	-	-	-
Female	73	73	100	100	100	100	100	100	100	100
Both	27	27	-	-	-	-	-	-	-	-
Overall	<i>n=115</i>	<i>n=117</i>	<i>n=120</i>	<i>n=122</i>	<i>n=121</i>	<i>n=123</i>	<i>n=121</i>	<i>n=123</i>	<i>n=121</i>	<i>n=123</i>
Male	2	-	2	1	1	-	-	-	1	-
Female	73	76	87	91	92	95	98	98	93	97
Both	25	24	11	8	7	5	2	2	6	3

Note: M= Male, F= Female, and - denotes no response was reported for this activity.

Source: GEIHDM Survey 1998.

Likewise, from the group exercise (gender analysis), nine key activities were noted in the discussion on household management to provide an understanding of the variations in gender roles across the ethnic communities. These activities were: childcare, caring for elderly and sick household members, fetching water, firewood collection, cooking,

household cleaning, washing, grain processing and maintaining the kitchen garden (Table 4.16).

Table 4.16: Men's and women's involvement in household management activities in three ethnic households from the Chitwan district, Nepal.

Male respondents' responses

Who does:	Who is primarily responsible?											
	<i>Brahmin/Chhetri</i>				<i>Gurung</i>				<i>Tharu</i>			
	M	m	F	f	M	m	F	f	M	m	F	f
Child care	√	√	√√	√	√	√	√√	√√	√√	√	√√	
Caring of elderly and sick	√		√√		√		√√				√√	
Fetching water	√		√√	√			√√				√√	√
Energy management	√		√√				√√				√√	
Cooking foods	√		√√	√			√√	√			√√	√
Cleaning of house	√		√√	√	√		√√	√			√√	√
Washing clothes	√		√√	√			√√				√√	√
Grain processing	√		√√		√		√√		√		√√	
Maintaining kitchen garden	√		√√		√		√√				√√	

Female respondents' responses

Who does:	Who is primarily responsible?											
	<i>Brahmin/Chhetri</i>				<i>Gurung</i>				<i>Tharu</i>			
	M	m	F	f	M	m	F	f	M	m	F	f
Child care	√	√	√√	√	√	√	√√	√√			√√	√
Caring of elderly and sick	√		√√		√		√√				√√	
Fetching water			√√	√			√√	√			√√	√
Energy management	√		√√	√			√√				√√	√
Cooking foods			√√	√			√√	√			√√	√
Cleaning of house	√		√√	√			√√	√			√√	√
Washing clothes			√√	√			√√				√√	√
Grain processing	√		√√		√		√√				√√	
Maintaining kitchen garden	√		√√				√√		√		√√	

Note: M= Male, F= Female m= Male children and f= Female children.

(√√) denotes strong and (√) weak participation in household management activities.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

Women were reported to be more responsible for all of these activities than were men regardless of ethnicity. However, on a limited scale, men participated in selected activities, such as childcare in all of the ethnic groups, confirming the survey information. Among the children, girls from all the three ethnic groups were more involved in household activities than were boys (Table 4.16). Both *Brahmin/Chhetri* and *Gurung* male respondents reported involvement in some activities (e.g. washing clothes) than female respondents did not agree with.

4.2.5 Gender roles in community services

A gender analysis exercise was carried out in an endeavour to understand the roles of gender with respect to participation in community services. The level of participation in infrastructure development (such as maintenance of irrigation canals) and attendance at meetings were examined. Information from the group exercises concluded that both men and women were generally involved in community services, but men dominated these activities in all three ethnic groups (Table 4.17).

Table 4.17: Men's and women's involvement in community services in three ethnic groups from the Chitwan district, Nepal.

Participation in:	Who is primarily involved?					
	<i>Brahmin/Chhetri</i>		<i>Gurung</i>		<i>Tharu</i>	
	Male	Female	Male	Female	Male	Female
Infrastructure development (maintenance of irrigation canals)	√√	√√	√√	√√	√√	√√
Community group meetings	√√	√√	√√ *	√√ *	√√ *	√√
Social gatherings	√√	√√	√√ *	√√ *	√√ *	√√
Women's group meeting (<i>Mahila Samuha</i>)	*	*	**	*	*	*

Note: (√√ and **) denotes strong and (√ and *) weak participation in activities.

(√) = male respondent's response and (*) = female respondents' responses.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

This is not surprising when one recalls women's lack of time for personal activities as noted in Section 4.2.7. However, the level of gender involvement varied across the ethnic groups, and by the nature of the services. For example, *Gurung* women were more involved in attending general group meetings and participating in social gatherings compared with the *Brahmin/Chhetri* and *Tharu* women-who participated only in the *Mahila Samuha* meeting (Table 4.17).

4.2.6 Gender roles in off-farm activities

Off-farm activities provide an important source of income to many rural households. Table 4.18 shows that *Gurung* men were mostly employed in the armed forces. Some were in the teaching profession, or in petty trading. Some of the *Gurung* women were also involved in teaching, petty trading, or the running of tea-shops. Selected *Gurung* women were also involved in processing local liquor for sale, and thereby provided additional household income. Men were involved in multiple activities (Table 4.18). Teaching, construction, tailoring, and the priesthood were popular activities for the *Brahmin/Chhetri* men. Some *Brahmin/Chhetri* women were involved in teaching and nursing. *Tharu* men were involved in skill-based services such as carpet weaving, tailoring and carpentry. Some were involved in teaching. *Tharu* females were involved in petty trading, mat weaving and fishing. In general, men were involved in a larger range of off-farm activities than were women.

Table 4.18: Men's and women's involvement in off-farm activities in three ethnic households from Chitwan district, Nepal.

Activities:	Who is primarily involved?					
	<i>Brahmin/Chhetri</i>		<i>Gurung</i>		<i>Tharu</i>	
	Male	Female	Male	Female	Male	Female
Skilled labour						
Tailoring/weaving		√√ **	**	**	√ **	
Police/Army			√√			
Priesthood	√√	√√				
Carpenter					√√	√√
Mechanics					√√	√√
Construction	√√	√√				
Service						
Teacher	√√ **	√√ **	√√ **	√√ **	√√	√√
Nurse		*		**		
Business	√√	√√	√√ *		√√	√√
Petty trading	√√ *	√√	√√ **	**	√√ **	√√ **
Others						
Liquor processing				**		
Fishing					√√ **	√√ **
Mat weaving					**	

Note: (√√ and **) denotes strong, and (√ and *) weak participation in activities.

(√) = male respondents' responses and (*) = female respondents' responses.

A blank cell indicates data not provided.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

4.2.7 Gender and time allocation patterns

One full day of activities completed by a man and a woman from the same household was monitored for each ethnic group in an hourly basis to record the time spent on different activities, which were later categorised into four major sets: livestock-related, household work, personal activities and social work. However, farming was used instead of social work as the fourth category for the *Tharu* ethnic households, because, unlike that of the *Brahmin/Chhetri* and *Gurung* groups, their farmland was suitable for spring rice cultivation. Therefore, unlike those of the other ethnic groups, *Tharu* households from this study area had two crops of rice in their cropping system (Section 4.2.8). Overall, women and men spent 18 and 16.5 hours a day, respectively, in these activities (Figure 4.7). The daily activities of *Brahmin/Chhetri* women began around 4 am and continued through to 10 pm, while men started their day about one hour later and stopped half an hour earlier. In the *Brahmin/Chhetri* community, women spent most of their time in household chores, followed by livestock care and management, while men spent most of their time in personal activities. The *Gurung* men were relatively more involved in social activities than were the *Brahmin/Chhetri*, whereas there was no involvement of *Tharus* on social work. The *Tharu* men, on the other hand, spent more than 10 hours a day in farming activities. Women were more involved in livestock care than the allocation of time reflected. The *Brahmin/Chhetri* and *Gurung* women spent more than nine hours a day in household chores, while men spent just about two hours a day on these tasks. Men, on the other hand, had more time to undertake personal activities (playing cards, drinking, arguing and gossiping) in all ethnic households.

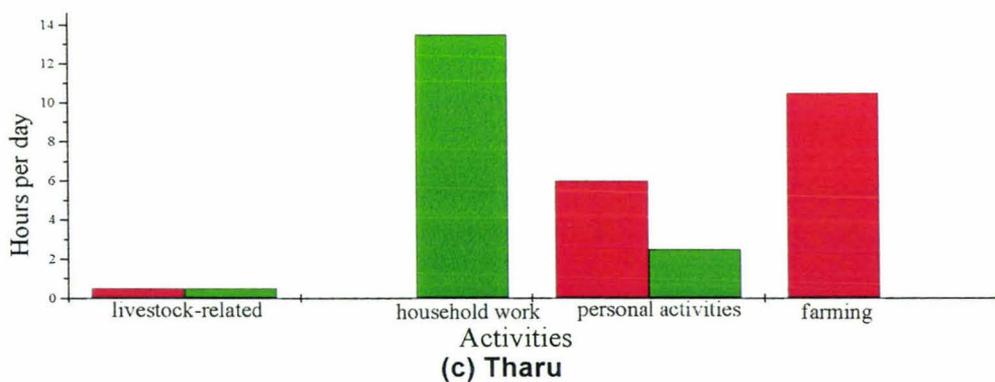
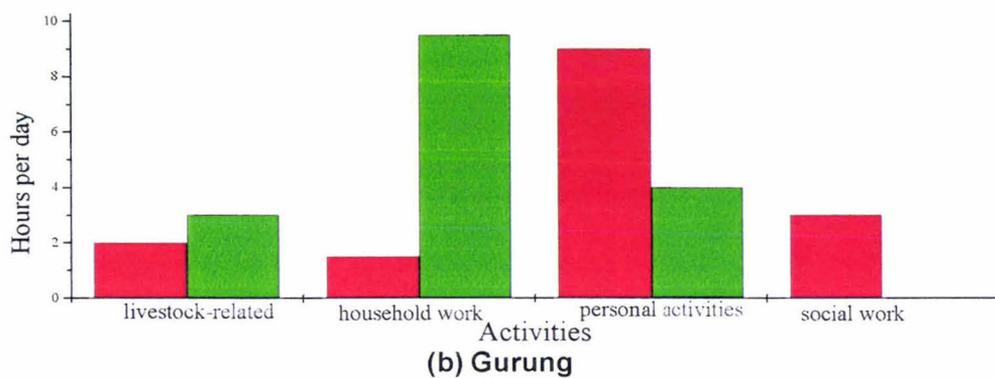
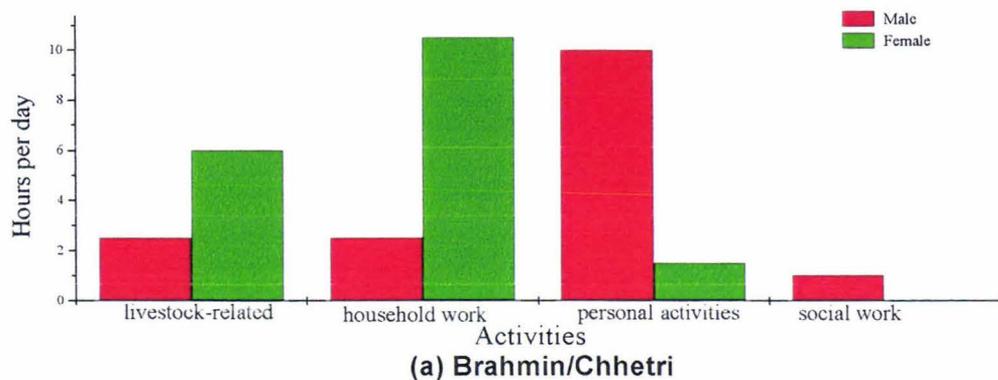


Figure 4.7 Time use profiles by gender in (a) *Brahmin/Chhetri* (June 9), (b) *Gurung* (May 28), and (c) *Tharu* (May 20) households in the Chitwan district of Nepal (1998).

Source: Time use survey by direct observation by the researcher and the enumerators

4.2.8 Seasonal cropping calendar

Topographical and climatic conditions were quite similar in both VDCs (Phulbari and Shivanagar) where the *Brahmin/Chhetri* and *Gurung* household seasonal crop calendars were studied (Tables 4.19 to 4.20). In these areas, lowland and upland farming systems are common. Inter-cropping of lentil and peas with rice was also common in the area. Some farmers produced sesame for household consumption.

The seasonal crop calendar showed that *Brahmin/Chhetri* ethnic households mostly followed a rice-maize-fallow/rice-wheat-maize/rice-mustard-maize cropping rotation. Vegetable cultivation for household consumption was also common, although on a limited basis. Most of the heavy farm activities, such as ploughing and land preparation, were done by men-while labour-intensive activities, such as sowing and weeding, were completed mostly by women. However, most of the harvesting and threshing activities were carried out jointly by men and women, regardless of ethnicity. The cropping calendar also identified that only men had time to work off-farm during the lean agricultural season (mid-July to mid-August and mid-January to mid-March). Presumably, women did not have time because of their heavy involvement in household-related work throughout the year.

Gurung ethnic households followed a crop calendar similar to that of the *Brahmin/Chhetri* ethnic community. This was largely due to their similar climate and topographical conditions. *Gurungs* also cultivated millet and buckwheat. They adopted a rice-maize-fallow, rice-wheat-maize, rice-fallow-millet or rice-pulse-maize rotation. Gender involvement in crop cultivation by *Gurung* households was similar to that of the *Brahmin/Chhetri* ethnic group, but the involvement of men and women in the activities was more equal. Adult males took up off-farm activities during mid-January to mid-March.

In this study area, rice was the main crop grown by *Tharu* households, along with wheat, maize, mustard and vegetables. Most of the land was suitable for spring rice cultivation, hence they had two crops of rice in their cropping system (Table 4.21). Generally, they

followed a rice-fallow-rice, rice-mustard/wheat-maize or rice-vegetable-fallow rotation. Joint involvement of men and women was found for most of the agricultural activities including sowing and harvesting. Adult males were involved in some off-farm activities during mid-August to mid-October.

Table 4.19: Seasonal cropping calendar of activities for the *Brahmin/Chhetri* ethnic group, Chitwan, Nepal.

Months	Crops	Activities	Gender involvement Male (σ), female (φ)	Off-farm working months by gender
Mid April to mid-May	Maize	Land preparation sowing	(σ) (φ)	
Mid-May to mid-June	Maize	Hoeing/weeding of maize Harvesting of early maize	(φ) (σ) and (φ)	
Mid-June to mid-August	Rice	Land preparation Transplanting	(σ) (φ)	
Mid-August to mid-October	Rice, vegetables	Weeding Land preparation, sowing	(φ) (φ) and (σ)	(σ)
Mid-October to mid-November	Lentils	Sowing	(σ)	
Mid-November to mid-December	Mustard	Land preparation, sowing	(φ) and (σ)	
Mid-December to mid-January	Rice	Harvesting and threshing of rice	(φ) and (σ)	
	Wheat	Land preparation for wheat	(σ)	
Mid-January to mid-February	Wheat	Sowing	(φ) and (σ)	(σ)
Mid-February to mid-March	Mustard Maize	Mustard harvest Land preparation for maize	(φ) and (σ) (φ) and (σ)	(σ)
Mid-March to mid-April	Wheat Maize	Wheat harvesting, threshing, Maize sowing	(φ) and (σ) (φ) and (σ)	

Source: The PRA exercise carried out on 7 June 1998 in Phulbari VDC involving 15 community members.

Table 4.20: Seasonal cropping calendar of activities for the Gurung ethnic group, Chitwan, Nepal.

Months	Crops	Activities	Gender involvement Male (σ), female (φ)	Off-farm working months by gender
Mid April to mid-May	Maize	Land preparation Sowing	(σ) (φ)	
Mid-May to mid-June	Maize Millet	Hoeing/weeding of maize, harvesting of early millet	(φ) (σ) and (φ)	
Mid-June to mid-August	Rice	Land preparation, transplanting, maize harvest	(σ) (φ)	
Mid-August to mid-October	Rice, vegetables	Weeding Land preparation, sowing	(φ) and (σ) (φ)	
Mid-October to mid-November	Pulses	Sowing	(φ) and (σ)	
Mid-November to mid-December	Rice	Start of rice harvesting,	(φ) and (σ)	
Mid-December to mid-January	Wheat, buck wheat and potato	Harvesting and threshing of rice, land preparation for wheat, buck wheat and potato	(φ) and (σ) Land preparation (σ) other activity (φ)	
Mid-January to mid-February	Vegetables	Cultivation practices	(φ) and (σ)	(σ)
Mid-February to mid-March	Maize, finger millet	Land preparation, sowing and weeding of maize	(φ) and (σ)	(σ)
Mid-March to mid-April	Wheat and buck wheat	Harvesting of wheat, buck wheat and pulses	(φ) and (σ)	

Source: The PRA exercise carried out on 27 June 1998 in Phulbari VDC involving 13 community members.

Table 4.21: Seasonal cropping calendar of activities for the *Tharu* ethnic group, Chitwan, Nepal.

Months	Crops	Activities	Gender involvement Male (♂), female (♀)	Off-farm working months by gender
Mid April to mid-May	Maize, vegetables	Land preparation, Sowing	(♂) (♀)	
Mid-May to mid-June	Maize, vegetables	Hoeing/weeding of maize, preparation for rice nursery	(♀) (♂) and (♀)	
Mid-June to mid-August	Rice	Spring rice harvesting, main seasoned rice cultivation, Maize harvest, transplanting of rice	(♂) and (♀) (♂) and (♀) (♀)	
Mid-August to mid-October	Rice	Weeding of rice	(♀) and (♂)	(♂)
Mid-October to mid-November	Linseed, lentil	Sowing, Land preparation for mustard	(♂)	
Mid-November to mid-December	Mustard	Sowing	(♀) and (♂)	
Mid-December to mid-January	Wheat	Harvesting and threshing of rice, land preparation for wheat	(♀) and (♂)	
Mid-January to mid-February	Wheat	Sowing of wheat	(♀) and (♂)	
Mid-February to mid-March	Short duration rice in nursery	Mustard and linseed harvest, land preparation for rice	(♀) and (♂)	
Mid-March to mid-April	Rice	Wheat harvesting and threshing, Rice transplanting	(♀) and (♂) (♀)	

Source: The PRA exercise carried out on 17 May 1998 in Bhandara VDC involving 15 community members.

4.3 Access to services and control over resources

This section covers the results from both the face-to-face survey with male and female household members and the group exercises (gender analysis) which were conducted in an endeavour to understand the roles of gender in access to services and control over household resources. The survey data analysed access to three key services: agricultural extension, community activities and training, and finance. In terms of resources, gender roles in the control of income derived from three sources: crops, livestock and off-farm activities, were also examined in the household survey. Data from the group exercise are discussed wherever issues are raised which are complementary to those considered in the survey.

4.3.1 Access to agricultural extension services

Males overwhelmingly dominated in accessing agricultural and veterinary services in all three ethnic communities (Table 4.22). *Tharu* females had no access, while only one in six *Brahmin/Chhetri* and *Gurung* females had access to extension facilities and agents. This may have stemmed from the virtual non-existence of female extension workers and the reluctance of women to approach male extension workers for technical advice and services.

The gender analysis concurred with the survey results (Table 4.28). This reflects the male dominance in society, whereby men enjoy privileged access to activities outside of the home, and have more leisure time than do women. Women are basically confined to their households, and thus cannot access specific information from government organisations or development workers. Traditionally, women are not supposed to leave the village or household boundaries even when they can get access to information and technology-related workshops/seminars. Social taboos confine most illiterate women to their homes, but this does vary by ethnicity. *Gurung* women were found to be relatively more outgoing than were those of the other ethnic groups, possibly because their men were more likely to be absent seeking off-farm work.

Table 4.22: Access to agricultural and veterinary services by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender	Agricultural extension worker		Veterinary worker		Veterinary hospital	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=38</i>	<i>n=38</i>	<i>n=39</i>	<i>n=39</i>	<i>n=40</i>	<i>n=40</i>
Male	74	71	69	74	80	78
Female	16	18	13	8	10	10
Both	10	11	18	18	10	12
<i>Gurung</i>	<i>n=39</i>	<i>n=41</i>	<i>n=38</i>	<i>n=40</i>	<i>n=39</i>	<i>n=41</i>
Male	74	73	84	80	59	59
Female	13	17	11	18	13	17
Both	13	10	5	2	28	24
<i>Tharu</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=38</i>	<i>n=38</i>
Male	93	93	98	98	87	87
Female	-	-	-	-	-	-
Both	7	7	2	2	13	13
Overall	<i>N=117</i>	<i>n=119</i>	<i>n=117</i>	<i>n=119</i>	<i>n=117</i>	<i>n=119</i>
Male	80	79	84	84	75	74
Female	10	12	8	8	8	9
Both	10	9	8	8	17	17

Source: GEIHDM Survey 1998.

4.3.2 Access to participation in community activities and training

Gender differences in the level of participation in community activities were common to all three ethnic communities. The community activities examined included the opportunity to participate in community meetings, skill-development training and farm study tours. The *Brahmin/Chhetri* males only had access to these activities, whereas in the *Gurung* community, both males and females had similar access to community

meetings. More than two-thirds of the *Gurung* males had access to farm study tours. *Tharu* males also dominated access to community meetings and farm study tours, while about half of the respondents agreed that men and women had equal access to skill development training. None of the *Tharu* women was able to attend a community meeting alone (Table 4.23).

Table 4.23: Access to participation in community activities and training in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender	Community meetings		Skill development training		Farming study tour	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=40</i>	<i>n=36</i>	<i>n=36</i>
Male	65	68	43	58	56	58
Female	15	10	17	12	19	14
Both	20	22	40	30	25	28
<i>Gurung</i>	<i>n=40</i>	<i>n=42</i>	<i>n=28</i>	<i>n=30</i>	<i>n=29</i>	<i>n=30</i>
Male	40	38	11	10	69	67
Female	38	38	71	73	24	27
Both	22	24	18	17	7	6
<i>Tharu</i>	<i>n=40</i>	<i>n=40</i>	<i>n=31</i>	<i>n=31</i>	<i>n=27</i>	<i>n=27</i>
Male	70	68	32	32	85	85
Female	-	-	13	13	11	11
Both	30	32	55	55	4	4
Overall	<i>n=120</i>	<i>n=122</i>	<i>n=99</i>	<i>n=101</i>	<i>n=92</i>	<i>n=93</i>
Male	58	58	30	35	69	69
Female	18	16	31	31	18	17
Both	24	26	39	34	13	14
Chi-square	20.7 (4)**	24.6 (4)**	31(4)**	43.1(4)**	NS	NS

Note: ** refers to statistical significance at 1% level of probability based on the chi-square testing of independence of participation by ethnicity. NS = not significant.

Source: GEIHDM Survey 1998.

4.3.3 Access to finance

Access to finance (banking and money lending services) was also dominated by men (Table 4.24).

Table 4.24: Access to finance by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender role	Banking facility		Private money lender		Savings	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=17</i>	<i>n=17</i>	<i>n=35</i>	<i>n=35</i>	<i>n=25</i>	<i>n=25</i>
Male	71	65	71	57	88	88
Female	17	23	9	14	4	4
Both	12	12	20	29	8	8
<i>Gurung</i>	<i>n=35</i>	<i>n=36</i>	<i>n=40</i>	<i>n=42</i>	<i>n=37</i>	<i>n=39</i>
Male	66	61	48	45	27	26
Female	23	22	37	41	60	61
Both	11	17	15	14	13	13
<i>Tharu</i>	<i>n=32</i>	<i>n=32</i>	<i>n=40</i>	<i>n=40</i>	<i>n=33</i>	<i>n=33</i>
Male	97	97	95	95	94	94
Female	3	3	2	3	3	3
Both	-	-	3	2	3	3
Overall	<i>n=84</i>	<i>n=85</i>	<i>n=115</i>	<i>n=117</i>	<i>n=95</i>	<i>n=97</i>
Male	79	75	71	66	66	65
Female	14	15	17	20	25	27
Both	7	10	12	14	9	8
Chi-square	NS	NS	NS	32.7 (4)**	NS	NS

Note: ** refers to statistical significance at 1% level of probability based on the chi-square testing of independence of participation by ethnicity. NS = not significant.

Source: GEIHDM Survey 1998.

access. *Gurung* women, on the other hand, had greater access to savings than did men. Traditionally, as *Gurung* males have been involved in military service, they spend less time with their families, therefore, women in this community have greater overall control over household finances.

Women were largely illiterate and thus were not involved in financial activities, which need specific knowledge/skills and require information. This is why males had better access to finance than did females. The key informant interviews and gender analysis were consistent in their findings with respect to finance (Table 4.24).

4.3.4 Control over crop income

Crop income was categorised into cereal and cash crop income. Who controlled the income derived from cereal and cash crops is summarised in Table 4.25. Ethnic variation in the control of crop income was prominent ($P < 0.001$). For example, the *Brahmin/Chhetri* participants reported that males had control, while in the *Gurung* households, females had control. *Tharus* claimed joint control. A high degree of control of crop income by *Gurung* females may stem from the absence of males from the households, while less control by women in the *Brahmin/Chhetri* and *Tharu* households reflects the social norm that men usually deal with the finances.

Table 4.25: Control of household crop income by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender	Cereal crops		Cash crops	
	Respondents		Respondents	
	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=37</i>	<i>n=37</i>	<i>n=37</i>	<i>n=37</i>
Male	65	76	65	76
Female	13	13	13	11
Both	22	11	22	13
<i>Gurung</i>	<i>n=26</i>	<i>n=27</i>	<i>n=26</i>	<i>n=28</i>
Male	15	19	15	18
Female	77	74	77	75
Both	8	7	8	7
<i>Tharu</i>	<i>n=38</i>	<i>n=38</i>	<i>n=37</i>	<i>n=37</i>
Male	24	24	22	21
Female	5	5	11	11
Both	71	71	67	68
Overall	<i>n=101</i>	<i>n=102</i>	<i>n=100</i>	<i>n=102</i>
Male	37	41	36	40
Female	27	27	29	29
Both	36	32	35	31
Chi-square	66.9 (4)**	76.8 (4)**	60.2 (4)**	72.1 (4)**

Note: ** refers to statistical significance at 1% level of probability based on the chi-square testing of independence of participation by ethnicity. NS = not significant.

Source: GEIHDM Survey 1998.

4.3.5 Control over livestock income

Control over livestock income, mainly from the sale of large and small ruminants, milk, milk products (*Ghee*) and poultry, varied significantly ($P < 0.001$) between ethnic groups (Table 4.26).

Table 4.26: Control of livestock income by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender	Large animals		Small animals		Milk and ghee		Poultry/ducks	
	Respondents		Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=39</i>	<i>n=39</i>	<i>n=27</i>	<i>n=27</i>	<i>n=33</i>	<i>n=33</i>	<i>n=21</i>	<i>n=21</i>
Male	62	72	59	70	36	55	43	67
Female	15	13	26	19	46	27	38	14
Both	23	15	15	11	18	18	19	19
<i>Gurung</i>	<i>n=32</i>	<i>n=33</i>	<i>n=23</i>	<i>n=23</i>	<i>n=32</i>	<i>n=33</i>	<i>n=22</i>	<i>n=23</i>
Male	31	30	22	22	6	6	18	13
Female	60	61	74	74	94	94	82	87
Both	9	9	4	4	-	-	-	-
<i>Tharu</i>	<i>n=26</i>	<i>n=26</i>	<i>n=27</i>	<i>n=27</i>	<i>n=10</i>	<i>n=10</i>	<i>n=34</i>	<i>n=34</i>
Male	31	31	15	15	30	30	12	12
Female	15	15	48	48	40	40	65	65
Both	54	54	37	37	30	30	23	23
Overall	<i>n=97</i>	<i>n=98</i>	<i>n=77</i>	<i>n=77</i>	<i>n=75</i>	<i>n=76</i>	<i>n=77</i>	<i>n=78</i>
Male	43	47	32	36	23	30	22	27
Female	30	30	48	46	65	58	62	58
Both	27	23	20	18	12	12	16	15
Chi-square	30 (4)**	39 (4)**	23 (4)**	NS	NS	NS	NS	NS

Note: ** refers to statistical significance at 1% level of probability based on the chi-square testing of independence of participation by ethnicity. NS = not significant.

Source: GEIHDM Survey 1998.

For example, the *Gurung* households reported that women control livestock income, while in the *Brahmin/Chhetri* households, control rested with men. The *Tharu* households indicated joint control over the income earned from the sale of large animals, while women had more control over income from small animals, milk and milk products and poultry/ducks in the *Tharu* ethnic group (Table 4.26).

4.3.6 Control over income generated from off-farm sources

Off-farm income was categorised into two different sources: full time and/or part time off-farm work and pensions/remittances (Table 4.27). Control by men and women over off-farm income varied by ethnic groups ($P < 0.001$). The *Brahmin/Chhetri* males dominated the control of off-farm income, while joint control of pensions/remittances was reported. About two-thirds of the *Tharu* respondents reported joint control of off-farm income. None from this group received income from pensions/ remittances. *Gurung* females, on the other hand, had greater control over income from off-farm employment and pensions/remittances: in only about one-fourth of households males had sole control compared with two-thirds of the females. *Brahmin/Chhetri* women had very little control over off-farm income. But, for pensions/remittances, about half of the respondents indicated that they had joint control over this income, compared to only about one-third by women “only”, and about one-fifth of men “only”.

Table 4.27: Control of off-farm income by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Ethnicity and gender	Off-farm Respondents		Pensions/remittances Respondents	
	Male	Female	Male	Female
	<i>Brahmin/Chhetri</i>	<i>n=35</i>	<i>n=35</i>	<i>n=6</i>
Male	71	74	17	17
Female	6	6	33	33
Both	23	20	50	50
<i>Gurung</i>	<i>n=36</i>	<i>n=38</i>	<i>n=11</i>	<i>n=11</i>
Male	25	24	27	27
Female	58	60	64	64
Both	17	16	9	9
<i>Tharu</i>	<i>n=27</i>	<i>n=27</i>	<i>n=27</i>	<i>n=27</i>
Male	26	30	-	-
Female	15	15	-	-
Both	59	55	-	-
Overall	<i>n=98</i>	<i>n=100</i>	<i>n=17</i>	<i>n=17</i>
Male	42	43	24	24
Female	28	29	53	53
Both	30	28	23	23
Chi-square	42 (4)**	44 (4)**	NS	NS

Note: ** refers to statistical significance at 1% level of probability based on the chi-square testing of independence of participation by ethnicity. NS = not significant.

Source: GEIHDM Survey 1998.

4.3.7 Results of gender analysis exercise on access and control

Questions were asked of separate men's and women's groups from each ethnic group concerning their access to, and control over, household resources (Table 4.28).

Responses from the male and female respondents were quite similar for all three ethnic groups. The findings showed that males overwhelmingly dominated household resources across the three ethnic communities. For example, land, labour, and capital were all controlled by *Brahmin/Chhetri* men, while women had little access to these. However, it should be noted that women were reluctant to control such resources because of social taboos. A similar result was found for *Tharu* households where males had better access to, and control over, resources than did females. However, women did have control over the marketing of small animals and the use of savings, and were able to participate in *Mahila Gosthi*. In the *Gurung* households, joint access to household resources was common. Women in these houses had primary control over jewellery and savings, and substantial control over financial affairs, especially marketing.

Table 4.28: Gender roles in access to, and control of, resources in three ethnic groups of the Chitwan district, Nepal.

Male respondents' responses

Resources	Who is primarily responsible?											
	Brahmin/Chhetri				Gurung				Tharu			
	Access to		Control over		Access to		Control over		Access to		Control over	
	M	F	M	F	M	F	M	F	M	F	M	F
Land	√√		√√		√√	√	√√	√	√√	√	√	
On-farm work	√√		√√		√√		√√		√√	√	√√	
Skilled work	√√		√√		√√		√√		√√	√	√√	
Contact with agriculture extension worker	√√		√√		√√		√√		√√		√√	
Veterinary hospital	√√		√√		√√		√√		√√		√√	
Participation in agricultural training	√√		√√		√√		√√	√√	√√		√√	
Banks	√√		√√		√√	√√	√√	√√	√√		√√	
Money lender	√√		√√		√√	√√	√√	√√	√√		√√	
Marketing of cereal crop	√√		√√		√√	√√	√√	√√	√√		√√	
Marketing of cash crop	√√	√	√√		√√	√√	√√	√√	√√		√√	
Marketing of large animal	√√		√√		√√	√	√√	√	√√		√√	
Marketing of small animal	√√	√	√√		√√	√√		√√	√	√√	√	√√
Off-farm employment opportunities	√√		√√		√√		√√		√√		√√	
Participation to community work	√√		√√		√√	√	√√	√	√√		√√	
Jewellery	√√		√√			√√		√√	√√		√√	
Savings	√√		√√		√	√√			√√	√	√√	√
Marketing of poultry					√	√√	√	√√		√√		√√
Participation in women's group		√				√		√	√	√		√

Female respondents' responses

Resources	Who is primarily responsible?											
	<i>Brahmin/Chhetri</i>				<i>Gurung</i>				<i>Tharu</i>			
	Access to		Control over		Access to		Control over		Access to		Control over	
	M	F	M	F	M	F	M	F	M	F	M	F
Land	√√		√√		√√		√√		√√	√	√√	
On-farm work	√√		√√		√√		√√		√√	√	√√	√
Skilled work	√√		√√		√√		√√		√√	√	√√	√
Contact with agriculture extension worker	√√		√√		√√		√√		√√		√√	
Veterinary hospital	√√		√√		√√		√√		√√		√√	
Participation in agricultural training	√√		√√		√√		√√		√√		√√	
Banks	√√		√√		√√	√√	√√	√√	√√		√√	
Money lender	√√		√√		√√	√√	√√	√√	√√		√√	
Marketing of cereal crop	√√		√√		√√	√√	√√	√√	√√		√√	
Marketing of cash crop	√√		√√		√√	√√	√√	√√	√√		√√	
Marketing of large animal	√√		√√		√√	√√	√√	√√	√√			
Marketing of small animal	√√	√	√√	√	√√	√√	√√	√√	√	√√	√	√√
Off-farm employment opportunities	√√		√√		√√		√√		√√		√√	
Participation to community work	√√		√√		√√	√√	√√	√√	√√		√√	
Jewellery	√√		√√			√√		√√	√√		√√	
Savings	√√		√√			√√		√√	√√	√	√√	√
Marketing of poultry and duck						√√		√√		√√		√√
Participation in women's group						√		√		√√		√√

Note: M= Male, F= Female. (√√) denotes strong and (√) weak participation for access and control of resources.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

4.4 Decision-making pattern in household activities

Gender roles in decision-making were examined through the household survey in relation to seven different activities in the three ethnic communities. These decisions included household expenditure, labour allocation, crop production, vegetable production, livestock marketing, household management, and participation in social and religious activities. Similarly, information related to gender roles in household decision-making was also collected through gender analysis. Results from both exercises are discussed in the following sections.

4.4.1 Household expenditure decisions

Household expenditure-related decisions were normally made by males in all three ethnic communities (Table 4.29). However, more than half of the respondents claimed that there was joint involvement in decisions for buying clothes and medical treatment, except for the *Brahmin/Chhetri* households-where males made these decisions independently. About one in ten respondents from the *Brahmin/Chhetri* and *Gurung* groups indicated that “only” females were involved in decisions related to household expenditure. The *Tharu* female respondents never made expenditure decisions on their own, except for the few who were given this freedom with respect to the buying of clothes. However, the majority of decisions on household expenditure appeared to involve both *Tharu* men and women.

Table 4.29: Major decisions on household expenditure by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role											
	Brahmin/Chhetri			Gurung			Tharu			Overall		
	M n= 39	F n= 39	B n= 39	M n= 41	F n= 41	B n= 41	M n= 40	F n= 40	B n= 40	M N= 120	F n= 120	B n= 120
Farm input purchase	62	10	28	56	20	24	18	-	82	45	10	45
Food management	64	10	26	44	34	22	25	-	75	44	15	41
Buying of clothes	51	16	33	29	17	54	20	5	75	33	13	54
Medical expenses for family ^a	83	7	10	33	5	62	15	-	85	40	2	58
Luxury goods purchase ^b	73	-	27	84	3	13	42	-	58	73	4	23

^a Brahmin/Chhetri (n= 40), Gurung (n=37), Tharu (n=40), Overall (n=120).

^b Brahmin/Chhetri (n= 40), Gurung (n=40), Tharu (n=24), Overall (n=120).

Female respondents' responses

Decision on:	Ethnicity and gender role											
	Brahmin/Chhetri			Gurung			Tharu			Overall		
	M n= 39	F n= 39	B n= 39	M n=4 3	F n= 43	B n= 43	M n= 40	F n= 40	B n= 40	M N= 122	F n= 122	B n= 122
Farm input purchase	64	13	23	53	26	21	18	-	82	45	13	42
Food management	67	13	20	39	42	19	25	-	75	43	19	38
Buying of clothes	59	15	26	33	21	46	20	5	75	37	14	49
Medical expenses for family ^c	70	2	28	38	12	50	15	-	85	41	5	54
Luxury goods purchase ^d	85	7	8	79	8	13	42	-	58	73	6	21

^c Brahmin/Chhetri (n= 40), Gurung (n=39), Tharu (n=40), Overall (n=122).

^d Brahmin/Chhetri (n= 40), Gurung (n=42), Tharu (n=24), Overall (n=122).

Note: M= Male F= Female B= Both

Source: GEIHDM Survey 1998.

4.4.2 Household labour allocation decisions

Gender roles with respect to five categories of decisions concerning the allocation of household labour were recorded separately for male and female respondents through the survey. Male and female responses were consistent (Table 4.30). Joint decisions were common for all five types of labour allocation: hiring a farm worker; use of family labour for on-farm activities; participation in off-farm and social services; and overall activities. This pattern was more distinct in the *Tharu* than in either the *Gurung* or the *Brahmin/Chhetri* households. Women in the *Gurung* community quite often had sole control over all labour allocation decisions, unlike females from the other two ethnic groups. *Gurung* male members had a greater role in all labour allocation decisions than did males from the other ethnic groups (Figure 4.8). The *Brahmin/Chhetri* males exerted a greater role in labour allocation decisions with respect to hiring a farm worker, and family labour for on-farm activities, while *Gurung* males had a greater say in the allocation of family labour to off-farm and social service activities.

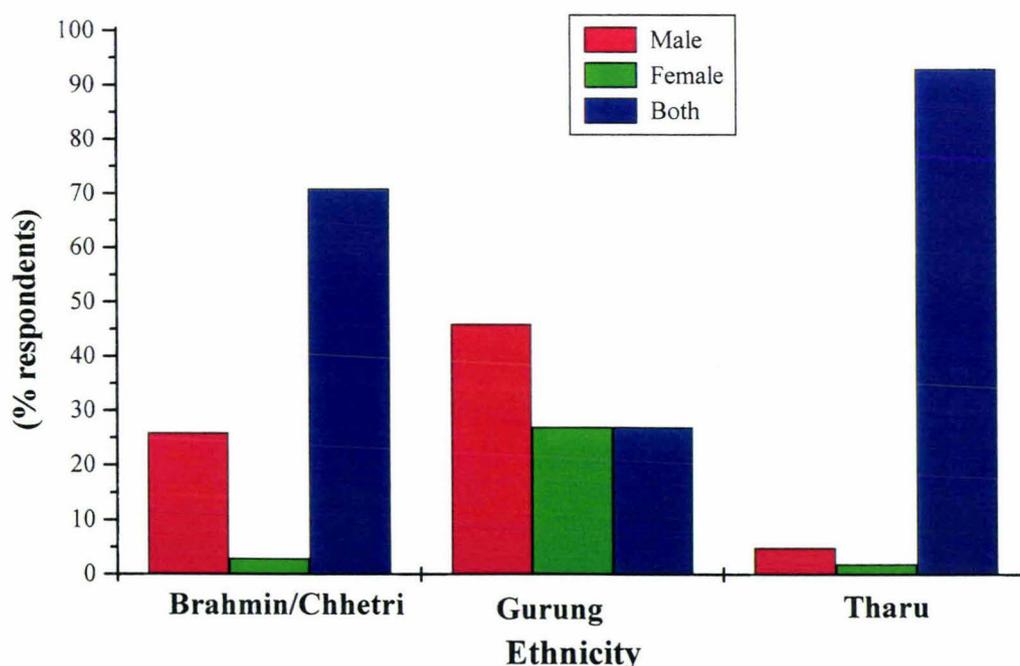


Figure 4.8: Gender and ethnicity effects on labour allocation decisions in Chitwan, Nepal (1998). (Percent respondents).

Table 4.30: Gender roles in labour allocation decisions as reported by male and female respondents. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 41	F n= 41	B n= 41	M n= 40	F n= 40	B n= 40	M n= 121	F n= 121	B n= 121
Hiring a farm worker	32	20	48	12	42	46	3	2	95	16	21	63
Family labour for on-farm	30	20	50	12	44	44	-	7	93	14	24	62
Family labour for off-farm	33	10	57	42	29	29	5	-	95	27	13	60
Family labour for social service	38	10	52	59	24	17	13	2	85	37	12	51
Overall labour allocation ^a	26	3	71	46	27	27	5	2	93	26	11	63

^a Brahmin/Chhetri (n= 38), Gurung (n=41), Tharu (n=40), Overall (n=119).

Female respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 43	F n= 43	B n= 43	M n= 40	F n= 40	B n= 40	M n= 123	F n= 123	B n= 123
Hiring a farm worker	30	25	45	9	49	42	-	2	98	13	26	61
Family labour for on-farm	25	27	48	19	42	39	-	7	93	15	26	59
Family labour for off-farm	30	12	58	42	28	30	5	-	95	26	14	60
Family labour for social service	33	12	55	53	28	19	13	2	85	33	15	52
Overall labour allocation ^b	18	8	74	47	30	23	5	2	93	24	14	62

^b Brahmin/Chhetri (n= 38), Gurung (n=43), Tharu (n=40), Overall (n=121).

Note: M= Male F= Female B= Both.

Source: GEIHDM Survey 1998.

4.4.3 Crop production decisions

Gender roles were identified for five major crop production activities for the three ethnic communities. These were: area to be cultivated, crops and varieties to be planted, fertiliser to be used and the marketing of crops. Similar to labour allocation decisions, the *Brahmin/Chhetri* and *Tharu* respondents predominantly identified a joint role in all five areas (Table 4.31). Crop marketing decisions were made jointly by men and women, but the level of gender participation varied substantially across the ethnic groups. Less than 5 percent of the *Brahmin/Chhetri* women, and no *Tharu* women, were independently involved of crop marketing decisions compared to 43 percent in the *Gurung* women (Figure 4.9).

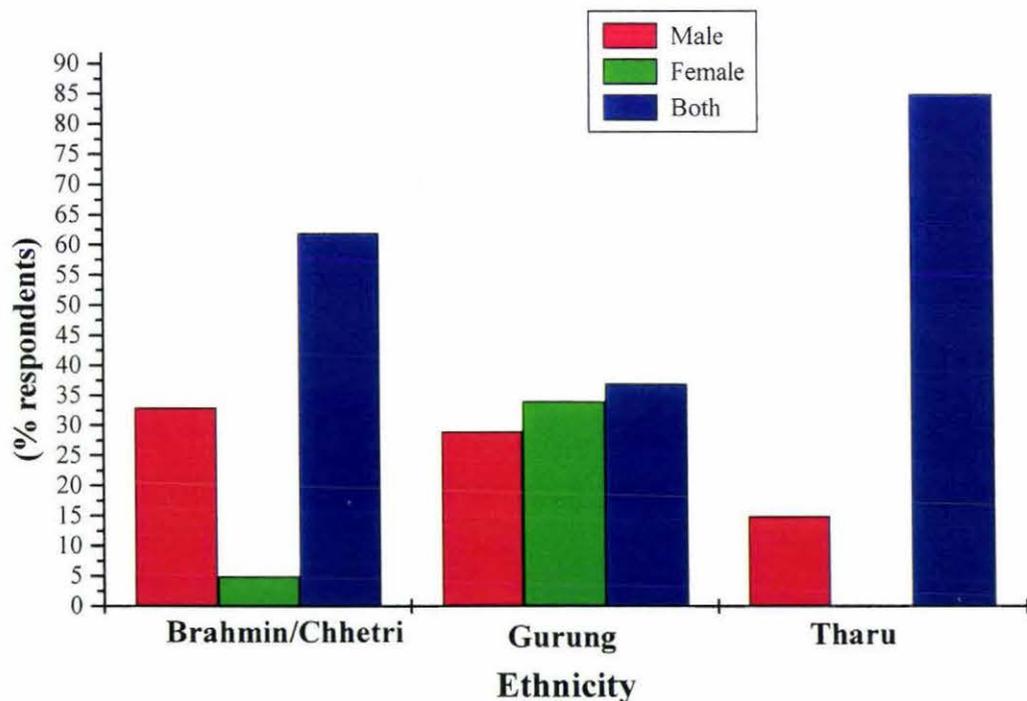


Figure 4.9: Gender and ethnicity effects in crop marketing decisions in Chitwan, Nepal (1998). (Percent respondents).

Table 4.31: Gender roles in crop production decisions as reported by male and female respondents. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 41	F n= 41	B n= 41	M n= 40	F n= 40	B n= 40	n= 121	n= 121	n= 121
Area to be cultivated	25	7	68	27	27	46	8	-	92	20	11	69
Crops to be planted	23	7	70	22	34	44	10	-	90	18	14	68
Varieties to be used	22	8	70	27	34	39	15	-	85	22	14	64
Fertiliser to be used ^a	31	5	64	53	32	15	28	-	72	37	13	50
Crop marketing ^b	33	5	62	29	34	37	15	-	85	26	12	62

^a Brahmin/Chhetri (n= 39), Gurung (n=40), Tharu (n=40), Overall (n=119).

^b Brahmin/Chhetri (n= 39), Gurung (n=35), Tharu (n=40), Overall (n=114).

Female respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 43	F n= 43	B n= 43	M n= 40	F n= 40	B n= 40	n= 123	n= 123	n= 123
Area to be cultivated	25	7	68	28	30	42	8	-	92	20	13	67
Crops to be planted	20	10	70	23	40	37	10	-	90	18	17	65
Varieties to be used	20	10	70	30	37	33	15	-	85	22	16	62
Fertiliser to be used ^c	36	10	54	43	38	19	30	-	70	36	17	47
Crop marketing ^d	39	5	56	27	35	38	18	-	82	28	13	59

^c Brahmin/Chhetri (n= 39), Gurung (n=42), Tharu (n=40), Overall (n=121).

^d Brahmin/Chhetri (n= 39), Gurung (n=37), Tharu (n=40), Overall (n=116).

Note: M= Male F= Female B= Both. Tharu women alone were not responsible in crop production.

Source: GEIHDM Survey 1998.

Very few respondents agreed that females had distinct decision-making power in crop production, except in the *Gurung* community. Once again *Gurung* women and men seemed to make independent crop production decisions, whereas *Tharu* and *Brahmin/Chhetri* men and women were more likely to make joint decisions (Table 4.31).

4.4.4 Vegetable production decisions

Scale of production, marketing management and quantity to be offered for sales were identified as three important components of vegetable farming. Table 4.32 indicates that more than two-thirds of both male and female members from the *Brahmin/Chhetri* and *Tharu* communities made joint decisions on the scale of vegetable production, compared with only about half of the *Gurung* households. About one-third of the *Gurung* women were solely involved in determining the scale of production compared to about one-fifth of the *Brahmin/Chhetri*, and one-tenth of the *Gurung* women.

Nearly 80 percent of the *Brahmin/Chhetri* men and women were jointly involved in the management of vegetable marketing compared to half in the *Tharu* and one-third in the *Gurung* communities. Sole and joint involvement in marketing decisions in the *Gurung* community were distributed evenly (33 percent each). None of either the *Brahmin/Chhetri* or *Tharu* female members was independently involved in making marketing decisions.

A similar decision-making pattern was found in all ethnic communities with respect to decisions on the quantity of vegetables to be sold. An equal proportion (one-third) of males and females in the *Gurung* ethnic community were involved in these decisions compared to a quarter of the *Brahmin/Chhetri* and *Tharu* households. In the *Tharu* ethnic community, women never independently made decisions on the quantity of vegetables to sell.

Table 4.32: Vegetable production decisions by gender and ethnicity in the Chitwan district, Nepal. (Percent respondents responding)

Ethnicity and gender role	Decision on:					
	Scale of production		Marketing management		Quantity for sale	
	Respondents		Respondents		Respondents	
	Male	Female	Male	Female	Male	Female
<i>Brahmin/Chhetri</i>	<i>n=34</i>	<i>n=34</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>	<i>n=20</i>
Male	9	3	15	5	25	20
Female	21	29	-	5	5	5
Both	70	62	80	80	65	70
All members	-	6	5	10	5	5
<i>Gurung</i>	<i>n=27</i>	<i>n=28</i>	<i>n=21</i>	<i>n=23</i>	<i>n=28</i>	<i>n=22</i>
Male	11	36	33	35	36	32
Female	33	39	33	35	39	36
Both	56	25	34	30	25	32
<i>Tharu</i>	<i>n=20</i>	<i>n=20</i>	<i>n=16</i>	<i>n=16</i>	<i>n=16</i>	<i>n=16</i>
Male	-	-	50	50	50	50
Female	15	10	-	-	-	-
Both	80	85	50	50	50	50
All members	5	5	-	-	-	-
Overall	<i>n=81</i>	<i>n=82</i>	<i>n=81</i>	<i>n=82</i>	<i>n=81</i>	<i>n=82</i>
Male	16	13	33	29	35	33
Female	25	28	12	15	14	15
Both	58	55	53	53	49	50
All members	1	4	2	3	2	2

Note: - denotes no response was reported for this activity.

The categories of 'male', 'female', and 'both' refer only to adults, while 'all members' includes children and elderly.

Source: GEIHDM Survey 1998.

4.4.5 Livestock marketing decisions

Gender roles were identified for three livestock marketing decisions: selling large ruminants, selling small ruminants and selling milk/milk products (Table 4.33).

Table 4.33: Gender roles in livestock marketing decisions as reported by male and female respondents. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu					
	M	F	B	M	F	B	M	F	B	M	F	B
Selling large ruminants ^a	54	-	46	37	16	47	42	-	58	45	5	50
Selling small ruminants ^b	47	14	39	14	38	48	25	21	54	30	23	47
Selling milk/milk products ^c	32	34	34	-	96	4	14	43	43	17	60	23

^a Brahmin/Chhetri (n= 39), Gurung (n=32), Tharu (n=24), Overall (n=95);

^b Brahmin/Chhetri (n= 28), Gurung (n=21), Tharu (n=28), Overall (n=77);

^c Brahmin/Chhetri (n= 35), Gurung (n=28), Tharu (n=7), Overall (n=70).

Female respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu					
	M	F	B	M	F	B	M	F	B	M	F	B
Selling large ruminants ^d	54	5	41	36	18	46	42	-	58	45	8	47
Selling small ruminants ^e	50	14	36	14	41	45	21	18	61	30	23	47
Selling milk/milk products ^f	43	28	29	-	97	3	14	14	72	22	55	23

^d Brahmin/Chhetri (n= 39), Gurung (n=33), Tharu (n=24), Overall (n=96);

^e Brahmin/Chhetri (n= 28), Gurung (n=22), Tharu (n=28), Overall (n=78);

^f Brahmin/Chhetri (n= 35), Gurung (n=29), Tharu (n=7), Overall (n=71).

Note: M= Male F= Female B= Both.

Source: GEIHDM Survey 1998.

The responses from the males and females were again consistent. However, key distinctions were observed. For example, men played a greater role in selling large ruminants, but women had more say in selling livestock products, particularly in the *Gurung* community. Decisions related to small ruminant marketing were made jointly regardless of ethnic background (Figure 4.10).

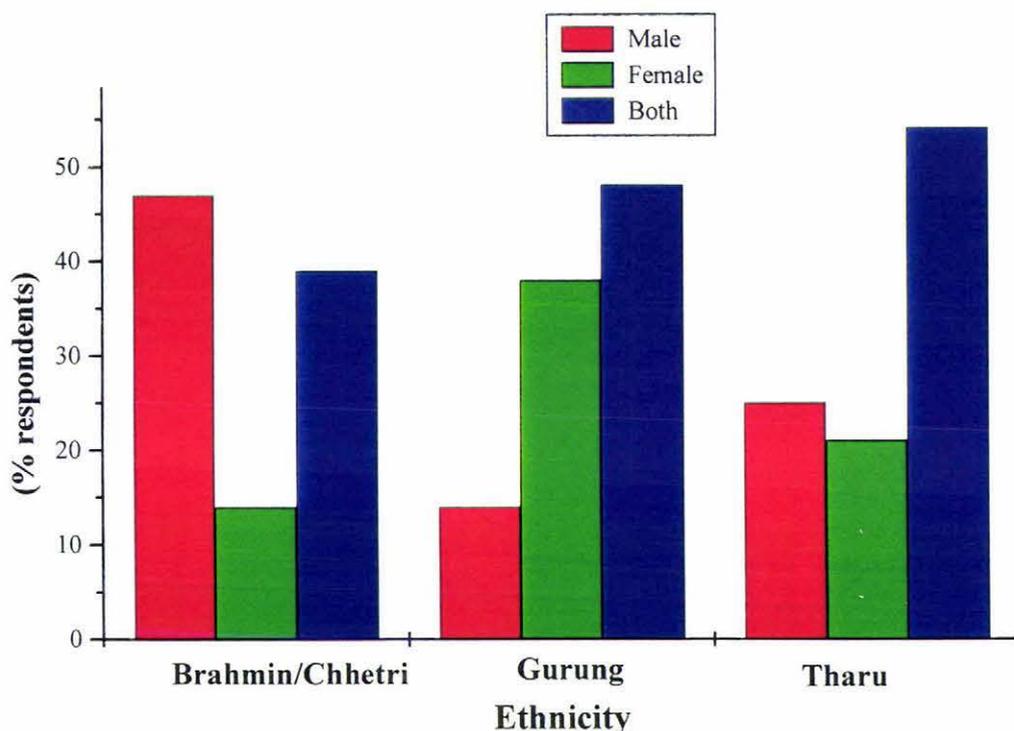


Figure 4.10: Gender and ethnicity effects on small animal marketing decisions in Chitwan, Nepal (1998). (Percent respondents).

4.4.6 Household management decisions

Both male and female respondents agreed ($P < 0.01$) that decisions relating to family well-being and overall household management were taken jointly (Table 4.34). Very few females made such decisions on their own. This may be because common decisions relating to daily chores were not included in the analysis as they fell within the larger domain of women's roles.

Table 4.34: Gender roles in household management decisions reported by male and female respondents. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu					
	M	F	B	M	F	B	M	F	B	M	F	B
New house construction ^a	31	-	69	49	5	46	13	-	87	31	2	67
House repair/maintenance ^b	32	5	63	51	5	44	-	13	87	28	7	65
Children's schooling age ^c	28	7	65	78	17	5	5	-	95	35	8	57
Children's partner selection ^d	8	5	87	3	10	87	-	-	100	3	5	92
Children's marriage ^e	5	3	92	5	15	80	-	-	100	3	6	91
Number of children ^f	8	5	87	3	13	84	-	-	100	3	6	91
Use of family planning ^g	8	3	89	3	13	84	-	-	100	4	5	91

^a Brahmin/Chhetri (n= 39), Gurung (n=41), Tharu (n=40), Overall (n=120);

^b Brahmin/Chhetri (n= 40), Gurung (n=41), Tharu (n=40), Overall (n=121);

^c Brahmin/Chhetri (n= 40), Gurung (n=36), Tharu (n=40), Overall (n=116);

^{d&e} Brahmin/Chhetri (n= 39), Gurung (n=39), Tharu (n=39), Overall (n=117);

^f Brahmin/Chhetri (n= 38), Gurung (n=38), Tharu (n=40), Overall (n=116);

^g Brahmin/Chhetri (n= 36), Gurung (n=37), Tharu (n=40), Overall (n=113).

Female respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu					
	M	F	B	M	F	B	M	F	B	M	F	B
New house construction ^h	28	3	69	47	9	44	13	-	87	30	4	66
House repair/maintenance ⁱ	30	8	62	49	9	42	-	13	87	27	10	63
Children's schooling age ^j	22	10	68	76	19	5	5	-	95	33	10	57
Children's partner selection ^k	10	5	85	2	15	83	-	-	100	4	7	89
Children's marriage ^l	10	5	85	7	20	73	-	-	100	6	8	86
Number of children ^m	8	5	87	3	15	82	-	-	100	3	7	90
Use of family planning ⁿ	8	3	89	3	16	81	-	-	100	4	6	90

^h Brahmin/Chhetri (n= 39), Gurung (n=43), Tharu (n=40), Overall (n=122);

ⁱ Brahmin/Chhetri (n= 40), Gurung (n=43), Tharu (n=40), Overall (n=123);

^j Brahmin/Chhetri (n= 40), Gurung (n=37), Tharu (n=40), Overall (n=117);

^{k&l} Brahmin/Chhetri (n= 39), Gurung (n=41), Tharu (n=39), Overall (n=119);

^m Brahmin/Chhetri (n= 38), Gurung (n=39), Tharu (n=40), Overall (n=117);

ⁿ Brahmin/Chhetri (n= 36), Gurung (n=38), Tharu (n=40), Overall (n=114).

Note: M= Male F= Female B= Both.

Source: GEIHDM Survey 1998.

Men from all three ethnic groups sometimes had sole control over decisions regarding house construction, and maintenance, and children's schooling age, but most other decisions were made jointly. Well over 75 percent of both male and female *Gurung* respondents agreed that the decisions concerning children's schooling age rested with men.

4.4.7 Household labour allocation decisions for participation in social services

Gender roles with respect to three decisions related to social/religious activities were recorded separately for male and female respondents (Table 4.35). Male and female respondents responses were found to be similar for these decisions across the ethnic groups. Most respondents reported that social and religious decisions were made jointly by both male and female members, but the level of gender participation in such decisions varied across the ethnic groups.

Table 4.35: Decisions on social/religious activities by gender and ethnicity in Chitwan, Nepal. (Percent respondents responding).

Male respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	<i>Brahmin/Chhetri</i>			<i>Gurung</i>			<i>Tharu</i>			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 41	F n= 41	B n= 41	M n= 40	F n= 40	B n= 40	n= 121	n= 121	n= 121
Religious festivals	23	5	72	5	10	85	2	-	98	10	5	85
Community service	23	-	77	37	17	46	2	-	98	21	6	73
Marriage related activities ^a	23	2	75	8	5	87	-	-	100	10	3	87

^a *Brahmin/Chhetri* (n= 40), *Gurung* (n=40), *Tharu* (n=40), Overall (n=120).

Female respondents' responses

Decision on:	Ethnicity and gender role									Overall		
	Brahmin/Chhetri			Gurung			Tharu			M	F	B
	M n= 40	F n= 40	B n= 40	M n= 43	F n= 43	B n= 43	M n= 40	F n= 40	B n= 40	M n= 123	F n= 123	B n= 123
Religious festivals	20	5	75	5	11	84	2	-	98	9	6	85
Community service	25	-	75	30	23	47	-	-	100	19	8	73
Marriage related activities ^b	23	2	75	2	10	88	-	-	100	8	4	88

^b Brahmin/Chhetri (n= 40), Gurung (n=42), Tharu (n=40), Overall (n=122).

Note: M= Male F= Female B= Both

Source: GEIHDM Survey 1998.

For example, women from the *Tharu* households had minimal involvement in social and religious activities, and participation by the *Brahmin/Chhetri* and *Gurung* women was also very low. The *Brahmin/Chhetri* and *Tharu* women did not participate in community service compared to the *Gurung* households. No ethnic variation was reported in terms of participation in a marriage ceremony (Table 4.35).

4.4.8 Results from gender analysis exercise on decision-making

Nine key activities related to household decision-making were identified during the group exercise (gender analysis). Responses from the male and female participants with respect to their roles in decision-making are summarised in Table 4.36. In general, the responses from males and females were consistent. Both agreed that men played a dominant role in decision-making for all activities, with the exception that in *Tharu* communities, women alone are responsible for the marketing of poultry and ducks.

A gender disparity in decision-making was less apparent among the *Gurung* than in the other ethnic groups. The *Tharu* women had some participation in all decision-making according to female respondents, and in seven of the nine decision areas, according to male respondents. Decisions related to the marketing of poultry/duck were clearly dominated by *Tharu* women. However, in the *Brahmin/Chhetri* groups, all decisions

related to household activities tended to be made independently by men, except for those working as on-farm labourers, the marketing of cash crops and small animals. In these decisions women also had a say, but with a weak level of participation (Table 4.36).

Table 4.36: Decision-making patterns for household activities as reported by male (√), and female (*) respondents of the Chitwan district, Nepal.

Activities	Ethnicity					
	Brahmin/Chhetri		Gurung		Tharu	
	Male	Female	Male	Female	Male	Female
Determining number of children	√√ **		√ *	√√ **	√√ **	√√ **
Use of family planning measures	√√ **		√ *	√ **	√√ **	*
Marketing of cereal crops	√√ **		√√ **	√ **	√√ **	√√ *
Marketing of cash crops	√√ **	*	√√ **	√√ **	√√ **	√√ **
Marketing of large animals	√√ **		√√ **	√√ **	√√ **	*
Marketing of small animals	√√ **	√ *	√ *	√√ **	√√ **	√ *
Working on off-farm activities	√√ **		√√ **	√ **	√√ **	√ *
Working as on-farm labourers	√√ **	√√ **	√√ **	√√ **	√√ **	√ *
Marketing of poultry and ducks	n.a. n.a.	n.a. n.a.	n.a. n.a.	n.a. n.a.	n.a. n.a.	√√ **

Note: (√√ and **) denotes strong and (√ and *) weak participation in decisions.

(√) = male respondent's response and (*) = female respondent's response.

A blank cell indicates no participation was reported in decisions and n.a denotes data not provided.

Source: Gender Analysis (group exercise) of gender and ethnicity involvement in household decision-making conducted in three ethnic groups of Chitwan, 1998.

4.5 Factors influencing rural household decision-making

4.5.1 Characteristics of variables adopted in the model

Household decision-making processes were expected to be influenced by a number of factors. Accordingly, all conceptually relevant variables for the male and female respondents were subjected to a correlation analysis and their degree of association was examined. Variables were categorised on the basis of their degree of association: $r=\pm 0.8$ were assumed to be highly correlated; $r=\pm 0.5$ as moderately correlated; $r=\pm 0.3$ as weakly correlated and $r\leq 0.3$ as very weakly correlated. Variables with a low degree of association ($r=\pm 0.5$) were included in the analysis, and as a result, variables such as *Gurung* ethnicity, dependent ratio, non-farm employment as a female respondent's primary occupation, family labour for off-farm work (both male and female), annual crop income, and household characteristics (house roof) were chosen. The dependent variables were identified to be dichotomous (0, 1) in nature. Accordingly, a logistic model was run to see how gender involvement affected various household decisions (Maddala (1983)). Summary statistics (Table 4.37) provide a general overview of the nature of data at the household level. Table 4.38 shows the variables used in the "gender" model.

Table 4.37: Summary statistics of household characteristics that may influence household decision-making in the Chitwan district of Nepal.

Factors	Mean (standard deviation)
Ethnicity (%)	
<i>Brahmin/Chhetri</i>	33 (47)
<i>Gurung</i>	35 (48)
<i>Tharu</i>	33 (47)
Household labour (%)	
On and off-farm worker (male)	52 (62)
On and off-farm worker (female)	09 (34)
On-farm worker (male)	55 (100)
On-farm worker (female)	72 (149)
Off-farm worker (male)	20 (49)
Off-farm worker (female)	22 (50)
House-worker (male)	05 (21)
House-worker (female)	25 (45)
Housework and farming (male)	75 (87)
Household characteristics	
Family size (Number per household)	735 (364)
Dependent ratio (%)	40 (18)
Resource endowment	
Total land (ha.)	75 (75)
Large animal (No.)	282 (193)
Small animal (No.)	265 (326)
Annual income(Rs)	
Crop income	12385 (19517)
Livestock income	5046 (5344)
Off-farm income	27889 (43082)
Housing (%)	
Brick house	42 (49)
RCC/tin roof	50 (50)
No. of rooms	68 (46)
Kitchen	41 (49)

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

Table 4.38: Summary statistics of characteristics influencing household decision-making by males and females in the Chitwan district of Nepal.

Factors	Male respondents Mean (std.dev)	Female respondents Mean (std.dev)
Age	42 (14)	39 (11)
<i>Education (%)</i>		
Illiterate	15 (35)	51 (50)
Literate	28 (45)	33 (47)
Class five	10 (29)	8 (27)
Class ten	31 (46)	7 (24)
Class ten and above	16 (37)	1 (9)
<i>Occupation (%)</i>		
Farming	44 (49)	11 (31)
Employment	21 (40)	2 (12)
Trade	5 (21)	2 (15)
Housework	1 (9)	1 (9)
Farming and housework	26 (44)	85 (36)

Note: Figures in parentheses are the standard deviations.

Source: GEIHDM Survey 1998.

4.5.2 Logistic regression models of household decision-making

In order to determine factors influencing household decision-making, variables were selected to form separate logistic regression models for male and female respondents. Overall, male responses were consistent with those of females.

Labour allocation decisions

Four alternative logit model estimations are presented in Table 4.39. Model 1 indicates factors associated with joint decisions to allocate family labour to on-farm work; Model 2 shows factors influencing the joint decision to allocate family labour to off-farm work; Model 3 shows factors associated with the joint decision to allocate family labour to community services; and Model 4 explains factors associated with the joint decision to hire a farm worker.

Table 4.39: Factors associated with labour allocation decisions at the household level in the Chitwan district of Nepal. (Logistic regression parameter estimates).

Variables	Model 1		Model 2		Model 3		Model 4	
	Respondents							
	Male n=121	Female n=123	Male n=121	Female n=123	Male n=121	Female n=123	Male n=121	Female n=123
Ethnicity (<i>Gurung</i> = 1, 0 otherwise)	-.*** ²	-.***	-.***	-.***	-.***	-.***	-.***	-.***
Dependency ratio ¹	+**	+***	--	--	--	--	+***	+***
Roofing material (RCC/ Tin=1, 0 otherwise)	--	.*	--	--	- (+)	- (+)	.*	.*
Female's occupation (non-farm=1, 0 otherwise)	.*	.*	- (+)	.**	--	--	.*	.*
Family labour (off-farm=1, other=0)	.**	--	--	--	--	- (+)	- (+)	--
Annual crop income ('00 RS)	--	--	--	--	--	+*	--	--
χ^2	29.2	29.2	33.0	34.3	37.8	39.4	29.6	30.0
% correct prediction	73	72	74	76	74	74	73	70
Intercept	+ (+)	+	+***	+***	+**	+*	+	+

Note: Joint decisions on the allocation of family to work: on-farm (model 1), off-farm (model 2), community service (model 3), and the decision to hire a farm worker (model 4).

M= male and F= female respondents' response.

¹+P < 0.15, *P < 0.1, **P < 0.05, ***P < 0.01.

²The dependent ratio is defined as a proportion of total household members who are under 15 and over 64 years of age.

The results suggest that only the *Gurung* as compared to non-*Gurung* households were less likely to make joint decisions for all four 'decision' models. *Gurung* respondents had more dependent family members compared with the non-*Gurung* groups. This ethnic group was two times more likely to be involved jointly in the decision to allocate family labour to on-farm work (odds ratio=2.45), and three times more likely to be jointly involved in hiring a farm worker (odds ratio=3.1) than were the other ethnic groups. For the *Gurung*, the type of roofing material, the female respondent's occupation and off-farm involvement were less likely to impact on joint decisions for all four types of labour allocation decisions compared to the non-*Gurung* ethnic groups.

Crop and livestock marketing decisions

Three alternative logit models were estimated to explain crop and livestock marketing decisions (Table 4.40). Model 1 indicates factors associated with joint decisions for crop marketing; Model 2 shows factors influencing joint decisions for small animal marketing; and Model 3 explains factors associated with joint decisions for marketing milk and milk products. Only the *Gurung*, as compared to the non-*Gurung*, households were less likely to undertake joint decisions for all three models estimated. For the *Gurung*, the type of roofing material was four times more likely to be associated with joint decisions on the marketing of milk and milk products compared to the non-*Gurung* ethnic groups (odds ratio=4.97). Likewise, joint decisions concerning the marketing of small animals, and milk and milk products were also likely to be affected by the level of annual crop income in the *Gurung* compared to the non-*Gurung* ethnic groups.

Table 4.40: Factors associated with crop and livestock marketing decisions at the household level in the Chitwan district of Nepal. (Logistic regression parameter estimates).

Variables	Model 1		Model 2		Model 3	
	Respondents					
	Male n=121	Female n=123	Male n=121	Female n=123	Male n=121	Female n=123
Ethnicity (<i>Gurung</i> = 1, 0 otherwise)	-.*** ²	-.***	--	--	-.**	-.**
Dependency ratio ¹	--	--	--	--	--	--
Roofing material (RCC/ Tin=1, 0 otherwise)	--	--	--	--	+*	+*
Female respondents' occupation (non-farm=1, 0 otherwise)	--	--	--	--	--	--
Family labour (off-farm=1, other=0)	--	--	-(+)	-*	--	--
Annual crop income ('00 RS)	--	--	+**	--	+***	-.**
χ^2	23.9	--	10.7	--	30	+(+)
% correct prediction	71	--	67	--	89	19
Intercept	+**	--	-.***	--	-.***	87

Note: Joint decision on marketing of: crop (model 1), small animals (model 2), and milk products (model 3).

¹ P < 0.15, *P < 0.1, **P < 0.05, ***P < 0.01.

² The dependent ratio is defined as a proportion of total household members who are under 15 and over 64 years of age.

Source: GEIHDM Survey 1998.

Household management decisions

Three different types of logit model estimations for household management decisions are presented in Table 4.41. Model 1 indicates factors associated with joint decisions on children's marriage; Model 2 explains factors influenced with joint decisions on how many children to have; and Model 3 shows factors associated with joint decisions on whether or not to use family planning measures. The *Gurung* as compared to the non-

Gurung, households were less likely to make joint decisions for all three models estimated. The dependency ratio positively influenced the joint decision to use family planning measures (odds ratio=3.1). On the other hand, family members who were mostly involved in off-farm work were less likely to be associated with a joint decision on family planning.

Table 4.41: Factors associated with household management decisions at the household level in the Chitwan district of Nepal. (Logistic regression parameter estimates).

Variables	Model 1		Model 2		Model 3	
	Respondents					
	Male n=121	Female n=123	Male n=121	Female n=123	Male n=121	Female n=123
Ethnicity (<i>Gurung</i> = 1, 0 otherwise)	_.*** ²	_.***	--	_.***	_.***	_.***
Dependency ratio ¹	--	+ (+)	--	+*	+**	+**
Roofing material (RCC/ Tin=1, 0 otherwise)	+*	--	--	--	--	--
Female respondents' occupation (non-farm=1, 0 otherwise)	+ (+)	_.**	--	--	--	--
Family labour (off-farm=1, other=0)	--	--	_.*	--	--	--
Annual crop income ('00 RS)	- (+)	--	+ (+)	--	--	--
χ^2	19	16	10	14	15	15
% correct prediction	85	81	68	85	84	84
Intercept	+***	+***	-.***	+***	+***	+***

Note: Joint decision on: children's marriage (model 1), determining a number of children (model 2), and family planning (model 3).

¹ *P < 0.15, **P < 0.1, ***P < 0.05, ****P < 0.01.

² The dependent ratio is defined as a proportion of total household members who are under 15 and over 64 years of age.

Source: GEIHDM Survey 1998.

Investment and expenditure decisions

Gender involvement in investment and expenditure decisions at the household level varied across the ethnic groups. For example, *Gurung* households, as compared to non-*Gurung* households, were less likely to be involved jointly in making decisions on house construction and the purchase of farm inputs (Table 4.42). Thus for the *Gurung* ethnic group, either the male or female “alone” made these decisions. The model suggests the dependent ratio influenced the joint decision on house construction.

Table 4.42: Factors associated with decisions on investment and expenditure at the household level in the Chitwan district of Nepal. (Logistic regression parameter estimates).

Variables	Model 1		Model 2	
	Respondents			
	Male n=121	Female n=123	Male n=121	Female n=123
Ethnicity (<i>Gurung</i> = 1, 0 otherwise)	_.*** ²	_.***	_.*** ²	--
Dependency ratio ¹	_.*** ²	_.***	--	--
Roofing material (RCC/ Tin=1, 0 otherwise)	--	--	_.*	--
Female's occupation (non-farm=1, 0 otherwise)	--	--	--	--
Family labour (off-farm=1, other=0)	--	--	--	--
Annual crop income ('00 RS)	--	--	--	--
χ^2	24	24	19	17
% correct prediction	69	72	64	68
Intercept	+***	+***	+*	+

Note: Joint decision on: house construction (model 1), and farm input purchase (model 2).

¹P < 0.15, *P < 0.1, **P < 0.05, ***P < 0.01. ²The dependent ratio is defined as a proportion of total household members who are under 15 and over 64 years of age.

Source: GEIHDM Survey 1998.

4.6 Discussion

This study clearly established that ethnicity and gender do impact on decision-making processes in rural households in Nepal. Some critical agricultural activities were found to vary between *Brahmin/Chhetri*, *Gurung* and *Tharu* households. For example, crop production was mostly focused on a rice-wheat-fallow/rice-mustard-maize/ rice-wheat-maize cropping system for the *Brahmin/Chhetri* and *Gurung*, but was largely rice-based for the *Tharu* community. The *Tharu* had more small ruminants, and poultry and ducks. The *Brahmin/Chhetri* households mainly raised large animals such as cow and buffalo. Income from crops and animals was greatest for the *Brahmin/Chhetri* and least for the *Tharu*, due to the scale of agricultural production.

Ethnic variation in agricultural activities impacted on both gender roles and the type of involvement in the activities. The *Brahmin/Chhetri* women had less independence in making decisions concerning agricultural and marketing-related activities compared to the *Gurung* women. The *Brahmin/Chhetri* men had greater access to, and control over, household resources because their dominance is related to traditions/ cultural/ religious factors, and also their influence over marketing activities. The smaller scale of agricultural production for the *Tharu* households could explain the greater sharing of decisions concerning crop production and marketing.

Gender and ethnic differences in terms of involvement, decision-making and access to, and control over, the household resources with respect to agriculture, animal husbandry and household activities are discussed in the following sections. The findings are considered in relation to literature discussed earlier in this thesis. Views of key informants are also brought in to add weight to the discussion.

4.6.1 Involvement in crop production by gender and ethnicity

Both men and women consistently carried out certain crop production activities, while other activities were either male or female dominated, and some were insensitive to both gender and ethnicity. Family members within the household carried out most of the activities.

Both males and females from the *Brahmin/Chhetri* and *Gurung*, and all family members from the *Tharu* were involved in the manure application activity. Acharya & Bennett (1981) also reported similar findings for central Nepal. This study confirmed that manuring is mostly undertaken by household members, and is relatively insensitive to ethnicity. The non-involvement of *Gurung* and *Tharu* men, and the very low level of male involvement from the *Brahmin/Chhetri* group in manure application indicates that this is gender-specific work, and mostly dominated by women. Acharya (1993) reported that manuring is labourious and menial work. Women's involvement in this task may be dependent on the economic status of the household. For example, the lower the economic status of women, the more likely they are to be involved in manure application. An agricultural extension worker (Junior Technician), a key informant, confirmed that manure application in Chitwan is mostly the domain of women.

Fertiliser application, a critical crop cultivation activity, was found to be largely carried out by *Brahmin/Chhetri* and *Tharu* men, but jointly by *Gurung* men and women. This result agrees with those of Pradhan (1985) for Nepal, and Mencher (1993) for India. These authors describe fertiliser application as relatively light work, and this may explain why this work has been dominated by men who control most household decisions and can allocate women work involving more drudgery. The joint involvement of men and women in crop production was found to be guided by costs, or labour, or both (Section 4.2.1). Thus joint involvement in buying fertiliser was largely due to its cost, and therefore impact on household's total disposable income.

Crop harvesting is a labour intensive and seasonal task in Nepal. The results show that this is mostly completed by all household members, but with a weaker participation of men, and strong involvement of women for all ethnic groups. Similar results regarding gender involvement in crop harvesting have been reported for Nepal (Pradhan, 1985; Acharya, 1993; Bajracharya, 1994; Gurung 1995). This situation occurs also in India and other developing countries (Baneria, 1992; Mencher, 1993; Wickramasinghe, 1993; Mrema May, 1996) where all household members are normally involved in the harvesting of crops. The key informant interviews and gender analysis (Section 4.2.1) both confirmed the survey results for all ethnic groups. The involvement of all

household members avoids the need to hire expensive labour.

While few *Brahmin/Chhetri* women, and none of the *Tharu* women, made independent decisions on crop marketing, one-third of *Gurung* women did make independent decisions. In the three ethnic groups, however, a number of women participated in joint decision-making on crop marketing. This challenges other findings. Bajracharya (1994) reported male domination of marketing activities in Nepal. The key informants also suggested that men are primarily involved in most crop marketing activities. In general, it can be assumed that Nepalese men generally are outgoing, and have better knowledge of marketing information than have women. Women on the other hand, were highly involved in household chores and mundane agricultural activities: however, this does not preclude women from involvement in crop marketing activities.

It is thus now evident that most of the agriculture-related activities as revealed in this study are either insensitive to ethnicity, but sensitive to gender (such as manuring), or both ethnic and gender sensitive (such as fertiliser application, crop marketing). Other activities, such as crop harvesting, are neither gender, nor ethnic, sensitive.

4.6.2 Involvement in animal husbandry by gender and ethnicity

Livestock-related work was found to be within the domain of women, but there was some variation in gender roles across the ethnic groups. Grazing and fodder collection activities were primarily the work of women. Women were also heavily involved in mundane work related to livestock production, which is generally time-consuming (Pradhan *et al.*, 1994; Timsina *et al.*, 1996). The involvement of women in livestock production is a longstanding tradition in Nepal (Bajracharya, 1994). Other reasons associated with this fact are that males are mostly involved in agricultural work, such as the ploughing of fields, and the harvesting and threshing of crops. In addition, males are often involved in full or part-time off-farm work and in other income-generating activities to support their family. Women are thus left to concentrate on livestock care and management, along with other household activities (Pradhan *et al.*, 1994). However, this does not mean that men are completely cut-off from livestock care and

management. In fact, men in Nepal are assumed to be responsible for large animals (cattle and buffalo) in terms of their care and management, while women normally care for small animals, such as pigs, goats, sheep and poultry (Timsina *et al.*, 1996). This study suggests that, while men may have control over large animals, it is largely women who take care of these animals on a day-to-day basis.

It was also clear that gender involvement in livestock care and management varied by ethnic group. For example, *Brahmin/Chhetri* and *Gurung* men were less involved in these activities than were men in the *Tharu* households, where all household members were jointly involved in livestock production. The variation in the level of involvement of men and women was attributed to the traditional division of labour, but *Gurung* women's decision-making role was somehow affected by the men's being absent from the family for most of the year. This was due to either commitment to the military, or to work in a foreign country (Community leader, May 1998). This also equally indicates that most of the animal husbandry related activities are both gender and ethnicity sensitive.

4.6.3 Involvement in household activities by gender and ethnicity

Women in the developing countries spend a substantially greater amount of their time doing housework compared with their counterparts in developed countries. Men generally do very little housework in both developing and developed countries (Malathy, 1994). Housework is thus an important activity for women. This research supports the notion that rural women, in general, are heavily involved in unpaid domestic tasks such as child care, fetching water, washing clothes and house cleaning (Barrett & Brown, 1993; World Bank, 1995; Waring 1996). This contributes to women's being an underprivileged group: they are heavily involved in multiple tasks throughout their lifetime as producers, reproducers and community workers still their domestic roles and services are not recognised in official statistics (Mumtaz & Shaheed, 1987; Bagchi, 1993; Moser, 1993; Waring, 1996; Zaman, 1995).

This study clearly showed a division of labour by gender in household management activities. This is not a biologically-determined phenomenon, but instead reflects particular social customs or traditions which local people adhere to (Acharya, 1993). Women are expected to fulfil household, nurturing and family roles, no matter which caste, culture or ethnic group they belong to. For some ethnic groups, however, women's tasks were more extensive when compared with those of other ethnic groups. For example, among the three ethnic groups studied, *Tharu* women were more "housebound" than were the *Brahmin/Chhetri* or *Gurung* women. The key informant interviews and gender analysis results supported this conclusion (Section 4.2.3). A *Tharu* woman key informant opined that "mostly women does, but sometimes men also involve for household activities" (Women's group member, May 1998). The gender analysis suggested men, in general, spend extremely little time as compared with women in household activities in all three ethnic groups.

4.6.4 Roles of ethnicity and gender in rural household decision-making patterns

Many decisions taken by the Chitwan residents concerning agricultural production and marketing were made jointly by males and females, although overall decision-making was male-dominated. This is in consistent with earlier *Nepali* research by Acharya & Bennett (1981) and Tiwari *et al.* (1989). In some cases, household decisions are male-dominated, however, the marketing of large ruminants was dominated by males from all three ethnic communities. This finding corroborates an earlier study by Tulachan & Batsa (1994) where males were shown to be exclusively involved in the marketing of large animals in the rural areas of the Chitwan district. Decision-making also differed by location and household. For example in the Hunduras, men make most of the production decisions, and they mostly managed household income. The only income which women received was from small animals (Grieb, 1990). This study suggests *Gurung* women (16 percent) actively participated in the marketing of large ruminants. A *Gurung* key informant claimed that, since many male members are mostly absent from the community, women are *de facto* responsible for all sorts of household decisions, including the marketing of farm and livestock products. Evidence from Kenya also revealed that, where male members are absent, women-with the help of their

dependent family members, are not only involved in all livestock care and management activities, but also take part in livestock marketing and other household-related activities (Roberts, 1996). Gender differences in farm-related decisions are obvious in rural India also. Accordingly, the degree of independence of women in making farm-related decisions is negligible (only 1 percent). Decisions are overwhelmingly male-dominated, with only 11 percent of them made jointly (Varma, 1992). According to Varma (1992) it could be a traditional cultural value that “farm work is the domain of men and the household is the domain of women”, without any regard being paid to the contribution of women to farming. This value means that men make more decisions about farm-related activities, even though women also have significant farming roles.

Acharya & Bennett (1981) found that in central Nepal nearly 50 percent of the labour allocation decisions were made by males, while 39 percent were made by females, and only about 11 percent of the households decided jointly. The results from this study do not directly support these findings, as joint decisions were more prevalent than independent decisions. The gender analysis results also indicated a smaller gender disparity in decision-making in the *Gurung* community than in the other ethnic groups investigated. General discussion amongst household members is often the process adopted to reach decisions in Nepal. A key informant from the *Gurung* community suggested that household decision-making in his community is arrived at by “mainly family members are discuss a particular matter and try to come into consensus for final discussion” (Village leader, June 1998). A *Tharu* male key informant also stressed that family members generally discuss, and reach a consensus on, household-related decisions. He revealed also that, during such discussions, “mainly the head of the household, senior female (mother), wife and sometimes brothers are asked to contribute to the decision-making process” (Village leader, 1998). The discrepancy can be partly explained by the substantial progress made by women since 1981 when Acharya & Bennett carried out their study, particularly in the Chitwan district. With the exception of Kathmandu Valley, Chitwan is generally considered to be more aware of current issues than are other districts, due to its growing and greater availability of education, roading and other infrastructural support. Alternatively, the lower participation rate of rural women in labour allocation decisions in Nepal reported by Acharya & Bennett

(1981) could, in part, be explained also by cultural barriers: rural women are mostly confined to domestic activities.

The literature indicates that household and agricultural-related decisions vary substantially by ethnicity (Acharya & Bennett, 1981; Bajracharya, 1994; Sattaur, 1996). Acharya & Bennett's (1981) findings for central Nepal for men and women from the *Tamang* and *Tharu* ethnic communities for household-related decisions were similar to the present study for the *Gurungs*. Of course, every ethnic community has its own culture, values and norms to be followed by the household. For this reason, it is difficult to unravel which, or how, decisions are made in a household. However, women needed permission from their male counterparts to make a wide range of decisions in the *Brahmin/Chhetri* and *Tharu* ethnic communities.

Decision-making processes are thought to be influenced by demographic characteristics of the households, such as the number of household members, dependency ratio and age of the respondents (Section 3.1). Results of this study also showed that in *Gurung* households, which had similar age groups of male and female respondents, women's involvement in household decision-making was found to be relatively higher with regard to the marketing of the crop products than in other ethnic households. But logistic regression between demographic characteristics and the household decision-making process was not statistically significant at $P < 0.05$.

Education is also thought to be one of the determinants of household decision-making (Malhotra & Mather, 1997; Varma, 1992). Educated people are, in general, more capable of participating freely in household discussions (Subedi, 1997). Results from the gender analysis and key informant interviews revealed that education could be an important influencing factor on household decision-making. However, the logit model (Section 4.5) did not directly support education's being a strong factor in household decision-making. Still it is a widespread belief that *Nepali* rural women substantially lag behind men in their education. Geo-cultural barriers, culture, and ethnicity are the main factors that deprive women from getting an education, which in turn impacts on household decision-making. Data from the household survey results clearly support the

fact that the household decision-making process is not directly related to the level of educational attainment—rather, this is influenced by ethnicity. For example, despite high rates of female illiteracy in *Gurung* and *Tharu* communities, women still had considerably more power over household resources and decision-making than did the *Brahmin/Chhetri* women. This is a clear example from the survey results that ethnicity may exert a stronger influence than educational level on household decision-making power. Verma (1992) also agreed that decision-making processes have an obvious influence on cultural values, which have historically provided men with a dominating position in the household.

Household decision-making is related also to the family position of the household. As in other rural parts of Asia and Africa, the multi-generational household system is common in Nepal. In this system, parents, their children, and their grand children, and often relatives live together under the same roof and share food. Under this joint household system, adult males are generally thought to be the respected persons of the household and considered as the breadwinners and main decision-makers. In some cases, due to the absence of an adult male, senior women, especially mothers-in-law, can dominate their junior female counterparts, and have more power over household decisions. The *Gurung* key informant (Community leader, May 1998) explained that a similar scenario of female domination is more common in the *Brahmin/Chhetri* households than in the other ethnic households. Thus, generally, junior rural women in the *Brahmin/Chhetri* households are dominated not only by the men, but also equally by their female counterparts. Family position and seniority clearly influence power and decision-making in the *Brahmin/Chhetri* households. There are not great hierarchical differences between senior and junior *Gurung* females. This information is supported also by the gender analysis exercise, where the rate of participation of *Gurung* women in decision-making was found to be higher than those of the women from other ethnic households.

Household decision-making is influenced also by the level and source of income (Young, 1992). In this study, the *Brahmin/Chhetri* households had a higher income than the *Gurung* and the *Tharu* households, within which decisions were largely made

independently by males. The underlying male superiority in these communities could be related to the level of income earned. Generally, when the household is "richer" in Nepal, women are more restricted to inside the house and are less involved in decision-making processes. In the *Brahmin/Chhetri* group, the higher status is seen to be maintained by exerting greater control over women. This may be contrary to what one would naturally think: women from wealthier households could be expected to have more influence over land activities and have a higher social status than those from poorer households. The current study showed that joint decision-making was more prevalent in the poorer households than in the richer ones.

It is now clear that household decision-making processes are influenced by several factors, some of which are difficult to explain. Perhaps for these reasons, decision-making is considered to be a complex phenomenon (Bajracharya, 1994; Varma, 1992). Nevertheless, ethnicity and gender are key issues that impact on decision-making processes in rural households in Chitwan.

4.6.5 Gender roles in access to services and control over resources within the households

Distinguishing the services to which people have access to, and what resources they can control provides vital information on the power structures in a society. Women's access to resources is greatly determined by their relationship to men as daughters, wives or sisters (Kwinjeh & Mgugu, 1996). Control over when, and how, resources are to be used is generally associated with power and decision-making. Therefore, control is the highest form of power over something: those without control can be denied access (*ibid.*, 1996). Power determines one's full enjoyment and use of a resource. For example, in southern Africa, women have access to some resources, but not control over them, and power remains with the men (*ibid.*, 1996). In some circumstances, existing social relationships within the community also determine the role of gender in accessing and controlling resources (Goldey *et al.*, 1997).

The results indicated that either males independently, or both males and females, controlled crop income. This could be due to the fact that crop and livestock income is used to manage the household in terms of feeding its members and general family welfare. As discussed earlier, women have a greater role in family welfare than do men across the ethnic communities. There were ethnic differences, however. *Gurung* women had full control over crop income, whereas *Brahmin/Chhetri* males and both *Tharu* males and females had the dominant influence over such income. A *Gurung* woman key informant indicated that women are now more aggressive and are taking greater control, simply because men are turning to drink/gambling and thereby losing money earned through hard work. Therefore, this change in the *Gurung* community is caused by women's having to take more responsibility for the family than their male counterparts. This conclusion was supported by the gender analysis exercise which showed that access and control were both gender and ethnicity sensitive in terms of access and control over resources.

In summary, crop-related activities were mostly performed jointly, regardless of ethnic background-although men had more control over decision-making. Livestock production and management work were primarily carried out by women. Women generally had less access to services and control over resources compared to men, but this varied with ethnicity. Men overwhelmingly dominated access to agricultural and veterinary services, community activities and off-farm employment opportunities in all of the ethnic communities studied.

CHAPTER FIVE – SUMMARY, CONCLUSIONS, POLICY IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

5.1 Summary

Nepal's population comprises multi-ethnic communities with a diversified cultural and religious background. Agriculture plays a dominant role in the economy. Both men and women are actively involved in the rural agrarian economy, but women's roles are not fully accounted for in official statistics. Women, in general, are subordinate and somehow oppressed within most of the ethnic groups. Substantial gender differences are common in household decision-making and involvement in agriculture, as well as with respect to access to, and control over, household resources.

Household decision-making processes in rural Nepal were examined with the primary objectives of identifying the influence of gender in the context of three distinct ethnic communities (*Brahmin/Chhetri*, *Gurung* and *Tharu*) in the Chitwan district, and to understand the effects of gender and ethnicity in terms of access to, and control over, household resources. The roles of gender in agricultural and allied activities across the ethnic groups were also examined.

Three Village Development Committees (VDCs) from the Chitwan district were selected to represent the three ethnic groups viz. *Brahmin/Chhetri*, *Gurung* and *Tharu* for the study. A Participatory Rural Appraisal (PRA) exercise was carried out to obtain a general understanding of the community in terms of gender involvement and the availability of resources.

A Gender Analysis (GA) exercise was undertaken to gain specific information on the roles of gender and ethnicity in influencing household decision-making, and also to understand the gender differences in access to, and control over, household resources. A face-to-face household survey was conducted to obtain individual household-level data and to determine the influence of ethnicity and gender on rural household decision-

making processes. Simultaneously, Key Informant Interviews were also conducted to derive information on the processes involved in household decision-making, to compare the current gender situation with the past, and to obtain some understanding of factors involved in decision-making across the three ethnic groups.

The three ethnic communities had similar access to natural resources and infrastructural services. However, *Tharu* households had comparatively less access to agricultural and veterinary services, but they enjoyed superior forest resources compared to the *Brahmin/Chhetri* and *Gurung* households. All three ethnic communities had poor access to infrastructure in terms of electricity, communication and marketing. Even though PRA tools were limited to only the preparation of social maps and a seasonal cropping calendar, they provided a very useful general understanding of the research area. These tools were equally useful in examining men's and women's year-round roles in cropping systems across the ethnic communities. Data collected through the gender analysis clarified gender roles and responsibilities in relation to agricultural and allied activities, and were useful for examining the gendered power structure within each ethnic group in terms of access to, and control over, household resources. The GA exercise was less time-consuming than the survey, and it supplemented the household questionnaire survey. The latter provided individual household-level data on economic status, community activities and the influence of ethnicity and gender in household decision-making. Using this combination of data collection methods was comprehensive, and allowed the verification and cross-checking of results.

Due to the limited time and financial resources available, the study was confined to only three ethnic communities in one district. The findings from this study should, therefore, be interpreted with caution when generalising to the wider regions of Central Nepal.

5.2 Conclusions

Household decision-making is a complex phenomenon that varies according to the nature of household activities, ethnicity and gender. Results of this study showed that gender and ethnic variation were present in terms of involvement and decision-making processes for agriculture, animal husbandry and household management activities. For example, an activity such as manuring was insensitive to ethnicity, but sensitive to gender-whereas activities such as fertiliser application and crop marketing were both ethnic and gender sensitive. However, an activity such as crop harvesting was neither ethnic nor gender sensitive. There was ethnic variation in terms of gender involvement in the marketing of crops and livestock products. Similarly, involvement in animal husbandry-related activities were both gender and ethnicity sensitive. On the other hand, household-related activities were done entirely by women, regardless of their ethnicity, but the level of women's participation in various activities was varied across the ethnic communities.

This investigation showed that labour allocation decisions are often made jointly by men and women, although the level of participation by women varied substantially across the ethnic communities. For example, *Gurung* women were more responsible for household decisions compared to women of *Brahmin/Chhetri* descent, whereas joint decisions were common amongst the *Tharu*. Decision-making also varied by gender, and according to the nature of farming activities. For example, crop-related decisions were largely made jointly, whereas males dominated livestock marketing decisions in all ethnic communities. Gender and ethnic variation with respect to access to and control over household resources were marked. *Brahmin/Chhetri* men had total domination over resources, but joint access and control were common amongst the *Gurung* households.

It was hypothesised that women contribute more time (hours) to agricultural production activities than do men, irrespective of ethnicity. It was also hypothesised that men have easier access to services, and greater control over household resources, and dominated household decision-making processes compared to women. Women, on the other hand,

were assumed to manage the household and family to a greater extent than were men in all the ethnic communities. Earlier, it was hypothesised that men dominate in the household decision-making. The results of this study also support the hypothesis that male domination was found in post-harvest activities, off-farm employment and marketing. Similarly, the hypothesis that *Brahmin/Chhetri* women were less likely than women in the other two ethnic groups to be involved in marketing decisions was also supported by the results. Likewise, the hypothesis of women's domination in agricultural production and household management activities across the ethnic communities was also supported by the results of this study. The hypothesis of male domination of access to, and control over, household resources regardless of ethnicity was fully supported by the study results. However, the hypothesis of greater involvement of *Tharu* women only in agricultural activities was not supported by this study's results, since women in all ethnic groups were equally involved.

5.3 Policy implications

Rural development strategies tend to ignore the importance of gender and ethnicity in addressing household sustainability issues, even though the effectiveness of intervention measures usually depends on their socio-cultural acceptability. A better understanding of the cultural, social and economic environment in relation to gender roles and ethnic variation can, therefore, mitigate impediments to rural development project design and implementation.

Findings from this study provide some critical information needed to formulate rural development strategies for the Terai region of Nepal. One of the important findings revealed is the confirmation that rural and agricultural development activities are neither gender nor ethnic neutral. However, the extent of gender and ethnic involvement varies by activity. Thus, differences in gender and ethnic roles need to be specifically accounted for in rural policy formulation and planning. A pre-project study of gender and ethnicity is recommended in order to provide better local knowledge before designing and implementing any project or developmental work.

The findings also suggest that training programmes for the dissemination of agricultural technology generally do not take sufficient account of learning needs or ethnic-related norms and values. This deprives women from fully participating in, and enjoying, training. Since many agricultural activities are gender and ethnically sensitive, the role of women in these activities needs to be recognised in order to achieve a successful transfer of technical knowledge and skills to rural women.

Some of the results challenge commonly accepted assumptions. For example, it has long been stated that education levels of women influence their decision-making power, but in this study it was clear that ethnicity had a greater influence over the decision-making power of women than did education. Thus, illiterate *Gurung* women generally had more decision-making power than did literate *Brahmin/Chhetri* women. Rural women of Chitwan need better access to agricultural information, training and services. For example, even though men dominate some activities such as crop marketing, women still have a significant role in this. This suggests that efforts should be made to include women in marketing training and to provide them with support service. Also, while income from large animals is controlled by men, and men have access to veterinary services, it is women who do most of the work in caring for these animals. This supports the need for adequate access to both veterinary support and information on large animal care to the women.

If training and support services by both government and non-governmental agencies are to reach rural women in Nepal, they will need to take account of women's lack of personal time (Figure 4.7) and their lack of freedom to engage in off-farm activities (Tables 4.19 to 4.21) because of their heavy responsibilities in the care and maintenance of the household. The time and place for training and information-sharing must also be culturally acceptable, so that women are able to participate. Such events must take into account illiteracy-particularly of women-where relevant.

5.4 Suggestions for further research

There is a need to understand the nature and extent of men's and women's participation in agricultural and rural development programmes. It is important, for example, to examine the differential impact of new farm and home-related technologies on men and women from different socio-economic strata and ethnic groups. This assessment should be with respect to growth equity, productivity, drudgery, employment, income and social status.

As this study focused only on the Terai region of Nepal, the findings may not be fully applicable to other parts of the country, especially the hill and mountain regions where different languages, cultures, ethnic groups and geography exist. Similar research for the hills and other ethnic groups is recommended to ensure a comprehensive understanding of the roles of gender and ethnicity in household decision-making in Nepal and their relevance to rural development planning that works in practice.

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APPENDIX 1
GENDER ANALYSIS TOOLS

Maize

Activities	Who is primarily responsible?			
	Male		Female	
	Adult	Children	Adult	Children
Who does:				
1. Ploughing				
2. Breaking clods				
3. Purchasing of seeds				
4. Purchasing of fertiliser				
5. Application of manure				
6. Application of fertiliser				
7. Seed sowing				
8. Hoeing/weeding				
9. Thinning				
10. Crop harvesting				
11. Post harvest handling (cleaning, shelling)				
12. Other activities (please specify)				

Mustard

Activities	Who is primarily responsible?			
	Male		Female	
	Adult	Children	Adult	Children
Who does:				
1. Ploughing				
2. Land levelling/planking				
3. Purchasing of seeds				
4. Purchasing of fertiliser				
5. Application of manure				
6. Application of fertiliser				
7. Broadcasting of seeds				
8. Crop harvesting				
9. Threshing				
10. Grain storage				
11. Other activities (please specify)				

(b) LIVESTOCK PRODUCTION ACTIVITIES

Activities Who does:	Who is primarily responsible?			
	Male		Female	
	Adult	Children	Adult	Children
1. Animal grazing				
2. Fodder collection				
3. Grass cutting				
4. Preparation of liquid slurrp (<i>kundo</i>)				
5. Feeding water				
6. Shed cleaning				
7. Caring of sick and young ones				
8. Milking				
9. Selling of milk				
10. Selling of ghee				
11. Selling large animals				
12. Selling small animals				
13. Other activities (please specify)				

(c) FAMILY WELL-BEING ACTIVITIES

Activities Who does:	Who is primarily responsible?			
	Male		Female	
	Adult	Children	Adult	Children
1. Child care				
2. Caring of elderly and sick				
3. Fetching water				
4. Energy management for cooking				
5. Cooking foods				
6. Cleaning of house				
7. Washing of clothes				
8. Grain processing				
9. Maintaining kitchen garden				
10. Other activities (please specify)				

(d) COMMUNITY ACTIVITIES

Activities Who does:	Who is primarily involved?	
	Male	Female
1. Infrastructure development (maintenance of irrigation canal)		
2. Participating in group meeting		
3. Participation in social gathering		
4. Others (please specify)		

(e) OFF-FARM ACTIVITIES

Activities	Who is primarily involved?	
	Male	Female
1. Skilled labour -----		
2. Services -----		
3. Business		
4. Petty trading		
5. Others (please specify____)		

Part B. DECISIONS ON HOUSEHOLD ACTIVITIES

Decisions on:	Who is primarily responsible?	
	Male	Female
1. Determining no. of children		
2. Use of family planning measures		
3. Marketing of cereal crops (rice, maize)		
4. Marketing of cash crop (oilseeds, pulses)		
5. Marketing of large animals		
6. Marketing of small animals		
7. Working off-farm activities		
8. Working on-farm labourers		
9. Other (please specify _____)		

Part C. ACCESS AND CONTROL PROFILE

Resources	Female respondents			
	Access to		Control over	
	Male	Female	Male	Female
1. Land				
2. Able to work as on-farm labour				
3. Able to work as skilled labour				
4. Contact with agricultural extension workers				
5. Access to veterinary hospital				
5. Participation in agricultural extension/ training				
6. Access to banks for borrowing loans				
7. Access to private money lenders				
8. Marketing of the cereal crops				
9. Marketing of the cash crops				
10. Marketing of the large animals				
11. Marketing of the small animals				
12. Off-farm employment opportunities				
13. Participation in community/social works				
14. Jewellery				
15. Savings				
16. Others (please specify _____)				

APPENDIX II
GUIDING QUESTIONS FOR KEY INFORMANT
INTERVIEWS

Massey University
Institute of Natural Resources
College of Sciences

**A GUIDING QUESTIONS FOR KEY INFORMANT
INTERVIEWS (1998)**

(A) Persons having through knowledge of the subject matter (respected people in the society/elderly and senior citizens)

- (1) How has agriculture/farming changed in this area in the last 10 years. In what way/ways?
- (2) Have these ethnic groups (Brahmin/Chhetri, Gurung and Tharu) made changes to their agricultural practices or not? Please explain.
- (3) Have men's and women's roles in both on-farm and off-farm work changed in this area in the last 10 years? How so?
- (4) Have there been major changes for women in this area (access to resources participation in development activities leadership roles) over the last 10-20 years? Has this varied by ethnic group?
- (5) How do decision-making processes about household-related activities occur in the household in the household about household?
- (6) Is there any difference amongst ethnic groups regarding household-related decision-making processes?
- (7) Has the quality of life improved for all of the ethnic groups over the last 10-20 years? Why/why not? Account for differences.
- (8) What are the main problems facing women in this area (including social/cultural issues)
- (9) What development programmes are there for women, men and both in your community. Which programmes have you participated in? What about other people you know?
- (10) Do you think these programmes are good? (if they don't participate why not?)

(B) VDC Chairman/Ward Chief/local leaders (political persons)

- (1) How does the involvement of men and women differ in on-farm as well as off-farm activities?
- (2) Have their roles and involvement changed over the last 10 years?
- (3) Are there any gender differences in terms of decision-making processes about concerning household activities (crops, livestock, community services) by ethnicity?
- (4) Have decision-making processes changed over the last 10 years? In what ways?
- (5) How has the willingness to take job responsibility by gender affected especially household decision-making?
- (6) What is the general situation in terms of access to, and control over, marketing activities by gender? Does the situation vary by ethnicity?
- (7) Do you think there is anything we can change at policy level? If so how?

(C) JT and JTA Veterinary workers Agricultural officers (Technical personnel)

- (1) Who does most work in crop production? (men or women?)
- (2) Who does most work in livestock production activities?
- (3) Who participates in training? Who dominates?
- (4) Who comes to the veterinary office for what purpose? Is there participation by women?
- (5) Are there any gender-specific activities in livestock raising?
- (6) Are there any gender-specific activities in crop production?
- (7) What is the women's situation in terms of involvement in decision-making with regard to household-related works? Has it been changed over time?

(D) AIC Chief/ADB manager/Co-operatives (Input related personnel)

- (1) Who normally comes to purchase seeds fertilisers, pesticides? (men or women?)
- (2) Whose involvement is most visible in terms of agricultural and household activities?
- (3) Is there any ethnic variation regarding the above activities? In what ways?
- (4) What is the situation in terms of access to, and control over, the agricultural and non-agricultural activities?

APPENDIX III
HOUSEHOLD QUESTIONNAIRE

Massey University
Institute of Natural Resources
College of Sciences

A Survey of Household Decision-making in Chitwan District (1998)

ID: _____

(2) VDC: 1= Bhandara 2= Phulbari 3= Shivanagar

(3) Ethnicity: 1= *Brahmin/Chhetri* 2= *Gurung* 3= *Tharu*

Demographics

Respondents characteristics	Male respondent	Female respondent
(4) Age (years)	<input type="text"/>	<input type="text"/>
(5) Marital status: 1= Single 2= Married 3= Widow 4= Separated from husband/wife 5= Other (please specify) _____	<input type="text"/>	<input type="text"/>
(6) Level of education: 1= Illiterate 2= Just literate 3= Primary schooling (1-5) 4= Secondary schooling (6-10) 5= High school pass and above 6= Other (please specify) _____	<input type="text"/>	<input type="text"/>
(7) Occupation : <i>(7a) Primary occupation</i> 1= Farming 2= Paid employment other than wage labour 3= Wage labour 4= Trade 5= Household work only 6= Farming and household work 7= Other (please specify) _____	<input type="text"/>	<input type="text"/>
<i>(7b) Secondary occupation</i> 1= Farming 2= Paid employment other than wage labour 3= Wage labour 4= Trade 5= Household work only 6= Farming and household work 7= Other (please specify) _____	<input type="text"/>	<input type="text"/>

10. Housing characteristics

10a. Housing	1= brick 2= thatch 3= cemented 4= brick and cemented 5= other (please specify-----)	<input type="text"/>
10b. Roofing	1= RCC 2= tin 3= thatch 4= tin and thatch 5= Other (please specify-----)	<input type="text"/>
10c. No. of rooms for sleeping	1= 1-2 2= 3-4 3= 5-6 4= > 6	<input type="text"/>
10d. Separate kitchen	1= yes 2= no	<input type="text"/>
10e. Separate barn for animals	1= yes 2= no	<input type="text"/>
10f. Drinking water	1= tap 2= tube well 3= pond 4= 1 & 2 5= Other (please specify-----)	<input type="text"/>
10g. Toilet facility in the home	1= yes 2= no	<input type="text"/>

11. Livestock ownership

Type of livestock	Total numbers	<input type="text"/>
11a. Local cow		<input type="text"/>
11b. Local calf		<input type="text"/>
11c. Improved cow		<input type="text"/>
11d. Improved calf		<input type="text"/>
11e. Local buffalo		<input type="text"/>
11f. Local buffalo calf		<input type="text"/>
11g. Improved buffalo		<input type="text"/>
11h. Improved buffalo calf		<input type="text"/>
11i. Oxen		<input type="text"/>
11j. Male buffalo		<input type="text"/>
11k. Goats (under 6 months)		<input type="text"/>
11l. Goats (6 months and over)		<input type="text"/>
11m. Sheep (under 6 months)		<input type="text"/>
11n. Sheep (6 months and over)		<input type="text"/>
11o. Pigs (under 6 months)		<input type="text"/>
11p. Pigs (6 months and over)		<input type="text"/>
11q. Poultry (commercial/subsistence)		<input type="text"/>
11r. Ducks (commercial/subsistence)		<input type="text"/>

15. What types of crops are grown in your farm?

- (a) (c)
 (b) (d).....

16. Sources of annual household cash income

Sources of Income	Annual income (Rs.)
16a. Crops (cash and cereal)	
16b. Vegetables (if any)	
16c. Livestock and livestock products	
16d. Off-farm employment (if any)	
16e. Income from remittances/pensions	
16f. Other sources (please specify-----)	

Gender specific farming activities and decision-making

(please tick (√) option that applies; tick all boxes that apply. For example M & F may both decide to have a child).

17. Labour use decisions

Activities Who decides:	Male respondents		Female respondents	
	M	F	M	F
17a. To hire a farm worker				
17b. Household members to work on-farm				
17c. Household members to work off-farm				
17d. Household members to work in community services?				
17e. Overall labour allocation				

Note: M= male adult F= female adult.

18. Crop production activities

Activities	Male respondents				Female respondents			
	M	F	m	f	M	F	m	f
Who does:								
18a. Application of manure								
18b. Application of fertiliser								
18c. Harvesting of cash crops								
18d. Harvesting of cereal crops								
18e. Marketing of the products								
Who decides:								
18f. Area to be planted								
18g. Crops to be planted								
18h. Varieties to be used								
18i. Fertiliser to be used								
18j. Marketing of the products								
18k. Other activities (please specify _____)								

Note: M= male F= female m= male children under 15 years f= female children under 15 years

19. Do you grow vegetables?

(a) yes (b) no

20. Who primarily determines vegetable production activities

Activities	Male respondents				Female respondents			
	M	F	m	f	M	F	m	f
20a. Who decides on scale of production?								
20b. Who manages seeds/seedlings (if any)?								
20c. Who does irrigation management?								
20d. Who does weeding/hoeing?								
20e. Who decides where and when to sell? (if any)								
20f. Who decides how much to sell?								

Note: M= male adult F= female adult m= male children under 15 years f= female children under 15 years

21. Livestock production activities

Activities	Male respondents				Female respondents				
	M	F	m	f	M	F	m	f	
21a. Animal grazing									<input type="checkbox"/>
21b. Fodder collection									<input type="checkbox"/>
21c. Milking									<input type="checkbox"/>
21d. Overall care and management of large animals									<input type="checkbox"/>
21e. Overall care and management of small animals									<input type="checkbox"/>
21f. Overall care and management of poultry									<input type="checkbox"/>
Who decides:									
21g. Selling large animals									<input type="checkbox"/>
21h. Selling small animals									<input type="checkbox"/>
21i. Selling milk/ ghee and butter									<input type="checkbox"/>

22. Who normally makes the primary (major) decisions on household expenditure

Activities	Male respondents		Female respondents		
	M	F	M	F	
22a. Buying of farm inputs (seeds, fertiliser, farm equipment)					<input type="checkbox"/>
22b. Buying of foods (if relevant)					<input type="checkbox"/>
22c. Buying of clothes					<input type="checkbox"/>
22d. Buying of luxury goods (TV, Radio, Cassette)					<input type="checkbox"/>
22e. Medical expenses					<input type="checkbox"/>

Note: M= male adult F= female adult.

23. Who normally makes the primary decisions on social and religious activities?

Activities	Male respondents		Female respondents	
	M	F	M	F
Who decides:				
23a. Money to be spent on marriage related activities				
23b. Money to be spent on religious festivals				
23c. Money to be spent on community services (school, road)				
23d. Decisions concerning other activities (please specify _____)				

Note: M= male adult F= female adult.

24. Household management and family well-being related activities

Activities	Male respondents		Female respondents	
	M	F	M	F
24a. Who decides to construct a new house?				
24b. Who makes decisions on repairs and maintenance to the house?				
24c. Who determines children's schooling age?				
24d. Who does selection of partner for children?				
24e. Who makes decisions on children's marriage age?				
24f. Who decides whether to have a child?				
24g. Who decides about family planning?				
24h. Who does child care related works?				
24i. Who does house cleaning?				
24j. Who fetches water?				
24k. Who cooks food?				
24l. Who does washing?				
24m. Other activities (please specify _____)				

Note: M= male adult F= female adult m= male children under 15 years f= female children under 15 years

25. Who normally has access to services in your family?

Activities Who has access to:	Male respondents		Female respondents		
	M	F	M	F	
25a. Agricultural extension workers					<input type="checkbox"/>
25b. Veterinary workers					<input type="checkbox"/>
25c. Veterinary hospitals					<input type="checkbox"/>
25d. Participation in village/ community level meetings					<input type="checkbox"/>
25e. Participation in training and skill development					<input type="checkbox"/>
25f. Participation in farming study tours					<input type="checkbox"/>
25g. Banks for borrowing loan					<input type="checkbox"/>
25h. Private money lenders					<input type="checkbox"/>
25i. Savings					<input type="checkbox"/>
25j. Farm labour					<input type="checkbox"/>
25k. Participation in other activities (please specify-----)					<input type="checkbox"/>

Note: M= male adult F= female adult.

26. Are you member of any social/community/political organisation (if any) ?

Respondents characteristics	Male respondents	Female respondents	
26a. 1= yes 2= no			<input type="checkbox"/>
26b. Organisation (Please specify)			<input type="checkbox"/>
26c. Position held			<input type="checkbox"/>

27. Who normally controls household income in your family?

Income sources	Male respondents		Female respondents		
	M	F	M	F	
27a. Cereal crops (rice, maize)					<input type="checkbox"/>
27b. Cash crops/oilseed crops (mustard and pulses)					<input type="checkbox"/>
27c. Selling large animals					<input type="checkbox"/>
27d. Fresh milk/ ghee					<input type="checkbox"/>
27e. Selling small animals					<input type="checkbox"/>
27f. Selling Pigs					<input type="checkbox"/>
27g. Selling Poultry and ducks					<input type="checkbox"/>
27h. Eggs					<input type="checkbox"/>
27i. Off-farm activities					<input type="checkbox"/>
23j. Remittances, pensions					<input type="checkbox"/>
23k. Other sources (please specify____					<input type="checkbox"/>

Note: M= male adult F= female adult.

28. Family food consumption

(Please write an appropriate number (s) in the corresponding boxes)

Activities	Female respondents	Male respondents	
28a. Rank who eats first in the family? (1= first, 5= last) (1) Adult male (2) Adult female (3) Male children (4) Female children (5) Elderly & sick members	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
28b. Main source of nutrition (1) Beans (2) Meat, fish, eggs (3) 1 & 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
28c. How much milk is drunk per day? (1) ___ (volume in litres) (2) _____ None	<input type="text"/>	<input type="text"/>	<input type="text"/>
28d. How often do children drink milk? (1) once a day (2) twice a day (3) occasionally (4) never	<input type="text"/>	<input type="text"/>	<input type="text"/>
28e. Rank the priority for drinking milk (1= highest, 5= lowest) (1) adult male (2) adult female (3) male children (4) female children (5) elderly & sick members	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
28f. Is the food produced from own farm adequate to feed all of the family? (1) 12 month (2) 9-11 months (3) 6-8 months (4) < 6 months	<input type="text"/>	<input type="text"/>	<input type="text"/>

Date of the interview: _____

Name of the interviewer: _____

“Thank you very much for your co-operation”