Chapter One

INTRODUCTION

1.1 Background of the Study

Nepal is a mountainous and landlocked country located in the Himalayan region. It has great topographic varieties with multi-linguistic, multi-religious and multi-ethnic society (K. C., 1995; cited from Jnawali, 1999). All ethnic groups have their own cultures, religions and social norms and values. Among them the Chepang is also a major ethnic group, which has its own mother-tongue. According to the census 2001, the Chepang population in Nepal is 52,237 which shares 0.23 percent in total. The Chepang speaking population constitutes 0.16 percent (CBS, 2003). A majority of the Chepang population in Nepal is concentrated in the middle hilly region north of Chitwan (Shaktikhor, Kaule, Kabilas, Lothar, Darechok, etc.) representing 42 percent, west of Makawanpur (Kalikatar, Kankada, Raksing, Khairang, Palanse, Hadikhola, etc.) representing 40 percent, south of Dhading (Dhusa, Jogimara, Pida, Thakre, etc.) 13 percent and hillside of Gorkha representing 3 percent respectively. The remaining Chepang population is scattered in other districts. The main area of the Chepangs is the Mid-Mahabharat hilly region (Swoveet, 1992). The hilly areas where Chepangs are living are extremely steep and totally in jungle.

Nepal is dominated by rural areas where urban population comprises only 14 percent (CBS, 2001). In Nepal there is high fertility rate due to lack of various facilities (such as, electricity, use of modern means, lack of communication and transportation, education, etc.). Population of Nepal was 23.15 million in 2001, growing at annual rate of 2.25 percent. The primary reason for rapid population growth is the rapid and continuous decline in death rate, on one hand, and continuous increasing in birth rate on the other.

Demography is the statistical and mathematical study of the size, composition and spatial distribution of human population and of change over time in this aspect through the operation of five processes: fertility, mortality, migration, marriage and social mobility (Bogue, 1971, Harrit, 1997; cited in Adhikari 1999). Among the processes of population change, fertility

occupies a central role in the study of population for several reasons. Human fertility is responsible for biological replacement and for the maintenance of the human society (Bhende & Kanitkar, 1994).

Fertility refers to the actual reproductive performance as measured in live births of a woman, couple or population. According to the Dictionary of Demography (1985), live birth is the complete expulsion or extraction from its mother of a product of conception irrespective of the duration of pregnancy, which after such separation breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord cut or the placenta attached. The product of such a birth is considered live birth (cited in Adhikari, 1992).

Fertility behaviour or the process of giving birth is interacted with the ambient environment which has different nature in different societies. Besides, the degree of interaction of the environmental variables is different within the biological limits of human fertility. Several social, cultural, psychological as well as economic and political factors are found to operate these differentials of fertility (Bhende & Kanitkar, 1994).

Human fertility is a very complex process relating to biological components of the society. It covers a wide range of areas, reflecting the complexity of this aspect of human behaviors. It is influenced by a host of biological, sociological and economic factors (CBS, 1987:281; cited in Dahal 1992).

Crude Birth Rate (CBR) of Nepal in 2000 was recorded to be 36 per thousand which is higher than that of other countries like India (27), Bangladesh (27), Maldives (35), Srilanka (18) in the same period (PRB, 2000). The contraceptive prevalence rate in Nepal is 29 percent Which is less than neighboring countries like India (48), Bangaladesh (49), China (85) and Sri Lanka (66) and so on (PRB, 2000). The total fertility rate (TFR) of Nepal in 2005 was recorded as 3.7 and relatively high with comparing other country and some of the neighboring countries in Asia is recorded as 2.0 in Srilanka, 3.0 in Bangaladesh, 3.0 in India and 1.6 in China (PRB, 2005). Occupation is another important determining factor of fertility. Nepal is predominantly agricultural country where 81 percent of the total population is engaged in agriculture (CBS, 1995). Nepal's literacy rate is 54.1 percent of the total and

only 42.8 percent of women are literate (CBS, 2001). This literacy status also influences for the higher fertility level in Nepal.

The desire for children explains some variations in fertility even when socio-economic development variable is held constant (UNFPA, 1989). It is related especially with rural Nepalese societies that the prevailing economic utilitarian value of children and son preference have expressed a predication of high fertility in rural Nepal setting. The children, even they are only five years old, take some responsibilities at home at least in looking after younger children. It is noted that the children, five to ten years old, perform overall domestic works as well as field works because Nepal is characterized by a rural agrarian economy where the socio-economic value of children has been persistently high (cited from Chhetri, 1993). In such a setting of agrarian economy, demand for more labour force encourages people to have more children to fulfill labour demands.

Age at marriage is one of the major variables affecting desired family size of currently married women in developing countries, including Nepal. Early or almost universal entry into marriage combined with a very low level of marital dissolution can substantially boost up the desired size of married women (UNFPA, 1989: 22). Marital status itself is affected by change in socio-economic conditions such as changing income, education and occupational status. There is positive relationship between women's age at marriage and small family size (UNFPA, 1989: 29). It is very well known fact that the rapid population increase is a serious threat to development efforts in the country. The task of providing not only food but also school, housing, health facilities, employment for the growing numbers in the developing countries which often double within 25 - 30 years is a challenging task (NFHS, 1996).

Use of modern means is also responsible for high fertility. Now the world is running at the age of post modernity in which mass media and communication help to spread news and advertisements. In rural Nepal, most of the people are still living far from these facilities. So, high fertility behavior could not be escaped from rural areas.

In Nepal, a multi-sector thinking to population policy was introduced since fifth five year plan (1975 - 80). Similarly, the eighth development plan had aimed at its national population

programme to bring down TFR from 5.7 to 4.5 (NPC, 1998). Such type of aim of bringing down fertility to expected level requires a better understanding of fertility phenomenon which reveals now 3.7 (PRB, 2005). To chalk out appropriate policies and to reduce fertility decline, there is a need to understand the complex process of fertility behaviour.

The Chepangs, one of the small ethnic groups of Nepal have been living as semi-nomadic existence: hunting, food gathering as well as some slash and burn cultivation. They rely considerably on the forest for much of their food and stage in poverty; they are among the most backward communities of the nation. They are god-fearing, shy, honest and humble ridden with superstition.

The present study deals with the marriage and fertility behavior of the Chepang community living in a remote rural area in Pida VDC. Electricity, road/transportation, health and contraceptive facilities are so far away from them.

1.2 Statement of the problem

Population growth has appeared as a threatening challenge for prosperity of human race. It is definite that population growth will continue in future due to high birth rate and low death. Its main causes are the early age at marriage and fertility behavior among the women. Therefore, main concern of the world governments has been to check rapidly increasing population growth and consequently there has been remarkable awareness of the implications of population change in the process of national development.

Fertility rate in Nepal is very high in the context of Asia. In many developing countries, high fertility is associated with the level of income, education, child survivors and cultural and religious factors. In addition family planning in general has played an important role to reduce fertility (UNFPA, 1989: 73).

High economic value of children, high infant mortality rate, socio-economic traditions favoring son and, low literacy rate, are some of the significant factors contributing to high

level of fertility in Nepal and lack of access to contraception, particularly reversible methods as well (Tuladhar, 1989).

The above facts are the good evidences to prove that the fertility is a very complex phenomenon in demographic analysis.

Prevailing high fertility rate in Nepal is the result of almost universal marriage and demand for children in socio-economic and cultural belief with their social values and norms, early marriage at teenagers creating the long span of child bearing and increases the fertility performance. The higher level of infant and child mortality encourages the parents to have more children particularly in rural settings (Neupane, 1997).

Low use of contraception is another cause of high desired family size and this is the result of low motivation to people, limited access to contraceptive devices and lack of community participation. Usually, user groups have suffered from side-effect situation but there are no follow-up services for their treatment and encouragement in rural sector due to poor organization of the appropriate programs.

In Nepal, the contraceptive prevalence rate is 40.2 percent of the total population are used that service in which rich women accounts 55 percent and poor women accounts only 24 percent. In this case this compared to some other countries like, Ethiopia (rich - 23% & poor - 3%), Ghana (rich - 19% & poor - 9%), Uganda (rich - 41% & poor - 11%), Peru (rich - 58% & poor - 37%) and Indonesia (rich - 57% & poor - 46%), etc. (PRB, 2005).

In some cases, fertility rates are gradually declining in developing countries. In South America, as a whole, the average number of children has fallen from 4 to 3 in 10 years (1981 - 1991). Similarly, the South Asia showed the reduction in fertility from 5 per woman in 1981 to 4 in 1991. In 2005, the data shows that fertility in South Asia is only 2.7 (PRB, 2005).

The East Asia dominated by China is nearing replacement level fertility i.e. less than 2 births per woman (PRB, 2005). By observing this changing scenario, we can expect that the situation in our country as a whole and that of ethnic groups in particular will also improve in

the years to come. The Chepang, being a disadvantaged or backward ethnic group socially, economically and educationally compared to other communities, is still affected by socio-economic factors in the area of fertility reduction and rapid population growth. To uplift the Chepang's life style, the Nepal Government has provided many facilities since 2037 B.S. with the name of 'Praja Vikas '. At that period, the Government provided land for cultivation in the first stage. And still now, the Chepang's students get clothes, stationary facilities and fund support for the study in every grade and level. Similarly, many NGOs/INGOs like Nepal Chepang Organization and other organizations are also engaging to uplift the Chepang's life standard. They are provided many facilities for their agriculture support, live stocking support and trainings with related field. In spite of providing many facilities, they are still backward.

The topic for this research is identified as: 'Marriage and Fertility in Rural Nepal: A Study of the Chepang. The research is expected to seek answer to the following issues:-

    i.   What are the various factors affecting the fertility among the Chepangs?

    ii.   What is the pattern of fertility in the Chepang community?

    iii.   How are age at marriage, occupation, education and family planning practices, affecting the fertility level?

1.3 Objectives of the Study

The main theme of this research is to analyze the marriage and fertility of the Chepangs in Pida VDC, Dhading. The specific objectives are stated:-

    i. To identify the factors affecting fertility behaviour among the Chepangs.

    ii. To examine the pattern of fertility in the Chepang communty.

    iii. To assess the impact of demographic and socioeconomic variables on fertility of the Chepangs.

1.4 Significance of the Study

The main theme of the study is to find out the various socioeconomic and demographic aspects which affect fertility behaviour in the Chepang community. It is most important in the context of grass root level in order to control upon the fertility. The poor and minorities are often left by the researchers while they might have a key role in the overall fertility behaviour of the nation. Till now, no research has been made on the Chepang Community in this area in the context of marriage and fertility behaviour. The Chepangs are one of the weaker and marginalized sections of Nepal living at substance land. This group is comparatively isolated and deprived. In this context, this study will be very important and helpful to solve their basic problems such as illiteracy, poverty, poor health status, poor land for agricultural production, low socio-economic status, etc. It will have an important source in planning programs for this community. It will be a reference material to the students, teachers and the researchers, planners, policy makers and others who want to know about the Chepang community. In the same way, many NGOs/INGOs will have an input to plan and implement the family planning programs as well as to implement other income generation activities with reference to the Chepangs.

1.5 Limitation of the Study

The main settlement area of the Chepangs is the high land of the Mid-Mahabharat regions. They are still living at grass root level with their own identities. The present study is concentrated only on the Chepangs of Pida VDC, Dhading. Even within the VDC, the study is based on the sample of selected three wards. Fertility is determined by various factors but only few selected variables are used in this study.

1.6 Organization of the Study

This study comprises of six chapters. The first chapter deals with introduction to the study community and area along with statement of the problem, objectives of the study, its significance and limitation. The second chapter deals with a brief review of related literature and conceptual framework for the study. The third chapter gives methodology and procedure

for the analysis and interpretation of data. The fourth chapter analyzes demographic and socio-economic characteristics of study population. The fifth chapter includes the analysis of related variables with mean CEB. Summary, conclusion and recommendations are briefly noted on the final chapter.

Chapter Two

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Origin of the Chepangs

In regard to the origin myth and the group name of the Chepangs, some of the views, besides based on facts are associated with conjecture and legends. In the mid hilly region of Nepal, there is an ethnic group which is secret and wild. They love their culture, which is natural, simple and fascinating. They live free as a bird and as happy as nature. They do not feel any hardness and troubles of their poor and natural life and ever happy (Swoveet, 1992).

The Chepangs are god fearing, honest, humble, ridden with superstitions and ignorance. Being ignorant and innocent they are exploited by unscrupulous moneylenders especially since customs press them towards extravagance. Besides, they are characterized by traditional values, use of primitive technology and non rational behavior patterns of the modern world (Gurung, 1989).

Nowadays, the Chepangs are known as 'Praja' but the name 'Chepang' is still in use by their neighbours. The word 'Chepang' is considered to be critical and degrading by the people of this community especially the younger generations. The Brahmins and Chettris of their neighbouring villages are scolding for   the coinage of word 'Chepang' to tease them.

Rai (1985) considered to be the autonomous people of the Mahabharat range and one of the indigenous groups of Nepal. There are various explanations for the term 'Chepang'. In Chepang language, 'Che' means dogs and 'Pang' means arrow. As such, it indicates that they used to hunt with the help of dog and arrow long ago (Gurung, 1995; cited in Neupane, 1997).

According to Caughly, Dahal & Bhandu (1971-78), Some Chepangs pronounce their name as 'Chebang' or 'Chyobang' which means 'Chyo'- on the top and 'Bang' – rock or people living in the hills. And finally, it is said that the Chepangs are the descendents of a holy man called 'Chewan' and the word changed later into 'Chepang' (cited in Swoveet, 1992).

Whatever may be the origin of the word 'Chepang', this community is generally associated with primitiveness and backwardness. Consequently, many and especially the younger generation prefer to be called 'Praja' which refers to 'subjects' or 'citizens' of the king. However, since the introduction of HMG/N's Praja Development Program, the term 'Praja' is generally used to refer to the Chepangs. Some tribal population like the Chepangs are so far behind the general main-stream that they need special consideration and development efforts because they stand little or no chance of benefiting from the general development activities of the government. With regard to the Chepangs, since they lead a life of isolation, they have been largely excluded from the special approach. The Chepangs remained isolated and neglected for a long time even after the inception of the Panchayat System in Nepal.

It is certainly true that the Chepangs are in need of this kind of special development because most of them hardly get enough food to eat, do not have sufficient clothing and live in dilapidated small huts. For the identification of village level problems and future development priorities the Chepangs have to be placed in agreement emphasizing on common problems while pointing out their individual needs.

2.2 Population and Settlement Area

Physically, the Chepangs are short in stature with Mongolian features and red black skinned, mostly wide faced with little flatted nose and black eyes and stand up haired. They have little bit teeth and thick lips. Because of the habit to visit jungle, climb on the trees and precipices they have thick feet with short fingers. They look healthy and strong. But they seem innocent and actually they are too. Especially, some of the hilly regions of Dhading, Chitwan, Gorkha and Makwanpur districts are the traditional homelands of the Chepangs. Their number in Chitwan, Makwanpur, Dhading and Gorkha are 21246, 15353, 10878 and 2742 respectively as reported by national census 2001. However at present, the Chepangs mainly inhabit the following districts and VDCs:

Dhading - Jogimara, Dhusa, Mahadevsthan, Benighat, Gajuri, Pida and Thakre.
Chitwan - Kaule, Shaktikhor, Dahakhani, Siddi, Kabilas, Lothar, Darechok, Korak and Chandbhanjyang.

Makwanpur - Kalikatar, Dandakharka, Kankada, Raksirang, Manohari, Khairang, Sarikhet, Palanse, Handikhola and Namtar.

Gorkha - Mahadevdanda, Ghyalchok, Bunglichok and Taklung.

These VDCs are spread along the Mahabharat Range of Nepal where the Chepangs live on the steeper slopes. But the Chepangs have also settled in the Terai area especially, in Chitwan. As immigrants they dwell in Chainpur, Bharatpur, Tingure and others. At present, they have also spread over places as Bara, Parsa, Nawalparasi, Tanahu, Banke and others.

According to the survey of Nepal Chepang Organization (NCO, 2004), there are only 75 Chepang students having passed the S.L.C. level till now in Nepal in which, Dhading accounts for 19 but they are only boys. Similarly, there is only one person who did the Bachelor. He is Tilak Bahadur Praja. According to the other survey of NCO, there are about 2106 Chepangs living in Pida VDC in which female accounts for 1045 and male as 1061.

2.3. Theoretical Issues on Fertility

Demographers and social scientists are even today, in search of systematic theory that world provides explanations for changes in fertility levels and differentials in fertility trends. This gap in the knowledge of demographic phenomena continues, despite the efforts made by several social scientists to propound various theories of fertility (Bhende and Kanitkar, 1994). According to Demographic Transition Theory, fertility and mortality transition (from high to low) in the countries of Europe, North America, and Australia occurred when the use of contraception became widespread under the influence of such factors as growing individualism and rising level of aspiration, developed in urban industrial living that emerged with process of socio-economic development of the country (UN, 1973: 59, cited from Thapa, 1997). Non-familiar activities, increasing standard of living and higher level of education increase the costs of children, new aspirations changes in the functions of the family and new perceptions of cost and benefits of children that led to the demand for fewer children (Freedman, 1982, cited in Aryal 1997).

Davis and Blake made the explanations on fertility variation with respect to socio-economic and intermediate variables have been conceptualized the framework as given below:

According to the above hypothesis, socio-economic changes have on effect on fertility through the intermediate variables (Proximate determinants). These types of relationship between fertility and socio-economic changes indicate the existence of indirect relationship of fertility change with changes in socio-economic variables (Leibenstein, 1974; 88, cited from Neupane, 1997). According to Leibenstein, 3 types of utilities are derived from and 2 types of costs are involves in having an additional child. The types of utilities are: (i) the utility of a child as "consumption good", (ii) the utility of a child as a Productive unit and (iii) the utility of a child as a resource of security in the old age of the parents or even otherwise. Same as the 2 types of costs involved in having an additional child are: (i) direct costs in the sense of conventional current expenses of bringing a child, according to the conventional standards until the child becomes self-supporting; and (ii) indirect costs which includes opportunities foregone due to the appearance of an additional child, such as the mother's inability to work, inability to purchase the modern means, etc. (Bhende and Kanitkar, 1994).

Caldwell (1993) developed a theory known as "Theory of Intergenerational Wealth Flow", explaining fertility behavior in any type of society at any level of the development is rational. In a society, fertility is high if children are economically useful to parents and low if children are economically not beneficial to them

There is no single coherent theory with regard to fertility. Different explanations of fertility decline determinants suggest that fertility level of a country depends on the socio-cultural, economic and demographic characteristics of its people. Therefore, an understanding of the casual links between the socio-economic and demographic variables on the one hand and their relationship with fertility on the other is important (Aryal, 1997: 10).

2.4 Empirical Findings

Low level of death and high level fertility rate are the main factors of population increase in most of the less developed countries like Nepal. So, a critical assessment of fertility level and trend are recognized in Nepal for which several studies on fertility behavior and trend has been carried on and has to be carried on.

There are a number of studies in fertility which attempt to summarize the studies regarding the determinants of fertility. It is found that there is a difference in the mean age at marriage of illiterate and literate women. The better educated women tend to prefer a smaller family than that of less educated ones.

Throughout the world women who marry late in their middle or upper twenties tend to have fewer children than women who marry early (Ross, 1982; cited in Adhikari, 1999). The declining trends of fertility in Nepal using data from Nepal Fertility and Family Planning Survey 1986, fertility seemed to be declining over the past 10 years from TFR of 6.2 to 5.6. The decline in fertility among young women is probably due to increase in marriage age (Tuladhar, 1989). In recent period, mean age at marriage in Nepal is 19.5 where as TFR is 3.7 (CBS, 2005).

Risal and Shrestha observed a positive relationship between age at marriage and education on the average literate women who marry 0.5 years later than illiterate women. Women with lower secondary and higher education (grade 6 or above) married slightly more than one year later women with no education. It is interesting to note that women with only primary education on the average married at about the same age as women with no education (Risal and Shrestha, 1989). It means that there is a positive relationship between education and age at marriage and fertility.

Early and universal marriage prevails in a developing country like Nepal. Even legally accepted age at marriage for boy and girl is 18 and 16 years respectively. Early marriage has been practiced in Nepalese society due to different socio-cultural norms and values. Higher age at marriage is found in Mongolian group 17-25 years and lower is found in Brahmins 13-15 years in 1981(Dahal, 1992). It shows that age at marriage is strongly determination of the number of CEB. As the age at marriage increases, the number of CEB decreases.

(APPC, 1992), the average age at first marriage in Japan was already rising in the pre war period. This delayed marriage has had an important effect in limiting the population growth. Early marriage produces more children by at least 3 important demographic reasons:

1. They are likely to have sexual intercourse frequently through out their most fecund years;
2. They begin having sexual intercourse at an early age and thus live throughout a longer period of exposure to conception; and
3. They shorten the interval before the next generation.

Marriage pattern in Nepal has undergone considerable changes during inter-censual period 1961-81. During the period, the estimated mean age at marriage for females was 15.1-17.1 years. This increasing age at marriage has depressing effect on fertility by limiting the number of younger women who are exposed to pregnancy (CBS, 1985, cited from Gurung, 1989). Similarly, during inter-censual period 1991-2001, the mean age at marriage for females was 18.1-19.5 years. The process of marriage pattern in Nepal is changing with declining way (CBS, 2005).

Education is one of the most important determinants affecting fertility. There is an inverse relationship between educational attainment of couples and fertility. Education may affect fertility directly or indirectly like by rising the age at marriage. Educational attainment may be taken as an indicator of the modernization of the society as well as the scale for measuring the status of the women in the society. The higher level of female literacy in a community prefers the lower fertility and vice-versa. Educated women are more likely to voice resentment at the burden of repeated pregnancies and to take action to lighten that burden (Dyson and Moore, 1983, cited in Tuladhar, 1989).

Ethnicity and religion were found not to affect fertility regulation when gross regional categories were used in Latin America and Africa. Ethnic differences were studied in seven countries (Freedmen, 1995). Education has been considered as catalytic agent to reduce fertility in Nepal. Educated women are more aware of the issue of quality of children than non educated (Risal and Shrestha, 1989).

Some researches (Bogue, 1971; WB, 1994) reveal that education is supposed to play the most important role in fertility. Education brings the feeling of social upgrading which affects fertility. The negative relationship between women's education and fertility has been established from the MOH 1991 survey. It was found that the total marital fertility rate (TMFR) among the women with secondary level education was 4.0 which are quite less than among the women with no education (6.2). NFFPS and NFS studies indicate that the wife's educational status is more instrumental in reducing fertility than the husband's (Dahal, 1992).

In Nepal, the average number of CEB is 1.9 for literate women especially for primary education and 1.5 for graduate which is lower than illiterate with CEB 2.8 (CBS, 1993). Nepal Family Health Survey 1996 showed a strong relationship between education and fertility. Women with at least secondary level of education have total fertility rate (TFR) of 2.5 which is less than half the rate among women with no education with TFR of 5.1 whereas women with primary education have 3.78 births per woman (MOH, 1996).

It is said that socio-economic development is the best contraception, the main resistance of high fertility. The idea about the socio-economic development is some what is given by occupation.

Occupation of the husband has been widely recognized as one of the influencing factors on fertility. High fertility has been associated with agriculture and mining and lower rate of fertility has been associated with professional classes in urban industrial country (UN, 1973; cited in Subedi, 1996). It is found that the work status of women was inversely related with mean number of CEB. The negative association between occupation and fertility has been reported by several studies (NPC, 1988; cited in Subedi, 1996). It is generally accepted in the process of development that higher level of occupation are associated with lower level of fertility.

In the context of Nepal, husband's status of work plays an important role for declining fertility level. For example; women whose husbands were engaged in farm occupation had higher fertility with 3.27 mean CEB than that of non-farmer for women 3.19 (Neupane, 1997).

Son preference has deep cultural roots in many Asian countries. The sex ratio at birth in these countries exceeds the expected ratio of 105 male births per 100 female births (PRB, 2000 and cited in Khahtri, 2001). Not only in Asian countries but all over the world, sex preference is spread. With the change in social, cultural and economic status of people, the sex preference is also decreasing. It can be proved by the declining fertility rate of different countries with the improved status of people.

In China where son preference has historically been strong, sons are needed to carry family work after financial support to aging parents, continue the family name and receive the family inheritance. In the past they also were responsible for ancestors worship. Consequently, rural couples are more likely than their urban counterparts to have a son by chance (Gradhan, Larsen and Xiping, 1998: 72, Cited in Khatri, 2001).

In rural Nepal where particular sex preference has been strong still now because of the Nepali culture. In the past, in Chepang community, there was a strong support to the daughter preference especially needed for their cultural activities but in the present context, they desire sons and at least one daughter in their family. Thus it is clear that, sex preference is one of the most responsible factors to increase the fertility rate.

Knodel (1977) found a strong correlation between level of infant mortality and fertility from the data of nineteenth century in Germany (cited from Acharya, 1997). Among the pre-industrial European population as similar as the present population situations of Nepal, an infant death is typically related to shortening the time taken until the next birth. Fertility decline is most affected by mortality decline, broad socio-economic development and family planning programs (Freedmen, 1995). High fertility is a fundamental adjustment to high mortality and that high fertility is necessary for group survival when mortality is high (Bhende and Kanitkar, 1994).

Lower the chances of survival of children, the higher will be the level of fertility. Where the incidence of infants and child mortality is high, parents will incline to produce more children than necessary to ensure survival of at least a few into adulthood (UN, 1996). In this

connection, it is highly hypothesized that higher the infant and child mortality rate of the state will be the fertility.

Acharya's (1997) comparative analysis of data from the 1970 and 1990's in socio-economic determinants of fertility in Nepal has stated that child loss particularly in the early ages exerts pressure for high fertility in three ways. They are well-known as biological, replacement and insurance effects. The biological effect is more pronounced in the societies where the effective family planning is low. In such a situation, death of a child in the early ages will cause the stopping of breastfeeding which will reduce the period of amenorrhea. This result in early conception leads to high fertility. Same as it can be also noted that a positive relationship between the number of children ever born and the number of children died.

NDHS (2001) noted that current (i.e. for 1998) estimate of child mortality in Nepal is 28.6 indicating that of the 1000 babies surviving to age 1 years, 28.6 die before they reach the age of five. In a likewise manner under five, mortality is 91.2 indicating that of 1000 children born today 91.2 will die before they reach the age of five where as IMR is 64.4.

Most social anthropologists recognize the family as a social unit. A family may exist even when a couple and their offspring share a common residence. Family structure is considered as an important determinant influencing fertility and plays a vital role on fertility (Leibenstein, 1979; cited from Chhetri, 1993). Generally, higher fertility is found in joint family than the nuclear family because the parents are less responsible or regardless of their individual contribution to their children. Joint responsibilities to the children induce higher fertility and it reduces the individual perceived costs of raring children and conduces to higher fertility.

Generally, on the basis of residence and dependency family can be divided into two types. They are (i) Nuclear and (ii) Joint. In the past time most people were concerned a strong feeling of joint family system for security and agricultural activities. But now days, many people like to live in a nuclear family system.

Family type has also an influence on fertility but there has been much debate on the nature of relationship between these two variables. Generally, it is stated that in joint families couples

live together sharing budget and they have high fertility. Menon (1997; 34) states, in such families, older generations give the power over the decision of young's. So, the opportunities for sexual intercourse in such family system are limited which do not encourage high fertility (cited in Adhikari, 1999).

It is said that the contraceptive use can play the responsible role as the principle intermediate variables to sift the high fertility to low. According to Nepal Fertility Survey (1976), about 97 percent of those currently married women who wanted no more children were not using contraception (Tuladhar, 1989).

West Asia has the higher fertility and the lowest contraceptive use among the Asian countries. There are eight countries with 81 percent of Asia's population and 62 percent of contraceptive use. China, Indonesia, Sri Lanka and Vietnam have experienced the largest fertility decline followed by India and Bangladesh which have strong family planning programs but high mortality and low female literacy (Freedmen, 1995).

There are several reasons for the low rate of retention of family planning methods in Nepal. These methods are not available to a large number of couples even when there existence of family planning workers. They have not been motivating couples to use contraceptives. The practice of family planning is currently on contraception (Subedi, 1996).

The Contraceptives Prevalence Rate (CPR) for modern methods shows an increasing trend. It has increased from 37.8 percent in Fiscal Year 2059/60 to 40.2 percent in FY 2060/61. The number of new acceptors of spacing methods has increased from 440,539 in FY 2059/60 to 451,590 in FY 2060/61. In terms of FP current users, it has achieved 96 percent of the set target during the FY 2060/61 (MOH, 2003/04).

Similarly, according to the Statistical Bulletin of CBS, average fertility rate was 2.6 in 2053/54 and decreasing in 2.4 in 2061/62. And then, 36 percent children were getting the chance of vaccination in 2052/53 and increasing rate 59 percent in 2061/62. The women ever heard about family planning methods, i.e. 60 percent and increasing in 77 percent at that the eight years time interval period. In that survey period, the women who visited the hospital

before and after pregnancy were 57 and 13 percent respectively (CBS, 2005). In the rural context of our country, the estimate of the total fertility rate (TFR) was 4.37 (CBS, 2004).

2.5. Conceptual Framework

The main aim of present work was to study reasons behind the sustained high level of fertility in the Chepangs. In order to fulfill this objective, it was essential to highlight the demographic and socio-economic context within which the family size decisions are made. The conceptual framework which incorporates parts of the theories of frameworks discussed earlier is intended to serve as a basis for studying the parameters of marriage patterns, fertility levels and differentials and the level of contraceptive use.

Fig. 1: Conceptual Framework for Analysis

| | Independent Variables | | Dependent Variable |
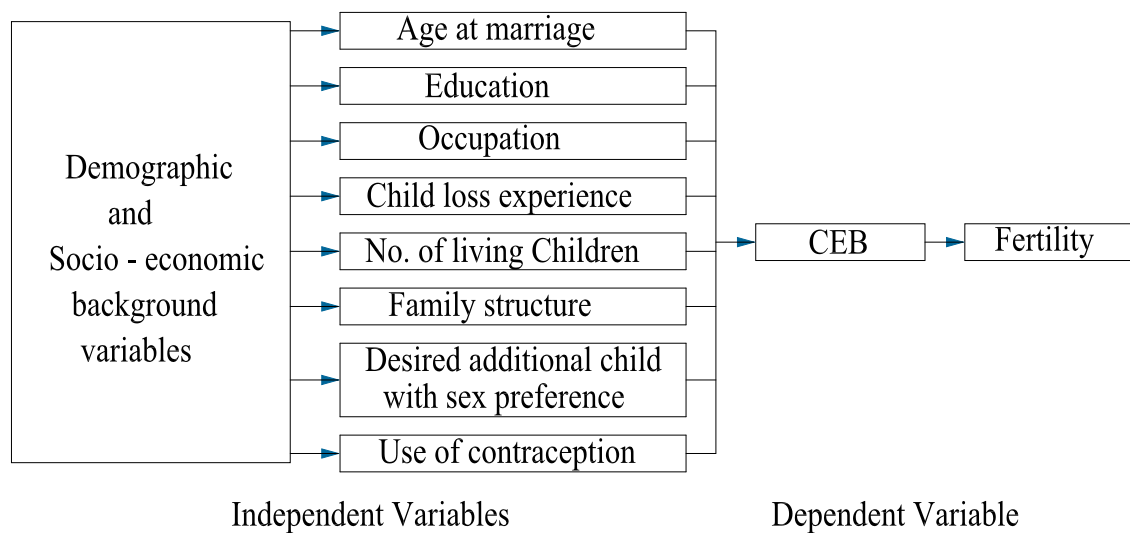
The schematic diagram presented here considers that the age at marriage, education, occupation, family structure and child loss experience are the independent variables and they combinable determine the level of use of contraception. Here the use of contraception is also assumed to be an intermediate variable. Then, all they determine the fertility or CEB. Fertility is treated as the dependent variable.

2.6 Hypotheses formulated

The following hypotheses are formulated for present study:

1. There is an inverse relationship between age at marriage and fertility.
2. Number of living children is negatively associated with the number of additional child.
3. There is a positive relationship between child loss and fertility.
4. The desired family size of currently married women is solely determined by two demographic variables i.e. number of living children and number of additional children wanted by the mothers and it is positively associated with desired family size.
5. There is an inverse relationship between educational attainment and fertility.
6. There is an inverse relationship between occupation and fertility.
7. Family structure also affects fertility. Larger the family size, higher will be the fertility.
8. There is an inverse relationship between contraceptive use and fertility.

Chapter Three

BACKGROUND OF THE STUDY AREA AND METHODOLOGY

3.1   Background of the Study Area

Pida is one of the VDC of Dhading which lies in southern part of the district. The total population of Dhading is 338,660 according to the national census 2001 and Chepang population is 10,880 that represents 3.22 percent of the total population in the district. The total population of the Pida VDC is 10,296 and among them Chepang community constitutes 999 which is 9.71 percent of the VDC population according to national census 2001. Now, the total population of Chepang is 2,106 according to the VDC profile 2004 of Nepal Chepang Organization. This shows that the percentage share of the Chepang population has increased as compared to that of the census 2001.

This VDC is surrounded by Gajuri in the west, Baireni and Kiranchok in the east, Mahadevsthan in the south and in the north the Trisuli River is flowing.

3.2 Research Methodology and Source of Data

3.2.1 Selection of the Study Area

Chepang is an indigenous and disadvantaged community of Nepal. The Chepangs are distributed mainly in Makwanpur, Chitwan, Gorkha and Dhading districts. Among them, Dhading is a district where the Chepangs reside in and comprise about 13 percent of the total Chepang population and it is the third in the position. Pida VDC is one represents a significant number of Chepangs reside (9.19%) in Dhading district. There is no study conducted in this community. Thus the Pida VDC was purposively selected for the study.

In order to make representation of the VDC, the three wards: ward no. 4, ward no. 6 and ward no.9 were considered for data collection. They were selected because the majority of the Chepang population is residing there.

3.2.2 Sample Design

There are about 289 households in this study area. But one third of the total households were chosen for the sample by taking each alternative household. So, 97 households and 123 currently married women of child bearing age of 15 to 49 years were taken for the detailed study. The sample size is relatively small due to limited time and other factors as well. However, the intention was to collect rich data on fertility in a short period time.

3.2.3 Nature and Sources of Data

Both primary and secondary data were used in this study. But mainly this study was based on primary data and such data were collected from the field survey by interview method. This method was applied by direct interview with respondents on the basis of structured questionnaire using quantitative technique. Moreover, the secondary data were used to understand the historical background of the Chepangs. They were collected from the VDC office, CBS, and other available sources and references.

3.2.4 The Respondents

The Pida VDC was purposively selected and its 3 wards: (4, 6 and 9) were also purposively selected to the study due to the majority of the Chepang population. Only one third of the total Chepang households from the wards were selected in the process of data collection. To fulfill the objectives in the study, information was collected from the currently married women of child bearing period of age group (15 - 49) of the study area. There were 289 households in the selected wards. Only 97 households and 123 eligible women of child bearing period (15 - 49) were chosen to administer the questionnaires.

3.2.5 Questionnaire Design

The questionnaire was designed to obtain information on various aspects of fertility behavior. In addition, the questionnaire was prepared to collect basic demographic and socio-economic

information such as age, sex, education, occupation, and other relationship with the heads of households and currently married women of child bearing period (15 - 49).

There were two types of questionnaires used namely household questionnaire and individual questionnaire. The household questionnaire was administered to the heads of the household for background information. Individual questionnaire was asked to current married women of child bearing period (15 - 49).

3.2.6 Data Collection Technique

The questionnaire was originally drafted in English and then translated into Nepali for conducting interview process. The researcher was personally involved in data collection. This process of data collection was continued until all the sample households were interviewed.

3.2.7 Identification of Variables

In this study, the number of CEB of the women within the reproductive age is considered as a dependent variable which is one of the best indicators of fertility because it conveys completed fertility of women up to the age at the time of survey.

The independent variables constitute:

(a) Demographic Variables
- Age at marriage,
- Number of living children,
- Child loss experience,
- Desired number of additional children with sex preference,

(b) Socio-economic variables
- Education,
- Occupation,
- Family structure.

(c) Intermediate variables

    - Contraceptive attitude and practices.

3.2.8 Analysis and Interpretation

In the present study, cross tabulation, frequency distribution, percentage figure, standard deviation and means and averages were used to examine the relationship between dependent and independent variables.

3.2.9 Data Quality

It is important to check the consistency and quality of the data collected from the Chepang respondents which explain and justify the quality of the study.

3.2.10 Validity and Reliability

Validity and reliability of this research study can not be claimed of absolute terms or mathematical precision. To minimize possible errors like under, over counting and misreporting by respondents, certain measurements were employed.

- Questionnaire was drafted in English language but asked in simple Nepali language.
- A close rapport was developed with the respondents during the interview which encouraged the respondents to help the researcher actively by providing necessary information.
- Researcher herself completed all forms and checked and rechecked them. If any information missed or was doubtful, a revision was made for its completion.
- Editing of the entered data was done very carefully in order to trap the entering errors and maintain data accuracy.

Chapter Four

SOCIO-ECONOMIC STATUS AND DEMOGRAPHIC STUDY OF THE POPULATION

In order to investigate the behavioral aspect of reproductive age group of currently married woman, it is important to provide background characteristics of the population. The background characteristics are divided into three categories such as demographic, socio-economic and family planning.

4.1 Demographic Characteristics

It consists of age sex distribution, marital status, percentage of eligible women, age at marriage and sex ratio of the study population.

4.1.1 Age Sex Composition and Sex Ratio

In 97 households, the total population was found to be 611. Out of it, male accounted for 49.75 percent and female accounted for 50.25 percent. The age and sex composition of a population is the most important factor for studying fertility.

The highest proportion of population was found in age group 5-9 years (17.18%) followed by the age group 10-14 years (14.89%) and the age group 0-4 years (13.42%). This indicates that there exists higher proportion of population in the lower age group resulting higher fertility. It results in high fertility in the near future due to the higher percentage of young population. The lower proportion of the population in old age shows the low life expectancy at birth.

The proportion of males and females are not equal in most of the age groups and the percentage of both males and females is irregular in every age group. However, the percentage of total population is gradually decreasing in every succeeding age group except 0-4 year's age group.

Table 1: Age Sex Distribution and Sex Ratio in the Study Area, 2005

Age Group	Population						No. of Male per 100 Female/ Sex Ratio
	Male		Female		Total		
	No.	%	No.	%	No.	%	
0 - 4	50	16.44	32	10.42	82	13.42	156.2
5 - 9	47	15.46	58	18.89	105	17.18	81.03
10 - 14	40	13.15	51	16.61	91	14.89	78.43
15 - 19	25	8.22	35	11.40	60	9.82	71.42
20 - 24	27	8.88	27	8.79	54	8.83	100
25 - 29	20	6.57	20	6.51	40	6.54	100
30 - 34	18	5.92	22	7.16	40	6.54	81.81
35 - 39	19	6.25	26	8.46	45	7.36	73.07
40 - 44	21	6.91	12	3.90	33	5.40	175
45 - 59	10	3.28	8	2.60	18	2.94	125
50 - 54	9	2.96	4	1.30	13	2.12	225
55 - 59	5	1.64	2	0.65	7	1.14	250
60 - 64	5	1.64	3	0.97	8	1.3	166.66
65 +	8	2.63	7	2.28	15	2.45	114.28
Total	304	100	307	100	611	100	99.02

Source: Filed Survey, 2005.

Figure 2: Age Sex Distribution of Chepang Population
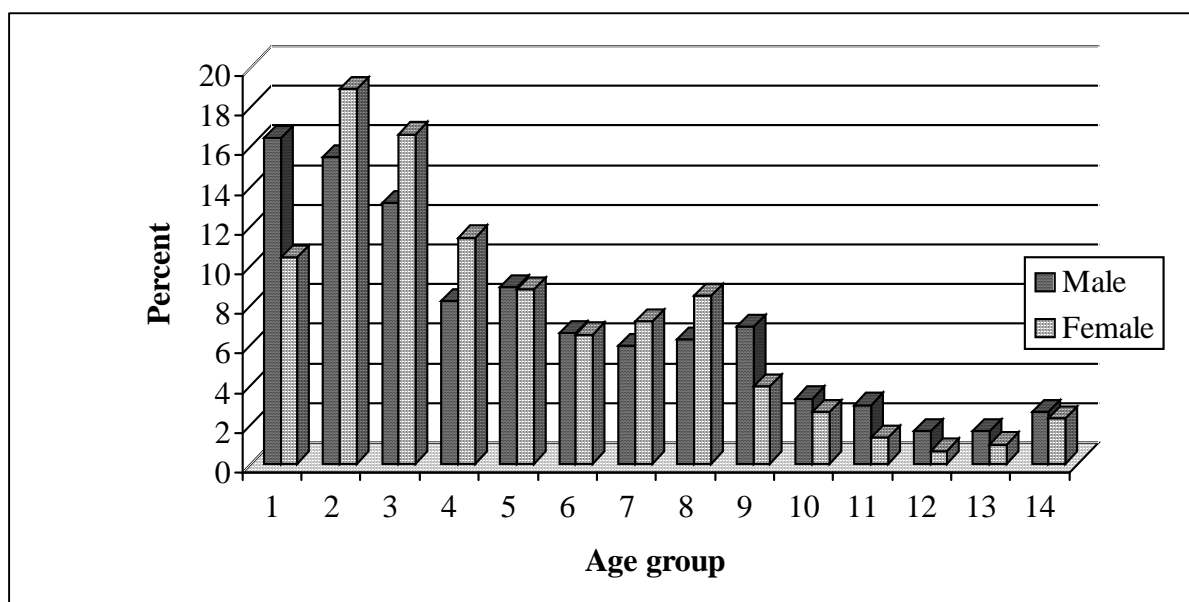
In the sex ratio, the number of males per 100 females was found to be 99.02, lower than the national level (99.8) according to the 2001 census. The sex ratio is calculated for every age group which shows the equal in the age groups 20-24 and 25-29 (100), then higher in the age group 55-59 (250) and lower in the age group 15-19 (71.42) and 35-39 (73.07) respectively.

Similarly, in masculinity proportion, the proportion of male in 100 populations is 49.75 of the average family size is 6.4.

4.1.2 Percentage Distribution of Population by Marital Status

Marital status is a demographic characteristic of a population. It involves biological, socioeconomic, legal and religious aspects. It is the most important factor in population dynamics as it affects fertility tremendously. This sub section provides the information on marital status of the study population by sex.

Table 2: Distribution of Study Population by Marital Status, 2005

Marital status	Male		Female		Total	
	No.	Percentage	No.	Percentage	No.	Percentage
Unmarried	164	53.94	163	53.09	327	53.52
Married	137	45.06	140	45.60	277	45.33
Widow	3	0.98	4	1.30	7	1.14
Total	304	100	307	100	611	100

Source: Field Survey, 2005.

It is obvious from table 2 that, unmarried population accounts for higher percentage (53.52%) followed by married (45.33%). We can also see that unmarried males (53.94%) are more than females (53.09%) but married females (45.6%) are more than males (45.06%). Widowed are accounted for 1.14 percent which is found higher for females (1.3%) compared with the percentage of males (0.98%).

Figure 3: Population by Marital Status

53.52 %   45.33 %

1.14 %

Legend:
- ⊠ Married
- ■ Widow
- ⊠ Unmarried
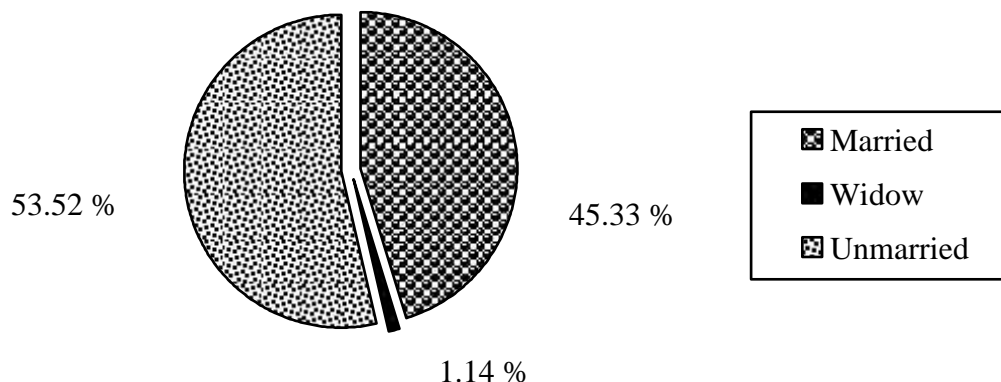
4.1.3 Distribution of Eligible Women by Age Group

The statistics presented in the table 3 represents the distribution of the current married women of child bearing age group (15-49) from whom the fertility behaviour of the Chepangs has been analyzed.

Table 3: Distribution of Eligible Women by Age Group, 2005

Age group	Eligible Women	
	Number	Percentage
15 - 19	11	8.94
20 - 24	26	21.13
25 - 29	19	15.45
30 - 34	22	17.88
35 - 39	26	21.13
40 - 44	11	8.94
45 - 49	8	6.51
Total	123	100

Source: Field Survey, 2005.

Table 3 shows that more than 62 percent women currently married are within the age of 34 years only 37.4 percent are found to be at the age of 35 and above within the reproductive span. The majority of currently married women was found in the group 35-39 and 20-24

(21.95%) followed by the age group 30-34 (17.88%) and 25-29 (15.45%). It shows the minority of currently married women is found in the group 44-49 (6.51%).

Figure 4: Distribution of Eligible Women by Age Group
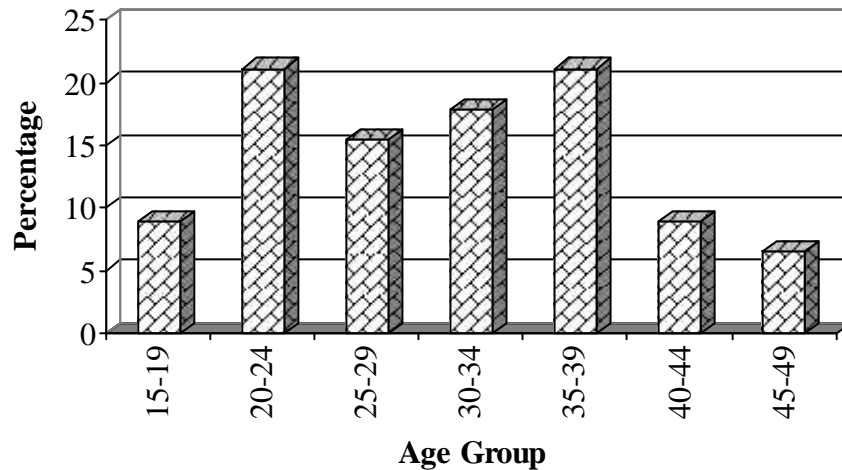
4.1.4 Age at Marriage of Currently Married Women

Table 4 displays the information on age at marriage. The marriage has started from the age 10 years and has ended at the age 23 years in the study population.

From table 4, out of total currently married women, 15.44 percent were married at the age of 18 and followed by the age 17 (13.01%). The lowest age at marriage of women was found to be 10 years accounts for 0.81 percent and the highest age was 23 years accounts for 0.81 percent. The proportion of currently married women's age at marriage shows the early marriage rather than late marriage.

The data of currently married women by age at marriage has shown that very few women have married above the age 20 and no women found who had married below 10 years and above 23 years.

Table 4: Currently Married Women by Age at Marriage, 2005

Age at marriage (in yrs.)	No. of Cases	Percentage
10	1	0.81
11	3	2.43
12	4	3.25
13	9	7.31
14	14	11.38
15	11	8.94
16	15	12.19
17	16	13.01
18	19	15.44
19	12	9.75
20	13	10.56
21	3	2.43
22	2	1.62
23	1	0.81
Total	123	100

Source: Field Survey, 2005.

Figure 5: Distribution of Eligible Women by Age at Marriage
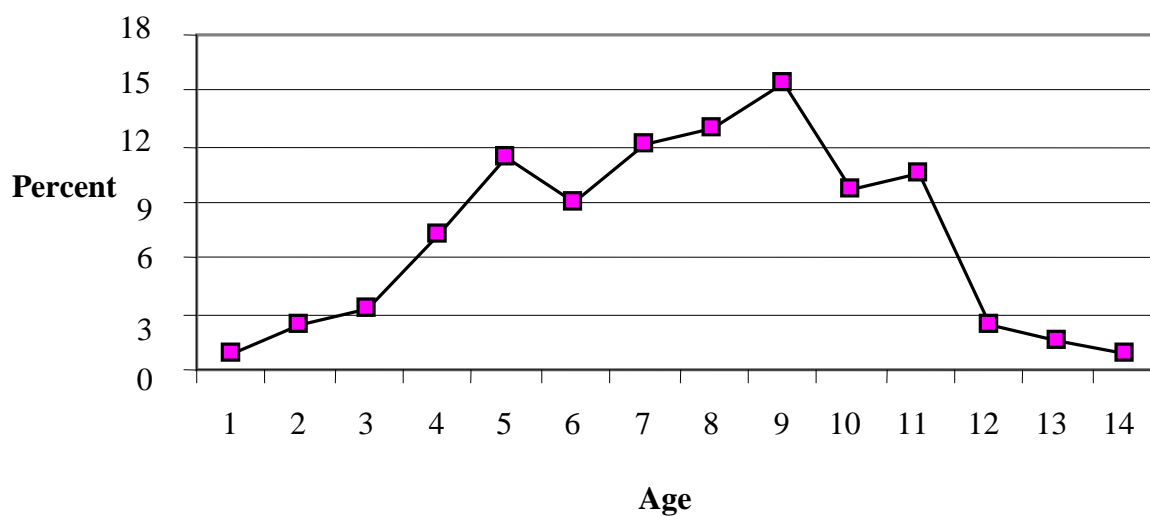
The mean age at marriage was found to be 16.59 years which is relatively lower than the national level (19.5). It shows the early age at marriage of female among the Chepangs. To make it easy for the analysis, the distributed women by age at marriage have been classified by age group. The information is presented in table 5.

Table 5: Distribution of Eligible Women by Age at Marriage, 2005

Age at marriage	Eligible women	
	No. of Cases	Percentage
10-14	32	26.01
15-16	26	21.13
17-18	35	28.45
19-20	23	18.69
21+	7	5.69
Total	123	100

Source: Field Survey, 2005

Figure 6: Distribution of Eligible Women by Age at Marriage

Table 5 shows that 28.45 percent of the eligible women were married at the age of 17-18 years. This group represents the highest percentage among the women followed by the age group 10-14 (26.01%). Similarly, the lower percentage accounts for 5.69 percent among the women married at the age of 21 and above.

4.1.5 Distribution of Respondents by Number of Living Children

The desired family size of currently married women is solely determined by two major demographic variables i.e. number of living children and number of additional children wanted by women. The higher number of living children (actual family size) is expected with higher age of women which have a positive contribution to raise desired family size.

Table 6: Distribution of Eligible Women by Number of Living Children, 2005

No. of living children	No. of respondents	Percentage
0	13	10.56
1	15	12.19
2	24	19.51
3	25	20.32
4	22	17.89
5 +	24	19.51
Total	123	100

Source: Field Survey, 2005

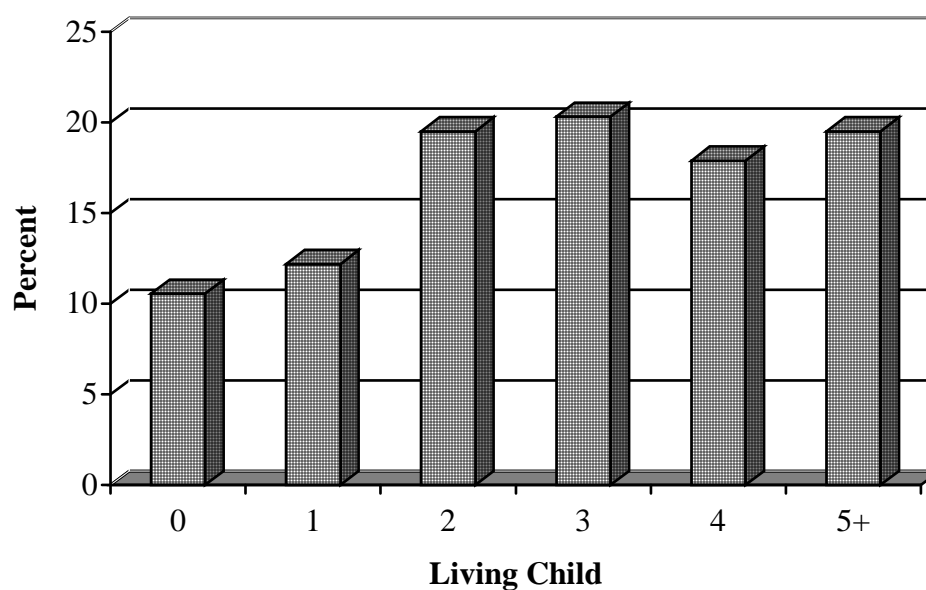**Figure 7: Distribution of Eligible Women by the Number of Living Children**

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Table 6 shows that 10.56 percent respondents had no living children at the time of survey. More than 20 percent respondents had three living children followed by the number of two living children and more than five living children were accounted for 19.51 percent.

4.1.6 Desired Number of Additional Children with Sex preference

Both the number of living children and number of additional children wanted by the women refer to the desired family size. The sex preference particularly, son has a positive contribution to the desired family size which is also reflecting the high fertility intention among women. The preference is not monotonically son based but is moderated towards a balanced composition because parents desire to have sons and at least one daughter. In the study area, in the context of sex preference, most women wanted sons and at least one daughter in their family. It is also responsible to increase the fertility among the Chepangs.

Table 7: Distribution of Eligible Women by Desired No. of Additional Children, 2005

No. of Additional children	Son preference		Daughter preference		Total	
	No.	Percent	No.	Percent	No.	Percent
0	37	30.08	42	34.14	79	64.22
1	10	8.13	6	4.88	16	13.01
2+	18	14.63	10	8.13	28	22.76
Total	65	52.85	58	47.15	123	100

Source: Field Survey, 2005

According to the table 7, it is found that, out of total eligible women, above 64 percent did not want another additional child. Among the respondents who desired no additional child had preferred the son (46.9%). This number is less than those respondents who wanted daughter (53.17%). Respondents who wanted two or more than two additional children in the family were 22.76 percent than the respondents who wanted only one additional child (13.01%). Among them, 22.7 percent of the respondents reported that they desired son and less than 14 percent desired daughter additionally.

Figure 8: Distribution of Eligible Women by Desired No. of Additional Children
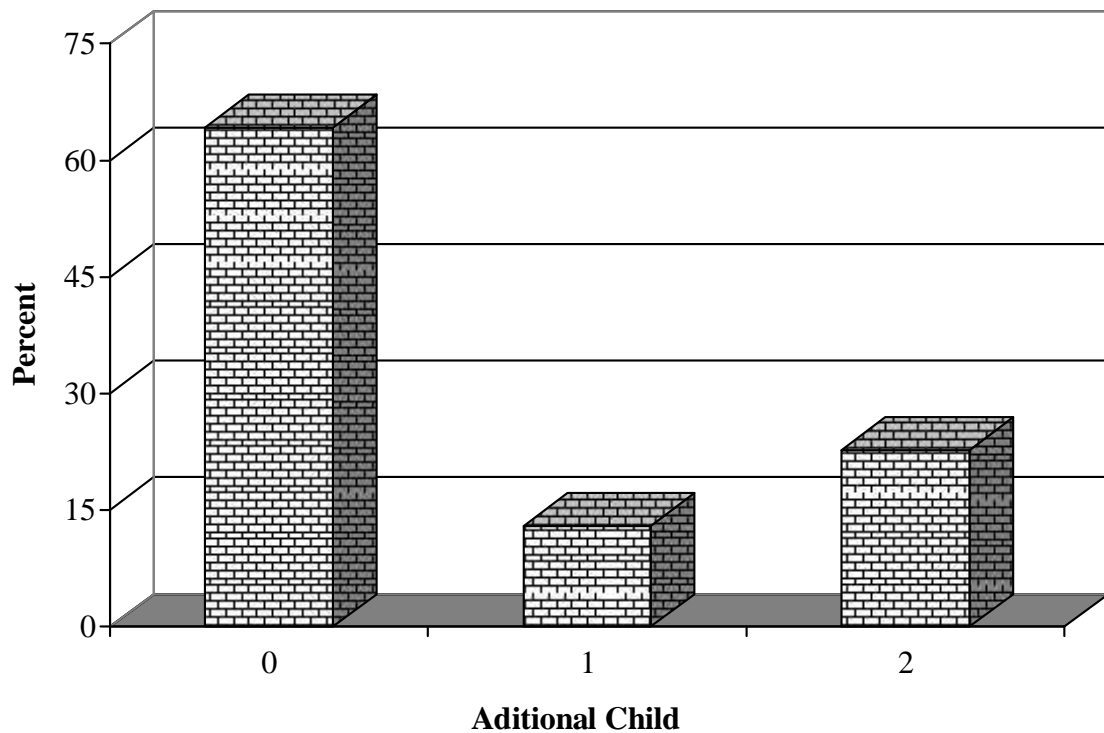

4.1.7 Child Loss Experience of the Eligible Women

Child loss experience is one of the major factors to increase the fertility level of the mothers. Every mother wants to give new birth for the family when her child is dead. Table 8 shows the number of children dead in the study area.

Table 8: Number of Eligible Women by the Number of Children Dead, 2005

No. of children dead	Number of Cases	Percentage
0	63	51.22
1	32	26.01
2	10	8.13
3	7	5.69
4	7	5.69
5+	4	3.25
Total	123	100

Source: Field Survey, 2005

Figure 9: Number of Eligible Women by the No. of Children Dead
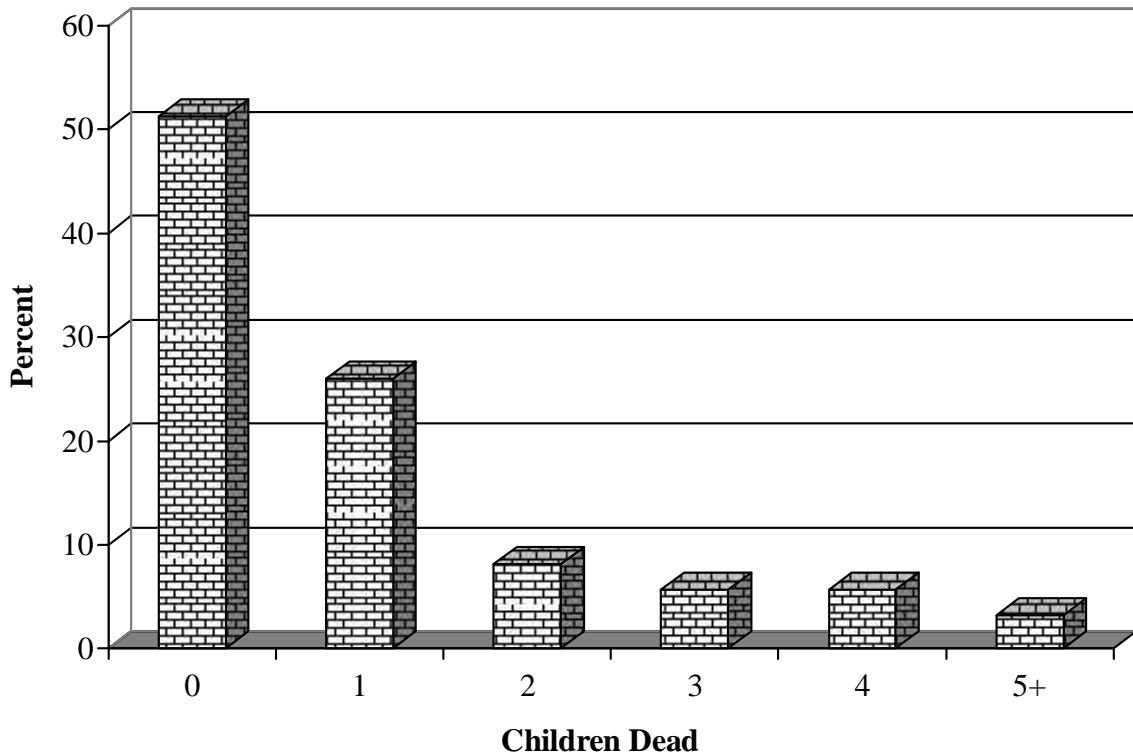
It is obvious from table 8 that, the women whose children had not died cover the highest percentage or more than 51 percent. The higher percentage of women (26.01%) who lost one child is followed by the 8.13 percent who lost two children. Similarly, the women who lost three or four children accounted equal i.e. 5.69 percent. More than three percent women had lost greatest number of children i.e. 5 and above.

4.2 Socio-economic Characteristics

The socio-economic characteristics of the study population include education, occupation and family structure of the population and respondents.

4.2.1. Education

Education is an important variable affecting demographic behaviour. Education is one of the social characteristics of persons covered in the study. Education statistics are useful in

analysis relation of education to change in fertility. The literacy and the educational attainment of the Chepangs as reported by field study 2005 are mentioned in table 9.

Table 9: Distribution of Study Population by Literacy Status, 2005

Literacy Status	Male		Female		Total	
	No.	Percent	No.	Percent	No.	Percent
Literate	154	63.11	115	43.23	269	52.74
Illiterate	90	36.88	151	56.76	241	47.26
Total	244	100	266	100	510	100

Source: Field Survey, 2005

Population aged 5 years and above was taken to obtain the education status of the total study population by sex. Educational status is generally considered as associated with other various factors as occupation and income.

Figure 10: Distribution of the Study Population by Literacy Status
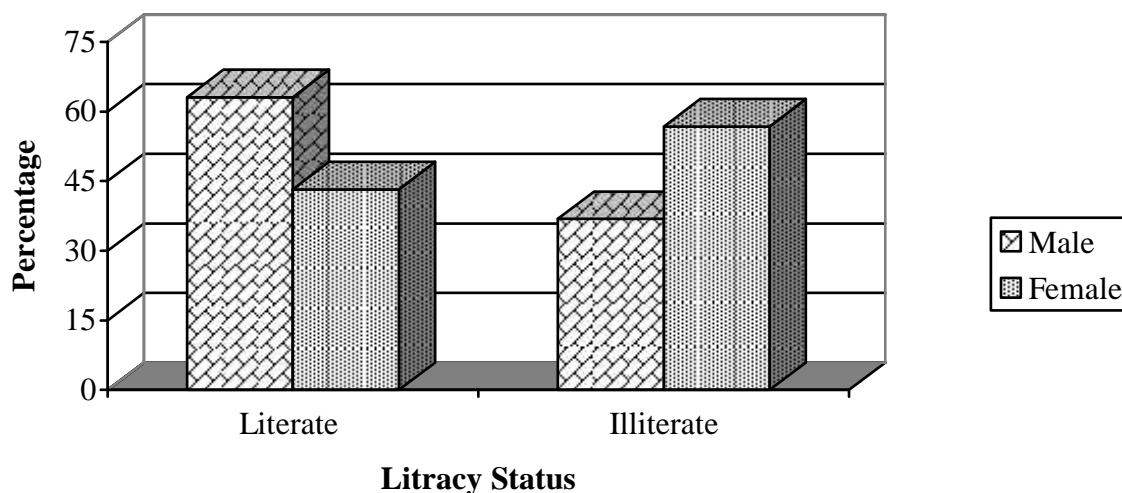
The data (table 9) shows higher percentage of literacy (52.74%) than illiterate (47.26%) in both sexes combined. The literacy rate of the Chepangs in Pida VDC seems to be low than that of national census 2001 (54.1%) because the Chepang community is still living in highland and steeper area. But in the study population, the literate population is relatively higher (52.74%) than the illiterate population. If we see it sex-wise, male literacy is higher (63.11%) than female (43.23%) which is relatively lower than the national census 2001 that

accounted 65.5 percent for male and relatively higher (42.8%) in the context of female. Of the 611 population, excluding less than 5 years 510 people were asked about their literacy status.

Among the literates, we can categorize them in different educational level. Table 9 shows the educational attainment of the literates of study population.

Table 10: Educational Attainment of the Literate Population, 2005

Educational Level	Population					
	Male		Female		Total	
	No.	Percent	No.	Percent	No.	Percent
Primary (1 - 5)	104	69.33	98	82.35	202	75.09
L. Secondary (6 - 8)	13	8.67	10	8.4	23	8.55
Secondary (9 - 10)	10	6.67	2	1.68	12	4.47
H. Ed. (11 +)	-	-	1	0.84	1	0.37
Non formal (above 15 yrs.)	23	15.33	8	6.72	31	11.52
Total	150	100	119	100	269	100

Source: Field Survey, 2005.

According to the table 10, among the literates, overwhelming majority (75.09%) is accounted for primary level education in which female status is higher (82.35%) than that of male (69.33%). About 8.55 percent literates have lower secondary education in which male represents relatively more (8.55%) than female (8.40%).We can see the decreasing percentage of literate for secondary and higher education levels. And only one female (84%) was at higher secondary level. On the other hand, 11.52 percent of literate had non formal education dominating by males (15.33%).

4.2.2 Educational Status of Respondents

Education plays an important role to determine fertility level. That is why educational status of eligible women has been recorded by the study. The information on this aspect is displayed in table 11.

**Table 11: Educational Status of Eligible Women, 2005**

Literacy status	Number of Cases	Percentage
Illiterate	105	85.37
Literate	18	14.63
1. Primary	6	33.33 (4.88*)
2. L. Secondary	2	11.11 (1.62*)
3. Secondary	1	5.55 (0.81*)
4. Higher Education	1	5.55 (0.81*)
5. Non formal	8	44.44 (6.5*)
Total	123	100

Source: Field Survey, 2005.

* Number in brackets represents the percentage of educated persons out of total eligible women.

According to table 11, among 123 eligible women, only 14.63 percent were literate while other remaining was illiterate. Most of the literates (44.44%) have non formal education followed by primary education (33.33%). The data show that, out of 123 women, only 18 respondents are literate. And then, only one respondent is in secondary level and only one respondent is in higher education level. The data also indicate that, the women who are in child bearing age group hardly get the chance of education.

Figure 11: Distribution of Eligible Women by Literacy status

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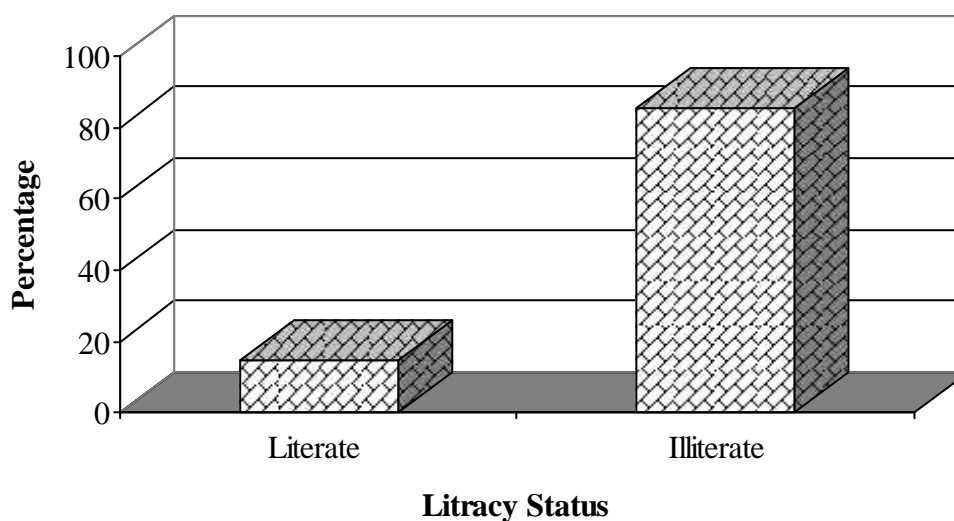
4.2.3 Dependency Ratio

The proportion of dependents in a population is another aspect of the studying its structure and characteristics. In the analysis of data, people below the age of 15 years and above 65 years are considered as dependents which make the comparision easy as this definition is well applied in the study population. The age dependency ratio is categorized into three parts. Young dependency ratio is the number of population aged 0-14 years per 100 working population aged 15-64 years. Old dependency ratio is the number of population aged 65 years and above per 100 working population aged 15-64 years, while total dependency ratio is known as the sum of the young and old dependency ratio.

Table 12: Age Dependency Ratio of the Chepangs in the Study Area, 2005

Types of Dependency Ratio	Per 100
Child dependency ratio (>15)	47.79
Old dependency ratio (<65)	1.96
Overall dependency ratio	59.75

Source: Field Survey, 2005

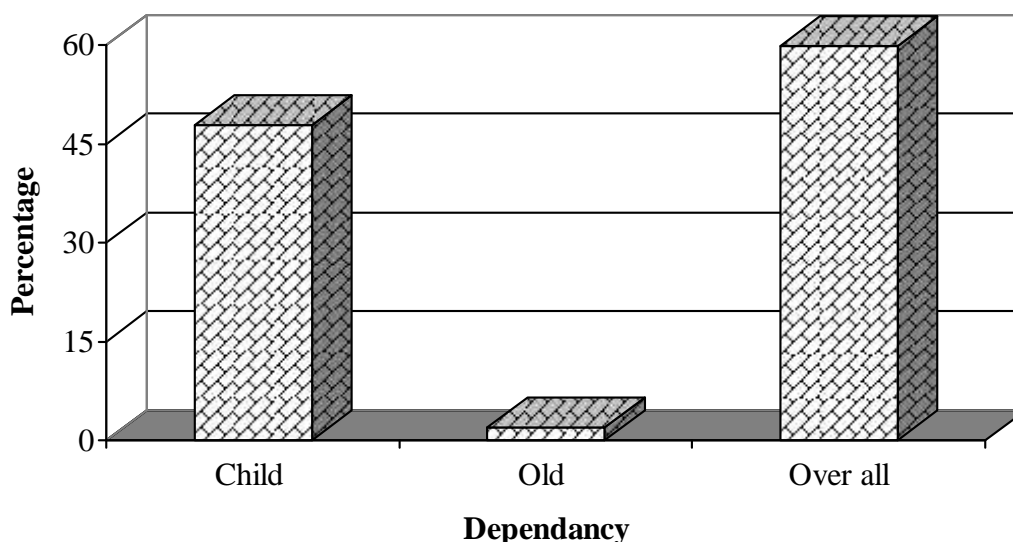**Figure 12: Dependency Ratio of the Study Population**

Table 12 indicates that the young dependency ratio is 47.79 per 100 working population and old dependency ratio is 1.96. The overall dependency ratio is 59.75 per 100 working population.

4.2.4 Occupational Status of Population

The statistics of the occupational structure of any population is useful for framing the manpower planning and is considered as an integral part of socio-economic development policy. Regarding the occupational status of the Chepangs, five different categorizes were observed. Hence, in the occupational distribution under five years and above 65 years population has kept as dependents. The occupational composition of the sample population together is shown in table 13.

Table 13: Distribution of Study Population by Occupation, 2005

Occupation	Male Population		Female Population		Total Population	
	No.	%	No.	%	No.	%
Agriculture	86	27.65	88	29.33	174	28.48
Non-agriculture	12	3.85	6	2.0	18	2.94
Household workers	2	0.64	43	14.33	45	7.37
Dependent	66	21.22	45	15.0	111	18.16
Students	89	28.62	92	30.66	181	29.62
Daily wage workers	56	18.01	26	8.66	82	13.42
Total	311	100	300	100	611	100

Source: Field Survey, 2005.

From the table 13, under five years' age group and above 65 years' age group are included in dependents. About 29 percent of the population was from students and they followed their main occupation (28.48%) as agriculture. Daily wages workers represent about 13.42 percent who have no agricultural land. The lowest number of the Chepangs were engaged in non agricultural activities representing less than three percent. Similarly, 7.37 percent of the people were engaged in household working in which 0.64 percent of males were in this category.

Figure 13: Distribution of the Study population by Occupation
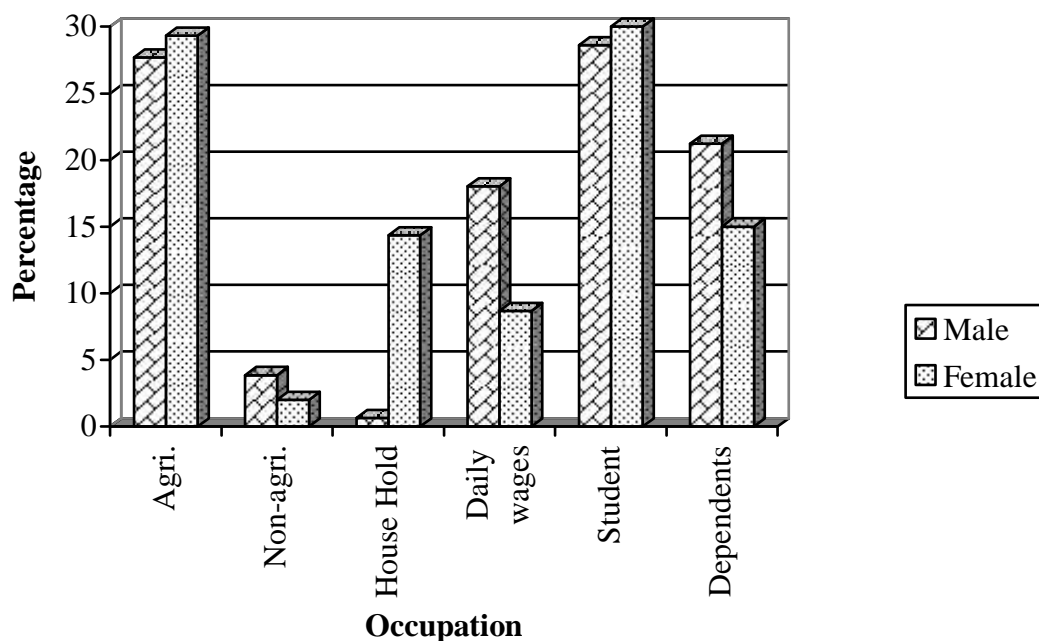
4.2.5 Occupational Status of Eligible Women and their Husbands

Besides the household occupational status of the family, eligible women's and their husbands' occupational status plays an important role to determine the fertility level of the women. Hence, this study goes ahead investigating the occupational distribution of the eligible women and their husbands which is given in table 14.

Table 14: Occupational Status of Eligible Women and their Husbands, 2005

Occupation	Eligible women		Husbands	
	No.	Percent	No.	Percent
Agriculture	77	62.6	67	54.47
Non agriculture	3	2.43	12	9.75
Household workers	21	17.07	0	0
Daily wage workers	22	17.88	44	35.77
Total	123	100	123	100

Source: Field Survey, 2005.

Table 14 shows that about 63 percent of the respondents were engaged in agriculture which percent and which show the higher percentage of women engaged in agriculture than their husbands.

Figure 14: Distribution of Eligible Women by their Occupation
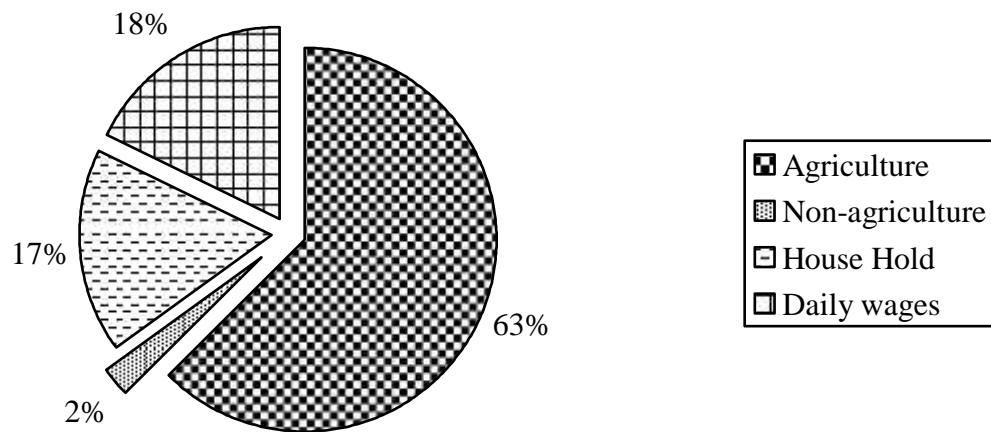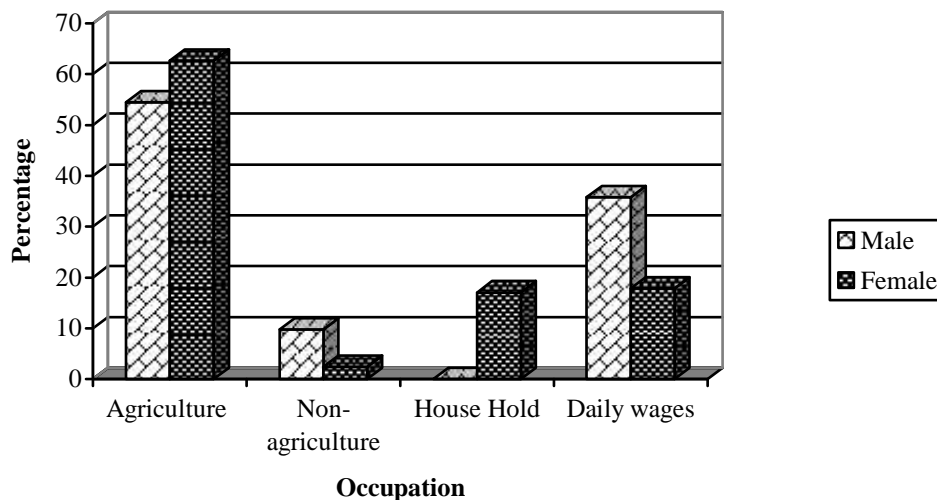

Figure 15: Distribution of Eligible Women and their Husbands by their Occupation

The percentage of non agriculture represents 2.43 and for their husbands, it represents 9.75 percent which shows the low status of females in the society. It shows that they were unable to determine family size. None of the husbands were in household working where 17.07

percent of the respondents were working as household workers. Similarly, the percentage of daily wages workers for respondents was 17.88 and their husband represents 35.77 percent. It shows more than one third of husbands were working as wages workers due to the lack of agricultural land.

4.2.6 Family Structure of the Study Area

Family structure plays a vital role in determining fertility level of the women. In this study, family types have been recorded. The information is displayed in table 15.

Table 15: Family Types of the Chepang Community in the Study Area, 2005

Family type	Number of Households	Percentage
Joint	13	13.4
Nuclear	84	86.6
Total	97	100

Source: Field Survey, 2005

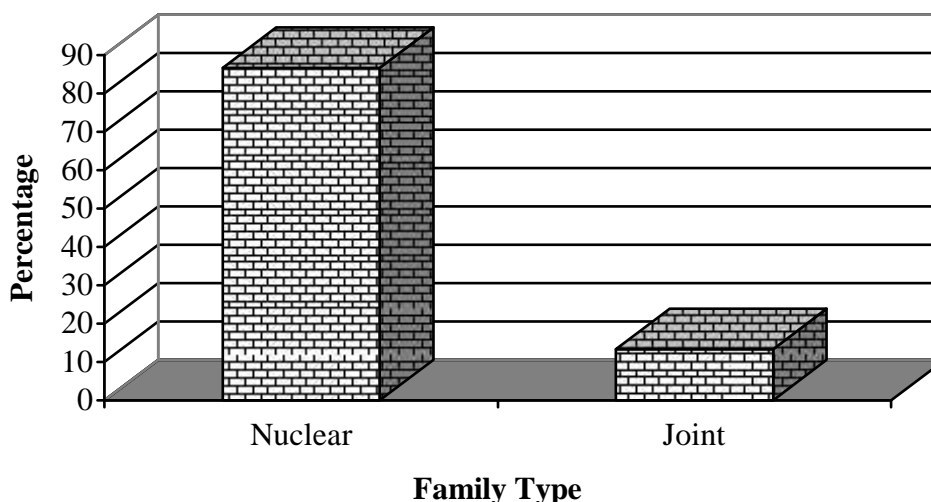**Figure 16: Family Types in the Study Area**

Table 15 shows that out of total households, only 13.4 percent households were found to have joint family system and remaining were nuclear (86.6%). The data show that the nuclear families are dominant in the Chepang society. The family type by its number of members is displayed in table 16.

Table 16: Family Structure by the Number of Members, 2005

No. of members	Households	
	Number	Percentage
1 - 4	21	21.65
5 - 9	68	70.10
10 +	8	8.25
Total	97	100

Source: Field Survey, 2005.

Table 16 shows that, the largest family surveyed was found in the study area which has 14 members where the smallest family has three members only. For the convenience of study, the families have been grouped at the interval of 5. It is evident from the data that in majority of the families 70.10 percent which has 5-9 members in a family followed by 21.65 percent of 1-4 members in a family. Remaining 10 and above the members in a family accounted for 8.25 percent.

4.3 Family Planning Characteristics

Family planning plays the vital role in the fertility behaviour. Knowledge and practice of family planning methods changes the existing trend of fertility in any population. Hence, the family planning characteristics of the Chepangs may be useful to analyze the data.

4.3.1. Ever Use of Contraception

Family depends on the using condition of contraceptives. Every body does not use it and first they should have heard about it. After that among the ever heard, they may use it sometimes which is known as ever users. Among the ever users, who are currently using any one of the method, they are currently users. Currently users may be classified by different methods. The information is in table 17.

Table 17: Practice of Family Planning Method of the Eligible Women, 2005

Practice of FP	Cases	Percentage
Ever heard about FP	69	56.10
Users of FP	46	37.40
Depo-Provera	38	82.61 (30.89*)
Norplant	1	2.17 (0.81*)
Female sterilization	1	2.17 (0.81*)
Male sterilization	6	13.04 (4.88*)
Non users	77	62.60

Source: Field Survey, 2005.

The study has observed that out of total eligible couples, 69 women and their husbands have ever heard about family planning methods, i.e. 56.1 percent. Only 46 persons (37.4%) are users of family planning methods.

Figure 17: Current Users of Contraception
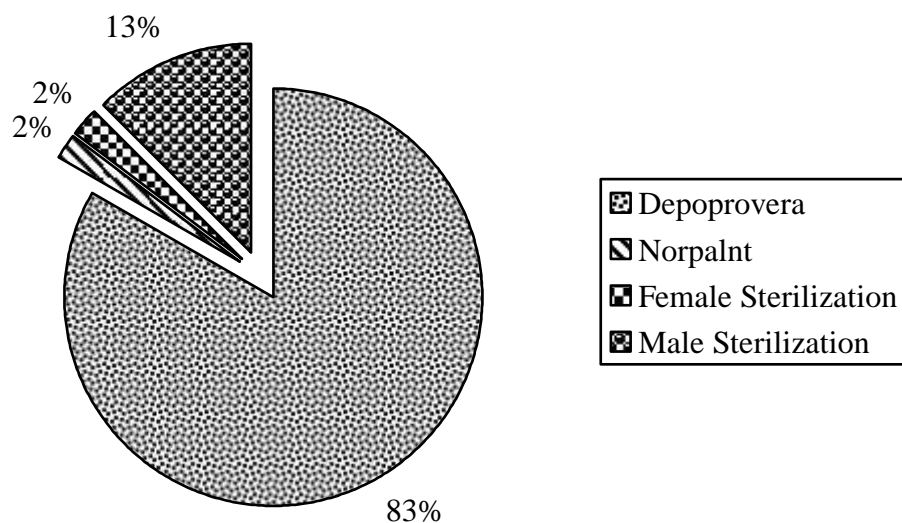
Among the 46 persons, 38 females (82.61%) are using Depo-Provera followed by 13.04 percent whose husbands were having male sterilization. And only one female used Norplant and only one female was having female sterilization. Hence, Contraceptive Prevalence Rate (CPR) is found 37.4 percent of the total. It seems to be very low percent of CPR in the Chepang community which is relatively lower than the national figure of FY 2060/61 (40.2%).

Chapter Five

FERTILITY LEVEL BY SOCIO-ECONOMIC, DEMOGRAPHIC AND FAMILY PLANNING VARIABLES

This chapter deals the analysis of fertility level with demographic and socio-economic variables among the Chepang women. Fertility level of the Chepang women is examined from the currently married women of 15-49 years group with some selected demographic and socio-economic variables. Children Ever Born (CEB) is considered as the indicator of fertility behaviour. Here, CEB is considered as the index of fertility analysis as other indicators like, TFR requires larger sample size for the proper analysis. Besides, CEB is the completed fertility of women up to the age at the time of survey and can also be easily compared in terms of mean with various characteristics.

5.1 Mean CEB by Currently Married Women

According to the age of mother, the CEB may be changed. So, it can be said that age of mother is one of the determining factors of fertility levels. It is expected that as the age of married women increases, the mean number of children ever born also increases since older women experience longer span of reproductive period than young ones. The mean CEB by age group is presented in table 18.

Table 18: Mean CEB by Age Group of Eligible Women, 2005

Age group	Cases	Mean CEB	St. Deviation
15 - 19	11	0.272	0.61
20 - 24	26	1.692	0.9
25 - 29	19	3.0	1.27
30 - 34	22	4.454	1.32
35 - 39	26	5.653	2.72
40 - 44	11	7.363	1.49
45 - 49	8	6.5	2.0
Total	123	3.981	2.58

Source: Field Survey: 2005.

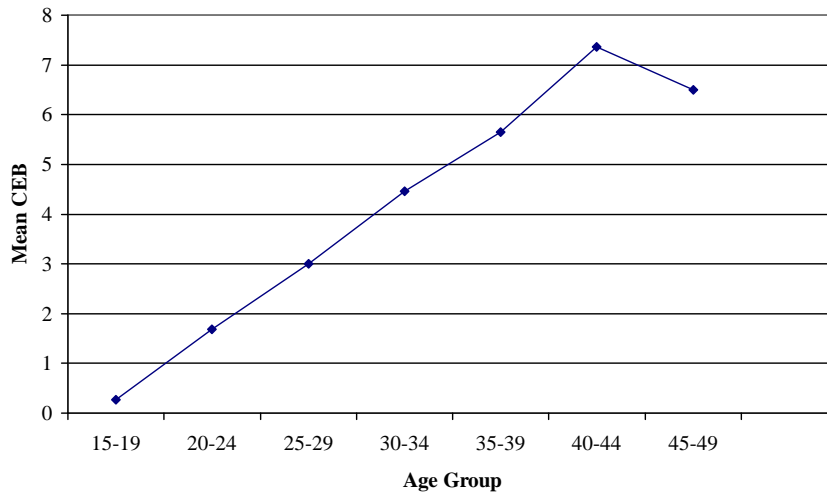**Figure 18: Mean CEB by the Age Group of Eligible Women**

Table 18 shows that the mean CEB of entire women of the study group was found to be 3.918.The mean CEB of women age group of 25-29 is more than four in an average. The lowest mean CEB (0.272) and the highest mean CEB (7.363) were found for the women age group of 15-19 and 40-44 years respectively. Similarly, lower mean CEB was found for the age group 45-49 (6.5) than the age group of 40-44 (7.363). The mean CEB was slightly increasing with the increasing age group and decreasing for the last group i.e. 45-49 years.

5.2 Mean CEB by Literacy Status

When women are educated, their view about family size also changes shifting from high fertility to low fertility. Education brings changes in the way of thinking and in turn it also affects fertility. Educational status of women plays an important role in lowering fertility. Education influences the fertility in different way. It leads to awareness of birth control measures and directly affects fertility. It is also considered as the best contraception. It is inversely associated with fertility. The mean CEB declines with an increase in educational level of women.

Fertility behaviour in terms of CEB as explained by literacy status of eligible women has been considered with literate and illiterate to distinguish categories. Mean CEB by literacy status of the study population is displayed in table 19.

**Table 19: Mean CEB by Literacy Status of Women, 2005**

Literacy Status	Cases	Mean CEB	Std. Deviation
Literate	18	2.333	2.82
Illiterate	105	4.190	3.08
Total	123	3.918	2.58

Educational Level

Literacy status	Cases	Mean CEB	Std. deviation
Primary (1 - 5)	6	1.833	1.46
L. Secondary (6 - 8)	2	1.5	0.5
Secondary (9 - 10)	1	3	0
Higher Ed. (10 +)	1	0	0
Non formal	8	3.123	1.51
Total	18	2.333	2.82

Source: Field Survey, 2005.

Figure 19: Mean CEB by Literacy Status of Eligible Women
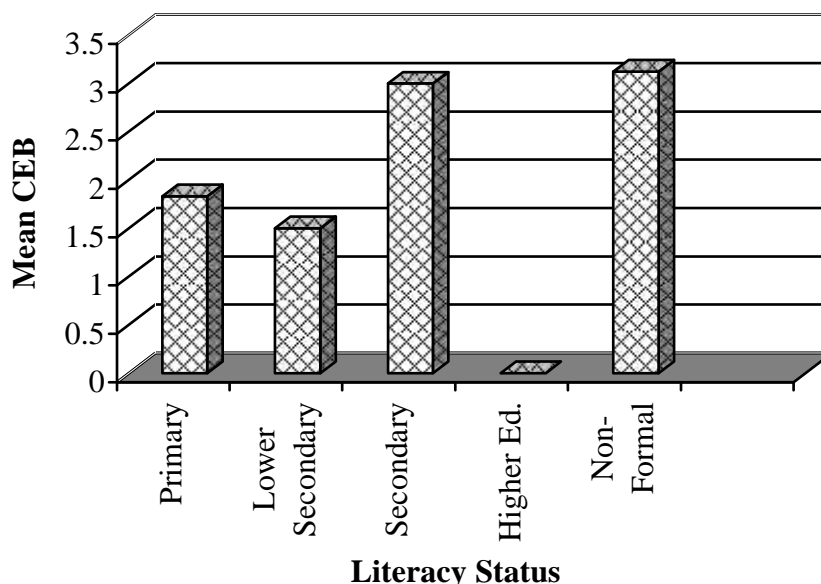
In the table 19, it is observed that variation in fertility levels of illiterate and literate women is significant and the result supports that the literate women have low fertility level than illiterates. The mean CEB of literate women accounted for 2.33 and that of illiterate women was 4.19.

In terms of educational level of women, the lowest (1.833) and highest (3.123) mean CEB were found for the women who were able to get primary education and non formal education respectively. There was only one woman able to get secondary education and mean CEB was 3 and comparatively high due to only one respondent. Similarly, there was only one woman able to get higher education and mean CEB was zero and she was pregnant at the survey period.

5.3 Mean CEB by Use and Non use of Contraception

The prevalence of contraceptive has been identified as one of the principal determinants of fertility. Contraceptive devices to prevent from fertilization are used when couple desire either to stop giving birth or to increase the birth interval. Both of these purposes help to plan a family by the means of birth control methods. Couple plans a family in such a way that the child gets maximum benefit from the parents and vice versa. In this way, using birth control methods help to the couples to achieve their desired family size by preventing unwanted births. It is expected to have low fertility level for those women who use family planning methods than those who do not. Mean CEB, the indicator of fertility behaviour is used here to explain the degree of use and non use of contraceptive method among the Chepang women.

Out of total currently married women of reproductive age, 37.4 percent were using at least one method of contraceptive. The information is presented in table 20.

Table 20: Mean CEB by Use and Nonuse of Contraception in Eligible Women, 2005

	Mean CEB for mothers' age group							Total
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
User	-	2.66	2.88	3.8	5.18	6.6	5.66	4.45
Nonuser	0.27	1.56	3.1	5.0	6.4	8.0	7.0	3.59
Total								3.918

Source: Field Survey, 2005

Table 20 shows that the variation in fertility behaviour of women with two categories -user and nonuser is significant with a difference of 0.86 in overall mean CEB. Women of both categories were not found in the age group of 15-19 years and all were found in other groups except 15-19 years. The higher proportion of women was found as nonusers of contraceptive method than their counterparts.

Figure 20: Mean CEB by Use and Nonuse of Contraception
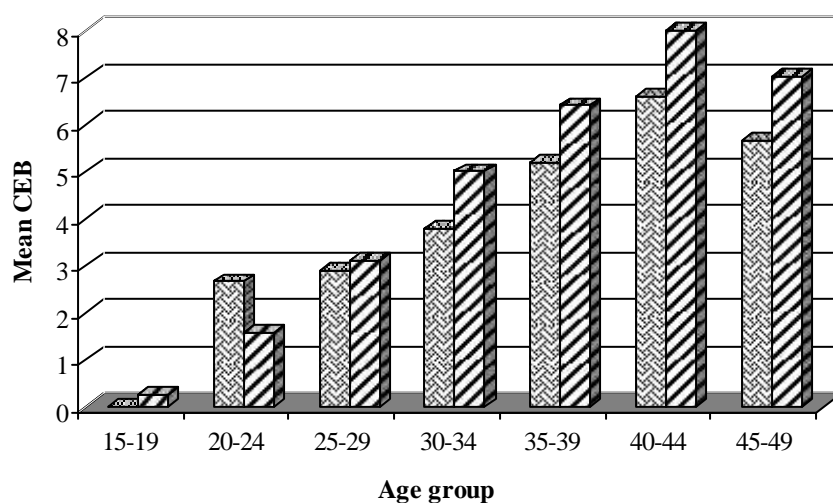
The highest mean CEB (6.6) was found for users which is less than the nonuser's highest mean CEB (8.0). These births were found for the age group 40-44 years. Age group 20-24 years is the early reproductive period and women do have a strong desire to control the process of child bearing as the mean CEB of user's group is 2.66 which is more than the mean CEB (1.56) of nonusers for the same age group. In both the users and nonusers groups, the mean CEB is slightly increasing from one age group to another respectively but for the age group of 45-49 years, the mean CEB for users is 5.66 and for nonusers, it is 7.0. There are less than the users (6.6) and nonusers (8.0) of 40-44 years respectively. However, the data show high mean CEB for contraceptive users (4.45) than the nonusers (3.59) because they had been used contraception after having more than three children.

5.4 Mean CEB by Age at Marriage of Eligible Women

Age at marriage is one of the major fertility explaining variables. Age at marriage is inversely correlated with mean number of CEB. Age at marriage directly affects the period of sexual

union within the reproductive period in a community where premarital stable sexual union is restricted. Sexual union is essential to give birth, and hence age at marriage affects the fertility. It is one of the factors that bring variations in mean number of CEB. The effect of age at marriage on fertility as expressed in terms of CEB in the study population is displayed in table 21.

Table 21: Mean CEB by Age at Marriage, 2005

Age at marriage	Cases	Mean CEB
10 - 14	32	5.15
15 - 16	26	3.3
17 - 18	35	3.94
19 - 20	23	2.91
21 +	7	3.71
Total	123	3.918

Source: Field Survey 2005.

Figure 21: Mean CEB by Age at Marriage
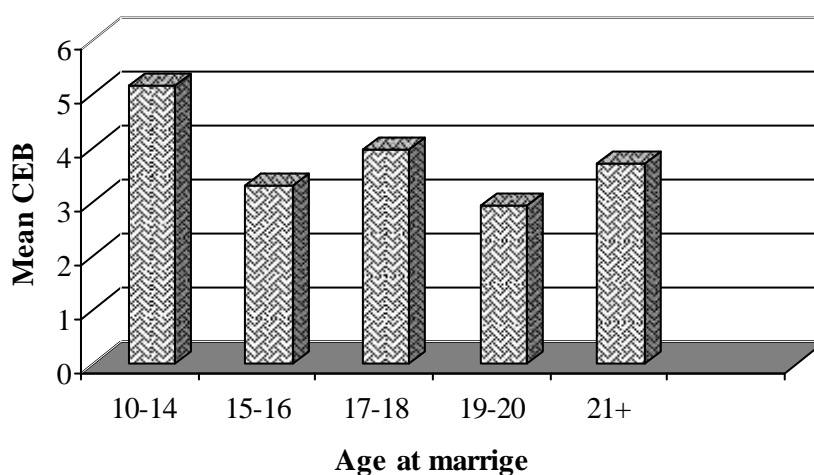
The negative relationship between the age at marriage and fertility level was found except for the women with age below 14 years. Table 21 shows that the mean number of CEB was found to be 5.15 for the women who married between the ages of 10-14 years whereas for the women who married at the age 17-18 years, it was 3.94 and at the age 21 and above the men CEB was 3.71. The mean CEB (3.94) of women for marriage age 17-18 years and the mean CEB (3.71) of the women for marriage age 21 and above has slightly increased than in the

marriage age 15-16 (3.3). Similarly, the mean CEB (3.71) of the marriage age 21 or above slightly increased than the mean CEB of marriage age 19-20 (2.91). The reason may be that the women who married after 21 years, they may have second marriage. Thus, the data prove that increasing age at marriage gradually decreases the mean CEB of the eligible women.

To find out other hidden reasons to cause the increased number of mean CEB of marriage age 21 or above and analyze details, the CEB is presented by age of women. The information is presented in table 22.

Table 22: Mean CEB by Age at Marriage and Current Age of the Women, 2005

Age at marriage	Current age of eligible women							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
10 - 14	0.5	3.0	3.83	5.0	6.25	8.25	6.33	5.15
15 - 16	0.66	2.0	2.8	4.0	4.6	6.33	-	3.3
17 - 18	-	2.2	3.5	4.71	6.1	7.0	5.0	3.91
19 - 20	-	1.2	1.5	4.33	4.33	-	7.66	2.91
21 +	-	-	-	3.0	-	7.5	5.0	3.71
Total	0.272	1.692	3.0	4.454	5.653	7.363	6.5	3.918

Source: Field Survey, 2005

Figure 22: Mean CEB by Current Age of Women
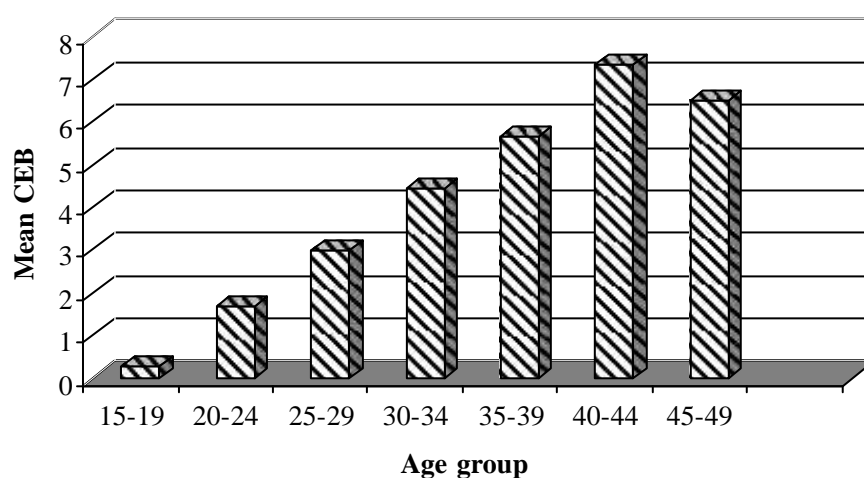
After the detail elaboration of the data of CEB by age at marriage, it has been found that the higher the age at marriage, the lower the fertility of women who married after 21 years than

the preceding group. It has assisted by the cases as there was mean CEB 7.66 in the study of age group 45-49 years who married at the age of 19-20 followed 6.33 who married at the age before 14 years and significant low level of mean CEB (5.0) was found in the age group 45-49 years of the women married at the age after 21 years. But the highest mean CEB was found at the age group 40-44 (8.25) who married before 14 years.

5.5 Mean CEB by Occupational Status of Eligible Women

Women hold the triple work responsibility of reproduction, house holding and employment. Involvement in one of the above affects the involvement of others. Reproduction, one part of the fertility behaviour thus, is affected by the house holding and employment, both terms treated as occupations.

Table 23: Mean CEB of Eligible Women by Occupation, 2005

Occupation	Cases	Mean CEB	Std. deviation
Agriculture	77	3.844	2.19
Non agriculture	3	1.333	1.25
Household worker	21	5.523	2.48
Daily sages worker	22	3.0	3.01
Total	123	3.918	2.58

Source: Field Survey, 2005

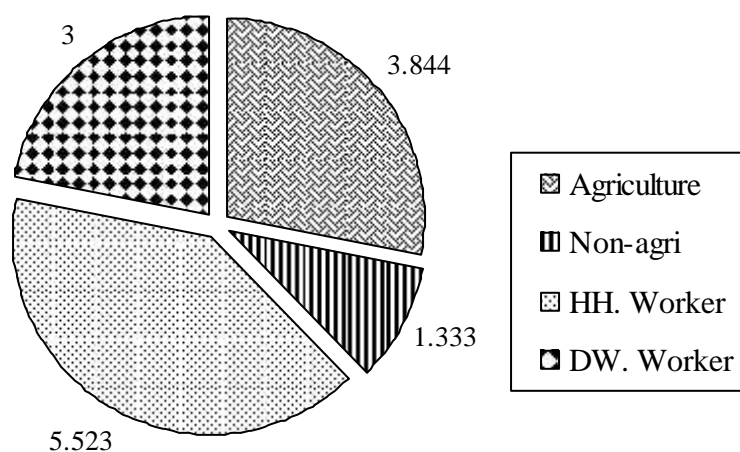**Figure 23: Mean CEB by Occupational Status of Eligible Women**

Table 23 shows that the women who reported themselves as household workers were found to have more CEB (5.523). They performed only double work responsibility. Reproduction and household working and socio-economic aspects saved time probability concentrated a bit more towards the reproduction. Hence, they exhibited high fertility behaviour. However, the mean CEB was found to be higher (3.844) for the women who were engaged in agriculture than the CEB of daily wages workers (3.0). The lowest mean CEB (1.33) was found in the service group of women engaged in non agricultural activities. So, the data show, if women are engaged in non agricultural services they like to reduce fertility.

Even though, we can conclude that the Chepang's mean CEB is higher due to the mostly non service and agricultural involvement.

5.6 Mean CEB by Husband's Occupation

The involvement of women in any occupation plays some role to determine fertility. Usually, most of the women are engaged in agriculture; their household status is low in this community and they can not determine the number of desired children themselves. It is mostly determined by their husbands and their occupational status. Hence, here we examine the mean CEB of women by their husband's occupation. The information is presented in table 24.

Table 24: Mean CEB by Husband's Occupation, 2005

Occupation	Cases	Mean CEB	Std. deviation
Agriculture	67	4.283	2.59
Non agriculture	12	3.166	2.27
Daily wages worker	44	3.568	2.49
Total	123	3.918	2.58

Source: Field Survey, 2005

Table 24 shows that the highest number of mean CEB (4.283) was observed for the women whose husbands were engaged in agriculture followed by the mean CEB of 3.568 for the women whose husbands were working as daily wages workers. The women, whose husbands

were engaged in non agricultural activities or service sectors, have the lowest mean CEB (3.166). Since the husband's occupational status is higher, there exists lower mean CEB for the women.

Figure 24: Mean CEB by Husband's Occupation
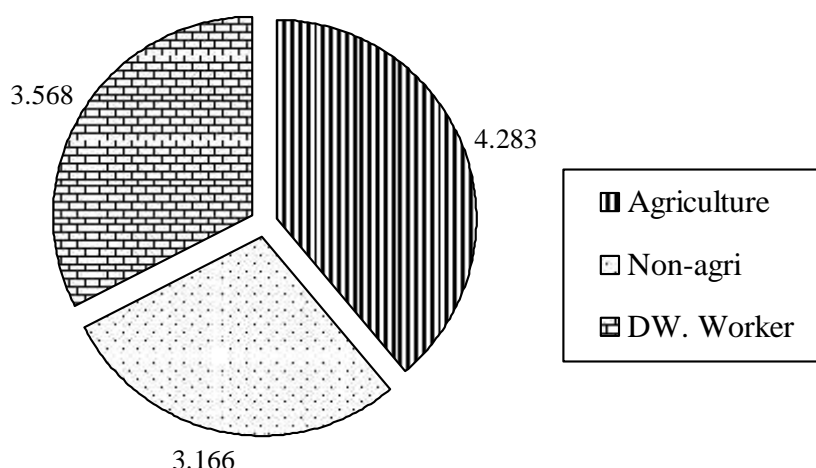
5.7 Mean CEB by Child Loss Experience

Among the several fertility determining factors, infant or child mortality is one because the people want to replace the dead child by giving next birth. And the Chepang community is not remaining with exception. Hence, there is a positive relationship between the child loss and fertility. Higher child loss promotes women to reproduce more children. Therefore, it is hypothesized that there is a positive relationship between child loss and fertility.

Table 25: Mean CEB by Child Loss Experience, 2005

No. of children dead	Cases	Mean CEB	Std. deviation
Not dead	63	2.253	1.63
Child dead	60	5.666	2.17
1 child dead	29	4.206	1.73
2 child dead	13	6.461	1.49
3 child dead	7	6.428	2.77
4 child dead	7	7.714	1.65
5 and above child dead	4	8.75	1.47

Source: Field Survey, 2005

The data in table 25 indicates that the mean CEB is found to be 2.253 for those who have not experienced about child loss and 5.66 for those who have the child loss experience. The women having one child loss had the mean CEB of 4.206 which increases gradually due to the more child loss experience of the eligible women.

Figure 25: Mean CEB by Number of Children Dead
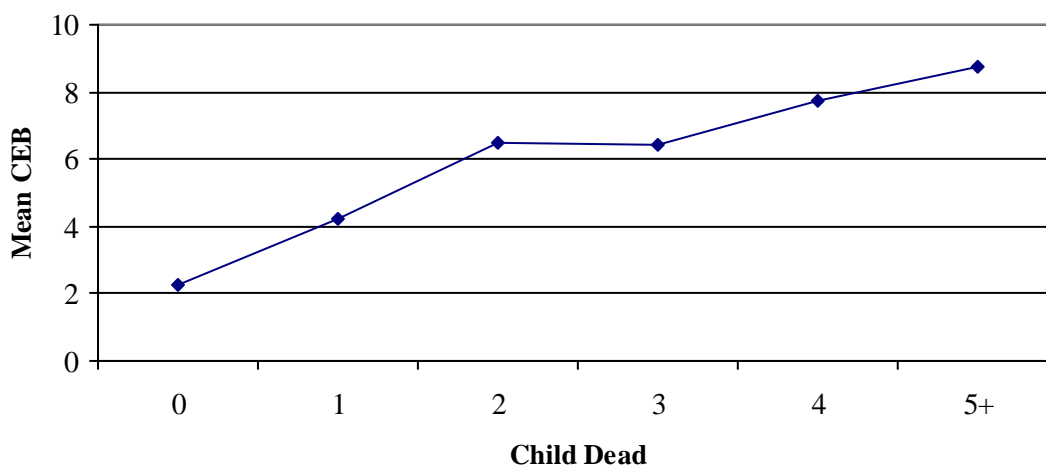
The highest mean CEB was 8.75 for the women having 5 and above child loss experience. Hence, higher child loss experience led to higher fertility. The child loss experience in different age groups is presented in table 26.

Table 26: Mean CEB by Child Loss Experience in Different Age Group, 2005

Child dead	Age group of respondent							Total (mean CEB)
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
0	0.1	1.571	2.615	3.444	4.444	-	3	2.253
1	2.0	2.2	3.6	4.375	5.428	6.5	5	4.206
2	-	-	5	5	6.25	6.8	7.5	6.461
3	-	-	-	6.0	7.0	-	6.5	6.428
4	-	-	-	-	7.333	7.666	9	7.714
5+	-	-	-	9	8	11	7	8.75
Total								3.918

Source: Field Survey, 2005

From table 26, it is clear that the mean CEB had been increasing according to the increase in the number of children dead. The highest child loss experience was gained by a woman of reproductive age group of 40-44 and age group of 35-39 who had lost 6 children. These age groups represented a mean CEB of 11 and 8 respectively. This analysis proves that higher the child loss experience, higher the mean CEB or more fertility level.

If their children are getting sick, they do not go to health post but they go to Jhankri (Dhami) for their checkup. Then the children do not get good treatment and they die. Similarly, they do not go to health post to give vaccination to their children due to the lack of knowledge and there is no health service available in their village. When a mother becomes pregnant she never goes to get check up and never takes any vaccination. So, she gives birth to child but having only a little chance to survive her child.

5.8 Mean CEB by Family Type

Among the several fertility determining factors, family structure is one. It is said that the joint family structure seeks to increase larger fertility level and nuclear family structure seeks to low fertility level. But it can not be true because in a joint family, a couple can not decide about their family size due to the domination of their head. On the other hand, in a nuclear family, a couple may be responsible to increase the family size due to the lack of other's domination. Here, we examine the mean CEB of women by their family structure.

Table 27: Mean CEB by Family Type, 2005

Family type	Cases	Mean CEB	Std. deviation
Nuclear	92	4.086	2.37
Joint	31	3.419	3.06
Total	123	3.918	2.58

Source: Field Survey, 2005

Table 27 indicates that the mean CEB was found 3.419 for the women who were living in a joint family. Similarly, the mean CEB was found higher 4.086 for the women who were

living in nuclear family. There was a negative association between family type and fertility in Chepang community.

Figure 26: Mean CEB by Family Type
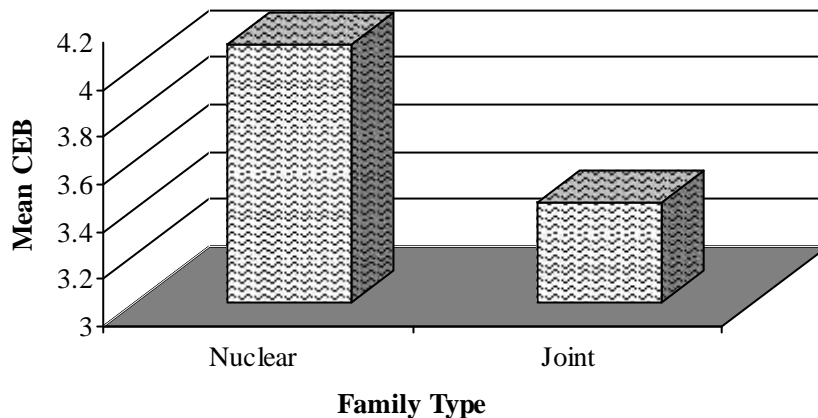
At the time of survey, more couples were practicing to live in a single family but their fertility level was also higher than the couples who still like to live in a joint family. It may be due to the small sample size.

5.9 Mean Number of Living Children and Mean Number of Additional Children Wanted by the Eligible Women

Number of living children is negatively associated with the number of additional children wanted by mothers and it is positively associated with desired family size. The number of living children is expected with higher age of women which have a positive contribution to raise the desired family size. As the age of mothers precede the number of additional children wanted by the women decreases.

The Chepang women, on an average have had about 2.959 living children and 0.691 mean children wanted as additional children during their life time.

In table 28, the highest mean number of children was obtained among the women of age 40-44 years (4.636) and the lowest was found among the women of age 15-19 years (0.181). The number of living children is increasing with the age of women. The mean number of
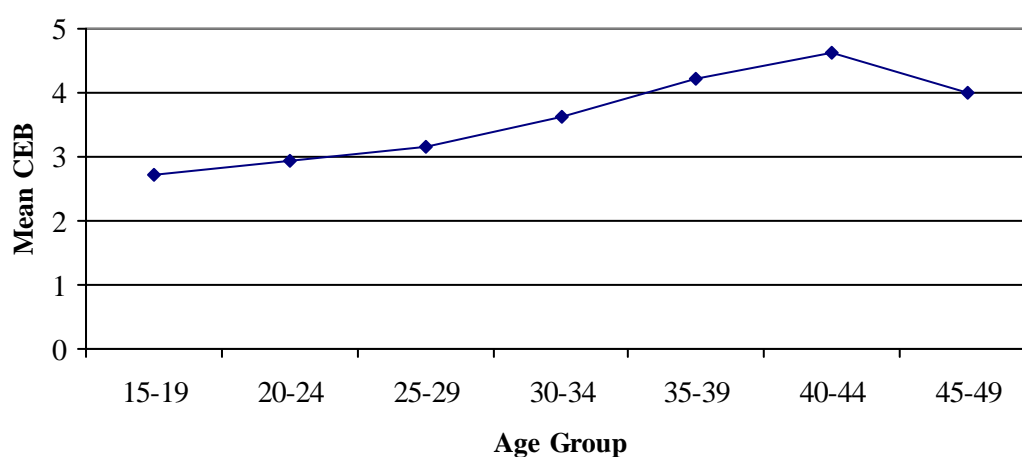
additional children wanted by the women consistently declined with increasing age of mother and number of living children.

Table 28: Distribution of Mean No. of Living Children, Mean No. of Additional Children and Mean No. of Desired Family Size by Age of Mothers, 2005

Age of mother	Mean no. of living children	Mean no. of additional children	Mean desired family size
15 - 19	0.181	2.636	2.727
20 - 24	1.5	1.423	2.923
25 - 29	2.578	0.578	3.157
30 - 34	3.363	0.272	3.636
35 - 39	4.153	0.076	4.23
40 - 44	4.636	-	4.636
45 - 49	4.0	-	4.0
Total	2.959	0.691	3.26

Source: Field Survey, 2005

Figure 27: Mean Desired Family Size of the Study Area

The highest mean additional children wanted by women were found to be 2.636 for those women who had at least one living child. The lowest mean additional children wanted by the women were found to be 0.076 among the women who had two children in the age group of 35-39 years. Similarly, there were no wanted additional child among the age group of 40 to 49 years due to their high fertility level (more than 5) and their old ages.

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5.10 Mean CEB by the Number of Living Children with the Number of Additional Children

Number of living children is negatively associated with the number of additional children wanted by the mothers.

Table 29: Mean CEB by the No. of Living Children and Additional Children, 2005

No. of living children	Desired number of additional child			
	0	1	2	Total
0	-	-	0.075	0.075 (13)
1	2.0	1.5	1.2	1.333 (15)
2	3.75	2.857	2.2	3.166 (24)
3	4.136	3.333	-	4.04 (25)
4	4.8	5.0	-	4.818 (22)
5	6.833	-	-	6.833 (18)
6 +	8.0	-	-	8.0 (6)
Total	5.126 (79)	2.875 (16)	0.857 (28)	3.918 (123)

Source: Field Survey, 2005

Table 29 shows that out of total, 10.57 percent currently married women had one living child at the time of survey. Those respondents had low mean CEB (0.075) compared to other. More than 19.51 percent respondents had more than five living children, who had the mean CEB of 6.833 for five living children and the mean CEB of 8.0 for six and above living children. Out of total respondents, 64.23 percent did not desire additional child whose mean CEB was found to be 5.126 the highest among the total. Similarly, the women who wanted only one additional child had the mean CEB of 2.875 and the women desired two or more than two children had the mean CEB of 0.857. It is found that the proportion of respondents who had more than five living children do not desired additional child and who had less than three living children desired one additional child; and who had less than one living children desired two or more additional children.

Figure 28: Mean CEB by Desired Additional Children
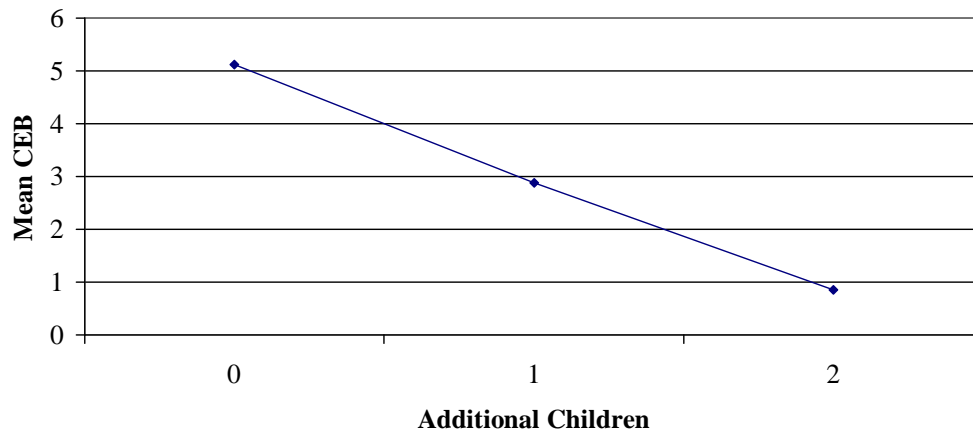
From table 29, it is obvious that only 35.7 percent of the respondents wanted to have additional children. Among them 22.7 percent reported that they desired son and 13.08 percent women desired daughter. Hence, in the Chepang community, there is a strong majority for the son preference which is responsible to increase the fertility level.

Chapter Six

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This is a closing chapter of the present study. It includes the summary of the study with its major findings. It also contains conclusions, recommendations for policy implications and research issues.

6.1 Summary

This study has been carried out to examine the marriage and fertility behaviour of Chepang community in rural Nepal. The investigation is based on primary data collected from the field survey conducted in September 2005 in Pida VDC in Dhading district. Only three wards Chyangly (ward no. 4), Syngbai (ward no. 6) and Gairigawn (ward no. 9) were selected from the VDC. A total of 97 (1/3 part or 33%) Chepang households were selected by taking each alternative from the total of 289. To examine the differential in fertility by demographic and socio-economic variables and to examine the determinants of fertility, household questionnaire to the head and individual questionnaire to the currently married women were used. Respondents were currently married women of child bearing age (15-49). The study attempted to find out attitude and behaviour about fertility among the Chepangs.

The main objectives of the study were:
- To identify the factors affecting fertility behaviour among the Chepangs.
- To examine the pattern of fertility in the Chepang communty.
- To assess the impact of demographic and socio-economic variables on fertility of the Chepangs.

Beside this purpose of the study of this group is to expose them with their general demographic characteristics.

In consistent with the objectives, major hypotheses formulated were as follows:
1. There is an inverse relationship between age at marriage and fertility.

2. Number of living children is negatively associated with the number of additional child.

3. There is a positive relationship between child loss and fertility.

4. The desired family size of currently married women is solely determined by two demographic variables i.e. number of living children and number of additional children wanted by the mothers and it is positively associated with desired family size.

5. There is an inverse relationship between education attainment and fertility.

6. There is an inverse relationship between occupation and fertility.

7. Family structure also affects fertility. Larger the family size, higher will be the fertility.

8. There is an inverse relationship between contraceptive use and fertility.

A conceptual framework was designed to examine the variables obtained from the questionnaires, so as to fulfill the previously set objectives on the basis of theoretical and empirical findings conducted on the past by different scholars. Among the 97 successfully interviewed households 123 eligible women were considered in the field survey

Frequencies and mean tables were presented to describe socio-economic factors influencing fertility. Age at marriage, child loss experience and desired number of additional child with sex preference, desired family size, education and occupation of women, family type, and use of contraception were taken as independent variables. The main findings obtained from the analysis of data collected from sample survey were as follows:

- Among the 97 household surveyed, there were 611 persons out of them 304 (49.75%) males and 307 (50.25%) females. The average family size was found to be 6.4 which were larger than the national average (5.64) as reported by national census 2001.

- Sex ratio was found to be 99.02 with mean age of 21.32. It is relatively higher than Nepal's figure 2005 (20.1). The distribution of the study population indicated bias towards the young population which implies that there is high potentiality of growth in the study population.

- Out of the total population (611) about 53.52 percent were unmarried and the currently married people were 45.33 percent with none of the divorced and separated. The number of widowed is negligible.

- Out of the total respondents, about 28.45 percent were married at the age of 17-18 followed by the age 10-14 (26.01%). Only 5.69 percent of respondents were married at the age of 21 and above. It was found that mean age at marriage was 16.25 years which is relatively lower than Nepal's figure (19.5) in 2005 (CBS 2005).

- The total dependency ratio of sample population was found to be 59.75 percent.

- Literacy status of the study population was lower (52.74%) than that the census 2001 (54.1%). About 75 percent of the literate persons crossed the primary level but less than 0.5 percent had passed S.L.C.

- Out of the total female population, there were 123 currently married women of reproductive age. Of them, most of the respondents (62.6%) were involved in agriculture followed by daily wages workers (17.88%) which have not any agricultural land. Only 2.43 percent of the respondents were involved in non-agricultural activities.

- Only 18 respondents (14.63%) were literates. Beside this, 8 women got education from non-formal or adult literacy programme. Among them, 55.56 percent women got formal education where only one woman has passed S.L.C. and getting higher education.

- Among 97 households, 13 (13.4%) are from the joint family system and 84 (86.6%) are from nuclear ones.

- Out of 123 respondents, 69 (56.1%) had ever heard the family planning method but only 46 (37.4%) had at least once used one method of family planning and 62.6 percent were non-users. Among the users, most of the respondents (82.61%) had used Depo-Provera method.

- The respondents of reproductive age had an average CEB of 3.918 due to the short time interval of child birth one to another. It is relatively higher than national TFR (3.6) (CBS 2005).

- Out of the total respondents, 10.57 percent had no living children at the time of survey. About 19.51 percent of respondents had more than five living children.

- The survey of the Chepang community in Pida VDC shows that they desired 3.26 children in their family. About 35.7 percent respondents wanted desired additional children where women to desire son accounts for 22.7 percent and those desiring daughter was only 13.01 percent.

- The mean CEB was found inversely associated with the age at marriage and education. The higher mean CEB of 5.15 is found for women whose age at marriage is less than 15 years. The mean CEB is 1.86 times higher among the women who have no education than those who have some education.

- The mean CEB was higher (5.523) for respondents who were engaged in household working than the women engaging in non-agricultural work (1.33). The women whose husbands were engaged in agriculture had a mean CEB of 4.283. These figures are higher than that of husbands engaged in non agricultural activities, accounts for 3.166.

- Among the respondents of reproductive age, more than 62 percent were as never users of family planning methods.

- Fertility level of women tends to decrease with increasing contraceptive practice but the study shows that the respondents who are users of family planning methods have high mean CEB (4.45) compared to non-user (3.59).

- Similarly, fertility level of women who practice to live in nuclear family tends to decrease but the study shows that the respondents who are living in nuclear family have high mean CEB (4.086) compared to that of the joint family (3.419).

- The respondents who want two or more additional children in the family represent 22.7 percent. There mean CEB was less than 1.0. And less than 14 percent of the

respondents reported that they want one additional child whose mean CEB was more than two.

- In the study area, 64.22 percent of respondents do not want additional children. The highest mean number of additional children (2.636) wanted by women is found for those women who have less than one living children. The lowest mean number of additional children (0.076) wanted by the women is found among the women who have more than four living children.

- The respondents who have no child loss experience has very low mean CEB (2.25) compared to those who have one or more child loss experience.

6.2 Conclusions

- The findings of the study show that lower age at marriage is associated with high fertility. So, age at marriage must be increased to reduce fertility in the study area.

- Level of education of women plays a significant role in fertility. The level of education is very low in the study area. So, the level of education of women should be increased to reduce fertility.

- Fertility level of women tends to decrease with increasing contraceptive practice but the study shows that the respondents who are users of FP method have high fertility compared to non-users. This may be the small sample size or Nepalese women especially, the Chepang women generally use contraceptives after having four or five children with at least one daughter.

- Higher level of occupation plays an important role to reduce fertility. In the study area, more women are engaged in household works and more husbands are in agriculture which is one of the major causes to increase fertility.

- Age is directly related to time factor. It has a strong power for defining as well as determining fertility levels. Consequently, the level of fertility implicitly depends on the age of mothers. Higher mean CEB is expected with the mother getting older. The findings show that the age and the mean CEB are positively associated. The desired

family size refers to the number of living children, current pregnancy and the number of additional child wanted by women in their reproductive age. Desired family size is also an alternative measure of fertility level of a society. The findings show that they desire more than two children with son preference and at least one daughter in the family.

- Higher fertility rate is found in those communities which are suffering from the high infant and child mortality rate that indicate a recognized relationship between mortality and fertility. The findings clearly show that number of child loss experience is positively associated with the mean number of CEB.

6.3 Recommendations

Based on the findings of this study some recommendations can be put forward to formulate and adopt policy implication. The study was designed to meet its objectives but it has explored some areas of research and these are stated as recommendations for future research issues for the government and non-government agencies.

6.3.1 Recommendations for Policy Implications

- Literate women can get high information about the family planning. So, female education is essential for overall educational development and population control. It is to be noted that education of girls should be made broader by providing fund support because the future mother lead to lower fertility behaviour with high information about family planning programmes and value of small family size for social upliftment. There must be some formal and non-formal education programmes for the women in child bearing ages.

- Maternal and child health care measures such as values relating susceptibility to diseases, awareness of immunization, dietary system for both mother and child especially for the Chepangs.

- Free and mobile medical facilities should be effective to control infant and child mortality in rural area, especially for the Chepang community.

- Lower number of contraceptive user and higher number of women intend to use contraceptive in future. It indicates that lower availability of contraceptive at the study area. Free distribution of contraceptive delivery is necessary in the Chepang community. Motivation, IEC services and supply of FP methods should be expanded in order to increase contraceptive prevalence.

6.3.2 Recommendations for Future Research Issues

This study has analyzed mean CEB by different socio-economic and demographic variables that have both direct and indirect effect on desired family size and children ever born. Demographic variables and socio-economic variables interact directly or indirectly to each other. Therefore, in the context of the complex relationship, there is a need of an in-depth study considering the economic status of households and culture and religious background of the people to explain further the fertility behaviour of the Chepangs.

Similarly, such types of studies can be carried out in other areas of Nepal with a larger data. Some sophisticated statistical tools as path analysis and multiple classification analysis could be used which may produce different results and probably they can explain the fertility phenomena of rural Nepal in a different way.

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APPENDIX

Questionnaire for the Field Survey on Marriage and Fertility in Rural Nepal: A Study of the Chepangs in Pida VDC, Dhading

A. Household Questionnaire (For Head of Household)

Respondent's name: -

District: _____ VDC: _____ Ward: _____

Tole: _____ Age: _____ Occupation: _____

Education: Literate ☐ Illiterate ☐   Family structure: Nuclear ☐ Joint ☐

1. Household Record

S.N.	Name	Relation to Head	Sex	Age	Marital Status	Occupation	Education	Service Salary	Disability
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

2. Death Record

S.N.	Age of Death	Education	Cause of Death
1.			
2.			
3.			
4.			

3. Do you have cultivated land?   Yes ☐   No ☐

a. If yes how much do you have?   Bigha ☐   Ropani ☐
b. If no what is the income source to survive?   ....

4. How long can your family survive with this?   Year ☐   Month ☐

5. If you get sick, where do you go for treatment?
Dhami ☐   Health post ☐   Hospital ☐

6. What are the modern means that you use for news?
Newspaper ☐   Television ☐   Radio ☐   Others ☐

B. Individual Questionnaire (For Current Married Women of Child Bearing Period)

Name of Respondent: _____ Age: _____

Age at marriage: _____

Education: Literate ☐ Illiterate ☐

Occupation: _____ Husband's age: _____

Husband's education: Literate ☐ Illiterate ☐ Level _____

Husband's occupation: Agriculture ☐ Non agriculture ☐

1. Have you given birth to any children? Yes ☐ No ☐

2. What was the age of your during the birth of children?

S.N.	Mother's age	Father's age
1st		
2nd		
3rd		
4th		
5th		

3. How many children are born alive to you? Son ☐ Daughter ☐

4. Was there any death among your live births? Yes ☐ No ☐
If yes how many? Son ☐ Daughter ☐

5. Was there was any child born last year? Son ☐ Daughter ☐ Twins ☐

6. Do you want any more children? Yes ☐ No ☐

7. Are you Pregnant now? Yes ☐ No ☐

8. Have you ever discussed with your husband about limiting your family size?

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Yes ☐   No ☐

9. Have you ever heard of family planning?   Yes ☐ No ☐

If yes mention its sources

Newspaper ☐   Radio ☐ Television ☐   Neighbours ☐   Others ☐

10. Have you ever used contraceptives?   Yes ☐ No ☐

If yes what type?

Pills ☐   Norplant ☐   IUD ☐   Condom ☐   Male sterilization ☐

Female sterilization ☐   Depo-Provera ☐   Others ☐

11. Have you gone to checkup during the pregnancy?   Yes ☐ No ☐

If yes where?   Health post ☐   Hospital ☐

12. Where did you give birth to your children?

House ☐   Hospital ☐   Health post ☐   others ☐

13. Did you take any 'Iron Tablets' at the time of pregnancy?   Yes ☐   No ☐

14. What is the appropriate age of marriage as your opinion? Male ☐   Female ☐

15. In your opinion what should be the ideal family size?   Son ☐ Daughter ☐

16. Did you ever receive any vaccination during the period of pregnancy?
Yes ☐ No ☐

If yes mention the names ……………

17. Did you ever receive any vaccination after childbirth? Yes ☐   No ☐

Vaccine	Ever Receive	
a. BCG	Yes ☐	No ☐
b. DPT1	Yes ☐	No ☐
c. DPT2	Yes ☐	No ☐
d. DPT3	Yes ☐	No ☐
e. Polio1	Yes ☐	No ☐

f. Polio2   Yes ☐   No ☐

g. Polio3   Yes ☐   No ☐

h. Vitamin A   Yes ☐   No ☐

i. Iodine   Yes ☐   No ☐