

# CHAPTER I

## INTRODUCTION

### 1.1 General background

Fertility refers to the actual reproductive performance of an individual, a couple, a group or a population, which is determined by social, cultural, psychological as well as economic factors. The birth of a child is basically a biological phenomenon; childbearing in any society occurs in a social setup and is, therefore, affected by the social structure as well as societal customs, values of childbearing. For example, an understanding of social norms and customs concerning the sexual behaviour of men and women is relevant in the study of fertility, for conception results from the sexual act. As value system usually demand that reproduction should take place within wedlock, the social norms and custom regarding marriage in any society also affect societal reproduction. The biological limits imposed on childbearing by such factors as age and sex can be easily recognized. Only women can conceive and give birth to children, and that, too, within certain age limits i.e. 15-49 years of age (Bhende and Kanitkar, 2003).

Human fertility as one of the major components of population growth which becomes an interesting topic in population studies only after Malthus. However, even until the Second World War, the approach to the study of human fertility was mainly mathematically oriented. The social, psychological, cultural, economic and political factors as determinants of the levels and differential of fertility were not accorded a proper importance.

It is only after the Second World War when North America experienced a "baby bomb", human fertility has been occupying a central position in population studies for several reasons. Human fertility is responsible for biological replacement and for the maintenance of the human society. The growth of the population of the world depends entirely on human fertility (Bhende and Kanitkar, 2003).

Differences in the fertility of specific population groups arise mainly from three sources, viz. differences in the number of child which couples in various population groups want, differences in their knowledge, attitude and practice of fertility control which enable them to obtain these desires and difference due to the demographic characteristic of each population group. The cultural differences in fertility is concerned with the examination of factors called intermediate variables by Davis and Blake (1995), through which cultural conditions can affect fertility (Karki, 2003).

Nepal is predominantly agricultural country situated in south Asian region with 26.22 to 30.24 latitude and 80.4 to 88.12-east longitude as a landlocked Himalayan country. It is also an agricultural society where people are encouraged to have more children to meet the demand of labour force for agricultural activities when ultimately results high fertility (Pant and Acharya, 1988).

According to the latest census 2001, the population of Nepal was 2,31,51,423 as of June 2001. The average annual growth rate of population during the last decade (1991-2001) was 2.3 percent. The census also revealed that the sex ratio as male per 100 females was 99.8. In other words 50.0 percent was male, while the females comprised of 50.1 percent of the total population (MoPE, 2004).

The study area (Thumakodanda VDC, Kaski) is the residence of many caste/ethnic groups however; the dominant population is of Brahmins at Tarkang and Gurungs at yangjakot. According to VDC record, 2065 there are 4665 people constituting 2258 females and 2407 males. It shows that the population of male is more than that of female. It is truly a beautiful garden of different caste, religious groups and a sample village in Nepal. Nature has provided many things like biodiversity, diversity land topography, nature and natural resources. In an average 3,000 mm rainfall per annum is recorded for the village. Thus it is in rainy area. Most of the part of the VDC is in sub-tropical climate.

## **1.2 Statement of the problem**

Inter-relationship between socio-economic variables affecting fertility behaviour: in the discussion on differential fertility only one variable at a time has been taken into

consideration with a view to explaining the differences in fertility among sub-groups in any population. It must, however, be recognized that all these variables are closely interrelated (Bhende and Kanitkar; 2003).

One of the important aspects of population study is the socio-economic and demographic factor that influences fertility behaviour. Culturally and religiously, Nepalese society is pronatalist (Dahal, 1988/89). Marriage is almost universal in Nepalese society and there is common observation that people marry at an early age, which leads to higher fertility. Similarly, the experience of infant and child mortality rate is higher which encourages Nepalese women to replace the own child loss.

Population of Nepal has been increasing rapidly due to high level of fertility and declining mortality. Mortality rate has declined in Nepal due to improved health facilities and technological diffusion. Fertility rate has remained high due to low level of education, occupation, income, low rate of contraception universal marriage, early age at marriage and child loss experience etc. Unless the social economic factors responsible for demand for children are targeted, it is hard to reduce the prevailing fertility rate. Substantive decline in fertility level of Nepalese Society has not been observed despite the government's efforts to reduce it through the implementation of family planning programme since the national third five year plan in 1965 (NPC, 2006).

It has been estimated that population of Nepal will reach around 36.1 million by the year 2025 (PRB, 2005). Such increase in population may bring challenge for sustainable economic development of a nation. For a small land locked country like Nepal with low economic development, challenges of high population growth seem to be even more serious. Moreover 17 percent of land in Terai is cultivable and land is converted rapidly into residential area mainly because of high population pressure created by high fertility and migration from hilly region.

The TFR of Nepal was 5.6 in 1991 and 4.1 in 2001 and 3.1 in 2006 (NDHS). This decline in TFR could be attributed to the rising level of education, social status, empowerment of female and contraceptives prevalence. However, TFR was 4.5 in

2003 and 3.1 in 2007 (PRB, 2007) which is comparatively higher than other Asian countries.

On the other hand, a number of fertility encouraging factors are operating in different social sector of the country. Among these, the most noted are low socio-economic status, low status of women and various social and religious norms. High economic value of the children also played a big roll for not using the family planning devices. Many other factors which might be playing even stronger role in encouraging the fertility of the people in a backward community like Rajbansi are to be investigated. They are busy in making their living by farming, wage labour and working in low paid job. Illiteracy, low age at marriage and poverty are common characteristics of such community. So, it is necessary to find out key socio-economic and demographic characteristics as well as factors affecting differential in fertility which is measured by children ever born in this study.

There are many studies about socio-economic and demographic differentials of fertility for different communities. But no study has been conducted to examine the socio-economic and demographic differentials of fertility of all cast of the Thumakodanda VDC, Kaski. So this study occupies a special importance. In fact, this study basically focused on following research questions.

1. What are the socio-economic and demographic characteristics of Thumakodanda VDC, Kaski in the study area?
2. How are fertility differentials due to various socio-economic and demographic characteristics in the study area?
3. What are the level of knowledge and use of FP method among the selected respondents in the study area?

### **1.3 Objectives of the study**

The general objective of this study is to assess the socio-economic and demographic characteristics the women of Thumakodanda VDC, Kaski district. The specific objectives of the study are as follows:

1. To examine the socio-economic characteristics of the study population.

2. To determine the socio-economic characteristics of respondents in the study area.
3. To examine the differential of CEB by some socio-economic and demographic variables.

#### **1.4 Significance of the study**

The main purpose of the study is to find out the various socio-economic and demographic aspects of fertility prevailing in Thumakodanda VDC, Kaski. It is obvious that better understanding of fertility regulating behaviors is necessary in order to have control upon the fertility which will lead to improve the status of socio-economic conditions.

There are very few studies have been carried out about different socio- economic and demographic variables affecting the fertility, especially in economically backward ethnic/caste groups and locality. Prosperity of a country depends upon the development of each social setting and every unit within country. This fact becomes even more important in country like Nepal, which is inhabited with a great variation in level of education, economic status, ethnicity and so on. So studies on various socio- economic and demographic factors in such type of localities and social settings no doubt, will be very helpful to find those factors which play vital role in enhancing fertility in different localities and certainly, major findings of this study will be very useful in suggesting the guidelines to NGOs, INGOs and even to the government in setting population polices and programmes.

This study may be useful for social workers and related organizations that are engaged in different sectors to improve quality of life of people of different castes/ethnics groups of this VDC. Moreover, such study itself may be useful to researcher and help to local people to develop the awareness about their socio-economic and demographic condition.

### **1.5 Limitations of the study**

The level of fertility is determined by the various socio economic and demographic factors of this region. This study is fully concentrated to the Thumakodanda VDC, Kaski District.

The following are the some limitations of this study:

- This analytical study is centered only to the Thumakodanda VDC, Kaski District. So it cannot represent the real situation of real situation of socio economic impact of fertility of whole nation.
- The presence of male has been ignored and it is fully concerned with currently married women aged 15-49.
- Psychological, biological, geographical and political factors which directly or indirectly affect on fertility are not included in this study.

### **1.6 Organization of study**

This dissertation is divided into six chapters. The first chapter deals with the introduction of the study including background, statement of the problems, significance, limitation and organization of the study. The second chapter is the review of relevant literature. It contains the historical background, Global scenario, trends and pattern of Nepal and conceptual framework adapted to the study. Third chapter is concerned with methodology of the study, which includes the introduction of the study area, research design, nature of data, sampling procedures, data collection techniques and method of data analysis. Chapter four provides the household information of the study population, which includes the age-sex, occupation, religion, literacy status, educational attainment, and marital status of the household population. Chapter fifth describes and introduces socio-economic and demographic characteristics of respondents. Similarly, summary, conclusion and recommendations are included in six chapters.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

Fertility refers to the number of live births women have. It differs from fecundity, which refers to the physiological capability of women to reproduce. Fertility is directly determined by a number of factors that, in turn, are affected by a great many social, cultural, economic, health, and other environmental factors (UN, 2005).

Of the three components of population dynamics, fertility is attributed to one of the most important elements in changing total population. In this study, an attempt has been made to review various literatures based on theoretical as well as empirical studies on fertility behaviour. This helps to identify the immediate and ultimate factors explaining the changes in levels of fertility and there by to formulate conceptual framework in order to ascertain the determinants of fertility in the population under study.

#### **2.1 Theoretical literature review**

Fertility in a country may greatly influence the pattern of social and economic development the rapid. Increase in population as a result of high fertility and declining mortality can do much to aggravate the development process. The control of fertility is thus recognized as one of the main factors in accelerating socio-economic development. Age at marriage place of residence, education and ecological zones are associated with this persistently high fertility in Nepal (NPC, 1988).

Demographers and social scientists are, even today, busy in search of a systematic theory which would provide explanations of changes in fertility levels and differentials in fertility which would also serve as a basis for predicting future 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, 2002).

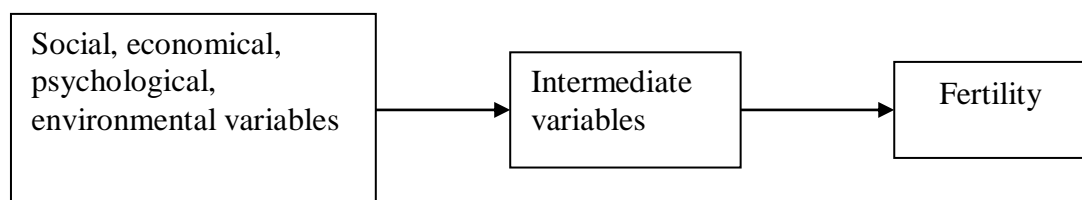
According to demographic transition theory, fertility and mortality transition, from high to low, in the countries of Europe, North America and Australia occurred when the use of contraception became wide spread under the influence of such factors as growing individualism and rising level of aspiration developed in urban industrial living that emerged with process of socio-economic development of the country (UN, 1973).

Davis and Blake (1956) proposed eleven variables which they defined as "Intermediate Variables". Six among them are affecting sexual intercourse, three affecting conception and remaining two affecting gestation and parturition. They concluded that any social or cultural factor which affects fertility must do so through and only through one or more of these intermediate variables (Davis and Blake, 1956).

John Bongaarts and Robert potter (1985) designated the intermediate variables proposed by Davis and Blake as proximate determinant of fertility consisting seven variables, marriage and marital disruption use and effectiveness of contraception, induced abortion, postpartum amenohorea, spontaneous intrauterine mortality, frequency of inter course of fecundability, menopause or permanent celibacy. They also raised the age at marriage and marital disruption post partum, infecundability, contraception and induced abortion affects fertility directly.

The following simple diagram summarizes the relationship among the determinants of fertility

Figure: 2.1 proximate determinants framework for the study of fertility



(Source: Bongaarts and Potter, 1985)

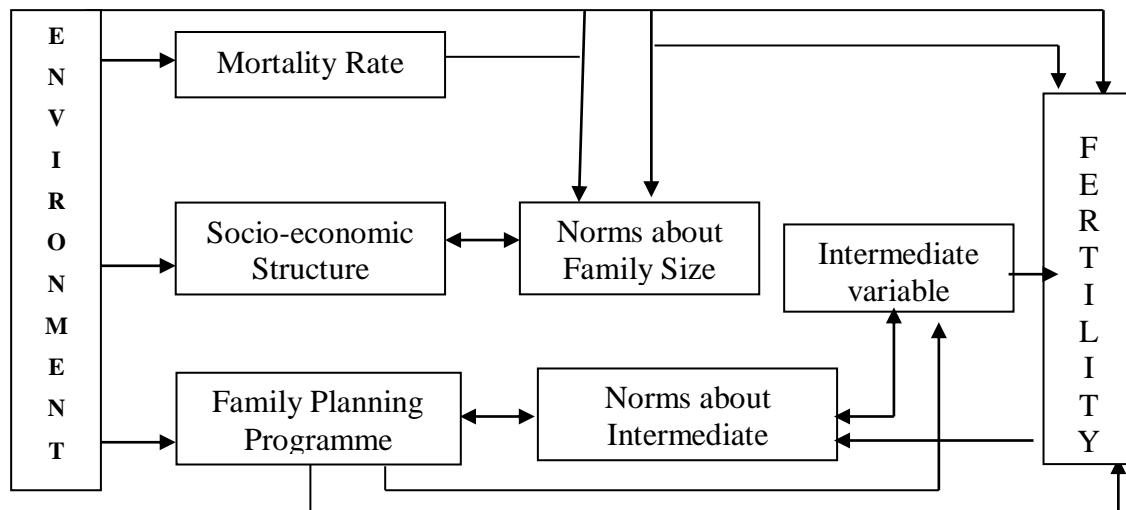
Easterlin (1976) developed a generalized model regarding determinants of fertility and concluded that fertility decisions are made by women in the society, which are affected by three variables viz. (i) Income to the extent that



children increase household income (ii) Price of child-bearing and rearing, and (iii) Cost of regulation (Easterlin, 1976).

The theory of diffusion or cultural lag explains how the concept of birth control spread all over the world. According to this theory, in countries where fertility has been declining attitudes and practices conducive to diminishing fertility have been adopted first by the better education, wealth and high social status groups of the city population and transferred in duration of time to intermediate and lower status groups and to the rural areas. Once again, cultural lag theory has been referred to very recently by John Knodel who, after examining the age patterns of fertility in Asia, arrives at the conclusion that the modern fertility transition appears to have resulted from innovation as well as adjustment.

Figure 2.2: Sociological Framework for Study of Fertility



Source: Freedman, 1975

Becker micro consumption theory of fertility explained that fertility behaviour is the result of household choices of fertility was made in the same manner as in the case of the purchase of the durable goods. A couple's decision to have an additional child depends on the balance of its preferences, the constraints of its income and cost of the child. It is advocated that if knowledge of birth controls were wide spread, fertility would be directly related to income of the parents (Becker, 1960).

We have no single theory of fertility determination: Socio-cultural, economic and demographic characteristics of the people affect the fertility of country. So, we have to understand the importance of causal links between the socio-economic and demographic variables and their relationships with fertility (Aryal, 1997).

In underdeveloped societies, the major variables namely age at entry into the sexual union, age at marriage, permanent celibacy, contraception and sterilization have the highest value, which affect directly to keep the level of fertility (Tuladhar, 1989).

Fertility in a country many greatly influence the pattern of social and economic development. The rapid increase in population as a result of high fertility, and declining mortality can do much to aggravate the development process. The control of fertility is thus recognized as one of the main factors in the acceleration of socio-economic development. Age at marriage, place of residence, education, ecological belts, social values and norms etc. are associated with this persistently high fertility in Nepal (NPC, 1998).

In Nepalese society, high economic and social values of children, low nutritional food intake, inaccessibility to quality family planning and its unmet demands are the determining factors of high fertility. Fertility is affected by some proximate determinants such as age at marriage, post partum amenorrhoea, contraceptive use and induced abortion. Moreover these proximate determinants are also affected by social, economic, psychological and environmental variables. Demeny (1972) has summarized it very succinctly "In traditional societies both the fertility and mortality are high and in modern society both the fertility and mortality are low. In between there is a demographic transition" (MoPE, 2004).

## **2.2 Empirical literature review**

Many empirical investigations have been conducted to examine the relationship between fertility and socio-economic variables in Nepal. A brief summary of the findings of some of the selected studies are presented below.

### **2.2.1 Age at marriage and fertility**

Marriage is a union of two opposite sex (man and women) which provides to keep sexual relationship legally and socially. In Nepalese society it is not allowed to give

birth of children before marriage. So the marriage is most essential event because family formulation starts after the marriage. Thus marriage plays vital role for determining the fertility level. Higher age at marriage is directly related to the low fertility of an individual as well as social level.

It is observed 13.4 years of age at marriage for the women with 5 children even born compared to 17.1 yrs of age at marriage for the women with 2 children even born. The correlation between age at marriage and CEB was found to be -0.4174 in a study in Hill village of western Nepal (Acharaya, 1992).

Age at entry into sexual union is one of the important determinants of fertility and female age at marriage in Nepal is very low. The 1981 census concluded that by the time women reach the age 20, half of Nepalese women are married and 86 Percent of them are married by age 25 years (Pant and Acharya, 1988). Increasing age at marriage will have decreasing effect on the number of younger women who are exposed to pregnancy (CBS, 1987). The number of children ever born (CEB) tends to decrease with increasing in age at marriage (Pant and Acharya, 1988).

The report from Nepal Demographic Health Surveys (1996-2006) found that fertility seemed to be declining over the past five years from TFR 4.1 in 2001 to 3.1 in 2006. This decrease in fertility rate is due to increase in age at marriage and rising contraceptive use over the past 25 years (MoH, 1996).

Education is one of the factors which affect on age at marriage. Therefore the literate men and women have a higher singulated mean age at marriage than their counter parts. This relationship is more propounded among female than male. For men the singulated mean age at marriage is 21.2 for the literate and 23.6 for the illiterate the corresponding values for women are 17.6 and 20.8 respectively (CBS, 2003).

Age at the on set of child bearing is an important demographic indicator, since early child bearing adversely affects the health of mother and child. The proportion of women who become mothers before age 20 is a measure of the magnitude of adolescent fertility which is a major health and social concern in many countries. Furthermore, in many countries, postponement of first birth reflecting an increase in

age at marriage has made a large contribution to overall fertility decline (NDHS, 2001).

### **2.2.2 Education and fertility**

The total fertility rate (TFR) has been decreasing with the increment of literacy rate in Nepal. The total literacy rate increased from 23.3 % in 1981 to 39.6 % in 1991 and it was reached 54.1 % in 2001 (CBS, 2003). But total fertility rate (TFR) decreased from 6.3 in 1981, 5.6 in 1991 and 4.1 in 2001 (Karki, 2003).

Education is one of the most determinant factors on fertility. The negative relationship between women's education and fertility has also been established from the NFHS, 1991 survey. A difference of two children indicates that there exists a significant difference on fertility of women with some education and no education (NFHS, 1991).

While determining reproductive behavior, female education becomes an important factor. The national fertility and family planning survey (MoH 1991) and national fertility survey (MOH 1996) studies indicated that the educational status of women is much more instrumental in reducing fertility. According to BDCS, 1997, the literacy rate for female was 36.4 % and for male it was 66.5 % (K.C. et. al. 1997 cited in Das, 2000).

The empirical study based on Nepal fertility survey data, 1976 has shown that the mean number of children ever born among literate women was 2.3 compared to 3.3 among illiterate women. Women with literate husband also have fewer mean number of children ever born (3.0) than those with illiterate husband (3.5). With regard to level of education women with no education have mean CEB of 3.3 compared to 2.2 among those with some education and women whose husband have no education have mean CEB of 3.6 as opposed to 2.3 among those whose husband have some education (Nepal FP/MCH Project 1997 cited in Risal and Panta 1998).

### **2.2.3 Infant and child mortality experience and fertility**

It is found that there is a strong relationship between fertility level and probability of surviving of children. Typically, infant and young children have a high risk of dying if they are born to very early age, if they are born in short interval, if their mother have already had many children. Therefore, it has been argued that high infant and child mortality is a cause of high fertility in societies because there is always need of new child to compensate or replace (MoH, 1996).

Specially, Infant mortality is higher in developing rather than developed countries. For instant: - IMR for Namibia (55 per 1000 live births), Iraq (94 per 1000), Afghanistan (1666) and Nepal (51). Similarly for developed countries: Iceland (2.4), Norway (3.2) and Singapore (2.6) (World Population Datasheet, 2007). Similarly, the level of fertility is higher in developing countries (such as Namibia (3.6), Iraq (4.9), Afghanistan (6.8) and Nepal (3.1)) than developed countries (Sweden 1.9, UK1.8, and Singapore 1.3).

The interdependent relationship between fertility and infant mortality suggests that the reduction of infant and child mortality will trigger a subsequent decline in fertility (Regmi, 1994). It has found that lower IMR motives couples to produce less number of children (CBS, 2003).

With reference to Nepal, Infant mortality is 48 deaths per 1000 live births and under five mortality rate is 61. This means that about one in every 16 children born in Nepal dies before reaching age five (NDHS, 2006).

### **2.2.4 Occupation and fertility**

The country Nepal consists predominantly of farmers who are supposed to be economically active, population. Almost 95 percent are actively involved in agriculture and agriculture related works (CBS, 1995-78). The proportion of females engaged in agriculture occupation is higher than that of males. In the remaining category of occupation, however, the proportion of males is higher than that of female (Tuladhar, 1989).

Women's education and employment are confined within the domestic sphere of Nepalese society. The relationship between the working women and fertility is little known. The working women residing in rural Nepalese often poorer and less educated than non-working women. Working in rural Nepal is done either on their farmer or work as labours (Dahal, 1992).

Birth rate in Italy came down to 50 % when its economic structure transformed to industrialize from an agricultural one. UN in 1985 analyzed world fertility survey results from 38 developing countries on the relationship between women's employment and fertility. They found women in traditional occupation having the larger number of children ever born; women who have not worked at all since marriage tend to have a higher average number of CEB. Women who were engaged in modern occupation. The average number of CEB among women engaged in modern occupation is found to be 2.3 and women who have not worked at all since marriage tend to have a higher average number of children ever born 4.1. The difference in the mean number of CEB between women in traditional occupation and those who have not worked since marriage is also great. Women in traditional and mixed occupation have approximately 0.4 more children than women who have not worked since marriage. The average number of CEB among women in Nepal for modern occupation is 2.39, 3.2 for traditional occupation and 3.8 for those who have not worked since marriage (Adhikari, 1996).

According to 2001 census results, women constitute more than 43 percent in the labour force, 73 percent in agriculture and 27 percent in non agriculture sectors. Women's proportion has increased almost in all occupations to some extent. But their greater concentration in agriculture is also visible. A positive trend is visible in their empowerment as reflected in the increasing proportion among female professionals, technicians, administration and management (CBS, 2003).

### **2.2.5 Child loss experience and fertility**

The lower the chances of survival of children, the higher will be the level of fertility. Where the incidence of infant and child mortality is high, parents will incline to produce more children than it is necessary to ensure survival of at least a few in to adulthood. In this connection, it is hypothesized that the higher the infant and child mortality rate of a state, the higher will be the fertility of the state (UN, 1996).

Infant mortality is higher in most developing countries such as Afghanistan (154), Bangladesh (66), Bhutan (61), India (66), Pakistan (91) and Nepal (77) where TFR was 6.0, 3.6, 4.7, 3.1, 4.8 and 4.5 respectively which indicates the high TFR and high IMR (PRB, 2003).

In Nepalese perspective, the poor level of socio-economic development is the most catalyzing factor for high level of infant mortality and fertility (Adhikari, 1996). Women with higher child loss experience had higher CEB. Women with no child loss had 2.5 those with one child loss had 4.3 and those with two or more child loss had CEB 6.5. A steep increase in CEB for cases of two or more daughters or sons dead is evident (Acharya, 2000).

### **2.2.6 Desire family size and fertility**

There is a direct linear relationship between desired number of children and fertility which may be related with age and parity of women. The majority of currently married women do not want more children when they reach the age of 30 years and above. By that age, the majority of them would have four or more surviving children and two or more surviving sons (Tuladhar, 1989).

### **2.2.7 Breast feeding and fertility**

Breast feeding is another important determinant of fertility. Although breast feeding in Nepal is most universal, the majority of women do not know its contraceptive importance. Breast feeding provides added protection against pregnancy. It means it has a negative effect on fertility. Nepal family health survey 1996 found that about 98

percent of married women have ever breast fed their children. Comparatively it is found that rural non-literate and old women are more likely to breast feed and for longer time than their counterparts. On an average Nepali women breast feed their children to more than 2 years (MoPE, 2000).

### **2.2.8 Family planning and fertility**

Family planning refers to the conscious effort of couples to regulate the number and spacing of births through artificial and natural methods of contraception. Family planning connotes conception control to avoid pregnancy and abortion, but it also includes efforts of couples to induce pregnancy.

Various studies in the past have shown that use of contraception has a strong negative association with fertility. It is accepted that contraceptives was principal variable responsible for the shift of high fertility to low fertility during the late 18<sup>th</sup> century in many countries (UN, 1973). Similarly, contraceptive use was considered as one of the four most important proximate determinant of aggregate level of fertility (Bongaarts and Potter, 1983).

With reference to Nepal, knowledge of family planning is very high. More than 90 percent of all women and men know of both female and male sterilization, the pill, injectables and male condoms. Knowledge of traditional methods is lower- only 48 percent of all women and 76 percent of all men know of any traditional method.

Almost half of currently married women are using a method of contraception. The majority of these women (44%) are using a modern method. The most popular modern methods are female sterilization (18%) and injectables (10%) (NDHS, 2006).

The electronic media, such as radio and television are important means of communicating, message about family planning. Information on the level of exposure such Medias are important for programme managers and planner to target population for information, education and communication (IEC) campaigns effectively (Pathak, 2005).



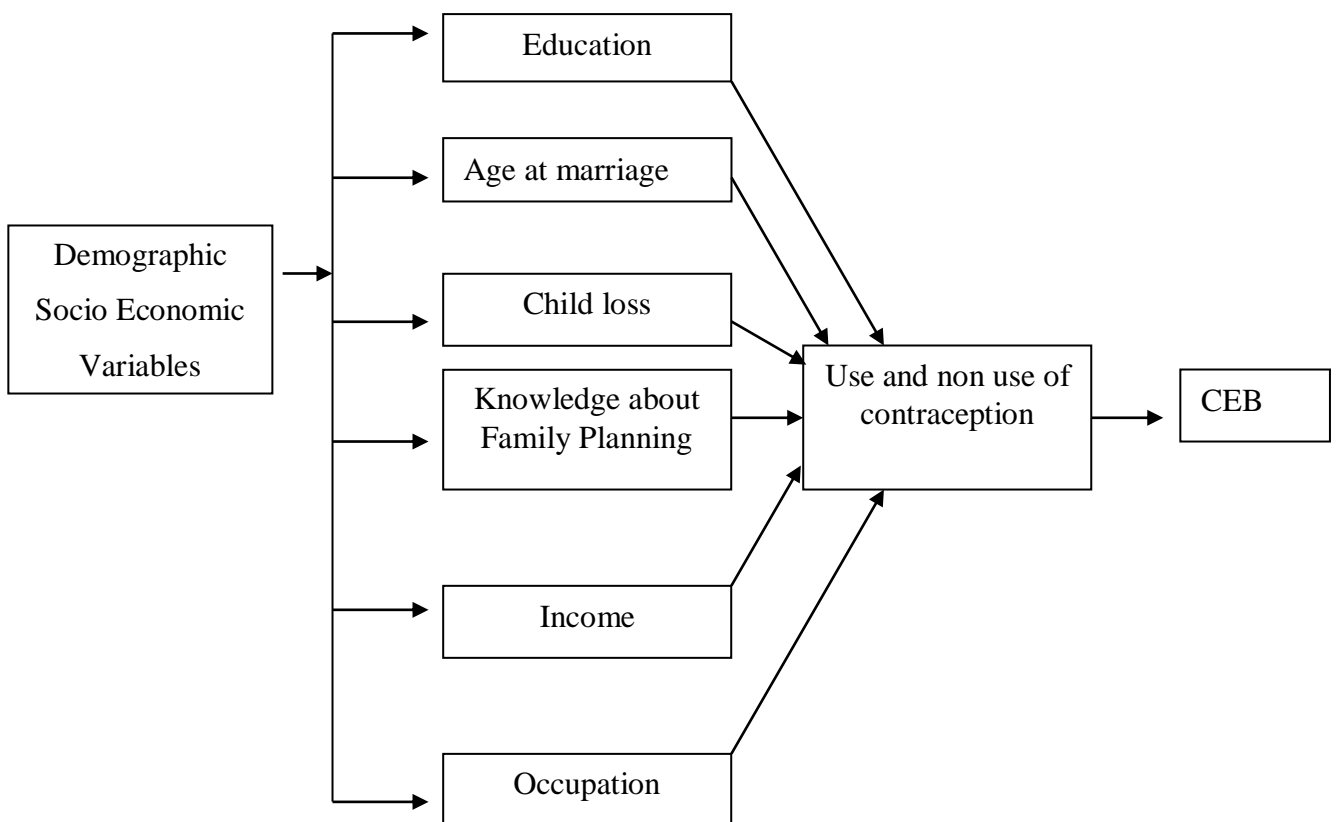
Similarly, literacy is one of the determining factors for increasing use of contraception. Widespread illiteracy prohibits women from the access to information, education and communication materials. The ICPD equal participation of both men and women in decision-making related to no of children. Even though, the literacy of women is more catalytic to prolong the spacing and reducing fertility, the literacy of husband is equally important (Acharya, 1999).

With reference to Nepal, absence of interpersonal communication on family planning can be an impediment to its use. Men's attitudes can Impact women's use of family planning. More than half of currently married women have never discussed family planning with their husbands. There has been little change in the extent of interpersonal communication over last five years (NDHS, Key Finding: 2006).

### 2.3 Conceptual Framework

The study of socio-economic determinant of fertility is very complex phenomenon which is justified by the preceding discussion. This conceptual framework deals with different socio-economic and demographic variables relating with fertility of Thumakodanda VDC of Kaski district.

**Figure: 3 Conceptual Frameworks for Analysis**



This framework for the study advocate the education, occupation, income age at marriage, ideal number of children and children loss experience affects the fertility status of the women in Thumakodanda VDC, Kaski district of Nepal.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Selection of the study area**

In this study, Thumakodanda VDC of Kaski district is selected as study area. Almost at the centre of Nepal, in the middle of hill region and in western development region, Kaski is situated at the lap of Machhapuchre Himal and on the yard of Fewa and Beganas lakes, In about 13 km far from the heart of Pokhara Sub-metropolitan City, there is a village named, Thumakodanda. It is expanded from 800 metres above the sea level (Madi River) to up 3085 meters Karapu (Danda) hill.

Like-wise, eastern border of the VDC is Saimarang VDC. In the west, north and south are Sildujure, Namarjung, and Kalika and Majthana VDC, respectively. The historical name of the VDC was not one and it was in Lamjung district. So it is known as new Kaski. The two villages, Tarkang village Panchayat and Yangjako Village Panchayat were joined together as Thumakodanda in 2032 B.S. The current name of the village is connected to the Thumakodanda hill, about 1418 metres above from the sea level, the place to worship god of land of Brahmins who are living in Tarkang, southern part of the VDC.

According to 2065 village profile, the total population of Thumakodanda VDC is just 4665 which contain 2407 males and 2258 females. In this VDC, there are different ethnic/ caste groups, each with its own distinct language and culture. In this VDC 79.2 percent people speak nepali language and it followed by 20.2 and 1.0 with Gurung and Taman respectively.

Specifically, this study was limited in ward numbers 8 and 9. There were 125 and 120 households in each ward respectively. Among the total households, in some households there were no eligible women for the reproductive ages and some household's more than one eligible woman. Among those households, 55 HHs from 8 and 55 HHs from ward number 9 were selected purposively with including those households in which one eligible woman were found. In the case of more than one eligible woman in the

households, only one woman was selected for the respondents. Finally the data were collected from 110 women of reproductive aged 15-49 years from these sample households.

### **3.2 Study design**

The design of the study is basically non- experimental as it is suitable for collecting descriptive information as well as for doing small case studies related to examine the fertility differentials, the number of children ever born (CEB) is associated with their socio- economic and demographic variables: such as current age of women, age at marriage, age at first birth, child loss experience, level of education, social values and norms towards kids, occupation as well as level of income and expenditure and knowledge, attitude and practice of family planning methods.

### **3.3 Source of data**

Primary as well as secondary data have been used in this study. Primary data was collected from field survey and secondary taken from previous studies, published and unpublished documents like CBS, 2003, NDHS, 2001 and others journals.

### **3.4 Questionnaire design**

The questionnaire designed for this study was based on socio-economic and demographic factors affecting fertility. Two types of questionnaire were designed on the basis of the objective of the study.

Household questionnaire, and

Individual questionnaire

The household questionnaire was asked with head of the household to collect information on number of people living occupation, sex and education.

The individual questionnaire deals with the eligible women's socio-economic and demographic characteristics such as education, occupation, income, age at marriage, age at first birth, number of children dead, knowledge, attitude and practice of family planning, desired family size as well as no of children ever born (CEB).

### **3.5 Data collection**

The study is based on primary data and these data have been collected from the field survey of Thumakodanda VDC by interview method. In this, survey two types of closed questionnaires i.e. household and individual questionnaires have been used. For the high relevance of the information, household and individual questionnaires have been asked to the household head and ever married women of reproductive age (15-49) years respectively. During the process of data collection, researcher himself was engaged.

### **3.6 Data analysis method**

After the collection of data from the field, the data was processed with the help of computer by using SPSS software package. This package was used for data entry, verification, editing and tabulation of the study results.

The data were presented in the form of suitable frequency tables, charts or bar diagrams. Simple statistical tools like percentage, ratio and average have been used during the analysis.

## CHAPTER IV

### SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

This chapter deals with general background as well as demographic and socio-economic characteristics of the population of the study area.

#### 4.1 Age-sex structure

Age and Sex are basic characteristics or the biological attributes of any population which affects fertility, mortality and migration behaviour. Age and sex structure not only reflect the present demographic situations of population but also give the basis for the study of past as well as future demographic situations of the population. Age, sex and migration play very important roles in the study of population dynamics. In this study, 110 households were taken for this study.

Table: 4.1 Percentage distribution of household population by age and sex

Age group	Male		Female		Total		2001*
	No.	%	No.	%	No.	%	%
0-4	24	7.3	20	5.7	44	6.5	12.1
5-9	22	6.7	17	4.9	39	5.8	14.1
10-14	45	13.6	32	9.2	77	11.4	13.1
15-19	38	11.5	44	12.6	82	12.1	8.9
20-24	36	10.9	47	13.5	83	12.2	7.6
25-29	25	7.6	35	10.1	60	8.8	6.6
30-34	32	9.7	40	11.5	72	10.6	5.8
35-39	24	7.3	38	10.9	62	9.1	4.8
40-44	22	6.7	23	6.6	45	6.6	4.1
45-49	16	4.8	14	4.0	30	4.4	3.4
50-54	17	5.2	13	3.7	30	4.4	2.7
55-59	7	2.1	10	2.9	17	2.5	2.3
60+	22	6.7	15	4.3	37	5.5	4.2
Total	330	100.0	348	100.0	678	100.0	100.0

Source: Field Survey, 2009 and \*CBS, 2001

The percentage of population was found higher (12.2%) in the age groups 20-24 followed by 15-19 and 10-14 years. The lowest percentage of population (2.5%) was observed in the age group 55-59 years. The declining percentage of population from the age group 30-34 on wards may be because of the high old age mortality.

The percentage of male population was higher in the age group 10-14 and lower in the age group 55-59 years with 13.6 and 2.1 percent respectively. Similarly the percentage of female population is higher in age group 20-24 and lower in age group 55-59 years with 13.5 and 2.9 percent respectively. With compare to national population 2001 the age distribution of the study population by age and sex was not reliable. It was due to the small sample size of the study population.

#### **4.2 Sex ratio**

The sex composition of a population is expressed by sex ratio. It is calculated by dividing the total number of males to that of females multiplied by 100. It shows the number of males per 100 females. According to this definition, the sex ratio above 100 indicates an excess of males and the ratio below 100 indicates an excess up females in a population at any point of time. Simply by looking at the sex ratio, one can have the clear picture of the composition of population.

Table 4.2 shows that the sex ratio was higher for age groups 10-14 with around 141 and the lowest was found in age group 55-59 years with 70 per 100 females respectively. The overall sex ratio of the study population was found 94.8 while the sex ratio of the nation was 99.8 according to 2001 census. The difference in sex ratio by age may be because of the selection and distribution of population in a particular VDC during the field survey.

Table 4.2: Sex ratio of the household population by age

Age group	Field survey	2001*
0-4	120.0	105.8
5-9	129.4	103.5
10-14	140.6	102.5
15-19	86.4	96.4
20-24	76.6	91.8
25-29	71.4	90.9
30-34	80.0	94.6
35-39	63.2	98.2
40-44	95.7	100.0
45-49	114.3	102.7
50-54	130.8	105.8
55-59	70.0	106.5
60+	146.7	103.1
Total	94.8	99.8

Source: Field Survey, 2009 and \*CBS, 2001

### 4.3 Dependency ratio

This is another measure of the study on the structure of population. The number of dependents per 100 workers is computed on the basis of three broad age groups below 15 years, between 15-59 years and 60 years and above. The population in the age group 15-59 years is considered as the working population, population below 15 years as the young dependent group and population 60 years above is considered to be old dependents. The ratio of the young dependents to working population (15-59) years multiplied by 100 gives the young dependency ratio and the ratio of the old dependents to the working age population (15-59 years) gives old dependency ratio where as, the sum of these two ratios gives the total dependency ratio.

Table 4.3 shows that young dependency ratio was 33.3 in the study population which was lower than national census 2001 (71.9). Similarly old age dependency ratio was 7.7 in the study population which was also lower with compared to national figure



form census 2001 (11.1). Likewise, total dependency ratio was 41.0 in the study population which was lower compared to the national figure of 2001 census (83.0).

Table: 4.3 Dependency Ratio of the household Population

Dependent group	Field survey	2001*
Young age (0-14)	33.3	71.9
Old age 60 years and above	7.7	11.1
Total	41.0	83.0

Source: Field Survey, 2009 and \*CBS, 2001

#### 4.4 Occupational status

Occupation indicates the socio-economic status of a person. Labour in agricultural sector is the main occupation in the study area. The question about the occupation was asked to the population who were at the age of ten years and above.

Table: 4. 4 Percentage distribution of the household population aged 10 years and above by occupation

Occupation	Number	Percent
Agriculture	126	21.2
Student	194	32.6
Service	78	13.1
Housework	61	10.3
Business	46	7.7
Labour	18	3.0
Teaching	36	6.1
Foreign employment	25	4.2
Carpenter	11	1.8
Total	595	100.0

Source: Field Survey, 2009

Table 4.4 shows that out of total 595 population age ten years and above, around 33 percent population have their main occupation as student and it followed by agriculture and service with 21.2 percent and 13.1 percent respectively. Similarly the lowest-percentage of people in the study area (1.8%) was engaged in carpenter.

#### 4.5 Marital status

The study of nuptiality deals with the frequency of marriage, where union between persons of opposite sexes involves rights and obligations fixed by law and custom, with the characteristics of persons united in marriage and with the dissolutions of such unions. Proportion married is one of the four main proximate determinants of fertility, the other three being contraception, abortion and breast feeding. Since outside the wed lock is quite uncommon in Nepal, marital status has important role for determining the levels of fertility. It directly affects the level fertility.

Table: 4. 5 Distribution of marital status of the study population by age 10 and above years

Marital Status	Male		Female		Total	
	No.	%	No.	%	No.	%
Married	98	35.5	93	29.2	191	32.1
Unmarried	154	55.8	205	64.3	359	60.3
Widow/Widower	17	6.2	17	5.3	34	5.7
Separated	4	1.4	2	0.6	6	1.0
Divorced	3	1.1	2	0.6	5	0.8
Total	276	100.0	319	100.0	595	100.0

Source: Field Survey, 2009

Table 4.5 represents the marital status of the study population. Out of the total population aged above 10 years, 60.3 percent were unmarried whereas 32.1 percent were married. Likewise, around 6 percent were found widow/widower and it followed by 1.0 percent and 0.7 percent for separated and divorced respectively. The majority of the study population was found higher for unmarried for both sex with around 59 percent and 64 percent for male and female respectively.

#### 4.6 Educational status of the study population

Education is one of the most important variables which plays a vital role in all developing society and indirectly affects variables like fertility, mortality, health condition, income, occupation living standard and so many others. Thus, it is necessary to know the situation of education in the study area.

Table: 4.6 Percentage distribution of the study population aged 5 year and above by literacy and educational attainment

Educational Status	Number	Percent
Illiterate	49	7.7
Literate	585	92.3
Total	634	100.0
Educational attainment among literate		
Non-formal	69	11.8
Primary	225	38.5
Lower-Secondary	86	14.7
Secondary	79	13.5
SLC	67	11.5
PCL	31	5.3
Bachelor and above	28	4.7
Total	585	100.0

Source: Field Survey, 2009

Tables 4.6 indicate that the proportion of literate population was higher with comparison to the illiterate population to the study population for both sexes. The above table shows that nearly 92 percent of the study population was literate with comparison to nearly 8 percent illiterate population.

Similarly, the above table shows that the proportion of study population was higher in primary level of education compared to other educational attainment. It shows that around 39 percent of the study population has primary level of education and it followed by secondary level of education by 13.5 percent respectively. Likewise only 1.5 percent of the study population has bachelor and above level of education.

#### **4.7 Land holding status of households**

Land holding status also indicates the socio-economic status of the households. The majority of the households have their own land. It indicates that around 83 percent household have their own land.

Table: 4. 7 Distribution of household by land ownership

Own Land	Number	Percent
Yes	91	82.7
No	19	17.3
Total	110	100.0
If yes, Land in Ropani		
Below 1 Ropani	20	22.0
1 Ropani	12	13.2
2 Ropani	10	11.0
3 Ropani	18	19.8
4 and more Ropani	31	34.1
Total	91	100.0

Source: Field Survey, 2009

Above table shows that the majority of the households (34.1%) have more than 4 and more Ropani land followed by below one Ropani with 22.0 percent respectively.

**CHAPTER V**  
**FERTILITY DIFFERENTIAL BY SELECTED SOCIO-ECONOMIC AND**  
**DEMOGRAPHIC VARIABLES**

This chapter describes the demographic and socio-economic profile of respondents interviewed in this study. This study collected basic information on respondents' age, level of education, marital status, religion, ethnicity, wealth status, knowledge and use of contraception. The number of children ever born (CEB) of ever married women of reproductive age (15-49 yrs) of this VDC under the study has been under taken as dependent variable to relate with fertility and demographic and socio-economic factors can be considered as independent variables.

**5.1 Current age of women and fertility**

Age of women is one of the demographic factors, which influence on fertility. The general age pattern of fertility is that the level of current fertility increases to a certain age and then decreases.

Table: 5.1 Mean CEB by current age of ever married women in the study area and in NDHS, 2006

Age Groups	CHILDREN EVER BORN							Respondents	CEB	Mean CEB	* CEB
	0	1	2	3	4	5	6				
15-19	4	2	-	-	-	-	-	6	3	0.5	0.2
20-24		14	8	-	-	-	-	22	30	1.4	1.2
25-29	1	3	6	5	4	-	-	19	46	2.4	2.4
30-34		2	7	6	7	-	-	22	62	2.8	3.3
35-39	2		5	7	4	3	-	21	62	3.0	4.1
40-44		-		3	4	6	-	13	55	4.2	4.6
45-49		-	-			1	6	7	40	5.7	5.3
Total	7	21	26	21	19	10	6	110	298	2.7	2.4

Source: Field Survey, 2009 and \*NDHS, 2006

Table 5.1 shows that higher the age of respondents, higher the number of children ever born. It also indicates that the mean number of children ever born varies by age group of women. The highest CEB was found in the age group 45-49 years of age.

The number of CEB for age group 45-49 years was found 5.7 children which were followed by age groups 40-44 and 35-39 age groups with 4.2 and 3.0 children respectively. Likewise, the average number of CEB was low in age group 15-19 years with 0.5 children. The average number of CEB in the study area was found to be 2.7 compared to 2.4 for Nepal reported by NDHS, 2006.

## 5.2 Age at marriage and fertility

Marriage marks the point in a women's life when childbearing becomes socially acceptable. Age at first marriage has a major effect on childbearing because women who marry early have, on average, a longer period of exposure to the risk of becoming pregnant and a greater number of lifetime births. Information on age at marriage was obtained by asking respondents the month and year, or age at which they started living with their first husband or wife.

Table: 5.2 Mean CEB by age at marriage of the respondents of the study population

Age at Marriage	Respondents	Number of CEB	Mean CEB
10-14	13	61	4.7
15-19	58	152	2.6
20-24	31	69	2.2
25+	9	16	1.8
Total	110	298	2.7

Source: Field Survey, 2009

Table 5.2 represents the mean number of CEB by age at marriage. It was found that higher the age at marriage, lower the mean number of CEB. The highest mean number of children ever born 4.7 was observed for women who had married between 10-14 age group followed by 15-19 years with 2.6 children. Similarly, the mean number of CEB was 2.2 and 1.8 for those women who have got married in the age groups 20-24 and 25 and above years respectively.

### 5.3 Age at first birth and fertility

The onset of childbearing at an early age has a major effect on the health of mother and child. It also lengthens the reproductive period, thereby increasing the level of fertility.

Table: 5.3 Mean CEB by age at first birth of ever married women of the study area

Age at 1 <sup>st</sup> Birth	Respondents	Number of CEB	Mean CEB
Below 15	9	43	4.8
15-19	33	127	3.8
20-24	39	94	2.4
25-29	23	27	1.2
30-34	6	7	1.2
Total	110	298	2.7

Source: Field Survey, 2009

Table 5.3 indicates age at first birth of the respondents and their children born. Highest mean CEB was observed for women who have given their first birth at age below 15 years with 4.8 children and it followed by 3.8 for age group 15-19 years. Lowest mean CEB was observed for women who have given first birth at age group 30-34 years with 1.2 children respectively.

### 5.4 Education and fertility

Education is one of the most influential factors on individual's attitude, knowledge and behaviour in various aspects of life. Not surprisingly, educational attainment in Nepal is very low among women, who are much more disadvantaged than men. Educational attainment is directly related to the socio-economic status of respondents. Literacy is widely acknowledged as benefiting the individual and society and is associated with number positive outcomes for health, nutrition, and the overall well being of both men and women. Many studies have shown that there is a negative relationship between education and fertility. Higher the educational attainment, lower the fertility and lower the educational attainment higher the fertility. Here, an attempt has been made to study the fertility differentials regarding the educational level of respondents

### 5.4.1 Education of women and fertility

One of the important indicators of fertility behaviour is the level of literacy and educational attainment of women. Education is an important variable affecting demographic behaviour. The level of education of female directly determines fertility behaviour, women with higher level of education is commonly expected to have lower number of CEB.

Table: 5.4 Mean CEB by educational status of ever married women of the study area

Education Status	Respondents	Number of CEB	Mean CEB
Literate	68	154	2.3
Illiterate	42	144	3.4
Total	110	298	2.7
Level of the Education			
Non-formal	10	31	3.1
Primary	14	41	2.9
Lower Secondary	11	26	2.4
Secondary	13	26	2.0
S.L.C	13	21	1.6
Intermediate and above	7	9	1.3
Total	68	154	2.3

Source: Field Survey, 2009

Above table shows that the literacy status and educational attainment of ever-married women of reproductive ages. It also shows that the number of children ever born varied by educational status of women. The average number of CEB of literate women was 2.3 children with compare to 3.4 children of the illiterate women. Likewise, there was inverse relationship between the level of education and the average number of CEB. The average CEB for those women who have got pre-primary education was 3.1 children and it followed by primary and lower secondary level of education with 2.9 and 2.4 children respectively. The mean CEB was observed 1.6 and 1.3 for those women who have completed SLC and intermediate and above level of education respectively.



## 5.5 Decision making and fertility

Women's participation in the decision making process is an important indicator of their empowerment. In order to assess women's decision making autonomy, the 2006 NDHS sought information on women's participation in four types of household decision: own health care, making large household purchases, making household purchases for daily needs, and visits to family of relatives. A woman's desire and ability to control her fertility and her choice of contraceptive methods are in part affected by her status in the household and her own sense of empowerment. The ability of women to make decisions effectively has important implications for their fertility preferences and the practice of family planning. An increase in women's status and empowerment is recognized as important for efforts to reduce fertility through at least two main pathways: its negative association with desired family size and its positive association with women's ability to meet their own family size goals through the effective use of contraception.

Table: 5.5 Mean CEB by division the household decision making group

Decision taken in HH	Respondents	Number of CEB	Mean CEB
Husband	44	139	3.2
Wife	21	55	2.6
Both	40	89	2.2
Others	5	15	3.0
Total	110	298	2.7

Source: Field Survey, 2009

Table 5.5 indicates the average number of CEB by the decision making power of the household. It shows that the average number of CEB was higher for those households where husbands alone take the decision of households. The average number of CEB for the households where husbands take decision was 3.2 children and it followed by other members of the households take decision of the households with 3.0 children respectively. Similarly, the average number of CEB was 2.2 for those households where husbands and wife both were involved in decision making process of the household activities.

## 5.6 Occupation and fertility

Occupation is the major factors that influence the economic status, the living standard and fertility behaviour. So, occupation of husbands and wives play an important role in determining the fertility differential. Generally, those persons with well-paid and non-agricultural occupations have lower level of fertility in comparison to those with low paid and agricultural occupation. Occupation of husband and wife, those who have involved in white colour jobs have a smaller number of children than those who are not involved.

Table: 5.6 Mean CEB of the respondents by occupation

Occupation	Respondents	Number of CEB	Mean CEB
Agriculture	59	179	3.0
Teaching	2	4	2.0
Student	14	27	1.9
Foreign employment	9	19	2.1
Wage labour	17	42	2.5
Others	9	27	3.0
Total	110	298	2.7

Source: Field Survey, 2009

Table 5.6 shows the average number of CEB by major occupation of the respondents. The highest mean CEB was 3.0 children for those respondents who have engaged in agriculture and others occupation and it followed by wage labour, with 2.5 children respectively. Similarly, the average CEB was lower for the respondents who have involved in students (1.9 children), teaching (2.0 children) and foreign employment (2.1 children) respectively.

## 5.7 Mean CEB by level of income

Level of income is an important factor to determine the fertility level. There is inverse relationship between the level of income and mean children ever born.

Table 5.7 shows that there was inverse relationship between level of income of households and women CEB. Lower the level of income of households, higher the

CEB and vice-versa. The average number of CEB (3.6 children) was higher for those respondents have below 1000 monthly income of the households and it followed by respondents have 1000-2000 monthly household income with 3.0 children respectively. Likewise, the average number of CEB was 2.0 children for those respondents household income monthly 4000 and above.

Table: 5.7 Mean CEB by level of income of the respondents of the study population

Income	Respondents	Total CEB	Mean CEB
Below 1000	14	51	3.6
1000-2000	8	24	3.0
2000-3000	51	146	2.9
3000-4000	23	49	2.1
4000& above	14	28	2.0
Total	110	298	2.7

Source: Field Survey, 2009

### 5.8 Child loss experience and fertility

Status of women is also influenced by her child loss experience, which represents the fertility behaviour of a couple as well. The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. Typically, the probability of dying in infancy is much greater among children born to mother who are too young (under age 18) or too old (over age 34). It is common that women with higher child loss experience are compelled to give more births than they actually desire in comparison to their counterparts who have lower child loss experience.

Table: 5.8 Mean CEB by child loss experience

Child loss experience	Number of women	Total CEB	Mean CEB
0	54	109	2.0
1	38	121	3.2
2	15	52	3.5
3 and above	3	16	5.3
Total	110	298	2.7

Source: Field Survey, 2009

Above table shows that the average number of CEB was higher for those respondents who have child loss experienced. The average CEB was 5.3 children for the respondents who have 3 and more child loss experienced and it followed by respondents who have 2 and 1 child loss experience with 3.5 and 3.2 children respectively. Similarly, the average CEB was lower (2.0 children) for the respondents who have not child loss experience.

### 5.9 Mean CEB by ideal number of children

The number of children desired by women, to some extent, is suggestive for actual reproductive performance during her lifetime. Information on fertility preferences can be useful in understanding future fertility patterns and demand for contraception. Data on fertility preferences are also used to construct measures of unmet need for contraception and of unwanted or mistimed births. Ideal numbers of children also help to access the overall attitude of women toward childbearing and general course of fertility.

Table: 5.9 Mean CEB by ideal number of children

Number of children	Number of women	Total CEB	Mean CEB
1	2	2	1.0
2	85	199	2.3
3	13	48	3.7
4 and above	10	49	4.9
Total	110	298	2.7

Source: Field Survey, 2009

Table 5.9 shows that the CEB was found to be the highest (4.9) among those whose ideal number of children 4 and above. It was found that mean CEB was 1.0 child, 2.3 children, and 3.7 children for those whose ideal number of children is 1, 2, and 3 respectively. It indicates that there is positive association between CEB and ideal number of children.

## **5.10 Family planning and fertility**

Family planning means to enable couples and individuals to decide freely and make responsible for the number and spacing of their children. Family planning programs play a key role in providing information and services that help people make informed reproductive rights and use contraception safely and effectively. Family planning is to make the family life happy through appropriate management of family size and mobilization of various sources. The greatest contribution of family planning programme lies in avoiding unwanted pregnancies and thereby unplanned births and making sure that all births are planned.

### **5.10.1 Knowledge of family planning methods**

Knowledge of contraceptive methods is an important precursor to use. Findings from the 2006 NDHS show that knowledge of at least one modern method of family planning in Nepal is almost universal among both women and men. The most widely known modern contraceptive methods among women and men: injectable, female sterilization, condoms, male sterilization, and contraceptive pill. Similarly, in the study area, knowledge of family planning is also almost universal. In this study, knowledge of family planning has been examined by asking eligible women who have heard at least anyone family planning method and questions were asked about the ever and current use of family planning methods. And, if they are not using they were asked about the causes of not using. The following table represents the relationship between knowledge and practice.

Table 5.10 indicates that that knowledge of family planning was nearly universal i.e. 96.4 percent. The majority of women have heard about female sterilization (98.1%), male sterilization (97.2%), Condom (92.7%) and Depo-Provera (82.1%) respectively. Similarly, 69.4 percent women have heard about IUD and only 73.8 percent respond have knowledge about natural method.

Table: 5.10 Percentage distributions of respondents by knowledge of contraception

Knowledge of FP	Respondents	Percentage
Yes	106	96.4
No	4	3.6
Total	110	100.0
Knowledge by methods		
Female sterilization	104	98.1
Male sterilization	103	97.2
Condom	102	92.7
Pill	78	73.6
IUD	75	69.4
Depo-Provera	87	82.1
Norplant	85	78.0
Natural Method	76	73.8
Others	25	26.9

Source: Field Survey, 2009

### 5.10.2 Ever use of family planning methods and average CEB

Data on ever use of contraception has special significance because it reveals the cumulative success of programs promoting the use of family planning among couples at any time, with no distinction between past and present use. In the 2006 NDHS, respondents who had heard of a method of family planning were asked if they had ever used a method. Ever use of contraception varies with women's age. The pattern of ever use is curvilinear, with use being lowest among women in the youngest age group (15-19), increasing with age, and reaching a plateau among in their thirties before declining thereafter. However, knowledge of family planning in Nepal is almost universal but contraceptive prevalence rate (48) (CPR) is still low. In this study, ever married women were asked about the ever use of family planning. The responses are presented as:

Table: 5.11 Mean CEB by ever use of contraception of the respondents

Ever use of FP	Respondents	Percentage	Number of CEB	Mean CEB
Yes	57	51.8	137	2.4
No	53	48.2	161	3.0
Total	110	100.0	298	2.7

Source: Field Survey, 2009

Table 5.11 shows the percentage of all ever-married women who have ever used family planning by any specific method. It was reported that around 52 percent of the respondents have ever use of any contraceptive devices. Likewise, it was also found that the average number of CEB was higher for those respondents who have never used contraception. From the above table the average number of CEB was 2.4 children for those respondents who have ever used any devices of contraception with compare to 3.0 children for those who have never used any devices of contraception.

### 5.10.3 Currently use of family planning method and average CEB

Current use of contraception is defined as the proportion of women who reported the use of a family planning method at the time of interview. There is inverse relation ship between current use of contraception and fertility.

Table: 5.12 Mean CEB by current use of contraception of the respondents

Currently using FP	Respondents	Percentage	Total CEB	Mean CEB
Yes	21	36.8	44	2.1
No	36	63.2	148	2.9
Total	57	100.0	104	2.6

Source: Field Survey, 2009

Table 5.12 shows that, out of the total respondents who have ever used contraception, around 37 percent of the respondents have currently using contraception. Similarly, the average number of CEB was higher for those respondents who have not currently using any devices of contraception. The average number of CEB for the respondents who have currently used contraception was 2.1 children with compare to 2.9 children for those respondents who have not currently using contraception.

## CHAPTER VII

### SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter attempts to summarize the whole study and draw some conclusion as well as recommendations for policy implication and research issues.

#### 6.1 Summary of the findings

This study covers 110 households. The total population of these 110 households was 678. The study is conducted in selected wards of Thumakodanda VDC, Kaski District and it focused on ever married women of reproductive age 15-49 years. This study has examined the socio-economic and demographic characteristic of the study population and analyzed the relationship between fertility (CEB) and socio-economic, demographic variables. The present study was based on primary data collected from two types of questionnaires (household and individual). Household questionnaires were used for the head of households. Individual question were asked to all 15-49 years ever married women from the households.

The findings of the study are summarized as follows:

Among 110 households, there were 678 persons; out of them (48.7 %) were males and (51.3 %) were female respectively. The sex ratio of the study population was found to be 94.8 which was less than national figure of 2001 census (99.8) (Table 4.1 and 4.2).

The total dependency ratio was 41.0 while it was 33.3 for child dependency ratio and 7.7 for old dependency ratio. The total dependency ratio of the study population was less than the national figure 83.0 from 2001 census (Table 4.3).

Out of total population aged 10 years and above, 32.6% were student and it followed by agriculture occupation with 21.2% (Table 4.4).



Out of the total population aged 10 years and above, 60.3 % were unmarried and it followed by married, widowed, divorced and separated with 32.1%, 5.7%, 1.0% and 0.8% respectively (Table 4.5).

Out of total population aged 5 years and above, 92.3 were literate with compare to 7.7% illiterate. Likewise, among the literate 38.5% were found in primary level of education and it followed by lower secondary level of education with 14.7% respectively (Table 4.6).

Out of 110 households, 17.3 % households were land less with compare to 82.7% households were land holders (Table 4.7).

Out of 110 respondents in different age groups, the majority of respondents (22) were found in age group 20-24 and 30-34 years and the lowest number of respondents (6) was found in age group 15-19 years. The mean CEB of the study population was 2.9 (Table 5.1).

The mean CEB varies by age at marriage. The mean CEB was 4.7 for those women who had married between age 10-14 years and 1.8 for those women who had married after the age 25 years. Most of the respondents had got married before age 20 years. (Table 5.2)

The mean CEB varies by age at first birth of their mother. The mean CEB was 4.8 for those women who had born children before 15 years of age. Similarly, the mean CEB was 1.2 for those women who had born first children of the age group 30- 34. (Table 5.3)

The mean CEB was 2.3 for those respondents who were literate with compare to 3.4 for illiterate. The mean CEB varies by educational status of respondents. The mean CEB was 3.1 for those respondents who have literate for informal education and it followed by primary level of education with 2.9. Likewise, the average CEB was 1.3 for those respondents who have intermediate and above level of education (Table 5.4).

The lowest mean CEB was 2.2 for those households where father and mother were participated to decide the household sphere and highest mean CEB was 3.2 for those HHs where only husband was responsible to decide household sphere (Table 5.5).

Based on the occupational status of women, the mean CEB was 3.0 for those women who have engaged in agriculture sector and others sectors and it followed by waged labours with 2.5 children respectively. Likewise, the mean CEB was 1.9 for those respondents have education occupation (Table 5.6).

The mean CEB was found highest (3.6) for the women whose household monthly income was below 1000. Likewise CEB was 2.0 for the women whose household monthly income 4000 and above (Table 5.7).

The mean CEB was 5.3 for those respondents who have 3 and more child loss experience. In contrast, the CEB was 2.0 for those respondents who have not child loss experience (Table 5.8).

The mean CEB was 2.3 for those respondents have two ideal number children with compared to 4.9 for those respondents have 4 and above number of ideal children (Table 5.9).

Knowledge of family planning was almost universal but prevalence rate was still low. Around 96 % respondents have knowledge about family planning methods (Table 5.10).

The mean CEB was 3.0 for those respondents who have not ever used contraception with compare to 2.4 for those who have ever used contraception (Table 5.11).

The mean CEB was 2.1 for those respondents who have currently use contraception with compare to 2.9 for those who have not currently used contraception (Table 5.12).

## 6.2 Conclusions

Age at marriage play a significant role in increasing the number of CEB. From the present study, it was observed that low age at marriage result high CEB and vice versa. The age at first birth is inversely related with fertility level. The differential of fertility level of this VDC indicates that decreasing level of fertility with the increment of age at first birth and vice-versa.

There is relationship between fertility and occupation. The mean number of children ever born varies by the occupational status of women. Fertility is higher for those women who are engaged in agricultural sector than women involved in non-agricultural sectors.

The level of educational attainment is inversely related with the level of fertility behaviour and age at marriage and positive relationship between education and family planning. The mean CEB was higher for those women who have attained lower level of education than that of women who have completed higher level of education.

Child loss is an important indicator for the increase in the fertility. The average CEB was higher for those women who have more child loss experience with compare to those who have few child experiences and no any child loss experience.

The ability of women to make decisions effectively has important implications for their fertility preferences and practice of family planning. The mean CEB varies by decision-making power of women in the household.

Knowledge of at least one modern method of family planning is almost universal. But prevalence rate of family planning was still low. The mean CEB was lower for those respondents who have ever or currently use contraception with compare to no users.

## **6.3 Recommendations**

### **6.3.1 Policy recommendation**

Based on the findings and conclusion in this study, following recommendation may be fruitful for the advancement in the respective issue.

To reduce the fertility, early age at marriage of female should be discouraged. Incentive and disincentive programme should be lunched to change in the attitude of society for decreasing age at marriage.

To reduce the fertility, informal education and family planning related awareness creation programme should be given for women of the reproductive ages.

The women of study area have low income levels which increases the fertility. Hence programme should be lunched to improve the economic status of those women.

Programs related to child and maternal health should be introduced to reduce infant and child mortality. Besides this, programs such as mass immunization, nutrition, child and maternal health care facilities, cheap medical facilities may help to reduce infant and child mortality.

Emphasis should be given to improve the educational level of women by education all girls of school going ages since the level of women's education is found effective. For this, the education should be free and compulsory for all girls.

To reduce fertility, there should be IEC service and availability of contraceptive methods in order to increase prevalence.

### **6.3.2 Recommendations for future research**

This study examined the relationship by using some selected demographic and socio-economic variables (i.e. education, occupation, age of women, level of income, age at marriage, child mortality and knowledge of FP etc.). Other socio-economic variables like cultural norms, value of children, religious belief and sex preference etc. could also be used to examine the relationship in future research. Other demographic variable ecological, biological and psychological variable can be taken into consideration as future researcher issues.

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## QUESTIONNAIRE

### "Fertility differential based on Socio-economic and Demographic factors"

#### (A Case Study of Thumakodanda VDC, Kaski)

A. Household Questionnaire Schedule

Household No.:

Date:

Village (Tole):

Ward No.:

Caste:

Spoken Language:

Religion:

S.N.	H.H Members	Relation to H.H.H	Sex	Age	Literacy	Grade	Marital Status	Occupation	Eligible Women
	01	02	03	04	05	06	07	08	09
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

Code:

Relation to H/H	Sex	Literacy	Grade	Marital Status	Occupation
Household head.....0	Male.....1	Illiterate.....1	Non-formal	Unmarried....1	Agriculture....1
Husband/Wife of household.....1	Female..2	Literate.....2	education.....1	Currently	Teaching.....2
Son/Daughter .....2			Primary.....2	Married.....2	Students.....3
Grand son /Daughter.....4			Lower	Separate.....3	Foreign
Father/Mother.....5			Secondary.....3	Widow/	Employment..4
Father/Mother in law.....6			Secondary....4	Widower.....4	Labour.....5
Brother/Sister.....7			SLC.....5	Divorced/	Carpenter.....6
Cousin/Nephew.....8			PCL.....6	Separated ....5	Business.....7
Others.....9			Bachelor.....7		House work..8
			Master		Service.....9
			Degree.....8		Other.....10

S.N.	Question	Opinion	Remarks
1.	What is the main source of income of this house hold?	Farming.....1 Service.....2 Business.....3 Wage earning.....4 Others.....5	
2.	Does your household have own land?	Yes.....1 No.....2	
3.	If yes, how much land does your household have?	Ropani.....1 Ana.....2 Dam.....3 Others.....4	
4.	Which type of your house is?	Own.....1 Rental.....2 Relative.....3 Others.....4	

### Individual Questionnaire

#### Socio Economics and Demographic Information

Household No.:

Respondents Name:

S.N.	Question	Opinion	Remarks
1.	How old are you?	Age .....	
2.	What was your age when you got married?	Age .....	
3.	Can you read and write?	Yes.....1 No.....2	
4.	What is your education level?	Primary.....1 Lower Sec.....2 Secondary.....3 SLC.....4 PCL.....5 Bachelor+.....6	
5.	What is your main occupation?	Agriculture.....1 Service.....2 Business.....3 House work.....4 Daily wages.....5 Students.....6 Others.....7	
6.	Have you worded during past 12 months?	Yes.....1 No.....2	
7.	Did you earn past 12 months?	.....	
8.	Do you have own any property in this house hold?	Yes.....1 No.....2	

9.	If yes what are they?	.....1 .....2 .....3 .....4 .....5	
10.	Does your husband have more wives?	Yes.....1 No.....2	Go to 13
11.	If yes, why did he marry?	Preference of son.....1 Cultural values and norms...2 Religious believes.....3 Pressure of family member...4 Downy system.....5 Others.....6	
12.	Do you have children?	Yes.....1 No.....2	
13.	What was your age when you gave birth to your first child?	Age.....	
14.	How many children have you ever born?	.....	
15.	How many children are living?	Son.....1 Daughter.....2	
16.	Were any children dead?	Son.....1 Daughter.....2	
17.	How many children do you desire?	Son.....1 Daughter.....2 Total.....3	
18.	Why do you prefer Son?	For help in old age.....1 Religious be lives.....2 To get red of hate from the society .....3 Others.....4	
19.	Have you ever heard about family planning?	Yes.....1 No.....2	
20.	Age you currently using any method of family planning?	Yes.....1 No.....2	
21.	If yes, which method are currently using?	Male Sterilization.....1 Female Sterilization.....2 Condom.....3 Copper T.....4 Norplant.....5 Depo-Provera.....6 Pills.....7 Other.....8	
22.	Which method are ever used?	..... ..... .....	
23.	How long have you been Brest feeding the last child with in last five		

	years period?		
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## Annex 1: Map of the Thumakodanda VDC