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**THE SOCIO-CULTURAL AND ECONOMIC CONTEXTS  
OF FERTILITY DECLINE  
IN THE RURAL EASTERN TERAI REGION OF NEPAL**

**A thesis presented in fulfilment  
of the requirements for the degree of  
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in Health Management and Policy  
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## ABSTRACT

There has been a steady decline in fertility in the eastern Terai region of Nepal in the years 1981-1995. The decline in fertility is desirable from the point of view of government, because of the population pressure on the region. Population pressure has been caused, however, not primarily by the high fertility of inhabitants of the region, but more by massive in-migration to the region, indirectly caused by the government policy itself.

The government has responded to population pressure in the Terai by seeking to reduce fertility by means of family planning programmes. However, the recent decline in fertility rates in the eastern Terai has little to do with family planning programmes, which were introduced to the region only quite recently. Rather the decline in fertility is primarily the result of a steady rise in the marriage age of women. The rise in age at marriage is the result of economic and social pressures- in particular the difficulty of sustaining a joint family based agrarian livelihood, because of growing population (due to in-migration) and limitation upon further clearing of the forest. A related factor contributing to the rise of marriage age is the quest for urban employment and for the kind of education that would facilitate that employment. Girls are allowed to stay in school longer and boys and girls may travel some distance away from the village for the sake of higher education and job opportunities. While the giving of dowry with a very young daughter in marriage is the prestige model set by the established landed high caste families, the middle caste tribal people and the lower castes practice bride-price payment.

Using the micro-demographic research methodology, this dissertation provides a detailed case history of fertility change in a village of a developing country. Fertility rates are shown to be subject to numerous interacting social and economic forces, and changes in fertility can be better understood with the small-scale and precise analytic tools provided by micro-demography.

The village of Chisang is composed entirely of recently arrived families. The first immigrants- high caste Hindus from the Hill region- acquired good land and established flourishing farms, but later immigrants were less fortunate. In-migration, through-migration, and out-migration are the defining features of the village history and village demography, and thereby of social structure, family structure, economy, and fertility rates.

For all Hindu people in the Terai, the good marriage of each boy and girl, the unquestioned virginity of the girl upon marriage, and the production of offspring within each marriage remain imperative. As the marriage age of women rises, the gap between age at marriage and age of consummation of marriage closes. Though fertility is declining because of the rising age at marriage, villagers say that they have not intentionally planned this chain of cause and effect: for them, it just happened. However, the village is at a stage in its history when the introduction of family planning measures is likely to be, and it appears to have been in the last two years, highly successful.

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## GLOSSARY

Nepali words and terms translated into English appear in order of first use in the text. All Nepali words and terms are italicised. The conventions of spelling anglicised Nepali words follow that of R. L. Turner's *A Comparative and Etymological Dictionary of the Nepali Language* (1931). Any other words that do not appear in Turner's Book have been spelt according to Narendra Mani Acharya Dixit's *English Nepali Sajha Samchipta Sabdakosh, Second Edition* (Bikram Sambaat 2044).

### Chapter 1

*bikash:* Development.

### Chapter 2

*Terai:* Low-lying land, (esp.) the low-lying land at the foot of the Himalayas.

*Madesh:* The middle country, i.e. the land lying between the Himalayas and the Vindhya, Vinsana in Rajputana and Prayag or Allahbad.

*madesi:* An inhabitant of the Plains, an Indian.

*pahari:* Belonging to the Hills, A hillman.

*adhivasi:* Indigenous peoples

*anchal:* The governmental development region commonly translated as "zone."

*gaon:* The lowest level of governmental development region commonly translated as "village."

*varna:* Class; the four major divisions in the classical caste system of Hinduism.

*jat:* Caste; also ethnic group; race; tribe; clan; species.

<i>matwali:</i>	“Those who drink liquor:” the middle ranking castes in Nepal. These castes are considered clean or <i>chokho</i> and water and certain types of food can be accepted from them.
<i>sano jat:</i>	“Small caste:” low caste; untouchable caste; <i>pani nachalne jat</i> .
<i>pani nachalne:</i>	Those from whom water is not accepted, i.e., untouchables.

## Chapter 5

<i>maita:</i>	Women’s natal home.
<i>budhi:</i>	Old woman.
<i>ama:</i>	Mother.
<i>jetha:</i>	First born son.
<i>jethi:</i>	First born daughter.
<i>pahari gaon:</i>	Hill village.

## Chapter 6

<i>khola:</i>	River; stream.
<i>hatiya:</i>	An open market set up on a fixed day and location especially in eastern Nepal.
<i>karma:</i>	Fate; a moral system in which a person’s deeds affects the physio-moral state in future rebirth.
<i>neuro:</i>	A wild fern that is prepared into curry.
<i>birta:</i>	Royal tax-free land grant.
<i>Bikram Sambaat:</i>	The era beginning B. C. 57.
<i>purba:</i>	East.
<i>majh:</i>	Middle, centre.

<i>paschim:</i>	West.
<i>tol:</i>	Neighbourhood.
<i>sukumbashi:</i>	Landless peasant.
<i>Durga:</i>	The bloodthirsty virgin warrior goddess, a destructive form of the Devi.
<i>Saraswati:</i>	Goddess of education.
<i>Mandir:</i>	Temple.
<i>janai:</i>	Sacred thread worn by members of the twice born <i>jat</i> (Brahmins and Chettris).
<i>tagadari:</i>	People who wear the sacred thread, specifically Brahmin and Chettri <i>jat</i> .
<i>jharra:</i>	Pure <i>jat</i> group.
<i>chokho:</i>	Clean or pure.
<i>ghiu:</i>	Clarified butter.
<i>doko:</i>	Large basket carried on the back for transporting goods.
<i>angaan:</i>	Courtyard.
<i>Dashain:</i>	A major festival held in September-October in honour of the Goddess Durga and her power to conquer evil.
<i>Deepawali:</i>	A five-day festival falling during the dark half of the month of <i>Kartik</i> (October-November) during which the crow, the dog, the cow, the ox, and finally brothers are worshipped on successive days. The evening of the day on which the cow is worshipped is also <i>diwali</i> or the festival of light in honour of Laksmi the goddess of wealth, who is often symbolised by the cow.
<i>Tihar:</i>	see <i>Deepawali</i> .
<i>dal:</i>	Lentil.

## Chapter 8

<i>dharmā:</i>	Religion; duties emanating from a person's physio-moral constitution; right action.
<i>paraya dhan:</i>	Property belonging to the husband and his family.
<i>pundit:</i>	A learned Brahmin who is a teacher or scholar especially of Sanskrit.
<i>pahuna:</i>	Guests.
<i>ghar:</i>	Home, house.
<i>kanya daan:</i>	Gift of the virgin; a major rite in marriage in which the bride's father offers his daughter as a sacred gift to the groom.
<i>kanya:</i>	Unmarried girl; virgin.
<i>punya:</i>	Merit or virtue.
<i>daijo:</i>	Dowry.
<i>budhi kanya:</i>	Mature unmarried women; spinster.
<i>karma chaleko:</i> full	“Activated <i>karma</i> .” the state of full adult responsibility- especially with reference to observance of caste restrictions; caste status.
<i>chada:</i>	Loose in character.
<i>bidwee:</i>	Widow.
<i>daju-bhauju:</i>	Brothers and sister-in-law.
<i>didi-bahini:</i>	Elder sister and her husband.
<i>sasu:</i>	Mother-in-law.
<i>illaka:</i>	Area.
<i>kanchi choree:</i>	Youngest daughter.

## Chapter 9

<i>Raja:</i>	King.
<i>pariwar niyojan:</i>	Family Planning.
<i>dhami:</i>	Shaman; faith healer.

## Chapter 10

<i>Naya Muluki Ain:</i>	Civil Code of 1963.
<i>jajmani:</i>	See <i>kamaune</i> .
<i>kamaune:</i>	“Working for hire:” system whereby artisan-caste families perform a specialised services for patron families in return for set annual grain payments (Equivalent to the Indian <i>jajmani</i> ).
<i>jajman:</i>	The client of a priest or the one who offers sacrifice to the gods.
<i>bali:</i>	Annual payment in grain made to a member of a lower caste.
<i>riti:</i>	Patron.
<i>bhagya:</i>	Client.
<i>halo:</i>	Annual payment in grain made to a member of a lower caste.
<i>hali:</i>	One who ploughs the field.
<i>jamindar:</i>	Landowner; landlord.
<i>kipat:</i>	Form of land tenure associated with Rai and Limbu.
<i>raikar:</i>	Form of land tenure akin to freehold.
<i>pashu:</i>	Animal.
<i>jhankri:</i>	Shaman; faith healer.

## Chapter 11

*brataman:*

The initiation ceremony of high caste males during which they are invested with the sacred thread.

## CHAPTER 1

### INTRODUCTION

The small, mountainous, landlocked country of Nepal lies in the Central Himalayas, wedged between India and China. The high Himalayas in the north, the central hills, and the flat Terai in the south comprise the country's three parallel topographical belts. Nepal's growing population, numbering more than 18 million in 1991 is comprised of approximately 75 ethnic groups, and more than 30 languages are spoken (CBS 1995). According to the World Bank, Nepal's economy is characterised as low-income with an average annual gross national product per capita of only US \$200.00 in 1994, making it the eleventh poorest country in the world (World Bank 1996). According to the same report, Nepal is in the least developed category of countries with 27 percent adult literacy rate and only 7.4 percent of the population urbanised in 1994.

Nepal is still at an early stage of demographic transition, but the growth in population is causing many problems (Tuladhar 1989). This growth in population is largely due to a considerable decline in mortality with the implementation of public health, maternal child health programmes, and integrated development programmes while fertility continues at a high level. At the end of 1991, the birth rate was a little over 2.3 percent (CBS 1995). If this trend continues the population of Nepal will double in a little less than 30 years. The number of young women entering their reproductive years exceeding the number moving out of their reproductive years is another indicator of the potentiality of future growth in population size, even if couples were to have only two offspring (HMG 1992).

In Nepal, the majority of fertility studies have so far have used the large-scale survey approach, for example the 1974-75 Demographic Sample Survey (DSS), the 1976 Nepal Fertility Survey (NFS), the 1976-78 DSS, the 1981 Nepal Contraceptive Prevalence Survey (NCPS), the 1984 Nepal Fertility and Mortality Survey (NFMS), 1986 Nepal Family and Fertility Survey (NFFS), the 1991 Nepal Fertility, Family Planning and Health Survey (NFFPHS), and the 1996 Nepal Living Standards Survey

(NLSS) or on available secondary data from one or more source. While describing fertility trends on a national level, these large-scale surveys offer very little insight into fertility of rural village societies. These surveys also fail to look at fertility behaviour in the socio-cultural and economic contexts. To attempt to apply secondary data derived from these large scale surveys to village locations, on the other hand has its own limitation since the primary objectives of these large scale surveys may be different from studies which seek to describe and explain fertility changes at the village level.

The present study is one of a handful of studies conducted at village level of Nepal that focuses on the contexts within which fertility occurs. This study thus complements the information provided by large-scale surveys, providing insights into fertility behaviour which surveys do not do. The village is representative of other Terai villages in respect to its social, cultural, economic and demographic characteristics. All inhabitants of the study village were enumerated in the village census at the beginning of the study. At that time there were a total of 111 households giving a total population of 638. The study village, the individuals who were involved most intimately in the study, as well as my two local research-assistants, will be introduced and described at appropriate points in the body of the thesis.

Demographers have in the past correlated fertility with a long list of social and cultural factors which include age at marriage, residence and marriage patterns, family type, caste, occupation, education, tribal affiliation, migratory status, mortality and practices relating to pregnancy, childbirth and childbearing. These macro-level correlations fail to take into account the fact that fertility behaviour is part of the culture of the people (Srinivas 1989). Therefore, fertility can only be understood in the total context of the history, social structure, economic circumstances, religion and worldview of the people.

Over 90 percent of Nepal's population are rural. Furthermore, the eastern Terai districts are the most populated districts in Nepal with the exception of the Kathmandu Valley (CBS 1995). This region of the country is undergoing major socio-cultural, economic and demographic transition. Understanding the factors that affect fertility behaviour of rural people is a priority, yet in Nepal there is a paucity of

studies that seek to describe and explain the contexts within which fertility change takes place. Niraula's (1991, 1995) work in the Central Hills; Axinn's (1990) study of a Tamang community in the outskirts of the Kathmandu Valley; Fricke's (1993) study of another Tamang community north of the Kathmandu Valley; and Macfarlane's (1976) work among the Gurungs north west of Kathmandu are the exceptions. This study will contribute to the understanding of fertility behaviour and trends in the local contexts of the eastern Terai region, an area of the country where very few studies have been conducted by social scientists, and is the only one to describe village society in the Terai.

### **A Personal Introduction**

My own interests in understanding the socio-cultural and economic contexts within which fertility occurs in rural Nepal developed after I established and directed a not-for-profit, non-governmental organisation (NGO) that promotes family planning and maternal child health in Nepal's capital city of Kathmandu, and in Morang and Jhapa districts in the eastern Terai region of Nepal. As I observed rural health posts, health clinics and hospitals in urban centres in east Nepal that provide health care and family planning services to people of all castes and tribes, I became aware that family planning services were ill suited to the social, cultural and economic realities of rural Nepal. For example, in the far-eastern Terai region of Nepal family planning was synonymous to sterilisation. Service-providing organisations place very little effort on promoting temporary family planning methods to women who wanted to space child-birth, not terminate conception.

My work in rural eastern Nepal also made me aware that many of the family planning and rural health services were not benefiting the people they targeted. At the time when this study was conducted a great deal of resources had been poured into family planning programmes by governmental and non-governmental organisations in a rural area in northern part of Morang district. This effort was declared a total failure about six months later. The concerned organisations had failed to take into account infant and child mortality rates in this area, which were much higher than in other areas of the district. Therefore, very few married women in their reproductive age were

interested in the services offered to them. Had the micro-fertility trends of the area and contexts within which fertility occurs in the area been taken into account, these organisations would have placed more emphasis on maternal and child health, and less emphasis on family planning services.

In this study I have documented the fertility trends and the contexts within which fertility occurs in a rural village in the eastern Terai region. My past experience as a promoter of family planning services in the general study area, and now the role of a social scientist conducting the study, has placed me in an unique position where I am able to narrow the gap between researchers and practitioners. Not to have had the experience of a promoter of family planning services in rural Nepal before undertaking this study would have allowed me to look at these critical issues only from the perspective of a social scientist. This I believe would have provided me with incomplete information and only part of the picture.

As well as my involvement in promoting family planning in rural villages, I have had a particular interest in the study of the diverse behaviour among castes and tribes in Nepal. My work in rural villages with mixed castes and tribes brought to my attention the social, cultural and religious customs and rituals that help shape the differential in fertility behaviour of these people. As these social, cultural and religious customs and rituals were as varied as the castes and tribes in rural settings in the eastern Terai region, I came to have a better understanding of the range of contexts within which fertility occurs in rural settings, and therefore multiple studies are required if target policy is to be produced.

### **Significance of the Study**

The findings of the study are significant for the rural people of Nepal; for professionals, governmental and non-governmental organisations, and the private sector involved in planning and providing health care and family planning services in rural Nepal; for its contribution to a better understanding of the socio-cultural, developmental and economic contexts within which fertility occurs in rural settings with mixed castes and tribes; for its understanding of the fertility trends in rural

settings; and finally, within the recently emerging body of literature that apply micro-demographic research methodology in the field of demography and population studies. There is significant interest in the demographic process in Nepal among researchers and students based both in and outside Nepal. Therefore, this study will be of use to both Nepali and international students.

The concentration of attention on family planning and maternal and child health, often packaged as family health, welfare and development has led many in Nepal and elsewhere to view population control as a purely technological problem. The view of family planning as a technological problem undermines the position that fertility is an extremely subtle, sensitive and complex phenomenon, and detailed studies at the basic social unit of society, that is at village level, are necessary to gain some understanding of it. The disappointing results of the ineffectiveness of the Population Control Programmes designed and implemented by His Majesty's Government of Nepal, can be attributed to the tendency for these to be based upon technological model and later on developmental models, both of which overlook the contexts in which fertility occurs.

At a more immediate level, this study describes the contexts within which fertility changes in the eastern Terai region. For this reason alone, a better understanding of the contexts within which fertility changes in rural village is important. The significance of this study is, however, not limited to the eastern Terai region of Nepal, but applicable to other areas of the country undergoing similar socio-cultural, economic and demographic transition, for example, the rest of the Terai and Inner Terai regions of Nepal.

By undertaking this study, I was interested in finding ways for social scientists and health care and family planning service providers to combine their expertise in a more practical, effective and economic approach to providing health care and family planning services to rural people of Nepal. I hope that my experience as a promoter of family planning in rural Nepal, and training in social sciences have enabled me to narrow the gap between researchers and practitioners. This study will benefit both Nepali and foreign professionals and organisations involved in planning, implementing and delivering health care and family planning services in rural Nepal.

In the past, there has been a tendency among social scientists to work in rural settings in the Mountain and Hill regions of Nepal while rural settings in the Terai have been ignored. This study focuses on one Terai village that has very close links to other communities in the Mountain and Hill regions. By conducting the study in a rural village in the eastern Terai, it provides valuable information on fertility trends and behaviours of an area of the country that has received very little attention in the past.

Today there is a new recognition that anthropology has something to contribute to demography (Greenhalgh 1990). The “micro-approach” to demographic research, the new subfield created by the wedding of anthropology to demography, is defined as a methodological innovation (Greenhalgh 1990). More recently, Greenhalgh (1995) and Kertzer and Fricke (1997) have shed more light in the field of anthropological demography, an area of study that combines the discipline of anthropology with demography. Micro-approaches are characterised as the application of traditional anthropological methods that employ participant-observation, the intimate study of a small, bounded community, to the understanding of demographic behaviour (Caldwell 1988: 458-459). This study contributes to the recently emerging body of literature on demography and population studies that apply micro-demographic research methodology.

### **Structure of the Thesis**

The background to the study is set out in the first three chapters. The context of the study is described in Chapter 2, providing a brief description of Nepal, its administrative system and a brief history. In particular, the caste system in Nepal, inter-regional migration, and the demographic changes in the Terai are described, all of which set the stage for the study.

Health services development and family planning in Nepal is reviewed in Chapter 3, along with data on fertility on Nepal. I go on to point out the very ambitious national goals and objectives, as it related to health services development and family planning services outlined by the His Majesty’s Government of Nepal in its eight National Development Plans.

Chapter 4 outlines the concern over population growth, principal paradigms and theories on population, and determinants of fertility. The classical demographic transition theory, and other three transition theories that have been promoted recently will also be described.

The approach I used in conducting this study is described in Chapter 5, along with a discussion on procedural and ethical issues related to conducting a micro-demographic study in a rural village with mixed castes and tribes.

The social, cultural, economic, developmental and demographic characteristics of the study village are described in Chapter 6, including the physical setting, recent history and development, and regional economy. In particular, I describe migration patterns and relationship between the Mountain and Hill regions and village caste system. The aim of this description is to demonstrate that the characteristics of the study village resemble those of hill villages although it is physically located in the Terai. The study village's population characteristics, including household types, population and age-sex distribution are outlined in the final section of the chapter.

Fertility in the study village and Nepal are compared in Chapter 7. This chapter will set the stage for the next three chapters that focus on the findings of the study.

Chapter 8 describes the socio-cultural and economic contexts of marriage change in the eastern Terai region of Nepal. This chapter also outlines several important dimensions of the local culture, developmental process and socio-economic changes that seem particularly relevant to understanding the rapid change in marriage patterns in the study village.

Health care and family planning services were introduced into the study village only two years before this study was conducted. Thus, Chapter 9 focuses on the social context and impact of family planning services in the study village. It is highlighted that family planning is accepted by couples in rural villages where the level of socio-economic development is still low, when the family planning centre is located within a walking distance and is staffed by local people who have received proper training.

Some of the shortcomings of the family planning centres in relation to socio-cultural contexts are also discussed.

Economic and developmental explanations for the decline in fertility in the study village is provided in Chapter 10. Rise in age at marriage, age at consummation, and recently, an increase in the use of contraceptive technology can be attributed to a complex mix of socio-cultural and economic changes. The most significant changes identified in this chapter include: weakening of the caste system, and of its ritual and economic relationships; change in land ownership and displacement of tribal people; expansion of mass education; widening world view of rural villagers; and the changing role of women.

Chapter 11 concludes the study with a discussion of the implications of the findings in the eastern Terai region, Nepal and internationally. Emphasis is placed on the importance for health care and family planning providers to understand the contexts within which fertility occurs. Recommendations are proposed for the improvement of delivery of health care and family planning services in rural communities of Nepal.

## **Conclusions**

While I was conducting this study, the fourth government in as many years after the establishment of multi-party democracy took control in the nation's capital, Kathmandu. The people of the village in which this study was conducted were very grateful that I was working among them even though they felt that the authorities in far away Kathmandu had totally ignored them. The very few people in the village who had at least high school education were convinced that something good would come out of this study. The less educated people were just happy to provide information to me at various stages of the study. These people were not bothered with the demographic explosion at the global level, but they did understand the connection between the population pressure and environment degradation at the local level.

Apart from the politicians and the enumerators for the national census, it seems that very few outsiders visited their village or homes. As one villager commented: "Thank

you very much for conducting the study in our community. Please tell the world that we are poor but not stupid. When too many children become a burden to us, we will find a way to have less children, with or without the use of modern family planning methods.” I learned more from comments such as this than a volume of theoretical writings on the determinants of fertility.

As a Nepali student who has had the privilege of conducting the study in a rural village in Nepal, the study addresses the paucity of knowledge of the contexts within which fertility occurs in rural Nepal. As His Majesty’s Government of Nepal pushes ahead to meet its objective of modernising the economy of the country, major social, cultural, economic and demographic changes will take place in rural settings where 90 percent of the Nepali people still live. This study describes some of these changes, and its effect on fertility in a rural village in the eastern Terai region of Nepal.

Out of this study comes an important document for social scientists, planners and providers of health care and family planning services, and rural people of Nepal. Further migration and general development of the infrastructure in the name of *bikash* (Nepali: Development) is likely to occur; villages in the rural Nepal will undergo further change. Before long most of the population of rural villages of the eastern Terai region of Nepal will have no memory of their origins in the Mountain and Hill regions. I sincerely hope that this study will provide a record for the next generation of rural people of Nepal. Finally, my desire is that this thesis will add to the small literature on fertility trends and contexts within which fertility occurs in rural villages in the eastern Terai region of Nepal.

## CHAPTER 2

### THE CONTEXT OF THE STUDY

This chapter introduces Nepal and outlines the socio-economic development and cultural change in the eastern Terai region of Nepal. It is in this region of the country where the study was conducted.

The chapter is divided into five sections. The first section overviews fertility and village studies in Nepal. The second section describes Nepal, its history in brief, and its administrative structure. The caste system in Nepal is described in the third section. The fourth section focuses on the inter-regional migration, mainly from the Mountain and Hill regions to the Terai. The final section describes the Terai, the demographic changes and the peoples of the eastern Terai region.

#### **Fertility and Village Studies**

Although social research was neglected before 1951, considerable research on Nepal has since been carried out by Nepali and foreign scholars. Although extensive work on village level studies have been published by sociologists, social anthropologists, ethnologists, demographers, etymologists, and to some extent geographers, interdisciplinary studies of population and fertility behaviour have been neglected. Most work at the village level tends to take a broad brush, descriptive approach, thus fails to explain fertility behaviour. With a few exceptions, fertility studies at the village level have altogether been ignored.

Village studies have been dominated by anthropologists and ethnographers, who to this day prefer to work with a discrete caste, clan or single tribe village. They tend to work in a relatively isolated environment with a focus on traditional patterns of life. Furthermore, most of the anthropologists and ethnographers have been foreigners who normally spend about a year with their subjects. Bennett (1983) explains the social and symbolic roles of high caste women on the outskirts of the Kathmandu Valley.

The conflict between the higher caste Brahmins and lower caste cobblers (Nepali: *Kami*) which resulted due to economic and social inequalities in a Hindu Village in Western Nepal is described by Caplan (1972). Hitchcock (1966) worked among the Magars in Western Nepal and Jones and Jones (1976) describe marriage and divorce patterns among the Limbus in Tehra Thum District in Eastern Nepal. Those few who have addressed fertility-related issues have done so in respect to an encapsulated society at a single point in time, in isolation of the wider society. Macfarlane (1976) has done a detailed study of the relationship between diminishing natural resources and population growth among the Gurungs in the Kali Gandaki Drainage Basin. Fricke (1993) conducted an anthropological study among the Tamangs north of the Kathmandu Valley and describes Tamang demography, domestic processes and the subsistence economy. Ross (1981) compares Hindu and Tibetan fertility in Northwestern Nepal. These studies tend to neglect the fact that cultures, societies, and environments are parts of larger, multi-ethnic systems whose varied environments and large populations are undergoing change (Bishop 1990: 4). On the other hand, population studies tend to present statistical information and lack explanations as to why and what relationships may exist. While Nepali demographers have engaged in such studies, very few have conducted field studies on fertility using ethnographic research methods.

Social anthropologists and ethnologists have noted population growth and its impact on the resources in most of the areas in which they have worked. In the Khumbu region, Fürer-Haimendorf (1964) explains the relationship between food and population growth. The great increase in the Sherpa population of the last hundred years coincided with the spread of potato. For the Limbu population in Ilam District, Caplan (1970) observes the relationship between population growth and emigration, although he was unable to provide any original figures. However, he notes that "pressure on land was recognised as the principal cause of emigration as early as the 1890s (Caplan 1970)."

For the reasons described above, the systematic study of Nepal's population has been restricted in both quality and quantity. The statistical information on which many of these studies are based, moreover, are unreliable. At the same time a number of

features of the Nepali population are evident. Nepal is both a rural and agricultural country (CBS 1995). The population of Nepal lives in predominantly small settlements. People still work their land and these farming communities continue to be associated with demographic characteristics described two decades ago: high fertility, high mortality (although it has been declining), a large number of young children dependent on adults and high population growth rate (Macfarlane 1976).

In short, even though rapid population growth is of major concern in Nepal, and its impact on environment degradation well-recognised, fertility has not been treated as a primary focus in village studies. And demographic research and studies have failed to place fertility behaviour in its proper socio-cultural and economic contexts. The result is that more questions are raised than answered.

### **Nepal: An Introduction**

Nepal is a small, landlocked South Asian country (see Figure 2.1). The country bounds on the Tibetan region of the People's Republic of China to the north, and it is bordered by India in the south, east and west. Ecologically speaking, Nepal can be divided into three regions (see Figure 2.2). These are: the northern high altitude belt referred to as the mountain or Himalayan region (which includes the High mountain region); the middle belt, called the Hill region (which includes the Siwalik ranges), which is the most densely populated region per arable land area; and the southernmost belt of Nepal, the low-lying plains, known as the "Terai" or "Madesh." Nepal is also divided into administrative areas, which do not reflect the three ecological belts. These are the five Development Regions, divided into fourteen zones, further divided into 75 district, which are again divided into 3,995 Village Development Committees (VDCs) and 36 Municipalities in 1993 (further discussed below).

The Mountain region includes 16 of the country's 75 district in the northern parts of the country that borders the Tibet Region of the Peoples Republic of China. The altitude ranges from 4,877 meters to 8,848 meters. This region occupies about 35 percent of the total land area. The Mountain region is sparsely populated, since the



Figure: 2.1: Nepal: Planning Regions and Districts (Source: H.M.G. Topographical Survey Branch)

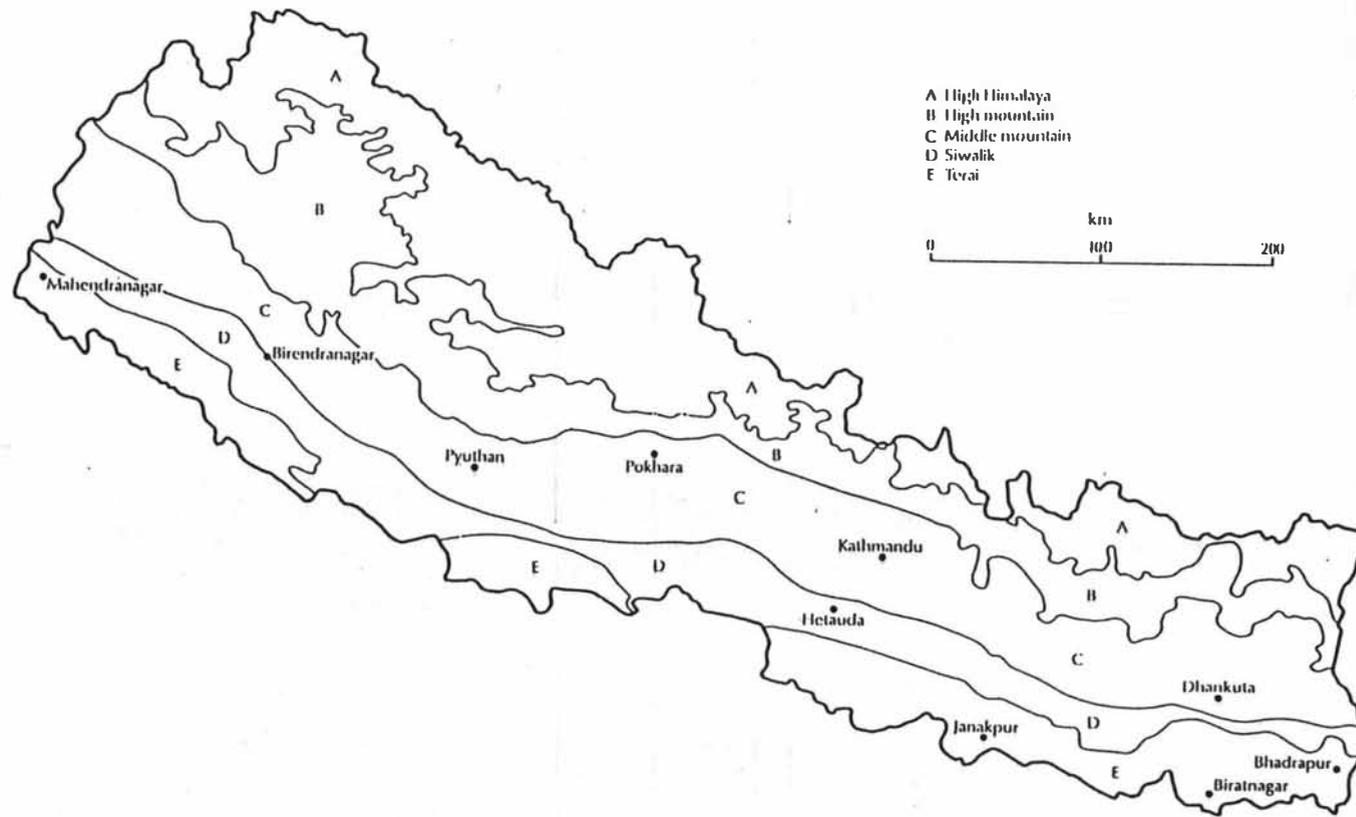


Figure 2.2: Nepal: Ecological Belts (Source: H.M.G. Topographical Survey Branch)

climate is very cold and the land is not suitable for cultivation. People of this region make a living mainly from cattle farming, and a few are engaged in trade with Tibet. Many spend the winter months, when life is too harsh, in southern areas engaged in trading.

The Hill region, the largest region in area occupies 48 percent of the land area and includes 39 districts in the middle section of the country. The altitude ranges from 610 meters to 4,877 meters. Kathmandu, the capital of the country, and Pokhara valley are situated in this region. The arable land of this region is densely populated. Cultivation is carried out in the valleys, broad river plains, and the terraced hills, and on increasingly marginal land in response to severe population pressure.

Various Hindi and Urdu sources define the word "Terai" as land at the foot of mountains, often wet and swampy land (Gaige 1975: 2). The Terai is the narrow strip of level, alluvial terrain about 200 meters above sea level, situated in the southernmost part of Nepal. It occupies 17 percent of the land area and is approximately 885 kilometres long, from its eastern boundary, the Mechi River, to its western boundary, the Mahakali River. It is estimated that the average width of the Terai along its entire east west axis to be 25 kilometres and nowhere is the Terai more than 45 kilometres in width. Gaige (1975: 3) maintains that for reasons unknown to historians, India is in control of sections of the Terai south of Dang-Deukhuri and Chitwan Districts (see Figure 2.1). Bista (1991: 12) notes:

In ancient times, the Terai was the location of several significant kingdoms and must have supported a sizeable population. Following socio-political upheavals, including Islamic invasions in the eleventh, fourteenth and sixteenth centuries, the whole Terai suffered from major population declines, which was followed by extensive natural reforestation of the area. During the nineteenth century, there was a population drift-back into the Terai with an accompanying development of its agricultural capacity. Consequently, the Terai became known as the 'breadbasket of Nepal.'

The southern part of the Terai, which was settled earlier mainly by Indian immigrants, is the more densely populated. In the past few decades, government policy has been to encourage the settlement of people from Nepal's Mountain and Hill regions to the densely forested northern edges of the Terai. However, the presence of malaria slowed and hampered this settlement.

Although the Terai region of Nepal includes only seventeen percent of land area and twenty of the country's 75 districts, it is populated by approximately half of the country's population of 18 million in 1991, and contains 57 percent of the total arable land. In 1954 only 35 percent of the Nepali people lived in the Terai (CBS 1993). By 1991, about 47 percent of the people in Nepal were living in the Terai. According to Goldstein (1983: 62), "this shift will transform Nepal from a 'classical' mountain economy into a predominantly flat, subtropical and urban nation." This dramatic shift in population distribution can be attributed to the clearing of the Terai land to make way for agriculture, control of malaria, and to the policy of *paharisation* (to be described below). The process of *paharisation* has been deployed by the Nepali state in a bid to secure the national structure of the state against the *madesi* (Nepali: landowners, mainly of Indian origin), a colloquial, demeaning term indicating an alien person or an uncivilised immigrant from India. Squeezed between the *pahari* (Nepali: hill people) and *madesi* are the *adhivasi* (Nepali: indigenous peoples) of the Terai (Skar 1995: 180-181).

The topography of Nepal in providing a natural barrier to incursions has helped shape its history that is quite different from that of most of the world's other developing countries. For many centuries Nepal successfully defended itself from incursions by Tibet and China from the north, from other potential invaders from the south, and from colonisation by Britain. Nepal has never been colonised (Rose 1971), which has placed Nepal in a peculiar position today. In 1816, the Sugauli Treaty was signed with the British East India Company, which defined Nepal's present day boundaries (Bista 1991). While Nepal was able to maintain its status as an independent country, it also isolated itself from all outside contact until after World War II. Nepal thus missed out on possible benefits that came with the British Empire, such as mass education, health care, introduction of the modern system of administration, and development of the national infrastructure. It was not until 1951 that Nepal opened its borders to outside contact, and embraced the process of modernisation.

## A Brief History of Nepal

Until 1776, present day Nepal was essentially a chain of small chiefdoms, which then were conquered and united by Pritivi Narayan Shah, the ancestor of the present day king. From then until the beginning of the 19th century, the history of Nepal was essentially the history of the Kathmandu valley, the present capital (Hagen 1971). From 1846 to 1951, Nepal was autocratically ruled by the hereditary prime ministers of the Rana family, who maintained the Shah dynasty as puppet kings. The Ranas were successful in maintaining Nepal's sovereignty, while at the same time resisting any change from within Nepal that may have threatened their power and status (Rose 1971). Independence and stability was at the expense of change, and as a result the Rana period contributed to Nepal's educational, economic, political and social backwardness (Kumar 1967).

In 1951 a successful *coup d'état* restored power to the Shah monarchy, which maintains its role to the present. One of the first acts of the new regime was to open Nepal to the outside world. The primary task of the government since 1951 has been to try to modernise the economy of the country. Nepal has now been open to outside contact for a little over four decades, and although it has changed dramatically over this period, by almost any measure the country is still in an early stage of development (Thapa and Bannister 1981). For example, the population remains largely rural: the 1991 census recorded a total population of 18,491,097 of which 1,695,719 lived in urban areas and 16,795,378 lived in rural areas (CBS 1993: 476). In 1991, GNP per capita was US \$180, life expectancy at birth 56, and population growth rate between 1980 and 1991 was 2.1 percent per year (CBS 1993: 484). Population trends at the national level are described fully in Chapter 3.

Nepal's growing population, now over 18 million, has forced His Majesty's Government of Nepal (HMG/Nepal) to wrestle with this problem and a myriad of associated problems to improve the economic and social well-being of the people. Malaria control in the Terai and specific health care delivery services such as immunisation and TB control, along with general social development, in many areas of the country since 1951 have considerably reduced mortality, while fertility has remained at traditionally high levels, or even risen. This difference between fertility

and mortality has produced an increasing rate of natural population growth. There has been intense competition for scarce resources, significant internal migration to newly available land in the Terai, more and more crowding on the arable land in the Hills and the Terai, and increasing tensions between previously isolated groups that have recently come into contact (Thapa and Bannister 1981).

In his description of the various regions of Nepal which were identified by names of its tribe or ethnic group, Bista (1991: 12-13) points out:

Traditionally, the regions of Nepal were identified by the names of its various major ethnic communities. For instance, the eastern hills beyond Sunkosi were called the Kirat Pradesh (Kirat region). This area was divided into three subregions whose designations were arranged on the basis of their proximity to the Kathmandu Valley: the area from Sunkosi river to Likhu was called Wollo Kirat (near Kirat); the area between the Likhu and the Arun was called the Majh Kirat (middle Kirat); and the land stretching east of the Arun to the Indian border was called the Pallo Kirat (far Kirat). Similarly, the regions in the west of the valley, all the way to the Kali Gandaki was traditionally known as the Gandaki Pradesh. The area west of this, to the Karnali, was called Magarant (region of the Magars), and the region along the Karnali and beyond was called Khasaan (Land of the Khas). The high-altitude area, inhabited by people speaking dialects of the Tibetan language, was traditionally known as Bhot Pradesh. The lower region is called the Madesh, Tharuwan (Land of the Tharu), or Terai.

### **Administrative Structure**

Nepal has a constitutional monarchy with a democratically elected government which controls national power and policy. For development planning purpose and execution of development projects, Nepal is divided into five development regions: Eastern, Central, Western, Mid-Western, and Far-Western regions; each consisting of a part of each of the three ecological belts and stretching north to south. From an administrative point of view, the country is divided into 14 *anchals* (Nepali: zones), and 75 districts, each headed by a Chief District Officer (CDO), a regular civil servant.

Each district is further divided into several small sectors called Village Development Committees (VDCs) and Municipalities, which are formed on the basis of population. There were 3,995 VDCs and 36 urban Municipalities in 1993 (CBS, 1993). Further, each VDC and Municipality is divided into wards, which are the smallest political units. A cluster of houses make a *gaon* (Nepali: village). There may be several *gaons* in each ward, or in the case of a larger *gaon*, two to three wards in one *gaon*. Most *gaons* in Nepal comprise of mixed castes, tribes and ethnic groups. There are very few *gaons* in Nepal that are inhabited by only one caste, tribe or ethnic group and located in relative isolation from other groups of people.

### **The Caste System in Nepal**

In his Forward to the book *Himalayan Anthropology* (1978), Fürer-Haimendorf highlighted the unique location of the Himalayas:

The Himalayas are a region traversed by three of the major linguistic, racial, and cultural dividing lines of Asia. In the valleys of this great mountain range Indo-Aryan and Tibeto-Burman languages dovetail and overlap, populations of Caucasian racial features characteristic of North India met and merged with Mongloid ethnic groups, and the two great Asian religions Hinduism and Buddhism coexist there and interact in various ways. In neither of these spheres are boundaries clear-cut, nor are the sequences of events which brought about the present kaleidoscopic pattern easily discernible. While chronological data relating to development within the great historic civilisations of the area are fairly well established, very little is known about the history of the many preliterate tribal societies which for long filled the interstices between the domains of the advanced culture.

Nearly all early settlers of Nepal were of Tibeto-Burman tribes from the east and north and Indo-Aryan groups from the west and south (Bishop 1990). The territory which is now Nepal was divided into numerous sparsely populated Tibeto-Burman tribal chiefdoms before the arrival of the Indo-Aryan, caste Hindus from the Indian northern plains. These tribal chiefdoms were inhabited by such Tibeto-Burman tribes as Magar, Gurung, Thakali, Tamang, Rai, and Limbu. Caste Hindus settled in Nepal having fled the Islamic invasions in neighbouring India (Bishop 1990).

The caste Hindus, who settled the western hills of Nepal, possessed superior technology in the fields of warfare and agricultural production (Ghimere 1992). They were also instrumental in introducing wet rice cultivation, combined with extensive use of ploughing and irrigation (Seddon 1984). The superior warfare and agricultural production technology made possible the forced subordination of Tibeto-Burman tribes. Subordination to the Hindu caste system, modelled after the ancient and orthodox Brahmanical system of the Indian plains, was a significant feature of the domination by Indo-Aryan newcomers (Bishop 1990; Bista 1991; Caplan 1970; Fürer-Haimendorf 1966).

Caste is a hierarchical organisation of society incorporating all members of society, each of whom is ranked within the broad, fourfold Hindu *varna* (Nepali: class) divisions, or outside the *varna*, in the case of untouchables or outcastes (Bishop 1990). In its ideal state, each *jat* (Nepali: caste), is an endogamous group in which membership is hereditary and permanent. The concepts of ritual status, purity, and pollution are at the core of caste structure (Bennett 1983; Berreman 1960; Bishop 1990; Dumont 1966; Fürer-Haimendorf 1966; Gray 1980, 1982, 1987, 1995; Höfer 1979).

The ruling castes of the immigrant Hindus from India were the high-caste Brahmins and Kshatriya, known as Bahun and Chettri respectively in Nepal. The Brahmins and Chettris were accompanied by a large number of ritually unclean people, the untouchable low castes, who remained outside the fourfold Hindu divisions. Once the tribal areas came under the control of the Brahmins and Chettris, the caste system was successfully extended, in most cases, to incorporate these communities. In the process, a majority of the tribal populations were initially accorded a low caste status and were subjected to paying tax. Over time tribal populations underwent varying degrees of *Hinduisation* or Hindu acculturation depending on the type and intensity of their contact with the Brahmins and Chettris. The process of *Hinduisation* has also been described as *Sanskritisation* by Srinivas (1967), *Nepalisation* by Bista (1982), and recently, *paharisation* by Shrestha (1990). Srinivas (1967: 67-68) defines *Sanskritisation* as: “the process by which a ‘low’ caste or tribe or other group takes over the customs, ritual, beliefs, ideology and style of life of a high caste,” in order to

improve its position in the local caste hierarchy and thus improve its economic and political position.

Caste systems differ from one setting to another. In many instances different settings are settled by different groups of people with very different cultural practices. All these groups may claim to be Hindus. Gaige (1975: 13) points out the difference in Hindu practices between those living in the hills and the plains:

Hindu practices in the hills differ from those in the plains in a number respects. Hinduism in its orthodox form has never been accepted by many hill people. Strict vegetarianism is practised by a few of those people; some hill Brahmins even eat meat such as chicken and goat. Upper-caste plains people observe the dietary restrictions of Hinduism much more carefully. Although by no means common, intercaste marriages sometimes take place among hill people; such marriages are considered taboo among the plains people. The more flexible social traditions of Hinduism practised in the hills result largely from the interaction between Hinduism and the less rigid social traditions of Tibetan Buddhism. In the plains, Hinduism has been affected by interaction with Islam, from which it has adopted practices such as *purdha*, the keeping of women in a state of seclusion.

The changing roles of the intercaste relationships have been described by various anthropologists and ethnographers (Berreman 1972; Caplan 1972; Bista 1972; Niraula 1991; Cameron 1995). These anthropologists and ethnographers have focused their research primarily at the village level. However, what has been lacking is the study of basic social units of society of village, household and caste in relation to the intercaste relationships, including the *jajamani* and *kamaune* systems (to be described in Chapter 6 and Chapter 10) and the changing marriage patterns in relation to castes and tribes. Also, the study of fertility transition at the village level and the role of intercaste relationships and changing marriage patterns as they relate to various castes and tribes have also been lacking. This study places emphasis on the basic social units of society at the household level and on the changing roles of intercaste relationships and changing marriage patterns among various castes and tribes in the study area. Thus, the role of caste system at the village level, changing role of intercaste relationships and changing marriage patterns among various castes and tribes as they relate to fertility transition in the study village.

## **Inter-Regional Migration**

As most of the people of Nepal live and work in the agricultural sector, migration patterns of Nepal are closely connected with the availability of useable agricultural land (Thapa and Bannister 1981). Traditionally the majority of the Nepali people have preferred to live in the hills, for reasons the mountains were too inhospitable and the flat Terai infested with wild animals, snakes and malaria. During the eighteenth and nineteenth centuries, Nepal faced three problems: a low population density; a chronic shortage of manpower for the agricultural sector and military purpose; and an abundance of land area available for cultivation (Regmi 1971). In order to increase population density, agricultural production, and government revenue from agricultural taxes, the Government of Nepal encouraged Tibetans to immigrate to the Himalayan regions of Nepal and Indians to immigrate to the Terai and Inner Terai regions (Regmi 1971). During the same period, internal migration of people of Nepal was mainly from the west to eastern parts of Nepal along the hills. In this pattern of migration, over time, caste Hindus from Kumaon and Garwal in India migrated into Nepal, and those from west Nepal moved east, eventually crossing into Sikkim, West Bengal, and Assam in India, Bhutan and as far east as Burma. Migration south into the Terai came about only in the mid-twentieth century, when the control of endemic malaria in the Terai and other lowlands led to a large-scale shift of population from the hills to these new frontiers in Nepal.

The pattern of migration from the Mountain and Hill regions of Nepal to the Terai is also an indicator of regional shift in balance. Population pressures in the Mountain and Hill regions of Nepal and polarisation of development and economic activities in the Terai have contributed to the high volume of migration in a north-south direction. People are moving from resource poor Mountain and Hill regions of Nepal to the Terai where there are more land resources and employment opportunities and where life is easier. Inter-regional migration in Nepal has had a positive impact on the total economy in both the origin and destination regions (Gurung 1989: 90). The primary consequences of migration are most apparent in the Terai, a region that is undergoing major changes in demographic character, social composition, level of development and the inherent conflicts these phenomena have engendered.

## The Terai and Demographic Changes

By the middle of the twentieth century the Terai was the primary destination for migrants from the Mountain and Hill regions of Nepal, Tibet and adjoining Indian states. Both “pull” and “push” factors have played a vital role in the growth in migration from the Mountain and Hill regions to the Terai. The primary factors leading people to be “pushed” out of the Mountain and Hill regions include: the decreasing role of Trans-Himalayan trade which has affected the economic situation of the mountains and some hill areas. More important is the severe lack of useable land for cultivation in the Mountain and Hill regions, together with declining agricultural productivity, and population pressure. The primary factors attracting people from the mountain and hill regions into the Terai are malaria control and opening up of new agricultural land. The colonisation of the Terai by the Mountain and Hill people has resulted in spontaneous as well as planned settlement (Thapa and Bannister 1981: 76).

Volume and direction of flow of life time migrants recorded in the census of 1971, 1981 and 1991 show migration has been increasing over the years. Although the percentage share originating changed over time, the Hill region continued to remain the highest contributor till 1991. On the receiving side, the Terai has been the destination of at least four fifths of all migrants (CBS 1995). The Terai absorbed more than 90 percent of the total migrants in 1971. This declined to 78 percent in 1981 and increased again to 83 percent in 1991. According to the same report, this change may be attributable to increasing population pressure in the Mountain and Hill regions and an easy outlay in the Terai.

The Constitution of Nepal of 1962 led to the development of His Majesty's Government of Nepal's (HMG/N) policy, which for the first time, attempted to discourage further Indian immigration into the Terai, a ruling which continues to the present. This resulted in significant demographic changes, changes brought about by systematic intervention by the state to encourage the process of “*paharisation*” which culturally and ethnically transformed the Terai (Shrestha 1967; Berreman 1985). “*Pahari*” refers to hill people, and is still referred to those who migrate from the Mountain and Hill regions of Nepal into the Terai. *Pahari* settlement was facilitated

by systematic government policy by which HMG/N distributed to the *pahari* people Terai land confiscated from tribal peoples through the land reform programme which began in the early 1960s (Gaige 1975). According to Thapa and Bannister (1981) HMG/Nepal's policy of promoting *Nepalisation* of the Terai seems to have met with success for the influx of settlers into the Terai from the hills and mountain regions far exceeded immigration from India during the 1960s.

### **The Peoples of the Eastern Terai**

For the purpose of this study the three easternmost Terai districts of Nepal, Jhapa, Morang and Sunsari (formerly collectively known as Morang) will be referred to as the eastern Terai. The peoples of the eastern Terai can be broadly grouped into five groups. First are the caste Hindu *pahari* that comprise the Brahmins, Chettris and the untouchables from the Hills: the untouchable include Kami, Sarki, Damai, and Majhi. Second, the *matwali* make up the Tibeto-Burman groups from the Hill districts, and include Rai, Limbu, Tamang, and Yakha. Third are the indigenous Terai peoples who refer to themselves as the "*adhivasi*" (Nepali: indigenous to the land). Fourth, the *madesi* (Nepali: from the Terai or plains), refers mainly to descendants of Indian migrants who follow a corresponding, but far more rigid caste-system to that of the *pahari*. Finally, there are the lowest, untouchable castes, that have migrated to the Terai from India in the past two to three centuries.

Skar (1995: 175) writes: "In Nepal, the word *adhivasi* ('tribal') is rarely used and most groups do live in relative isolation in hilly or forested regions." Skar (1995), whose study is based on the Tharu, who comprise one group of indigenous peoples of central and western Nepal, generalises the rare use of the word *adhivasi* to the whole of Nepal. In the eastern Terai, the indigenous Terai people, mainly the Dhimal, Khabas, Mushar, Rajbansi and Satar, proudly refer to themselves as the *adhivasi*. Therefore, the indigenous peoples of the eastern Terai will be referred to as *adhivasi* in this study. Among these, the Mushar and Satar are categorised as untouchable, *pani na chalne* (Nepali: from whom water cannot be taken) or *sano jat* (Nepali: small castes) by the *pahari*, *matwali*, other *adhivasi* and the *madesi* community. The untouchable people of east Nepal therefore include *adhivasi* untouchables, and are

therefore, grouped together with the *pahari pani nachalne*, *sano jat*, i.e. the Damai, Kami and Sarki (see Chapter 6 for detailed description of the caste system in an eastern Terai village). For the purpose of this study, the untouchables from both the *pahari* and *madesi* groups will be treated as a single, fifth group: “*pani nachalne*” or “*sano jat*.”

## **Conclusions**

This chapter has introduced Nepal in general, and outlined the socio-economic development and cultural change in the eastern Terai region of Nepal in particular. The chapter also introduces the caste system, inter-regional migration and description of the demographic trends and the peoples of the eastern Terai region, necessary to develop an understanding of the socio-cultural and economic contexts within which fertility occurs and to document fertility trends of villages. It is also important to have an understanding of the health care development and family planning services in Nepal, the subjects of the following chapter.

## CHAPTER 3

### REVIEW OF HEALTH SERVICES DEVELOPMENT AND FAMILY PLANNING IN NEPAL

Human fertility is shaped by various social, cultural and economic factors at the local, regional and national levels. Fertility trends are also affected by family planning programmes and health care delivery systems. In a developing country such as Nepal, many international political and humanitarian interests also influence health and fertility at the village level through involvement in national policy and socio-economic development. The purpose of this chapter is twofold: to outline family planning programmes and health care delivery system at the local and national level, and to illustrate the recent national fertility trends in Nepal.

This chapter is divided into two broad sections. In the first section events that have lead to the development of the family planning programmes in Nepal are described. Fertility behaviour at the village level cannot be fully interpreted without also reviewing the historical developments of Nepal's health care delivery system in general, and the family planning movement, in particular. This is especially important in the case of Nepal due to its very short history of contact with the outside world, and the high level of international aid required to establish and expand infrastructure for the delivery of both health care and family planning services.

The second section of this chapter describes fertility trends at the national level. It is essential to have an understanding of national level fertility trends due to the dearth of fertility studies and data at the village level. All major national surveys and census demonstrate that fertility is persistently high in Nepal, a situation which has changed little since 1976. Up until the mid 1980s, the total fertility rate (TFR) had remained at around six children per woman. Although a slow decline in the age-specific fertility rates and total fertility rate has taken place in the late 1980s as recorded in the 1991 National Census, the total fertility rate is still high at 5.6 children per woman (CBS 1995).

## **Health Care and Family Planning Services in Nepal**

Nepal's policy of voluntary isolation that persisted until 1951 had the effect of delaying access to international assistance. However, since 1951, the development of health programmes in Nepal followed the pattern of its neighbouring Asian countries. Health service development reflected international policy which can be divided into four phases, which are: the 1951 to 1960 period of hospital construction; 1960-1970 period of Basic Health Services; Integrated Community Health Programme (ICHP) or Primary Health Care (PHC) Programme; and the New Health Policy of post 1991 period.

### **The 1951-1960s Period**

In the 1951-1960s period, health service development had two primary emphases: hospital service development and nursing education; and public health programmes to prevent or control communicable diseases (Justice 1986: 48). Hospital services and nursing education with its emphasis on curative, technology based medicine benefited mainly the elite, usually urban population. At that time, disease specific, vertical programs were also organised nation wide to prevent or control communicable diseases, including malaria, tuberculosis, smallpox and leprosy. Justice (1986: 48-49) states:

The vertical programs usually had a semiautonomous status within the government, were administered and supervised by special personnel, and trained paramedical workers for a single purpose. The short-term perspective of these programs was a key element, for they were designed to train and employ temporary, independent staff whose jobs would end after a few years, when the task was done.

The development of international health programmes through international assistance began after 1951 when Nepal opened its borders to the international community. In many parts of Asia malaria was identified as one of the major obstacles in providing health service and economic development. The United States Agency for International Development (USAID) and the World Health Organisation (WHO) helped finance and implement a countrywide Malaria Eradication Programme (MEP)

in Nepal in 1954. Thus, MEP in Nepal was the entry point for large-scale health assistance to Nepal. Only after malaria was eradicated in Nepal's Terai and Inner Terai, the country's richest farmland would be both easily accessible and exploitable. WHO advisers also began a pilot project in the Central Inner Terai region of Nepal where Nepali workers were trained and supervised in malaria eradication measures (WHO 1958). It is beyond doubt that the MEP was the largest and most successful health programme in Nepal of the time. Disease-specific vertical programmes, such as Malaria Eradication Programme in Nepal, were able to provide services to over 50 percent of the population in malarial areas. Other disease-specific, vertical programmes in Nepal were the Leprosy Control Project and Tuberculosis Control Project, launched in 1964/1965; the Smallpox Eradication Project launched in 1967/1968; which eradicated smallpox by 1978 (subsequently redefined as the Expanded Programme for Immunisation); and the Family Planning and Child Welfare Project (Justice 1986: 50). These disease-specific, vertical programmes were well supervised, managed and administered; backed by sufficient resources and international co-operation; and the local health workers were well trained to complete clearly defined and achievable tasks (WHO 1958; Justice 1986).

Of these vertical programmes, the establishment of the Family Planning Project was a direct result of evidence of the demographic transition in the developing countries. It was not until the later part of the 1960s that family planning programmes began to be supported by the major donor agencies. Unlike the success of some vertical programmes, family planning and population programmes, despite the commitment and scale of assistance, have had only limited success in reducing the rate of population growth in most developing countries. In the case of Nepal, family planning and population programmes have been a total failure (Shah and Cleland 1993; Freedman 1995). One explanation for this failure is that family planning and population programmes have overlooked the socio-cultural and economic contexts of fertility (Caldwell 1982; Caldwell, Reddy, and Caldwell 1983, 85; Cain 1984, Srinivas 1989). Furthermore, there is empirical evidence that decreases in population growth are directly affected by socio-cultural, economic and political changes, including improved status of women; higher literacy rates, especially of women; improved access to health, education and stable incomes (Caldwell 1982; Freedman 1995; Niraula 1991).

After the Nepal Fertility Survey (1976) (which was a part of the 42 nation World Fertility Survey) results were published in 1976, Nepal's rate of population growth remained at 2.5 percent per year. This same survey also indicated that the total fertility rate (TFR) of a Nepali woman was 6.8, one of the highest in South Asia. In response to the discouraging results of the Nepal Fertility Survey, international health organisations providing financial assistance and services to Nepal changed direction from placing an emphasis on family planning programmes to basic health services. This change in direction was in response to the recognition that technology based family planning service alone was not effective in lowering fertility rates in the context of Nepal.

### **Establishment of Basic Health Services and Integration of Basic and Vertical Programmes**

During the late 1960s and 1970s international donor agencies such as the World Health Organisation and the United Nation Children's Fund (UNICEF) recognised that previous hospital-based approach and disease specific programmes had several important shortcomings, which included: the hospital based approach delivered services only to urban areas, where only a small percent of the population received services; the hospital based approach were generally more expensive to operate; the hospital based approach took longer to complete than planned; and the hospital based approach primarily failed to address the underlying causes of poor health, such as poor nutrition, polluted water, inadequate preventive care, poor hygiene, and so on (Justice, 1986: 51). Donor agencies under the leadership of UNICEF and WHO developed the concept of basic health services to address the shortcomings of previous failures.

According to Justice (1986: 52), basic health services were defined as

providing immunisation; assistance to mothers during pregnancy and delivery; postnatal and child care; appropriate contraceptive advice in countries accepting family planning policies; adequate, safe and accessible water supplies; sanitation and vector control; health and nutrition education; diagnosis and treatment for simple diseases; first aid and emergency treatment; and facilities for referral.

One of the major goals of basic health services was to promote rural development, and an attempt was made to integrate several disease-specific, vertical health programmes. It was expected upon integration, health service providers would be able to deliver preventive, promotive and curative services through a single administrative structure. Thus, the integrated basic health development programme was introduced in Nepal in the late 1960s and dominated health planning and policy in the 1970s (Justice 1986; Dixit 1995).

Illustrated here is a phenomenon by which decisions are made by bi-lateral and multi-lateral donor agencies and implemented in a developing country like Nepal; integration of the basic health development programmes faced stiff resistance from the system it was designed to replace (Justice 1986). However, by the late 1970s, integration of the basic health development programme had already become entrenched in health care delivery and development in Nepal. Thus, the Family Planning and Child Welfare Project, begun in 1968 as a vertical programme was restructured and integrated into the Integrated Basic Health Services.

The Integrated Basic Health Services was designed to expand health and family planning services, especially to rural areas. His Majesty's Government of Nepal, WHO and USAID started replacing the single-purpose malaria field worker with a multipurpose health and family planning worker. These donor organisations were also anxious to evaluate the effectiveness of integrating family planning services with other health services. In addition, these donor organisations were eager to demonstrate a more effective programme for slowing Nepal's rapid population growth (Justice 1986).

### **Integrated Community Health Development Programme**

As the Ministry of Health in the capital of Nepal, Kathmandu, took steps in the 1970s to integrate the Basic Health Services, WHO and UNICEF pushed for community participation and promoted the new concept of Primary Health Care (PHC). PHC was promoted on the premise that long-term improvement in health of the resource poor developing world populations must rely on greater community participation and self-

reliance in health care. PHC was promoted at the highest policy level by WHO and UNICEF during the International Conference on PHC at Alma Ata in 1978. The “Declaration of Alma Ata” defined primary health care as:

essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of community. It is the first level of contact of individuals, the family, and community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process (WHO 1978: 3-4).

PHC programmes had the following characteristics: they were generally oriented to rural areas and by design required few outside resources; PHC recipient communities were expected to play an active role in providing, maintaining, and financing these services; and PHC services were provided after taking into consideration the socio-cultural and economic contexts of the communities, and therefore were expected to vary from one community to another. PHC, which places an emphasis on community participation where communities are expected to be more involved in providing their own services, differs from basic health care, where services are provided for communities (Justice 1986).

Once again, in Nepal, as in most other developing nations of the world, the Primary Health Care approach was adopted by the government. By the late 1970s the Integrated Basic Health Services was being referred to as the Integrated Community Health Services Development Programme (IHSDP) and many projects called “Primary Health Care Projects” (Justice 1986; Dixit 1995). Justice (1986: 61) writes:

Donor funds that had been targeted to support integration were now designed for primary health care, but the programme they supported was largely the same. Thus, the rural health programme’s identity was manipulated to fit the latest shift in policy orientation emanating from the international level.

Although there was very little change between the Integrated Basic Health Services and the Integrated Community Health Services Development Programme, the family planning and population programmes are now under the latter.

### **The New Health Policy of Post-1991 Period**

Nepal underwent a revolution in 1990. The outcome of this revolution forced the monarchy to relinquish all its power and become a constitutional one. Also, the system of government has become responsible to the people in a multi-party democracy. A new Constitution is in place which guarantees basic freedoms and two rounds of parliamentary elections have taken place since the 1990 revolution. These developments at the national level have provided the contexts in which people have been able to debate previously not discussed issues, form new institutions, associations and organisations, and demand better conditions for life.

The New Health Policy was announced in 1991 with the principal aim of upgrading the health standards of the majority of the rural population by extending Basic Primary Health Services up to the Village Development Committee (VDC) level and providing opportunity to the rural people to enable them to obtain the benefits of modern medical facilities by making service accessible to them (MOH 1995: 9). His Majesty's Government of Nepal has been compelled to put health care and population control policies at the centre of its national policies and plans in order to respond to the overwhelming expectations and demands by the people for major improvements in living conditions. In line with the people's expectations and demands there is now a focus on the individual, family, and the private sector's potential to be crucial partners in development. His Majesty's Government of Nepal has been advocating for a more active role of the private sector in the delivery of health care services and population control programmes, especially creating a demand for contraceptive use.

## **Development of Family Planning Programmes**

Efforts to promote family planning in Nepal have a short history, and from the outset have encountered severe obstacles. These include inadequate development of rural health infrastructure; insufficient government budgetary allocations; lack of attention to cultural appropriateness of health services and service providers; and an inhospitable terrain that hinders distribution of contraceptives and sterilisation services.

The recency of family planning efforts are reflected in Nepal's national development policy. The First National Development Plan was prepared for the period 1956-1961 with the objective of increasing gross domestic product (GDP), providing employment and improving living standards of the population (CBS 1995). The Second National Development Plan was prepared for the period 1961-1965 in which priority was given to agricultural and industrial development. In both the First and Second National Development Plans, there was no specific population policy other than a resettlement policy to absorb the increasing population in the Hills (UNFPA 1979: 46; Tuladhar 1989).

In 1965, Nepal launched its Third National Development Plan (1965-70), which recognised the imbalance in population growth was likely to have a negative effect on economic development. However, the Plan did not include any programmes for fertility control (NPC 1965: 48-52). That same year, His Majesty's Government of Nepal adopted a family planning policy as a means of maintaining a balance between population growth and economic development. In the following year, the late King Mahendra, the father of the present monarch of Nepal, joined several heads of state to endorse a United Nations Declaration on Population, which stated that family planning was a basic human right and an important factor in development planning (Population Council 1968).

Nepal's endorsement of the United Nations Declaration on Population paved the way to establishing a national infrastructure for delivery of family planning services. During this period, the onset of fertility transition was in full swing in many developing countries including in South Asia. Although high fertility persisted, infant

and child mortality rates began to decline gradually, as disease control programmes, mass immunisations, improved nutrition and sanitation, and general socio-economic development programmes were being effective. At the same time, population rates began to rise rapidly. In response, bi-lateral and multilateral agencies began investing in population related programmes (Justice 1986: 50).

The Fourth National Development Plan (1970-75) raised concern over population growth which led to the incorporation of effective use of manpower and control of population growth as one of the guiding principles of the plan (NPC 1972). The plan recognised the rate of growth of population of Nepal was lower than that of many other developing countries, but was not desirable in relation to available resources, especially cultivable land (NPC 1972: 3). The Plan also emphasised the expansion and reinforcement of the family planning programme that was initiated in the Third National Development Plan. This Plan described two ways to reduce birth rate: by bringing changes in economic and social conditions as well as cultural practices of the common people, and through expansion of the family planning programme (CBS 1995). The Fourth National Development Plan set a target to offer family planning services to 15 percent of the married couples by the end of the plan period which amounted to offering family planning services to 312,000 married couples (CBS 1995).

The Fifth National Development Plan (1975-80) was very important from the population policy point of view (Niraula 1991). The plan set a demographic target for five years (1975-80), in which crude birth rate would be reduced from around 70 to 38 and family planning services would be extended to 700,000 couples (NPC 1975: 505-507). Most of all, the plan document stated the need to be in touch with women in reproductive ages and to motivate them to reduce their desired family size.

The Sixth National Development Plan (1980-1985) included a chapter on population by dealing with both policy and programmatic issues. The Plan stated as its two population objectives: the demographic target was set to reduce TFR from 6.3 to 5.8 children per woman and to maintain the rate of growth of population at 2.3 per cent per year; and to tackle the problems of population growth and migration. The Sixth National Development Plan envisaged the attainment of the decline in TFR through

provision of family planning services and socio-economic development. In this Plan, 900,000 new contraception acceptors were targeted (CBS 1995).

The Seventh National Development Plan (1985-1990) was made to increase urbanisation in a more systematic way and to develop urban centres along with rural areas. Urbanisation was given priority and specific targets were set for the Seventh National Development Plan which are: to decrease TFR from 6.1 in 1985 to 4.0 per woman in 1990 and then to 2.5 by the year 2000; to decrease IMR from 111.5 in 1985 to 98 infant deaths per 1000 live births by 1990 and to 45 by the year 2000; to increase expectation of life from 51.5 years in 1985 to 54.4 years in 1990 and then to 65 years by the year 2000; to limit the population size to 20.8 million by the year 2000; and to decrease the rate of population growth to 1.2 percent per year by the year 2000.

The Eighth National Development Plan (1992-1997) places emphases on reduction in population growth, protection and conservation of environmental resources and acceleration of economic growth. The government has made it a priority to facilitate and promote non-governmental organisations (NGOs) and the private sector. The specific population targets up to the end of the Plan period and up to the year 2000 have been set as follows: to reduce TFR from 5.8 to 4.5 children per woman by 1997 and then to 4.0 by the year 2000; to raise the Contraceptive Prevalence Rate (CPR) from 23 to 31.7 percent of married women of reproductive age and then to 37.7 percent by the year 2000; to raise life expectancy from 54.4 to 61 years and then to 65 years by the years 2000; to bring down the current IMR from 102 to 80 infant deaths per 1000 live births and then to 50 per 1000 live births by the year 2000; to bring down the current mortality of children below five years of age from 165 to 130 per 1000 live births and then to 70 by the year 2000; to reduce maternal mortality from 850 to 750 maternal deaths per 100,000 live births and then to 400 by the year 2000; and to manage internal migration.

Selected Health Sector Targets of the Eighth National Development Plan are presented in Table 3.1.

**Table 3.1: Eighth National Development Plan Targets**

<i>Health Indicators</i>	<i>Targets</i>
Infant Death Rate (per 1,000 live births)	80
Life Expectancy (Years)	61
Total Fertility Rate (TFR) (per woman)	4.5
Maternal Mortality Rate (per 100,000 births)	750
Under Five Mortality Rate (per 1,000 births)	130

**Source:** MOH, 1995, Table 1, Page 7

### **Delivering Family Planning Services in Nepal**

In order to tackle the problems of population growth in Nepal arrangements for family planning services have been made. In this section organisational arrangements for family planning programme implementation in Nepal will be reviewed. This section is divided into two parts. First, the three phases in which the family planning delivery services have been developed in Nepal is discussed. Second, a brief history of the organisations responsible for programme implementation will be presented.

Family planning delivery services in Nepal has taken place in three different settings: stationary; mobile; and door-to-door (Tuladhar 1989: 168). Stationary services are those generally provided from health institutions health posts, health centres and hospitals. A minimum of two health workers in the case of health posts and five or six in the case of hospitals were involved, distributing contraceptives such as the pills and condoms to those who made a trip to the health post, health centre or hospital (Tuladhar 1989). Health centres provided maternal and child health services including education on nutrition and environmental health care. In hospital settings, where there was the provision of trained medical staff, IUDs, injectibles and sterilisation was also provided. It was also required of all FP/MCH workers to provide follow up service at the acceptors' homes. Tuladhar (1989: 169) notes that by the end of 1983, there were 170 FP/MCH centres of which 28 were in the Mountains, 97 in the Hills and 45 in the Plains (Terai). It should also be noted here that some of the FP/MCH centres operated satellite clinics in nearby areas where distribution of

oral contraceptive pills and condoms, education in family planning, and maternal child health services were also offered.

The main emphasis of mobile services was on carrying out sterilisation to terminate fertility altogether to both males and females through organised mobile clinics, known as camps. Mobile clinics were of two types: a laparoscopy or mini-laparoscopy camp, and a vasectomy camp. In theory, demand for permanent sterilisation was generated by the local family planning worker after which mobile units were sent in. Tuladhar (1989: 170) notes:

Camps are generally held with the help of local village Panchayat members and volunteers from Women's Organisation, Red Cross, Youth Club, etc. Generally, every sterilisation camp is assisted by the district level steering committee which consists of locally very influential people. This committee helps in getting people's participation and bringing potential acceptors to the camp site. But there are instances where the previously organised camps were cancelled because of lack of trained medical doctors who would be willing to go to remote villages.

Door-to-door services characterised the third setting by which the FP/MCH ran its operations. In this setting, Panchayat Based Centres were developed in 1972 "after it was realised that most villagers were not willing to come to the FP/MCH centres (described earlier) to obtain family planning services (Tuladhar 1989: 170). These village level workers were appointed and given the task of making people aware of family planning methods and providing supplies of pills and condoms to those who wished to use them.

During the following years FP/MCH Project steadily expanded its services and by 1986 there were 256 centres, mostly attached to health posts, health centres and hospitals, and some 2,500 community-based outreach workers, whose duties included but were not limited to the household distribution of condoms and oral contraceptives (CBS 1987). This eventually led to the establishment of the Integrated Community Health Services Development Project (ICHSDP), a semi-autonomous organisation under the Ministry of Health.

At present family planning services are provided through five main agencies, which are: Family Planning and Maternal and Child Health Project; Integrated Community Health Services Development Programme (ICHSDP); Family Planning Association of Nepal (FPAN); Contraceptive Retail Sales Company (NCRSC); and Non-Governmental Organisations (NGOs).

According to the Integrated Development Systems (1986), the distribution of couple-years of protection (CYPs) provided by FP/MCH Project, ICHSDP, FPAN and NCRSC is approximately 49 percent, 28 percent, 19 percent, and 4 percent of total distribution respectively.

The FP/MCH Project is the country's largest provider of family planning services through its 256 clinics and 2,500 community based outreach workers (CBS 1987). As of 1985, FP/MCH Project had its presence felt in 52 of the country's 75 districts. The Family Planning Project was established in 1965 and placed in the Maternal and Child Health Section of the Department of Health. At the start, efforts were made to offer family planning services and information through the existing maternal and child health clinics. Family planning services started to be offered the following year. Although the emphasis was on IUDs, pills and condoms were also made available, and vasectomies were performed as a regular part of the general health services (CBS 1995).

From 1968/69 USAID started supplying contraceptive pills and condoms to the Family Planning Project. In that same year, the Family Planning Project began its expansion. In 1968, HMG/Nepal decided to run the National Family Planning and Maternal Child Health Programme in a more extensive and integrated way. Thus, a semi-autonomous Family Planning and Maternal Child Health Board was established. The chairman of the Family Planning and Maternal Child Health Board was then the Honourable Minister for Health with the secretaries from the Ministry of Health, Ministry of Education and Ministry of Finance as members. Subsequently, one of the members of the National Planning Commission was also included as a member of the Board (CBS 1995).

During the Fifth National Development Plan (1975-1980) a Population Co-ordination Board was established. The Population Co-ordination Board was replaced by the National Council on Population (NCP) in 1978 which had the mandate to formulate, implement and co-ordinate population policies and programmes (Pant and Acharya 1988). NCP remained under the National Planning Commission of Nepal. The Prime Minister was the chairman of the National Commission on Population. In 1981, the National Council on Population was reorganised and renamed the National Commission on Population (NCP). The National Commission on Population was an independent, national organisation with its own vice-chairman. Two years after its restructuring in 1981, the National Commission on Population came out with a very ambitious mandate stating:

The magnitude of the population problem makes it imperative that fertility targets be set to achieving minimum possible growth in future. As such, a target reduction of total fertility rate to 2.5 by the year 2000 was recommended by the National Commission on Population and accepted by His Majesty's Government (National Commission on Population 1983: 3).

Following the suggestions made by the now reorganised National Commission on Population, HMG decided to offer compensation to sterilisation acceptors to promote sterilisation. The National Commission on Population was officially dissolved and the Secretariat of the Commission was made the Population Division of the National Planning Commission Secretariat in 1990 (CBS 1995: 490).

The ICHSDP which is under the Ministry of Health provides family planning services through 1,500 village health workers and 350 community health workers, who are in turn supported by auxiliary health workers located in 745 ICHSDP health posts (Thapa 1989). ICHSDP provided services with material support from FP/MCH Project in districts where all vertical programmes such as malaria, T.B., leprosy, and family planning were fully integrated.

The Family Planning Association of Nepal (FPAN), a privately funded family planning service which was established in 1959, is the third provider. The Family Planning Association of Nepal became a full-fledged member of the International Planned Parenthood Federation (IPPF) in 1969. FPAN's headquarters are located in

the Nepali capital, Kathmandu, from which it administers its 19 branches throughout the country (Integrated Development Systems 1986).

The Nepal Contraceptive Retail Sales Company (NCRSC), established in 1978, is the fourth agency providing family planning services. NCRSC has been active in social marketing of pills and condoms but its effectiveness has been limited because of the low level of contraceptive demand. NCRSC distributes condoms and pills through more than 9,000 pharmacies and shops in all 75 districts in the country.

The role of non-governmental organisations (NGO), the fifth group, has been very limited in Nepal with the exception of the Family Planning Association of Nepal (described above). The New Health Policy (1991) has promoted the role of private organisations and not-for-profit, non-governmental organisations in providing health care and family planning services. Both the private sector and non-governmental organisations will play a more active role in promoting health care and family planning services in the future.

### **Factors Affecting the Delivery of Family Planning Services in Nepal**

Three main factors have been identified that affect the delivery of family planning services in Nepal: geographic location of the outlets; quality of services provided; and the sex, caste or ethnic composition of the staff at the family planning service outpost.

**Geographic Location of the Outlets:** Family planning service outlets are very sparse in Nepal. Often times, when the family planning service outlet is located within walking distance either the contraceptive of choice of the couple is not available or trained personnel are not present to administer the services. In order to meet the demands of men and women seeking sterilisation, mobile camps are organised in which a team including a medical doctor moves from one village to another to perform sterilisation (Tuladhar 1989: 229). Due to the lack of trained medical doctors and support staff it has not been possible to conduct mobile camps in rural settings on a regular basis. Although mobile camps provide valuable service to

rural couples they are plagued with cancellation, postponement and insensitivity of the local culture and traditions on the part of the organisers.

**Quality of Services Provided:** The quality of Nepal's family planning services are questioned as this anecdote recorded by Tuladhar (1989: 230) illustrates:

In the eastern Hills, a district medical doctor performed vasectomy sterilisation on 64 men. A year later, the wives of all the 64 men who were supposed to have been sterilised had become pregnant. Obviously some of these women might be suspected by their husbands of having affairs with other men; this might have created a great deal of tension between husbands and wives. Later, when the news about the incident was published in a newspaper, a laboratory test was conducted on all the men by the Government Family Planning Project. It was found that none of them was sterilised. The medical doctor who performed the sterilisations admitted that he did not cut the vas but only tightened it up.

Instances such as this, although rare, have a negative impact on the delivery of family planning services.

**Sex, Caste or Ethnic Composition of the Staff:** In the past there was a tendency to staff family planning service outposts with male staff and village level motivators. Moreover, many family planning service outposts were staffed by higher castes even in settings with mixed castes and tribes. As a result of the staffing patterns that did not take into account the mixed caste and tribal make up of many rural settings all over Nepal women of all castes and tribes and couples from middle caste tribal groups and lower castes did not seek the services of many of these outposts. Thus, knowledge, availability and accessibility to family planning services has been very low in Nepal.

### **Budgetary Allocation to Health and Family Planning Services**

His Majesty's Government of Nepal has been maintaining certain levels of budgetary allocation to health care and family planning services. Of the total budget allocation, the allocation for health ranged from 4.10 percent in 1981/82 to 2.29 percent in 1990/91 (CBS 1993: 417-418). During the Seventh National Development Plan

(1985-90), the government allocated 131.44 million Nepali Rupees, some 4.6 percent of total budgetary allocation, for health services (NPC 1985: 106-107). Health budget by rural and urban areas between 1980/81 and 1993/94 is presented in Table 3.2.

**Table 3.2: Health Budget By Rural and Urban Area, 1980/81-1993/94**

<i>Year</i>	<i>Rural</i>	<i>Percent</i>	<i>Urban</i>	<i>Percent</i>	<i>Total</i>
1980/81	176,982	76.4	54,571	23.6	231,552
1990/91	687,640	77.7	197,240	22.3	884,870
1991/92	779,995	76.2	243,357	23.8	1,023,351
1992/93	999,400	82.3	215,238	17.7	1,214,646
1993/94	1,076,804	73.7	384,557	26.3	1,461,352

In (000 Nepali Rupees)

Source: MOH, 1995, Table 28, Page 61

In the Eighth National Development Plan (1972-1997) the budget for the Health Sector was broken down into three broad categories. Basic Primary Health Services received 73 percent (4,097.531 million Nepali Rupees) of which 2,008.349 million Nepali Rupees or 36.74 percent of the total Health Sector budget was allocated for Family Planning and Maternal Child Health and Welfare (MOH 1995: 63-64). Likewise, Curative Programmes were allocated 13 percent (745.635 million Nepali Rupees) and another 14 percent (775.834 million Nepali Rupees) was allocated for Miscellaneous expenses (MOH 1995: 63-64).

Despite the high priority accorded to population control policies on economic grounds, it is apparent that it only helped to create and perpetuate a central bureaucracy. The population control programme in Nepal has been unable to enlist the support of local people and local institutions to make it widely acceptable (Justice 1986; Thapa 1988, 1989). Prospective users of contraceptive methods choose to use contraception either to space or to terminate childbearing. The realisation that the family planning movement in Nepal was not primarily geared to meet the needs of couples wishing to space their children is a recent phenomenon. In Nepal, the high priority accorded to male and female sterilisation indicate that an appropriate method

mix strategy is basically lacking in the delivery of family planning services. In a review of a decade of family planning services in Nepal, Thapa (1989) concludes that the needs of those couples for contraception for spacing births rather than terminating childbearing altogether, are not adequately addressed by the programmes. In another study, Thapa (1990) notes that to achieve a demographic target of reducing total fertility rate to 2.5 by the turn of the century, the current use of contraceptives must be increased fourfold.

### **Data on Fertility in Nepal**

In the previous sections we reviewed Nepal's health care delivery system in general, and the family planning movement in particular. In this final section of this chapter we will focus on data on fertility in Nepal.

Between 1911 and 1991, nine national censuses have been conducted. The overall changes in Nepal's population from 1911 to 1991, as indicated in the census are presented in Table 3.3. The information collected in these earlier census were very limited and included only head-counts (CBS 1995: 1). Census were conducted in 1920, 1930 and 1941 at intervals approximating 10 years. Nepal's population declined in the inter-census periods between 1920, 1930 and the 1941. Macfarlane (1976) attributes the decline in 1920 to First World War casualties, the influenza outbreak of 1918, and probable under-enumeration. The threat of war with Tibet, which meant that people thought that the census might be used for conscription purposes, may have lead to considerable under-registration in 1930 census (Macfarlane 1976). Macfarlane (1976) points out that the 1941 census was affected by large number of Nepali recruited for Second World War, and the casualties in the 1934 earthquake may have had a profound affect on the population of Nepal. Modern methods of census taking were adopted beginning in the 1952/54 census in which demographic data, social, and economic statistics were also collected.

**Table 3.3: Population Size and Growth Rates, Nepal, 1911-199**

<i>Year</i>	<i>Population</i>	<i>Intercensal Change in Population</i>	<i>Average Annual Growth Rate (%)*</i>	<i>Doubling Time (years)</i>
1911	5,638,749	-	-	-
1920	5,573,788	-64,961	-0.13	-
1930	5,532,574	-41,124	0.07	-
1940	6,283,649	751,075	1.16	60
1952/54	8,256,625	1,972,976	2.30	31
1961	9,412,996	1,156,371	1.65	42
1971	11,555,983	2,142,987	2.07	34
1981	15,022,839	3,466,856	2.66	26
1991	18,491,097	3,468,259	2.10	33

\* Geometric Growth Rate

**Source:** CBS, 1995, Table 1, Page 2

Nepal's population is characterised by its very low per capita income, and by being largely rural; in 1991 only 9.2 percent of the population was urban. In terms of religion, over 90 percent of the Nepali are Hindus (CBS 1995). Primary school enrolment ratios have increased over time, though the level of illiteracy, particularly of females, remains very high. However, the participation rate among females in the labour force, which is largely engaged in subsistence agricultural activities, is high in comparison with other South Asian countries. High birth rate combined with a moderate decline in mortality from previously high levels have resulted in a doubling of the population between 1960 and 1991 as shown in Table 3.4.

**Table 3.4: Socio-Economic and Demographic Background Characteristics of Nepal, Selected Years Between 1960 and 1989**

<i>Background Characteristics</i>	<i>1960</i>	<i>1970</i>	<i>1980</i>	<i>1989</i>
Population ('000)	9,447	11,355	14,640	18,400
Crude Birth Rate	43.6	45.5	43.6	41
Crude Death Rate	26.5	23.7	20.1	15
Infant Mortality Rate	195	173	150	124
Per Capita GNP (US \$)	not avail.	80	140	180
Adult Literacy Rate (%) <sup>1</sup>	8.9	14.3	23.5	26 <sup>a</sup>
Female Literacy Rate (%) <sup>1</sup>	1.8	3.7	11.5	12 <sup>a</sup>

**Source:** World Bank, World Development Report 1991 (Washington DC 1991)

1 Central Bureau of Statistics, His Majesty's Government, Population Monograph of Nepal (Kathmandu: National Planning Commission Secretariat 1987)

a Relates to 1985

Detailed national data on fertility in Nepal are available from the 1974-5 Demographic Sample Survey (DSS); the 1976 Nepal Fertility Survey (NFS); the 1976-78 DSS; the 1981 Nepal Contraceptive Prevalence Survey (NCPS); the 1984 Nepal Fertility and Mortality Survey (NFMS); the 1986 Nepal Family and Fertility Survey (NFFS); the 1991 Nepal Fertility, Family Planning and Health Survey (NFFPHS); and the 1996 Nepal Living Standards Survey (NLSS).

Both the 1976 NFS and the 1986 NFFS collected data for households and individual respondents in order to obtain birth histories. The DSS was a longitudinal survey conducted over a period of three years (CBS 1987; Thapa 1987). Trends in age-specific fertility rate (ASFR) and total fertility rate (TFR) covering the period from 1971 to 1991 is presented in Table 3.5. The figures demonstrate that fertility in Nepal has apparently been persistently high, with a stable total fertility rate (TFR) of 6.3 children per woman until the 1981 census.

**Table 3.5: Trends in Age Specific Fertility Rates and Total Fertility Rates for Nepal from 1971 to 1991**

<i>Age Group</i>	<i>1971</i>	<i>1974/75</i>	<i>1976</i>	<i>1976</i>	<i>1977/78</i>	<i>1981</i>	<i>1986</i>	<i>1991</i>
15-19	0.074	0.116	0.141	0.145	0.130	0.066	0.094	0.095
20-24	0.267	0.270	0.305	0.290	0.294	0.230	0.326	0.286
25-29	0.310	0.297	0.284	0.295	0.294	0.266	0.289	0.272
30-34	0.261	0.260	0.252	0.269	0.252	0.245	0.215	0.212
35-39	0.261	0.169	0.170	0.169	0.180	0.206	0.174	0.151
40-44	0.196	0.089	0.095	0.075	0.072	0.142	0.087	0.077
45-49	0.043	0.050	0.034	0.023	0.024	0.099	0.021	0.028
TFR	6.3	6.3	6.4	6.3	6.2	6.3	6.0	5.6

**Source:** CBS, 1995, Table 4, Page 68

The TFR dropped to 6.0 according to the Nepal, Fertility, Family Planning and Health Survey, 1986. There was a further decline in TFR to 5.6 in the 1991 census. Drawing from various surveys, Table 3.6 shows trends in Crude Birth Rate (CBR) covering the period from 1952/54 to 1991. The CBR estimates consistently show a level of around 45 for the mid-1970s and a level of about 41 towards the end of the 1980s (CBS 1995: 70). This finding reconfirms the declining trend exhibited by the Total Fertility Rate.

**Table 3.6: Estimates of Crude Birth Rate (CBR) for Nepal, 1952/54-1991**

<i>Year</i>	<i>Source</i>	<i>CBR</i>
1952/54	United Nations	45.0
1954	Vaidyanathan and Gaige	48.7
1961	Krotki and Thakur	47.0
1971	United States Bureau of Statistics	43.4
	Gubhaju	42.4
	Central Bureau of Statistics (adjusted)	42.0
1974-75	Demographic Sample Survey (adjusted)	44.7
1976	Demographic Sample Survey (adjusted)	45.5
	Nepal Fertility Survey (adjusted)	45.5
1977-78	Demographic Sample Survey (adjusted)	42.6
1981	Central Bureau of Statistics	44.0
	Karki	44.9
	FP/MCH	42.9
1986	Demographic Sample Survey	40.7
1991	Central Bureau of Statistics	41.6

**Source:** CBS, 1995, Table 5, Page 71

Table 3.7 shows the singulate mean age at marriage (SMAM) for males and females in the censuses 1961 through 1991. The singulate mean age at marriage is the number of years lived by a cohort of persons before first marriage. Between the 1961 Census and 1991 Census, the singulate mean age at marriage has increased from 15.4 years to 18.1 years for women, a gain of 2.7 years; and from 19.5 years to 21.4 years for men, again of 1.9 years. Furthermore, the 1986 NFFS revealed that marriage is still nearly universal with over 98 percent of the women being married by age 35. According to the 1976 NFS data, 98 percent of women breast-feed their child for an average length

**Table 3.7: Singulate Mean Age at Marriage (in years) by Sex, Census Year 1961, 1971, 1981 and 1991**

<b>Sex</b>	<b>Singulate Mean Age at Marriage</b>				<b>1991-1961</b>
	<b>1961</b>	<b>1971</b>	<b>1981</b>	<b>1991</b>	<b>Difference in SMAM</b>
Males	19.5	20.8	20.7	21.4	+1.9
Females	15.4	16.8	17.2	18.1	+2.7
Male-Female Difference in SMAM	+4.1	+4.0	+3.5	+3.3	

**Source:** CBS, 1995, Table 6, Page 181

of 25 months; therefore, breastfeeding and postpartum amenorrhoea has been considered the most important proximate determinant of marital fertility in Nepal (Thapa 1987).

Mean number of children ever-born (CEB) by age at survey for currently married women between 1971 and 1991 is presented in Table 3.8. Statistics on fertility are conflicting and continuously reestimated by various sources. According to the nationwide 1991 Survey on Fertility, Family Planning and Health Survey (NFHS), there has hardly been any change in the total marital fertility rate between 1971-76 and 1991 (CBS 1995: 444). Percent of currently married women reporting knowledge and use of contraceptives in Nepal between 1976 and 1991 is presented in Table 3.9. Although awareness about family planning methods are reported to be high, their use and end effect on marital fertility seems only to be marginal (CBS 1995: 444). All the major national level surveys and censuses highlight the fact that fertility is persistently high in Nepal, a situation which has changed little since 1976. In the mid 1980s, the TFR was still about six children per woman (Shah & Cleland 1993; Thapa 1987; Tuladhar 1987). However, there seems to be a slow decline in the age-specific fertility rates and total fertility rate during the 1980s which was recorded in the 1991 National Census.

**Table 3.8: Mean Number of Children Ever-Born by Age at Survey for Currently Married Women of Nepal, 1976-1991**

<i>Age at Survey</i>	<i>1976</i>	<i>1986</i>	<i>1991</i>
15-19	0.3	0.4	0.5
20-24	1.4	1.6	1.5
25-29	2.9	2.8	2.9
30-34	4.2	3.9	4.0
35-39	5.2	4.9	5.0
40-44	5.7	5.5	5.6
45-49	6.1	5.9	6.1

**Source:** Central Bureau of Statistics, His Majesty's Government, Population Monograph of Nepal (Kathmandu: National Planning Commission Secretariat, 1987 and 1995)

**Table 3.9: Percent Currently Married Women Reporting Knowledge and Use of Contraceptives, Nepal, 1976-1991**

<i>Year</i>	<i>Know at Least One Method</i>	<i>Current Use (non-pregnant)</i>
1976	21.3	3.9
1981	51.9	7.6
1986	55.9	15.1
1991	92.7	24.1

**Source:** CBS, 1995, Table 4, Page 445

## **Conclusions**

I have outlined the role of international agencies which help to shape the delivery of health care and family planning programmes in Nepal. Both health care and family planning services in Nepal rely upon foreign assistance for financial and technical support. This is one of the primary reasons for the shifting policies in the area of health care and family planning services in Nepal. Although population control programmes have been placed on a list of high priorities since the Third National Development Plan, various National Development Plans have set too ambitious targets, and thus these targets were not achieved in the given time frame. It was also demonstrated that fertility has remained persistently high in Nepal, a situation which has changed only since 1981.

## CHAPTER 4

### REVIEW OF PRINCIPAL DEMOGRAPHIC THEORIES

This chapter outlines the concern over population growth, principal paradigms and theories on population, determinants of fertility, and a review of population studies in Nepal. In the first section, population as a global issue is the focus of discussion. The classical demographic transition theory, and other fertility transition theories that have been promoted recently will be described in the second section. The third section describes the determinants of fertility. The chapter concludes with a review of population studies in Nepal.

#### **Population as a Global Issue**

Concern about the adverse effects of population growth on human welfare was first expressed by Thomas Malthus in 1798 in his book *Population: The First Essay*. Thomas Malthus (1798: 4) concluded that:

the power of population is indefinitely greater than the power in the earth to produce subsistence for man. Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetic ratio. A slight acquaintance with numbers will show the immensity of power in comparison of the second.

Malthus predicted that increasing deprivation and starvation would result as exponentially growing populations outstripped their food supply. The critics of Malthus believed that increase in human knowledge and technological innovation would enable humankind to provide rising standards of living for growing populations. This debate continues till today. The optimists point to the fact that notable success in improving the welfare of humankind. However, the pessimists, who are also known as the neo-Malthusians, emphasise the wide-spread hunger, poverty and inequitable distribution of wealth in the Third World, and the many signs

of stress in our environment, including air, water and soil pollution, global warming, and depletion of both renewable and non-renewable resources and of the ozone layer (Bongaarts 1994). Despite sharp disagreements about future prospects, there is general agreement that demographic transition has completed in the developed nations; and a large number of nations in East Asia and Latin America have been undergoing demographic transition since the Second World War (Freedman 1995; Caldwell 1982).

The time necessary to add another billion people to the world's population has been decreasing over time. It took one century (1830-1930) to increase from one billion to two billion people; 30 years (1930-1960) to reach the third billion; 15 years (1960-1975) to attain the fourth billion; and 12 years (1975-1987) to grow from four to five billion people. Adding the sixth billion will require only ten years (United Nations Population Fund 1993). By the year 2000, United Nations demographers project, there will be 21 cities of ten million or more population, all but four in developing countries. By 2050 the world's current population of 5.6 billion will have grown to between 7.8 to 12.5 billion people. The range of variation in these UN projections is a reflection of uncertainty over the most likely pace of fertility decline.

The rate of global population increase peaked in the late 1960s at just over 2 percent per year and has since fallen to 1.6 percent. This drop has been credited largely to a fertility drop in the developing nations from an average of six children per woman to below four. However, the rates of growth throughout the developing world are still high. According to another United Nations Population Report the population "doubling time" at current growth rates is just 24 years in Africa and 35 years in Asia and Latin America, compared to 98 years in North America and 1025 in Europe. To compound the demographic problem, unprecedented numbers of women will be entering their reproductive years in the next two decades, so that if an all out effort was orchestrated and fertility reduced to the so-called "replacement level" of 2.1 children per woman by 1995, global population would still climb to about 7.7 billion in 2050, according to the same United Nations projections (United Nations 1992).

Two World Population Conferences have been held under the auspices of the United Nations and with close collaboration of the International Union of Scientific Study of Population (IUSSP) and specialised agencies. The First (1954) and Second World Population Conference (1965) took place in Rome and Belgrade, respectively. The first two meetings were technical and scientific assemblies where experts could examine population trends in different parts of the world and assess their implications. The Third World Population Conference held in 1974 in Bucharest was the first official government conference (Johnson 1994:107).

Finkle and McIntosh (1994: 6-7) note four primary factors that lead to the emergence of international concern as they related to the politics of population in the 1960s. The first factor that gave rise to a change in attitudes towards rapid population growth were associated with disappointment in the international community at the relatively slow rate of progress of development in the third world compared to optimistic expectations. The second factor helping to legitimise the notion of international population assistance was the growing knowledge of demographic trends that became available after the wave of population censuses taken in the 1960-61. The third factor fuelling international concern was the articulation within some poor countries of the belief that population growth was a major obstacle to development. And, the fourth factor that encouraged both developed and developing countries to view family planning as a feasible proposition was the appearance of a new contraceptive, the intrauterine device (IUD).

In the Third United Nations World Population Conference developing countries organised as a Group of 77 non-aligned nations argued that "development is the best contraceptive," and that rapid industrialisation would provide the solution to the population problem and further insisted that a massive redistribution of wealth from North to South must precede population stabilisation. They argued instead for a "new international economic order" to undo the inequitable distribution of resources in the world economy. They believed that this new international economic order would not only advance economic development but also slow population growth. These same

countries saw a long-term benefit in attacking the underlying barriers to economic development than in the expansion of family planning programs. Despite the controversy, delegates from 136 countries drew up the first international document on population policies and programs: the World Population Plan of Action (Johnson 1987, 1994).

The findings of the World Population Conference in Bucharest, Romania were embodied in a World Population Plan of Action adopted by consensus, and in a large number of resolutions and recommendations. This document placed main emphasis on economic and social development. The World Population Plan of Action recognised the rapid population growth but did not regard this as a cause for alarm and it was agreed that the formulation and implementation of population policies was a sovereign right of each nation. The World Population Plan of Action also established a link between population growth and socio-economic development strategies but population did not assume the priority it had anticipated. This document placed an emphasis on agriculture and rural development and the need to increase agricultural incomes of people in rural areas. Finally, this document looked at the long-term view of population problems, and envisaged the solution through the process of development and increased standard of living (Johnson 1987, 1994).

A decade later the United Nations International Conference on Population was held in Mexico City, Mexico in 1984 where more emphasis was placed on increasing access to modern family planning and contraceptive technologies. However, the conference was dominated and undermined by the Reagan Administration's advocacy of market-oriented models of development. Chief US negotiator James Buckley went on to declare that rapid population growth is a "neutral factor" in the economic health of the developing nations. The family planning goals felt another blow when the United States government announced that it would cut off funding for international groups providing abortion counselling. At the 1974 Bucharest Conference many developing countries were reluctant to concede the importance of population and family planning programs. By the time of the Mexico City Conference, many of these same nations

had reversed their previous positions and agreed that too rapid population growth could have adverse consequences and that family planning were important for both health and economic development. This conference revised and extended the World Population Plan of Action from a decade earlier. Most of the revisions and extensions were based on current research and survey data and the experiences of governments with family planning programs (Johnson 1987, 1994).

The revision and further implementation of the World Population Plan of Action contained a substantial section on the role of regional and international co-operation (Recommendations 79 to 87). Developed nations were urged to "increase their level of assistance for population activities" and it was further recommended that the "international community should play an important role; organs, organisations and bodies of the United Nations system and donor countries are urged to assist governments at their requests." The revised World Population Plan of Action further stressed the importance of non-governmental organisations and their activities. By placing such importance on the role of non-governmental organisations the co-ordinating and catalytic role of the United Nations Fund for Population Activities (UNFPA) was firmly recognised (Recommendation 83). The delegates at Bucharest a decade earlier were hesitant in recognising the place of UNFPA in the population field (Johnson 1994:176).

The International Conference on Population and Development (ICPD) was held in Cairo, Egypt in 1994 and attended by delegates from 180 countries with 1,200 Non-Governmental Organisations (NGOs) participating. The ICPD was the most comprehensive global meeting on population and development this century. Although some of the most intense discussions at the ICPD at Cairo touched on ethical and family issues that are at the heart of many religious and cultural beliefs, the Plan of Action was carefully worded to satisfy widely diverse views. Participants put aside the debate about whether economic development or family planning programs were more important for decreasing the population growth rate. There was general agreement among the participants that both were needed. Furthermore, participants

acknowledged that meeting individual and family needs was a prerequisite for achieving development goals. The Conference in Cairo provided many governments with an important occasion to reaffirm their commitment to equality for women. If and when the world's population stabilises will depend to a large extent on changes in the status of women around the world. A growing body of empirical evidence supports the view that improvement in women's status is good development policy and may be the key to lower birth rates. Participants adopted a 20-year Program of Action that supersedes the Bucharest document from two decades back and provides a broad population policy framework for the next century.

### **Demographic Transition Theories**

In this section a review of the classical demographic theory and three other sets of “post-classic” transition theories are reviewed. In the beginning of this section the classical demographic transition theory is reviewed. The classical demographic transition theory which was developed in the mid 1950s was the leading approach roughly until the mid 1970s. The Princeton based European Fertility Project invalidated the “classical” demographic theory (see below). In the remainder of this section three sets of “post-classic” transition theories which were driven by dissatisfaction with classical transition theory are reviewed in turn.

**Classical Demographic Transition Theory:** It was common knowledge by the end of the nineteenth century that fertility levels were falling in many Western countries and there was presumption that birth rates would stabilise at lower level (Caldwell 1982). The transition from high to low fertility had its beginning in France in the first half of the nineteenth century, followed by almost all European countries (with the exception of Albania), and countries of European settlement such as the United States, Canada, Australia, and New Zealand in the second half of the same century. Several theories have been formulated to explain this pattern of fertility transition, although

debate rages about the significance of contraceptive use, education, modernisation, ideology, and changes in socio-economic structure in bringing about the change.

According to Kirk (1996) the classical demographic transition theory was formulated by the Office of Population Research in Princeton, and was published in 1944 on behalf of the League of Nations. Demographer Frank Notestein is credited with giving birth to the classical demographic transition theory in a paper written in 1945, based on earlier writings in 1929 by Warren Thompson. In this paper Notestein (1945) posited the principal premise for the theory, that fertility is high in poor, transitional societies because of high mortality, lack of opportunities for individual advancement, and the economic value of the children. He argued that fertility in premodern societies is kept high through the maintenance of a series of socio-cultural determinants, such as religious doctrines, moral codes, laws, education, community customs, marriage habits and family organisations (Notestein 1945: 39). Demographic transition theory postulates that with industrialisation and modernisation health conditions improve, which in turn lead to sharp declines in mortality rates. This is followed by a period of rapid population growth because high fertility is maintained by social institutions. Eventually, fertility also declines with the realisation that child survival rates are much greater and as social institutions adjust to the viability of lower fertility. Thus, society goes from low population growth arising from high mortality and high fertility, through a short period of population growth where mortality has declined but fertility remains high, returning again to low population growth as a result of low mortality and low fertility (McDonald 1993: 4).

This "classical" theory as stated by Notestein (1945) has not stood up well to empirical scrutiny. Anseley Coale conducted the extensive European Fertility Survey, which tested demographic transition theory against regional and national statistics of European countries of the nineteenth century and early twentieth century. The European Fertility Survey invalidated the "classical" theory of demographic transition, and instead the produced one significant lead: fertility was significantly related to

“culture” defined operationally as language, ethnicity, or geographical region (Greenhalgh 1995; Knodel and van de Walle 1979; Watkins 1986).

Summarising the most important findings of the European Fertility Survey Kirk (1996) noted:

the transition has occurred under strikingly diverse socio-economic conditions. Whilst a high level of socio-economic development was often accompanied by fertility transition, transition is not a pre-condition for development. As has been demonstrated in less developed countries, the introduction of an effective family planning programme may contribute to fertility decline even at very low levels of modernisation. There is an important dimension of innovation/diffusion in the transition that swept over Europe within a relatively short time. There has been a widely accepted modification of transition theory..... It has been shown that fertility decline in tropical Latin America, once started, quickly spread to other countries independently of their level of socio-economic development. This has also been noted in countries of Chinese culture, in China itself, and in the ‘little dragons’ of Hong Kong, South Korea, Singapore, and Taiwan.

**Inter-Generational Wealth Flow Theory:** A sharply divergent explanation of persistent high fertility is John Caldwell's (1982) theory of inter-generational wealth flow, which is one of the most important innovations in demographic transition theory. Kirk (1996: 371) summarises Caldwell's inter-generational wealth flow theory, concluding: “His observations are greatly enriched by examples from his own extensive anthropological field research.” Caldwell conducted his research among the Yoruba society in the West African nation of Nigeria. Caldwell (1982: 157) summarises the theory as follows:

Fertility behaviour in both pretransitional and post-transitional societies is economically rational within the context of socially determined goals and within bounds largely set by biological and psychological factors. Two types of society can be distinguished: one of stable high fertility, where there would be no net economic gain accruing to the family (or those dominant within it) from lower fertility levels, and the other in which economic rationality alone would dictate zero reproduction. The former is characterised "net wealth flows" from the younger to older generations, and the latter by flows in the

opposite direction. These flows are defined to embrace all economic benefits both present and anticipated over a lifetime.

According to Caldwell's arguments on fertility transition in contemporary developing societies, a consistently important theme is that social transformation of the family is a pre-condition for fertility decline. The cause of this transformation is found in the re-orientation of the family from an extended to a nuclear family where decision-making shifts from elderly males to the young, both male and female. In essence, the process of transformation is expedited through modern formal schooling and various other agents of "Westernisation." Caldwell's theory places the primary emphasis on social transformation of the family and the acquisition of new values as determinants of fertility. This theory is based on the significance of sex stratification and extended family ties. The premise that natural fertility levels are economically rational for families in the vast majority of the high fertility societies extending from Morocco to Bangladesh (Caldwell 1982).

In a review of Caldwell's wealth flow theory of fertility decline (Kirk, 1996: 371-72) notes:

Caldwell, unlike earlier transition theorists, makes an important distinction between 'modernisation' and 'Westernisation.' The first is structural as in economic organisation; the second a copying- two very different processes. As he correctly points out there does not appear to be a close relationship between economic modernisation and the beginning of fertility decline in the modern world.... The primary force of change appears to be Westernisation, which includes ideas of progress, secularisation, mass education, and mastery over the environment. This process can precede economic development, as it has increasingly done in less developed areas. Caldwell's argument is supported by the fertility declines which have occurred at very low levels of modernisation, as in Bangladesh and- more recently- in southern Africa. In his view an important export of Westernisation is the predominance of the nuclear family with its concentration on expenditure for one's children, e.g. on education. This view has been challenged by Cain, who asserts that the nuclear family is no more prone to declining fertility than the extended family, since the latter provides an alternative to children as insurance for security in old age.

Caldwell's theory has forced family, cultural, and social organisational issues to the centre of studies of demographic transition. The research implications of the intergenerational wealth-flow demographic transition theory are immense. It has legitimised small-scale, in-depth study that social scientists have traditionally carried out. Demographers and social scientists have initiated investigations into new set of questions including inter-generational relations, differential power and resource control within family and households, and the social, cultural and economic contexts within which processes of transformation take place. Caldwell's theory has moreover provided the basis for social scientists to carry out empirical research applying new methodologies at the micro-level incorporating the developmental histories of individuals and families in the course of their life and social transformation. These new research methodologies, including the micro-demographic research method, allow social scientists and demographers to investigate in more detail the mechanics of demographic transition and motives of individuals at particular moment in their own life-cycle.

In her criticism of Caldwell's inter-generational wealth flow theory, Greenhalgh (1995: 7) points out:

For a number of reasons, however, including difficulties in operationalising the theory, remarkably little research has been done to test Caldwell's ideas. Caldwell himself is no longer actively pursuing the wealth-flow research program.

Although Caldwell's theory is very appealing it is, as he himself admits, not readily testable. The serious attempt made by Dow et al. (1994) to test the wealth flow theory in a rural setting in Kenya did not result in confirmation of the theory.

**High Fertility as "Risk-Insurance:"** Recently, at least as an outgrowth of his own research in Bangladesh, and more recently, South India, Mead Cain (1981, 1982, 1983) has suggested an interesting new paradigm regarding the cause of persistent high fertility in poor areas of South Asia. Cain has termed this hypothesis as "risk-insurance." In short, the proposition is that under conditions of harsh poverty children

function as a generalised insurance against an uncertain future, and that this constitutes one of the main explanations of high fertility. Cain argues that the absence of other forms of insurance for poor people in rural areas and makes having children the only way to mitigate risks and uncertainties. "Climate of risk" varies, and this explains the variations in fertility mainly within high populations of fertility. Women are particularly vulnerable and face high risks in such areas. In comparison to their husbands, they are more motivated to produce many children. Cain (1981: 435) writes:

The notion that reproductive behaviour may be responsive to risk is not unfamiliar. Much has been written on the possible relationship between fertility and the risk and the incidence of infant death. And there are many passing references on the literature on demographic transition to the utility of children in traditional societies as sources of security-in old age and in a variety of other contexts. But relative to other points of emphasis- the value of children's labour in traditional settings, for example- the potential importance of environmentally and socially determined risk as a source of derived demand for children has as yet been largely overlooked.

Cain (1984: 3) argues in rural South Asia and other parts of the developing world, where financial and insurance markets are poorly developed and there is no tradition of extra-familial welfare institutions, children have a number of desirable properties as security assets. The most important task is with respect to security for elderly parents, in which they fulfil the need for annuity. Cain concedes that children are neither without cost nor-risk-free. Death of children and refusal to honour their obligations to parents are risks undertaken by the parents. Despite the risks entailed in investing in children as security assets, Cain (1984) notes, they embody three qualities that set them apart.

The first is that the quality of support children provide to parents is a way of acknowledging the central position of the family in developing societies. In developing societies, "life without family is barely worth living. Secondly, ageing is only one of the process in which the versatility of children as security assets in

settings where insecurity is ubiquitous, and derived from many different sources. The third quality reflects that in many settings the security that land provides is a potential alternative to children as a "second best" annuity. Often the income derived from the land is in doubt. In such circumstances, children serve as an important means of insuring against property loss.

Using the "high-risk" hypothesis, Cain (1981, 1982, 1983, 1984) has posited several policy implications which are of great interest to both academics and policy planners; including population control and family planning programmes are unlikely to make significant impact until after the "climate of risk" has been improved for couples. Also, an increase in women's education and employment, which go on to increase the opportunity costs of children, will have little effect on fertility unless these were to provide a guarantee of future security similar to that provided by many children. In short, Cain's theory suggests that in poor rural settings with high fertility, public programmes should concentrate on providing greater security in the present and in the future for families, and less on population and family planning programmes.

Cain's proposition is appealing to those who advocate a more equal distribution of economic and social benefits being conducive to fertility reduction, and supports the argument for a "new international economic order" to stimulate development. This proposition also supports broad-based public policies to improve the standard of living and general conditions of people, improved living standards which are advocated as the best "contraceptive," and support socio-economic development as preferable to a narrow focus on fertility control through contraception. Implicitly, Cain's proposition supports the "development is the best contraceptive" position advocated by the Indian delegation in the 1974 World Population Conference in Bucharest (explained above), which may explain the popularity of the "risk-insurance" hypothesis.

Caldwell's proposition of an alternative theory to the classical transition theory was followed by yet another transition theory that of Cain, a high level of academic

discussions accompanied after the publications of these two theories. Some of the difference can be accounted for by the different societies in which the researchers worked: Caldwell worked mainly in tribal West Africa, whereas Cain worked mainly among the stratified societies of India and Bangladesh.

**Economic Theories of Fertility:** Leibenstein (1972: 458) notes that both sociologists and demographers lack theories for the study of population and further argues that the reasons for the fall of fertility listed by demographers were very partial and a plausible argument could be developed about how these elements contributed towards reducing desired or actual fertility. In the same article, Leibenstein (1972) accepts the fact that a narrowly constructed, strictly economic approach is unlikely to be successful. Leibenstein (1972) further argues that part of the change in fertility is accounted for by the direct choices of the population in the process of determining the number of children they desire. The number of children the couple desire depend on an assessment of the benefits, in terms of utility and satisfaction and costs, that are attributed to children during significant marginal controllable situations.

Leibenstein (1975) has posited a new explanation of the decline in fertility accompanied by economic development. In order to expand his recent theory, Leibenstein (1975) suggested that direct and indirect costs of children were not sufficient to explain the entire decision processes which determine the observed inverse relation between family size and income level.

Becker (1960 and 1965) propounded the 'new household economics' or 'demand theory' and this has been elaborated by many more economists. The 'demand theory' treats the desire for children as equivalent to the demand for consumer goods such as an automobile. Becker argues that children like other consumer goods provide utility to consumers. Becker assumes that the utility of children is not constant, but depends upon their quality, and high quality children have high utility and they also cost more. Becker's 'demand theory' has been criticised by economist as well as sociologists

and demographers (Blake, 1968; Easterlin, 1969 and 1975; Namboodiri, 1972; Jones, 1977).

By incorporating the concepts used by non-economists Easterlin (1975) developed another economic theory. Easterlin's economic theory of fertility deviates from other economic theories such as the 'demand theory' primarily because it includes the concept of production of children that recognises the concept of natural fertility. Easterlin (1975: 55) sees the determinants of fertility working through one or more of the following:

- The demand for children,  $C_d$ , the number of surviving children parents would want if fertility regulation were costless;
- The potential output of children,  $C_n$ , the number of surviving children parents would have if they did not deliberately limit fertility; and
- The costs of fertility regulation, including both subjective (psychic) costs and objective costs, the time and money required to learn about use of specific techniques.

**Institutional Determinants of Fertility Change:** Under the term "Institutional determinant of fertility change," Geoffrey McNicoll has advanced a very different theory on fertility decline (McNicoll, 1975, 1980, 1984, 1994). As an implicit criticism of the above mentioned theories of fertility decline McNicoll (1980: 441) writes:

It is widely agreed that we do not have an adequate theory of fertility, if by theory we mean a coherent body of analysis linking a characterisation of society and economy, aggregate or local, to individual fertility decisions and outcomes, able to withstand scrutiny against the empirical record.....

According to McNicoll institutional determinants of fertility are likely to be multi faceted in that they will form an integral part of the ideational system, political system and structure and economic organisation. Therefore, McNicoll seeks to explain fertility decision-making variables as they exist in each setting (1980: 442-443).

McNicoll (1994) draws on institutional theory in economics and other fields and argues that the pattern of reproductive change is shaped by the combination of

institutional endowments each society has inherited from the past. These institutional endowments include family systems, sex roles, community structures, etc. In the same article, McNicoll (1994) reviews five broad patterns of demographic transition that have occurred in different regions of the world. McNicoll (1994) argues that while some combination of institutional endowments may be conducive to an early demographic transition in some societies, while some other combinations of institutional endowments impede and delay that process in other societies.

**Davis's Theory of Multiphasic Response:** In the theory of multiphasic response, Davis (1963: 345-366) maintains that delayed marriage of females and subsequent delays in marital fertility are reactions to a persistent rate of population growth resulting in part from success in controlling mortality. Coale (1973) described the delay in the age at marriage of females and the subsequent declines in marital fertility as Europe's first and second demographic transitions. Friedlander (1983) found support for Davis's proposition, which he claimed explained the differentials in demographic behaviour between local areas in England and Wales in the nineteenth century. By analysing data from South India (Caldwell, Reddy, and Caldwell 1982, 1983, 1988) and Sri Lanka (Caldwell, Gajanayke, Caldwell, and Caldwell 1989), the authors also found support for the multiphasic response theory. The authors noted some differences in the marriage patterns between South India and Sri Lanka, and they argued that marriage change was most closely related to the following: the change from subsistence agriculture to a non-agricultural economy; employment provided by the non-agricultural economy; and social and educational change.

### **Determinants of Fertility**

While the dynamics of fertility transition and the persistence of high fertility as risk-insurance can be debated, there is much less debate about how the transition should be measured and defined. In this section, we will review the determinants of fertility.

Kinseley Davis argued in 1955 and again, with Judith Blake in 1956, that the "props" mentioned by Notestein (1945) were unnecessary. Davis and Blake (1956) developed an "Analytical Framework" which was divided into three parts: factors affecting exposure to intercourse (Intercourse Variables); those affecting exposure to contraception (Contraception Variables); and those affecting gestation and successful parturition (Gestation Variables) (see below). In this model, Davis and Blake (1956) proposed eleven intermediate fertility variables, i.e. the behavioural and biological variables which have a direct effect on it. However, these eleven intermediate fertility variables have not been widely utilised in fertility and demographic transition studies, partly because they do not lend themselves to quantification. The eleven intermediate fertility variables are outlined below.

#### Factors Affecting Exposure to Intercourse (Intercourse Variables):

- A. Those governing the formation and dissolution of unions in the reproductive period.
  - 1. Age of entry into sexual unions.
  - 2. Permanent celibacy: proportion of women never entering sexual unions.
  - 3. Amount of reproductive period spent after or between unions.
    - I. When unions are broken by divorce, separation, or desertion.
    - II. When unions are broken by death of husband.
- B. Those governing the exposure to intercourse within unions.
  - 4. Voluntary abstinence.
  - 5. Involuntary abstinence (from impotence, illness, unavoidable but temporary separations).
  - 6. Coital frequency (excluding frequency (excluding periods of abstinence)).

#### Factors Affecting Exposure to Conception (Conception Variables):

- 7. Fecundity or infecundity, as affected by in-voluntary causes.
- 8. Use of non-use of contraception:

- I. By mechanical and chemical means.
  - II. By other means.
9. Fecundity or infecundity, as affected by voluntary causes (sterilisation, subincision, medical treatment, etc.).

#### Factors Affecting Gestation and Successful Parturition (Gestation Variables):

10. Foetal mortality from involuntary causes.
11. Foetal mortality from voluntary causes.

Bongaarts (1978) and Bongaarts and Potter (1983) narrowed the original list of eleven intermediate fertility variables (suggested by Davis and Blake, 1956) to seven proximate determinants through which socio-economic and environmental factors may affect fertility. These seven proximate determinants are: marriage patterns; use and effectiveness of contraception; prevalence of induced abortion; post-partum infecundability; spontaneous intrauterine mortality; waiting time to conception and onset of permanent sterility. These variables can be further divided into primary and secondary determinants. Those identified as primary determinants; i.e. marriage, contraception, abortion and post-partum infecundability, are according to Bongaarts and Potter (1983) the principal determinants of fertility. Using data on 41 historical, developed and developing populations, Bongaarts and Potter (1983: 87) have shown that these determinants of fertility explain about 96 percent of the observed fertility differences between societies. The secondary determinants, i.e. spontaneous intrauterine mortality, waiting time to conception and natural sterility, are relatively constant across populations. These proximate determinants, both primary and secondary, are further influenced in turn by various economic, social, cultural, and environmental factors that make up the indirect or background determinants of fertility.

## **A Review of Population Studies in Nepal**

There was a paucity of information and data on fertility and mortality until the mid 1970s in Nepal. The overall changes in Nepal's population from 1911 to 1991, as indicated in the nine censuses that have been conducted have been illustrated in Chapter 3. The censuses in Nepal are characterised by substantial under-enumeration (Tuladhar 1989). The vital registration system was introduced in April, 1978 and expanded in 21 of Nepal's 75 districts by January, 1980 (Kanter 1980). The three long longitudinal Demographic Sample Survey (1974-76) was undertaken to estimate the population growth rate of Nepal. The Demographic Sample Survey (1974-76) analysed data to estimate the fertility and mortality levels in Nepal by the Central Bureau of Statistics with the help of the United Nations Population Fund (UNFPA). In 1976, the Nepal Fertility Survey was carried out in co-operation with the World Fertility Survey (Ministry of Health 1977).

The Fertility and Family Planning Sample Survey was carried out in four districts in 1975 to collect baseline data on fertility and standard KAP (Knowledge, Attitudes and Practice) information (Tuladhar 1989). This survey was continued on a longitudinal basis in 1976 and 1978. The Nepal Contraceptive Prevalence Survey was conducted with the assistance of Westinghouse Health Systems in 1981 to collect national level data on family planning knowledge, use and availability (Ministry of Health 1983). The 1981 NCPS information was more limited and of a poorer quality (Shah and Cleland 1993). Detailed national data on fertility is also available from the 1984 Nepal Fertility and Mortality Survey (NFMS). Like the 1976 NFS, the 1986 Nepal Family and Fertility Survey (NFFS) collected data for households and individual respondents and obtained birth histories (Shah and Cleland 1993).

More recently, fertility trends have been estimated from two national surveys, the 1991 Nepal Fertility, Family Planning and Health Survey (NFFPHS), which was conducted as part of the world-wide Demographic and Health Survey (DHS) programme, and the 1996 Nepal Living Standards Survey (NLSS) (Dangol,

Retherford, and Thapa 1997). According to the Ministry of Health (1993) the NFFPHS was a national survey based on representative sample of households throughout the country. The NLSS was also a national survey based on a representative sample of households throughout the country (Central Bureau of Statistics 1996).

### **Micro-demographic Studies in Nepal**

More recent demographic transition theories are reflected in the micro-demographic studies which describe and explain the contexts within which fertility change takes place in rural Nepal. The four major micro-demographic studies of this genre are: Niraula (1991) worked in a multi-caste and tribe setting in the Central Hills; Axinn (1990) studied a Tamang community in the outskirts of the Kathmandu Valley; Fricke (1993) worked among another Tamang community north of the Kathmandu Valley; and Macfarlane (1976) studied the Gurungs north of Pokhara. All four of these studies were conducted in the Hill and Mountain regions in the central part of Nepal. The present study is the first to research fertility change in village society in the Terai.

Niraula (1991) studied a cluster of villages with mixed castes and tribes at Benighat in rural Dhading district west of the Nepali capital, Kathmandu. Benighat is situated on the primary road link between Kathmandu Valley and the Indian Border. In his micro-demographic study, Niraula (1991) notes that the introduction of family planning technology combined with major socio-economic changes in the study villages are the primary contributors to declining fertility. Both Axinn (1990) and Fricke (1993) studied separate Tamang communities in the areas north of the Nepali capital, Kathmandu. Although both Axinn (1990) and Fricke's (1993) studies provide very valuable information on fertility transition among the Tamangs, both these studies do not take into consideration of the fact that the Nepali society consists of various castes, tribes and ethnic groups.

Macfarlane (1976) worked among the Gurungs north of Pokhara and has provided detailed information on the household resources and demographic situation of the Gurungs. Macfarlane's (1976) study was also ahead of its time by using anthropological research methods in the study of resource and demography of one distinct ethnic group in Western Nepal.

## **Conclusions**

The discussion in this chapter has concentrated on the theories on demographic transition and determinants of fertility. The final section reviewed population studies in Nepal.

It is also evident from literature that fertility decline occurs under various socio-cultural, economic and institutional contexts, all of which work within the framework of the proximate determinants theory of fertility.

The present study, employing a micro-demographic research approach, is an attempt to explore the socio-cultural, economic and institutional contexts within which fertility occurs in rural Nepal. The following chapter introduces the micro-demographic research method used in the present study and discusses associated ethical issues in field research. Also, data collection methods and field-work experience are discussed.

## CHAPTER 5

### DATA AND METHODS

A study of socio-cultural and economic contexts within which fertility occurs and fertility trends at the village level requires both qualitative and quantitative data. Thus, the micro-demographic research method, which comprises a combination of survey methods and unstructured in-depth interviews, complemented by participant observation, was selected as the most appropriate means to explore the subject area and to achieve the research goals.

When I set out to conduct this study in July, 1995 it became clear that only in the past two years had health care and family planning services been introduced in the study area. Prior to that any person from the study village seeking health care or family planning services had to travel at least two hours to the nearest facility. With this knowledge I set out to study fertility trends in Chisang prior to and after the introduction family planning services. I also completed gathering data on fertility trends, with information on socio-cultural and economic contexts within which fertility decisions are made in the study village.

In this chapter I describe the research method, data collection methods and field work. This chapter is divided into four sections. First, the research objectives and rationale, location and duration of the study will be described. Second, the micro-demographic research method and the reasons for selecting this method will be described. Third, the process of field work will be overviewed. In the final section, I describe the ethical issues that were taken into consideration before coming to the field, during the course of field work, and upon completion of field work.

## **Research Objectives and Rational**

I set out in this study to explain fertility of rural Nepali people in the contexts in which it occurs. A rural village comprising mixed castes and tribes is the location of the study, and its cultural, social, and demographic contexts are typical of those of rural Terai villages. It has already been stated above that the economic and developmental contexts of the study village differs from similar villages in the eastern Terai. Information was gathered on the following interrelated questions.

- What are the fertility behaviours of these people, and how do they define them?
- To what extent do traditional beliefs and practices related to fertility persist among the various ethnic groups who reside in this village? How were these beliefs and practices being accommodated and modified in response to official measures to reduce fertility?
- What effect do contemporary social phenomena, such as labour migration, mass-education, urbanisation, and changing roles of men and women in the village society have on fertility?
- What is the role of social, cultural, economic and political institutions on fertility in a rural village with mixed castes and tribes?
- What fertility control strategies, methods and technology do the people in the study village employ, including traditional methods and introduced Western methods?
- What are the relationships between fertility and such issues as maternal and child health, HIV/AIDS and other sexually transmitted diseases?

## **Location and Duration of Research**

The location of this study was a rural village with mixed castes and tribes which lies in Morang District in the eastern Terai region of Nepal. I will refer to the study village as Chisang (to be described in detail in chapter 6) throughout this study. Chisang was established only within the past 30 years through migration and lies less than five kilometres north east of the village where I was born and raised. Chisang is located about 45 kilometres north-east of Biratnagar, the second largest city in Nepal, a little over an hour bus ride from Biratnagar. This study was carried out during a period spanning roughly six months, from mid-July, 1995 until mid-January, 1996.

The intention to spend a longer period collecting data was not possible for administrative reasons. By enlisting the help of local research assistants, it proved possible to collect data fully as intended.

### **Micro-Demographic Research Method**

The research design employed a combination of survey approaches and unstructured interviews, complemented by participant observation. The methodology employed and the nature of research involved is what Caldwell and his colleagues have called micro-demography (Caldwell and Hill 1988; Caldwell, Reddy, and Caldwell 1988). Micro-demographic research combines components of survey research with anthropological methods (Caldwell and Hill 1988; Axinn 1993; Niraula 1991). According to Chen (1988: 263), micro-demography

implies the use of in-depth observation or detailed measurements in field research that typically involve (very) small sample populations often clustered in contiguous geographic areas. The disciplinary tools associated with micro-demographic studies therefore usually involve anthropological methods as well as other research tools that are suited to study small populations.

The nature of data collection for this study can be grouped into two components. The first component consisted of a combination of a formal village census, structured marriage and fertility survey, and household formation survey. The second component included unstructured in-depth interviews with primary informants, complemented with participant observation (to be described below). The value of the micro-demographic approach to studying fertility and mortality trends in South Asia has been well demonstrated (Caldwell, Reddy, and Caldwell 1981, 1982, 1983). Caldwell, Reddy, and Caldwell (1984: 2) state:

The contemporary study of population is producing a great mass of patterns, some approximating reality and others the products of deficient methodologies. The challenge lies in how to jump even from the more reliable material to an understanding of cause and sequence.

From the outset it was assumed that the micro-demographic research approach required considerably more commitment in terms of time and intensity of observation.

Methods such as large surveys have the disadvantage of suffering from the basic problem of “distancing (the researcher) from the phenomena they are investigating,” and other such weaknesses well documented by Caldwell, Reddy, and Caldwell (1982).

Micro-demography research methodology was selected for this study for several reasons in addition to what has been discussed above. These included the sensitivity of many of the questions in this study, especially questions administered by a male researcher to females; trust and acceptance of the researcher and his local assistants by the villagers to enhance the quality of data; and the desire to understand the complex phenomenon of fertility within the local socio-cultural and economic contexts. While it was anticipated that fertility differentials would be encountered due to socio-cultural and economic factors, accurate identification and measurement of socio-cultural and economic factors in the village context and the factors responsible for change were themselves questions to be answered. Therefore, it was felt that in-depth acquaintance with the villagers to determine the socio-cultural and economic factors affecting fertility would not only clarify the meaning of this concept but would also greatly enhance the analysis and interpretation of the survey’s findings.

### **Structured Surveys and Procedures**

Data was collected using two structured surveys. The first of these was a village census questionnaire (see Appendix I) administered to every household, which will be referred to as the Chisang Census. Secondly, a marriage and fertility history questionnaire (see Appendix II and Appendix III) which will be referred to as Marriage and Fertility Survey, was administered to all ever-married women in the village between the age of 15 and 49 at the time of the study.

I collected all the information for the village census with the assistance of a local student whom I refer to as Deepak. Deepak was about to complete his undergraduate studies (BA) at a local college half an hour’s bus ride from Chisang. Information on

marriage and fertility histories was collected with the assistance of a married Dhimal woman whom I call Guju. Dhimals are one of the indigenous tribes who reside in this part of the country. Guju was also a full time motivator for the non-governmental organisation (NGO) that provided family planning services in this general area. I have honoured the requests of Guju and other staff members of this non-governmental organisation to withhold the name of this organisation as well as those of its staff members. I met with Guju at least once a week to review each and every completed survey form.

In spite of the frustration involved in locating members of households who were often away in the fields during most of the daylight hours, and the local people's utter lack of respect for the privacy of the interviewers and respondents, survey research is possible in settings such as Chisang where the development process has made very little inroads. The gathering of friends, relatives and persons passing by in the middle of an interview in fact can be of great advantage in providing fodder to the conversations and correcting omissions. After the Chisang Census had been completed, I was able to verify event timing by comparing marriage and birth histories for family members. For example, I was able to check the validity of age of children of the caste Hindus and tribal people who had migrated from the Hill region by asking the parents when they migrated from the Hill region to the Terai. Everyone knew how long ago they had migrated to the Terai. Discrepancies were noticed often, necessitating that I return to the individuals and asked the questions again in the context of information provided by others in the village. Most of the discrepancies were as a result of the villagers forgetting the details. Deliberate misinformation was provided by only a handful of people.

**Chisang Census:** The Chisang Census was administered to all 111 households in the village, and was designed to achieve several objectives. The Chisang Census assisted me to obtain the following information: basic demographic information on age and sex structure of the village; identification of the place of birth of all inhabitants of the village; and identification of individuals for the administration of other survey instruments. Identification of place of birth of all inhabitants of the village provided me with the opportunity to explore the topic of migration as a household formation

strategy. The Chisang Census also provided me with an avenue to meet as many people as possible in the village. Accompanied by my assistant, Deepak, I introduced myself to an adult member of the household and asked them to participate in recording the census information in the Nepali language. With the exception of the six Hindi speaking Indian migrants who had arrived recently, everybody in Chisang spoke some Nepali (see Chapter 6). These six Hindi speaking Indian migrants were excluded from the survey because they had arrived only three weeks prior to the survey and stated that they would move on to other villages in search of employment. Responses on the village census were almost always from the head of household, his wife, or their adult, married son. In the event of no adults being at home at the initial visit, I returned to the house with my assistant Deepak in a few days' time. I was able to obtain information on household members living in Chisang, those away for extended periods, and those very unlikely to return to Chisang.

**Marriage and Fertility Survey:** The Marriage and Fertility Survey was designed to gather information on marriage patterns, village fertility, and women's demand for unborn babies. From the census I was able to determine those ever-married Chisang women between 15 and 49 years exposed to the risk of pregnancy. Only in one rare case, had a woman had a child and remained unmarried, who was excluded from the survey in order to protect her from having to answer sensitive and personal questions. There were a total of 102 ever-married women in Chisang when the village census was administered. We were unable to interview two women who had gone to live in their *maita* (Nepali: natal home) for an extended period of time. Another high caste married woman with two children eloped with a middle caste man from a neighbouring village during the course of the fieldwork. The information provided by this high caste woman was not used for this study. The accuracy of the information this high caste woman provided to me was doubtful. Thus, a total of 99 ever-married women between the age of 15 and 49 were included in the Marriage and Fertility Survey. Those married women 50 years and above were not interviewed because biologically they were unlikely to be fertile and thus were unable to answer if and when they would want another child. In addition, there were very few married women 50 years and above in the village.

The data on fertility and marriage histories represents retrospective fertility and marriage histories and prospective fertility intentions of all ever-married women between the age of 15 and 49 living in the village. Each woman was first asked her age at marriage, then her age at consummation of the marriage. She was then asked the details of each birth, in order, including the date of birth, approximate interval till next child, fate (deceased or still surviving) of the child, its current age, name and education if alive and its age at death, date and cause of death. In order to maintain the quality of data, women were repeatedly asked if that was all their births or if they had others. With the exception of one woman, all women were remarkably forthcoming about the details of the births and deaths of their children. Abortions, stillbirths and miscarriages were sensitive topics and the women were not directly questioned and data is basically lacking on those events. However, in general conversation, almost all women were quite interested in discussing the issue and providing information indirectly. I witnessed no intentional omission of births and deaths of either male or female children as has been reported in North Indian studies (for example, Wadley 1993).

Unlike previous claims on the taboo nature of the topic of sexuality (Acharya and Bennett 1981; Bennett 1983), sexuality was a topic of easy conversation in Chisang and only two higher caste women found it embarrassing to discuss this topic with a male researcher and his female assistant. The presence of the mother-in-law in the house may have deterred these two women from discussing this topic with Guju and me.

### **Unstructured Interviews, Participant Observation and Primary Informants**

The Chisang Census and Marriage and Fertility Survey were developed before arriving in the field. These two surveys alone proved to be insufficient as a crucial area of information was not captured. Therefore a Household Formation Timing Survey (see appendix IV) was developed and administered to all ever-married couples and a few unmarried couples living in consensual agreement almost two thirds of the way into the field work. The Household Formation Timing Survey provides a very

convenient way of collecting information on event timing for individuals, families and entire households. This method can be put to use in survey environments such as that of Chisang. The information gathered in the Chisang Census and Marriage and Fertility Survey proved unable to provide sufficient information on households that have come into existence and retrospective information on household situation for the past 30 years. Therefore, the Household Formation Timing Survey was added to expand the original approach. Information on the Household Formation Timing Survey was collected with the assistance of Deepak and Guju who have been introduced above.

In this study my central concern was with the socio-cultural and economic contexts within which fertility decisions are made in a rural village. In order to document the socio-cultural, developmental and economic contexts within which fertility decisions are made in a rural village in Nepal, much data was collected through unstructured interviews of primary informants. These unstructured interviews with primary informants (described below) were complemented by participant observation, methods which are enshrined in anthropological methodology. Using these traditional anthropological methods, I gathered other categories of information (to be described below) outside of the survey format. The justification of a combination of structured surveys and traditional anthropological methods can be summarised in the words of Pelto (1970: 145) who claims that it “greatly enhances the credibility of research results.” I relied on people with whom I developed a special relationship for most of these interviews. According to Caldwell (1988: 462):

..... micro-approach researchers pursue a specific topic by long, probing interviews. In contrast to traditional survey interviews, these are wide ranging and of lengthy and uncertain duration. One of their characteristics is that they seize on new pieces of information and dart off in previously unexpected directions. These new investigations may add a permanent item to the probing lists. The probing lists are little more than aide-memoirs. They underlie a conversation and are never put forward as a battery of questions. They may be asked in any order and supplemented where necessary. They need not be asked at the same time but are a guide to the information which should be built up on a family or household over time.

I was able to document many socio-cultural and economic changes that have taken place in the past 30 years and its impact on various groups of people in Chisang (see

Chapter 10). What became apparent after a few months of field work was the fact that fertility decline in Chisang had started at least five years before the introduction and acceptance of modern contraceptives, and at a very low level of socio-economic development (see Chapter 7). In Chapter 10 I will describe the changes in the social, cultural and economic institutions and how these institutional changes have led to fertility decline among various groups of people. These findings were possible due to the information gathered through unstructured interviews with the informants in their natural settings.

**Unstructured interviews:** Anthropological methods focus on documenting and interpreting what is said, heard, seen and observed from people living in their natural setting. The major mode of data collection is interviewing, often combined with participant observation (Bernard 1988; Burgess 1984; Fetterman 1989). Unstructured primary informant interviewing is used to best advantage when it is closely integrated with participant observation (Pelto 1970). In Burgess's (1984: 102) words, interviews have been perceived as "conversations with a purpose."

This study employed unstructured interviews as they provide rich detailed data that can be used alongside other data collected applying other research methods. Unstructured interviews reveal an informant's thoughts, ideas, and information rather than those of the researcher. Guided interviews were conducted to verify some detailed additional information on marriage and fertility history and the family formation process (see Appendix V). According to Burgess (1984: 106) "unstructured interviews are rarely conducted in isolation; it is often part of a broader programme of research and draws on the knowledge that the researcher has of a social situation."

In order to facilitate an environment as natural as possible for data collection for this study I did not take any notes in the process of collecting data in these unstructured interviews. Instead I relied on my memory and jotted down the primary points that came out of these unstructured interviews in my notebook. On most occasions I jotted down these primary points in the evening of the day these unstructured interviews were collected. Sometime I would be invited to a neighbour's house in the

evenings or would schedule an unstructured interview in the evenings, thus, I was forced to jot down the primary points that came out of these unstructured interviews the following day. When I returned to my parents home in Biratnagar, I would type these notes directly into the Lap Top Computer that the not-for-profit organisation that I managed had lent me for this study. I also kept a personal diary throughout the study and jotted down notes and the list, times and dates of the unstructured interviews. This enabled me to recheck and verify a lot of the information I collected from these unstructured interviews by comparing the notes that I had typed into my Lap Top computer and the personal notes that I had jotted down in my personal diary.

**Participant observation:** Participant observation characterises most ethnographic research and is crucial to effective fieldwork (Fetterman 1989), combining participation in the lives of the people under study with the maintenance of a professional distance that allows adequate observation and recording of data. It is the researcher who is the main instrument of social investigation in research involving the use of participant observation (Burgess 1984). This technique requires the researcher to take the role of other people, to look at life through their eyes, to share their experiences (Spradley and McCurdy 1989).

Participant observation involves immersion in the culture (Fetterman 1989). Participant refers to the process in which the field researcher attempts to attain some kind of membership or close attachment to what he or she wishes to study (Nachimas 1987; Wax 1968), share the world-view and adopt the perspective of the people in the situation being observed. It requires close, long-term contact with the people under study to learn the language and to see the behaviour patterns (Fetterman 1989). Long term residence helps the researcher to fully recognise the social, cultural and economic contexts of fertility, family formation and change the people of the study are undergoing.

In November, 1995 I was invited to participate in the two day long wedding ceremony of the son of a higher caste Brahmin who was respected in the study area. I was able to collect a lot of information on the changes in marriage patterns for the higher castes after they migrated from the Mountain and Hill regions to the Terai. I was also able

to talk to people from other parts of the Terai and Hill regions who had come to attend the wedding ceremony. Later that month I was invited to the wedding ceremony of a 18 year old Dhimal (*adhivasi*) girl. Unlike the higher castes, the middle caste *adhvasis* practice bride-price payments. This was another setting which provided me with the opportunity to participate and collect information on the changing marriage patterns of the middle caste *adhivasi* (to be described in Chapter 9). I was also able to take an inventory of the gifts sent to the bride's parents by the groom's family in the form of bride-price payment.

**Primary informants:** The primary informant plays a pivotal role, linking the researcher with the community, and can provide detailed historical data, knowledge about contemporary interpersonal relationships (including conflicts), and a wealth of information about the nuances of everyday life (Fetterman 1989). Just a few primary informants are more reliable than a representative sample (Bernard 1988), they must be selected for their competence (rather than just for their representativeness) and they must not be relied on for certain kinds of data that are better supplied by respondents to a survey.

I had several primary informants who came from different castes and tribes in the village. Deepak, a 27 years unmarried male from a land owning Jaise family was also my Research Assistant. Guju, 32 year old separated female was a member of the Dhimal tribe, a full time motivator for the family planning programme in the village, and my other Research Assistant. Both of them became primary informants. In addition, three members of the Brahmin family with whom I lived in Chisang: the 76 year old *Budhi Ama* (Nepali: old woman); her 38 year old son Ram Prasad; and his 32 year old wife, Seeta. The Sarki *jhankri* (Nepali: shaman) who lived across the street from *Budhi Ama*'s house was especially helpful in verifying data and information. He also happened to be one of the earliest settlers in Chisang. Prem Yakha, the 38 year old drug store owner locally known as the "*daktar*," and his knowledge of the Local Health Post and the Family Planning Programme provided me with an insight into the fit between the village culture and the Health Care and Family Planning Delivery Services in rural villages such as Chisang (to be described in Chapter 10). The Sarki *jhankri*'s oldest son *jetha* (Nepali: eldest male) and daughter-in-law *jethi* (Nepali:

eldest female). Finally, a Chettri *jhankri* with five daughters also provided information and assisted me to verify data and information provided by other villagers.

Information gathered from the primary informants included but was not limited to the following:

- migration histories,
- village stories,
- the impact of local, regional, and national development programmes,
- the role of Health Care and Family Planning Services and its impact on fertility in the study area, and
- the changes in the social, cultural and economic institutions and their impact on fertility in the study area.

Data on migration histories came from in-depth interviews with all senior member or head of households in the village who had migrated there. Although I had prepared a set of themes to discuss before I began my field work, a great deal of data was also gathered through observation and participation in village religious, social, and ritual life and work. Questions about household formation and disintegration of the joint/stem households arose naturally out of this process; answers were sought from whoever was present and willing to continue providing information.

**Household Formation Timing Survey:** The second aim of this study was to describe the existing pattern of household types in Chisang. Household Formation Timing Survey was administered to all couples (married and in consensual relationships) in the village during my fieldwork. The study of nuclear and more complex types of family is beset by definitional problems (Caldwell, Reddy, and Caldwell 1984; Gray 1980, 1987, 1995; Parry 1979: 155-159, Shah 1964). In the study village and similar settings in the Eastern Terai Region of Nepal it is unclear just what makes a joint family joint and for whom. The household and family in Chisang follow the North Indian structure. Thus, we start out with Karve's (1965: 81) definition of a joint family which

is a group of people who generally live under one roof, who eat food cooked in one kitchen, who hold property in common, participate in

common family worship and are related to one another as some particular type of kindred.

In Chisang, the higher caste Brahmins and Chhettris often are divided into separate households yet hold common property and rituals. In a few cases among the higher castes and middle castes, some of the property is held jointly and others separately, and some of the rituals are held jointly although no property is held jointly. These are but two cases which makes it difficult to define the joint family in Chisang due to the lack of precision in terminology.

For this study, a household or family will be defined as a housekeeping or consumption unit, the essential characteristic being the eating of meals together by all members of the household, or sharing of meals deriving from a common stock of food (Hajnal 1980). A “nuclear household” is composed of a conjugal couple and their unmarried children. A “joint household” is composed of two or more married couples. A “supplemented nuclear family” is composed of nuclear plus other single person(s) (Cain 1978: 422). The remaining household that do not fit these description will be referred to as “subnuclear” type of household in which single person(s) live.

Employing these data and information collected through in-depth structured interviews of how these families have come into existence, and retrospective information on the family situation for the past 30 years (since Chisang was settled), evidence of change or stability in household structure was identified. It was necessary to determine the events that lead to family partition, inheritance, migration from the Mountain and Hill regions to the Terai and whether these conditions were altering because of socio-cultural and economic changes.

## **Field Work**

I tried to balance my need to collect data on the potential sensitive topic of the socio-cultural and economic contexts of fertility in a rural Nepali village, with the need to select a village which was at the same time “representative” of Nepali village community. To balance these needs I selected the study village of Chisang for several

reasons. I had prior knowledge of the study village and had some prior contact in my capacity as a Project Director of a not-for-profit, non-governmental organisation (NGO) promoting micro-enterprise development and adult literacy in the study village (see below). For this reason, prior to coming to the study village I believed that I would receive co-operation from its inhabitants. Also, I believed that the village was “representative” of rural eastern Terai region of Nepal (see below). The selection of Chisang was also influenced by my desire to work in a rural village comprising mixed castes and tribes undergoing rapid socio-cultural and economic transformation. This desire was balanced by my need to be at a commuting distance from Biratnagar, where my eleven month old son was being cared for by my parents.

**“Representative” Rural Terai Village:** The principal criterion for the selection of Chisang as the study village was as far as possible “representative” of the rural eastern Terai region of Nepal, an agricultural region where subsistence farming predominates. The community chosen for the study seemed, in most respects, characteristic of the region in terms of social, cultural, and demographic indicators. However, after spending some time in the study village it also became apparent to me that the economic and developmental indicators were not representative of the region (see Chapter 10 for more details). In spite of its largely traditional character and subsistence economy, some villagers had adopted a limited amount of modern agricultural technologies. Only in the past two years had a Sub-Health Post and Family Planning Office been established in the area. This provided me with the opportunity to measure fertility trends before the introduction of health care and family planning services locally. Furthermore, I was able to document the impact (if any) of the health care and family planning services provided by the local Sub-Health Post and the Family Planning Office in the past two years.

**Prior Contact and Villagers’ Willingness to Co-operate:** When I returned to Chisang to seek permission to do the fieldwork, some villagers could remember me as the person who had helped establish five Women’s Co-operatives as part of the Micro-Enterprise Development Programme in 1991. A few months before I began my field work, the non-governmental organisation (NGO) that I headed had begun a few child literacy classes within the VDC. One of these child literacy classes was

being held in Chisang. These two activities were associated with me. Some elders associated me with the village where I was raised for the first six years of my life which lay approximately 5 kilometres south-west of Chisang. Some of the women who had formed co-operatives spent a lot of time discussing the state of their co-operatives with me. My prior contact with the villagers made them feel comfortable talking and interacting with me.

Furthermore, my parents had made prior arrangements for me to live and have all my meals with a Brahmin family, who came from the same village as my parents in Bhojpur District in the Hills (see Figure 2.1). This arrangement with the Brahmin family and previous contact with some women in Chisang placed me in a position where I was known, rather than starting as a stranger in this community. This was particularly advantageous in facilitating entry into the potential sensitive topic of fertility.

**Location of the Research Site:** Accessibility to most of the locations frequented and resources available to the villagers were of concern to me. As mentioned above there were some economic and developmental indicators which were different from other villages in the eastern Terai of Nepal. There is bus service throughout daylight hours to and from Biratnagar and beyond, which enables the villagers to carry out their socio-economic activities. The villagers have access to hospitals in Biratnagar, Health Posts in nearby towns, and mobile clinics make a trip to the headquarters of the VDC at least once a month. Chisang is situated less than one kilometre south of the East-West Highway, the backbone of the Nepali transportation infrastructure. The village has been exposed to both in-migration and out-migration; modernisation; and recently, Westernisation. These influences, especially the introduction of modern Western medicine, mass education, cash economy, and migration to urban centres in Nepal and India, were also important selection criteria. The village is in a state of transition; it has retained many of the elements of a typical “Hill village” (*pahari gaon*) in East Nepal, and at the same time it is being transformed due to the influences, negative and positive, of modernisation and Westernisation (see Chapter 5, Chisang: A *pahari gaon* in the Terai).

**Small Size of the Village:** I was unable to find any demographic or household survey of the village at the Village Development Committee Office or the District Headquarters in Biratnagar. Although demographic information had been collected during the Nepal Census 1991, these data were conjugated at Village Development Committee level rather than for the ward or village. Therefore, no statistics were available specifically on Chisang. The village consisted of 111 households, 27 of which were joint or stem families. Chisang had a total population of 638, 316 males and 322 females. Chisang is considered a small village according to standards in Morang District. Due to its small size, fairly recent establishment and common origins of the inhabitants in the Hill Districts, villagers had a lot of knowledge and information about one another, especially on the topic of migration to Chisang, household composition, fertility and mortality, and timing of family formation and household partition.

**Lack of Exposure to Social Research:** This village had not previously been exposed to any research study. Most of the villagers informed me that they were very glad that this research was being conducted in their village and never did I feel that they were tired of having me around. It was an advantage that the villagers had not been exposed to social research in the past, for exposure to research can lead to villagers providing only selective information which they believe the researcher wants to hear.

### **Gaining Access and Permission to Conduct Research**

A letter of intent to personally conduct social research with the assistance of one male and one female assistant, was formally presented to the Chairman of the Village Development Committee. Information about the research and my residence in the village was also provided to the authorities at the ward level to obtain formal permission to enter the village. I received verbal permission from the VDC Chairman and the Ward Representative.

Authorities at the ward level were extremely co-operative and made me feel at home. Due to my prior contact (see above) with some Chisang women, they and their families were extremely helpful. Being accepted by these key people helped facilitate gaining rapport and trust with other villagers. My parents are also not stranger to this village; they were married in another village only a few kilometres south of Chisang. I visited the village with my parents and my son during the second week. Many key people in the village came to meet my parents and hold my son. My parents and son's visit made an extremely good impression, although it was not planned that way, and this probably helped the villagers to see me as an ordinary person like any one of them.

**Micro-Demographic Research Approach in the Research Site:** After I received the verbal consent from the VDC Chairman, I embarked on the task of mapping the village. Several days were spent in mapping the village, a process which put me in direct contact and familiarisation with the residents. After mapping the village, a complete village census of demographic characteristics of village households was carried out. I began collecting data for the village census towards the end of July, when rice is planted, a very busy time for a farming community like Chisang. The agricultural demands of the season were an advantage, in that people seldom left the village.

The village census provided the basis for selection of eligible respondents for the main survey: 102 ever-married women aged 15-49. With the assistance of my female assistant, Guju, I recorded the retrospective marriage and fertility histories from 99 of these women. The sample thus represents 97 percent (99 of 102) of all ever married women aged 15-49 in the village. By the end of these initial steps I was familiar with most of the residents of the village and they were less curious about the research than at the outset.

## **Ethical Considerations**

Value of human life and rights of the individual are the considerations of research ethics (Bogdan & Biklen, 1982; Kimmel, 1988; Jorgensen, 1989). Ethical considerations in social science research should ensure the following: people are not physically or emotionally harmed by research; no violation of people's right to privacy and confidentiality takes place; and freedom from exploitation by the researcher (Kimmel 1988; Jorgensen 1989; Seiber 1982; Wax 1971).

Fieldwork in a multi-caste, multi-ethnic community, such as Chisang, can introduce special moral and ethical problems that are not usually encountered by other researchers. Fieldwork demands of the researcher to become a part of the setting. The researcher can also turn into a participant. This participation exposes the researcher to all aspects of the environment, and thus, being responsible to the participants by virtue of being both present and a witness.

The research proposal of this study was approved by the Human Ethics Committee of Massey University.

Informed consent was a process initiated at the outset of the research and reiterated at intervals throughout. The most important step I took through the research process was to be on the lookout for potential risk to specific research population. I observed for signs of unwillingness to converse or a desire to withdraw or distance themselves. At the outset I had made very clear the participant's freedom to withdraw temporarily or totally from the research, or to refrain from responding to a particular topic or issue.

I sought informed verbal consent from the participants. To require written consent from a largely illiterate population would have been offensive and upsetting to the villagers. Furthermore, within the local socio-cultural context, the deep suspicion and fear that many rural inhabitants of Nepal have had with respect to finger printing or signing a piece of paper may have had the effect of causing anxiety, which would have the reverse effect of the intent of written consent, to protect informants and

reduce anxiety. Only in one case did a newly married daughter in-law refuse to be interviewed in the presence of her mother in-law.

Personal identifying information of participants in this study will not be made available. No real names of the participants were used in the field notes nor in the thesis but pseudonyms have been substituted. The name of the study village and the Village Development Committee (VDC) have also been altered. The names of organisations providing Health Care and Family Planning Services in the VDC have not been mentioned in the field notes or this thesis. This procedure was adhered to at all times and with all participants. This applied to data collection methods using both in-depth face-to-face interviews and participant observation.

In-depth interviews and participant observation are research methods in which, I, the researcher, performed the role of a research tool. Confidential information was given to me on the basis of trust. I have not discussed any issues or shared any of the information obtained from informants with others in the village.

Finally, hiring a local female Research Assistant to assist me to collect fertility and marriage histories and to conduct in-depth interviews with female primary and key informants helped protect female participants. I ensured that this female Research Assistant was bound by a confidentiality agreement. The Research Assistant signed a pledge agreeing to uphold the confidentiality agreement.

It must be stated here that the rural people, both male and female, of Nepal are pragmatic and normally openly discuss fertility issues with people they know and trust. Micro-demographic research methods which seek to develop good rapport with the village people has made it possible to overcome this barrier. I speak Nepali language, which is the lingua-franca and my mother tongue, and the local dialect, which enabled me to fit into the village society without much difficulty.

This research was conducted by myself as a high-caste male of Chettri caste, educated in the “West,” among a population that is predominantly of lower socio-economic status who reside in a rural village with mixed castes and tribes. It is quite possible

that many of the middle caste tribal people and the lower caste people from the Hills and indigenous Terai people may have been exploited by high caste Brahmins and Chettris in the past. Caste and sex are ascribed, one is born and dies with these characteristics and these I cannot change. However, I was aware of the historical nature of exploitive relationship in which high caste Hindus benefited to the detriment of the middle caste tribal people, lower caste people from the Hills and indigenous Terai people. I remained very sensitive to this historical issue throughout my field research.

### **Protection of Data**

All hard copies of field notes along with computer diskettes were stored in a portable metal filing cabinet which was locked at all times, and stored safely in a locked, rented room. Nobody had access to the field notes and the computer diskettes. Informants were given the opportunity to make changes to their previous statements.

### **Conclusions**

A micro-demographic research methodology has been applied to study fertility behaviour and trends in a rural village with mixed castes and tribes in the eastern Terai region of Nepal. The micro-demographic research method, which comprises a combination of survey methods and unstructured in-depth interviews complemented by participant observation, does not rely entirely on either qualitative or quantitative data. From the outset, one of the primary objectives of this study was to document fertility behaviour and trends in a rural village. However, this study has been designed to provide explanations into the social, cultural and economic contexts of fertility change and describe fertility trends. A village census, marriage and fertility survey and household formation survey were the primary survey instruments used for the purpose of collecting quantitative data. This was complemented by unstructured in-depth interviews and participant observation.

It will be argued in later chapters that the micro-demographic research method provided the most appropriate means of studying the causes of fertility change in the study village. Unstructured in-depth interviews made it possible to have a better understanding of the social, cultural, economic and political institutions and their impact on reducing fertility in the study village. The village is now described.

## CHAPTER 6

### CHISANG: A PAHARI GAON IN THE TERAI

This chapter describes the social, cultural, economic, developmental and demographic characteristics of the study village of Chisang. Chisang is the pseudonym of one small village in the smallest administrative unit in Nepal, the Village Development Committee (VDC) (formerly known as the Panchayat). The village is situated approximately 45 kilometres north-east of Biratnagar, the second largest Nepali town, in the northern belt of the eastern Terai region of Nepal.

Fertility varies under different social, cultural, economic and developmental contexts. Fertility can also vary from one setting to another. Chisang is an example of a rural community in the eastern Terai region of Nepal which has undergone significant change in the past 30 years. Most of the population of Chisang are migrants from the Mountain and Hill regions to the north. Although these migrants have preserved many social structures and culture from the place of origin in Nepal's Mountain and Hill regions, the economic and developmental contexts within which fertility decisions are made by these migrants and their adult children are very different from those in the Mountain and Hill regions to the north. I describe in the following three chapters these social, cultural, economic and developmental contexts within which fertility decisions are made in Chisang and the changes the inhabitants of Chisang have undergone. However, in order to have a better understanding of the changes the inhabitants of Chisang have undergone, it is important to first describe the social, cultural, economic and developmental characteristics of Chisang.

This chapter is divided into three broad sections. In the first section I describe the region, including the physical setting, recent history and development, regional economy and migration patterns and relationships with the place of origins (Mountain and Hill regions). The second section describes the study village of Chisang, including caste, the styles of *pahari* and *adhivasi* houses and the annual seasonal cycle. The final section focuses on Chisang's demographic characteristics which

include household type, population, age-sex distribution and selected characteristics of Chisang's population.

### **The Physical Setting**

The Chisang *khola* (Nepali: river) has its headwaters in the Mahabharat ranges in Dhankuta District. It enters the Terai to the east of Letang, a small town situated at the point where the Terai meets the southern most part of the mighty Himalayas, where it divides into two major tributaries, Chisang *khola* and Lohandra *khola*. As Chisang *khola* reaches the Terai, it widens rapidly and the flow slows down. Chisang, with an elevation approximately 200 meters above sea level, lies on the western bank of Chisang *khola*. The nearest hills rise sharply approximately 12 kilometres to the north of Chisang. In order to reach Chisang *khola* from Chisang village one must walk east for a little more than two kilometres through the flat, sub-tropical forests. These sub-tropical forests border Chisang on the east and north. Another tributary of the Chisang *khola*, Chisa Pani, lies to the west. On the south, Chisang borders another village called Tallo Chisang, which is a major settlement area for the Dhimals, one of the largest tribes in the eastern Terai region.

### **Recent History and Development**

The northern belt of the eastern Terai region of Nepal was covered with thick tropical vegetation and tall deciduous hardwoods until the 1950s. In the mid 1950s, the World Health Organisation (WHO) and the United States Agency for International Development (USAID) implemented the Malaria Eradication Programme in the eastern Terai. Prior to the implementation of the malaria eradication programme in the eastern Terai, it was sparsely populated by the *adhivasi*, mainly Dhimal, Mushar, Rajbanshi, Tharu and Satar. According to Bista (1996), until recent times the Dhimals and Bodos led a nomadic life, practising shifting cultivation. Bista (1996: 152) goes on to say the eastern Terai Dhimals and Bodos were less threatened by the presence of other *adhivasi* than by "the Brahmin-Chettri 'pioneers' from the hills. These are the *pahari* who now make up much of the population of villages such as

Chisang. Most of the land on which the indigenous peoples of the eastern Terai had lived for centuries no longer belongs to them. The migration of *pahari* from the Mountain and Hill regions has brought them in contact with the *adhivasi*. The indigenous people perceive the *pahari* as ruthless exploiters of their land, and other natural resources such as jungles and waterways, and place the blame on them for near extinction of their culture and way of life and current landlessness and poverty afflicting the majority.

After the eradication of malaria in the northern belt of the eastern Terai, modernisation began to have its effect upon the villages and trading towns in the region. In the 1960s the East-West Highway, the principal road link in Nepal was constructed. Feeder roads linking the East-West Highway, Chisang and destinations further south were constructed in the 1970s. Sand, stone and gravel was extracted commercially for construction from Chisang *khola* beginning in the late 1980s. Electricity was distributed in the study area five years ago. Although there was no electricity in Chisang itself when this study was conducted, distribution of electricity is expected to follow in the near future. While this study was being conducted Haat Bazaar VDC received its first public VHF telephone line.

Chisang is economically linked to the trading towns of Kanee Pokhari and Belbari, both of which have grown in importance after the construction of the East-West Highway. The East-West Highway passes through Chisang Bazaar, which lies a little over a kilometre north of Chisang, and links Chisang to regional centres such as Biratnagar, Dharan, and Damak in Nepal, and into India and Bhutan, where a high level of contact is maintained. The East-West Highway also links Chisang to the Hill region of east Nepal, Darjeeling District and the state of Sikkim in India. Chisang is linked to the administrative centre of the VDC by a dirt road which is impassable during the monsoon season.

In the mid-1980s the His Majesty's Government of Nepal granted permission to an international mining company to drill for natural oil in Radhanagar, which lies about 1.5 kilometres south-east of Chisang. In 1989, the dirt road which linked the East-West Highway, Chisang Bazaar, Chisang and Radhanagar was rebuilt into a wide all weather road to transport heavy equipment into the Radhanagar drilling site. In 1991

after drilling roughly 3,500 metres deep in Radhanagar drilling site, the international drilling company abruptly left for Bangladesh. Although the site is fenced in and guarded around the clock, no drilling activities have taken place since then, although drilling is expected to resume in the future.

## **Regional Economy**

The main source of income for the people of the study village and several adjoining villages is derived from the land and includes agriculture, livestock, dairy, horticulture, and fishery. In the past jute cultivation was the primary agricultural activity in Chisang. However, jute cultivation has been declining steadily due to the low market value of the crop in recent times. Most of the stagnant water ponds that are essential to process raw jute plants have been reclaimed and rice is planted instead. Generally, two rice crops are planted each year. In March-April, the first rice crop is planted and harvested in June-July. These fields are immediately ploughed and a second crop of rice is planted. The second harvest takes place in November-December. Mustard, winter wheat and potato is planted by most farmers in the rice fields during the winter months.

In recent times, vegetable and fruit are grown commercially by most landowners in the study area. There is a ready market for fruits and vegetables in the nearby trading towns, the towns that house the Bhutanese refugees east of the study area, and distant cities, such as Biratnagar, Dharan and Kathmandu. Many landless peasants in the study area lease land from their wealthy neighbours and grow vegetables and fruits to sell in the local and distant markets. My informants mentioned that pineapples were first introduced in the region approximately ten years ago by migrant labourers returning from Assam in India. During the course of my fieldwork pineapple was the most common commercially grown crop in the study area. Most of the pineapple grown in the study area was sold to Nepali wholesalers who then exported to markets in West Bengal, India. Other commercially grown crops in the region included sweet corn, green vegetables, bamboo shoots, herbal plants, sweet potatoes, ginger, turmeric plants and wild and commercially grown mushrooms. All households in the study area had at least a few fruit trees which included mango, guava, papaya, tropical

berries, lemon, lime and lychee. All surplus fruits were sold either to the wholesalers who came to the village or directly at the *hatiya* (Nepali: weekly markets). Most of my informants agreed that the variety and quantity of locally produced fruits had increased many folds in the past few years.

The Biratnagar Dairy Development Corporation had established a milk collection depot at Chisang Bazaar, one and one half kilometres north of Chisang village, five years ago. In the month of November, 1995 when information was collected over a period of 30 days, 400 litres of cow and buffalo milk was sold every day to the Dairy Development Corporation by the people of Chisang. Although the nearby forests are the prime grazing site for the cows and buffaloes, with the technical assistance and financing from the Dairy Development Corporation a few dairy cattle owners are supplementing the diet of the dairy animals with commercial feeds. Many new varieties of dairy cows had also been introduced into the area in the last five years. Most of the owners of dairy cattle were distressed over the fact that they often had to wait for two to three years to acquire new varieties of dairy cows in the region.

Recently, many local landowners and sharecroppers in the region had been introduced to the high-yield varieties of rice, wheat and other cereals. Local farmers informed me that the use of artificial fertiliser and pesticides had increased dramatically. The Dairy Development Corporation and its activities had increased the number of dairy animals by at least three folds over the past five years. Local farmers had also increased the use of organic fertiliser, mainly composted animal manure and fodder. Due to the abundant supply of firewood that was readily available in the nearby forests, animal manure was not sun-dried to make cooking fuel in the study area, a practice which is widespread in other Terai villages that have limited access to firewood.

Goats, chickens, ducks and pigeons are raised by people of all castes and tribes in the study area. Goats were mainly raised for domestic consumption, to be sacrificed ritually and to be sold in locally or in the *hatiya*. Chickens, ducks and pigeons were raised for their meat as well eggs. However, pigs are raised only by the middle caste people in Chisang (see below). Although the lower caste people in the Hindu religion are also allowed to eat pigs, they did not have the necessary financial resources and

space to raise these animals. The higher castes believe that the pigs are ritually impure. However, in any weekly *hatiyas*, I witnessed many higher caste people consuming pork out in the open. Many of the wealthier landowners also had fishponds where fish and a variety of local ducks were raised. Most of the fish were sold to Nepali fish traders who marketed the products to the large markets in West Bengal, India.

There is no doubt that the wealthy landowners and new breed of dairy farmers in the region have made tremendous progress in increasing their economic output. Some of these new economic opportunities have trickled down to their less fortunate neighbours. However, there is no denying that the majority of the poor, landless people and new migrants have not benefited from these new farming technologies, high yield crops, dairy cattle and economic activities. One poor, landless Brahmin who had recently moved to Chisang stated:

This is my *karma* (Nepali: fate). I was born poor, I will die poor. All this *bikash* (Nepali: development) is meant to benefit those that have access to land, capital and political connection. Wage labour is the only source of income for poor, landless, illiterate people like us. I am convinced that my situation is not going to change in my lifetime.

For most of the landless people and new migrants from the Mountain and Hill regions to the study area, wage labour was the only source of income. The nearby trading towns, the sand and stone works in Chisang *khola*, and heavy road construction work that was taking place in the area provided ample employment for the locals. However, many young people, who had dropped out from school, migrated in groups to the farming communities in North West India without the consent of their families. Thus, repatriation of funds from migrant labourers was another source of income for the people in the study area.

The economic activities of women differed greatly from that of men. Recently married women and unmarried girls over the age of 14 were engaged in a lot of income generating activities which included picking a particular kind of wild plant (*neuro*) (which is prepared into a fried green curry) which was then sold to wholesalers in Chisang Bazaar during the wet months, picking sal tree leaves (which are made into plates for ritual and religious festivals) during the festival and dry

winter months, and trading domestic animals and birds' eggs in the *hatiya*. Incomes derived from these activities almost always remained in possession of these women. It will be argued in Chapter 8 that these activities have contributed to the rise in the age of women's marriage in the study area.

### **Migration Patterns and Relationship with the Hills**

The settlement of the northern belt of the Terai is characterised by the following: recent settlement by *pahari*; displacement of the indigenous tribes; frequent and close contact with the Mountain and Hill regions from where these new *pahari* settlers have migrated, and rapid pace of *paharisation* in these new settlements. The settlement characteristic of the northern belt of the Terai is evident in Chisang as well. Chisang's settlement has taken place in three phases, none of which was planned.

According to both the *pahari* and *adhivasi* elderly people in Chisang, the Rana rulers in Kathmandu had given the land south of Chisang which was then a thick tropical jungle, as a *birta* (Nepali: land grant) to a Newar civil servant from Kathmandu some 60 years ago. The elderly people in Chisang were adamant that this Newar civil servant from Kathmandu never set foot on this land. Instead, he leased and then sold the land to a Jaise (a sub-caste of the Brahmins) family from Bhojpur District in the Hill region, some six to seven days walk to the north west. The Jaise family moved into the area south of Chisang from Bhojpur District over 50 years ago and cleared the thick tropical forest. The village of Chisang had remained forested until 30 years ago when Dev Prasad, one of the brothers of this Jaise family, clear cut sections of Chisang. However, he was unable to claim the land for himself due to a severe shortage of labour and the constant threat of wild animals that roamed the jungle. In 1964 (*Bikram Sambat* [Nepali: era] 2020-21) Dev Prasad returned to Bhojpur District and brought three Yakha (middle caste Hill tribe) families as labourers, promising them some land after a settlement was established. Thus, the settlement of Chisang was noted in the National Land Survey of *Bikram Sambat* 2021. This was the first phase of the settlement of Chisang.

Between 1965 and 1976, there was ongoing sporadic immigration from the Mountain and Hill regions of Nepal into Chisang, although the number of families in Chisang remained less than 20 until then. In 1976, a group of Niraula (Chettris from Khotang District) moved into Chisang. The following year they invited many of their family members, who had migrated to Assam directly from Bhojpur District many years ago to resettle in Chisang. The Niraulas who resettled in Chisang from Assam were wealthier and the elderly males had served with the British Army in Burma during World War II. They had had more exposure to change and socio-economic development and were more literate than the Hill peasants who had previously settled in Chisang and the vicinity. The settlement of the Niraulas from Khotang District and Assam can be considered the second phase of the settlement of Chisang.

The Niraulas would only settle in Chisang if there was a high school for their children in the area. After the Niraulas began to resettle in Chisang from Assam they were informed by the local people that there was no high school in the area. The Niraulas who had resettled in Chisang collected money and built a high school two kilometres south of Chisang. They were unwilling to build a high school in Chisang itself because the village bordered the dense tropical forests, and they felt that their children would not be safe. After the high school was completed in 1977, the Niraulas began construction of the road that links Chisang to the East-West Highway to the north and the high school, the VDC Headquarters other VDCs to the south.

The third phase of the settlement of Chisang began when a large group of migrants entered Chisang after the popular uprising in 1990 when the ruling Monarch, King Birendra, conceded power and called for a multi-party democracy. In this phase of the settlement of Chisang most of the incoming migrants had very high hopes that they would be provided with the opportunity to clear cut the forests bordering Chisang. However, by this time the local people in Chisang and other villages that bordered the forests were unwilling to allow them to clear-cut the forests. As the current Chairman of the VDC stated in one of my informal conversations with him:

By this time the inhabitants of villages bordering the forests saw that it was in their best interest to protect the forests. These forests provided a livelihood for whole communities and were the lifeline for many resource poor settlements. By then, the government from international

pressure also did a better job in protecting the forests from spontaneous, unplanned settlements.

The forests bordering Chisang have therefore been protected from the attack of the axe. But this has created a whole new set of problems for resource poor communities such as Chisang. There is a very large section of the population that is poor and landless and has nowhere to go to. In the past, the forests were clear cut, and those poor, landless *pahari* migrants were absorbed. This is no longer possible in the study area.

The close link of the people of Chisang with the Mountain and Hill regions of east Nepal is characterised by the level of bride-receiving and bride giving that takes place between Chisang and the Mountain and Hill regions. Five years prior to the time when this study was undertaken, a total of 16 brides had been married into the village. Nine out of the 16 brides had lived most of their lives in the Mountain and Hill regions. Also, in the past five years a total of 21 brides had been married away from Chisang. Nine out of the 21 brides had been married to households in the Mountain and Hill regions. Also, among the 111 households in Chisang, 42 households still owned property (mainly land) in the Mountain and Hill regions. A total of 87 households still had family members (parents, brothers, sisters and children) in the Mountain and Hill regions.

### **Chisang Village Structure**

Chisang's 111 households are laid out in three distinct rows, which run in a north-south direction and are parallel to each other. These three settlement areas are locally known as *purba*, *majh* and *paschim* (Nepali: east, central and west) *tols* (Nepali: neighbourhoods), respectively, that roughly correspond to clan residences within the village. Within each *tol* is a dirt, walking track which is bordered by irrigation canals that have been dug into the village from Chisang *khola*, at a distance of more than 3.5 kilometres to the north-east. The dirt tracks in each of the *tols* are regarded as common village property where people can gather to gossip, work, dry grains and pulses and sit in the sun during the short winter months.

*Purba* and *paschim tols* were settled as recently as the last 5 to 8 years. The main (and most populated) *tol*, *majh tol*, began being settled almost 30 years ago, and today the main all weather, gravel road leading to the drilling site at Radhanagar and to Chisang Bazaar passes through here. The centre of *majh tol* is also the site of Chisang's one and only primary school, built almost 12 years ago and extended with international assistance in 1994. *Purba tol* is primarily inhabited by Niraulas, Chettris from Khotang District, while *paschim tol* has been settled by middle caste hill tribal people (i.e. Rai, Limbu, Subba and Yakha) from the hills. *Majh tol* is settled by all castes and tribes, while the indigenous Dhimals of the Terai live on the southern fringes of the settlement.

*Paschim tol*, which was settled most recently, comprises 12 households with 66 inhabitants. *Purba tol* comprises 36 households with a population of 220. *Majh tol*, the first and most densely populated settlement comprises 63 households and a total population of 353. *Purba* and *paschim tols* and their houses are clustered together in the pattern of the Hill villages, exemplifying the settlers' common origins in the Mountain and Hill regions of east Nepal. *Majh tol* is spread out in a north-south direction for almost two kilometres. However, most of the houses of *majh tol* are built within a few hundred metres from *purba* and *paschim tol*. A few houses have been built on the fringe of Chisang outside of any *toles*, mostly by landless peasants from the hills, the *sukumbasi* (Nepali: landless peasants). These are the casualties of the moratorium on felling the forests described above. In the northern and southern most areas of the village are the two Hindu temples, *Durga* and *Saraswati Mandir*. The common village burial grounds for the middle caste hill tribes people is located to the east of the village on the edge of the forests. Other castes and *adhivasi* tribes cremate their dead.

### **Caste in Chisang**

The Nepali version of the Hindu caste system (described in Chapter 2) is reflected in the eastern Terai region of Nepal and forms the most important social framework within which the people of Chisang and its vicinity relate to one another. The most comprehensive analysis of the caste hierarchy as defined in National Legal Code of

1854 has been described by Höfer (1979) and the caste hierarchy among the *pahari* Brahmans and Chettris by Bennett (1983). The description of caste hierarchy presented in Figure 6.1 does not exactly reflect the Nepali version of the caste system found in the eastern Terai region of Nepal, as the population of Chisang and the vicinity is diverse, it does not encompass the full range of castes and tribes in Nepal.<sup>1</sup>

Chisang's population, like that in most rural villages in the northern belt of the eastern Terai, can be divided into a number of *jat* (Nepali: caste), each of which is associated with one of three main, ranked ritual categories (see Caplan 1972). The Brahmans, Jaisis and Chettris, who wear the *janai* (Nepali: sacred thread) comprise the *tagadari jats* (Nepali: sacred thread wearing) and form the top of the caste hierarchy in Chisang and the vicinity. At the apex of the caste hierarchy are the Upadhaya Brahmans who are accorded the highest status and monopolise the hereditary priestly services as household priests for Brahmans, Jaisis and Chettris. Below them are the Jaisis, the descendants from marriages of Brahmin men with Brahmin widows. Unlike the Upadhaya Brahmans, the Jaisis do not serve as household priests and are more involved in astrology and as fortune-tellers in the village.

The Chettri, whose name is derived from the Ksatriya *varna* which traditionally fulfilled the role of warriors, rank below both the Upadhaya Brahmans and Jaisis. They are by far the largest group in the village and regard themselves as the 'dominant *jat*' in the village. According to Fürer-Haimendorf (1966) and Bennett (1983), the Upadhaya Brahmans, Jaisis and Chettris are viewed by themselves and others as in some sense forming an identifiable group sharing a single cultural heritage and social structure.

Irregular marriage is the primary cause of numerous subdivisions among the Chettris. The descendants of a Brahman man and either a Chettri, *matwali*, *adhivasi*, *madesi* or non-Muslim Indian woman are known as Khatri Chettri (K.C.), or simply, Khatri. The descendants take the family name of their father but rank as Chettri. A further division in the Chettri caste is that between "*jharra*" (pure) and "not *jharra*" (mixed) Chettri, the result of different types of unions (Bennett 1983; Gray 1995; Fürer-

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<sup>1</sup> No village would encompass all 75 castes!

**Figure 6.1: Caste Hierarchy in Chisang**

Sanskritic Varna Equivalent	Nepali Varna or Caste Groups	Jats in Chisang and Vicinity	Ritual Category
Brahmin			<i>Tagadari</i>
Ksatriya			
Vaisya	<p><i>Matwali</i></p> <p><i>Adhivasi</i></p>	<p>Newar Rai Limbu Tamang Gurung Yakha</p> <p>Dhimal Tharu Rajbanshi Khabas</p>	(Pani Chalne)
Sudra	<i>Sano Jat</i>	Kami Sarki Damai	(Pani Nachalne)
<b>Key</b>	<p><span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span> <b>Higher Castes</b> (<i>Pahari</i> Hindus of Indo-Aryan stock who migrated into the Terai in various waves over the last 50 years)</p> <p><span style="display: inline-block; width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black;"></span> <b>Middle Castes:</b> Tibeto-Burman (<i>Matwali</i>) and Indigenous Terai Tribes (<i>Adhivasi</i>)</p> <p><span style="display: inline-block; width: 20px; height: 10px; background-color: white; border: 1px solid black;"></span> <b>Lower Castes</b> (<i>Pahari Sano Jat</i>)</p>		

**Source:** Adapted from Campbell (1978: 88) and Bennett (1983: 9)

Haimendorf 1966). Though Chisang villagers know the Chettri and Khatri as well as *jharra* and non-*jharra* status of every Chettri, this makes very little difference in ritual status, daily interactions and for matrimonial purposes.

Apart from the above mentioned *tagadari jats*, all other ethnic groups from the Mountain and Hill regions and the indigenous Terai tribes fall under the broad classifications of “*matwali*” (Nepali: liquor drinking) and “*adhivasi*” (Nepali: indigenous Terai tribes). From the *tagadari jats*’ point of view the Newars, and Tibeto-Burman people such as Limbu, Magar, Rai, Tamang and Yakha fit the description of *matwali*; and the Dhimal, Khabas, Rajbansi and Tharu of the *adhivasi*. The third group comprises the landlords and landless people of Indian origin, the *madesi*, who have settled in the Nepali Terai. There were no *madesi* families present in Chisang when the study was conducted. Members of these three groups are considered *chokho* (Nepali: ritually pure) that is they are clean, touchable and water as well as *chokho* food, that is uncooked food or food cooked with *ghiu* (Nepali: clarified butter), can be served by them to members of the *tagadari jats*. Also, women from these groups can be brought as wives by men from *tagadari jats*.

In the bottom of the caste hierarchy, immediately below the *madesi* and *adhivasi*, are the ritually impure, and therefore, untouchable *pani na chalne* (Nepali: from whom water will not be taken) or *sano jat* (Nepali: small caste). In Chisang and the vicinity, *sano jat* groups are divided between the *pahari* (Damai, Kami and Sarki) and *madesi* (Mushar and Satar). However, in the study area there were no *madesi sano jat* group when this study was conducted. According to Bishop (1990: 95), the *pahari sano jat* groups had developed varying occupational specialities in addition to their common, menial labour roles. In addition, by the end of the fourteenth century, they had subdivided into several endogamous occupational castes. The *sano jat* groups in Chisang do not practice their occupational specialities, but all of them make a living from paid labour on other’s land. The *sano jat* groups comprise seven households, some 35 persons in number, and all households own some land in Chisang, although not enough for subsistence. Furthermore, five of the seven households own land in Assam state in India and spend at least a few months of each year there.

### *Jajmani and Kamaune Systems and Inter-Caste Relationships:*

One of the most significant aspect related to caste in Chisang is that the *jajmani* and *kamaune* systems were not reproduced from their *pahari* origins. In accordance with Berreman's (1972: 388) findings in a *pahari* village in Garwal, Uttar Pradesh, India, and Caplan's (1972: 31-32) findings in Western Nepal, when the villagers of Chisang use the term "*jajmani*," they refer to one kind of exchange: that of the Brahmin's ritual services to his clients (*jajman*) in exchange for traditional "gifts" paid in grain or other goods. The *pahari* villagers of Chisang also are familiar with the traditional arrangements whereby lower caste artisans provided goods, service and labour to their higher caste and middle caste patrons, although they are unlikely to use the term *jajman*. According to Bista (1972), this inter-caste patron-client relationship is referred to as the *kamaune* system in Nepal. In this relationship each lower-caste family performs its specialised task in return for a fixed portion of grain which is known in east Nepal as *bali* at each harvest, the amount depending upon the size of the household or landholding of the patron and the type of service performed. The *kamaune* system binds lower caste artisan families to higher and middle caste landholding families through economic need and Hindu religious ideology.

Cameron (1995: 215-246) describes the patron-client relationship in the far-western region of Nepal as *riti* (Nepali: patron)-*bhagya* (Nepali: client) relationship, and the in-kind annual payment as *khalo* (Nepali: payment in kind). The village *pundit* and other village elders agreed that there were no specific terms such as "*riti-bhagya*" in east Nepal. The *bali* payments were expected to meet many of the subsistence needs of the lower caste clients. As was often the case, *bali* payments by the higher and middle caste landholding families to the landless lower caste families formed the economic and moral backbone of the *kamaune* relationship. One of the most unique features of this relationship was that it provided for the higher and middle castes products, services and labour; and for the lower castes for cash advance, food and other essentials, from their higher and middle caste patrons in times of need. The *kamaune* system, according to the village *pundit*, was and is still in most of Nepal, a culturally prescribed and economically based system of exchange. Higher caste and middle caste landholding families requiring products, services and labour received it from lower castes families that were able to provide them. In return for their

products, services and labour, the lower caste families relied increasingly on the *bali* payments from their patrons.

As in other areas of Nepal and North India, the patron-client relationship between the higher and middle castes and lower castes were passed from father to son(s). This was in keeping with the patrilineal system of property inheritance practised by the higher castes who were dominant numerically, socially, culturally, and ritually. This caste-based economic interdependence developed in such a way that for at least two centuries, the rights of the patron-client relations have been perpetuated in the eastern Mountain and Hill regions. These caste-based patron-client relationships were always exploitive, but provided economic, social and psychological security to both the patrons and their clients.

The *kamaune* system provided the higher castes with the security of lower caste products, services, and labour. For the lower castes, the patron-client relationships provided them with economic, social and psychological support, especially during times of need. The patron-client relationship, although favourable to the higher and middle castes, served the purpose for both the higher and middle caste patrons and their lower caste clients. The breakdown of the caste-based patron-client relationships contributed to the migration of both the higher and middle castes patron and lower castes clients to settings such as Chisang from the eastern Mountain and Hill regions. However, caste-based patron-client relationships did not get transferred to new settings such as Chisang.

Although some Brahmins in Chisang had higher castes (Brahmins and Chettris) and some more *paharised* middle caste tribal groups as their *jajmans*, the inter-caste *kamaune* system never took hold in Chisang. The *kamaune* system did not accompany the *pahari* people as they migrated from the eastern Mountain and Hill regions into Chisang. According to my *pahari* informants, lower caste families had been involved in caste-specific occupations and as service and labour providers in the eastern Mountain and Hill regions in the past. Not only were they more involved in caste-specific occupations in the past, they also provided products, services and labour to a small but steady number of families. At the time this study was undertaken all but one of these lower caste families owned some land in Chisang and

in the state of Assam in India. In Chisang all castes and tribes are agriculturists and sell their goods, services and labour for cash in the village or nearby towns. The higher castes and middle castes rely on agriculture as much as the lower castes. The lower caste families that continued to perform their caste-specific occupations in the nearby villages did not receive *bali* payments from their higher and middle caste patrons, instead they were paid in cash. However, the lower caste return migrant families worked for wages in the village.

#### *Different Marriage Preferences Among Different Caste Groups in Chisang:*

Another significant aspect relating to caste in Chisang is the different marriage preferences. The higher caste women were more likely to be married at an earlier age due to the high value placed on gifting a virgin girl in marriage. The middle caste and lower caste women were more likely to be married a few years later than their higher caste neighbours. The higher caste inhabitants of Chisang had institutionalised the practice of giving *daijo* (Nepali: dowry). Unlike their higher caste neighbours, the middle caste and lower castes in Chisang generally practised giving bride price.

It will be revealed in later chapters that caste plays a pertinent role in developing an understanding of fertility in Chisang. It will also be revealed that fertility rates and fertility trends of the higher castes, middle caste and lower caste in Chisang vary significantly.

#### ***Pahari and Adhivasi Houses in Chisang***

As in most rural, agricultural villages in Nepal, family life for Chisang's residents centres around the hearth. One of the best indicators of economic independence for a son from his stem family, and a co-wife from her husband and his other wife is that they have their own hearth, for which they must produce their own food. In Chisang there is no ideal condition when a son will move away from his father's house to set up his own household. However, in general, the *adhivasi* tend to set up new households earlier than the *tagadari jats*. Landed families tend to remain as a joint family for longer periods of time in comparison to those with little or no land.

Furthermore, families with unmarried daughters or sisters tend to stick together until all the daughters or sisters are married and have settled into their husband's household. In Chisang, in all cases when a joint household splits up, one party has always moved away from the existing structure. The very poor and landless would move out of the village or rent a space within the village.

Within the northern belt of the Terai region of Nepal, most houses are constructed of wood from nearby forests, and locally grown bamboo, and have thatch roofs. A few wealthy people have started to construct their houses of bricks and cement in the last decade. However, the poorer families in Chisang will have to make do with houses of bamboo and straw. A typical eastern Terai *pahari* house is built on wooden stilts with the kitchen and animal shelter on the ground level. The verandahed living quarters are on the upper level. Grain, seeds, and other household necessities are stored in the attic, and in the case of the houses which do not have an attic, one or more rooms on the upper level are used as a store. Only 32 out of 100 *pahari* households had a permanent toilet (usually outside) or temporary out house. Of the *pahari* households, 54 had tube-wells or deep wells constructed of brick and cement or hollow tree trunks.

The growth of trading centres along the East-West Highway has generated high demands for vegetables, fruits, cereal grains, chicken, duck and pigeon eggs, and domestic animals, and dairy products. Almost all of the *pahari* households in Chisang have found a ready market for perishable vegetables, fruits, surplus grain, domesticated animals and dairy products. Each and every household grows vegetables year round to be sold for cash on the *hatiya*. Even the landless are leased a small plot of land by their wealthy landowners to raise vegetables. Chicken, ducks and pigeons are raised primarily for their eggs and meat to be sold in the *hatiya*. Therefore, all houses have one or more chicken coops. The forest that border the village provides year round fodder for the goats which are raised for sacrifice and domestic consumption during major Hindu festivals and also for sale in the market. The threat of predators, such as the jackals that wander into the village during night-time from the nearby forests, has required the *pahari* in Chisang to construct special goat pens next to the animal pens. Besides the animal sheds, all houses have a compost heap next to the animal shed (about 225 square feet) to store and compost

animal manure and fodder which is then carried by women in *dokos* (Nepali: bamboo baskets) on their backs to the nearby fields for fertilising purpose twice a year.

*Adhivasi* houses in Chisang resemble those of their *pahari* neighbours. *Pahari* and *adhivasi* have borrowed features of the houses and yards from each other, a result of close contact for the past 30 years or more. In general, *adhivasi* are poorer and less educated, and therefore, have smaller houses which are made of bamboo and local wood. Only one *adhivasi* house had two stories and boasted a corrugated iron roof. Three out of eleven *adhivasi* houses had tile roofs and all other houses had thatched roofs. Four out of eleven *adhivasi* houses had a toilet or out-house. Both the interior and exterior of all *adhivasi* houses are plastered with cow dung and mud. It is the woman's task to keep the house clean. In the adjoining village that is primarily settled by *adhivasi*, people live in close clusters of 20 to 50 households. Usually, a cluster of four to ten houses will have a common *aangan* (Nepali: courtyard) in the centre. As, there are only 11 *adhivasi* households of Dhimal people in Chisang which are scattered unevenly in *majh tol*, none of the *adhivasi* households open up to a common *aangan* as the case in predominantly *adhivasi* villages.

In addition to the animals the *pahari* raise, all *adhivasi* households in Chisang breed pigs for domestic consumption during their festivals, and sell piglets in the local market. The pigs roam freely through the village. As pigs are incompatible with many rituals of orthodox high-caste Hindus of Chisang, these pigs were not be allowed to wander into the *pahari* section of the village. Two *adhivasi* households which lie within the *pahari* section of the village raise pigs in pig pens in their backyards.

Due to the *adhivasi*' lower socio-economic status and lack of land to cultivate in comparison to the *pahari* of Chisang, they are much more reliant on the nearby forests for a living. The rivers and swamps in the nearby forests provide the *adhivasi* a living by catching fish which they sell in the local markets. The *pahari* view this task demeaning and something "prohibited by their *jats*." During sunny days hundreds of *adhivasi* from adjoining villages, both male and female, young and old, can be seen entering the forests to chop firewood. The firewood is then sold to black marketeers who transport the wood to Biratnagar to sell at exorbitant prices. Also the forests

provide a variety of vegetables, seeds from tropical trees, and medicinal herbs. Now that the forests are protected and there is a massive reforestation programme in this region, job opportunities are provided for both the *adhivasi* and *pahari* alike.

### **Annual Seasonal Cycle**

The majority of inhabitants of Chisang derive their incomes from subsistence agriculture, although as explained above, there has been an increase in cash crops and commercially grown crops in the past few years. Like any other agricultural community, the annual cycle of seasons and agriculture are closely linked. Mustard is harvested in February. The fields are then ploughed and prepared for the first rice crop in March. Due to the lack of rainfall during this time of the year, the first rice crop is planted in only those fields that can be irrigated by the water brought in from Chisang *khola* through the canals. Those fields that do not have access to irrigation will be ploughed and maize will be planted instead. In July, the first crop of rice along with maize will be harvested. Immediately after the fields are cleared, they are ploughed and prepared for the second rice crop. By July, most years the monsoon season will have been well underway most years and there will be sufficient rainfall for the second rice crop. However, the second rice crop that has been planted in fields that have no access to irrigation are susceptible to crop failure if the monsoon rains fail or are delayed even by a few weeks.

Between planting and the harvest of the second rice crop, the Hindu holy festivals of *Dashain* and *Deepawali (Tihar)* take place. Usually, just before the festival season the monsoon rains will have stopped. The process of *paharisation* in the study area has introduced all castes and tribes (including the *adhivasi*) to the Hindu festivals of *Dashain* and *Tihar*. According to my middle caste informants, these groups of people did not celebrate the Hindu festivals until ten years back. However, after the introduction of mass schooling in the study area, children of all castes and tribes were introduced to the Hindu festivals through the schools. The children of middle caste tribal groups in the study area have accepted the Hindu festivals like their caste-Hindu neighbours and have celebrated the festivals.

Beginning in November, the second rice crop is harvested. The fields are left to dry in the warm air for a few days after which they are ploughed and prepared for the third crop, usually mustard and a variety of *dal* (Nepali: lentil). This is also the winter season and the temperature is mild. This is also the least busy time of the year in an agricultural village such as Chisang. At this time of the year, many adult men and a few women temporarily migrate to the Nepali capital, Kathmandu and other large cities in India in search of temporary work.

### **Chisang's Population Characteristics**

**Household Type:** In Chisang, the higher caste Brahmins and Chettris often are divided into separate households yet hold common property and rituals. In a few cases among the higher castes and middle castes, some of the property is held jointly and others separately, and some of the rituals are held jointly although no property is held jointly. These are but two issues which makes it difficult to define the joint family in Chisang.

In this study, a household or family will be defined as a housekeeping or consumption unit, the essential characteristic of which will be taken to be the eating of meals together by all members of the household, or sharing of meals derived from a common stock of food (Hajnal 1980). A "nuclear household" is composed of a conjugal couple and their unmarried children. A "joint household" is composed of two or more married couples. A "supplemented nuclear family" is composed of nuclear plus other single person(s), for example a widowed parent or an unmarried adult sibling (Cain 1978: 422). The remaining households that do not fit these descriptions will be referred to as "subnuclear" types of households in which one or more single person live.

The formation of rural households in Chisang and similar settings all over Nepal involves a process of expansion and reduction (Cain 1978; Gould 1968; Gray 1980, 1995; Parry 1979; Kemper et al. 1989). In Chisang, among all castes and tribes, domestic organisation is patriarchal, residence is patrilocal, and descent is patrilineal.

Upon marriage a woman becomes a member of the husband's household and becomes a part of his lineage. Inheritance laws favour sons (Bennett 1983).

The presence or absence of members belonging to different generations and their marital status determine the type of household they belong to. Distribution of households by household type in Chisang is presented in Table 6.1. From the data on household type, the nuclear household is the predominant pattern in Chisang. Out of a total of 111 Chisang households, 85 (76 percent) were nuclear households in which married couples lived with their unmarried children.

**Table 6.1: Distribution of Households by Household Type in Chisang**

<i>Type of Household</i>	<i>Number of Households</i>	<i>Percent</i>
Subnuclear: Single person(s)	6	5.41
Nuclear: Married couples and their unmarried children	85	76.58
Supplemented Nuclear: Nuclear plus other single person	12	10.81
Joint: Two or more married couples	8	7.21
Total	111	100

**Source:** Chisang Survey, 1995

### **Circumstances Leading to the Formation of Chisang's 85 Nuclear Households:**

#### *Relationship to patriarch's death and state of health*

The timing of partition of joint households which lead to the formation of the current 85 nuclear households in Chisang is presented in Table 6.2. Six percent (five cases) of the partitions occurred while the patriarch of the extended household was still alive. However, three of these five partitions occurred while the patriarch of the extended family was too frail to work. It must be emphasised here that in the case of most such partitions in Chisang and similar settings that took place while the patriarch was still alive the patriarch and his wife, if still surviving, were not left on their own. Most

commonly the patriarch of the joint household and his wife lived with one of their married son and his family to form a supplemented-nuclear household, while one or more nuclear families were split off. Older informants agreed that there was considerable pressure on the patriarch and his wife to partition the household before the patriarch became too weak and feeble, which could hamper his decision making capabilities. This was believed to be in the best interest of all members of the joint household. A clear majority of partitions, 41 percent (35 cases) occurred at the time of the death of the patriarch of the family (see Table 6.2).

**TABLE 6.2: Timing of Partition of Chisang's 85 Nuclear Households**

<i>SITUATION</i>	<i>N</i>	<i>Percent</i>
When father was still alive	5	5.88
When father was dead:		
At Death	35	41.18
Later, but mother was still alive	4	4.71
At mother's death	28	32.94
Later, after existence of a supplemented-nuclear household	4	4.71
Father and/or mother unable to work due to illness	8	9.41
Husband brought in second wife	1	1.18
Total	85	100

**Source:** Chisang Survey, 1995

*Relationship to patriarch's wife's death and state of health*

Five percent (4 cases) of partitions in Chisang occurred after the death of the patriarch of the household, but while his wife was still alive (see Table 6.2). The surviving mother would remain with one of her sons and his family while other son(s) formed nuclear households. All four nuclear households which fell in this category had migrated from the Hill Districts of east Nepal into the study village in the past five to ten years. Another 33 percent (28 cases) of partition occurred at the time of the death of the patriarch's wife (see Table 6.2). In only one case was a household partitioned after the husband brought in another wife. In general, two or more wives lived in the same household in polygynous households in Chisang.

### *Health status of the child/children at the time of partition*

So far our discussion has concentrated on the timing of household formation as it relates to the death and health status of the patriarch of the joint household and his surviving wife. This section will focus on the health status of the child or children of couples who have formed their own nuclear households. Perceptions of the health status of the child or children at the time of household partition are presented in Table 6.3.

**TABLE 6.3: Nuclear Households, Children and Timing of Joint Household Partition (Percent)**

<b>SITUATION</b>	<b>Yes</b>	<b>No</b>	<b>Not Sure</b>	<b>Total</b>
Did the health of your child\children expedite the timing of household partition?	12	80	8	100
Is it true that children belonging to nuclear households have:				
Better education?	100	0	0	100
Better food and nutrition?	59	29	12	100
Have a better future?	100	0	0	100
Better health care?	12	80	8	100

**Source:** Chisang Survey, 1995

Seventy-nine percent of couples affirmed that the health status of the child or children born prior to partition played no role in the timing of household partition. Another eight percent were unsure. However, there was unanimous agreement among couples that children belonging to nuclear households received better education, and therefore, had a better future. In-depth interviews with these couples revealed that access to improved education better prepared the children to secure employment in the non-agricultural job market. A majority (59 per cent) of the respondents agreed that children who grew up in nuclear households received better food and nutrition. Then, somewhat inconsistently, only 12 per cent of couples agreed that children belonging to nuclear households had better health care. These couples explained that joint and supplemented-nuclear households had more financial resources to purchase health care for their sick children. In addition, elderly family members from joint and supplemented-nuclear households had more experience to care for the sick. It

follows, then, that sick children were better cared for in joint households. A widow living with her youngest son and his family explained:

My other two daughters-in-law come and fetch me as soon as their child is not feeling well. I have often spent many weeks in my other sons' homes when their children have become seriously ill. Oftentimes, my sons do not have enough money to take the children to the Health Post or call the *dhami* (Nepali healer). Then I will use my own money to take the sick to the Health Post or call the *dhami*.

In Chisang and similar settings in the eastern Terai region of Nepal, it is very common for the sick child to be cared for by the elderly experienced members of the family before calling the *dhami* or taking the child to the Health Post. It is not unusual that older family members are themselves *dhami*. In addition, elderly family members finance the treatment of sick younger family members.

Table 6.4 shows the number of surviving children prior to and after household partition by household type in Chisang. At the time of partition an average of 2.60 children had been born to couples of the nuclear households. Another 1.20 children were born to these couples after partition. At the time this study was conducted, there were an average of 3.60 surviving children in these 85 nuclear households in Chisang. This compares with an average of 4.5 surviving children in the 8 joint households, and 4.2 children in the 12 supplemented-nuclear households in Chisang. These figures indicate that couples living in nuclear households have the lowest fertility, which is followed by couples living in supplemented-nuclear families. Couples living in joint

**Table 6.4: Number of Surviving Children Prior to and After Household Partition by Household Type in Chisang**

<i>Situation</i>	<i>Nuclear Household</i>	<i>Supplemented Nuclear Household</i>	<i>Joint Household</i>
Average number of surviving children at the time of partition	2.6	Not applicable	Not applicable
Additional surviving children born after partition	1.2	Not applicable	Not applicable
Total number of surviving children at the time of survey	3.8	3.6	4.5

**Source:** Chisang Survey, 1995

households are characterised with having the highest fertility in Chisang. It is recognised that as the number of households surveyed are small, this finding is indicative only.

**Description of Chisang's 26 Non-Nuclear Households:** At the time of the study there were a total of 26 non-nuclear households in Chisang (see Table 6.1). Of these, six were subnuclear households which consisted of unmarried persons, three being comprised of brothers, and another two of first cousins. Only one of these six subnuclear households consisted of two or more persons not related to one another. Eight of the non-nuclear households were joint households, where two or more couples resided in the same household. Four of these eight joint households consisted of two or more married brothers and their families living in the same household. The remaining four households consisted of the patriarch and his wife living with one or more sons and their families. Finally, there was a total of 12 supplemented-nuclear households in Chisang in which a widow or widower lived with one of the sons and his family. Ten of the supplemented nuclear households consisted of the widow and her son's family, while only two consisted of the widower and his son's family.

Joint and nuclear households provide different level of freedom to women living in these households. Access to employment outside the family farm and access to contraceptives locally and in nearby towns differ between various household types in Chisang. It is more likely that women living in joint households are less likely to have the freedom to seek employment outside the family farm and are also less likely to have access to contraceptives locally or in the nearby towns. In contrast, middle caste and lower caste women have more freedom to seek employment outside the family farm and also have access to contraceptives locally and in the nearby towns. Furthermore, it is more likely that the higher caste women will live in joint households and their middle caste and lower caste neighbours will live in nuclear households. Thus, fertility rates of women in Chisang vary in respect to the type of household they live in. Higher caste women who are more likely to live in joint households have a higher fertility rate than their middle caste and lower caste neighbours who are more likely to live in nuclear households.

**Chisang's Population:** According to the 1991 National Population Census Haat Bazaar VDC had 2,992 households with a total population of 15,639, of which 7,721 were male and 7,918 female (CBS 1994: 9). The 1991 National Population Census collected data only at the VDC and Municipality level, not at ward level, and therefore I was unable to locate any census data for Chisang. For that reason, the first stage of the present study was a village census which was administered to all 111 households, and provided the data for the description of Chisang's population (see Chapter 5). The total population of Chisang in 1995, as indicated in the Chisang Census, is presented in Table 6.5. The population of Chisang is grouped according to caste groups. The higher castes (Brahmins and Chettris together) make up 70 percent (n=451) of the total population of Chisang. The middle castes (*matwali* and *adhivasi* together) make up 24 percent (n=152) and the lower castes (Sarki, Kami and Damai) make up the remaining 6 percent (n=35). The majority of the *pahari* have settled in Chisang for less than ten years and make up almost 90 percent of Chisang's population. The indigenous tribal peoples, the *adhivasi*, number only 63 and make up less than 10 percent of the village population. Chisang can, therefore, be viewed as a *pahari gaon* (Nepali: Hill village) in the Terai.

**TABLE 6.5: Population of Chisang by Caste Groups**

<i>Caste Group</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Percent</i>
Higher Castes	215	236	451	70.69
Middle Castes	84	68	152	23.82
Lower Castes	17	18	35	5.49
Total	316	322	638	100

**Source:** Chisang Survey, 1995

**Geographical Mobility:** Place of birth of Chisang's population by geographic area and caste group is presented in Table 6.6. Forty-four percent (n=283) of the total population of 638 of Chisang was born in the Mountain and Hill regions of east Nepal.

**Table 6.6: Place of Birth of Chisang's Population According to Caste Group and Geographic Area**

<b>Caste Group</b>	<b>Terai District</b>	<b>Hill District</b>	<b>Country Other Than Nepal</b>
Higher Castes	212	222	0
Middle Castes	71	16	12
Lower Castes	37	45	6
Total	320	283	35
Percent of total	50.16	44.36	5.49

**Source:** Chisang Survey, 1995

Another 50 percent (n=320) of the population was born in the Nepali Terai; either within the locality of Chisang or other Terai Districts in Nepal. A little less than 6 percent (n=35) was born outside Nepal, either in India or Bhutan. One person was born in Hong Kong where the father served in the British Ghurkha regiment. However, 300 *pahari*, 47 percent of Chisang's total population, were born in the Nepali Terai; either within the VDC, Morang District or other Terai Districts in Nepal. As discussed above, there is a high level of close contact between the *pahari* of Chisang and their original homes in the Mountain and Hill regions of east Nepal. The same applies to those born in India or Bhutan. Furthermore, over 70 percent of the total population of Chisang has spent at least six months or more in either India, Bhutan or Burma in the past 25 years, and 33 percent of the population has lived in India, Bhutan or Burma for more than three years. The majority of the *pahari* served in the Indian Army in the north eastern states of India.

**Age-Sex Distribution:** The large number of inhabitants of Chisang who have lived in a country other than Nepal for extended periods of time tend to demonstrate a higher level of awareness of the social, cultural, economic and demographic forces that effect their lives. For example, these people have themselves travelled or encouraged others to travel to the local Village Development Committee Headquarters to register births, deaths and marriages of their family members or relatives. In addition, many local schools in this part of the country are demanding birth certificates from pupils wanting to enrol. The introduction of registration of

births, deaths and marriages in Haat Bazaar VDC almost 20 years ago, the need for birth certificates in order to receive Nepali citizenship and in order to be included in the voters list when over age 18 years, have made most inhabitants of Chisang aware of the value of accurate age reporting. These developments assisted me greatly in establishing the ages of local inhabitants, especially children.

As is common among village studies in illiterate societies, I had expected to find a strong digit preference for numbers 5 and 0, a tendency towards age heaping, and to a lesser degree, preference of even numbers. I had also expected a practise of underestimating the ages of unmarried girls 15 and above, and overestimating the ages of married women with children. However, the only concrete example of such tendencies was towards an underestimation of age of unmarried girls in their marriageable age (15 years old and above) who tried to hide their true age. I was told by a local Brahmin priest that underestimating the age of unmarried girls probably provided the guardians with a stronger bargaining position with the families of prospective grooms (see Chapter 8).

Table 6.7 presents the age-sex distribution from the Chisang census. From the information in Table 6.7 it is seen that females outnumber males, 322 to 316. Sex (male-female) ratio can be very important to a rural, agricultural setting such as Chisang because it may influence many other features of domestic and social life. For example, sex ratio can have a direct impact on the age and economic transaction at marriage, organisation of labour, relations between sexes, and changes in gender defined agricultural labour.

Macfarlane (1976) notes that in many developing countries up to 50 percent of the population is below age 20. According to the 1991 National Population Census 53.0 percent males and 51.2 percent females of Nepal's population are below age 20 (CBS 1995). Among the micro-studies conducted by anthropologists and

**Table 6.7: Age-Sex Distribution of Chisang's Population**

<i>Age Cohort</i>	<i>Male</i>			<i>Female</i>			<i>Total Population</i>		
	<i>N</i>	<i>%</i>	<i>Cumulative Percent</i>	<i>N</i>	<i>%</i>	<i>Cumulative Percent</i>	<i>N</i>	<i>%</i>	<i>Cumulative Percent</i>
>1	8	2.53	2.53	7	2.17	2.17	15	2.35	2.35
1-4	22	6.96	9.49	23	7.14	9.31	45	7.05	9.4
5-9	49	15.5	25	43	13.4	22.67	92	14.4	23.82
10-14	36	11.4	36.39	41	12.7	35.4	77	12.1	35.89
15-19	48	15.2	51.58	38	11.8	47.2	86	13.5	49.37
20-24	29	9.18	60.76	29	9.01	56.21	58	9.09	58.46
25-29	16	5.06	65.82	24	7.45	63.66	40	6.27	64.73
30-34	18	5.7	71.52	26	8.07	71.74	44	6.9	71.63
35-39	21	6.65	78.16	16	4.97	76.7	37	5.8	77.43
40-44	14	4.43	82.59	22	6.83	83.54	36	5.64	83.07
45-49	12	3.8	86.39	10	3.11	86.64	22	3.45	86.52
50-54	9	2.85	89.24	11	3.42	90.06	20	3.13	89.65
55-59	15	4.75	93.99	7	2.17	92.23	22	3.45	93.1
60-64	6	1.9	95.88	5	1.55	93.78	11	1.72	94.83
65-69	7	2.22	98.1	8	2.48	96.27	15	2.35	97.18
70-74	1	0.32	98.42	6	1.86	98.13	7	1.1	98.27
75-79	4	1.27	99.68	4	1.24	99.37	8	1.25	99.53
80+	1	0.32	100	2	0.62	100	3	0.47	100

**Source:** Chisang Survey, 1995

demographers 43.8 percent among Tamangs (Fricke 1993: 50); 45 percent among the high altitude dwellers of north-west Nepal (Ross 1981: 37); and 39.64 percent among the Gurungs (Macfarlane 1976: 282) are below age 20. Of the total 638 inhabitants of Chisang some 315 or 49.37 percent were below age 20.

However, the above mentioned figure of 49.37 percent of Chisang's population that is under age 20 years does not illustrate a complete picture in the local socio-economic and cultural contexts. From the Chisang Census data I was able to identify 53 children between the age of 6 and 19 who were included in the Chisang Census. The families of these children lived permanently in the Mountain and Hill regions, and most of these 53 children were living with their relatives in Chisang and attending schools in the area. The reason for this was that many of the Mountain and Hill regions lacked schools, or the schools were underfunded and understaffed. Some of this group of 53 children were school drop-outs and had left their homes in the

Mountain and Hill regions and temporarily settled in Chisang. A strength of micro-demographic research is that it provides the opportunity to identify demographic processes such as this. Chisang's under 20 population which accounted for a high 49.37 percent of the total village population, was therefore inflated by this large number of children (some 8.3 percent of the total village population) who had temporarily moved to Chisang from the Mountain and Hill regions to attend local schools. If this group is excluded, the age-sex characteristics of Chisang reflects those described by anthropologists and demographers in other village studies in Nepal.

**Selected Characteristics of Chisang:** Selected characteristics, mainly economic, social, developmental and demographic are presented in Table 6.8. Many forces of change are at work in Chisang and the whole eastern Terai region of Nepal. These affect the social, cultural, economic and developmental contexts within which fertility decisions are made in such areas as Chisang. As in rural areas of most developing settings, land is still the dominant source of employment, income and power in Chisang. Most of the larger, more productive, and expensive landholdings are owned by the higher castes. A small percentage of the total land is owned by absentee landlords. The *adhivasi* own and have access to less land, a source of continuous tension between the *pahari* and the *adhivasi*.

**Table 6.8: Selected Economic, Demographic, Developmental and Social Characteristics of Chisang**

<i>Characteristics</i>	<i>Chisang</i>
<b><i>Economy</i></b>	
Main occupation	Agriculture
Main crops	Rice, corn, mustard
Main commercially grown crop	Pineapple
Percent of landless households	20.7
Percent of households sharecropping	34.2
Percent of respondents above age 15 working for wages	38
Percent of men working for wages	28.8
Percent of women working for wages	21.6
Per capita household landholding (ha.)	0.277
Per capita income from land (Nepali Rupees)	2804
<b><i>Demography</i></b>	
Number of households	111
Number of nuclear households	85
Size of household	5.7
Median age of population	24.9
<b><i>Development</i></b>	
Health Post in VDC?	No
Sub-Health Post in VDC?	Yes
Number of High Schools in the VDC	3
Number of Primary Schools in the VDC?	12
Family Planning and Maternal Child Health services in VDC	Yes
Percent of households with toilets or out-houses	61.2
Percent of households with water wells or tube-wells	0.51
Size of school-going population (6-15)	165
Size of school attending population (6-15)	118
Number of children not attending school	47
Number of boys attending school (6-15)	62
Number of girls attending school (6-15)	56

**Source:** Chisang Survey, 1995

Chisang has experienced major socio-economic development programmes, especially in the last five years. In 1994, a Sub-Health Post was inaugurated in the Haat Bazaar, one hour's walk from Chisang. A non-governmental organisation (NGO) has set up a permanent Family Planning Office in the neighbouring village of Tallo Chisang, less than one kilometre south of Chisang. Another government funded mobile clinic

provides ante-natal services at two locations within the VDC each month. I was able to record 16 drug retailers among which nine were registered with the government. Only three of these nine drug retailers have had any form of government approved formal training. Chisang was served by two drug retailers, only one of whom had received any training.

Haat Bazaar VDC has three high schools and a dozen primary schools, one of which is located in Chisang. There were another five secondary schools within the VDC. For the children of wealthier inhabitants of Chisang a school bus comes to Chisang to pick the students to a private English school in the trading town of Belbari. The size of the school going population (age 6-15 years) was 165 of which 118, some 71.5 percent, were attending school. Sixty two percent of the boys and 56 percent of girls aged 6 to 15 were attending school. A solid 69.7 percent of the respondents claimed that they were literate, that is they are able to read and write.

## **Conclusions**

In this chapter by discussing broadly the social, cultural, economic, developmental and demographic characteristics of the study village of Chisang, the basis has been established on which to compare fertility trends in Chisang and Nepal. The information in this chapter also provides the context for analysing fertility change taking place in Chisang and similar settings in the eastern Terai region of Nepal, along with providing a broad context in which fertility occurs. These issues are the subjects of analysis in Chapters 7 through 10.

## CHAPTER 7

### FERTILITY TRENDS IN CHISANG AND NEPAL

The recent decline in fertility in Nepal has been attributed to increases in contraceptive use, literacy rates, and mean age at marriage (Gongol, Retherford, and Thapa 1997; CBS 1995; Niraula 1990; Tuladhar 1987). Although literacy rates and mean age at marriage follow regional and national trends, fertility decline in Chisang has occurred in an almost total absence of contraceptive use. Only in the past two to three years has there been a slow increase in contraceptive use in Chisang (to be discussed in detail in Chapter 9). It is argued that the social, cultural, economic and development contexts within which fertility occurs are changing and these changes are primarily responsible for the decline in fertility predating the implementation of family planning services in Chisang and similar settings in the eastern Terai region of Nepal (see Chapter 10).

The primary objective of this chapter is to describe the fertility pattern in Chisang and compare it with other populations and geographical regions of Nepal. The data for Chisang have been derived from Chisang Census administered to all 111 households, and the Marriage and Fertility Survey questionnaire administered to all 99 ever-married women age 15-49.

This chapter is divided into five sections. The first section reviews fertility trends in Nepal in the last two decades. The second section provides information on the child-woman ratio in Chisang and compares it with data from the 1991 National Population Census of Nepal. The crude birth rate of Chisang thus calculated will be described. The third section summarises the age-specific fertility rates (ASFR) and total fertility rate (TFR) in Chisang along three dimensions: the study village of Chisang in 1995; by caste groups in Chisang; and for different points in time, that is 1985, 1990 and 1995. In the fourth section age-specific fertility rates and total fertility rate will be compared with two sets of data by source: other village studies conducted to determine fertility characteristics, and data by source from the 1991 National Population Census. The final section will discuss the main factor which appear to

have caused fertility to decline in the study village before the introduction of modern contraceptives: the rise in female age at marriage. Detailed explanations for the rise in female age at marriage will be provided in Chapter 8.

### **Fertility Trends in Nepal in the Last Two Decades**

Until as recently as a decade ago, fertility in Nepal had persisted at a very high level with a total fertility rate of around six children per woman (CBS 1987, 1995). Tuladhar (1989: 15-30) was one of the first social scientists to cautiously conclude that Nepal was on the verge of the onset of fertility decline. Tuladhar used raw data on birth history from the 1986 Fertility and Family Planning Survey and obtained a TFR of 5.61 children per woman for the period 1980-1985. Subsequently, the Nepal Fertility and Family Planning Survey (1989) confirmed the TFR at 6.0 children per woman thus casting doubt on Tuladhar's (1989) earlier suggestion.

However, Tuladhar's (1989) thesis did find some support in other research. Using the own-children method of fertility estimation, Niraula (1990: 57-66) estimated the age specific fertility rates and total fertility rates for the periods 1976/79, 1980/82, and 1983/86 for 767 women and 1,565 children in the central Hill region of Nepal. In the 1976/79 period the TFR was estimated to be 6.39, which declined to 5.78 in 1980/82 period, and further declined to 5.29 in the 1983/86 period. Niraula (1990) contributes the fertility decline to three main factors in the study village: increase in contraceptive use, literacy rate, and mean age at marriage. Niraula (1990) goes on to state that these three factors: increases in literacy rate, contraceptive use; and mean age at marriage are not confined to the study population but are taking place in most of Nepal.

Due to the inadequacies of the vital registration system in Nepal, birth and death data for fertility and mortality analysis come from the decennial population censuses and the inter-censal demographic sample surveys and other fertility surveys (CBS 1995). Fertility estimations have therefore been calculated using indirect techniques, a situation perpetuated by the unreliability of data on vital events due to under-reporting. The TFR was estimated to be 6.3 by the 1971 National Population Census and remained at that level in the 1981 National Population Census. The 1991

National Population Census, using indirect techniques, estimated the total fertility rate for the country as a whole to be 5.6 children per woman. According to CBS (1995) the total fertility rate for 1995-96 is estimated at 5.1 children per woman. Trends in age-specific fertility rate and total fertility rates for Nepal from 1971 to 1991 are presented in Table 7.1. These estimates show that there was very little movement in the ASFR and TFR between 1971 and 1981. However, since 1981 the trend is towards a slow decline in fertility in Nepal.

**Table 7.1: Trends in Age-Specific and Total Fertility Rates for Nepal from 1971, 1981 and 1991**

<i>Age Group</i>	<i>1971</i>	<i>1981</i>	<i>1991</i>
15-19	0.074	0.66	0.095
20-24	0.267	0.23	0.286
25-29	0.31	0.266	0.272
30-34	0.261	0.245	0.212
35-39	0.196	0.206	0.151
40-44	0.109	0.142	0.077
45-49	0.043	0.099	0.028
TFR	6.3	6.3	5.6

**Source:** CBS, 1995, Table 4, Page 68

### **Child Woman Ratio**

The child woman ratio is one of the most commonly and widely used measures of fertility. This ratio, also known as the general fertility ratio, is usually defined as the total number of children aged 0-4 over the number of women aged 15-49 (Newell 1988). The child woman ratio is directly affected by under-enumeration of young children and mortality, which affects both women of child bearing age and children under five years (Newell 1988; Shryrock and Siegel 1976). This ratio always understates fertility since the survival rate is higher for women. On the positive side, this ratio has many advantages because it does not require a special question in the census and is also a useful means of obtaining fertility statistics for small areas.

The child woman ratio for Chisang and various regions of Nepal are presented in Table 7.2. From the information provided in the table it is clear that the child-woman ratio is substantially lower in Chisang than any other region of Nepal. Several factors explain the substantially lower child woman ratio in Chisang in comparison with other regions within Nepal. First, the Chisang Survey was conducted almost four years after the 1991 National Population Census. There must have been some changes (as the trend is towards a decline) in fertility between 1991 National Population Census and Chisang Survey, 1995. Secondly, Chisang is situated in rural eastern Terai where the adult population, both male and female, have a long history of migrating into and out of Chisang in large numbers. Recently, there is evidence that increasing numbers of adults, both male and female, are leaving for urban centres within Nepal and India in search of non-agricultural employment (to be described in Chapter 9). Finally, the sample is very small and is influenced by minor changes in both fertility and migration, especially migration of women of age 15-49. In spite of these limitations, it does provide clues as to the changing nature of fertility in the study village and probably in other parts of rural Nepal.

**TABLE 7.2: Child-Woman Ratio for Chisang, Rural Nepal, the Terai, Eastern Nepal and Nepal, 1991**

Area	Child-Woman Ratio
Chisang <sup>1</sup>	0.365
Rural Nepal <sup>2</sup>	0.630
Terai <sup>2</sup>	0.617
Eastern Nepal <sup>2</sup>	0.585
Nepal <sup>2</sup>	0.615

**Source:** 1 Chisang Survey, 1995

2 CBS, 1995, Table 1, Page 63

### Crude Birth Rate

Crude birth rate is the simplest and most frequently used measure of fertility (Newell 1988; Shryrock and Siegel 1976). Crude birth rate is defined as the number of live births per 1000 mid-year population in a given year (Shryrock and Siegel 1976). In

Chisang, between July, 1994 and June, 1995, there were 21 live births. Fifteen infants under age one were enumerated in the Chisang Census (see Table 5.3), another four infants had gone to their mother's *maita* (Nepali: natal home) for an extended stay and were missed out in the census, and another two infants had died due to unknown cause in the previous year. Taking the base population as 638 for Chisang (see Table 5.3), this gives a crude birth rate of 32.9. Again, the crude birth rate of 32.9 is significantly below the figure of 41.6 estimated by 1991 National Population Census.

### **Age-Specific Fertility Rates (ASFR) and Total Fertility Rate (TFR)**

The age-specific fertility rate (ASFR) for an age group is a ratio of total live births from female population of that age group during the reference period divided by total female population of the same age group during that reference period. Similarly, the total fertility rate (TFR) is a measure indicating the number of children a woman would have over her reproductive years if she bore children at the rate estimated for different age groups in the specified time period. The best indicator of the underlying fertility pattern in a village is the pooled experience of all women (Fricke 1993: 97).

Presented in Table 7.3 is the information for 99 ever-married women of all castes and tribes in Chisang who have ever been exposed to the risk of childbirth, together with estimates of ASFR and TFR. In order to estimate the rates mentioned above, the actual number of births occurred to women of reproductive age are required, thus, giving the total number of births to each woman and the women at risk indicated by the number of women of reproductive age. The information in Table 7.3 allows us to make generalisations and to make comparisons with other populations. Chisang's demographic history is characterised in this most recent period by decline in fertility across age groups and the total population. Only four out of the 99 women exposed to the risk of pregnancy had not yet borne any children when the marriage and fertility history was recorded between July and August, 1995. The highest parity was 10 children for one woman in the age group 40-44. The average Chisang 15-49 year old married woman had given birth to about 3.45 children when this information was collected. By the time a married Chisang woman reached her 25th birthday, over 85 percent had borne at least one child and continued to have additional children at

**Table 7.3: Age-Specific Fertility Rates and Total Fertility Rate for Chisang**

AGE	Parity										Total Births	At Risk	ASFR
	1	2	3	4	5	6	7	8	9	10			
15-19	43	15	4	1	0	0	0	0	0	0	63	495	0.127
20-24	41	45	24	6	2	1	0	0	0	0	119	455	0.262
25-29	8	17	23	20	9	4	1	0	0	0	82	365	0.225
30-34	2	4	8	10	9	5	2	2	0	0	42	296	0.142
35-39	1	0	1	5	7	4	3	0	2	0	23	194	0.119
40-44	0	1	0	0	0	2	0	1	0	1	5	109	0.046
45-49	0	0	0	0	0	0	0	0	0	0	0	28	0.000
<b>Total (N)</b>	95	82	60	42	27	16	6	3	2	1	334	1942	-

**Total Fertility Rate: 4.6**

**Source:** Chisang Survey, 1995

moderate rates for another 20 years. The highest years of fertility were between age 20 and 24, the period in which 2.6 children were born. Explanations for this particular pattern of fertility will be provided in detail in the next three chapters.

Both ASFR and TFR of the 99 married women of Chisang between the age of 15 and 49 have been calculated after determining the actual number of births to each woman and the women at risk indicated by the number of women of reproductive age. One of the possible limitations of micro-demographic research based on only 99 married women of reproductive age is the very small size of the sample population. The other limitation is that the women may have mistakenly or purposefully not provided the actual number of births they have given. As the sample size of women of reproductive age in this study is very small the failure to record correctly even small numbers of actual births given by these women can skew the ASFR and TFR. The third limitation of this analytic technique is the fact that some of these Chisang women may have migrated into Chisang only very recently. It has been noted in Chapter 6 that the level of in-migration into Chisang is very high. Thus, their fertility behaviour may be more closely associated with the Mountain and Hill Regions of Nepal where the fertility rate of women of reproductive rates are higher than their counterparts who have lived most of their lives in the Terai region of Nepal.

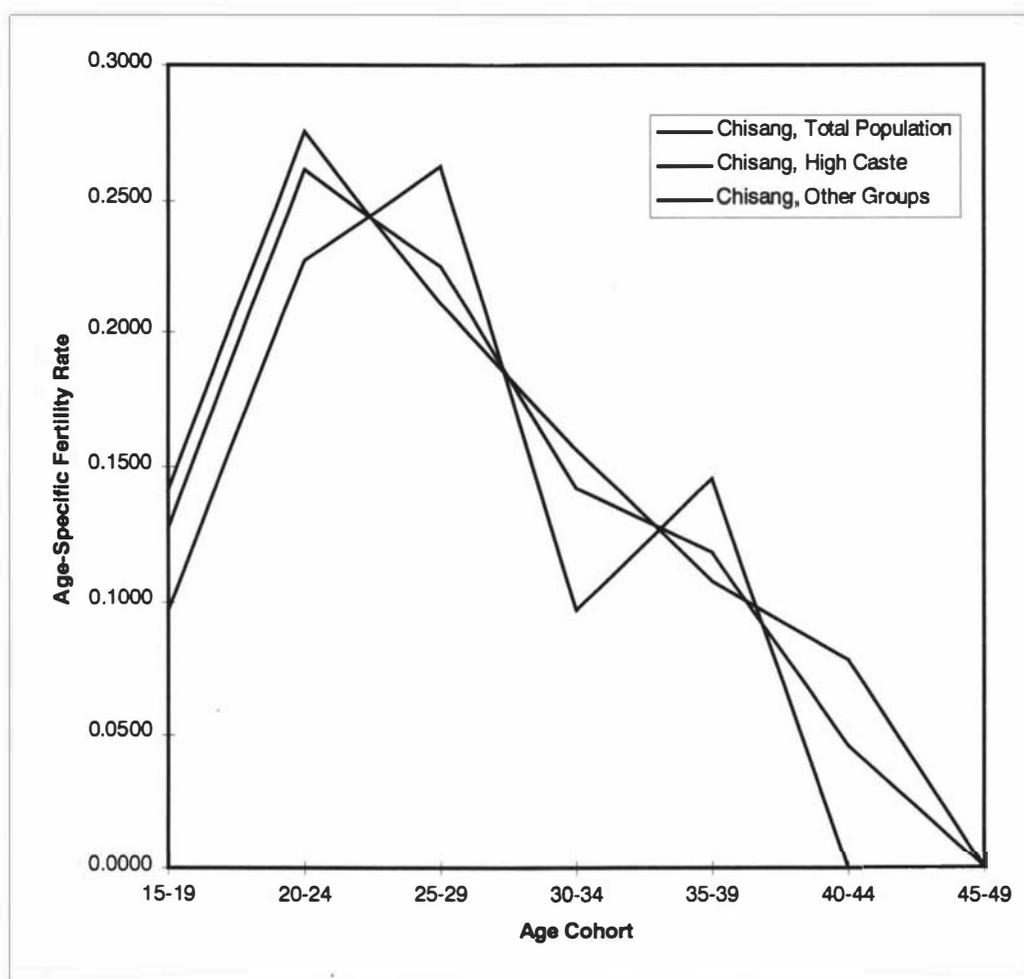
Table 7.4 and Figure 7.1 compare fertility trends between higher caste women and middle caste tribal groups and lower castes. Higher caste women had higher ASFR and TFR in general. Also, women from middle caste tribal groups and lower castes residing in Chisang had borne no further children in the age groups 40-44 and 45-49. Another fertility characteristic that is made clear from the information provided in Table 7.4 and Figure 7.1 is that fertility for higher caste women was highest at age 20-24. However, for middle caste tribal groups and lower castes fertility was highest between age 25-29. Finally, from the information in Table 7.4 the fertility situation is illustrated where the higher caste women first give birth from an early age (at around age 15) and continue to do so until around age 45. However, middle and lower castes have a moderately low fertility rate at age 15-19, which increases steeply at age 20-24, peaks at a very high level at age 25-29, declines at age 30-34, and ends at age 35-39. These differences can be attributed to several factors. Early marriage of higher caste women for socio-cultural reasons (to be described in detail in Chapter 8) and rigid Hindu ideology which have pro-natalist tendencies, explain higher fertility among higher caste women. Higher mortality rates of spouses of women of middle caste tribal groups who are socio-economically less privileged than their higher caste counterparts, and the institutional context, such as the lack of extended joint families, explain lower fertility rates of middle caste tribal groups and lower castes (to be described in detail in Chapter 8).

**Table 7.4: Trends in Age-Specific Fertility Rates and Total Fertility Rate by Caste Groups, Chisang**

<i>Age</i>	<i>Chisang, Total Population</i>	<i>Chisang, High Caste</i>	<i>Chisang, Other Groups</i>
15-19	0.1273	0.141	0.097
20-24	0.2615	0.276	0.227
25-29	0.2247	0.211	0.263
30-34	0.1419	0.156	0.097
35-39	0.1186	0.108	0.145
40-44	0.0459	0.078	0
45-49	0	0	0
<b>TFR</b>	<b>4.6</b>	<b>4.9</b>	<b>4.1</b>

**Source:** Chisang Survey, 1995

**Figure 7.1: Trends in Age-Specific Fertility Rates by Caste Groups, Chisang**



**Source:** Table 7.4

Table 7.5 and Figure 7.2 show that age-specific fertility rates and total fertility rate have declined in recent years. Between 1985 and 1990, the TFR declined from 6.2 to 5.3 children per woman, a decline of 16.9 percent. The TFR shows a further decline of 15.2 percent between 1990 and 1995, from 5.3 to 4.6 children per woman. The age-specific fertility rates shown in Table 6.5 and Figure 6.2 show a similar trend and the most dramatic fertility decline has occurred in ages 30-34 and 35-39. This is mainly due to the prevalence of fertility inhibiting behaviour especially in the past few years through the use of temporary contraceptives for spacing births, and male and female sterilisation for terminating conceptions altogether. This is consistent with the findings of the Nepal Census 1991 (CBS 1995). But from both qualitative information and quantitative data on marital and fertility histories of Chisang women, there is strong evidence that a decline in fertility of Chisang women began before the prevalence of contraceptive use.

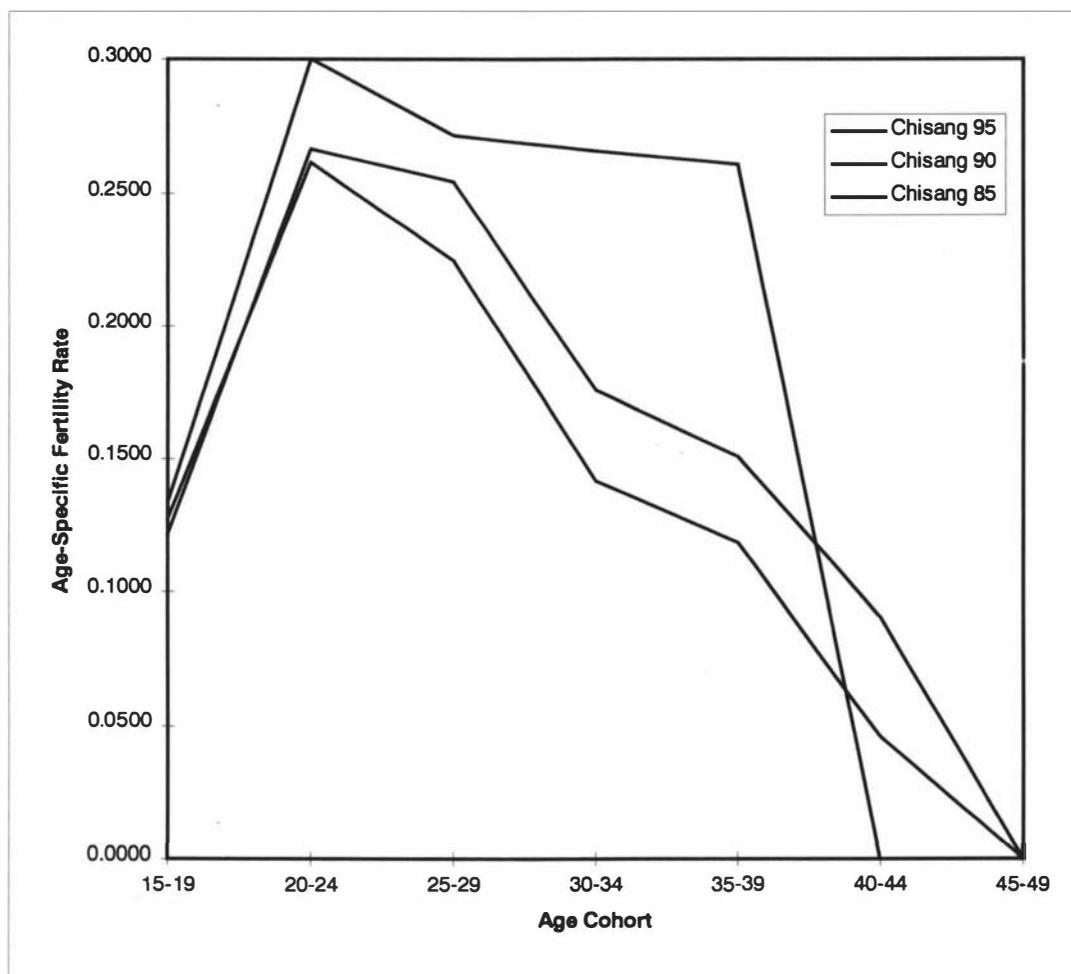
A Sub-Health Post and a Family Planning Office first began providing family planning and maternal child health services in this Village Development Committee towards the middle of 1994. Furthermore, in line with the practice in other parts of Nepal, both the Sub Health Post and Family Planning Office in this VDC promoted the use of Depo-Provera for spacing births, and male and female sterilisation for terminating conceptions altogether. This topic will be described in detail in Chapter 9. For now it is sufficient to say that fertility decline in Chisang has occurred primarily due to changing social, cultural, economic and developmental institutions and their impact on the context within which fertility occurs in Chisang and the eastern Terai region of Nepal (see McNicoll 1976, 1980, 1994; Hull 1987) and less so by the introduction and prevalence of contraceptive use. Both qualitative and quantitative data from the study village confirm the fact that fertility decline in Chisang and probably many rural eastern Terai villages preceded the introduction and acceptance of contraceptive use by at least five years, if not more.

**TABLE 7.5: Age-Specific Fertility Rates and Total Fertility Rate for Selected Years, Chisang**

<i>Age</i>	<i>Chisang 95</i>	<i>Chisang 90</i>	<i>Chisang 85</i>
15-19	0.1273	0.1215	0.1339
20-24	0.2615	0.2667	0.3000
25-29	0.2247	0.2544	0.2717
30-34	0.1419	0.1755	0.2660
35-39	0.1186	0.1509	0.2609
40-44	0.0459	0.0909	0
45-49	0	0	0
<b>TFR</b>	<b>4.6</b>	<b>5.3</b>	<b>6.2</b>

**Source:** Chisang Survey, 1995

**Figure 7.2: Age-Specific Fertility Rates for Select Years, Chisang**



**Source:** Table 7.5

In this section fertility trends in Chisang are compared with other study populations, caste and tribe mix in Nepal. Very few village studies have been conducted in rural Nepal where the primary aim has been on determining fertility and other demographic characteristics. Niraula's (1991) work in the Central Hills, Fricke's (1986) study of a Tamang community north of the Kathmandu Valley, and Macfarlane's (1976) work among the Gurungs north of Pokhara are the exceptions. Table 7.6 and Figure 7.3 provide information on ASFR and TFR for other village studies in Nepal by author and year. As the fertility estimates have been derived in the studies cited using various methods and in different points in time, they are not strictly comparable which limits the ability to make generalisations.

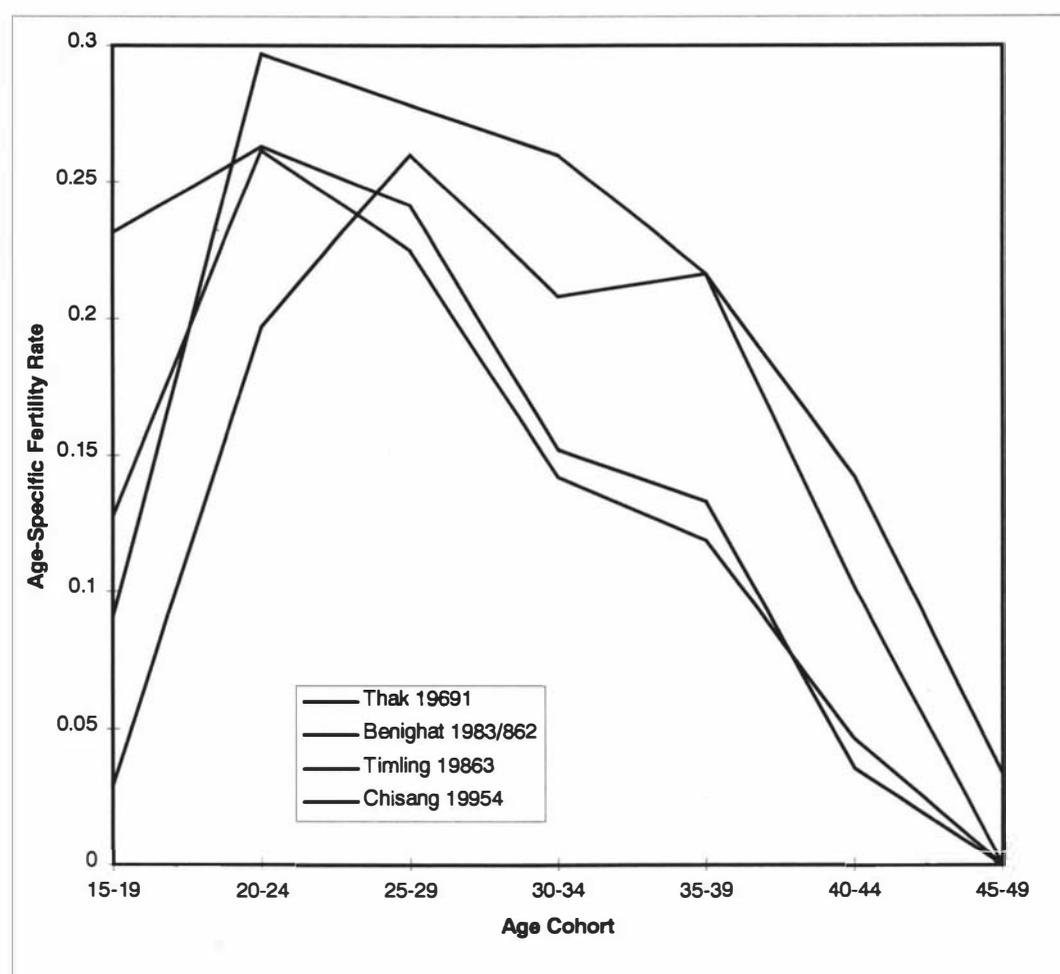
Age-specific fertility rates and total fertility rate for Chisang and Rural Nepal, Eastern Region, the Terai and Nepal in 1991 are presented in Table 7.7 and Figure 7.4. The ASFR for Chisang is consistently lower than that of Rural Nepal, Eastern Region, the Terai, Nepal in 1991. Also, in Chisang the ASFR for the age group 45-49 is 0. This can be explained by the fact that the study village which is settled predominantly by *pahari* people is strongly influenced by Hindu customs which adhere to the notion that maternal and grand-maternal roles should not conflict. Thus, women over age 40 in general, and over age 45 in particular, are strongly discouraged from child-bearing. In addition, as at least a few of the women's spouses in the 40-45 and 45-49 age groups were victims of very high mortality which prevailed in all of Nepal in the very recent past, many of these older women were widowed. Figure 7.5 clearly indicates that the TFR for Chisang has been lower than that of the Eastern Development Region, the Terai, rural Nepal, and all of Nepal in 1991.

**Table 7.6: Age-Specific Fertility Rates Cited in Other Village Studies in Nepal by Source**

<i>Age Group</i>	<i>Thak 1969<sup>1</sup></i>	<i>Benighat 1983/86<sup>2</sup></i>	<i>Timling 1986<sup>3</sup></i>	<i>Chisang 1995<sup>4</sup></i>
15-19	0.09	0.231	0.029	0.1273
20-24	0.297	0.263	0.197	0.2615
25-29	0.278	0.241	0.26	0.2247
30-34	0.26	0.152	0.208	0.1419
35-39	0.216	0.133	0.216	0.1186
40-44	0.101	0.035	0.142	0.0459
45-49	na	0	0.033	0

**Source:** 1 Macfarlane, 1976  
 2 Niraula, 1990  
 3 Fricke, 1986  
 4 Table 6.3

**Figure 7.3: Age-Specific Fertility Rates Cited in Other Village Studies in Nepal by Source**



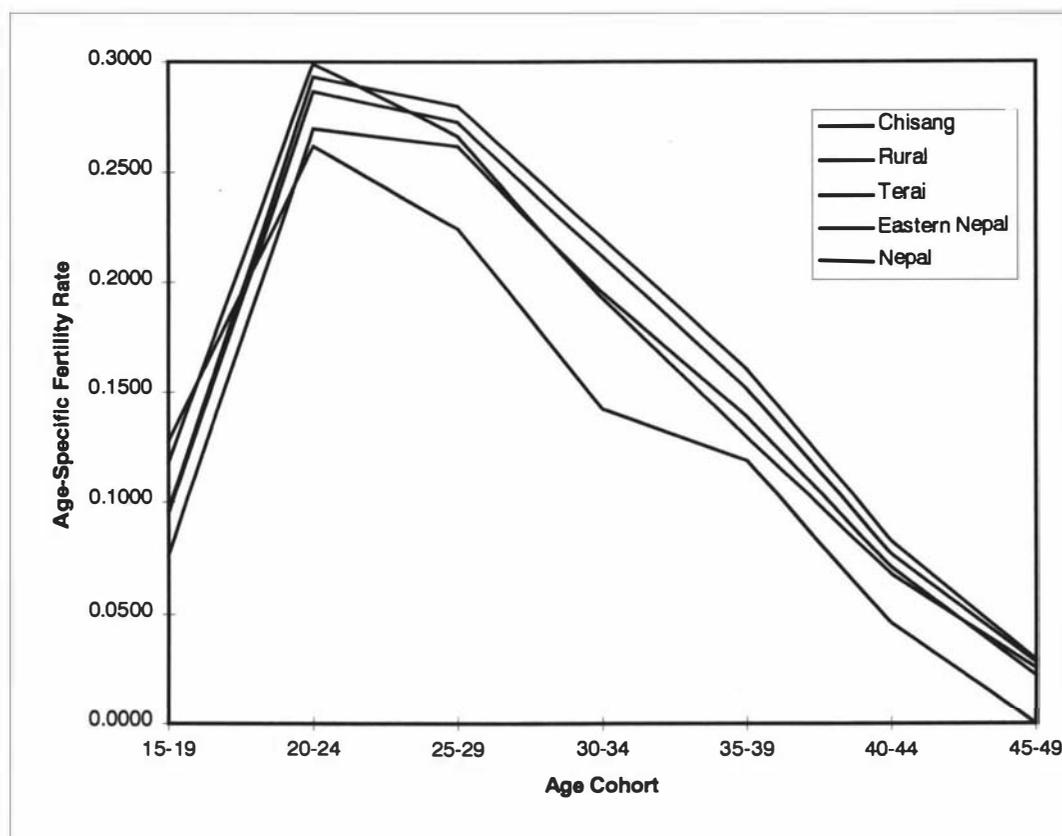
**Source:** Table 7.6

**TABLE 7.7: Trends in Age-Specific Fertility Rates and Total Fertility Rate for Chisang and Various Regions of Nepal**

Age	Chisang <sup>1</sup>	Rural <sup>2</sup>	Terai <sup>3</sup>	Eastern Nepal <sup>4</sup>	Nepal <sup>5</sup>
15-19	0.1273	0.0964	0.1176	0.0768	0.0950
20-24	0.2615	0.2928	0.2987	0.2690	0.2860
25-29	0.2247	0.2792	0.2659	0.2616	0.2720
30-34	0.1419	0.2205	0.1925	0.1951	0.2120
35-39	0.1186	0.1600	0.1291	0.1385	0.1510
40-44	0.0459	0.0829	0.0680	0.0712	0.0770
45-49	0.0000	0.0291	0.0253	0.0219	0.0280
TFR	4.6	5.8	5.5	5.2	5.6

**Source:** 1 Chisang Survey, 1995  
 2 Central Bureau of Statistics, 1995 Table 9, Page 74  
 3 Central Bureau of Statistics, 1995 Table 8, Page 73  
 4 Central Bureau of Statistics, 1995 Table 7, Page 72  
 5 Central Bureau of Statistics, 1995 Table 3, Page 67

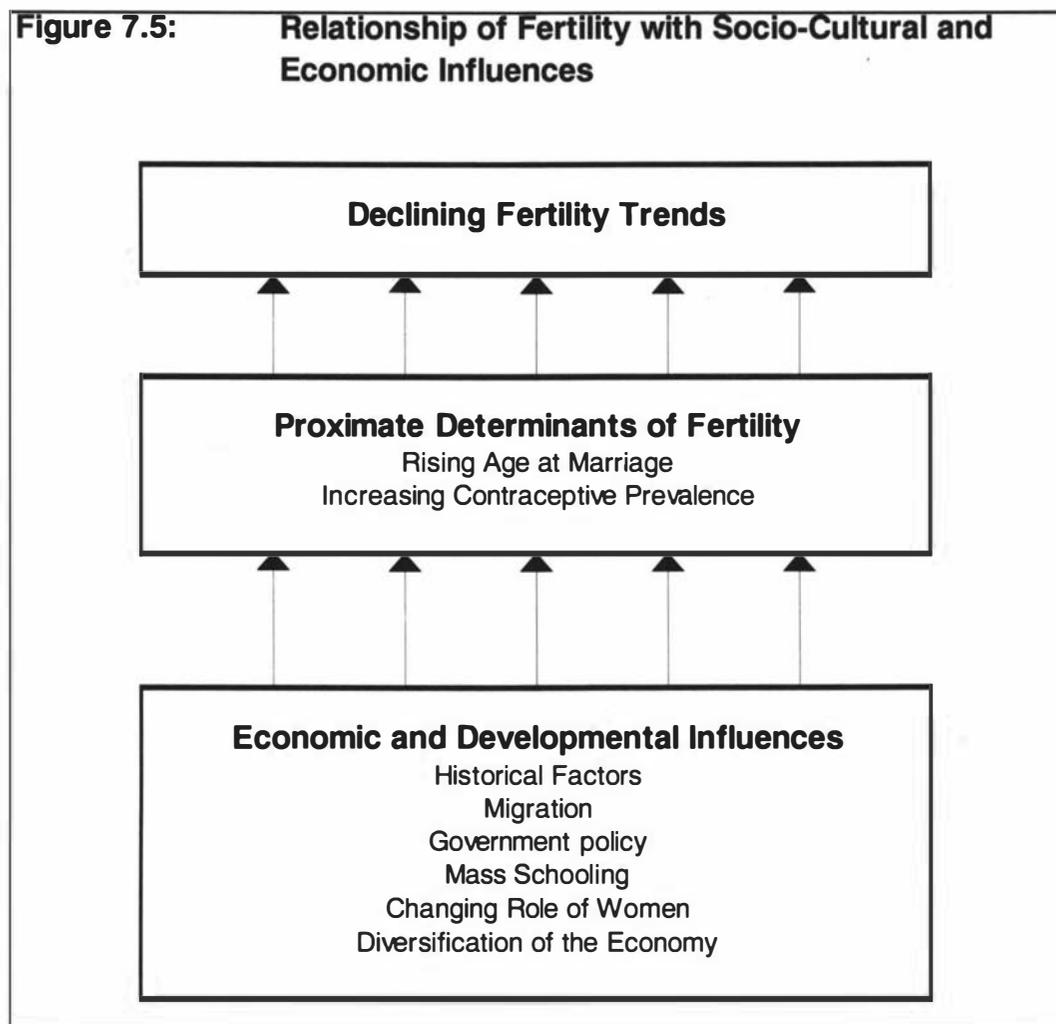
**Figure 7.4: Age-Specific Fertility Rates of Chisang and Various Regions of Nepal**



**Source:** Table 7.6

## Relationship of Fertility with Economic and Developmental Factors

The decline in fertility in Chisang is attributed to two of the four proximate determinants of fertility: rise in age at marriage, and only recently, availability of contraceptive technology. The most important finding of the present study has been the lack of connection between fertility decline in Chisang and the prevalence of contraceptive use. There is strong evidence that lends support to the fact that fertility decline in Chisang, and probably many rural villages in Nepal, preceded the prevalence of contraceptive use by at least five years, and most likely more. Findings of this study suggest that this decline is related to rising age at marriage, which in turn is a result of a complex mix of economic and developmental factors in interaction. The relationship of fertility with these proximate determinants of fertility and economic and developmental influences is shown diagrammatically in Figure 7.5.



Fertility trends in Chisang have been described in the present chapter, and compared with national trends in Nepal. Age at marriage and availability of contraceptive use, two of the four proximate determinants of fertility and that have a direct impact on fertility, will be the topic of discussion in Chapter 8 and Chapter 9, respectively. Economic and developmental influences which have an indirect influence on fertility through the effects on the proximate determinants will be discussed in Chapter 10. These economic and developmental factors have facilitated an environment conducive to increase the age at marriage, and availability of contraceptive technology.

## **Conclusions**

The most common indices that measure fertility are the age-specific fertility rates and total fertility rate both of which confirm that fertility in Nepal was very high and remained so until 1981. Between 1981 and 1995/1996 the pattern began to change and there is evidence now of a slow decline in fertility. The fertility trend in the study village of Chisang reflects that of Nepal. However, both age-specific fertility rates and total fertility rate were consistently lower in Chisang when compared with those of Nepal. Fertility differentials between higher caste women and middle caste tribal groups follow the pattern found in other fertility studies of Nepal (CBS 1995; Niraula 1990, 1991; CBS 1987; NFFS 1989; Nepal Fertility Survey 1976). Higher caste women marry early, give birth to their first child early, and continue to have additional children until age 40-45. Women from middle caste tribal groups and lower castes marry later, and have the highest fertility level approximately five years later than higher caste women. Women from middle and lower castes did not give birth after the age of 40 years. This may have been caused by the extent of their “*paharisation*,” in which they have adopted the concept of conflict between maternal and grand-maternal roles at higher ages (age 40 and up).

These findings have major policy implications at the local, regional and national level *vis-à-vis* fertility control programmes. It is very likely that with a comprehensive programme to distribute and make available contraceptives that takes full account of the particular social, cultural and economic issues in the locality, further reduction of both age-specific fertility rates and total fertility rate can be achieved. These findings

also lend support to the saying the received wisdom that “development is the best contraceptive.” However, the under 20 age group of Chisang, in line with that of Nepal’s population generally, contributes more than 40 percent of the population. Realistically, the population of Chisang and Nepal will stabilise only after the next generation has completed its fertility cycle at a drastically reduced level.

## CHAPTER 8

### THE RELATIONSHIP OF CHANGING MARRIAGE PATTERNS WITH FERTILITY DECLINE

Nepal is grouped among developing countries which have experienced persistent high fertility in the past several decades. As argued in chapter 7, in the case of Nepal there is some indication now that it is on the verge of undergoing a major demographic transition (Gongol, Retherford, and Thapa 1997; Tuladhar 1989; Niraula 1990; His Majesty's Government [HMG] 1993). The present study also reflects this trend. In the previous chapter it has been argued that the decline in fertility in Chisang and similar settings in the eastern Terai of Nepal is primarily attributable to reduced reproductive rates among married couples. Almost all births in Chisang and similar settings in the eastern Terai region of Nepal take place within wedlock, and therefore changing marriage patterns assume high significance. The social, cultural, economic and developmental contexts within which fertility occurs are themselves changing, and these changes were assumed to have contributed to fertility decline in Chisang.

The study village of Chisang is a prime example of a rural setting which exhibits the following characteristics. Marriage is nearly universal in Chisang and data shows that with few exceptions, marriage preceded the onset of childbearing. Age at marriage has a strong influence on a variety of demographic, social and economic phenomena (Bloom and Reddy 1986: 509). Early marriage is also associated with a lower rate of school attendance for both males and females, lower social status and a lower rate of labour force participation for females (Bloom and Reddy 1986).

Marriage customs vary in Chisang along the lines of religion, caste and ethnicity, place where marriage takes place, educational background, and income level. Customs also seem to be changing over time. An adequate explanation of marriage change in the study village and similar settings involves a number of major components. These include the socio-cultural, economic and developmental contexts within which rapid and fundamental changes have taken place, which in turn have caused marriages to undergo change. In order to have a better understanding of

fertility change in Chisang, the socio-cultural and economic contexts within which marriage changes are taking place will be analysed in this chapter.

The main purpose of this chapter is to describe changing patterns of marriage in Chisang, and to explore several important dimensions of the local culture, developmental process and socio-economic changes that seem particularly relevant to understanding the rapid change in marriage patterns in Chisang and similar settings in the eastern Terai region of Nepal. I draw on both qualitative and quantitative data gathered during the village study including in-depth interviews with primary informants and their married children. The analysis is not intended to provide a comprehensive explanation of change in marriage patterns, but to illustrate how incomplete such an explanation would be if these points of view were ignored. Changes in marriage patterns are thus but one of a range of explanations of the decline in fertility, other explanation include the changing social, cultural and economic institutions, the introduction of mass schooling and the recent introduction of modern contraceptives.

This chapter is divided into five sections. First, literature on the relationship of fertility with marriage patterns will be reviewed. Secondly, preferred traditional marriage patterns in Nepal will be described. The third section describes socio-cultural trends affecting marriage patterns. Details of the findings from the Marriage and Fertility Survey of Chisang will be presented in the fourth section. All ever-married women between age 15-49 residing in Chisang at the time of the study were surveyed (see Chapter 5). In the final section quantitative findings will be presented.

### **A Review of Selected Literature on the Relationship of Fertility with Marriage Patterns**

Several studies have stressed the importance of the changing marriage patterns of Western Europe and subsequent reductions in marital fertility during pre-industrial times (Bongaarts and Potter 1983; Coale 1973; Sklar 1973, 1974). Hajnal (1953, 1965) was the first to compare these patterns with the experience of the then currently developing countries. Hajnal (1965) identified three distinctive marriage patterns for

the early decades of the twentieth century: one of late marriage and a high ratio of never married women, the “Western European” pattern; one of early and universal marriage, the “non-European” (i.e. in developing countries) pattern; and the third with a later marriage timing than the developing countries and high ratio of married women, the “Eastern-European” pattern. Hajnal (1953) pointed out that a rise in female age at marriage and females never marrying led to the overall reduction in fertility in Europe. This phenomenon preceded the fall in marital fertility, and certainly predates the development of contraceptive technology.

In the theory of multiphasic response, Davis (1963: 345-366) maintains that delayed marriage of females and subsequent delays in marital fertility are reactions to a persistent rate of population growth resulting in part from success in controlling mortality. Coale (1973) described the delay in the age at marriage of females and the subsequent declines in marital fertility as Europe’s first and second demographic transitions. Friedlander (1983) found support for Davis’s proposition, which he claimed explained the differentials in demographic behaviour between local areas in England and Wales in the nineteenth century. By analysing data from South India (Caldwell, Reddy, and Caldwell 1982, 1983, 1988) and Sri Lanka (Caldwell, Gajanayke, Caldwell, and Caldwell 1989), the authors also found support for the multiphasic response theory. The authors noted some differences in the marriage patterns between South India and Sri Lanka, and they argued that marriage change was most closely related to the following: the change from subsistence agriculture to a non-agricultural economy; employment provided by the non-agricultural economy; and social and educational change.

Recent decades have witnessed rising ages at marriage for females with subsequent declines in female fertility in many parts of Asia. This has been described in Nepal (Aryal 1991; Niraula 1994); India (Caldwell, Reddy, and Caldwell 1983; Bloom and Reddy 1986); Sri Lanka (Caldwell, Gajanayke, Caldwell, and Caldwell 1989); and Asia in general (Smith, 1980). In Nepal in general, and the eastern Terai region of Nepal in particular, there has been a slow decline in fertility between 1981 and 1991 (CBS 1993, 1995). In the previous chapter it was suggested that a delay in age at marriage was one of the primary determinants of fertility decline in Chisang and in other parts of eastern Terai region of Nepal. It was also stated that fertility decline in

the study village and the eastern Terai region preceded the introduction and use of contraceptives by five years, and possibly more. In a rural setting such as Chisang, where marriage is almost universal and almost all children are born within wedlock, the study of age at marriage and marriage change is of critical importance, especially in areas where the use and availability of contraceptives has been negligible (to be described in detail in Chapter 9). Using data from the Marriage and Fertility Survey (see Chapter 5 for full description of the method and instrument), it will be argued here that the changes in marriage are affected by marriage practices, which themselves are affected by broader socio-economic change.

### **Preferred Traditional Marriage Patterns Among Caste Groups in Nepal**

Marriage customs in Chisang vary according to religion, caste and ethnicity, educational background, and income level. Marriage customs also seem to be changing over time in Chisang and the study area. In this section, I will briefly describe some of the general features of the traditional marriage patterns for the higher castes, middle caste tribal groups and lower castes, and the preferred time to get married in the past.

**Higher Castes:** Traditionally, marriage has been among the most important event in family life in Chisang and all over Nepal. Its importance was derived from religious, social, cultural, and economic factors. The higher caste Brahmins and Chettris viewed marriage of their sons and daughters as the rite of entrance to a family, thus making it one of the most sacred events for a Hindu. For the higher caste Brahmins and Chettris, marriage ceremonies were considered to be a part of both the parents' and the children's *dharma* (Nepali: duty). Marriage fulfilled one of the major purposes of the Hindu way of life, it allowed women to bear children, especially sons, who would later perform sacred rites for their parents after their death.

Ideally, boys were married when aged between 16 and 19 years, and girls between 14 and 16 years. In the local context the bride accompanied the groom to his house at the end of the marriage ceremony. It was customary for the bride to remain in her husband's house for approximately two weeks, after which she returned to her *maita*

(Nepali: natal home). The bride remained in her *maita* from a few weeks to a few years. Consummation of marriage, a separate religious function indicating mating rights for sexual reproduction, usually performed in the case of those wherein, the girl at the time of marriage time is not matured and thus necessitates another function after the girl attains puberty, took place when the bride formally left her *maita* and went to live with her husband in his house, referred to as *ghar jaane* or *gahuna* (Nepali: transfer of residence to husband's house) in the study area. During the time prior to the consummation of the marriage, when the bride remained in her *maita*, the husband was permitted to visit the bride in her *maita*. In-depth interviews with the village *pundit*, the village “*daktar*,” and the Sarki indicated that there were no restrictions placed on sexual intercourse between the husband and bride while she remained in her *maita*. However, traditionally this was unusual and it was very unusual for the bride to conceive prior to *ghar jaane*. Traditionally a female companion accompanied the bride to her husband's house, where she stayed for a week or so before returning to her village.

The time between marriage and consummation was a transitional period which achieved two things. First, the time lag between marriage and consummation helped to shape the bride to be receptive to the needs of her husband and his family. She was trained in her *maita* to be a good wife and homemaker and to participate in both ritual and social ceremonies in her husband's house. A very young bride would be unable to fulfil her duties as a housewife in rural, subsistence, agrarian settings. Thus, this was a very crucial period for young married daughters to be trained to cope with the household work in her husband's house. Secondly, this time lag was directly related to biological maturity. This was especially true of Brahmin girls who in general were married at a relatively younger age, and less so of Chettri girls. My older male informants were emphatic that there was no prohibition of sexual relations with married girls who had not yet reached puberty. However, with the exception of one birth to a Chisang woman prior to consummating her marriage<sup>1</sup>, the finding that all

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<sup>1</sup> In this case a young Brahmin woman was married and went and lived with her husband and his family for approximately three weeks after which she returned to her *maita* (natal home) for approximately two and one half years. While she was still living in her *maita* her husband visited her and she got pregnant and gave birth to her first child. She had been married ceremoniously after which she gave birth to her first child. However, in this case she had not yet consummated her marriage and that gave rise to an odd situation where the first child was born prior to the consummation of the marriage.

births to Chisang women occurred at age 15 or more suggests that the younger couples refrained from sexual activities until after puberty.

In the past, higher caste people practised caste endogamy and village exogamy. Marriage partners were expected to belong to the same caste, but not to have lived within the same village and in some instances within the immediate area. Therefore, marriage selections required careful negotiations, and if things did not work well, involved considerable risks. The in-marrying bride, who belonged to a different household before marriage, was perceived as a potential threat to the family interests. Therefore, with the objective of ensuring security to family interests, the search for a young bride started at an early age. Early marriage allowed the husband and his family to provide further training to the in-marrying bride after the marriage was consummated; and to discipline her. Training and discipline were vital to the stability of the household and ensured their authority over the in-marrying bride, thus minimising the possibility of dissent, and in some cases, revolt, in the household. Early marriage helped benefit both the groom and bride's family due to possible economic, political, and social benefits from extended networks of relationships through matrimonial ties.

Early marriage among higher caste women was also associated with the historical tendency to deprive females of property rights, especially of land and other fixed assets. Daughters were associated with *paraya dhan* (Nepali: property belonging to the husband and his family). The village *pundit* explained that an unmarried woman was a *pahuna* (Nepali: guests) in her parent's house. Only after her marriage would she enter her *ghar* (Nepali: home). Sons on the other hand were expected to look after their parents in old age, thus necessitating the land and other fixed property to remain under patriarchal control. The present law of the land does not give inheritance rights to married daughters and sisters. There is a provision for women over 35 and still unmarried to claim the right to inherit property and other fixed assets (NCP 1985). The presence of unmarried women over 35 and provision in the law for them to claim inheritance rights can be a potential threat to the patriarchy in rural, agrarian settings where both wealth and status is directly linked to landholdings, thus providing an additional motivation to marry off their daughters at an early age.

The other main motivator for early marriage of higher women in Nepal, especially among the Brahmins, was due to the high value placed on gifting a virgin girl in marriage. According to Hindu marriage customs, which were more rigidly observed by the Brahmins and less so by the Chettris, girls were married before menarche to ensure her virginity was maintained. *Kanya-daan* (Nepali: donation of a virgin) marriage is practised by those seeking to receive *punya* (Nepali: merit) by giving away their *kanya* (Nepali: virgin) daughter in marriage. However, from extended interviews with primary informants, both males and females in Chisang and with elderly people in other nearby villages, it was revealed that *kanya ketiko biya* (Nepali: marriage of girls before menarche) was a thing of the past. I was unable to document a single case of pre-puberty *kanya-daan* marriage that had taken place in Chisang and the vicinity in the past 10 years. Furthermore, in the case of the few elderly women who have had pre-puberty *kanya-daan* marriages, theirs had taken place in the distant past in the Mountain and Hill regions of east Nepal.

Early marriage of higher caste women was often related to the institutionalised practice of giving *daijo* (dowry, usually in the form of jewellery, electrical and electronic appliances, household utensils, and furniture given to the bride's new household by parents or brothers) at the time of the wedding or shortly thereafter. A generous *daijo* eased the acceptance of the bride by her husband and in-laws. Moreover, all of my higher caste informants agreed that a younger bride required less *daijo* than a mature unmarried woman. The practice of giving *daijo* had wide spread support among higher caste families. The higher caste families strongly believed that a large *daijo* would impress the extended family network, thus making it easier for other unmarried girls in the bride's family (and often in that extended family network) to be married at a younger age in the future. In short, a large *daijo* was associated by families with an investment in the future, which in turn made it easier for other unmarried girls in that family to be married earlier.

Many higher caste families recognised the inherent contradictions of the practice of giving *daijo*. My informants stated that a smaller *daijo* was required for younger brides. However, they also believed that if a larger *daijo* was given to the young bride now, it may in the future assist other unmarried girls in that extended family network to get married at an early age. Giving a large *daijo* to a young girl also helped the

family to maintain its standing in the society. The higher caste families in Chisang were obsessed with maintaining their standing in the society. In Chisang, it is beyond doubt that a large *daijo* assisted mature unmarried women to attract husbands, who were often of lower economic standing within their own caste. A large *daijo* may be the last resort to an arranged marriage for higher caste, mature unmarried women who are known as “*budhi kanya*,” a colloquial Nepali term, which means mature unmarried women. A *budhi kanya* can be a considerable financial burden to the patriarchy due to their need to provide a large *daijo*. Even worse is the need to provide for her lifelong or she may demand for her rights to inheritance after she reaches age 35. Many unmarried girls grow up with the fear of becoming a *budhi kanya*. However, the greatest fear a mature unmarried woman has is of being given away in marriage by her parents or brothers as a replacement wife to a widower with children, a co-wife to a married man, or remaining unmarried life long. Early marriage, in most cases, frees a woman from receiving the label of *budhi kanya*, and guarantees first marriage for both the man and woman.

As only married women are permitted to participate in various household rituals, marriage of women is one of the most important factors in maintaining household rituals. In contrast, all high-caste men undergo the *janai* (Nepali: sacred thread) wearing ceremony which must precede marriage ceremony. After her wedding a woman becomes *karma chaleko*, that is, she is eligible to participate in various household rituals (Bennett 1983: 165-66). Acquisition of a bride who is young therefore assists the high caste families to fulfil labour needs for agriculture, and to carry out household rituals.

**Middle and Lower Castes:** Unlike their higher caste neighbours, nuclear households were more common among the middle castes (*matwali and adhivasi*) and lower caste inhabitants of Chisang in the past. Several anthropologists (Caplan 1970; Fürer-Haimendorf 1964; Macfarlane 1976; Jones and Jones 1974; Schuler 1987) who have studied the middle and lower castes in the Nepali Hills and the Terai region have noted that it is expected of the middle and lower castes to set up independent households shortly after marriage. The nuclear household comprising the husband, wife, and their unmarried children, is the norm among the middle and lower castes

(Caplan 1970; Fürer-Haimendorf 1964; Macfarlane 1976: 220; Schuler 1987). As the middle and lower castes had smaller landholdings as well as a lower percentage of joint households in comparison to their higher caste neighbours, there was very little emphasis placed on early marriage of middle and lower caste women. It has also been suggested that young boys and girls from middle and lower castes have greater freedom to choose their marriage partners, thus leading to higher age at marriage than were it to be arranged (Bista 1996; Majipuria and Majipuria 1978).

Unlike their higher caste neighbours who practised giving *daijo*, middle and lower castes in Chisang generally practised giving bride price. Some of my elder middle and lower caste informants were convinced that there was some movement away from giving bride price to accepting *daijo*. However, the information I gathered in the Marriage and Fertility Survey did not support this. Most of my older middle and lower caste informants in Chisang agreed that in the past many boys and their families were unable to meet the bride price payments which in turn delayed the marriage.

Marriage has been almost universal among all castes and tribes within Chisang and the vicinity. The social customs of the middle and lower castes favour a later age at marriage than the higher castes. The higher caste marriages were arranged by their parents while their children were still young, unlike the middle and lower castes where the couples had a lesser role in the marriage arrangements. Among the higher castes, widows were not permitted to remarry, although remarriage of widowers was practised. Both marriage customs and the age at marriage of the middle and lower castes have changed recently.

### **Changes in the Preferred Age to Get Married**

Both in-depth interviews and survey data confirmed the virtual disappearance of pre-puberty marriage among the higher caste girls over time in Chisang. All of my informants and married women I interviewed were also aware that 16 and 18 years were the legal minimum age for marriage for women and men, respectively. In the last ten years, there was only one case of childbirth to a married woman prior to

consummation of her marriage. The elderly women of Chisang confirmed that a generation ago childbirth took place only after consummation of marriage. Although child marriage among the higher castes had never been universal in the eastern Terai, there was strong support for it in the past in the Hill region. The social customs of middle and lower castes discouraged the practice of child marriage long before these groups came in contact with the higher castes. Two reasons are given for the disappearance of child marriage among higher castes over the last decade or two in Chisang and the vicinity. First, most girls in Chisang are attending school now and most parents want their daughters to have completed at least 7 to 10 years of schooling before marriage. By the time most girls in Chisang had completed 7 to 10 years of schooling they would have reached puberty. Secondly, boys are at least a few years older than girls at marriage (average age difference between boys and girls being 6.1 years). It is increasingly difficult to persuade a boy to get married to a girl of immature appearance and having to wait for years to consummate his marriage (Caldwell, Reddy, and Caldwell 1983: 349).

There is general agreement in Chisang and the vicinity that these days a man should marry at about 24 years of age. There has been very little change in age at marriage of men in Chisang and the vicinity in the past 15 years. However, women's age at marriage has been increasing incrementally. Today, it is expected of a girl to get married between age 18 and 20 in Chisang and the vicinity. It will be illustrated later that the age gap at marriage between men and women has been narrowing. Most men oppose being pressured into getting married too soon on the grounds that they are not financially capable of providing for a wife and family. Village elders explained this as a recent importation from the mass media, mass schooling and urban settings. In the past, subsistence agriculture and the joint households provided the necessary social and financial support for early marriage of men. Within the changing socio-cultural, economic and developmental contexts within which marriage and fertility decisions are made in Chisang and the vicinity, there is stiff resistance from young men to get married at an early age (see Chapter 9).

A micro-demographic approach allows us to have a closer look at individual cases, and in-depth interviews with primary informants have made it clear that there are exceptions to this view. The few exceptions to this pattern included a few families

who had first borne sons late in life, born after the parents were age 35 and over. These families placed a lot of pressure on their young sons, now barely 18 years old, to get married. At the time of the study, no such marriage of young boys from Chisang had actually taken place. This pressure was associated with the high value placed on the need for parents to progress from parent to grandparent status, reflecting Hindu customs practised in Chisang and the vicinity. I was unable to record any cases where young brides from other regions had been married to young boys from Chisang in the last three years. There were three such cases in which girls between age 16 and 17 from Chisang were married to young boys between age 18 and 20 in other parts of the eastern Terai.

Change in marriage practice also relates to the preferred age for girls to marry. With the exception of a few Brahmin families, there is no longer pressure to marry a girl by menarche, nor beliefs of religious or moral transgression in failing to marry a daughter before puberty (Caldwell, Reddy, and Caldwell 1983: 350-51). Pregnancy due to pre-marital sex would bring shame on the family, and occasionally on the whole village. In a nearby village with mixed castes and tribes three unmarried girls had been pregnant a few years back. I was told by the village *pundit* in Chisang that “any prospective groom and his family in their right mind would stay away from that village,” as most of the unmarried girls in that village were, in his words, *chada* (Nepali: loose). Examples such as this illustrate the continuing high value placed on the chastity of women and control over their fertility, a value which is no longer translated into pre-pubertal marriage.

### **Socio-Cultural Trends Affecting Marriage Patterns**

In this section socio-cultural trends that affect marriage patterns will be discussed. These socio-cultural trends have developed in the past three to four decades in the eastern Terai region of Nepal and are constantly changing.

***Paharisation:*** The caste Hindus (higher castes and lower castes) together comprise 77 of the 111 households in Chisang. The middle castes (*adhivasi* and *matwali*) together comprise the remaining 24 households. The middle and lower castes have

been strongly influenced by the process of *paharisation* described in Chapters 2 and Chapter 5. After decades, and in some instances, centuries, of close contact with the caste Hindus, many of high caste values and daily rituals have been absorbed by the middle and lower castes. Although all 111 Chisang households claimed to be Hindu, the middle castes also worship and give offerings to many of their tribal deities. In-depth interviews with the elderly middle caste people, many of whom were my primary informants, revealed that higher caste values had permeated every aspect of middle caste people's lives. The strong influence of caste Hinduism was also evident in the two wedding ceremonies I attended during my stay in Chisang: one of a Dhimal (middle caste *adhivasi*) girl from the neighbouring village; and another of a Yakha (middle caste hill tribe) boy's wedding that took place in Chisang.

The process of *paharisation* of the middle castes in Chisang and similar settings in the region in recent times have influenced the marriage ceremony but not the age at marriage of the middle and lower castes. Many middle caste families, especially those that own land and have migrated to Chisang for more than 10 years have accepted the services of the village *pundit* (Nepali: priest). When asked about their practice of giving bride price, some of the families stated that they planned to change their marriage practice from that of receiving bride price to that of giving *daijo*. The younger, unmarried middle and lower caste population who had received education in the local schools were even more supportive of the change from giving bride price to receiving *daijo*. The lower castes, due to their very low status in the Hindu caste hierarchy were not permitted to receive the services of the village *pundit*. However, the lower castes also were supportive of changing from giving bride price to giving *daijo*. When the higher castes and middle and lower caste parents were asked what was the appropriate age for their sons or daughters to get married, the reply given by the middle and lower castes was consistently at least two to three years more than that of the higher castes. Thus, in Chisang, the process of *paharisation* has brought about changes in the marriage ceremony but not preferred age of marriage.

**A Trend from Joint to Nuclear Households:** Early marriage of unmarried younger girls of higher caste households expedites the process of splitting the households in Chisang. The largest household in Chisang of Brahmins had been forced to remain intact as long as the youngest sister in this extended family remained unmarried.

Married sons and daughter-in-laws from this extended Brahmin family openly resented the very idea of having to remain in this extended household, especially when their own children were maturing. In another case, one dissatisfied married Brahmin woman who was visiting her *maita* in Chisang explained how early marriage of the younger daughter expedited the process of splitting the joint households:

After the death of my father, my mother was helpless as she had become a *bidwee* (Nepali: widow). All three of my *daju-bhauju* (Nepali: elder brothers and their wives) acted in haste against the wishes of my mother and *didi-bhinaju* (Nepali: married elder sister and her husband) and arranged to have me married at age 15 to a man in Darjeeling District, India. Within six months of my marriage, my elder brothers and their families were living separately. Why would they have give me in marriage in India at age 15 if it was not for their desire to live separately (*chuttiyara basne*)? ..... My mother is lucky because my eldest brother and his family are taking good care of her.

Most of my younger informants believed that children who grew up in nuclear households were better prepared to find non-agricultural jobs. Due to land scarcity and change in the socio-economic structure (to be discussed in detail in Chapter 9), most of my key informants in Chisang believed that joint households were no longer the appropriate domestic arrangement to provide social and ritual support necessary as in the past

**Changing Labour Requirements:** Early age at marriage for higher castes and later age at marriage for middle and lower caste women were closely related to land-ownership and labour (both agricultural and ritual) requirements. It has already been stated in Chapter 6 that the higher castes in Chisang owned the most productive and largest landholdings. In a subsistence economy of seasonal agriculture, it is of great advantage to have a pool of labour within the household. Rice, the staple crop of Nepal, is planted in monsoon rain-fed paddy fields, which requires a large pool of readily available labour during the planting and harvest seasons. Recently, the introduction of high-yield varieties of rice and other green revolution technologies has made it possible to plant rice twice a year in this part of the country. In the past both Brahmins and Chettris in the eastern Hill and Terai regions of Nepal have viewed early age at marriage as a convenient way to satisfy the demand for labour, and thus to maintain family prosperity. This finding is in agreement with Niraula's (1990: 97) study which was concentrated in the Central Hill Region of Nepal.

**Migration:** It has already been mentioned in Chapter 6 that most of the inhabitants of Chisang have migrated from the Mountain and Hill regions of eastern Nepal in the past 30 years. The majority of these migrants were not born in Chisang nor in Morang District. Only a small percentage of the children of these migrants were at a marriageable age (above age 16) at the time of this study. A few girls, children of migrants, had been married prior to the study. Many villagers aged 16 and above were young men. Many of these men had migrated to urban centres within Nepal and India from Chisang in search of non-agricultural employment and therefore were not available for questioning. Also, as it was quite obvious that under the socio-cultural context it would be very difficult for me to get an honest answer from unmarried teenage girls, I explored the topic of migration into Chisang and fertility behaviour indirectly.

In-depth interviews with the parents who had migrated to Chisang provide some answers to the question that has been raised in this section. Most of my informants confirmed that 'times had changed' and marriages of daughters were deliberately postponed. The need to build up assets after migration was one reason given for delaying marriage, as one old Brahmin indicated:

Back then we needed every child in the family for long as possible so that we could work on the land. We had left everything behind in Panch Thar. We had to make enough savings from the land in Chisang. .... Only after we had enough money was it possible for us to think of marriage of our daughter.

**Education:** Although there is no rush to marry a girl by menarche, there is a keen awareness that the process of arranging a marriage takes time. It is understood by all parents that the longer the time lapses between menarche and marriage, the larger the *daijo* requirements will be, and the more difficult it is to find a suitable match for their daughter. As long as the girl continues her education and the parents are making an effort to find a suitable match, the delay in marriage is accepted by society. However, between menarche and marriage, if the girl discontinues her education for any reason, prospective grooms and their parents are disturbed by continued delay. Even a non-agricultural job an unmarried girl may hold in the nearby towns will not make up for discontinuation of her education. This view was projected by all my informants regardless of their caste or tribal background. Furthermore, the postponement of

marriage was one of the primary motivators for sending young girls to school (and on to college) as long as they remained unmarried. Unlike the findings of Caldwell, Reddy, and Caldwell (1983: 350) in rural South India where it was “highly irresponsible to leave a girl who has reached puberty in school,” the people in Chisang and the vicinity had very little objections to their teen-aged daughters furthering their education. This has been explained as being related to the caste structure in Nepal in general, and East Nepal in particular, which is much more flexible and accommodating than that of India (Bishop 1990; Bennett 1983; Gaige 1976).

Many families had migrated from the Mountain and Hill regions of east Nepal to Chisang primarily to provide their children better educational opportunities. An explanation relating education to change in economic value from principally agricultural to non-agricultural wage earning work without appropriate education is offered by a Chettri farmer:

*Samai badli sakyō* (Nepali: Times have changed). We would rather send our daughters to school until they appear for SLC (high school diploma) than to serve their *sashu* (Nepali: mother-in-law). In the meantime, they can go to school in the day time, and assist us to also look after the buffaloes when they are not in school..... Especially now that the dairy collects milk daily in Chisang Bazaar.

The village *pundit*, himself a migrant, described a combination of changes in public opinion, improved access to education, and the views of the young people themselves, which account for these changes:

*Kay garne* (Nepali: what to do)? People tell us that the government imprisons those who marry their daughters at an early age..... In the old days, I was unable to send my eldest daughter to school in Tehra Thum. There were no schools in our *illaka* (Nepali: area). But my *kanchi choree* (Nepali: youngest daughter) appeared for SLC but failed last year. She tells her mother that she does not want to get married because none of her friends have been married yet.

**Changes in Bride Price and Dowry:** Jones and Jones (1976: 61) who worked among the Limbus in Tehra Thum district wrote:

The purpose of bride price payment is twofold: it serves as a redress to the girl’s parents for the loss of their loved one and her services, and as compensation to the girl’s parents to legitimise her future children. In this sense, it is “progeny price” rather than “bride price.”

In the Nepali month of *Mangshir* (November-December) I attended a marriage ceremony of a 18 year old Dhimal girl. Before the groom and his party arrived for the marriage ceremony at the bride's house, the family of the groom delivered a bullock-cart full of presents to the girl's family. The presents included the following items: a whole slaughtered pig, a few chicken, two pairs of peacocks trapped in the nearby forests, 200 kilograms of husked rice, a set of clothing for the mother of the bride, and five one hundred rupees notes. I was told by the father of the bride and other elderly Dhimal and Rajbanshi the presents were payment for the labour the bride would have contributed to her father's household.

Even in a rural, agrarian setting such as Chisang, the spread of modern and western ideas are pervasive. At one time *daijo* benefited the groom's family, and the bride's control over the *daijo* was uncertain. There were many instances when the groom and his family members, through intermediaries, demanded certain items in the form of *daijo* from the bride's parents. As nuclear households are replacing joint households, *daijo* is more likely to directly benefit the bride and groom. The young bride and groom have developed new tastes and desire a lifestyle which best suits them and this is reflected in the preferences for *daijo*. This development places bride price payment in a new light, as bride price directly benefits the parents of the bride. Most of my informants agreed that as the age at marriage has increased in the last ten to twenty years, the bride has become more assertive and places a demand on her parents to provide certain necessities in the form of *daijo*. This assertiveness was justified as the *daijo* would be in her control.

Higher level of sustained contact between the higher castes and tribal groups is reflected in bride price being replaced by the practice of giving *daijo*. Many elders of the tribal communities feared that bride price payment would be out of fashion and the practice of giving *daijo* would be the norm within the next few years. The elderly tribal people went into great pains to deplore the practice of giving *daijo*. Two reasons for the change from bride price to *daijo* among the tribal groups are given by members of the study village.

The first is the affirmation that the process of "*paharisation*" has accelerated as the younger generation receives more formal education. The local schools, health post,

development offices, forestry department, and government bureaucracy are controlled by the higher castes. For many of the younger generation from the middle caste tribal groups the institutions mentioned above have helped shape their world-view. Thus, it is now more acceptable for them to act, behave and adhere to the rules and regulations of the higher castes. A marriage ceremony which resembles that of the higher castes in which alcohol is not served, high caste religious forms and rituals are observed, and *daijo* is given, makes it easier for middle caste tribal groups to raise their social standing and be more readily accepted in the *pahari* dominated society.

The second relates to the marriage market and affects all castes and tribes, which according to all my informants, has changed over the past ten to twenty years. The change is one from surplus of potential husbands to a surplus of potential wives (Caldwell, Reddy, and Caldwell 1983: 347). In contrast to the past, it is now acceptable for the parents of the bride to go out in search of potential husband for their daughters. The marriage market has now changed to such an extent that many families from Chisang and the eastern Terai search for husbands for their daughters not only in the eastern Terai, but also in the Mountain and Hill regions in eastern Nepal, Darjeeling District, and the States of Sikkim and Assam in India. The search for potential husbands extended as far as Bhutan in the past, and establishing marital relationship with distant places within Nepal, India and Bhutan also provided a strategy of migrating in search of better opportunities.

**Prospect of a Girl Remaining Unmarried:** There is always the prospect of a girl remaining unmarried. Regardless of the circumstances that have led to the failure to arrange a marriage, there are three explanations for lack of success. One is that the girl's family has been unable to come up with the required *daijo*. Secondly, rumours may have reached the prospective grooms who fear that the girl has not remained virgin, an extraordinarily difficult situation to remedy in a rural setting such as Chisang. Such rumours may further damage the chances of marriage not only of this girl but her younger sisters. Finally, it is quite common for the elder sister to be bypassed and a younger sister demanded for marriage by prospective grooms. Quite often, parents are forced to give their younger daughter in marriage while her elder sister remains unmarried. In Chisang, there were three such cases. At the time of this study, among all castes it was evident that unless these mature unmarried girls were

given in marriage to widowers or as second wives, their prospects of having an arranged marriage were very low. The fear young girls hold of getting married as a second wife or to a widower with children, or remaining unmarried life-long, are quite justified.

According to my informants, if a girl remained unmarried until age 25, the chances of her getting married to a widower increased in this part of the country. The rural Nepali society tolerated to a certain extent marrying women age 25 and over with widowers and as second wives in polygamous marriages. In the nearby villages there were a few cases of women under 25 who had got married to widowers and also as second wives in polygamous marriages. However, it must be strongly emphasised here that a vast majority of marriages of women age 25 and over do not take place with widowers or as second wives in polygamous marriages although there is a tendency towards that.

### **Data on Age at Marriage and Age at Consummation of Marriage**

**National Trends:** At the national level, the censuses did not include direct questions on age at marriage and age at cohabitation. In the absence of such questions the singulate mean age at marriage (SMAM) developed by Hajnal (1953) has been applied to estimate the mean age at marriage (CBS 1995: 181). The SMAM is defined as the number of years lived by a cohort of persons before first marriage (CBS 1995). Singulate mean age at marriage (in years) by sex, rural/urban residence, regions of Nepal, and Nepal for the year 1981 and 1991 are presented in Table 8.1. The table reveals that the mean age at marriage has increased between 1981 and 1991 for both sexes. SMAM increased from 20.7 years to 21.4 years for males, a gain of 0.7 years, and from 17.2 years to 18.1 years for females, a gain of 0.9 years. SMAM increased faster for females than males between 1981 and 1991 at the national level.

SMAM increased between 1981 and 1991 in both urban and rural areas. The increase was larger in the urban areas (1.0 year for males and 1.1 years for females), compared to the rural areas (0.5 year for males and 0.8 year for females). Both the males and females in rural areas marry earlier than their urban counterparts. In the 1981

National Population Census, the SMAM was highest for males in the Hills (22 years), intermediate in the Mountains (21.8 years) and lowest in the Terai (19.7). The pattern was slightly different for females in the same census. The SMAM for females was highest in the mountains (18.5 years), intermediate in the Hills (18 years) and lowest in the Terai (15.8 years). In the 1991 National Population Census, the SMAM for males was highest in the Hills (22.2 years), intermediate in the Mountains (21.9 years) and lowest in the Terai (20.6 years). The pattern of the females followed that of the

**Table 8.1: Singulate Mean Age at Marriage (in years) by Sex, Rural/Urban Residence, Regions of Nepal, and Nepal, 1981 and 1991**

<i>Areas/Regions</i>	<i>Singulate Mean Age at Marriage</i>				<i>1991-1981</i>	
	<i>1981</i>		<i>1991</i>		<i>Difference</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
<i>Type of Residence:</i>						
Urban	22.5	18.5	23.5	19.6	+1.0	+1.1
Rural	20.6	17.1	21.1	17.9	+0.5	+0.8
Urban\Rural Difference in SMAM	+1.9	+1.4	+2.4	+1.7		
<i>Ecological Zones:</i>						
Mountain	21.8	18.5	21.9	18.6	+0.01	+0.1
Hill	22	18	22.2	18.9	+0.2	+0.9
Terai	19.7	15.8	20.6	17	+0.9	+1.2
<i>Development Regions:</i>						
Eastern	21.7	16.9	22.5	19.2	+0.8	+2.3
Central	20.5	16.8	21.3	17.7	+0.8	+0.9
Western	20.8	17.3	21.2	18	+0.4	+0.7
Mid-Western	20.1	16.9	20.7	17.6	+0.6	+0.7
Far-Western	19.5	15.7	20.4	16.9	+0.9	+1.2
Nepal*	20.7	17.2	21.4	18.1	+3.5	+3.3

**Source:** CBS, 1995, Table 7, Page 183

\* CBS, 1995, Table 6, Page 183

males in which the highest SMAM was 18.9 years in the Hills, intermediate in the Mountains (18.6 years) and lowest in the Terai (17 years).

Although the mean age at marriage is the lowest in the Terai, the 1981-1991 intercensal increase was the highest, 0.9 years for males and 1.2 years for females, compared to 0.2 year for males and 0.9 year for females in the Hills and 0.1 year for both males and females in the Mountains. The social and economic changes probably had the largest effect in the Terai where the initial SMAM was very low (CBS 1995: 182). In terms of the development regions of Nepal, in 1991 the singulate mean age at marriage for males (22.5 years) and females (19.2 years) was the highest in the Eastern Region. Also, the increase for the females was the largest in the Eastern Region (2.3 years).

The singulate mean age at marriage for the Mountain, Hills and Terai Districts for the Eastern Region of Nepal is presented in Table 8.2. Among the Terai Districts in the Eastern Region, Jhapa has the highest SMAM for both males (23.9) and females (20.1) and is followed closely by Morang with 22.9 years for males and 19.1 years for females. Late marriage has been singled out as the cause of highest SMAM in Jhapa where the proportion of the migrant population is high (CBS 1995: 183).

**Table 8.2: Singulate Mean Age at Marriage of Men and Women of Eastern Mountain, Hill and Terai Districts, 1991**

<i>Area</i>	<i>Males</i>	<i>Females</i>	<i>Husband/Wife</i>
	<i>SMAM</i>	<i>SMAM</i>	<i>Age Difference</i>
Nepal	21.4	18.1	3.3
Eastern Mountain			
Taplejung	24.3	21.7	2.6
Sankhuwasabha	23.4	20.7	2.7
Solukhumbu	23.7	21	2.7
Eastern Hill			
Panchthar	23.5	21.1	2.4
Ilam	24.3	20.8	3.5
Dhankuta	23.6	20.9	2.7
Terathum	23.9	21.3	2.6
Bhojpur	23.5	20.9	2.6
Okhaldhunga	22.7	19.8	2.9
Khotang	23.1	20.2	2.9
Udayapur	22.1	19.1	3.1
Eastern Terai			
Jhapa	23.9	20.1	3.8
Morang	22.9	19.1	3.8
Sunsari	22.4	18.7	3.7
Saptari	19.8	15.9	3.9
Siraha	19.4	15.3	4.1

**Source:** CBS, 1995, Table 8, Page 184

**Trends in Age at Marriage and Consummation in Chisang:** Table 8.3 presents distribution of age 15-49 ever-married 99 Chisang women by current age and caste groups. From the table it is seen that as in most rural villages in the northern belt of the eastern Terai, the higher caste (Brahmins and Chettris) (n=69) are numerically dominant. The higher castes are followed by middle castes (n=22) and the lower castes (n=8). Trends in age at marriage and age at consummation which are presented below pertain to these 99 ever-married Chisang women.

**TABLE 8.3: Distribution of Age 15-49 Ever-Married 99 Chisang Women by Current Age**

<i>Caste Group</i>	<i>&lt;25</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40+</i>	<i>Total</i>
<b>Higher Castes</b>	10	9	16	15	19	69
<b>Middle Castes</b>	5	4	4	0	9	22
<b>Lower Castes</b>	3	1	2	0	2	8
<b>Total</b>	18	14	22	15	30	99

**Source:** Chisang Survey, 1995

Table 8.4 presents age cohort at marriage of ever-married women in Chisang currently aged 15-49 years, broken down according to age cohort at survey. A total of 99 women were interviewed, which comprises the total population of eligible women. All 99 marriages reported here is first marriage for the women. At the two extremes, a Brahmin woman was married at 9 years of age, and a middle caste *matwali* woman at 35 years of age. A total of 38 marriages took place when the women were between age 20 and 24, and another 8 marriages took place when the women were between age 25 and 29. Four Chisang women were married after age 30. Two of these four marriages took place with widowers.

**Table 8.4: Age at Marriage by Current Age of 99 Chisang Women**

	<i>Age at Survey</i>					<i>N</i>
	<i>&lt;25</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40-45</i>	
5-9	0	0	0	0	1	1
10-14	2	0	1	2	3	8
15-19	10	4	4	6	16	40
20-24	6	9	12	4	7	38
25-29	0	1	3	2	2	8
30+	0	0	2	1	1	4
<b>Total</b>	18	14	22	15	30	99

**Source:** Chisang Survey, 1995

Table 8.5 presents age cohort at consummation of ever-married women in Chisang currently aged 15-49 years, broken down according to age cohort at survey. Only one marriage consummated before age 15. All women aged 21 and above married and consummated at the same time. In general, marriages that took place after the teenage years were immediately consummated in the study village.

**Table 8.5: Age at Consummation by Current Age of 99 Chisang Women**

	<i>Age at Survey</i>					<i>N</i>
	<i>&lt;25</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40-45</i>	
>15	0	0	0	0	0	1
15-19	11	3	4	8	19	44
20-24	7	10	13	4	8	42
25-29	0	1	3	2	2	8
30+	0	0	2	1	1	4
Total	18	14	22	15	30	99

**Source:** Chisang Survey, 1995

The proportion of women marrying and cohabiting at different ages is provided in Table 8.6. Although the information on age at marriage and age at consummation for women aged 25 and under are presented in Table 8.6, a significant number of women were still unmarried in this age group. Thus, comparison of data will be made with age groups 25 and over. From the information presented in the table, we can conclude that as the proportion marrying at early ages declined, so did the proportion of women cohabiting at an early age. Thirteen percent of the women aged 40 and older married before age 15. The corresponding figure for women currently married age 30-34 years is 9 percent, and 0 percent for age 25-29 and under age 25. 43 percent of the women forty years and above were married after 18 years of age. The corresponding figures for women 30-34 years of age is 64 and those under 25 is 72 percent. Fifty percent of women age 40 and older consummated their marriage at age 15-17, which declined to 32 percent for women between ages 30-34. The corresponding figure for women age 25-29 is 29 percent. In contrast, only 47 percent of women who are 40 years or older consummated their marriages after age 18. The

corresponding figures for those women between age 30 and 34 is 68 percent and those under age 25 is 84 percent. There is a clear cut trend towards gradual increase in age at marriage and age at consummation, along with the move from higher age cohorts to lower age cohorts.

**Table 8.6: Percentage Distribution by Marriage, Age at Consummation and Current Age for Married Women**

	<i>Age at Survey</i>				
	<i>&lt;25</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40+</i>
<b>A. Age at marriage</b>					
<b>Below 15 years</b>	0	7	9	13	13
<b>15-17 years</b>	28	29	27	40	43
<b>18+ years</b>	72	64	64	47	43
<b>B. Age at consummation</b>					
<b>Below 15 years</b>	0	0	0	0	3
<b>15-17 years</b>	16	29	32	47	50
<b>18+ years</b>	84	71	68	53	47
<b>Total</b>	100	100	100	100	100
<b>(N)</b>	18	14	22	15	30

**Source:** Chisang Survey, 1995

**Trends in Age at Marriage and Consummation by Duration of Marriage:** Further evidence of a more clear-cut trend of rising age at marriage and age at consummation by duration of marriage in Chisang is presented in Table 8.7. The mean age at marriage for the cohort of women who had been married for 25 years or more was 18.75. The corresponding figure for women whose marriage duration was 0-4 years was 23.0. For women whose marriage duration was 10-14 years, the mean age at marriage was 22.50. The mean age at marriage and age at consummation for all 15-49 ever-married Chisang women was 21.10 years and 21.72 years respectively. The time between marriage and consummation for the cohort of women who had been married for 25 years or longer was 1.50 years, which contrasts with 0 years for

women whose marriage duration was 0-14 years. Chisang women who have been married 0-14 years consummate their marriage at the time of their marriage. This change was mainly due to the increase in women's age at marriage in Chisang and the vicinity.

**TABLE 8.7: Age at Marriage and Age at Consummation by Marriage Duration, Females**

<i>Duration in Years</i>	<i>Marriage</i>	<i>Consummation</i>	<i>Difference</i>	<i>N</i>
0-4	23.00	23.00	0	10
5-9	22.75	22.75	0	18
10-14	22.50	22.50	0	23
15-19	21.00	22.00	1.00	10
20-24	19.25	20.50	1.25	17
25+	18.75	20.25	1.50	21
Total	21.10	21.72	0.62	99

**Source:** Chisang Survey, 1995

These figures support Niraula's (1990: 94) findings that the slow increase in age at marriage is a characteristic of demographic trends in Nepal.

Mean age at marriage for males and females and differences by caste groups for Chisang is presented in Table 8.8. The higher castes have the highest difference (5.23 years) in mean age at marriage and the middle caste tribal groups have the lowest difference (3.4 years). The lower castes have an intermediate difference of 4.12 years. A total of 16 women between age 15 and 25 and another 10 women over age 25 were unmarried when Chisang Census was administered.

**Table 8.8: Mean Age at Marriage for Males and Females and Differences by Caste Groups, Chisang**

<i>Characteristics</i>	<i>Higher Castes</i>	<i>Middle Castes</i>	<i>Lower Castes</i>
Distribution of Age 15-49 Ever Married Chisang Women by Caste Groups	69	22	8
Mean Age at Marriage:			
Males	25.34	27.2	26.32
Females	20.11	23.8	22.2
Difference in Mean Age at Marriage	5.23	3.4	4.12
Number of Unmarried Women Between 15 and 25	8	5	3
Number of Unmarried Women Over Age 25	3	4	3

**Source:** Chisang Survey, 1995

Singulate mean age at marriage of men and women for Nepal (1991), Morang District (1991) and Chisang (1995) is presented in Table 8.9. Mean age at marriage for Chisang males and females is higher than that of Nepal and Morang District. The difference in mean age at marriage is also higher for Chisang (4.73 years) in comparison to Nepal (3.3 years) and Morang District (3.8 years). The mean age at marriage of Chisang men and women follow the pattern of their neighbours in the Mountain and Hill regions. Therefore, the singulate mean age at marriage is higher in Chisang in 1995 than that of Nepal and for Morang District in 1991. The marriage patterns of the migrant *pahari* people, especially the middle caste Tibeto-Burman, differ from those of the Terai population that follow the North Indian marriage pattern. This is reflected in the higher mean age at marriage for Chisang's men and women. It can be concluded that the socio-cultural, economic and developmental contexts within which marriage and fertility decisions are made in Chisang now favour delayed marriage of both men and women. This issue will be described in the following chapter.

**Table 8.9: Singulate Mean Age at Marriage (SMAM) of Men and Women of Nepal, Morang District and Chisang**

<i>Area</i>	<i>Males</i>	<i>Females</i>	<i>Husband/Wife</i>
	<i>SMAM</i>	<i>SMAM</i>	<i>Age Difference</i>
Nepal <sup>1</sup>	21.4	18.1	3.3
Morang <sup>1</sup>	22.9	19.1	3.8
Chisang <sup>2</sup>	25.83	21.1	4.73

Source: 1 CBS, 1995, Table 8, Page 184  
2 Chisang Survey, 1995

### **Is Deferment of Marriage a Response to Demographic Pressures?**

In a situation where there is very low acceptance and use of contraceptives, the question that must be asked is whether deferment of marriage is a response to demographic pressures which have resulted through declining mortality. After examining all the Marital and Fertility Survey Questionnaires for Chisang and information from the in-depth interviews with 54 married couples, I was unable to find a single case where marriage deferment was related to a smaller desired family size. Furthermore, none of the parents with children over age 16 (the legal age when girls can get married) were able to relate marriage deferment with desired lower fertility. It was evident to me that deferment of marriage and the resulting fertility decline which had taken place in Chisang was not by design.

The change (delay) in women's marriage which is affected by marriage practices, which themselves are affected by these three factors: a change in marriage market where potential brides outnumber potential grooms; educational changes, especially for girls; and social, cultural, economic and developmental contexts within which marriage and fertility decisions are made affect marriage practices. These three factors more than anything else encourage deferment of marriage. However, the availability and use of contraceptives have not kept up with the pace of marriage change (delay) in Chisang. Instead fertility decline has taken place until very recently

in Chisang in the absence of family planning and maternal child health (FP/MCH) services and knowledge of contraceptives. Therefore, the increase in age at marriage is not a conscious response of the society to high fertility rates.

High population growth rates combined with out-migration of unmarried men has produced a marriage squeeze, a situation where there are far more women than men of marriageable age. The marriage squeeze has also contributed to the rise in the practice of giving larger *daijo*. Finally, high population growth rates with a combination of smaller landholdings due to partition has contributed to the demise of employment created by subsistence agriculture. This has forced a large number of young people, especially unmarried men, to out-migrate in search of non-agricultural employment, thus forcing a postponement of their marriage.

The institution of marriage is undergoing a major change in Chisang and similar settings all over the eastern Terai region of Nepal. This may also be true to other parts of Nepal with similar ethnic mixes. Finally, in Chisang and similar settings, the rise in age at marriage has been an unconscious response by the society to high rates of population growth to cope with the emerging situations. The findings presented here are supportive of the findings in South India (Caldwell, Reddy, Caldwell 1982, 1983, 1988) and Sri Lanka (Caldwell, Gajanayake, Caldwell, and Caldwell 1989), who have argued that changes in age at marriage and marriage practices are part of a whole range of changes, socio-economic, developmental and educational, occurring in the society. The findings also support Niraula's (1994) findings in the Central Hills of Nepal. Data analysed in the previous chapter show that contraceptives have been introduced in the study village very recently and there is a low prevalence of its use in the study village. The institutions that have supported high fertility, almost all of which take place within marriage (all but three births took place within wedlock in Chisang with a population of 638) are undergoing rapid change in the study village. It is concluded that change in marriage practices, increase in age at marriage, and narrowing gap between age at marriage and age at consummation of marriage are the primary factors that have resulted in fertility decline in Chisang and similar settings recently.

## Conclusions

This chapter has presented qualitative and quantitative data which show that the institution of marriage is undergoing major change in the study area and probably in all of the eastern Terai region of Nepal. There is a clear trend towards deferment of marriage, and a rise in age in consummation of marriage. As the age at marriage increased, the gap between age at marriage and consummation of marriage narrowed. Furthermore, in the past five years marriage and consummation occurred at the same time (see Table 8.7). Factors which informants offered to explain such delays were also presented.

Three women<sup>2</sup> had given birth out of wedlock and only one out of the 99 married women had not given birth having remained married for more than five years. Three out of 99 is a remarkably high figure for conceptions outside of marriage, and in the light of trends in the West, the possibility of a similar trend in non-Western societies need to be kept in mind. Data analysed here show that important socio-cultural and economic changes are underway in Chisang. The next chapter describes the social context and impact of family planning in Chisang.

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<sup>2</sup>

Out of a total of 99 married women in Chisang at the time this study was conducted three women had given birth out of wedlock. These three women should not be confused with the three young girls from a nearby village who had been pregnant a few years back (see page 143).

## CHAPTER 9

### THE SOCIAL CONTEXT AND IMPACT OF FAMILY PLANNING SERVICES IN CHISANG

The social context and impact of family planning in Chisang will be described in this chapter. Contraceptive use is one of the most powerful proximate determinants of fertility. It was apparent that prevalence of contraceptive use and couples' desire to have smaller family size, although obviously related, were regarded by villagers as two separate issues. Therefore, throughout this study an attempt has been made to establish a link between contraceptive use in Chisang and couples' desire to have smaller family size. Traditional methods of birth control are also described in detail as these appear to have played a major role in controlling fertility of the indigenous Terai tribes.

This chapter is divided into five sections. First, family planning awareness in Chisang is described. Knowledge of contraceptive methods, source of family planning information and ever-use and current use of contraception in the study village will also be addressed. Second, traditional methods of family planning in the study village are addressed. In the third section the introduction and use of modern contraceptive methods in the study village will be reviewed. Met need, unmet need and no need for contraception in Chisang are the subjects of the fourth section. And finally, family planning intentions in Chisang are discussed.

#### **Family Planning Awareness**

The family planning programme in Nepal formally began in 1958 with the establishment of Family Planning Association of Nepal (FPAN), a non-governmental organisation in Nepal's capital, Kathmandu. From the beginning, Nepal's family planning programmes have focused on increasing the availability of family planning

methods rather than on motivating couples to limit their family size. The Family Planning and Maternal Child Health Board was established in 1968. Family planning services were also greatly expanded through integrated family planning and maternal child health clinics. However, at the national level, there was less emphasis placed on motivating couples to have smaller families. Until recently most couples in Nepal were not ready to accept family planning nor were they aware of side effects of specific family planning methods. The percentage of couples aware of at least one family planning method has been increasing steadily but contraceptive use among Nepali couples has remained low in comparison to its South Asian neighbours.

Recently, His Majesty's Government of Nepal (HMG/N) has shown more commitment to encouraging couples to have small families. Billboards, newspapers, movies, radio and television are the media through which the relationship between a prosperous life and small families consisting of two children, commonly a boy and a girl, are conveyed to the masses in Nepal. Even in rural settings such as Chisang, improvements in mass communications have brought that message into homes. Contraceptive use in Chisang has increased dramatically in a context of socio-cultural and economic changes which favour lower fertility. At the same time, there is some confusion related to the messages relayed by the media.

Through in-depth interviews with married couples in their reproductive age it was apparent that the slogans and symbols portrayed on the billboards, in movies and the newspapers were carefully analysed by many minimally educated villagers. Prominent figures, such as the King of Nepal, and his family size of three were compared to the slogans and symbols portrayed by the mass media. Thus, many Family Planning Motivators and Village Health Workers in rural settings such as Chisang had the difficult task of providing an explanation for the failure of the King to have the ideal family consisting of only two children which is rigorously promoted by the family planning programme in Nepal. An illiterate 42 years old married Limbu woman highlighted the confusion which arose when prominent families in Nepal appeared not to conform to the ideal being promoted.

If two children bring happiness and is a sign of a prosperous life, how come “Raja Birendra” (King Birendra, the monarch of Nepal) has three children? Are you trying to tell me that “Raja Birendra” is not happy and prosperous? I have given birth to three daughters, now only two are alive. If I had it my way, I would like to have at least two additional sons like “Raja Birendra.” I think “Raja Birendra” did the right thing by having at least two sons and a daughter.

A high caste Brahmin woman in her early twenties and mother of a six month old daughter brought to my attention that the present VDC Chairman, a Chettri (higher caste), had two sons and two daughters.

In this area the VDC Chairman is the most powerful man; although he is not the wealthiest man around. He is educated and people tell me his wife has also been to college in Biratnagar (Nepal’s second largest city located some 45 kilometres south west of Chisang). Besides that they have a house in Biratnagar.... How come the Chairman did not follow the message on the radio and have only two children... A few weeks back he was at the Sub-Health Post explaining the benefits of a family with two children. What was surprising was the fact that he never admitted he had made a mistake by having four children... Is it possible that the wealthy and powerful do not have to follow the message promoted by the radio?

Knowledge and use of modern contraceptives, commonly referred to in Nepal as *pariwar niyojan* (Nepali: family planning methods) are important for two reasons: these are the indicators most frequently used by national and international organisations to assess the success of family planning programmes; and contraceptive prevalence is a widely used measure in the analysis of the proximate determinants of fertility (DHS 1991); although in the past, people in Chisang had knowledge of how to avoid conception and terminate pregnancies. However, this knowledge was not always translated into behaviour that controlled high levels of fertility. Indeed knowledge of family planning, whether traditional or modern methods, and access to family planning methods, do not automatically lead to reduced fertility. Rather, the critical factor is that couples must desire smaller family size.

**Knowledge of Contraceptive Methods:** All data in this chapter comes from the 99 currently married Chisang women aged 15-49 years. These women were asked the general question by my research assistant: “Do you know that it is possible for you to avoid or delay pregnancy?” All respondents stated they were aware that if was

“possible for them to avoid or delay pregnancy.” However, when these same respondents were asked to name a specific method to avoid or delay pregnancy, not all were able to do so. All respondents were asked the following open-ended question about different family planning methods they had heard about:

Now I would like to talk about *pariwar niyojan*. A couple can delay or avoid a pregnancy using various ways or methods. Which of these ways or methods have you heard about?

All the methods which a woman mentioned in response to this question were noted. Then, my research assistant, who was herself an employee of the Family Planning Office and a family planning motivator, described the methods not yet mentioned and asked if the woman recognised each one. All of the methods recognised by the woman after hearing the descriptions were also noted. If the woman did not recognise a method after hearing it described, it was recorded that the respondent had never heard of that particular method.

Table 9.1 shows the percentage of currently married Chisang women by caste group who were aware of at least one family planning method. It is seen that almost 92 percent (n=91) were aware of at least one contraceptive method. This knowledge was not spread evenly across caste groups. Only fifty percent of lower caste women, and a high 97 percent of higher caste women were aware of at least one contraceptive method. All women who were aware of at least one contraceptive method

**Table 9.1: Percentage of Currently Married Chisang Women 15-49 By Caste Group Aware of At Least One Family Planning Method**

	<i>N</i>	<i>Aware</i>	<i>Not Aware</i>	<i>Total</i>
Higher Castes	69	97.10	2.90	100
Middle Castes	22	90.91	9.09	100
Lower Castes	8	50	50	100
Total	99	91.92	8.08	100

**Source:** Chisang Survey, 1995

mentioned either male or female sterilisation. This reflects findings of a significantly increasing level of knowledge throughout Nepal (Niraula 1990, 1991).

Among temporary contraceptive methods, the oral contraceptive pill was the most frequently mentioned. This was followed by the injectible, Depo-Provera. Norplant, which was gaining acceptance among younger married women was the third most frequently mentioned temporary method by the respondents. Only nine out of the 99 women were able to name at least one traditional method such as periodic abstinence, withdrawal or abortion. For the most part, these methods were acknowledged by respondents only after probing. In general, the least well known methods were vaginal methods and the two non-technological methods, periodic abstinence and withdrawal.

**Source of Family Planning Information:** Family planning awareness in Chisang got a boost in 1994 when a non-governmental organisation (NGO) established a Family Planning Office (FPO) and began providing family planning services. The FPO was well organised and funded and was open on Mondays Wednesdays and Fridays every week. Women were encouraged to attend a series of informal discussion groups. Introduction of these informal group sessions was innovative and very popular among the women of Chisang and neighbouring villages. Although men were also invited to participate in these informal discussion sessions, I did not see any men from the study area participate in these sessions during the six months I was there. The FPO distributed contraceptives free or at a nominal price to men and women from the study area. The FPO provided training to a local Dhimal (*adhivasi*) woman to assume the responsibility of Family Planning Motivator (FPM) for Chisang and another eight nearby villages. The primary responsibility of the FPM was to recruit potential acceptors of family planning. The whole VDC with a population of 15,639 in 1991 (CBS 1994: 9) was covered by a total of three female Family Planning Motivators.

That same year a government Sub-Health Post (SHP) was established within the VDC. The SHP was under funded and lacked the financial resources and manpower

to perform many of its duties which include: providing curative services; distribution of contraceptives; providing immunisation and vaccination camps for infants and children; providing pre-natal, birthing and post-natal services; and providing referral services. At the time of the study, the SHP was mainly providing immunisation services, and some minor curative services. The SHP had three Village Health Workers (VHW) who were primarily involved in promoting health and hygiene but also promoted contraceptive use.

Besides the FPM potential acceptors of family planning methods were also referred by the VHW to the Family Planning Office. VHWs devoted a lot of time and energy recruiting acceptors of family planning method because they received financial incentive for every acceptor of family planning method. My female informants mentioned that the VHWs were more interested in recruiting potential family planning acceptors and did not devote as much time performing their other duties.

Table 9.2 displays the source of information on family planning methods from 91 currently married Chisang women 15-49 who were aware of at least one modern family planning method. Of these, 56 percent stated that they found out about family planning through the local SHP and FPO. Only 12 percent said that they found out about family planning methods through the news media. All of this group knew about sterilisation. Governmental and non-governmental organisations that provide local

**Table 9.2: How Did You Find Out About Family Planning and MCH Programmes?**

	<i>N</i>	<i>Friends</i>	<i>Health Post</i>	<i>News Media</i>
Higher Castes	67	19.78	45.05	8.79
Middle Castes	20	9.89	8.79	3.30
Lower Castes	4	2.20	2.20	0.00
Total	91	31.87	56.04	12.09

**Source:** Chisang Survey, 1995

personalised services as is the case in the study area benefit minimally literate, rural populations with a low level of socio-economic development.

**Ever-Use and Current Use of Contraception:** Ever-use of contraception is defined as contraception practised at any time, while current use is defined as use of a contraceptive method around the time of survey (DHS 1991). All 99 women were asked: “Have you ever used (name of method)?” for each method of which she had heard. Two more questions on current use were asked to all women who reported ever using a method of contraception and who were not pregnant: “Are you currently practising *pariwar niyojan* to avoid getting pregnant?” and, if the response was “yes,” “Which method are you using?”

Prior to the establishment of the SHP and FPO in the VDC in 1994, only two currently married Chisang women 15-49 reported that they had been acceptors of temporary methods. Another six women were protected from pregnancy as either she or her husband had been sterilised. However, after the establishment of the SHP and FPO, the number of acceptors of both sterilisation and temporary methods had increased threefold. Table 9.3 shows the percent of current users of a method of family planning (male sterilisation, female sterilisation and temporary method) by caste group in Chisang at the time of the survey. A total of 18.18 percent (n=18) of males (7.07 percent) and females (11.11 percent) had been sterilised and another 14.14 percent (n=14) women were using temporary methods. Almost a third, or 32.32 percent of the couples, had a met need for contraception in Chisang, an issue which will be discussed in detail later in this chapter.

**Table 9.3: Percent of Family Planning Users by Type and Caste Caste Group in Chisang**

<i>Caste Group</i>	<i>Male</i>	<i>Female</i>	<i>Temporary</i>	<i>Total</i>
Higher Castes	5	7	10	22
Middle Castes	2	3	3	8
Lower Castes	0	1	1	2
Cases	7	11	14	32
Percent	7.07	11.11	14.14	32.32

**Source:** Chisang Survey, 1995

Table 9.4 shows the number of couples using a family planning method by household type in Chisang. Among the 85 couples who lived in nuclear households, at the time

**Table 9.4: Number of Family Planning Users by Method and Household Type in Chisang**

<i>Household Type</i>	<i>N</i>	<i>Male Sterilisation</i>	<i>Female Sterilisation</i>	<i>Temporary Method</i>	<i>Total</i>
Subnuclear	6	0	0	0	0
Nuclear	85	4	6	13	23
Supplemented Nuclear	12	2	2	0	4
Joint	8	1	3	1	5
Total	111	7	11	14	32

**Source:** Chisang Survey, 1995

of household partition none of the couples were using any family planning method. Of the 14 women using a temporary method of family planning, 13 were living in nuclear households, and one in joint household. Another four males and six females, i.e. ten couple, living in nuclear households had been sterilised. In contrast, one male and three females, i.e. four couples, living in joint households had been sterilised. These figures indicate that couples living in nuclear households are more likely prefer

a temporary method of family planning and couples living in joint and supplemented-nuclear households are more likely to prefer sterilisation.

In-depth interviews with three couples from joint households and another four couples from supplemented-nuclear households confirmed Chisang women living in joint and supplemented nuclear households in particular had very little freedom to use temporary method of family planning. These couples noted the lack of privacy to store and dispose of used contraceptives in joint and supplemented-nuclear household environment. Depo-Provera, an injectible, was an option to women of joint and supplemented-nuclear households. However, in an environment which provided very little freedom of movement and privacy in joint and supplemented-nuclear households, it was very difficult, for women to go undetected to the Sub-Health Post which was located less than half an hour away. The fear that others in the household and village may come to find out they were practising contraceptives was too great a risk for them. Most couples living in joint and supplemented-nuclear households therefore considered sterilisation the only option. The most common reason given by these couples was that they did not trust the people at the local Sub-Health Post. These couples were afraid that the people at the Sub-Health Post would not respect their privacy and treat their case confidentially.

Table 9.5 shows the percentage of ever-use and current use of a family planning method in Chisang at the time of the study. A high 38.38 (n=38) percent of couples in Chisang had ever-used a family planning method and 32.32 (n=32) percent of Chisang couples were current users of a family planning method at the time of the study.

**Table 9.5: Percent of Ever-Use and Current Use of a Family Planning Methods in Chisang**

<i>Caste Group</i>	<i>Ever-Use</i>	<i>Current Use</i>
Higher Castes	27.27	22.22
Middle Castes	8.08	8.08
Lower Castes	3.03	2.02
Total	38.38	32.32

**Source:** Chisang Survey, 1995

Among the six couples who had used a temporary family planning method in the past but were no longer using it, one woman stated that the contraceptive (pills) had failed and she was currently pregnant. Another woman said that her husband had brought in a new wife and she no longer needed to use a family planning method, having established a new household with her three children. Two women stated that they were about to reach menopause and decided that they did not need to use a family planning method any longer. Kanchi Tamang, a middle caste woman with a son and daughter, was the only woman who had discontinued the use of a family planning method due to its adverse effects on her. In an in-depth interview she mentioned:

The injection (referring to Depo-Provera) made me feel sick. I had no choice but to discontinue the use of the injection after six months. I would like to have tried a different method. I even invited the FPM to visit me and my husband in our house to discuss that option. But, my husband and I decided that we wanted another child soon so now I am not using any family planning. We think we will give serious consideration (*dherai bichhaar garnu pardacha*) to sterilisation upon the birth of our next child.

### **Methods Not Reliant on Modern Family Planning Technology**

Even before the introduction and acceptance of modern contraceptives in the region, the inhabitants of Chisang prevented unwanted pregnancies and births both to limit family size and to comply with social and cultural expectations. From both in-depth interviews and questions in the survey that covered family planning methods not reliant on modern technology, it became clear that the *adhivasi* were the only group of

people in Chisang who prevented pregnancies and births to limit family size. In contrast, the higher castes, middle caste hill tribal and lower castes prevented unwanted pregnancies and births to comply with social and cultural expectations. Among all castes and tribes in Chisang, abortion, withdrawal and abstinence were the most commonly used methods although they were used very seldom. With the introduction of modern family planning technology, methods such as abortion, withdrawal and abstinence were now used the least.

The older *adhivasi* explained that because in the past they practised slash and burn agriculture, they were unable to support a large population. Thus, the *adhivasi* had long practised the prevention of pregnancies and births to limit family size. In contrast, for the *pahari* people prevention of pregnancies and births to limit family size was never a priority, where large families provides the necessary labour for cultivating permanent land holdings. In the event of a premarital pregnancy, in the past unmarried *pahari* women rather than disclose premarital pregnancies often resorted to folk remedies to induce abortion. An abortion that was performed without the knowledge of others in the village did not jeopardise an unmarried *pahari* woman's chances of marriage and did not bring shame to their family and village. I could get little information on what these folk remedies were nor what were used as abortifacients as the population of Chisang had migrated from the Mountain and Hill regions in east Nepal, and there were a variety of opinions on this topic. During the time this study was conducted an *adhivasi dhami* from the neighbouring village prescribed unripened papaya as well as a concoction that he prepared using certain local herbs and roots as abortifacient. The *adhivasi dhami* mentioned that in the past there were herbs that could be consumed by women as contraceptives. Unfortunately, most of the herbs that were needed for the concoction no longer existed locally due to deforestation.

Today, women can obtain abortions at certain clinics across the border in the Indian states of West Bengal and Bihar without the knowledge of anyone in the village. There are private clinics in Biratnagar and Damak where abortions are performed on a regular basis although abortions are not legal in Nepal. Most adult men and women in

Chisang were able to provide the names of the clinics that performed abortions in the Nepali side of the border. These same people were also quick to point out that abortions were technically illegal in Nepal. From in-depth interviews with the local FPM, I was able to learn that the clinics in Biratnagar were gaining popularity and the confidence of people from rural settings. The clinics in India were more expensive and overpriced and had the tendency to cheat Nepali women. According to my informants an average abortion in Biratnagar cost Nepali Rupees 1,200 (US \$20), excluding transportation costs and meals. The costs in India for the same procedure were at least two times higher.

Only nine out of 99 women were aware of withdrawal as a means to prevent unwanted pregnancy and to space births and only five of these nine women who were aware of withdrawal method mentioned that they had practised the technique for the purpose of preventing unwanted pregnancy and births. All nine women were literate and stated that they learned about withdrawal method in Indian Women's Magazines which are published in the Hindi language. I was unable to gather any information on its use in extramarital relations.

Strict abstinence was adhered to by the middle-aged couples who had not been sterilised in Chisang. Two reasons were given: reduced urge for sexual intercourse with increasing age, and social sanctions against pregnancy placed on women over 40 years of age. The local village *pundit* (Nepali: priest) explained that Hindu customs discouraged women at the end of their reproductive careers (at about the age of 40 years) from bearing further children. By then, their offspring will be marrying and bearing children. Because the role of the mother and grandmother should not conflict with one another, pregnancies among women aged over 40 years were discouraged. A middle-aged woman in a neighbouring village had given birth to a son after her daughter had already had three children. This middle-aged woman was a topic of conversation and ridiculed by both young and old in Chisang.

Breastfeeding is one of the four proximate determinants of fertility identified by Bongaarts and Potter (1983). Nepali breastfeed until they become pregnant again,

their breast milk fails or their infant becomes entirely dependent on other foods. I was unable to document a single case in Chisang where the women were aware that prolonged lactation reduced the likelihood of another pregnancy. Even the FPM for the VDC (including my Research Assistant, Guju) and VHWs were unaware of the relationship between prolonged lactation and reduced likelihood of another pregnancy, implying that this is an important omission in their training. Such an omission raises questions about the quality of the training the FPM received, and the appropriateness of the content of the training for the local socio-cultural context, a point to be further discussed below.

### **Modern Methods**

Potential contraceptive users are conventionally classified into two groups: those who do not want to have more children, who are candidates for permanent contraception (sterilisation); and those who want to space births of children, who are candidates for temporary methods. In the district in which Chisang is located where the level of child and infant mortality is still high, many married couples do not want to have more children but are afraid of losing their reproductive capacity. These couples fall into a third group and require specific contraceptives that will meet their needs. There was no agreement among currently married couples in Chisang on what those contraceptive methods should be. Some couples preferred long term methods, such as IUDs and implants, which are only available in clinics. A few favoured such methods as pills and condoms which are readily available in the study area.

**Sterilisation to limit births:** No Chisang woman was opposed to the use of family planning methods in Chisang. Furthermore all 99 women were aware that the SHP and FPO in the VDC provided services to those “who do not want to have more children.” There are no social, cultural or religious sanctions preventing an individual from practising contraceptive, although there are practical difficulties for women in Chisang. On the contrary, older women were subject to ridicule if they became

pregnant having failed to have the “operation” when over 40 years old, and who already had several surviving children who were nearing marriageable age.

In-depth interviews with these women who had more than four surviving children shed light onto three areas. First was the preference for sons, and the social pressure to have at least two living sons before using contraceptives. Secondly, local people made use of family planning and health services if they were located nearby and were staffed by local people. Thirdly, however, the information provided by the staff at the SHP and FPO were incomplete and not always in the best interest of the local people. This was illustrated by a Chettri woman who had migrated from Khotang District in the Hill region to Chisang five years ago:

I had two daughters and one son and was quite happy but my *sasu-sasura* (Nepali: in-laws) and parents encouraged me to continue having children until we had at least two sons. So I got pregnant and had another daughter- the third daughter for us. We then migrated to Chisang with our three daughters and son. After having lived in Chisang for two years I got pregnant for the fifth time. This time I gave birth to a son. Now, both my in-laws and parents were happy..... I went to the Family Planning Office in Tallo Chisang (neighbouring village) with my husband about a year and half ago. The clinic had just started to provide a service then and we knew two of the female staff in the clinic.... I am pretty sure that we would not have gone to the clinic if it was located far away- who would look after our children if we had to travel a long distance? Also, it costs a lot of money once you leave home and go to the bazaar..... We were told by the Village Health Worker that one of us could have an operation or I could get the injection every three months. I was referred to the Family Planning Motivator and two weeks later she took me to Dharan (a large town north west of Chisang) to have the “operation.”... Only after the operation had taken place was I informed by the doctor in the hospital that the procedure was much more simpler for men. If we knew that I am sure my husband would have had the “operation”- instead of me... I am pretty sure that both the Village Health Worker and Family Planning Motivator knowingly withheld this information from us.

There is other evidence that information given by staff is selective. Monetary incentives played a major role in motivating the Family Planning Motivator and Village Health Worker to provide selective information on family planning methods to their clients. Furthermore, the use of the pill was very low in the study village although many currently married Chisang women were aware of this method.

Methods for which motivators received financial incentives were more likely to be used.

**Temporary Methods to Space Births:** It has been pointed out earlier that prior to the establishment of the SHP and FPO within the VDC in 1994, only two women were spacing child births through temporary methods. Both these women had been receiving the injectible, Depo-Provera, every three months at the District Family Planning Office in Biratnagar. When the Marriage and Fertility Survey was administered in October/November, 1995, 14 currently married women were spacing births through temporary methods. There had been a dramatic increase in the number of couples desiring to space births after the establishment of the SHP and FPO within a walking distance from Chisang. Among the 14 couples, six were receiving Depo-Provera injections, four were taking the pill, and another four were administered the implant, Norplant.

There were no couples relying solely on condoms to meet their spacing needs. However, according to the employees of the FPO in Tallo Chisang, recently the demand for condoms had risen sharply. I was unable to get any accurate figures on free distribution of condoms from both the SHP and FPO, but was able to obtain data on subsidised sale. In the month of November, 1995 one of the local drug store owners in Chisang recorded sales of 612 condoms at Nepali Rupee 1 (US \$0.06) a piece. In the opinion of the drug store owner, the demand for condoms have been increasing steadily in Chisang and other villages further south since the SHP and FPO began to promote contraceptives use. The prevalence of condom use in Chisang and the vicinity has also resulted from the increased knowledge of sexually transmitted diseases and HIV/AIDS. Both the SHP and FPO and their field staff have been promoting condom use as a way to prevent sexually transmitted diseases and HIV/AIDS. Condom use was more popular among the younger generation and those who had lived in urban centres within Nepal and India for extended time.

## **Met Need, Unmet Need, and No Need for Contraception in Chisang**

Currently married women, including pregnant and amenorrhoeic women, can be divided into those having met need, unmet need, and no need for family planning (Devi, Rastogi, and Retherford 1996). Women with met and unmet need can be further divided into: those who want to limit their family size, that is, to prevent all further births; and those who want to space births by delaying the next births. All other currently married women, including non-sterilised women who are infecund, are defined as having no need for family planning (Devi, Rastogi, and Retherford 1996). The way in which unmet need has been measured in this study for the currently married Chisang women 15-49 is illustrated in Figure 9.1.

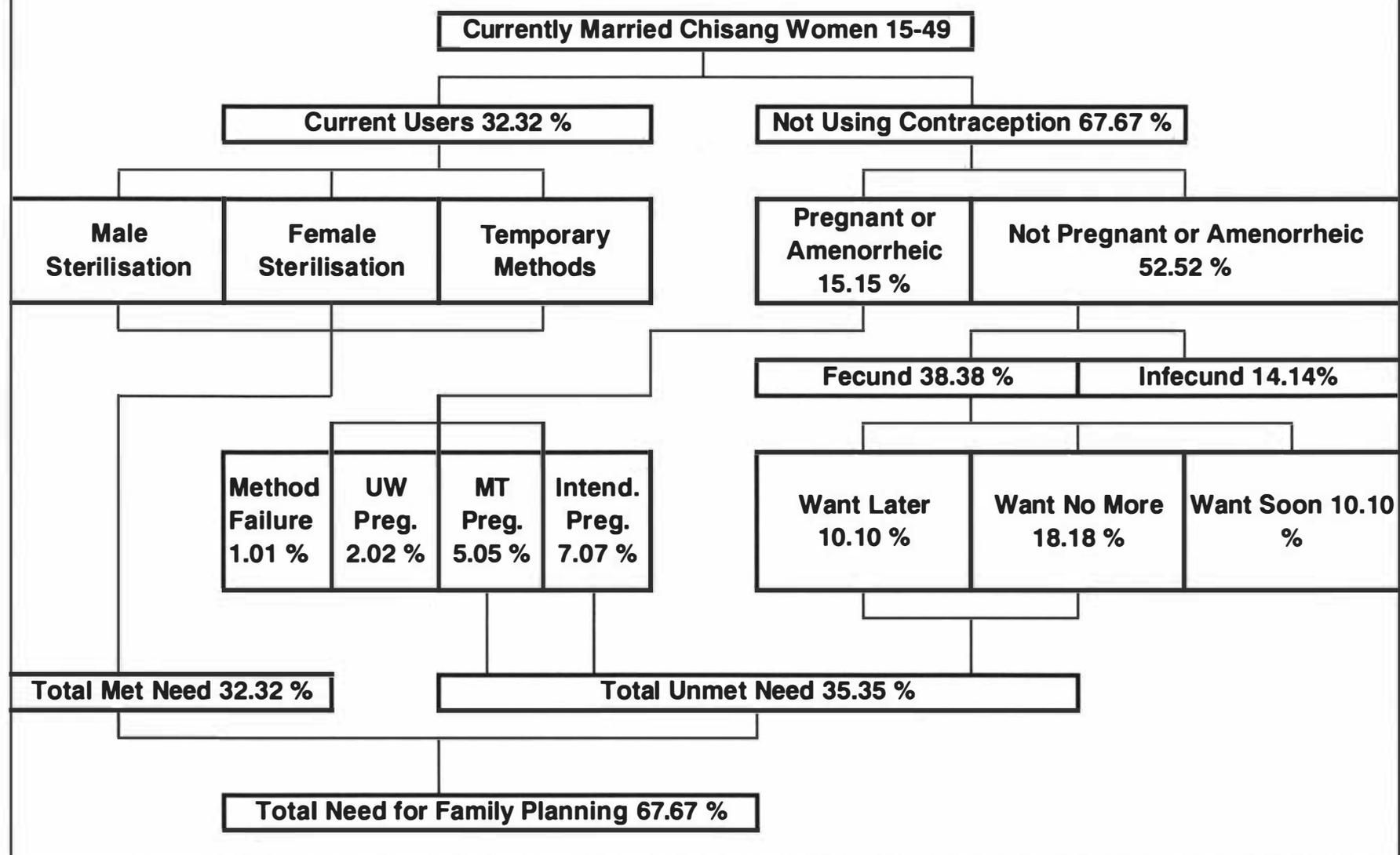
**Met Need for Contraception:** Currently married women who want to limit their family size (limiters) and those who want to space births (spacers) by delaying the next birth and are using a family planning method have a met need for family planning. In Chisang there is a 32.32 percent met need (current users) for family planning (see Table 9.3 and Figure 9.1). Among those, 18.18 percent of couples are limiters, who have been sterilised. Another 14.14 percent of couples are spacers, they are using temporary method for contraception.

**Unmet Need for Contraception:** The definition and measurement of unmet need have evolved considerably during the past two decades. In 1981 Westoff and Pebley identified 11 measures of unmet need. These early measures took into account the need for limiting but not for spacing. The data from the World Fertility Survey did not collect the information necessary to assess unmet need for spacing. Thus, Westoff and Pebley (1981) did not consider the need for spacing and limited their considerations to just need for limiting. Nortman and Fisher (1982) introduced measures of unmet need for spacing to supplement the measures of unmet need for limiting by using data from the multinational Contraceptive Prevalence Surveys, which contained additional questions related to unmet need for spacing. Nortman excluded pregnant and amenorrhoeic women from consideration because they were temporarily not in need of family planning. More recently, the Demographic and

Health Surveys (DHS) included additional questions that allowed for the inclusion of pregnant and amenorrhoeic women among those for whom unmet and met need for spacing and limiting could be measured (Westoff 1988; Westoff and Ochoa 1991; Bankole and Westoff 1995; Westoff and Bankole 1995).

The definition of unmet need used in this study are identical to those used in the second round of the DHS (1991). All women who were not using contraception at the time of the study have an unmet need or no need for contraception. This group of women not using contraception at the time of the study are divided into two groups: pregnant or amenorrhoeic; and not pregnant or amenorrhoeic (see Figure 9.1). Pregnant or amenorrhoeic women are further divided into four groups: those who have a method failure; unwanted pregnancy; mistimed pregnancy; and intended pregnancy. Women not pregnant or amenorrhoeic are either fecund or infecund. Fecund women are further divided into three groups: women who want children later; want no more; and want soon. Unmet need for contraception is calculated by adding the following groups: those who have pregnancy mistimed; unwanted pregnancy; couples who want child/children later; want no more. At the time this study was conducted, the total unmet need for contraception in Chisang was 40.40 percent (see Figure 9.1).

**Figure 9.1: Met Need, Unmet Need, and No Need for Contraception in Chisang**



**Total Need for Contraception:** The sum of total met need and total unmet need is the total need for contraception. At the time of the study the total need for contraception in Chisang was 72.72 percent. Table 9.6 presents total need for family planning in Chisang.

**Table 9.6: Need for Family Planning Among Currently Married Chisang Women 15-49, Chisang**

<i>Percent of currently married women in specified need category</i>				<i>No. of Women</i>	<i>Percent in need (met plus Unmet)</i>	<i>Percent of total need that is Unmet</i>
<i>Unmet Need</i>	<i>Met Need</i>	<i>No Need</i>	<i>Total</i>			
35.35	32.32	32.33	100	99	67.67	52.23

**Source:** Chisang Survey, 1995

**No Need for Contraception:** No need for contraception is calculated by adding the following: infecund women; those who have a method failure; those who have an unwanted pregnancy; and those who want to have the next child soon (see below). At the time of the study there was no need for contraception for 27.28 percent of currently married Chisang women 15-49.

### **Family Planning Intentions**

The results were mixed when the 67 eligible couples (those couples not using a family planning method) were asked about the timing and their intentions to use family planning method. First, currently married Chisang women not using a family planning method were asked: “Do you think that you or your husband will use a family planning method in the future- say between three months and eighteen months?” All those women who responded by saying “yes,” were then asked an open-ended follow-up question: “When will you use a family planning method?” Data on the intention to use a family planning method is displayed on Table 9.7: 33 out of the 67 women who were not current users of a family planning method

responded by saying that they intended to use a family planning method in the future, while the remaining 34 women did not intend to do so. Among the 34 women who did not intend to use any family planning method in the future, 10 women stated they were infecund. Another four infecund women stated that they intended to use family planning method anyway in the future.

**Table 9.7: Family Planning Intentions of 67 Married Chisang Women Currently Not Using Family Planning**

<i>Current (N)</i>	<i>Situation</i>	<i>Future Family Planning Intentions (N)</i>
15	Currently pregnant or amenorrhoeic women planning to use family planning in the future	10
18	Women who said they wanted no more children planning to use family planning in the future	12
10	Women who said they wanted children later planning to use family planning in the future	7
14	Women who said they were infecund but planning to use family planning in the future	4
10	Women who said they wanted to have children soon and were planning to use family planning in the future	0
67	Total	33

**Source:** Chisang Survey, 1995

**Desired Family Size:** The reasons for the interest of the 33 women using a family planning method in the future were explored. Twenty two stated that they had met the desired family size, while the remaining 11 women stated that they intended to use family planning method to space the next birth. By spacing the next birth, those 11 women said they were trying to achieve two things: in the interests of health of children and mothers, and to meet the desired family size when they were ready.

The context in which family planning is accepted by women is largely dependent upon whether or not they have met their desired family size. In fact, all 32 women who have a met need for contraception (current users) stated that they had met their desired family size. All 33 women who intended to use a family planning method in the future also stated that they had either met their desired family size or were spacing their next birth, which would then help meet their desired family size when they were ready. There was, however, no agreement on the ideal desired family size (number of surviving children) in Chisang.

In Chisang, the evidence is that couples tend to use family planning methods only after they have met their desired family size. Major socio-economic development and cultural change in Chisang have helped to reduce the demand for large families. However, couples in Chisang are not yet ready to embrace the limitation of family size to only two children promoted by the mass media. In fact, Chisang couples accepted a family planning method only after they had an average of 3.2 surviving children, 1.2 children more than what was promoted by the mass media. Thus, it is argued here that reduction in the demand for large families (smaller desired family size) has had the greatest impact in reducing fertility in Chisang. Family planning programmes, on the other hand, have actually played only a small role in reducing fertility in Chisang. The portion of unwanted pregnancies caused due to the lack of contraceptives are also minimal. It has also been pointed out in Chapter 7 that fertility decline in Chisang preceded the use and acceptance of modern contraceptives by at least five years, and possibly more.

**Health Related Issues:** Two thirds (n=22) of the 33 women who intended to use a family planning method in the near future also mentioned health concerns as a reason for their interests. Three changes in the socio-cultural and economic setting were identified by women to establish a connection between their health concerns and intentions to use a family planning method. These are the educational level of women; the role of locally based health workers and motivators; and more access to financial resources to women.

Data suggests that a close relationship existed between the number of years of schooling and future intentions of currently married Chisang women to use a family planning method. Twenty of the 22 women who gave health concerns as the primary reason for their interests in using a family planning method in the near future were literate (in the local context, they were able to read and write). Furthermore, 14 of these 22 women had received four or more years of schooling, and six had between one and three years of schooling. Women who had had at least some schooling were aware of family planning programme and also more likely to believe that family planning benefited their health. They were also more likely to visit the Sub-Health Post and Family Planning Office and demand the services of the Village Health Worker and the Family Planning Motivator. Those women with some schooling were also more exposed to the world outside of Chisang and were more likely to be influenced by the mass media which promoted smaller families consisting of only two children. Women who had had more than four years of formal schooling were more aware of the health risks to the mother, their surviving children and soon to be born child, of too many pregnancies and close spacing between pregnancies, whereas, many illiterate women stated that the family planning benefited only the higher castes and wealthier people. These women were also less likely to visit the Sub-Health Post and Family Planning Office and less aware of the risks associated with too many pregnancies and close spacing between pregnancies. Among the illiterate women there was a tendency to perceive themselves as powerless to reduce fertility.

The female Family Planning Motivator and Village Health Worker had been quite successful in raising the awareness of women regarding family planning. In order to market a family planning method to women, the female Family Planning Motivator and Village Health Worker placed great emphasis on the health risks of too many pregnancies and close spacing between pregnancies. Although the emphasis was on male and female sterilisation, Depo-Provera, and more recently Norplant, information on other temporary methods was also provided to Chisang women. As both the Family Planning Motivator and Village Health Worker received financial incentives for each acceptor of male and female sterilisation, Depo-Provera and Norplant, they went to great lengths to persuade women to become acceptors of these methods.

When this study was conducted, Nepali Rupees 50 (US \$0.95) was paid to both the Village Health Worker and Family Planning Motivator as a financial incentive for each male and female sterilisation, Nepali Rupees 30 (US \$0.50) for Norplant, and another Nepali Rupees 15 (US \$0.25) for each Depo-Provera injection. Other temporary methods including the pill, condoms, and IUDs and non-technological methods such as periodic abstinence and withdrawal were not promoted as vigorously by the Family Planning Motivator and Village Health Worker for which they did not receive any financial incentives. In addition, the Family Planning Motivator and Village Health Worker received approximately Nepali Rupees 100 (US \$1.60) in addition to the transportation costs and other related expenses to Biratnagar, from the abortion clinics there. Therefore, information on abortion and the location, costs and the procedure to get an abortion was quite readily available in Chisang. For this reason, abortions were promoted to the women of Chisang as a safe family planning method.

Family Planning and health were promoted informally and formally in the *hatiya* (Nepali: weekly markets) where married and unmarried women from such setting as Chisang were able to seek advice and medication anonymously from the Family Planning Motivator, Village Health Workers, local *dhamis* and local drug store owners. From time to time, information on contraception, health issues, drugs and immunisation were also provided free of charge in the local *hatiya*. Many infertile women also came to the *hatiya* to seek advice and medication. The weekly *hatiya* and its importance in providing health and contraception information, besides its economic value in rural areas, was summarised by the Secretary of the VDC:

Men and women come from all over the region to the local *hatiya*. In the winter time the weather is better, people have more free time, and a lot more people from the hills will come to sell their produce in the *hatiya*..... In a way a *hatiya* brings a part of a large town or a small city into the village. As *hatiya* gain popularity in this region we will receive more benefits which were available in the large towns in the past.... We are able to purchase cosmetics, clothes, vegetables and food, and medicine.. In the bigger *hatiya* in the area, we can also find many prostitutes..... Many people from the Health Post, Family Planning Office, local drugstore owners and *dhamis* come to the *hatiya* to recruit clients. This is all business for them.... The Village Health Worker and Family Planning Motivator benefit more than anyone else

because they can provide free advice in the *hatiya* to women because of their positions in the health institutions. Later on they will be able to collect a “commission” (financial incentives) from these same women once they accept family planning method. It serves the purpose for all.

*Hatiya* also provide a very convenient way for many rural women to seek advice on contraception, abortion and infertility. As there is very little privacy for women at their own homes in the village, a *hatiya* provides a very convenient place for rural women to seek advice without the fear of being overheard or noticed by others. Oftentimes, if a woman is seen going to the Sub-Health Post or to the Family Planning Office, rumours can be started by others in the village which could bring shame upon her for intending to use a family planning method. However, hundreds, even thousands of people come from all over the area, in the larger *hatiya*. There is less chance for rural women to be noticed as they seek advice on contraception, abortion and infertility treatment from various sources.

**Access to Local Family Planning Services:** Twenty seven of the 33 women intending to use a family planning method in the near future said that access to local family planning services was a very important reason for that decision. The remaining six women said that they were intending to use a family planning method even if family planning services were not available locally. These six women were all under 25 years old and overall had more years of formal schooling. It has already been mentioned that the Sub-Health Post and Family Planning Office were established in the VDC only in the past two years. The number of acceptors of both temporary and permanent family planning methods had increased three folds in Chisang in the last two years.

All 33 of these women gave credit to the Sub-Health Post and Family Planning Office for both providing information on family planning method and access to family planning services. Furthermore, the female Family Planning Motivator was an *adhivasi* woman who was respected by all castes and tribes in Chisang. The higher caste women were also supportive of her but criticised her for “castrating” too many poor middle and lower caste men and women; an accusation that was not supported by

village level data. The Family Planning Motivator was very successful in promoting family planning methods among the middle caste hill and Terai tribal groups. However, she refused to enter the homes of the lower caste people due to her higher ritual status and had only limited success in promoting family planning among the lower caste women. Besides the four lower caste couples who were acceptors of sterilisation, no other lower caste couples were intending to use a family planning method in the near future. This highlighted one of the major difficulties in providing information on family planning methods and access to family planning services in rural settings with mixed castes and tribes.

**Changing Roles of Women in Rural Villages:** Another factor that encourages the practice of family planning methods is the changing role of females in rural villages. Three major changes in women's role in Chisang and other rural villages in the eastern Terai region of Nepal are attributed to the intention of females to use family planning method in the near future.

It has been demonstrated in Chapter 8 the age at marriage in Chisang and similar settings have been steadily rising. A rise in age at marriage in Chisang and similar settings in the eastern Terai region of Nepal has meant that the in-marrying bride is more mature and educated. A combination of more years of formal schooling and maturity have resulted in more assertiveness in in-marrying brides, who are less likely to be overwhelmed by the in-laws' desires. They tend to desire a smaller family, and are therefore, more likely to use a family planning method, especially when it is available locally.

Chapter 6 described economic activities of women as significantly differing from that of men in the study area. Recently married women and unmarried girls over the age of 14 were engaged in various income generating activities, mainly trading of agricultural and forest products. In the majority of cases, women were in control of the cash incomes derived from these economic activities. Major socio-economic development and more relaxed social norms permitting women to work outside the house and the farm in Chisang and the whole eastern Terai region has provided more

economic opportunities for women, especially the younger and those with some literacy skills, to derive cash incomes which are not dependent on the family's agricultural land. Non-farm based cash income and its control is another means through which women are deciding to get married later and have a smaller family size than in the past. Women participating in non-farm based economic activities usually have to travel from home to their jobs, often in groups, and thus are more likely to be informed of family planning method through their peers.

## **Conclusions**

In rural villages such as Chisang, a combination of major socio-economic development and cultural change, together with the introduction of effective family planning services, has greatly increased the number of family planning acceptors in a very short time span. The changing social, cultural, economic and political institutions have created an environment which promotes couples in using a family planning method after they have reached the desired family size. This has provided a favourable environment for family planning services. In less than two years after the establishment of the Sub-Health Post and Family Planning Office in the VDC there has been a fourfold increase in the use of a family planning method in Chisang. What is even more remarkable is that the number of spacers using temporary family planning method is keeping pace with the limiters who are being sterilised. Hiring and training local women to promote contraceptive use in Chisang is another factor that has helped increase the number of contraceptive users.

It is my contention that had family planning services been introduced at an earlier stage, prior to these socio-cultural and economic changes, the impact may have been much less than has been the case. Further, recruiting local females as family planning motivators has only been possible because of the socio-economic development, resulting in "suitably educated" women, not men, being appointed.

Conventions regarding uptake of contraceptive use the term “acceptors” which implies that the remainder refuse or reject. Significance of these findings is that in all likelihood, the “no-acceptors” in fact have had no opportunity to accept. Given the opportunity, acceptance is likely to be higher.

## CHAPTER 10

### FERTILITY DECLINE IN CHISANG: ECONOMIC AND DEVELOPMENTAL EXPLANATIONS

Theories of fertility decline in a poor, agrarian country such as Nepal inadequately explain demographic transitions. In the past, most debate on fertility decline has placed family planning programmes against economic development as the main agents of fertility decline, while putting little emphasis on social and cultural changes that effect fertility. The findings of the present study indicate that it is these latter factors which are of primary importance. It was noted in Chapter 7 that fertility has been declining in Chisang over the past 5 to 10 years as a result of a complex mix of factors. The decline in fertility in Chisang has not been accompanied by a marked increase in the availability of contraceptive technology. It has also been argued in Chapter 7 that decline in fertility in Chisang is primarily attributable to reduced reproductive rates among married couples, with a rising age at marriage contributing the most to fertility decline. Only in the past two years has contraceptive technology become available in Chisang, which as this study shows, has played a recent role in fertility limitation in Chisang. The purpose of this final chapter is to demonstrate that in order to adequately explain fertility decline, a broad range of economic and developmental factors affecting people's marriage practices and preferences regarding family must also be addressed.

#### **The Argument**

The argument I wish to advance is complex: that any effective interpretation of Chisang's fertility decline requires an understanding of the complexity of the economic, development, social and cultural contexts of fertility, and the complexity of the interactions among them. These are not unidirectional but are in complex interaction, a 'tangled ball of yarn.' These complex economic, development, social and cultural factors have had their greatest impact on two of the four principle proximate determinants of fertility outlined by Bongaarts (1978) and Bongaarts and

Potter (1983): rise in age at marriage and an increase in contraceptive use. These two proximate determinants of fertility have been affected by changes in economic and developmental factors which indirectly account for fertility decline in Chisang.

Rise in age at marriage, age at consummation, and recently, an increase in the use of contraceptive technology can be attributed to a complex mix of economic change and introduction of developmental programmes in the study area. The most significant changes identified in this study are: historical factors; government policies; mass schooling; changing role of women; and diversification of the economy.

In this chapter the broad economic and development contexts of rapid social change are described, and that fertility decline is going on at the same time. No casual link is argued; it is simply stated that these phenomena are occurring together and are mutually interactive.

### **Historical Factors**

This section identifies the historical factors leading to migration of people from the Hills of Eastern Nepal to Chisang. The first section provides an explanation for the failure of the *jajamani* system to be reproduced in new settlements such as Chisang. As the *pahari* people migrated from the Hills to Chisang the ritual and economic relationships characterising caste Hindu village society in Nepal's Hills have not been strongly established in the Terai by the *pahari* migrants. The second section identifies the historical factors leading to the alienation of the *kipat* lands traditionally owned by tribal groups in the Hills of Eastern Nepal. These two sets of relationships are discussed in turn.

#### *Failure of the jajmani system to be reproduced in new settlements such as Chisang:*

The economically based inter-caste relationships well documented in India were established in Nepal's Hills but have not taken root in the Terai. I will explain the nature of these relationships and then discuss the most significant causes for the failure of the system to take hold in Chisang.

In order to understand the economic and social relationships in Nepali villages, it is necessary to describe the inter-caste *jajmani* and *kamaune* systems. It has already been mentioned in Chapter 6 that the few lower caste families who had migrated into Chisang did not practice their caste-specific occupations. Furthermore, all but one of these lower caste families own some land in Chisang and in the state of Assam in India. In Chisang all castes and tribes are agriculturists and sell their goods, services and labour for cash in the village or nearby towns. The higher castes and middle castes rely on agriculture as much as the lower castes.

Several anthropologists and demographers have commented on migration, especially of males, out of the hills to the Terai and India for employment (Cameron 1995; Thapa 1989; Caplan 1972). Chisang attracted its share of migrants from all castes and tribes from the eastern Mountain and Hill regions. During the six month period of my fieldwork alone, three families (18 persons in total) migrated into Chisang from the hills. These three families were permanent migrants and had no intention of returning to their home villages in the eastern Hill region.

Over the past three decades, the people and the land in the eastern Terai region have undergone significant changes. The *pahari* people were attracted to Chisang and other Terai areas due to various push and pull factors (see Chapters 2 and Chapter 6). All of my older *pahari* informants, who themselves had migrated from the eastern Mountain and Hill regions to Chisang, agreed that they had settled in Chisang in search of a better life. Dramatic population increases in the eastern Mountain and Hill regions; shortage of land; problems with land registration; and competition from mass-produced goods had shifted the balance of patron-client relationship in favour of the higher and middle caste patrons, forcing many lower caste families to migrate to India. A few lower caste families who were unable or unwilling to migrate to India, migrated to the Terai instead and set up shops in the small towns that dotted the Terai landscape. A few lower caste families later returned to Chisang from India and purchased land. This group of lower caste return migrant families do not perform any caste-specific occupations. In the neighbouring villages there were a few lower caste families who had migrated from the eastern Mountain and Hill regions straight to the Terai, and they continued to perform their caste-specific occupations. These lower caste families that continued to perform their caste-specific occupations in the nearby

villages did not receive *bali* payments from their higher and middle caste patrons, instead they were paid in cash. However, the lower caste return migrant families worked for wages in the village.

After Nepal's borders were opened to India and the rest of the world in 1951, goods made by hand by lower castes had to compete with Indian and foreign mass-produced commodities. The Sarki (leather workers) and Damai (tailors) have been most effected by mass-produced imports, especially those from India. Both the Sarki and Damai's traditional products and services were gradually being replaced by mass-produced "modern" goods. This exacerbated lower demands for other lower caste goods and services. In an analysis of economic and social change in a hill village in western Nepal, Macfarlane (1976: 139) wrote:

.... much of the former work of the village Blacksmith, Tailors and Cobblers is no longer necessary because of the growing market for cheap tools and clothes at Pokhara. In practice, such lower-class groups have become landless agricultural labourers working for their Gurung patrons.

In the eastern Mountain and Hill regions mass-produced commodities became increasingly available, particularly in relatively wealthy villages which were accessed by the north-south road links or developed as government centres, where a significant cash income became available to many higher and middle caste households. Traditional caste-based patron-client relationships were unable to compete with the emerging market driven economy. This further led to a growing gap between work available for the lower castes and the traditional payment in kind- *bali*. As one of the lower caste Sarki from Chisang explained:

With the decline in land productivity in the hills and the rise in grain prices, the higher castes started to refuse to provide the same amount of *bali* payments to us as in the past. With declining *bali* payments, most of the *sano jat* (Nepali: lower castes) were forced to migrate to *Madesh* (Terai) or India.

The competition from mass-produced products from India resulted in many lower caste people into landless agricultural labourers.

Traditionally, as in west Nepal (Caplan 1970: 320), Brahmins and Jaisis in east Nepal did not plough their own fields. Instead, they employed someone else, invariably a person from the middle or lower caste, to fulfil this essential task in rural agrarian

settings. The *hali-jamindar* (Nepali: ploughman-landowner) arrangement lasted for one monsoon season lasting approximately six months. The *hali* was provided with two sets of clothes, all the meals and tobacco, and a small salary, approximately NC RS 600.00 (US \$10.00). Caplan (1970: 33) explains:

Cobblers who become ploughmen find a good deal of security in the arrangement. Not only are they assured of a substantial amount of grain-usually more than they get more from their lands-but they can count on their masters for advances of grain and small interest-free cash loans to meet special contingencies such as deaths in the family.

In the past the *hali-jamindar* relationship in the eastern Mountain and Hill regions created an interdependence and security for both the Brahmins, who were prohibited from ploughing their own fields by the caste system, and the middle or lower caste *hali*, who usually did not own or have access to land. However, the Brahmins and Jaisis who have migrated to Chisang no longer feel obligated to maintain the practice of not ploughing their own fields; all land owning Brahmin families in Chisang ploughed their own fields. In the neighbouring village, two Brahmin households did not plough their own fields because they owned a lot of land and were able to afford to hire two or three middle and lower caste *hali* during the monsoon season. In this case, not ploughing their own fields conferred them with higher socio-economic status, distinct from a higher ritual status.

The absence of social, economic, and psychological security as a result of weakening of the caste system raises questions about Cain's (1981, 1982, 1983) proposition that under conditions of harsh poverty children function as a generalised insurance against an uncertain future, and that this constitutes one of the main explanations of high fertility. Instead, couples of all castes and tribes in Chisang have responded to the absence of social, economic, and psychological security by deferring the age at marriage, and more recently, through increased use of contraceptive technology.

*Alienation of kpat lands which has given rise to conditions of both instability and insecurity:*

The cleavage<sup>1</sup> between the tribal peoples, the Limbus of Pallo Kirat (an area east of Arun river in east Nepal), and the Rais and Yakhas of Majh Kirat (an area between Arun river to the East and Dudh Koshi river to the west), and the Hindu immigrants who had settled east of the Dudh Koshi river, which had forced many of the tribal peoples to migrate in large numbers to the Terai and India, will be discussed in this section. All of the middle caste hill tribals who had settled in Chisang migrated from the Mountain and Hill regions east of the Dudh Koshi river. Therefore, the explanation of confrontation over communal *kipat* lands between the middle caste hill tribals and higher caste Hindu immigrants will be restricted to the area east of the Dudh Koshi river, and no attempt will be made here to analyse the situation elsewhere in Nepal. It must also be noted here that the cleavage arose not primarily out of cultural and racial differences between tribal hill people and Hindu immigrants, but rather, due to confrontation over land. The cleavage between Hindu immigrants and tribal peoples over land has also occurred elsewhere in South Asia: Fürer-Haimendorf (1967), Bose (1964), and Skar (1993) have provided descriptions of tribal land-alienation through fair and foul means in Nepal and India.

In the latter half of the eighteenth century Nepal was united, mainly by force, under a Hindu King (see Chapter 2). That part of the Himalayas between Kumaon in the west and Sikkim in the east was inhabited by a number of tribal peoples who were Tibeto-Burmans. Many of the tribal peoples of Nepal followed a land tenure system called *kipat* which is defined by Regmi (1978: 534):

In the *kipat* [sic] form of land tenure in Nepal, however, the communal authority overrides any claim the state might intend on grounds of internal sovereignty or state landlordism. Control over the land is exercised in relation to the social group. A *kipat* owner derives rights in *kipat* land by virtue of his membership in a particular area. In contradistinction to the *raikar* [sic] system of land tenure and its derivatives, therefore, *kipat* represents a communal form of land tenure. This, nevertheless, does not mean that land under *kipat* tenure is necessarily cultivated on communal basis.... Members of the concerned ethnic groups are permitted to use the land subject to the

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<sup>1</sup> Cleavage as used by Caplan (1970).

condition their rights therein will continue or at least remain during their absence. Rights on *kipat* land are therefore divided between the community and the individual belonging to the community, in the sense that each individual has an unchallenged right to use a plot of land.

Traditionally, in the case of the Rais until the 1940s (McDougal 1979); and the Limbus until 1970 (Caplan 1993); these tribal groups held land under this customary form of tenure: the "*kipat*." After the unification of Nepal a large scale migration of Hindus into the tribal areas took place. Caplan (1970: 2) states:

... despite the creation of a multi-ethnic society, relations between the tribal populations and the immigrants have frequently been characterised by seemingly opposed tendencies: cleavage, on the one hand, and interdependence on the other.

Twenty five years before this study was conducted, the authorities in Kathmandu had been successful in bringing all tribal lands under a uniform system of land tenure, akin to freehold and known as "*raikar*." Regmi (1963) has described *raikar* as 'state landlordism' whereby the rights of an individual to the use and transfer of land are recognised by the state as long as taxes are paid. The conversion of *kipat* lands to *raikar* made it possible for their alienation to the Hindu immigrants. The tribal lands in other parts of Nepal excluding Pallo Kirat and Majh Kirat had been converted into the *raikar* shortly after the unification of the country in the late eighteenth century or early nineteenth century (Regmi 1978).

At the time of the consolidation of the country in the late eighteenth century by King Prithivi Narayan Shah, the founder of the modern state of Nepal, he recognised and respected the different traditions of the tribal peoples which he conquered. One way of showing his respect to the tribal groups which were brought under the authority of Kathmandu was to allow "the alien tenurial customs of the tribal peoples," which was known as *kipat* (Burgart 1984: 109). In contrast, caste Hindus who did not belong to these tribal groups, held land under a variety of other tenurial customs (Regmi 1971, 1976, 1978). However, over time, the great majority of the caste Hindus came to possess tribal land claimed through the system of *raikar*.

The Rais, Yakhas and Limbus have inhabited the land east of Dudh Koshi river (Pallo Kirat and Majh Kirat) in the eastern Hill region for many hundreds of years. Until the

end of the nineteenth century, land in Pallo Kirat and Majh Kirat was abundant and deemed to belong to the group of agnatic kinsmen who cleared the forest and brought it under cultivation (Caplan 1993). However, after the unification of the country, a policy was instituted by the authorities in Kathmandu encouraging the immigration of caste Hindus into Pallo Kirat and Majh Kirat. By allowing the Hindu immigrants to settle in Pallo Kirat and Majh Kirat

the state lost no opportunity to reduce the area under kiptat tenure by a series of hostile legislative measures. A whole range of devices were introduced whereby kiptat lands were whittled down. The lands so moved from kiptat were converted to raikar tenure and so, unlike kiptat, available to anyone (Caplan 1993: 310).

McDougal (1979: 15) reports that in Majh Kirat, which was home to the Rais and Yakhas, *kiptat* land had been totally abolished by the 1940s. McDougal suggests that the authorities in Kathmandu were able to exert more pressure over the Rais and Yakhas in Majh Kirat than the Limbus in Pallo Kirat because the former lived closer to the capital and ‘presented less of an united front.’

- In a study of the Limbus of Illam District in Pallo Kirat, Caplan (1970, 1993) maintains that it was particularly the higher caste Hindus who were accused of bearing responsibility for conversion of *kiptat* lands to *raikar*. Caplan (1993: 311) goes on to state:

Indeed, because of their literacy and their sharing of caste and kinship backgrounds with members of the administration, well placed Hindus were certainly able to take advantage of legislation to improve their land holdings, and reduce those of the Limbus.

The increasing loss of *kiptat* land meant that the Rais, Yakhas and Limbus were no longer able to support themselves from their land.

As the *kiptat* lands were converted into *raikar* in Majh Kirat at least three decades earlier than in Pallo Kirat, the Rais and Yakhas had lost most of their land to the caste Hindus many decades earlier. It has been reported by Caplan (1993: 315) that with the conversion of *kiptat* lands into *raikar* and thus the removal of the ban on the sale of the land by 1970, the process of large-scale permanent alienation of Limbu lands began and continues to this day. Caplan (1993: 315) suggests that among those Limbus that lost their lands to the caste Hindus: several went to other areas of

Limbu to live with relatives; a few went to the Terai to join kinsfolk already there; but most of them ‘melted into the burgeoning towns and settlements of the plains.’

The majority of the middle caste hill tribes who have settled in Chisang fall into the latter category described by Caplan (1993: 315). The middle caste hill tribes who have settled in Chisang have been lost to Pallo Kirat and Majh Kirat. In-depth interviews with my middle caste and higher caste informants confirmed the fact that most of the middle caste hill tribes had migrated into Chisang and other rural Terai villages as a result of land shortage in the hills. The middle caste hill tribes who had settled in Chisang were adamant that the land shortage resulted due to the Hindu immigrants' tendencies to ‘eat’ their traditional *kipat* lands (Caplan 1970: 2).

Caplan (1993) Chemjong (1958), and Melford (1966) have described *kipat* as more than a system of land tenure, it was the basis of Limbu identity as a people. The same can be said of the Rais and Yakhas of Majh Kirat. Alienation of tribal *kipat* lands from the Rais, Yakhas and Limbus by the higher caste Hindu immigrants have forced many of them to migrate to rural villages in the Nepali Terai, such as Chisang. Furthermore, by legislating for the alienation of tribal *kipat* lands, “the state effectively inaugurated the last phase in the transformation of a tribal into a peasant community (Caplan 1993: 318).

The economic, social and psychological security provided to the middle caste hill tribes by the *kipat* lands were lost. Alienation of tribal *kipat* lands by the higher castes has been accompanied by declining fertility among the middle caste hill tribes. This decline in fertility has taken place through deferment of marriage, and recently, adoption of contraceptive technology. This seems to raise questions about Cain’s (1981, 1982, 1983) argument that in the absence of other forms of insurance for poor people in rural areas, having children is the only way to mitigate risks and uncertainties. Instead, the loss of tribal *kipat* lands and the security it provided to the middle caste tribal hill people has been accompanied by deferment of marriage, and recently, adoption of contraceptive technology.

## Migration

Several anthropologists and demographers have commented on migration, especially of males, out of the hills to the Terai and India for employment (Cameron 1995; Thapa 1989; Caplan 1972). Chisang attracted its share of migrants from all castes and tribes from the eastern Mountain and Hill regions. During the six month period of my fieldwork alone, three families (18 persons in total) migrated into Chisang from the hills. These three families were permanent migrants and had no intention of returning to their home villages in the eastern Hill region.

Over the past three decades, the people and the land in the eastern Terai region have undergone significant changes. The *pahari* people were attracted to Chisang and other Terai areas due to various push and pull factors (see Chapters 2 and Chapter 6). All of my older *pahari* informants, who themselves had migrated from the eastern Mountain and Hill regions to Chisang, agreed that they had settled in Chisang in search of a better life. Dramatic population increases in the eastern Mountain and Hill regions; shortage of land; problems with land registration; and competition from mass-produced goods had shifted the balance of patron-client relationship in favour of the higher and middle caste patrons, forcing many lower caste families to migrate to India. A few lower caste families who were unable or unwilling to migrate to India, migrated to the Terai instead and set up shops in the small towns that dotted the Terai landscape. A few lower caste families later returned to Chisang from India and purchased land. This group of lower caste return migrant families do not perform any caste-specific occupations. In the neighbouring villages there were a few lower caste families who had migrated from the eastern Mountain and Hill regions straight to the Terai, and they continued to perform their caste-specific occupations. These lower caste families that continued to perform their caste-specific occupations in the nearby villages did not receive *bali* payments from their higher and middle caste patrons, instead they were paid in cash. However, the lower caste return migrant families worked for wages in the village.

Although Chisang is characterised by in-migration of *paharis* from the Hills of Eastern Nepal there is at the same time also a continuing pattern of out-migration (permanent and temporary) and seasonal migration to urban centres within Nepal and

into India. Out-migration from Chisang is related to a number of factors including: to supplement household income by off-land income; household type; mobility as a result of better transportation network; higher educational level; and receptiveness to change. Mainly members of nuclear households and other types of household that do not own sufficient land from which to feed the whole family migrate to urban centres within Nepal and into India to supplement their household incomes. Members of joint households are less likely to migrate temporarily or seasonally than their neighbours who live in nuclear households. For the younger people of Chisang seasonal and permanent migration to urban centres within Nepal and into India has been made easier due to the improved transportation network, their higher educational level which make it easier for them to find jobs in urban centres, and their receptiveness to change.

Besides mass schooling (see below), the improvement of national communication networks, mainly transportation, mass communications, have brought more people of different castes and tribes, and from different parts of the country into contact with one another. The subsistence agricultural economy is no longer able to support the population of such rural communities as Chisang. Therefore, there is a trend towards seasonal, temporary and permanent migration of people mainly males, and more recently females, into urban centres within Nepal and India in search of non-agricultural employment. Migration of males and females with some education (at least high school level) to urban centres within Nepal and India has become a common practice in this part of the country, as elsewhere in Nepal. As a result of migration into urban centres within Nepal and India, the rigid caste system has been further undermined. Many of those who have lived in urban centres within Nepal and India were less likely to observe the caste system.

The decline in caste-specific occupation of the lower castes in eastern Nepal has also resulted in the erosion of the caste-system (see below). The decline in caste specific occupations of the lower castes has forced them to either migrate to urban centres within Nepal and India or work for wages just like the poorer higher and middle caste peasants. Both the poorer strata of the higher and middle castes on one hand, and the lower castes on other, come into contact as they work for wages away from home. Oftentimes wage labourers of different castes and tribes may pool their resources in

order to save money while working away from home. These migrants often travel, eat and live together in order to minimise expenses, and thus, further refrain from observing caste restrictions related to maintaining ritual purity of higher castes.

## **Government Policies**

Government policies have also had an indirect affect on the decline in the study village of Chisang. The *Naya Muluki Ain* (Nepali: New Law of the Land); policies implemented by the government to encourage migration of *paharis* from the Hills to new settlements in the Terai (see Chapter 5 for detailed description); expansion of mass education (described in detail below); health and family planning programmes (see Chapter 3 for detailed description); and the development of the transportation and communication network are some of the factors that provide an explanation for the decline in fertility in Chisang.

In 1963 the *Naya Muluki Ain* (Nepali: New Law of the Land) became law. Among other regulations, this law stated that there was to be no discrimination on the basis of caste in Nepal (HMG 1963). Since the *Naya Muluki Ain* became law in 1963, all primary, secondary, and tertiary educational institutions have been obliged to admit students of all castes and tribes. These villagers suggested that mass schooling and migration were primarily responsible for erosion of the rigid caste-system in rural villages such as those from where Chisang's residents originated, but did not go on to attribute these changes to the *Naya Muluki Ain*. Thus, it is argued, that mass education is responsible for creating a new culture in which the caste system is not as rigid as in the past. According to the village *pundit*, there was at first a lot of opposition in Chisang from the higher and middle castes to allowing the lower castes attending school. However, in the last two decades, the higher and middle castes have accepted the fact that the lower castes are also entitled to education as are their own children. This has been especially true after 1990, when the form of governance changed from that of an absolute monarchy to a parliamentary democracy.

The construction work on the East-West Highway, the main transportation link in Nepal, began in the northern part of the eastern Terai region in the early 1960s with

support from the Indian government. Thick tropical forests were cleared to make way for the East-West Highway in most of the Terai. The implementation of the Malaria Eradication Programme and construction of the East-West Highway made it possible for *pahari* to clear-cut these forests and develop settlements such as Chisang. Upon establishing themselves in these new settlements, most settlements developed a road link (feeder roads) with the East-West Highway to the north and other settlements further south.

The construction of the East-West Highway and the feeder road further linked this study area with the rest of the eastern Terai region; the eastern Hill region; the capital city, Kathmandu; and the states of West Bengal and Bihar in India. The construction of the highway and feeder road was a major development and it has had a profound effect on the people of Chisang and other rural villages. To begin with many people from Chisang and neighbouring villages were employed as construction workers and paid in cash, thus, introducing the concept of cash wage labour in Chisang and neighbouring villages. With the construction of the highway, small trading towns were established where people from Chisang and other rural villages were able to transport and sell surplus food, fruits, livestock and poultry products. In recent times, a majority of the households in Chisang are growing cash crops (see Chapter 6) which are then transported and sold in *hatiya* in the region. The subsistence farm economy has been monetarised, and to some extent integrated with the national economy. The village people also have had the opportunity to travel to distant places in search of health care, employment opportunities and even bride or groom for their loved ones. Regular bus service in the East-West Highway has now made it possible for day students to commute to schools and colleges in nearby towns. Wage earners and a handful of people who hold jobs in nearby towns also commute from Chisang to their place of employment.

The development of the transportation network has made it possible for the mobile family planning and maternal child health programme to set up camps in the study area. Mobile vasectomy and laparoscopy camps are organised by the VDC at least two times a year with a lot of fanfare. Government funded mobile clinics provides ante-natal services at two locations within the study area each month (see Chapter 6). The development of the transportation network has also motivated people to seek

health care in Biratnagar which is located about 45 kilometres south west of Chisang. The Village Health Workers and Family Planning Motivators, described in Chapter 9, have been able to recruit and transport women to be sterilised in Dharan and Biratnagar.

### **Mass Schooling**

Mass schooling, especially of girls, and to higher levels has played a significant role in contributing to the changing role of women and knocking down the caste barriers even in rural settings such as Chisang.

Caldwell (1980: 228) in an article on mass education as a determinant of fertility decline states:

in the contemporary developing world, the school serves as a major instrument- probably the major instrument- for propagating the values, not of the local middle class, but of the Western middle class. Little is taught or implied that is at odds with Western middle-class values, while traditional family morality is disdained or regarded as irrelevant and as part of that other nonschool, pre-school- even antischool-world.

The infiltration of secular, modern “Western” values received through mass schooling seems to have equal impact in the erosion of the rigid caste system in Chisang and other Terai villages. Furthermore, erosion of the caste system would have been unlikely if the movement towards mass education was largely confined to males. It has already been noted in Chapter 6 that the percentage of male school attendance exceeds that of females only by a slim margin in Chisang.

The education of children has been given a high priority by successive governments in Nepal since 1951. A significant increase in the government’s commitment to education occurred throughout the Panchayat system, from 1961 which continued until 1990. Successive governments during the Panchayat system made it a policy to construct and staff elementary schools within reach of all children of Nepal, which were the means to make viable the objective of universal education. In recent years the secondary school system has also been expanded significantly, but not with the same rate or with the same impact as has the expansion of primary schools.

Chisang and many rural villages all over Nepal have thus benefited from the government's commitment to education over the past three to four decades. The first primary school was built in Haat Bazaar VDC in 1968. This school was later upgraded to a secondary school in 1972. When this study was conducted, there were 12 public and another five private primary schools in Haat Bazaar VDC. There were three secondary schools in the VDC and a fourth secondary school was under construction. For those families who had the financial means to send their children to an "English Boarding" school<sup>2</sup> a school bus came to fetch their children in Chisang from the nearby town of Belbari. For the remaining children, there was a public primary school within Chisang and a private and another public primary school in an adjacent village within 15 minutes walk from Chisang. The closest secondary school was located within half an hour's walk from Chisang. The size of the school-going population (ages 6-15) was 165 of which 118, some 71.5 percent, were attending school. Of the remaining 28.5 percent 6-15 years old not attending school, most of them (n=26) were school drop-outs from hill districts (see Chapter 6); 62 percent of boys (6-15) and another 56 percent of girls (6-15) were attending school. A solid 69.7 percent of the respondents of Chisang were literate, that is, they were able to read and write.

The development of the school system is a recent institution in the Nepali society. Many of my informants believed that mass schooling has had a number of effects not only on the decisions faced by younger couples at the start of their reproductive careers, but also on their parents (to be discussed below). At least three mechanisms through which mass schooling may have had an impact on fertility decisions in Chisang and similar settings were observed.

First, the cost of maintaining school-going children increased far beyond both direct fees and costs, and the loss of their participation in the family economy. Ageing adults may physically be unable to single handedly carry out all the household work, as one Brahman from Chisang with one son and three daughters explained:

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<sup>2</sup> A colloquial term which means that English is the medium of instruction, but the children do not in fact board at the school.

I can afford to pay the school fees for all my four children. But I and my wife cannot do all *ghar bari ko kaam* (Nepali: household chores and agricultural work) all the time, especially at this age.... For this reason I have my *jethi choree* (Nepali: eldest daughter) stay home and help her mother.

Another Brahman with two sons and two daughters noted the connection between the cost of schooling of children and pressures on parents themselves to limit fertility. These pressures on the parents have been reinforced by the mass media, which since the 1960s have all carried strong messages stressing the importance of education for the development of the nation.

When my children were too young to go to school, we (husband and wife) were able to meet the costs of the children through our income from the little land we own. Now that three of our children go to school, my wife has had to raise green vegetables to sell in the *hatiya* in Pathari (a nearby town). I have started to work as a day labourer in Belbari from time to time..... It is very difficult to raise more than two or three children now-a-days if you intend to send them all to school.... That is why my wife reminds me from time to time that we should have had only two children..... My wife has advised her younger sister with two children not to have another child if she intends to send them to all to school.

Secondly, mass schooling seems to influence the ideas about family life, marriage and childbearing. Deepak, my research assistant, who was unmarried at the time of the field work mentioned:

Now that I have completed my secondary education, and am attending college, it is in my interest to delay marriage until I am able to support my wife and family. This may mean that I will have to set up a separate household (through partition) soon after my marriage and have only two children.

Education generates new attitudes among educated men and women, young couples, and often among their parents. Caldwell (1980: 228) has pointed out that schooling speeds up cultural change and creates new cultures. The new attitudes and new cultures that have been mentioned in this section are the result of secular, modern, Western middle class values propagated by mass schooling.

Finally, most of the adults in Chisang are aware of the fact that mass schooling often leads to profound social change (Caldwell 1980: 242). This is especially true if mass schooling is reinforced by mass media. In my discussions with older villagers and

school aged children, all of them associated education with national development. As a result of increasing educational opportunities even in rural villages such as Chisang, children are growing up in an environment that is very different from the one in which their parents were raised (Hull 1987: 93). Furthermore, education provides social and economic advantages and some skills necessary to migrate to urban centres within Nepal and India in search of non-agricultural employment. People with at least some education also tend to look down upon the subsistence agricultural and rural way of life. This was clearly stated by a 19 years old Dhimal boy from Chisang who had returned to Chisang from his job in the State of Punjab, India:

After I failed SLC (high school certification) exams two years in a row, I wasted no time and ran away with some of my friends from school, first to Delhi, and moved on to Punjab. I have not yet passed my SLC exams but I know how to read and write and I am sure that no one can cheat me without my knowing it. I did not want to spend the rest of my life in Chisang grazing cows, and cutting firewood to sell on the black-market. Nobody who has gone to school for more than five years will want that kind of job. Also, village life is too dull once you start living in a city.

Those few couples who were able to afford to pay the college expenses of their children had sent their children to college in urban centres either in Nepal (mainly Biratnagar or Kathmandu) or India (mainly Darjeeling and Assam). In order to receive college education, students from rural settings such as Chisang had to spend at least four years, and possibly more, in such urban centres. Private colleges have since been established within 45 minute's bus ride away from Chisang which have made it possible for students from Chisang to commute to the colleges from home. Despite the establishment of these colleges near Chisang, there is still a tendency to send children for college education in urban centres in Nepal and India. Higher education has not only introduced students to Western ideas and values, but having to live in urban centres within Nepal or India to receive a college education exposes these students further to an urban lifestyle, which differs significantly from that in rural Nepal.

During the time this study was conducted, 17 college students from families now residing in Chisang were pursuing a college degree either in Biratnagar, Dharan or the national capital, Kathmandu. Only five (three female and two male) students were commuting to the local private colleges from Chisang. Another nine students whose

parents still lived in Chisang had already completed their undergraduate degrees. Only two of these had returned to Chisang. The remaining college graduates had found employment in urban centres or small towns elsewhere in Nepal or India. Although these college graduates who lived and worked elsewhere visited their families in Chisang regularly, as non-residents they were not included in the study, and their family size and their view of family size preference was not obtained.

The expansion of the educational infrastructure in Chisang has been followed by mass communications. Improved mass communications include: the press, national radio, rural postal delivery services, and most recently, the introduction of television and telephone services. Improved mass communications have complemented mass schooling to introduce a new world view to the young and old alike. Village elders agreed that the new world view promoted by mass schooling and mass communications were very different from those in the past. As Chisang's village *nundit* explained:

It was in the interest of rural households to have at least five or six children in the past so as to meet labour requirements and for old-age security. Now, the schools, radio and television are always telling the young couples to have only two children.

In this section I have argued that mass schooling and improved means of communications have been instrumental in introducing a new world view to people even in rural settings such as Chisang. The changing worldview of rural villagers has been accompanied by the rise in age at marriage, and recently, increased acceptance of contraceptive technology to space births and terminate conceptions.

### **Changing Role of Women**

Chisang and much of the eastern Terai region has experienced relaxed social norms for caste and female behaviour. This in turn has paved the way for increased participation in agricultural work by the higher caste Brahmins, and increased demands for female labour of all castes and tribes.

According to the village *pundit*, women of different castes and tribes in Chisang today do work which in the past was prohibited. This has resulted in an overall increase in all women's work and has provided them with new avenues to earn cash incomes in Chisang and the nearby trading towns of Belbari and Pathari. In the past a lot of agricultural work was exclusively done by men, but this work is now also done by women. The only agricultural work still monopolised by men in Chisang is ploughing the fields.

More cash income for women as a result of a relaxation of social norms for female behaviour and the market for their manual services has brought about significant changes in the family structure and relationships. For example, married women aged under 30 in Chisang and those earning cash incomes were more likely to live in nuclear households (see Chapter 6). Married women living in joint or supplemented-nuclear households were less likely to have cash incomes and more likely to work in the family land. Also, a married female living in a nuclear household in Chisang had borne an average of 3.2 children. Women under age 30 who lived in joint or supplemented-nuclear households had borne an average of 4.1 children. In contrast, married female of all ages living in a joint or supplemented-nuclear household had born an average of 5.6 children.

The changing inter-caste, social and economic relationships in Chisang have made it necessary for women of all castes and tribes to participate in work in the family land as well as participate in income generating activities in the nearby towns. The changing role of women in Chisang has been accompanied by the rise in age at marriage, and recently, increase in acceptance of contraceptive technology.

### **Diversification of the Economy**

The subsistence, family and farm based economy of Chisang is undergoing a fundamental change. Both men and women have been forced to supplement their incomes from their family farms with off-land incomes. Often times, this means that both men and women from Chisang are forced to migrate to urban centres within

Nepal or into India or commute to the nearby towns in search of employment. Many people in Chisang have also made good use of the weekly markets locally known as *hatiya* where they take their surplus goods to sell, exchange or barter (see below). In this section a description of the *hatiya* will be provided. Off-land incomes and migration as a means to supplement the household economy will also be described.

### *Hatiya: An Innovative Economic Institution*

An open market set up on a fixed day and location, usually in open public space, weekly where goods and services are offered for exchange, barter and sale is referred to as a *hatiya* or *haat* in eastern Nepal. *Hatiya* has played a vital role as an economic institution for over a century in both urban and rural communities all over eastern Nepal. My older informants stated that the institution of *hatiya* was introduced into eastern Nepal from Assam State in India. Most *hatiya* are now organised by the Village Development Committees or Urban Municipalities where tax is collected from those offering goods and services for barter, exchange or sale. Recently a number of larger *hatiya* are held two times a week. Larger *hatiya* are divided into several quarters: spice bazaar; cosmetic bazaar; green vegetable and produce bazaar; food bazaar; and butchery area. These larger *hatiya* usually have areas set aside for the sale and consumption of alcoholic drinks; and another area usually on the outskirts of town where cattle is sold (*pashu* bazaar). In the dry winter months, one or more travelling theatre or cinema operates in these larger *hatiya*. Unlike the larger *hatiya* that are spread over a wide area and have several widely separated sections, all goods and services are provided in the same area in smaller *hatiya*.

There is no restriction on who is allowed to provide goods and services for barter, exchange or sale in these *hatiya*. It is usually the local people from neighbouring villages and towns who attend these *hatiya*. However, those who provide goods and services for barter, exchange and sale in these *hatiya* are of three types: local villagers who come to sell surplus commodities (see Chapter 6); travelling salespersons who make a living by providing goods and services in various *hatiya* every day of the week at various villages and towns; and seasonal migrants from the Mountain and Hill regions and India who come to sell specific goods and provide speciality services for a few months of the year.

According to the VDC Chairman and the village *pundit* recently the Village Health Workers and Family Planning Motivators (described in Chapter 9) and the *dhami* and *jhankri* (Nepali: indigenous healers) have also started to provide services for fertility control and infertility in these *hatiya*.

The most significant benefit the *hatiya* provide to people who live in rural eastern Nepal was described to me by the VDC Chairman with whom I went to a large *hatiya* in a town east of Chisang:

People who live in large towns such as Biratnagar, Dharan and Kathmandu have access to vegetable markets, grocery stores, butcher shops, and alcoholic beverages everyday of the week. In rural villages these luxuries which are taken for granted by *the shariya manche* (Nepali: city folks) just do not exist. The weekly *hatiya* provide *gaonley* (Nepali: rural folks) goods and services that city folks cannot live without. In a way the *hatiya* is the medium through which urban taste and lifestyle is promoted to rural people. Let me give you an example. In this *hatiya* you will notice that a doctor from Biratnagar has a clinic; a street vendor is selling *chakki* (Nepali: contraceptive pills) and *dhaal* (Nepali: condoms); and people tell me that on the outskirts of town there are a lot of prostitutes.... In the centre of town three different cinema companies are screening Hindi movies today.... What these *hatiya* do is bring a part of the city into the rural town or village for that day.... At least for that day, the *hatiya* plays a major role in introducing rural people to a different environment that exists in far away places such as Kathmandu or Guhati or maybe Punjab.

In the six months of field work I had the opportunity to visit many *hatiya* in the nearby towns and villages. I was also able to observe that about half of those who frequented the *hatiya* were women. It was through these *hatiya* that women, both married and unmarried, were exposed to the urban lifestyle that existed beyond Chisang. I was informed by a 21 years old unmarried Chettri woman from Chisang of the changing role of women and the cash incomes they were able to earn through the *hatiya*.

There are at least five *hatiyas* that take place within half an hours bus ride from Chisang Bazaar. I have been trading in the *hatiya* for the last five years- that is after I sat for the SLC (high school diploma) exams and failed. Along with my friend and business partner, I trade in at least three *hatiya* every week in the summer months, and four to five *hatiya* a week in the dry, winter months. We usually purchase chicken, duck and pigeon eggs in Chisang and neighbouring villages and resell them in different *hatiya*. Depending upon the season and what is available locally we also purchase other commodities.... I

spend some of the money I earn on *singaar ko samaan* (Nepali: cosmetics) and I watch the recently released Hindi movies in different *hatiya*. Every few weeks I also give some money to my mother; and if my elder brother's children are good to me, I buy biscuits for them to take to school.

### *Migration and Off-Land Income:*

Both male and female migration to urban centres within Nepal and into India in search of employment to supplement the household economy has helped to diversify the economy of Chisang even further. Many of the households in Chisang rely on off-land incomes from household members who have migrated permanently, temporarily or seasonally.

### **Conclusions**

In the above analysis I have described the broad economic and development contexts of social change, I have also argued that the economic change and developmental factors have contributed to the rise in age at marriage, and recently, an increase use of contraceptive technology in Chisang. It has also been argued that the complexity of interactions among the economic, social, cultural and development contexts are not unidirectional but are in complex interaction. These changing social, cultural, economic and developmental factors are not casually linked and these phenomena are simply occurring. Erosion of the caste system, demise of the *jajmani* and *kamaune* system, alienation of tribal *kipat* lands which have forced many middle caste hill tribal people to migrate to the Terai no longer provide the social, economic and psychological security to people of different castes and tribes in Chisang. The development of the transportation network, expansion of mass education, and the *hatiya* as a rural economic institution have provided the people of Chisang greater exposure to the world and lifestyles that exist beyond their village. These changing socio-cultural and economic institutions which no longer provide them the social, economic and psychological support, are accompanied by a declining fertility.

## CHAPTER 11

### CONCLUSIONS

Over a period of a little over four decades, Nepal has experienced major social, cultural, economic and demographic changes. In this period, there has been a large shift in population from resource poor Mountain and Hill regions of Nepal to the Terai, where the migrants have established new lives for themselves and their families. In this process of settling in the Terai region of Nepal, migrants from the Mountain and Hill regions have displaced indigenous people of the Terai. The migrants from the Mountain and Hill regions who considered themselves socially, culturally, economically and ritually superior have been able to impose many of their values, including the introduction of the caste system, to the indigenous people of the Terai (see Chapter 6).

Very little information is available on fertility trends and the contexts within which fertility occurs in rural villages in the eastern Terai region of Nepal. Using field data as well as secondary data, I have demonstrated that along with established proximate determinants of fertility, socio-cultural and economic contexts also influence demographic trends. Using the micro-demographic research method, I set about the task of describing fertility trends and the contexts within which fertility occurs in a rural village with mixed castes and tribes. Technology based family planning services were introduced to the study village only two years prior to the study, a factor expected to significantly affect fertility behaviour. I sought information on the following interrelated topics:

- the fertility behaviours of these people, and how they defined them
- the extent to which traditional beliefs and practices related to fertility persisted among the various castes and tribes of the village and how these beliefs and practices were being accommodated and modified in response to official measures to reduce fertility
- the effect of contemporary social phenomena, such as labour migration, mass-education, urbanisation, and changing roles of men and women in the village society and its effect on fertility

- the role of social, cultural, economic and political institutions on fertility in a rural village with mixed castes and tribes
- the fertility control strategies, methods and technology the people in the study village employed, including traditional methods and introduced Western methods
- the relationships between fertility and maternal and child health, HIV/AIDS and other sexually transmitted diseases.

A combination of survey approaches and unstructured interviews, complemented by participant observation, were the principal methods used to collect data on the topics, allowing me to gather information over a wide range of topics, and in particular, the contexts within which marriage patterns and fertility have changed, and social context and impact of family planning in the Chisang. Along with documenting fertility trends in Chisang, the micro-demographic method enhanced demographic data through participation in village and calendrical festivals, in private ceremonies, and through witnessing many rites of passage.

### **Contributions of the Study to an Understanding of Fertility Transition in Nepal**

The findings of the study demonstrate that fertility has declined in Chisang recently. Fertility decline in Chisang preceded the introduction and acceptance of family planning methods by at least five years, and possibly more. Before the introduction of family planning services in Chisang; changes in marriage patterns, and subsequent rise in age at marriage, and age at consummation of marriage of women were the primary contributor to the decline in fertility. Only after the introduction of family planning services in Chisang two years prior to the study has family planning played a significant role in the decline in fertility. In turn, a range of economic and developmental factors appear to be responsible for the changes in marriage patterns, and subsequent increase in age at marriage, age at consummation of marriage, and adoption of family planning in Chisang. These economic and developmental factors include: historical factors; government policies; mass schooling; changing role of women; and diversification of the economy.

This study supports other macro-demographic studies which report declining fertility trends at the national level, a trend which began approximately ten years prior to the time the present study was conducted. Various studies using secondary source of information and data have demonstrated that fertility decline has occurred in Nepal as a result of rise in age at marriage and adoption of family planning methods. However, these studies do not identify socio-cultural and economic factors that have created an environment conducive to increase the age at marriage and adoption of family planning methods. This study is one of the very few studies that seeks to provide explanations for the socio-cultural and economic factors that have created an environment conducive to fertility reduction in rural Nepal.

Fricke's (1993) study of a Tamang community north of the Kathmandu Valley and Macfarlane's (1976) work among the Gurungs north of Pokhara are two studies which seek to explain the contexts within which fertility change takes place in rural Nepal. These two studies concentrate on the Tamangs and Gurungs respectively, Tibeto-Burman tribes identifying the Hills of Central Nepal and Western Nepal, respectively. Both Fricke's (1993) and Macfarlane's (1976) studies seek to describe and explain the contexts within which fertility change takes place but by their focus on a single tribal group, under-emphasise that village communities tend to be comprised of a mix of tribes and caste.

Niraula's (1991, 1995, 1996) work in a setting with mixed castes and tribes in the Central Hills and Axinn's (1990) study of another predominantly Tamang community in the outskirts of the Kathmandu Valley are two other studies that have applied the micro-demographic research method to describe and explain the contexts within which fertility change takes place. The present study adds to the body of knowledge derived from the micro-demographic research method by concentrating in a rural village with mixed castes and tribes in the eastern Terai region of Nepal.

I have not come across any other study that has applied the micro-demographic research method and has been conducted in the eastern Terai region of Nepal. The present study was conducted in a village that came into existence only in the last three

decades. Thus, this study contributes to knowledge of fertility trends and the experience of a village society made up of recent migrants.

The present study also adds to the knowledge of inter-caste ritual and economic relationships at the village level and its impact on fertility. This study also adds to knowledge on the close inter-relationship between household type and fertility, contributions from the perspective of a society undergoing rapid social and economic change. For example, in Chapter 6 I have illustrated the fertility rates of couples living in joint households are the highest, which is followed by those living in supplemented-nuclear, and the lowest fertility was recorded among couples living in nuclear households. The family planning and health care needs of couples and their children living in different household types also differ.

### **Implications for Demographic Transition Theories**

This study has implications for demographic transition theories, but first we need to understand how Chisang differs from other settings in which similar research has been done. For example, much research in Bangladesh has been conducted in homogeneous Muslim society. In Nepal micro-demographic studies have been conducted in the Mountain and Hill regions, mainly among tribal communities (with the exception of Niraula, 1991 who worked in an area with mixed castes and tribes in the Central Hills). In addition, the village differs from these due to its Terai location. Chisang has been established only in the past 30 years. The village is heterogeneous, inhabited by the caste Hindus, hill tribes, and *adhivasi* of the eastern Terai region.

In Chisang higher caste is associated with higher educational and socio-economic levels, factors traditionally associated with declining fertility. In the study it has been established that middle and lower castes have lower fertility than their higher caste neighbours (see Chapter 7). Although the higher castes, middle castes and lower castes live side by side, the fertility of the higher castes is slightly higher than the middle and lower castes. Explanations for finding such as this can only be provided

by the institutional determinants of fertility change advanced by McNicoll (1975, 1980, 1994).

Caldwell's (1982) argument that the re-orientation of the family from an extended to a nuclear family, where decision-making shifts from mainly elderly males to the young, both male and female, can be the primary reasons for declining fertility in some settings do not provide adequate explanations for the fertility differential between the higher castes and middle and lower castes in Chisang, all of which demonstrates a shift towards nuclear households. Two findings of the present study do not reflect Cain's (1981, 1982, 1983) proposition that security and avoidance of risk are conducive to a declining fertility. First, along with declining social, economic, and psychological security as a result of weakening of the caste system, there is a trend towards caste Hindu couples in Chisang deferring the age at marriage, and more recently, increasing their use of contraceptive technologies. Second, following alienation of *kipat* lands by the higher castes, Hills tribal peoples are also experiencing less social security. Conditions of reducing security are in their case accompanied by lower fertility.

The pattern of fertility trends is according to McNicoll (1994) shaped by the institutional endowments each caste group has inherited from the past. The findings of this study supports the importance of institutional determinants of fertility change that has been advanced by McNicoll (1975, 1980, 1994). During the study as it became apparent that fertility decline in Chisang began at least five years prior to the introduction of contraceptives in the study area and it is posited that age at marriage and age at consummation principally accounted for the decline in fertility. Special attention was paid to the socio-cultural and economic factors that have created an environment conducive to increase the age at marriage, age at consummation, and recently, adoption of family planning methods.

## **Implications for Development of Health Care and Family Planning Policy**

The findings of this study support the fact that fertility decisions cannot ignore the social, cultural, and economic contexts. In this study I have demonstrated that couples will limit their fertility even in rural settings where the level of economic development is quite low. It has also been demonstrated in the study that major socio-cultural and economic changes have taken place in Chisang, changes occurring along with declining fertility.

The findings of the study support the value of family planning programme at the Village Development Committee level. There is room for both governmental and non-governmental organisations (NGOs) to provide services and motivate couples to practice family planning. However, in order for family planning programmes to have maximum impact at the village level, family planning programmes need to be made much more flexible to suit local realities (Basu 1992). It is important that family planning programmes move away from providing standardised services in every region of the country. Although there is movement towards relaxation of the caste system in rural villages, joint households are more numerous in rural areas when compared to urban settings. Couples living in joint households need a different approach from the planners of health care and family planning services. It is also important that Village Health Workers and Family Planning Motivators at the village level are provided with the necessary training to recognise the practical difficulties couples living in joint households face, and the particular needs for suitable child spacing methods. Village Health Workers and Family Planning Motivators need to be trained to inform and educate both young couples and their elders living together in joint households that family planning is socially acceptable even in rural settings.

As the study demonstrates, non-governmental organisations can also provide very valuable family planning services to rural women of Nepal. In the study area a non-governmental organisation had taken positive steps to suit local realities by hiring local women as Family Planning Motivators, and providing them with the necessary training to service women of all castes and tribes. The government-funded Sub-

Health Post had also provided training to three local women to work as Village Health Workers. In this case, all three Village Health Workers came from the higher castes, whose caste prohibits them from entering lower caste households. It is important that government agencies and non-governmental organisations recruit and train personnel of different castes and tribes in a mix appropriate to the area being serviced.

One of the findings of this study was the omission of an important determinant of fertility in the training that was provided to health care and family planning workers at the grassroots level. For example, the Family Planning Motivators and Village Health Workers for the VDC were unaware of the relationship between prolonged lactation and reduced likelihood of another pregnancy. This is an important omission from the training curricula of the Family Planning Motivators and Village Health Workers.

I have also outlined the positive role of the *hatiya* in promoting health care and family planning in both rural and urban settings in eastern Nepal. The authorities at the Village Development Committee and Urban Municipalities can contribute a lot more to promote health care and family planning in rural settings. Village Development Committees and Urban Municipalities need to first develop the necessary infrastructure and invite governmental, non-governmental, and the private sector (including the *dhami* and *jhankri*) to the *hatiya* to provide health care and family planning services. People from the neighbouring areas will travel to the *hatiya* in both rural and urban settings in eastern Nepal to receive health care and family planning services if they are confident that their privacy will be respected and their case treated confidentially.

### **Recommendations for Further Research**

As well as explaining fertility trends, this study has generated questions to be answered by further research. In the study I have demonstrated that the higher castes have higher fertility than their middle and lower caste neighbours. I have also argued that the marriage patterns of the higher castes differed significantly from those of the

middle and lower castes. It is recommended that further research address the role of *paharisation* in bringing about change in the marriage patterns of the middle and lower castes. Further research should also be carried out to document the changing marriage patterns of the higher castes as they are influenced by major socio-economic changes such as mass education, non-agriculture based incomes, and migration.

I have also demonstrated in the study that couples residing in settings with low level of socio-economic development are willing to accept family planning provided that the family planning outlet is located within walking distance, staffed by local women, and the outlet provides consistent services. Further research is needed to find ways to provide family planning services to lower caste (untouchable) couples. For example, in Chisang the Village Health Workers and Family Planning Motivators refused to enter the house of their lower caste (untouchable ) clients. The lower caste people did not receive many of the services of the Sub-Health Post and Family Planning Office due to their low caste status. It is important to carry out further village studies in which the lower caste people constitute a larger percent of the population (the lower caste population was very small in Chisang at only 35 out of a total population of 638). Further research is needed to document settings in which lower caste people are successfully motivated to make use of health care and family planning services and to provide appropriate training to village level health care and family planning staff to recognise the special needs of the lower caste people.

I have also illustrated the differing health care and family planning needs of couples living in joint households and nuclear households. Although only eight households out of a total of 111 households in Chisang were joint households, survey data and in-depth interviews confirmed that couples in joint households had higher fertility and were less likely to accept family planning. Couples living in joint households were also more likely to be sterilised when compared to couples living in nuclear households. Therefore, more research is needed at the village level to determine the differing needs of couples living in joint households and nuclear households.

Major socio-cultural and economic changes are taking place in the study area and probably also in other parts of Nepal with similar castes, tribal and ethnic mixes. More detailed studies are needed to assess the magnitude and dimensions of socio-cultural and economic changes throughout the country and their impact on fertility. Most rural villages in Nepal are home to people of different castes, tribes and ethnic groups. Therefore, it is further recommended that future studies be based in settings with mixed castes, tribes and ethnic groups. Although detailed study of a village with one caste group, tribe or ethnic group has been favoured by anthropologists and ethnographers in the past, it is recommended that to complement this knowledge detailed studies are needed which focus on the interrelationship factors associated with mixed castes, tribes, and ethnic groups.

### **Narrowing the Gap Between Practitioners and Social Scientists**

I pointed out in the Introduction my previous involvement in family planning programmes and my interest in bringing together the contributions of practitioners and researchers. In this study, a micro-demographic research method has been used to document the socio-cultural and economic contexts within which fertility decline has taken place in rural eastern Terai region of Nepal. When I set out to undertake this study, I was interested in finding ways for social scientists, health care, and family planning service providers to combine their expertise in a more practical, effective and economic approach to providing health care and family planning services to rural people of Nepal. By concentrating on one small (even by Nepali standards) village which had gained access to health care and family planning services only two years prior to the time when field data was collected, I was able to document the impact of these services on the people of the study village.

My experience both as a promoter of family planning in this region of Nepal, and as a researcher in social sciences have given me unique perspective on family planning in rural villages with mixed castes and tribes. I have attempted in this study to address the highly significant but often ignored issues which can mean the success or failure

of family planning programmes. These are the socio-cultural and economic factors that contribute to the acceptance of health care and family planning programmes of such populations as that of the study village.

Family planning programmes are littered with failures. For example, at the time this study was conducted, a family planning programme was implemented in a predominantly Limbu village less than 20 kilometres from Chisang, a village experiencing a particularly high rate of infant and child mortality. The family planning outlet was mainly geared towards providing temporary and permanent family planning services, yet such services were not appropriate so long as infant and child mortality remained high. Due to the failure of the planners of the family planning programme to tailor the family planning programme to the contingencies of the community, the family planning programme was declared a failure and services discontinued in less than six months after commencement. Although a fertility survey was conducted in the village prior to establishing the family planning outlet, a lack of information on infant and child mortality resulted in inappropriate programme planning. A few extra questions dealing with infant and child mortality in the village level fertility survey would have suggested that fertility in this village was high as a result of very high level of infant and child mortality, and services could have been delivered appropriately.

On the other hand, academic literature is full of studies which explain the above, but which few practitioners have access or even know of the existence of such studies. Important findings from social science and health research is often accessible only to other social scientists. It is very difficult for practitioners in the field, especially those who work in rural settings characterised by very high levels of fertility, infant and child mortality rates, to have access to findings from empirical social and health research. It is recommended that findings such as the present study do not just lie in libraries in educational and research institutions. Educational institutions, research institutions, and charitable/donor organisations funding these research need to find better ways other than the production of reports and other written material, mainly in English, to make the findings of social science and health researchers available to

practitioners at the grassroots level. Such approach could include learner participation and action research, in which practitioners came to identify first hand the social, cultural, and economic contexts which influence fertility and family planning programmes.

My experience as a practitioner has given me the insights into the difficulties related to raising funds to implement health care and family planning programmes in rural settings. Oftentimes, when funding for rural health care and family planning programmes are made available, there are so many strings attached that it is virtually impossible to implement the programmes that take into consideration the local social, cultural, economic, demographic and developmental factors. One of the primary findings of this study is that couples at the village level even in rural Nepal are already motivated to limit family size and if they do receive proper health care and family planning services fertility rates will drop. Therefore, it is extremely important to motivate couples and individuals even in rural settings to limit their family size. Upon motivating individuals and couples at the village level, introduction of health care and family planning services will be successful in decreasing the fertility rate even in rural settings such as Chisang. This study was conducted from the perspective of a social scientist. Findings from this study underline the importance of having an understanding of the social, cultural, economic and developmental factors and institutions that influence the proximate determinants of fertility even in rural settings such as Chisang which are inhabited by people of various castes and tribes.

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**APPENDIX II**

**NAME:** \_\_\_\_\_ **ETHNIC GROUP:** \_\_\_\_\_ **HOUSEHOLD #** \_\_\_\_\_

**SECTION 1: MARRIAGE:**

1.1 Age at marriage	10+ 1 2 3 4 5 6 7 8 9 20+ 1 2 3 4 5 6 7 8 9 30+ 1 2 3 4 5 6 7 8 9 40+ 1 2 3 4 5
1.2 Age of spouse at marriage	10+ 1 2 3 4 5 6 7 8 9 20+ 1 2 3 4 5 6 7 8 9 30+ 1 2 3 4 5 6 7 8 9 40+ 1 2 3 4 5
1.3 Is this your first marriage?	Yes No
1.4 Is this your spouse's first marriage?	Yes No #
1.5 Type of marriage	Arranged Non-Arranged Other, please explain:

**SECTION 2: EDUCATION & OCCUPATION:**

2.1 Your level of education	>1 1-3 4-7 8-10 10+ years
2.2 Your husband's level of education	>1 1-3 4-7 8-10 10+ years
2.3 Do you know how to read and write?	Yes No
2.4 Does your husband know how to read and write?	Yes No
2.5 What is your current occupation?	
2.6 What is your spouse's current occupation?	
2.7 In the past 36 months, for how long were you away from home?	>1 month 1-3 mo 3-6 mo 6-12 mo 12+ mo
2.8 In the past 36 months, for how long was your spouse away from home?	>1 month 1-3 mo 3-6 mo 6-12 mo 12+ mo

**SECTION 3: ACTUAL & DESIRED FAMILY SIZE:**

3.11 Number of sons alive	0 1 2 3 4 5 6 7 8 9 10 NA
3.12 Number of daughters alive	0 1 2 3 4 5 6 7 8 9 10 NA
3.13 Number of children that have died	0 1 2 3 4 5 6 7 8 9 10 NA

3.21 Number of sons that have died	0 1 2 3 4 5 6 7 8 9 10 NA
3.22 Number of daughters that have died	0 1 2 3 4 5 6 7 8 9 10 NA
3.23 Number of children that have died	0 1 2 3 4 5 6 7 8 9 10 NA
3.31 Number of additional sons wanted	0 1 2 3 4 5 6 7 8 9 10 NA
3.32 Number of additional daughters wanted	0 1 2 3 4 5 6 7 8 9 10 NA
3.33 Number of additional children wanted	0 1 2 3 4 5 6 7 8 9 10 NA
3.4 If you were married recently, how many children would you like to have?	0 1 2 3 4 5 6 7 8 9 10 NA
3.5 If you were married recently, how many sons would you like to have?	0 1 2 3 4 5 6 7 8 9 10 NA
3.6 If you were married recently, how many daughters would you like to have?	0 1 2 3 4 5 6 7 8 9 10 NA
3.7 If it were entirely up to you when would you like to have your next (first) child?	ASAP                      1yr 2 yrs    More than 3 yrs    When it happens Don't Know
3.8 Have you or your husband ever talked about the size of family you want?	Yes No
3.9 Are you pregnant at the present moment?	Yes No Don't Know

**SECTION 4: KNOWLEDGE OF FAMILY PLANNING & CONTRACEPTIVES:**

4.11 Are you aware of Family Planning and Maternal Child Health Programs?	Yes No
4.12 How did you find out about these programs?	
4.2 Are you familiar with any of these terms:	
Family Planning Pills	Yes No
Condoms	Yes No
IUDs	Yes No
Depo-Provera (injectable)	Yes No
Diaphragm	Yes No
Norplant	Yes No
Laparoscopy	Yes No
Vasectomy	Yes

4.31 Have you used any of the family planning methods mentioned above? If yes, please give name(s) and length of time.	Yes No Name: _____ _____ Lengths of time: __ months
4.32 Are you using any family planning methods at the present? If yes, please provide name and length of time?	Yes No Name: Lengths of time: __ months
4.4 Have you or your spouse been sterilised? If yes, when and where?	Yes No At On
4.5 Are you planning on having a laparoscopy? If yes, when and where do you intend to have a laparoscopy?	Yes No In __ months At _____
4.6 Is your spouse planning on having a vasectomy? If yes, when and where does he intend to have a vasectomy?	Yes No In __ months At _____
4.7 Are you aware of any natural family planning methods? If yes, please explain.	Yes No Name: _____ _____ _____
4.8 Is family planning the responsibility of the wife or the husband? Why?	Wife Husband Don't know
4.9 Up to now, what is the main reason for not using a family planning method?	Desire additional child    Not needed Health Condition Desire son Services unavailable Other:
Have you or your spouse thought of using any family planning method?	Yes No Don't know

HOUSEHOLD #: \_\_\_\_\_ NAME OF MOTHER INTERVIEWED: \_\_\_\_\_ INFORMATION COLLECTED ON \_\_/\_\_/\_\_

APPENDIX III

NAME	SEX	AGE	DATE OF BIRTH	WHERE WERE THE CHILD BORN?	IS THE CHILD SURVIVING OR DECEASED	PRESENT OCCUPATION OF THE CHILD	WHO ASSISTED YOU IN THE BIRTH OF THIS CHILD	APPROX. DURATION THIS CHILD WAS BREASTFED	REMARKS
MOTHER'S DEMOGRAPHIC INFO:	XXXX XXXX XXXX				XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXX		XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX XXXXXXXXXX	

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## **APPENDIX 4          Household Formation Timing Survey**

### **Themes and Examples of Prompt Questions for Household Formation Timing Survey to be Conducted to All Couples Identified in Village Census Questionnaire**

#### **Household Type:**

What kind of household do you live in (provide definitions of each one):

- subnuclear
- nuclear
- supplemented-nuclear
- joint

#### **Timing of Partition of Households (For Those That are Nuclear in Type at Time of Survey):**

- When father was still alive
- When father was dead:
  - At death
  - Later, but mother was still alive
- At mother's death
- Later, after existence of a supplemented-nuclear household
- Father and/or mother unable to work due to illness
- Husband brought in second wife

#### **Nuclear Households, Children and Timing of Joint Household Partition (Yes, No, and Not Sure Category):**

- Did the health of your child\children expedite the timing of household partition?
- Is it true that children belonging to nuclear households have:
  - Better education
  - Better food and nutrition
  - Better future
  - Better health care

#### **Number of Surviving Children Prior to and After Household Partition:**

- Average number of surviving children at the time of partition
- Additional surviving children born after partition
- Total number of surviving children at the time of survey

### **Number of Contraceptive Acceptors by Household Type:**

- Subnuclear
- Nuclear
- Supplemented-nuclear
- Joint

## **APPENDIX 5**

### **THEMES & EXAMPLES OF PROMPT QUESTIONS FOR IN-DEPTH INTERVIEWS:**

#### **Age at Marriage:**

- What age is the right age for men and women to get married? What is the reasoning behind this answer?
- At what age were you and your spouse married? Did you have any control over this?

#### **Child Birth After Marriage:**

- How many months/years after marriage are women expected by their in-laws to give birth?
- How many months/years after marriage do individuals want to give birth?
- How many months/years after marriage did you have your first child?

#### **Theme on Infant and Child Mortality:**

- Are you certain that all your children will grow up to be adults? if not, what fear do you have?
- Does this make you want to have more children?

#### **Consultation with Spouse Concerning Pregnancy:**

- Did you discuss the timing of your pregnancy(s) with your spouse? Will you discuss this issue in the future?
- Have you ever discussed the total number of children, boys and girls, you want with your spouse?
- When you were pregnant the last time, at what stage, in months or weeks, did you find out that you were pregnant? How did you know this? At what point in time did you inform your spouse?

#### **Role of Parents/In-Laws & Spouse as Determinants of Fertility:**

- Has there been in the past, and is there now a pressure from your parents and/or in laws to give birth to a child? Are boys favoured over girls? For what reasons?
- Has there been in the past, and is there now a pressure from your spouse to give birth to a child? What is the reason behind this?

### **Traditional, Social & Cultural Determinants of Fertility:**

- In your family tradition, do you give dowry (*daijo*) or receive bride-price in your daughter's wedding? If yes to bride price, does that encourage you to have more girls? If yes to dowry, does that encourage you to prefer boys over girls?
- Is gift of a bride (*kanya daan*) essential to receive merit (*punya*)? Does this oblige you to have at least one daughter?
- Is at least one son necessary who will perform the final life-cycle rites in the form of *kirya basne*, and through death observances, *sradha*?
- Do you have personal preference of boys over girls, or vice versa? Please explain.

### **Governmental Policies as Determinants of Fertility:**

- Are you aware of the "Naya Muluki Ain" or New Law of the Land? Can you tell me some of the rules and regulations spelled out by the *Naya Muluki Ain*?
- Has the *Naya Muluki Ain* made an impact, direct or indirect, on you and your family? Please explain.
- Are you aware of the Nepal Family Planning and Maternal Child Health Program's two child campaign? Has this campaign made any impact on you?

### **Priority of Social Support After Conception:**

- When you found out that you were pregnant the last time, whom did you pass on this information to first? Why? Tell me who are the most important people for supporting and visiting you and in what priority:
  - (a) Your husband
  - (b) Your husband's family members
  - (c) Your natal home's family members
  - (d) Your immediate neighbours
  - (e) Others in your village or natal village
  - (f) Elderly women who assist pregnant women in your village or natal village
  - (g) *Jaane Manche*, including *dhami*, *jhankri* and *jhar Phukne*
  - (h) The local retailer of "Western" medicine
  - (i) The Local Health Post
  - (j) The District Hospital in Biratnagar, the largest city in the region?
  - (k) Any other health care facilities, including mobile camps and clinics?

### **Family Planning Methods as a Determinant of Fertility:**

- Have you ever considered planning your family? If yes, what is the number of boys and girls you planned. In reality, did it work out accordingly?
- Have you been informed of the family planning and maternal child health programs in this area? Do you know what kinds of services are provided by these programs?
- Have you visited any of these programs or made use of the services that is made available? With whom did you visit these programs? Can you tell me what sort of services you received when you visited them?
- Do you feel comfortable with the services they provide and way you are treated when you have been there to receive services or accompanied someone else there?
- Where or from whom did you find out that you could space or limit birth to prevent pregnancy?
- Do you know if people in the village are aware of family planning methods, including sterilisation? Have you also been informed of these methods or used family planning services?
- Can you tell me the names of few family planning methods and whether it is targeted towards males or females?
- Can you tell me where these services are provided? Are they free of cost? If no, can you tell me how much they cost?
- When would you want laparoscopy or vasectomy (if at all)? Please explain.

### **Pregnancy Termination as a Determinant of Fertility:**

- What would the local people do if they wanted to terminate pregnancy? IS abortion a viable option?
- Under what circumstances is it all right to terminate pregnancy?
- What are the main reasons for women to terminate their pregnancies?
- Do you think that if contraceptives were more affordable and readily available that less women would terminate their pregnancies?

### **Theme on Sexually Transmitted Diseases (STDs):**

- Are you aware of any diseases caused by sexual intercourse?
- Do you know where to go to receive treatment for sexually transmitted diseases?