

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

The study of fertility occupies a central position in the study of social sciences 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. Any society replenishes itself through the process of human fertility. Prior to the Second World War, the approach to the study of human fertility was mainly mathematically oriented. The social, psychological, cultural, economic and political factors in determining the levels and differentials of fertility were not accorded a proper importance. The main reason for this limited viewpoint was that the discipline of social studies at that time was not developed to any great extent, nor was the inter-disciplinary nature of this science realized.

The dynamic character of fertility was realized when, after the Great Depression of the early 1930s, the birth rates in North-west Europe and North America (the United States of America and Canada), which were quite low till then and which had consistently registered a declining trend, started rising, stabilized themselves at higher levels and then declined. Till that time, demographers had expected that the birth rates in North-West Europe and North America would continue to decline or would be stabilized at lower levels.

The experiences of other countries also demonstrated that fluctuations in the fertility rates of a country might take place in response to political, social and economic conditions. For instance, in Romania as a result of legalized abortions, the birth rate declined from the level of 24.2 per thousand populations in 1956 to 14.3 per thousand populations in 1996. When, in 1996, abortion facilities were withdrawn, the birth rate shot up to 27.4 in one year, that is, in 1997- perhaps the most rapid rise in birth rate ever witnessed in one year (UN, 1975). This episode in Romanian demographic history is a dramatic example of the kinds of 'natural experiments' occurring in human fertility, most of which are not studied systematically in order to observe causes and consequences (Freedman, 1975).

In the 1960s, it was increasingly realized that the “problematic factor” in the population growth of developing as well as developed countries was the birth rate. The growth rates of several countries at present depend on the levels of fertility and mortality, and are not much affected by international migration. In the developing countries mortality has declined considerably, and is expected to decline further. Birth rates in these countries, however, have not declined correspondingly, with the result that these countries are experiencing an extremely rapid population growth which, in the opinion of development experts, is a threat to programme of social and economic development. Though the rate of population growth could be brought down through declines in birth rates, it was soon realized that all efforts at bringing down the fertility rate would be successful only if development scientists were equipped with an adequate knowledge of fertility behavior in the context of the cultural, social, economic and political setting. This realization gave an impetus to the study of fertility of fertility behavior in various developing countries (Freedman, 1975).

The other reasons for the growing interest in the study of fertility are also worth considering. One of these is that the age structure of any population is primarily determined by fertility and that the bulges and the gaps in this age structure can have serious repercussions, with social, economic and political overtones. The other reason is that, because of methodological developments- such as the sample survey method and the introduction of new techniques of fertility measurement, like cohort fertility, the study of fertility could be undertaken from various angles. With the help of carefully designed and sharply focused sample surveys, it has become possible to study many aspects of human fertility, such as coitus, contraception, abortion etc., which were hitherto regarded as too personal and intimate for any systematic analysis.

Fertility is generally used to indicate the actual reproductive performance of a woman or groups of women. The crude birth rate (number of births per 1000 population per year) is only one measure of fertility. Barnard Benjamin defines fertility by saying, “Fertility measures the rate of which a population adds to itself by births and is normally assessed by relating the number of births to the size of some section of population, such as the number of married couples to the numbers of women of child bearing age i.e. an appropriate yard stick of potential fertility”. The study of fertility does not indicate the level of fecundity for which there is no direct measurement.

Fecundity is a biological potential level of performance of physical capacity for bearing children of the population.

In vast majority of cases both the men and women have fertility and capacity to produce children. There are, however, many factors which affect and influence fertility. The major important factors which affect fertility are; biological factors, indirect social factors, direct factors influencing fertility and other social factors (Raj, 2005).

According to Census 2011, the population of Nepal is 2, 64, 94,504, which is growing at an annual rate of 1.35% that was 2.24 % during the period of 1991 – 2001. If this rate is continued in Nepal's population, it will take 52 years to double. Fertility in Nepal is high and has remained so over the last several decades, although the fertility rate has declined over the last decade or so. The total fertility rate for the three years preceding the survey is 2.6 births per woman, with rural women having about one child more than urban women (MOHP, 2011). The total fertility rate (births per woman) according to the 1981 census was 6.1 and came down to 4.3 by 1999. These are high numbers not only compared to the rates around the world(3.7 and 2.7 in 1981 and 1999 respectively) but also high compared to the averages for low-income countries (5.3and 3.7 in 1981 and 1999 respectively) and South Asian countries (5.3 and 3.4in 1981 and 1999 respectively). It is argued that reducing total fertility rates in a country is an essential component of attaining demographic transition in a country and improving the standard of living of its people.

The primary reason for rapid population growth is due to continues decline in mortality rate on the one hand and nearly stable fertility rate on the other. The total fertility rate (TFR) of Nepal in 2011 was recorded as 2.6. Crude Birth Rate (CBR) of Nepal is 28 per thousand populations and of Contraceptive Prevalence Rate (CPR) is 48 percent. Occupation is another important factor of determining fertility. Nepal's literacy rate is only 65.9 percent in total and out of which male and female literacy rates are respectively 75.1 and 57.4 percent. This lower literacy status also influences the higher fertility in Nepal. The higher experience of child loss increases the number of children ever born which causes higher fertility. Infant and under-five mortality rates in the past five years are 46 and 54 deaths per 1,000 live births, respectively. At these mortality levels, one in every 22 Nepalese children dies before reaching age 1,

and one in every 19 does not survive to his or her fifth birthday. Infant mortality has declined by 42 percent over the last 15 years, while under-five mortality has declined by 54 percent over the same period (MOHP, 2011).

Caste system is the basic foundation of the Hindu society. Caste system is based on the Varna system. Nepalese social cultural is based on the Varna system where different caste group and individual interact and interdependent upon each other. The caste or Varna system is based on five primary classifications. These are; the Brahman (priest), the Kshatriya (warrior and administrator), the Vaishya (merchant), the Sudra (laborer) and the untouchable or polluted.

During the modern period, Prithivi Narayan Shaha addressed the Nation, “Nepal is a common garden where four castes and thirty six sub caste blossom forth.” To describe the caste hierarchy code formulated as the Muluki Ain, the totality of this caste universe has been paraphrased in the code as Char Varna Chhattis Jat (four Varna and thirty six castes). This phrase shows the familiarity of the Nepalese with the Varna model and it’s being the main basis of social division. But the multiplicity of caste had already replaced the validity of Varna model for all functional purpose.

Theses castes were further subdivided into many sub castes, which help to stratify the Nepalese society. This process by which individuals and groups are ranked in a more or less enduring hierarchy of status is known as stratification.

Nepal is facing the problems of high fertility especially in different caste/ethnic groups characterized with distinct characteristics. The high fertility is also pronounced in backward and depressed communities such as Kami, Damai, Sarki, and Gaine, the lower caste group. These communities who are backward in the areas of economic, social, cultural, educational and all other conditions are known as Dalit community, who are supposed to be untouchable. This study, therefore, tries to find out the fertility behavior of lower caste to identify whether the theory match with the real practices or not. The Dalit group as identified by the Dalit Ayog (May, 2002) as follows:

1. Hill Dalit: Kami, Sarki, Damai, Lohar, Sunar, Badi, Parki, Chunara, Kuch and Kadare.
2. Newar Dalit: Kusule, Kasai, Chyame, pode, and Dhaier (Dyahla)

3. Terai Dalit: Tatma, Paswan, Dushad, Batar, Mushahar, Khatway, Chamar, Dom, Halkhor, Badimar, Chidimar, Gothi and Jhangar.

Among the total caste/ethnic group of Nepal, about 20 percent are within the Dalit community (Manab- Maryada, 1999), though government sources show only in 12.22 percent. According to the census 2011, among the total Dalit, kami constitutes 4.75 percent, Damai constitute 1.82 percent, Sarki constitute 1.41 percent and Sunar constitute 0.24 percent. Among the Dalit caste Kami, Damai, Sarki have the larger number than other in Nepal.

## **1.2 Statement of the Problem**

Need and necessity of fertility has been felt from the very beginning of social life. There are sufficient evidences to show that in the past, with the help of prayers, in many societies, an effort was made to have fertility of barren women. It was always believed that a woman who had no fertility was unfortunate because she could not keep the family going on. As the time passed it was realized that prayers were not effective or scientific method of changing barrenness into fertility and such scientific means and methods began to be adopted. Along with this, in order to keep the families going and to take the advantage of fertility, the system of widow remarriage and polygamy, etc. was encouraged (Raj, 2005).

There was no period of human history in the past when a deliberate attempt was made to check human fertility. Since death was not within human control, therefore, every effort was made to maintain fertility so that tribe continued. It is, however, in the 20<sup>th</sup> century that there is a growing feeling not to take full advantage of fertility and this is being done through different ways, i.e. by late marriage, by avoiding children for long time, by way of limiting family size by the use of contraceptives and in some societies even by following practice of infanticide, particularly that of the girls. But it cannot be denied that every society replenishes itself only with the help of fertility. It is thus a positive force. But excessively replenishing of human number can create many social, economic, and political problems for the country. Therefore it is not a simple but a complicated affair. Need for the study of fertility in boarder perspective was felt after 'baby born' which came after Great Depression of 1930s. It was thereafter that more

and more interest began to be taken by social scientists and demographics in the study of fertility (Raj, 2005).

Rapid growth rate of population has appeared as an emerging challenge for the development of human being. It is definite that the population will continue in the future especially due to high birth rate and low death rate. Therefore, the world's main concern of the government has been check rapidly increasing population growth and consequently there has been remarkable awareness of the implications of population change in the process of national development.

The fertility rate of Nepal is one of the highest in 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 an important role to play in reducing marital fertility (Tuladhar, 1989). Being an agrarian economy in Nepal, the socio economic value of children is persistently high in such setting; demand for more labor force encourages people to have more children to fulfill basic labor demand. Much of the literatures dealing with socio economic and demographic characteristics of Nepalese society suggest that fertility is high in Nepal because there is great demand of children for economic reasons as well as for social and cultural reasons. This is the reason that people in general have low income, mass illiteracy, minimal knowledge of family planning devices and high desired family size (Tuladhar, 1989).

The fertility goes up when marriage takes place at a early stage. It is well known fact that fertility rate is higher in countries where marriage take place at comparatively early ages, as compared with the people who marry at late stage. In Europe, many people marry at a very late stage and in many more cases the people even do not marry at all. In India marriages take place at very young age, but in West Indies these take place at late stage but the boys and girls permitted to have sex relations and even produce children before marriage (Raj, 2005).

In Nepal, people tend to marry in early ages. Some of them marry even before teenage and most of them in the late teenage which results into a longer span of marital and child bearing period with substantially a higher fertility. Additionally, prevailing high infant and child mortality, particularly in rural setting is further responsible to motivate the mother's to give more births. People prefer son because of

their cultural rituals and religious belief. Another cause to do so is that the son would support the parents in their old age. They do not want to bear the risk of dying of their infants and children. The factor responsible for high population growth is illiteracy. The primary reason for rapid population growth is due to continues decline in mortality rate on the one hand and nearly stable fertility rate on the other. The total fertility rate (TFR) of Nepal in 2011 was recorded as 2.6. Crude Birth Rate (CBR) of Nepal is 28 per thousand populations and of Contraceptive Prevalence Rate (CPR) is 48 percent. Nepal's literacy rate is only 65.9 percent in total and out of which male and female literacy rates are respectively 75.1 and 57.4 percent. This lower literacy status also influences the higher fertility in Nepal. The higher experience of child loss increases the number of children ever born which causes higher fertility. Infant and under-five mortality rates in the past five years are 46 and 54 deaths per 1,000 live births, respectively. At these mortality levels, one in every 22 Nepalese children dies before reaching age 1, and one in every 19 does not survive to his or her fifth birthday. (MOHP, 2011).

The social structure of each society inter related with specific population levels. It is also closely related to environmental, technological, and other material factors which intervenes reproductive behavior. Moreover, there are significant caste differentials (Niralwa and Shrestha, 1997). Also it is notable that the population of ethnic groups has shown considerable variables in demographic and socio economic characteristics (Karki, 1995). Low socio economic status of women in the society, high economic tradition favoring sons, low literacy rate of the women etc. are the some main factors that contribute to high level of fertility in Nepal. Besides the persistent of high fertility is also attributed to the lack of knowledge, attitude and practice towards contraception methods, in Nepal, as a whole and special community and also every stage of life, irrespective of caste and ethnic groups had strong cultural stress to cause high fertility (Dahal, 1998).

The pattern of fertility among the subgroup within the same religious community will also differ from each other. The lower caste women (Kami, Damai, Sarki) showed higher fertility in each group as compared to upper caste women (Brahman and Chhetry).

The total fertility rate for the three years preceding the survey is 2.6 births per woman, with rural women having about one child more than urban women. Fertility has decreased from 4.6 births per woman in 1996 to 2.6 births per woman in 2011, a two-child decline in the past 15 years. Childbearing begins early in Nepal, with almost one quarter of women giving birth by age 18 and nearly half by age 20. Seventeen percent of adolescent women age 15-19 are already mothers or pregnant with their first child. In the last five years, teenage pregnancy has fallen by 10 percent. Half of births occur within three years of a previous birth, with 21 percent occurring within 24 months. About three-quarters of currently married women age 15-49 and two-thirds of men want no more children or are sterilized. The desire to stop childbearing among married women has increased in the past 15 years, from 59 percent in 1996 to 73 percent in 2011. Women and men report an ideal family size of about two children. The mean ideal number of children among currently married women has declined by nearly one child in the last 15 years, from 2.9 children in 1996 to 2.2 children in 2011. Overall, Nepalese women have about one child more than their ideal number. This implies that the total fertility rate of 2.6 children per woman is 44 percent higher than it would be if unwanted births were avoided (MOHP, 2011). This study, however, tries to find out the fertility behavior of lower caste people located within a study area.

Dalit are politically and socioeconomically depressed and dominated ethnic group of Nepal. That is why this fertility condition depends on the socio-economic and demographic circumstances. The increasing number of their children is unknowingly being the over burden for them and worsening their economic status. However, they want to overcome their poverty problem producing mere children as economic assets to earn more money by working. They feel stronger themselves by the large number in the community. Until they do not know that they should reduce the number of children for social prosperity, they will have higher fertility level. So, how the higher fertility performance of Dalit community can be reduced is the main problem. Kami, Damai, Sarki, and Gaine are the disadvantaged in terms of socially, culturally, politically and economically under the Hindu caste system; they are untouchable, called “Dalits” today. There might have the demographic patterns different from other ethnic minorities of Nepal. So, this study tries to examine the fertility behavior and its socio economic and demographic determinants in those communities in the study area “Lamachaur V.D.C. especially wards no 6, 7 and 8



To sum up, this study will deal with the following issues;

1. What is the fertility behavior among dalit community by their background characteristics?
2. What are the demographic and socio – economic situations of Dalit community?
3. Is there any significant relationship between the children ever born and specific socio–economic and demographic variable

### **1.3 Objectives of the Study**

The main objective of this study is to examine the fertility behavior of lower caste people in relation to demographic and socio economic variables especially Lamachaur village development committee. The specific objectives of the study are as follows:

- i. To examine the demographic and socio – economic characteristics of Dalit community.
- ii. To assess the fertility differential behavior of Dalit community.
- iii. To examine the relationship between the children ever born and specific socio–economic and demographic variables of Dalit community.

### **1.4 Significance of the Study**

The overall development of the nation depends upon different sub sectors and sub groups. It is really difficult to attain overall development by ignoring either one group (community). Lower caste people (Kami, Damai, Sarki), basically suffer from different problems. Out of them, one of the major problem is high birth rate due to different factors. There have been a number of studies conducted at the national level especially ethnic groups such as Tamang, Newar and so forth. But poor ethnic minorities are often left by the researchers, where they might have a significant role in the overall fertility behavior of the country. This study, therefore, will try to examine the behavior of lower caste especially Kami, Damai, and Sarki. So far known to the researcher this study is first in kind especially Lamachaur village development committee. Hence this study will be a rewarding one. The study will be very

beneficial not only for the social scientists but also for the planners, administrators, policy makers and future researchers.

### **1.5 Limitations of the Study**

This study is based on the census data (Ward no 6, 7&8) from Lamachaur V.D.C. of Kaski District, so findings may not be generalized for other groups of people and throughout the country. This study focuses only the Dalit especially Kami, Damai, and Sunar. The fertility as a whole of a society is determined by various factors. But in this study, only few variables such as age at marriage, education, occupation, child loss experience and contraceptive use will be examined. Similarly, the respondents of this study have been limited only ever married women of age between 15 to 49 years.

### **1.6 Organization of the Study**

This study is organized into five major chapters. The first chapter deals with the general background of the study, statement of problem, objectives of the study, significance of the study and limitations of the study. The second chapter deals with the literature review and conceptual framework for the study. The third chapter deals with the methodology used for the study including sources of the data, sample design, and analysis tools. The fourth chapter deals with the presentation and analysis of data and at last chapter five deals with the summary, conclusion and recommendation

# **CHAPTER TWO**

## **LITERATURE REVIEW**

Most of the developing countries are experiencing high fertility and low mortality resulting rapid population growth. Nepal is also one of the least developed countries, where the birth rate is still high and death rate is low, leading to the formation of various obstacles and social development.

### **2.1 Theories of Fertility**

It has been seen that fertility declines in the past have been due to a multiplicity of interrelated factors. It has, however, not been possible to identify precisely the contribution of each factor to the decline in the fertility, or to understand the causal influences, or to bind the factors in a systematic classificatory scheme. There is no satisfactory explanation for the existence of differential fertility in developing countries due to factors not associated with the economic development. Social scientists and demographers are even today in search of a systematic theory, which would provide explanations for changes in fertility levels and class differentials in fertility, and which would also serve as a basis for predicting future fertility trends. In the following sections, the various theories of fertility are reviewed and classified into three categories: (1) Social or cultural theories, (2) Economic theories, and (3) Socio economic theories.

#### **2.1.1 Social Theories of Fertility**

##### **a. Social Capillarity**

The theory of social capillarity was the first logical attempt at offering an explanation for the decline in fertility during a period of social and economic development 48. Several theories have given sociological explanations for the decline in fertility. These social theories emphasize the fact that human volition has played an important role in fertility decline. The motivational factors operating at the individual level in the social milieu are considered important for influencing reproductive behavior. In the

nineteenth century, several French parents had restricted the size of their families so that they could not only maintain their standard of living but also rise in the social hierarchy. In this connection, it may be recalled that though people in the past unquestioningly accepted the social position into which they had been born, in the nineteenth century the desire to improve one's social position became a strong motivating force among the common people and came to be recognized as such by several French thinkers.

This theory later influenced the thinking of a social demographer, Kingsley Davis, whose fertility theory of change and response is based on the theme of social capillarity, that is, the desire to rise in the social scale. The social capillarity theory may therefore be looked upon as fundamental, in the sense that this theory, explaining the phenomenon of low fertility, holds good even today.

This theory was, however, criticized on the ground that it was not backed by sound statistical proof. Yet it must be said to the credit of Dumont that he "emphasized the need for investigating individual attitudes in their social context in order to determine national population trends" (Eversley, 1959).

#### **b. Theory of Diffusion or Cultural Lag**

The theory of diffusion or cultural lag explains how the concept of birth control spread over the world. According to the cultural lag theory of fertility differentials, in countries where fertility has been declining, attitudes and practices conducive to diminishing fertility have been adopted first by the better educated, wealthier, and socially more favored groups of the city population and transmitted in the course of time to intermediate and lower status groups and to the rural areas (UN, 1965).

The theory of diffusion or cultural lag assumes that birth control, and especially contraception, has been a recent development and has been lately introduced in human culture. Another important assumption is of time lag and a "trickle down" in the spreading of attitudes towards birth control and its practices. Birth control practices are initiated in metropolitan centers, move to other urban centers after some time lag, and finally reach the rural areas. The middle classes are the first to accept this innovation of birth control, which then trickles down to other lower classes. This

trickle down may thus be taken as classic examples of the theory of diffusion of innovations or that of a cultural lag, which is an important hypothesis in the theory of social change.

The theory of diffusion or cultural lag, as it relates to fertility, has been criticized by several demographers, important among whom are Gosta Carlsson and Geoffrey Hawthorn (Hawthorn, 1970,). Carlsoon challenged the diffusion theory on two grounds: (1) “Did birth control within marriage exist on a considerable scale before the secular decline of fertility began, or did the decline end a phase in which control was not practiced by married couples at all or very rarely at most?” Carlsoon’s second question was: Does the pattern of the spread of fertility decline in fact conform to the lag assumptions so prominent in current theory?”

The theory of diffusion or cultural lag is also criticized on the ground that it explains how the birth rates declined in the Western World earlier, rather than why they declined.

### **c. Theory of Change and Response**

In 1963, Kingsley, Davis propounded a theory in which he attempted to explain the declines in birth rates in developed countries. It is known that even before the secular decline of birth rates in industrialized countries, mortality rates had started declining, as a result of which the rates of natural increase had gone up. This happened in North West Europe as well as in Japan, though the latter lagged behind by fifty years. According to Devis, this was a deliberate multiphasic response, and it proved to be extremely effective in bringing down fertility. People in these countries found that the sustained fall in mortality, which was brought about by higher standards of living and improved public health programme in the wake of industrialization, was handicapping being provided by the emerging economy. Thus the connecting link between the stimulus (sustained drop in mortality and resulting increased natural growth) and the response (curtailment in the rate of population growth by increasing the age at marriage, resorting to contraception and abortion and even migrating outwards) was the fear of the loss of status, achieved though rising prosperity, which would result if the high rates of population growth continued.

Davis further points out that the multiphasic response to the growing rate of population growth was universal, that is, people from both urban and rural areas curtailed their growth rates. To the alleged belief that rural people lagged behind in making this demographic response, Davis argued, on the basis of statistical evidence, that the demographic behavior of rural people did change and it changed drastically. Davis has justified the universality of his theory by applying it to Ireland, a demographically unique country, and to Japan, a country which experienced increase in population growth much later than North West Europe did.

In 1965, David Glass criticized the theory of change and response on several grounds, though he also underlined the various merits of the theory. On the plus side, Glass mentions two points: first that the theory is more comprehensive and sophisticated and, secondly, that Davis has documented the multiphasic responses by giving the actual experiences of two countries – Ireland a deviant case in his opinion, and Japan, he finds this approach attractive and compliments Davis for having substantiated the mechanical responses to falling mortality by resorting to a sociological analysis.

### **2.1.2 Economic Theory of Fertility**

In recent years, several economists have attempted to develop economic or socio economic theories to explain how decisions on the number of children are made by couples. Economic theories of fertility are based on the assumption that decisions regarding family size are influenced mainly by within the micro economic framework. While the interest of the economists in theory building for population phenomena is only of recent origin, many weighty contributions have been made to the economic interpretation of fertility during the 1960s and 1970s.

#### **Libenstein's Theory**

Harvey Libenstein, in his well-known work, “Economic Backwardness and Economic Growth” published in 1957, has formulated a theory that explains the factors which determine the number of children desired by each couple. This theory is based on the assumption that people make “rough calculations” regarding the utilities and disutilities of children and then decide on the number of children they would like to have.

According to Libenstein, three types of utilities are derived from, and two types of costs are involved in, having an additional child. The types of utilities are: (1) the utility of the child as a “consumption good”, that is, the child is here considered as a source of personal to the parents; (2) the utility of the child as a productive unit; that is, the child, it is expected, would enter the labor force at some point of time and contribute to the family income; (3) the utility of the child as a source of security in the old age of the parents or even otherwise. The two types of costs involved in having an additional child are: (1) direct costs in the sense of conventional current expenses of bringing up a child, according to conventional standards until the child becomes self-supporting; and (2) indirect cost, which includes opportunities foregone due to the appearance of an additional child, such as the mother’s inability to work; inability to purchase a television set, or a motor car, etc.

Libenstein mentions that three changes occur during the course of economic development which affect the utilities and costs of an additional child. The effects of these changes are: (1) income effect (2) survival effect; and (3) occupational distribution effects. It is worthwhile studying the relationship between the per capita income as a result of economic growth and the three types of utilities of the child. It is evident that with a rising per capita income, there is no change in the consumption utility of the child, whereas the utilities of the child as a productive unit and as old age security decline considerably. Both the direct and indirect costs of an additional child may be seen to increase with the rising per capita income. The theory has more of an explanatory value than a predictive one.

### **2.1.3 Socio- Economic Theories**

According to Easterlin, a comprehensive economic framework incorporating the main concepts of demography, sociology and other sciences would be useful to analyse human fertility behavior in a systematic manner. Such a framework, it was thought, should be relevant to present and past fertility behavior in a large number of societies and it should also deal with the trends, fluctuations and differentials observed in fertility during the course of human history. Keeping these considerations in mind, Eastern has proposed a framework in which an attempt has been made to combine sociology and economics of human fertility.

As parents are more concerned about the number of grown up living children rather than the number of births, the principal dependent variable in Easterlin's theory is the total number of surviving children. It is also assumed that both spouses would live throughout the reproductive span of the wife.

The determinants of fertility operate through one or more of the following:

1. The demand for children ( $C_d$ ): The demand for children is the number of children of surviving children the parents would want if fertility regulations were costless. In keeping with the economic theory of household choice, the immediate determinants of demand for children are income, price, and taste. Thus factor demand for children deals with the individual choice about the number of surviving children and the social, economic and environmental factors or conditions that influence the choice.
2. Potential Output of children ( $C_n$ ): Supply of children: Potential output of children is a product of couple's natural fertility ( $N$ ) (fertility in the absence of deliberate control) and the survival rate, i.e., probability of a new born baby surviving up to adulthood. Natural fertility is determined by biological and cultural factors. Increase in a couple's natural fertility and improvement in the chances of child survival would increase the potential supply of children.

$$\text{Motivation for Fertility Regulation} = C_n - C_d$$

The demand for surviving children and the supply of children (potential output of surviving children) together determine the motivation of fertility regulation. If the potential output is smaller than demand, i.e.,  $C_n$  is less than  $C_d$  ( $C_n < C_d$ ), there is no desire to limit fertility. Such a situation of excess demand would call for ways and means to increase fertility.

On the other hand, if the potential output of surviving children is larger than the demand for surviving children i.e.,  $C_n$  is greater than  $C_d$  ( $C_n > C_d$ ), this could be considered as a situation of excess supply. In an excess supply situation there is a demand for ways of limiting fertility.

3. The Costs of Fertility Regulation: The adoption of means of fertility depends upon costs of fertility regulation which includes subjective (psychic) costs and



objective costs such as money required to learn about and use a specific method.

### **Theory of International Wealth Flow**

This theory was developed by J.C. Caldwell. This theory states that in a society, the fertility is high if children are economically useful to parents and low if children are economically not beneficial to the parents. Whether the children are economically beneficial to parents is determined by social conditions: mainly the direction of the intergenerational flow of wealth (in terms of goods and services). This flow of wealth in all primitive and traditional societies has been from younger persons to the older persons. Children are useful to parents in several ways in primitive and traditional societies. Six different economic advantages to the parents can be identified:

1. The larger the household size the greater the power of the head.
2. Children work in the household and on the farm and produce goods. They also do small jobs, such as, bringing fuel and water, carrying goods and message, sweeping, looking after younger siblings, caring for the animals, etc.
3. Adult children assist their parents by working in the farms as laborers.
4. Adult children are of great help in family ceremonies, such as marriages, funerals and ceremonies connected with births in the household.
5. The grown up children take care of the aged parents.
6. Parents can invest in the training and education of children so as to increase the ability of children to make returns.

Thus, it is clear that in primitive and traditional societies, children are assets to parents and having a larger number of them is economically advantageous. In such societies, the net flow of wealth is from children to parents and hence high fertility is economically rational. When the direction of this net flow of wealth changes, i.e., when the flow of wealth is from parents to children, low fertility becomes economically rational.

### **The Threshold Hypothesis**

The United Nations has attempted to study the relationship between the level of fertility (with the gross production rate as an indicator of fertility) and various indicators of the level of socio-economic development. This study was based on the data collected from various countries having different levels of the gross production rate. The following twelve indicators of socio-economic development were used: (1) Per capita income; (2) energy consumption; (3) degree of urbanization; (4) proportion of economically active males employed in non-agricultural activities; (5) hospital bed per thousand; (6) life expectancy; (7) infant mortality rate; (8) proportion of women married (legally or consensually) in the 15-19 age group; (9) female literacy rate; (10) newspaper circulation per thousand population; (11) radio receiving sets per thousand population; and (12) cinema attendance.

It was observed that the average value of each of these indicators of the high fertility countries differed widely from that of the low fertility countries. Either of the following two inferences may, therefore, be made on the basis of these facts: “that the countries of the very highest fertility are on that account at a disadvantage in development, or that a very low level of development is conducive to exceptionally high fertility” (UN, 1965, p.142).

These findings of the United Nations are consistent with the threshold hypothesis “which tells on the role of social and economic development in bringing about the transition from high to low fertility. According to this hypothesis, “in a developing country where fertility is initially high, improving economic and social conditions are likely to have little, if any, effect on fertility until a certain economic and social level is reached; but once that level is achieved, fertility is likely to enter a decided decline and to continue downward until it is again stabilized on a much lower plane” (UN, 1965, p. 142).

## **2.2 Causes Responsible For Higher Fertility in Developing Countries**

In order to understand the factors which are responsible for high fertility, it is necessary to study the social, cultural and economic conditions prevalent in the

countries with high fertility, which may then be compared with the conditions in the countries where fertility has declined.

### **Early and Child Marriage**

It has been observed that in developing countries due to climatic and other reasons, girls reach puberty at an early age and as such the period of reproduction of girls is lengthy. Not only this, but after marriage, in these countries, women are considered to love in the house, settle that and produce children. Since chances of employment and educational facilities are limited, therefore, women always live at home and feel pleasure in bringing up and playing with their children.

### **Poverty**

Most of the developing countries are poverty ridden and the couple remains at home, as that cannot afford going out, and enjoy sex, which increases fertility. Castro theory makes us believe that due to poverty, there is always shortage of protein in the body, which is responsible for higher fertility.

### **Religious and Social Values**

In underdeveloped countries people are usually orthodox and religious minded. They believe that family planning is anti- religious. In Nepal it is believed that every family must have a male child and for this couple tries, no matter what may be the size of the family.

### **Lack of Female Education**

In developing countries literacy rate is low, but literacy among women is still lower. Usually literacy rate among women is about 34%, though they constitute about 50 percent of the total population. These women feel very hesitant to use contraceptives to control family size and go on accepting even unnecessary motherhood

responsibilities imposed on them. This becomes one very important contributing factor for high fertility.

### **Less Social Awakening**

Social awakening among developing and under developed countries is very limited. The couple does not know full well social responsibilities which will fall upon them with increase in the size of family. Therefore, they go on adding to the number of children, thereby increasing fertility.

### **No Desire for High Living Standard**

People in these countries are usually concerned with what they have. They feel that what God has given to them is what was in their fate. Under the circumstances they do not care much for high living standard. They are also not careful or mindful even if their living standard somewhat goes down, believing that as the will of god. This is the reason that high fertility does not worry for them.

### **Agriculture as main Occupation**

As like other developing countries, agriculture is the main occupation of the people in Nepal. In fact, about 80 percent of the population depends on agriculture. In this occupation additional manpower is always a welcome. Thus, adding of a child in the family is considered a matter of joy rather than that of sorrow. When child birth is a matter of pleasure, obviously fertility rate will considerably increase.

### **High Death Rate**

It is common knowledge that in countries where there is high death rate, birth rate is bound to be very high. In developing countries death rate is always high.. In a country like Nigeria almost 50% children die before they reach the age of only one year, whereas 90% children die before reaching 5 year of age. Under the circumstances in these countries, no family takes the risk of limiting its size in the fear that they can become childless at any time.

### **Difficulties in Family Planning Programmes**

In developing and underdeveloped countries it is difficult to both introduce and propagate family planning programme. Many of the society vehemently oppose it, some on the plea that it is interference in their private life. Not only this but due to poverty and social restrictions in some cases people cannot go in for abortion even if they so like. In some cases people cannot even spend a little, which they are expected to spend on purchasing contraceptives. Ladies do not openly wish to expose themselves to the ways of family planning when health visitors approach them.

### **Less Urbanization**

Rate of urbanization is very slow in developing countries. More than 90 percent lives in the villages. Villages in less developed countries are known for their backwardness, illiteracy, poverty, orthodoxy etc. In such a society obviously fertility rate is bound to increase.

### **Less Expensive Bringing Up**

The cost of bringing up children in less developed countries is very low. The children are not provided very nutritive diets. They also are not well fed or clothed. It is not necessary that they should be given higher education or even elementary education. Thus they are not a burden on the family. On the other hand when they grow up a little they begin to earn and thus add to the income of the family which is a welcome.

## **2.3 Differential Fertility**

It has been observed that the levels and patterns of fertility vary considerably in various sub groups of the same population. These sub groups may be based on residence, whether urban or rural, social and economic status in terms of educational attainment, occupation, income, size of land holding, religion, caste, race etc. A study of differential fertility is useful in identifying the factors which determine fertility levels among various sub groups. A study of differential fertility is also important from the point of view of the implementation of family planning programme because it helps us identify high fertility groups on which the programme efforts can be concentrated (Clyde and Whelpton, 1990). In this section an attempt is made to study of differential fertility based on different factors.

## **Ecological Factors**

### **(a) Regional Differences in fertility**

The fertility rates of various region or states within one country may differ widely. In Nepal, for instance, there is a variation in the fertility levels of various development regions. There are considerable differentials in fertility among ecological zones, with fertility ranging from a low of 2.5 births per woman in the Terai to a high of 3.4 births per woman in the mountain zone. The TFR ranges from 2.5 births per woman in the Eastern, Central, and Western regions to 3.2 births per woman in the Mid-western region (MOHP, 2011)

### **(b) Rural-Urban Residence and Fertility**

Numerous studies have been conducted on fertility differential according to rural – urban residence. Towards the end of the last century, in the low fertility areas of the world, it was found that the fertility of those residing in cities was lower than that of rural residents. The National Sample Survey and the Sample Registration Scheme in India have consistently shown the rural crude birth rates to be higher than the urban crude birth rates. Fertility is considerably higher in rural areas (2.8 births per woman) than in urban areas (1.6 births per woman), where fertility is below replacement level. As the ASFRs show, the pattern of higher rural fertility is prevalent in all age groups. The urban-rural difference in fertility is most pronounced for women in the 35-39 age group (16 births per 1,000 women in urban areas versus 39 births per 1,000 women in rural areas). The overall age pattern of fertility, as reflected in the ASFRs, indicates that childbearing begins early. Fertility is low among adolescents, increases to a peak of 187 births per 1,000 among women age 20-24, and declines thereafter (MOHP, 2011).

## **Socio Economic Factors**

### **(a) Educational attainment and Fertility**

The educational attainment of couples has a very strong bearing on the number of children born. Educational attainment, especially of women, is one of the indicators of modernization and the status of women in society. In low fertility countries,

historically the relationship between fertility and the educational attainment of the wife has been a negative one, in the sense that the higher the educational level, the lower was the family size. In the high fertility countries, such as Egypt, Taiwan and Chile, a distinct negative relationship has been observed between the educational attainment of the women and the number of children born to her. The differences observed in the fertility performance arising out of the educational status of women may be mainly due to two factors: the differential age at marriage and the differential practice of family planning. Higher levels of education for women are usually associated with a higher age at marriage. It may also be noted that the higher levels of educational provide a higher level of information about keeping fertility under control and create and sustained motivation to keep the family size small with a view to achieving better standards of life.

Two Indian studies have established a distinct relationship between the education of the woman and fertility. The first study was conducted in the metropolitan city of Greater Bombay in 1966, and the second in Panaji, Goa, in 1969 (Bhende and Rao, 1983). A negative association between the educational attainment of married women and fertility was observed in Greater Bombay; and this association was sharp and consistent for each group. The nearly completed family size in the age group of 40 and above for women. Who were matriculates or had studied beyond that level, was 2.95, which was distinctly lower than the corresponding average for women with a lower educational attainment. In Panaji, it was found that the average number of children ever born, standardized for age, was 3.51 for those who were either illiterate or had studied up to primary school level, 3.45 for those who had some secondary school education but had not passed the matriculation examination, and 2.57 for those who had either passed the matriculation examination or had studied beyond that level.

#### **(b) Economic Status and Fertility**

General studies in the past have highlighted the inverse relationship between the economic status of the family and fertility. This traditional relationship is now undergoing substantial changes as far as the developed countries are concerned. It is obvious that as per capita monthly household expenditure increases, the fertility rate goes down. Thus an indirect relationship between income and fertility has been confirmed.

**(c) Occupation and Husband and Fertility**

In developed countries occupation especially that of the husband is used as an indicator of social economic status, and differential fertility is studied according to the occupation of the husband. Studies conducted in Europe around 1970 indicated that the wives of farmers and farm workers recorded a higher fertility than the wives of men engaged in non – agriculture occupations. (UN, 1970). In India, some studies have tried to investigate the relationship between the occupation of the husband and fertility. It was generally observed that the wives of those engaged in professional jobs had the lowest fertility. Agarwal found that cultivators and labourers, had, on average, 7.4 children, and those who reported their occupation as service and those who were professionals had, on an average, 6.6 children. (Agarwal, 1970).

**(d) Employment of Wife and Fertility**

It has been found that in several studies that the gainfully employed women have a smaller number of children than those who are not employed.

**(e) Religion, Caste, Race and Fertility**

Religion is one of the important factors affecting fertility. The study of various religions as well as ethnic groups has important social and political implications (Weiner, 1971). Several studies have been conducted in developed as well as developing countries to investigate the influence of affiliation to a particular religion on the fertility behavior of the people. At one time, all the religions of the world, except Buddhism, were pro-natalist or populationist. The injunction laid down in various religions indicate the importance of high fertility. Some illustrations are: “Be fruitful, multiply and replenish the earth” (Judaism and Christianity); Marry a woman who holds her husband extremely dear and who is richly fruitful” (Islam); Make the bride the mother of the good and fortunate children, bless her to get ten children and make the husband eleventh one” (Hinduism) (Lorjmer and Osborn, 1934). Some sociologists are of the opinion that minority religious groups may tend to have higher fertility rates to gain more political power (Heer, 1968).



As caste is an important indicator of social status, attempts have been made in several studies to observe fertility differentials by caste. In a study conducted in Lucknow City, it was observed that upper caste Hindus had, on average, 3.8 live births, while the lower caste Hindus had, on average, 4.1 births (Saksena, 1973)

In multi-racial societies, differences in fertility have been found among various racial groups. In the United States, for example the Negroes show a higher fertility than the white community. These differences, however, have been explained away by socio economic factors.

## **2.4 Empirical Literature Review**

Low level of death and high level of fertility rate is the main factor 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.

### **2.4.1 Education and Fertility**

The level of fertility declines with the increase in educational level of females. The same applies for literacy status (higher the level of female literacy in a community the lower will be the fertility). This also implies that the level of fertility should be lower for the literate females as compared to illiterate females (CBS, 1995).

The relationship between education and fertility is more pronounced in less developed countries than in developed countries. A study conducted showed high fertility among the women with elementary level of education than graduate in USA (UN, 1973, p.98). The relationship between education and fertility is two way traffic in which more in education but educational enchantments eventually help fertility decline. Nepal Family Health Survey (NFHS) 1996 showed a strong relationship between education and fertility. Women with at least some secondary education have a TFR with 2.5 women with primary education have TFR 3.8 where as women with no education have TFR of 5.1 (MOH, 1996).

According to the Demographic and Health Survey 2001, there is a strong association between fertility and education with the TFR of woman with no education on (4.8) is

more than double of women with at least on S.L.C. level of education (2.1). Education has been considered as a catalytic agent to reduce fertility in Nepal. Educated women are more aware of the issue of quality of children than non-educated. There is a weak inverse relationship between respondents education and polygamous the proportion of married women in a polygamous union is 5 percent among uneducated women as compared with 3 percent among women who had at least S.L.C. level of education. The corresponding data for man is 4 percent and 1 percent respectively. This indicates that as the level of schooling increase both women and men are less likely to be in a polygamous union. The desire to limit child bearing is more apparent at higher level of education than at lower levels (MOH, 2002).

According to the NDHS survey 2003, the mean (CEB) among women with secondary level of education is 3.7 as compared to those with no education 5.6. Similarly, Level of fertility is inversely related to women's educational attainment, decreasing rapidly from 3.7 births among women with no education to 1.7 births among women with a School Leaving Certificate (SLC) or above. Fertility is also associated with wealth quintile. Women in the lowest wealth quintile have an average of 4.1 births, nearly three times as many as women in the highest quintile (1.5 births) (MOHP, 2011).

#### **2.4.2 Age at Marriage and Fertility**

Age at marriage in most of the societies is the beginning of a woman's exposure to the risk of child bearing. Age at marriage is a main determinant of the duration and tempo of fertility in a population. Consequently age at marriage and proportion of women never married are important proximate determinant of fertility (Bongaarts and Potter, 1983).

Early and universal mean age prevails through as developing country like Nepal. Even legally accepted age at marriage for boy and girls is only 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 Mongoloid group

17 – 25 years and lower found in Brahmans 13 – 15 years in 1981. It shows that age at marriage is strong determinant of the number of CEB. As the age at marriage increase, the number of CEB decreases (Dahal, 1989).

Increases age at marriage will have a depressing effect on the number of younger women who are exposed to pregnancy (CBS, 1987). There are three nuptial factors that affect fertility. Which are policy implications for planners: delayed marriage, decreased incidence of widowhood among women of reproductive capability and positive association between age at marriage and complete fertility for women less than 10 years (Tuladhar, 1989, p. 87). Singular mean age at marriage for Nepalese women is 18.1 years in 1991 which were 17.2 in 1971(CBS, 1995). Average age at marriage for female increased over 20 years duration (Acharya, 2000).

The Nepalese society is characterized by early and nearly universal marriage. Marriage usually takes place early and by the age of 30 almost every women is married. Early and universal marriage practice in Nepal result in long term social and economic consequences including higher fertility. If a mother gets pregnant during her early teens then the health of both the mother and child is adversely affected (CBS, 2002).

The increase in age at marriage has a negative impact on fertility for two basic reasons. First, women who marry later have a shorter reproductive lifespan and second, the factors that affect the age at marriage also affect the desired family size norms thereby reducing fertility. For example if a women marries later because she is studying then her fertility will also be lower as her desired family size is smaller (MOPE, 2002).

Higher the age at marriage lower the level of fertility. Fertility and Family Planning Survey in Nepal shows a completed fertility of Nepalese women who married at the age of less than 13 had mean number of CEB is 6.0 with women who get in the age of 25 years and above had 3.8 average number of CEB per women (MOH, 1997). Singular mean age at marriage for Nepalese women was 19.9 in 2001 where as 18.1 in 1991 (MOH, 2002).

Childbearing begins early in Nepal, with almost one quarter of women giving birth by age 18 and nearly half by age 20. Seventeen percent of adolescent women age 15-19 are already mothers or pregnant with their first child. In the last five years, teenage pregnancy has fallen by 10 percent (MOHP, 2011)

Because of low rate of literacy, it has influenced on age at marriage that differs in determining fertility in Nepal. By some studies it is indicated that formal age at marriage contributes to significant reduction in fertility in any traditional society.

### **2.4.3 Occupation and Fertility**

Occupation of the husband has been widely recognized as one of the influencing factor on fertility. High fertility has been associated with agricultural and mining and low fertility has been associated with professional classes in urban industrial country (UN, 1973).

Female in different occupations are found to have different fertility levels. The mean number of CEB per ever married women is highest for the farm workers and sales workers which is 2.7 but the lower fertility is observed among the professional, administrative and clerical workers with 1.1 less than farm workers 1.6 (CBS, 1995). The CBS information emphasized that there is a remarkable difference between white color and blue color occupation groups of women.

Adhikari (1996) found that the work status of women inversely related with mean number of CEB. In Nepal husband's status of work plays on important role in declining fertility level. For example, women whose husband were engaged in farm occupation had higher fertility 3.27 mean CEB than that of non-farmer 3.19 mean CEB for women.

The employment of women outside of the home or in the farm reduced the level of fertility behavior. The world fertility survey showed women who do modern types of works, marry on average 24 years later than whom on domestic working and agricultural workers, which is very remarkable to reduce the fertility level (Kattel, 2001).

Occupation, one of the catalytic socio- economic factors that identify sub groups with district level of fertility while observing the fertility in farms of CEB of different group of people i.e., not working, agricultural and household and non-agricultural. According to BDCS 1996 Nepal, the CEB for not working was 3.2, 3.3 for agricultural and household and 2.9 for non-agricultural (Acharya, 2002).

#### **2.4.4 Contraceptive use and Fertility**

Various studies have been shown that use of contraception has strong negative association with fertility. Contraception use is the principal variable responsible for the shift of fertility from high to low fertility.

There are several reasons for the low of retention of family planning method in Nepal. Method is not available to a larger number of couples and even where they exit family planning workers has not been affective in motivating couples to use contraceptives. The practices of family planning are culturally on contraception (Subedi, 1996).

Several studies showed that there is an inverse relationship between increase in contraception use and fertility. For example, in Bangladesh, the declining trend in fertility was attributed to an increase in contraceptive use where contraceptive prevalence rate increased from 8.5 percent in 1975 to 26 percent in 1986 (Neupane, 1997).

Fertility and health survey 1996 reported that about 28 percent of both ever married and currently married women of age group 15 – 19 knew at least one method of family planning. Among them 38 percent of currently married women have been reported to be ever user of contraception and 35 percent are using the modern method (kattel, 2001).

The NDHS 2002 indicated that 39 percent of currently married women are using a method of family planning. The 35 percent who are using modern contraceptives represents a dramatic increase in the 1996.

There has been a five-fold increase in the percentage of currently married women, who have heard about modern methods of contraception in the last 20 years (from 21

percent in 1997 to nearly 100 percent in 2001). This high level of knowledge is a result of the successful dissemination of family planning message (MOH, 2002).

The total number for family planning has been increased over the years. In 1991 it was 52 percent which increased to 67 percent in 2001. Likewise there has been nearly 72 percent increase in CPR during these 10 years. Because of the increase in CPR over the years, the proportion of unmet need has decreased during the period 1996 and 2001 (MOH, 2002).

The current use of contraception or Contraceptive Prevalence Rate (CPR) is expressed as the percent of currently married women who report using a method at the time of the interview. The level of modern contraceptive use in Nepal has increased gradually in the last two decades. The current use of contraceptives has gone up from 3 percent in 1976 to 48 percent in 2006. Of this 48 percent sterilization accounts for 24 percentage points and the users of temporary methods of contraception account for about 24 percentage points. Among methods, female sterilization has become most popular with nearly 18 percentage points, whereas male sterilization has not gained similar popularity (CBS, 2011).

Knowledge of contraception is universal in Nepal. One in two currently married women is using a method of contraception, with most women using a modern method (43 percent). The three most popular modern methods used by married women are female sterilization (15 percent), injectables (9 percent), and male sterilization (8 percent). Use of modern methods has increased by 66 percent in the past 15 years. However, there has been little change in the last five years. The government sector remains the major provider of contraceptive methods, catering to more than two in three users (69 percent). Overall, 51 percent of contraceptive users discontinued using a method within 12 months of starting its use. Twenty-six percent of episodes of discontinuation occurred because the woman's husband was away. Twenty-seven percent of currently married women have an unmet need for family planning services, with 10 percent having an unmet need for spacing and 17 percent having an unmet need for limiting (MOHP, 2011).

#### **2.4.5 Mortality and Fertility**

Choudhary et al. (1976) demonstrated a positive relationship between the number of children ever born and the number of children died. Knoded (1977) exhibited a strong correlation between level of infant mortality and fertility from the data of the nineteenth century.

High fertility is a fundamental adjustment of high mortality and that high fertility is necessary for group survival when mortality is high (Bhende and Kanitkar, 2003). Fertility decline is most affected by mortality decline, broad social and economic development and family planning programs (Freedman, 1982).

There is a deep relationship between the survival of the children and fertility. Due to the birth of children to very younger or older women or due to the poor health facilities, the risk of dying is still found in the case that if their mother already had many children or born in the short interval. This highly loss of children or infant lead to high fertility in order to compensate for the decreased number of children (Pant, 1996).

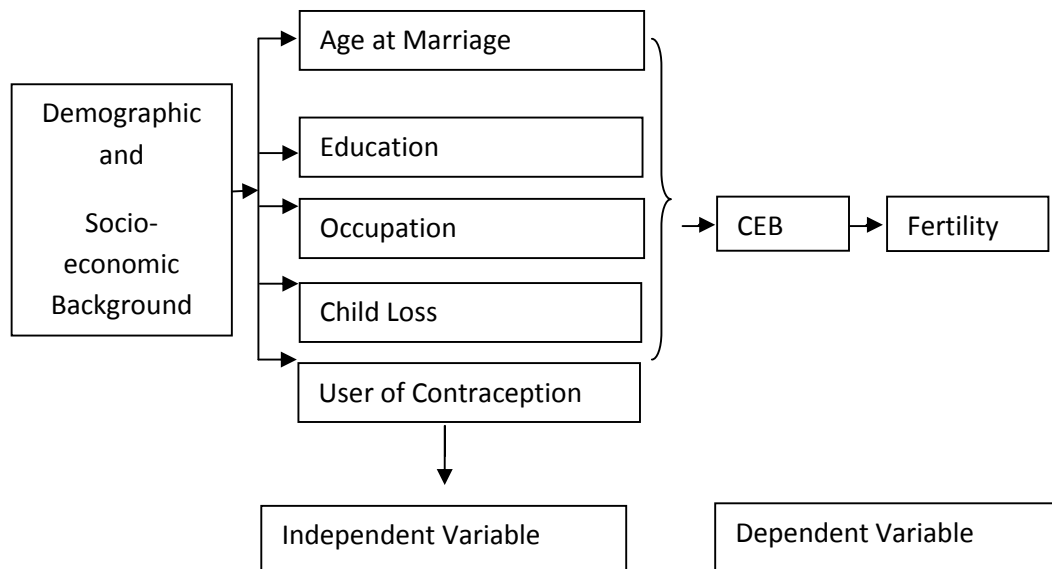
Therefore, the interdependent relationship between fertility and infant mortality suggest that a reduction in infant, child mortality will trigger a subsequent declining in fertility. It has also been found that a lower IMR motives couples to produce fewer children (MOPE, 2002).

Infant and under-five mortality rates in the past five years are 46 and 54 deaths per 1,000 live births, respectively. At these mortality levels, one in every 22 Nepalese children dies before reaching age 1, and one in every 19 does not survive to his or her fifth birthday. Infant mortality has declined by 42 percent over the last 15 years, while under-five mortality has declined by 54 percent over the same period. Childhood mortality is relatively higher in the mountain ecological zone than in the Terai and hill zone and is highest in the Far-western region. The neonatal mortality rate in the past five years is 33 deaths per 1,000 live births, which is two and a half times the post neonatal rate. The perinatal mortality rate is 37 per 1,000 pregnancies (MOHP, 2011).

## **2.5 Conceptual Framework**

Davis and Blake (1995) framework is one of the well-known framework which is focused on the institutional mechanisms in society and listed eleven intermediate variables. These variables operate upon individual fertility between the factors biological, social psychological or cultural (Cited in Aryal, 1997). The proposed research framework set out in figure consider that the age at marriage, education, occupation, child loss experience, and uses of contraception are the independent variables and they combine determine the level of fertility.

**Figure 2.1: Proposed Conceptual Framework**



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

To conduct the study, descriptive and exploratory research design has been used as the research design. Descriptive research design is used mainly for conceptualized of the problem and exploratory research design is used mainly to analyze the relationship between the children ever born and specific socio – economic and demographic variables of Dalit community.



### **3.2 Nature and Sources of Data**

This study is based qualitative as well as quantitative data as per the requirement of the study to fulfill the specified objectives. This study is based on primary data collected from the field survey. The questionnaire was used as an instrument for data collection. The questionnaire was formulated to identify the information relating to socio economic and demographic variables regarding fertility. The respondents are ever married women aged 15–49 years. Structure and semi structure questionnaire are used for the data collection regarding fertility behavior of Dalit community using interview method of each of the selected ever married women age 15–49 years. Secondary data are also be used as per the requirement of the study.

### **3.3 Sampling design**

Altogether there are 43 Village Development Committee in Kaski district .To meet the objective of the study, Lamachaur VDC is selected as sample for this study. For the sampling purpose convenience sampling method is used. There are nine wards in Lamachaur VDC. Out of nine wards, ward no 6, 7 and 8 are selected using purposive sampling. This is because most of the lower caste people are located in these wards. Altogether there are 85 households in ward 6, 7 and 8. Every household of Dalit community in ward no 6, 7 and 8 of Lamachaur VDC are included in the study and the household data collection is base on primary household enumerating system. To fulfill the objectives of the study, information have been collected from Dalit married women of reproductive age and they are selected as census. There are 85 household and 85 eligible women have been administered the questionnaire relating to fertility. The respondents are ever married women aged 15–49 years.

### **3.4 Questionnaire Design**

Two types of questionnaire are used based on the objectives of the study. They are:

- A. Household questionnaire
- B. Individual questionnaire

Household questionnaire are used to list family members and their relations to the head of household and other socio-economic and demographic characteristics of each

household. The objective of the household questionnaire is also to identify the eligible respondents for individual interview.

Individual questionnaire are used to gather information from ever married (15- 49) years from the householder under study. The information have been focused on household information aged at marriage, educational attainment, knowledge and use of family planning, marital status and CEB to find out the fertility behavior of Dalit community people.

### **3.5 Selection of the Variables**

In this study, the number of CEB of the women within the reproductive age is considered as dependent variable. The independent variables constitute:

- (1) Demographic Variables
  - i. Age at marriage
  - ii. Child Loss
- (2) Socio-economic Variables
  - i. Education
  - ii. Occupation
- (3) Family Planning Variables
- (4) Use and non- use of contraception

### **3.6 Method of Data Analysis**

In this study univariate analysis has been conducted to show the level and pattern of fertility behavior.. The method of analysis employed in this study includes; i) Ratio ii) Mean iii) Standard deviation and iv) Correlation Coefficient.

#### **Ratio**

Simply, ratio is the one number divided by another number. An absolute figure is difficult to interpret. Hence, ratio is calculated to find out the relative position of the variable under study. It is calculated as:

$$\text{Ratio} = \frac{\text{Item X}}{\text{Item Y}}$$

### **The Mean**

The arithmetic mean is also known as the average. The mean is the figure when the total of all the values in a distribution is divided by number of values in the distribution. Arithmetic mean can be calculated by the following formula:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N}$$

### **Standard Deviation**

One of the standard measures of variance is the standard deviation. The standard deviation is a function of the differences between each individual score and the overall mean score, and of the sample. Hence, if all scores were exactly the same, the standard deviation would be zero, because there would be no differences between individual score and the mean. The standard deviation can be calculated by using this formula:

$$\text{Standard deviation } (s) = \sqrt{\frac{\sum (X - \bar{X})^2}{N - 1}}$$

### **Correlation Coefficient (r)**

The statistical technique to identify or measures relations between two variables or more variables is called coefficient of correlation coefficient. Correlation coefficient could range between -1.00 and + 1.00. That is, correlation coefficients cannot exceed value of 1, and cannot be lower than -1. 1.00 means that there is a perfect linear relation and that the two variables change or vary in the same way. A correlation of 0 is an indication of the absence of a linear association between variables. -1 means that there is perfect linear negative correlation. That is, the variables change in an opposite manner. Correlation coefficient can be calculated by using this formula.

$$r_{XY} = \frac{n \sum XY - \sum X \times \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \times \sqrt{N \sum Y^2 - (\sum Y)^2}}$$



## **CHAPTER FOUR**

### **PRESENTATION AND ANALYSIS OF DATA**

#### **4.1 An Introduction to the Study Area**

Nepal is the country of multi-lingual, multi-religious and multi ethnic society. According to census 2011, the total population of Nepal is 2, 64, 94,504 and annual growth rate 1.35 percent with fertility rate 2.6 per woman. Out of total population male and female represent 48.5 and 51.5 percent respectively. The sex ratio is 94.16. ie. 94.16 male per 100 female. The highest sex ratio is in Manang District (127 males per 100 female) and lowest sex ratio is in Gulmi District (76 male per 100 woman). The density of the population is 180 per square kilometer. Out of total population 56.96 percent of the total population is in the age between 15- 59. Similarly, population of age below 15 represents 34.91 percent and age above 59 represents 8.13 percent. The total household increases to 54, 27,302 and average size of the family is 4.88. The highest and lowest family size are 6.44 in Rautahat and 3.92 in Kaski district. Out of 125 castes, Kshetry represents 16.6 percent, Brahmin represents 12.2 percent and Kusunda represents only 273 people (CBS, 2011).

Out of total population age in 10 years and above, 35.6 percent remain unmarried. Similarly, 40.6 percent male remain unmarried out of total population of male age in 10 years and above and 31.1 percent female remain unmarried out of total population of female age in 10 years and above. About 48.9 percent persons married in the age of 15–19. Likewise, 11.5 percent persons married below 14 years age and marriage above 50 years represents 5086 persons. The literacy rate of the population aged above 4 years is 65.9 percent. Similarly, male literacy rate and female literacy rate are respectively 75.1 and 57.4 percent.

Kaski District is in Gandaki Zone, which is western part of Nepal, and is between the latitude 28 06' North and longitude 84 12' East. The total area of this district is 2017 square Km. This district has 43 VDC, one sub metropolitan and one municipality. According to the census 2011, total population of this district is 4, 92,098. Out of which male and female represents 2, 3                      d 2, 55,713 respectively. The average

growth rate of population is 2.57 percent. The literacy rate is 82.4 percent. Similarly, the male literacy rate and female literacy rate are respectively 90.10 percent and 75.35 percent.

The study area is chosen as Lamachaur VDC of Kaski District. The total area of this VDC is 6.72 square kilometer. This VDC has 9 wards and the total households are 1,745. The total population of this VDC is 7,027. Out of which male constitute 3,179 and female constitute 3,848. The particular study area is ward no 6, 7 and 8. Brahman, Chhetry, Kami, Damai, Sunar are the different castes residing in this area. But the study is concentrated on only lower caste people. Lower caste people are culturally neglected and isolated among other high caste people. Most of the lower caste people are engaged in ploughing, tailoring, and other labor based works. Lower caste people have low economic status and large family size even though they are living in mixed caste groups of other so called higher class. This study is concentrated to expose the hidden reasons of high fertility and low economic status of Lower caste in this area.

## **4.2 The Study Population**

In the specific study area of Lamachaur VDC, there are 1,745 households with total population 7,027. Out of which male constitute 3,179 and female constitute 3,848. Out of the total households, lower caste consists of 85 in ward 6, 7 and 8. The total population of the study area is 420. Out of the total population, 85 eligible women were selected from 85 households using complete enumerator method. The respondents taken for the study are married women of aged 15 – 49 years. This study is based on field survey based on both primary and secondary data but the analysis depends upon the primary data, which was collected by administering the survey questionnaire. The research is on the socio-economic and demographic impact on fertility behavior among Lower caste community women. Fertility behavior is examined by number of CEB by correlating with age at marriage education, occupation, child loss experience and use of contraception.

## **4.3 Background Characteristics of Household**

It is important to understand clearly the overall background characteristics of the population being considered in the study. Background situation includes demographic and socio-economic characteristics. In this section an attempt has made to analyse the demographic and socio-economic characteristics of the total population under study.

### 4.3.1 Age – Sex Structure

The total population and composition of male and female under study is presented in table 4.1.

**Table 4.1**  
**Age Sex Distribution and Sex Ratio of the Study**

Age group	Population						
	Male	%	Female	%	Total	%	Sex Ratio,%
0-4	12	5.58	13	6.34	25	5.95	92.3
5-9	23	10.70	11	5.37	34	8.11	209.11
10-14	22	10.23	16	7.80	38	9.05	137.5
15-19	18	8.37	23	11.22	41	9.76	78.26
20-24	29	13.49	29	14.15	58	13.81	100
25-29	23	10.70	25	12.20	48	11.43	92
30-34	11	5.12	13	6.34	24	5.71	84.62
35-39	17	7.91	10	4.88	27	6.43	170
40-44	14	6.51	23	11.22	37	8.81	60.87
45-49	7	3.26	17	8.29	24	5.71	41.18
50-54	16	7.44	4	1.95	20	4.76	400
55-59	4	1.86	4	1.95	8	1.90	100
60-64	3	1.39	5	2.44	8	1.90	60
65-69	4	1.86	3	1.46	7	1.67	133.33
70+	12	5.58	9	4.39	21	5	133.33
Total	215	100	205	100	420	100	104.88

**Source: Field Survey, 2013**

The age sex composition of the population is the most important factor for studying fertility. This study included a sample population of 420 from 85 households. Out of the total population 51.20 percent were male and 48.80 percent were female. Among these 85 female were eligible respondents of reproductive aged 15 – 49 years.

The highest proportion of population was found in age group of 20-24 (13.81%), followed by age group 25–29 (11.43%), age group 15–19 (9.76%) and so on. Likewise, the highest proportion of male and female were also found in age group of 20–24. The lowest proportion of population was found in age group 65–69 (1.67%). It indicates that there exists higher proportion of population as a result of higher fertility. Table 3.1 shows that middle aged population was greater than that of lower aged and older aged. The table 3.1 also shows the sex ratio which is calculated male divided by female in each age group. On an average, the number of male per 100 female was 104.88.

### 4.3.2 Educational Status of Household Population

Education is an important variable of the social characteristics of the persons covered in the study. It is useful to analyse fertility by considering its impact on the fertility. Hence it is important to know the educational status of the study area. In this study, only the population aged 5 years and above was included to determine the educational status of the population under study.

**Table 4.2**  
**Distribution of the Population by Education Status by Sex**

Educational Status	Population by sex					
	Male		Female		Total	%
	No.	%	No	%		
Literate	167	82.3	122	63.5	289	73.16
Illiterate	36	17.7	70	36.45	106	26.84
Total	203	100	192	100	395	100
Educational attainment						
Primary	97	58.08	52	42.62	149	51.56
Lower Secondary	40	23.95	36	29.51	76	26.30
SLC and above	20	11.98	20	16.39	40	13.84
Non Formal Education	10	5.99	14	11.48	24	8.30
Total	167	100	122	100	289	100

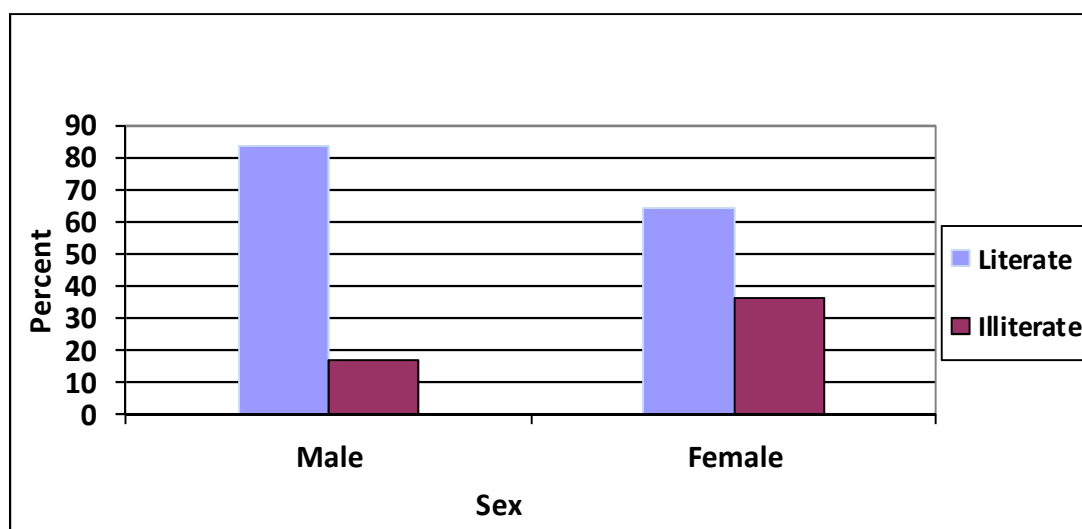
**Source: Field Survey, 2013**



Table 4.2 shows that out of total population 395 populations were aged 5 years and above. Out of total population 289 (73.16%) were literate and 106 (26.84%) were illiterate. Similarly, out of total literate male represents 167 (57.79%) and female represents 122 (42.21%). It indicates that the male literacy was greater than female literacy.

Among the literate population majority (51.56%) of the literate accounted for primary level education, which was higher for male (58.08%) than that of female (42.62%). Similarly, out of total population 26.30 percent have lower secondary education. But in case of lower secondary education, the proportion of female (29.51%) was greater than that of male (23.95%). Likewise, 13.84 percent population have SLC and above education. In this class also, female proportion was greater than that female proportion. The proportion of non-formal education represents only 8.30 percent. The overall education status indicates that low female literacy rate may be the cause of higher fertility rate.

**Figure 4.1**  
**Distribution of Population by Their Literacy**



### 4.3.3 Marital Status of Household Population

Marriage is the social phenomenon and universal in Nepalese society. It is most important factor in population dynamics as it affects fertility tremendously. Table 4.3 shows the marital status of the study population of aged 10 years and above.

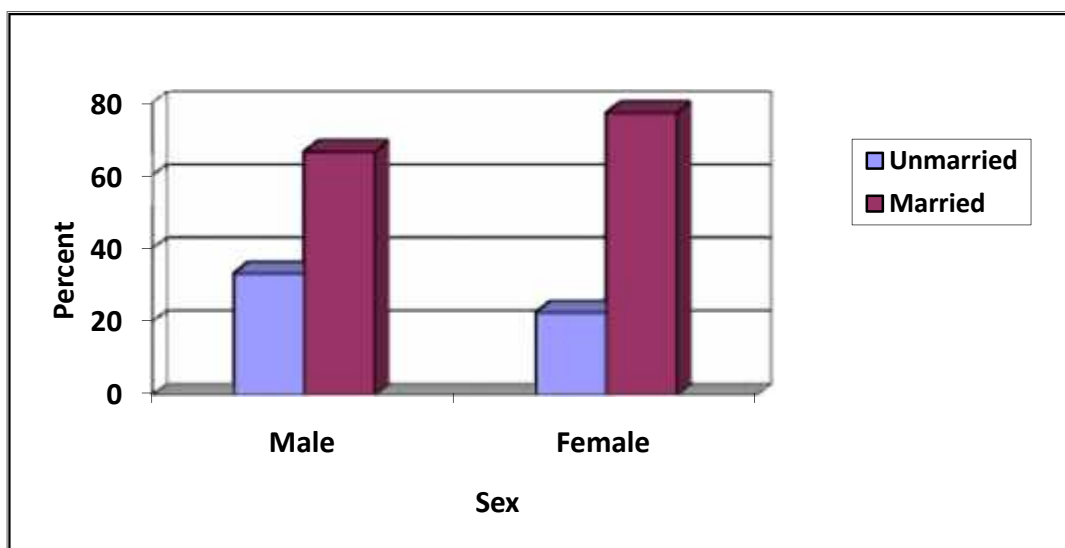
**Table 4.3**  
**Marital Status of Household Population by Sex**

Marital Status	Population					
	Male	%	Female	%	Total	%
Unmarried	60	33.33	41	22.65	101	27.98
Married	120	66.67	140	77.35	260	72.02
Total	180	100	181	100	361	100

**Source: Field Survey, 2013.**

Table 4.3 shows that out of total population, 361 (85.95%) population were aged 10 years and above. Out of total 361 population, 101 (27.98%) persons were unmarried and 260 (72.02%) were married. In case of male and female, 33.33 percent of total male and 22.65 percent of total female were unmarried and 66.67 percent of male and 77.35 percent of female were married. The proportion of married female is greater than that of male proportion.

**Figure 4.2**  
**Distribution of Household Population by Marital Status and Sex**



#### **4.3.4 Occupational Status of Household**

Occupational status is an integral part of socio economic development policy. The statistics of the occupation structure of any population is useful for manpower planning. Regarding the occupational status of the Dalit community, 8 different

categories were employed. In this study, population below 10 years was excluded. The occupational composition of the population is shown in table 4.4.

**Table 4.4**  
**Distribution of the Household Population by Occupation**

Occupational Status	Male		Female		Population	
	No	%	No	%	Total	
					No.	%
Agriculture	3	1.67	2	1.10	5	1.39
Service	6	3.33	3	1.66	9	2.49
Business	5	2.78	3	1.66	8	2.22
Household	0	0	59	32.60	59	16.34
Daily wage	122	67.78	74	40.88	196	54.29
Pension	0	0	0	0	0	0
Student	38	21.11	37	20.44	75	20.78
Dependent	6	3.33	3	1.66	9	2.49
Total	180	100	181	100	361	100

**Source: Field Survey, 2013.**

As shown from the table 4.4, out of total population, 361 persons were of age 10 years and above. Out of 361 persons, 54.29 percent were engaged in daily wage that consists of 67.78 percent of male and 40.88 percent of female. Similarly, 20.78 percent of total population was in student representing 21.11 percent of male and 20.44 percent of female. Likewise, 16.34 percent were in household work, 2.49 percent in service and dependent, 2.22 percent in business and 1.39 percent in agriculture. The more surprising is that though the Nepal is agricultural country, only 1.39 percent of the population was in this sector. This is due to the reason that the categorization is based on relative measure rather than the absolute measure. Most of the persons engaged in daily wage were also engaged in agriculture but they are highly dependent upon daily wage rather than agriculture.

#### **4.4 Background Characteristics of Respondents**

To analyse the fertility behavior of the respondents, demographic and socio-economic characteristics of the respondents are better to be ideal. Among various background variables, demographic and socio economic characteristics are analyzed in this section.

#### 4.4.1 Distribution of Respondent by Age Group

The main purpose of the study is to collect information on the study area on fertility behavior among the Dalit community in the reproductive ages 15 – 49 years. Hence, the age distribution of the respondents is presented below.

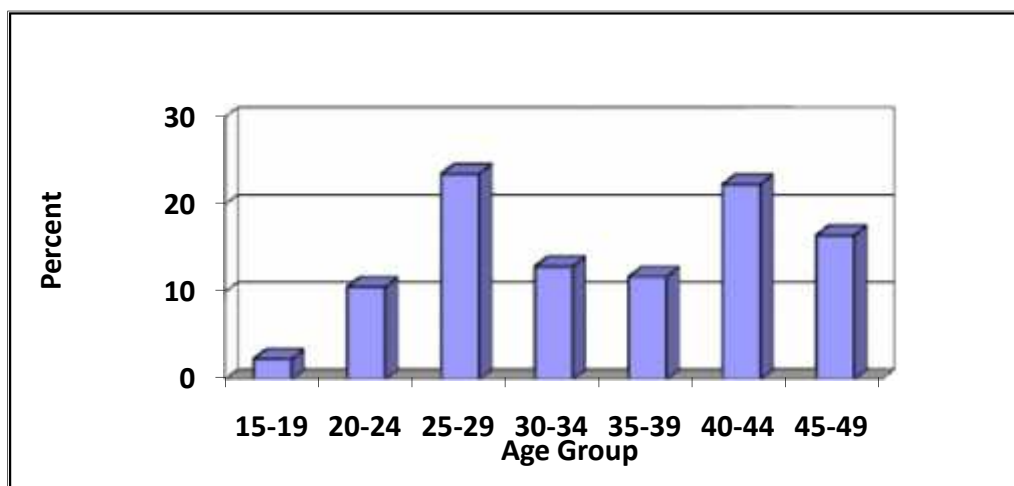
**Table 4.5**  
**Distribution of Respondents by Age Group**

Age group	Eligible Women	
	Number (N)	Percent
15-19	2	2.35
20-24	9	10.59
25-29	20	23.53
30-34	11	12.94
35-39	10	11.76
40-44	19	22.35
45-49	14	16.47
Total	85	100

**Source: Field Survey, 2013.**

Table 4.5 shows that out of total respondents, majority (23.53%) of the respondents were found in the age group of 25-29 and then followed by the age group 40–44 (22.35%), age group 45–49 (16.47%), age group 30-34 (12.94%), age group 35–39 (11.76%), age group 20-24 (10.59%) and age group 15–19 (2.35%).

**Figure 4.3**  
**Distribution of Respondents by Age Group**



#### 4.4.2 Age at Marriage and Currently Married Women

In Nepal generally marriage takes place at an early age and it is almost universal. Early marriage practice generally leads to long term social and economic consequences including higher fertility. Early marriage is insisted due to cultural belief. Age at marriage of eligible women is presented in table 4.6.

**Table 4.6**  
**Distribution of Respondents by Age at Marriage**

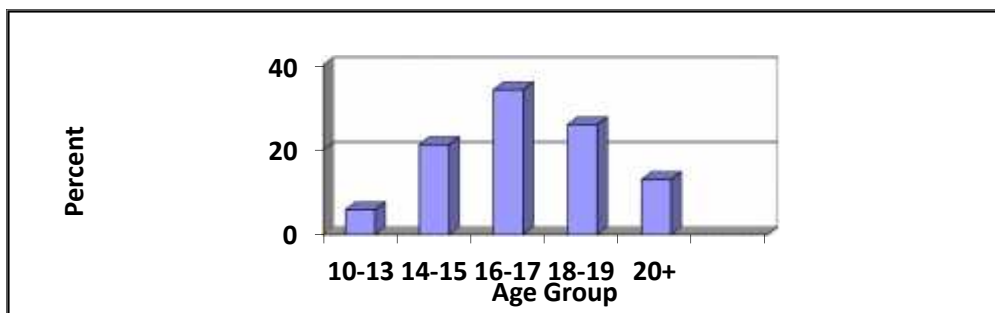
Age at Marriage	Eligible Women	
	Number	Percent
Below 15	10	11.76
15 – 19	64	75.29
20 and above	11	12.95
Total	85	100

**Source: Field Survey, 2013**

Table 4.6 shows that out of the total currently married women, 75.29 percent of the women married at age 15 – 19 and followed by the age group 20 and above (12.95%), and age group below 15 (11.76%). The general theoretical principle of marriage at 20 years and above is supported by only 12.95%. The mean age at marriage has found to be 17 years.

**Figure 4.4**

**Distribution of Respondents by Age at Marriage**



#### **4.4.3 Contraception Knowledge of the Respondents**

Family planning behavior plays the vital role in fertility behavior. Knowledge and practice of family planning methods changes the existing trend of fertility in any population. One of the main purposes of the study is to collect the information about family planning behavior of Dalit community. Every eligible women were asked about the knowledge of family planning. Information regarding contraception knowledge is presented in the following table.

**Table 4.7**

**Knowledge and Practice of Family Planning method**

Knowledge of family planning method	Number	Percent
Pills	57	67.05
IUD	5	5.88
Depo	59	69.42
Female sterilization	73	85.88
Male Sterilization	71	83.53
Condom	46	54.12
Norplant	11	12.94
Kamal	19	22.35
Withdrawl	4	4.70
Injectable	2	2.35

**Source: Field Survey, 2013.**

Regarding the knowledge of the family planning method, 85.88 percent have the knowledge of female sterilization, 83.53 percent have the knowledge of male sterilization, 69.42 percent have the knowledge of Depo and then followed by Pills

67.05 percent, Condom 54.12 percent, Kamal 22.35 percent, Norplant 12.94 percent, IUD 5.88 percent, withdrawal 4.70 percent and injectable 2.35 percent.

#### 4.4.4 Practice of Family Planning Method

Table 4.8 presents the practice of family planning method of the eligible women under study.

**Table 4.8**  
**Practice of Family Planning Method**

Practice of family planning methods	Number	Percent
Ever heard about family planning	78	91.76
Ever users of family planning	66	77.64
Currently users of family planning	49	57.64
Pills	6	7.06
IUD	1	1.18
Depo	11	12.94
Female Sterilization	23	27.06
Male Sterilization	8	9.41

**Source: Field Survey, 2013.**

Table 4.8 shows that 78 eligible women were ever heard about the family planning methods representing 91.76 percent of the total women interviewed. Similarly out of ever heard women, 66 women were ever used which represents 77.64 percent of the total respondents. Similarly, out of total respondents 57.64 percent women were currently using family planning methods. Among users 27.06 percent were the users of female sterilization, followed by Depo 12.94 percent, male sterilization 9.41 percent, Pills 7.06 percent and IUD 1.18 percent. It indicates that currently users other than male and female sterilization want to postpone child bearing unless their child grow up.

#### 4.4.5 Age at Menstruation

Age of first Menstruation of the women is one of the major determinants of fertility. Menstruation in the early age indicates the maturation to reproduce child.

**Table 4.9**  
**Distribution of Respondents by Age of their First Menstruation**

Age at first menstruation	No.	Percent
less than 15	66	77.65
15- 19	19	22.35
20 and above	0	-
Total	85	100

**Source: Field Survey, 2013.**

Table 4.9 shows that out of 85 respondents, majority of the women's first menstruation were at age less than 15 years (77.65%), followed by the age 15- 19 (22.35%). No women had their first menstruation at the age 20 years and above.

#### **4.4.6 Educational Status**

Educational status of the respondent is one of the major determinants of fertility and family planning. Generally speaking, there is negative relationship between educational status and fertility. Table 4.10 shows the educational status of the eligible women.

**Table 4.10**  
**Educational Status of the Respondents**

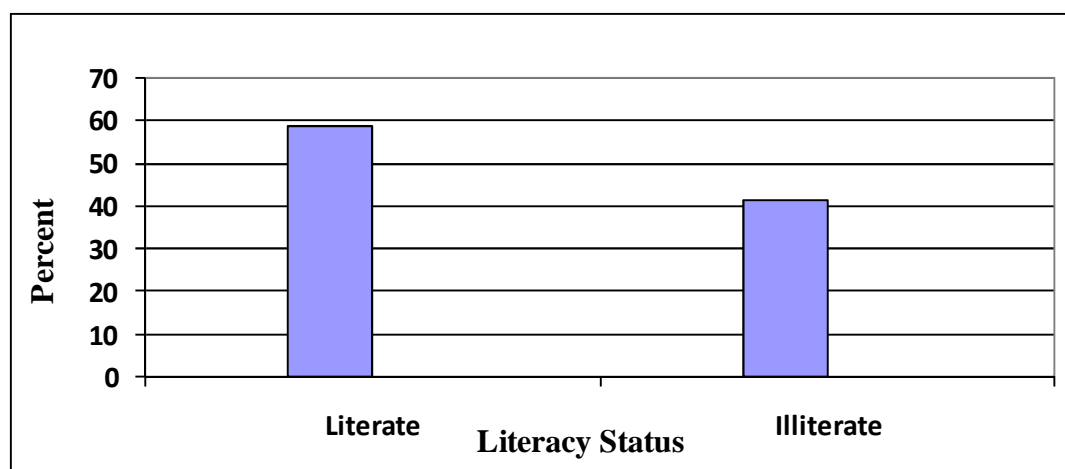
Educational Status	No.	%
Illiterate	35	58.8
Literate	50	41.2
Total	85	100
Educational attainment:		
Primary	17	34
Lower Secondary	13	26
SLC and above	7	14
Non formal education	13	26
Total	50	100

**Source: Field Survey, 2013.**

Table 4.10 shows that out of total respondents 58.8 percent are illiterate and 41.2 percent are literate. Similarly, out of total literate respondents, 34 percent respondents have primary level education, followed by lower secondary (26%), SLC and above (14%), and non- formal education (26%).



**Figure 4.5**  
**Distribution of Respondents by Their Literacy**



#### **4.4.7 Occupational Distribution**

Females in different occupation are found to have different fertility. Occupation is one of the major determinants of fertility. An eligible woman in different occupation is shown in table 4.11.

**Table 4.11**  
**Occupational Distribution of the respondents**

Occupation	Number	Percent
Agriculture	2	2.4
Business	2	2.4
Household work	28	32.9
Daily wage	53	62.3
Total	85	100

**Source: Field Survey, 2013.**

Table 4.11 shows that 62.3 percent women are engaged in daily wage. This was followed by household work (32.9%). Only 2.4 percent are engaged in agriculture as well as business. This table also shows that no women are engaged in service which clearly shows that low economic status of female in the society.

## 4.5 Fertility Differentials by Background characteristics

This section deals with the fertility level according to various demographic and socio economic characteristics of Lower caste women. Fertility level is examined on the basis of currently married women of 15 to 49 years with some selected demographic and socio-economic variables. Variation in Child Ever Born (CEB) is considered as the variation in fertility behavior of lower caste women.

### 4.5.1 Fertility by Age

Child Ever Born changes with the changes in age of mother. Hence, age of mother is one of the major determinants of fertility. It is expected that as the age of married women increases, the mean number of CEB also increases. Older women experiences longer span of reproductive period than young ones.

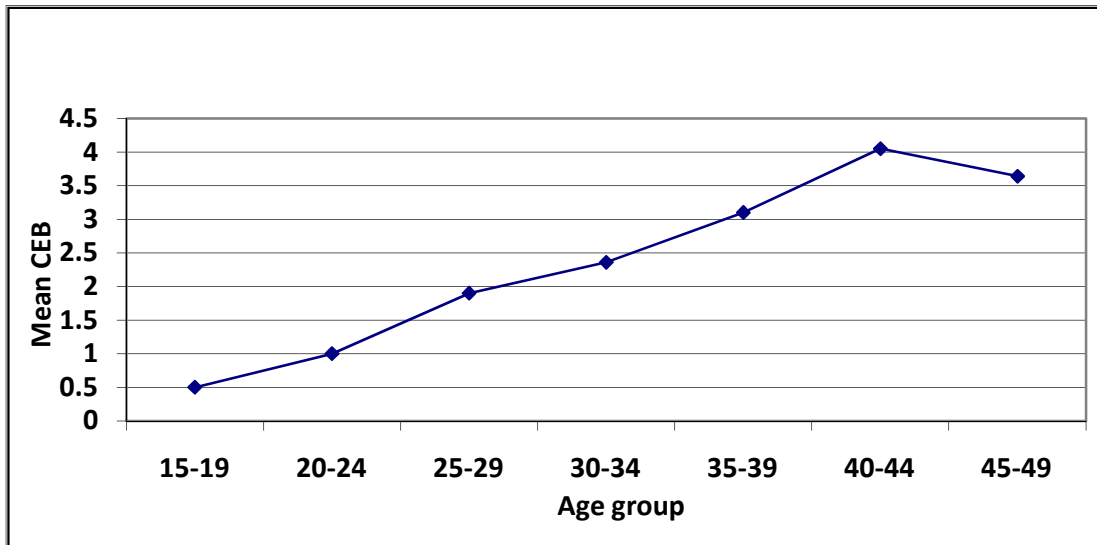
**Table 4.12**  
**Mean CEB by Current Age of Women**

Age group	Number	Mean CEB	St.dev
15-19	2	0.5	0.7071
20-24	9	1.0	0.7071
25-29	20	1.9	0.5525
30-34	11	2.36	0.80904
35-39	10	3.10	1.1972
40-44	19	4.05	0.9732
45-49	14	3.64	1.2157
Total	85	2.74	1.3985

**Source: Field Survey, 2013.**

Table 4.12 reveals that the mean CEB of entire women of the study was found 2.74. There was positive relationship between CEB and age group. As the age group of the women increases, the mean CEB also increases. The average CEB of age group 30 – 34 was 2.36. It reveals that child bearing is highly concentrated in the age group 40 – 44. The dispersion or scatterness as measured by the standard deviation went on increasing with the increase in age group.

**Figure 4.6**  
**Distribution of Mean CEB by the Age Group of Respondents**



#### 4.5.2 Fertility by Literacy Status

When the women become educate their view about family size also changes shifting from large family size to small family size. Education changes way of thinking and ultimately it affects the fertility. Education status of the women plays an important role in lowering fertility. Education influences the fertility in different ways. It lives to awareness of birth control measure and thus directly affects fertility. Education is one of the best contraception and inversely related with fertility.

Fertility behavior in terms of CEB as explained by literacy is considered with literate and illiterate two distinguish categories. Mean CEB by literacy status of the study is presented in table 4.13.

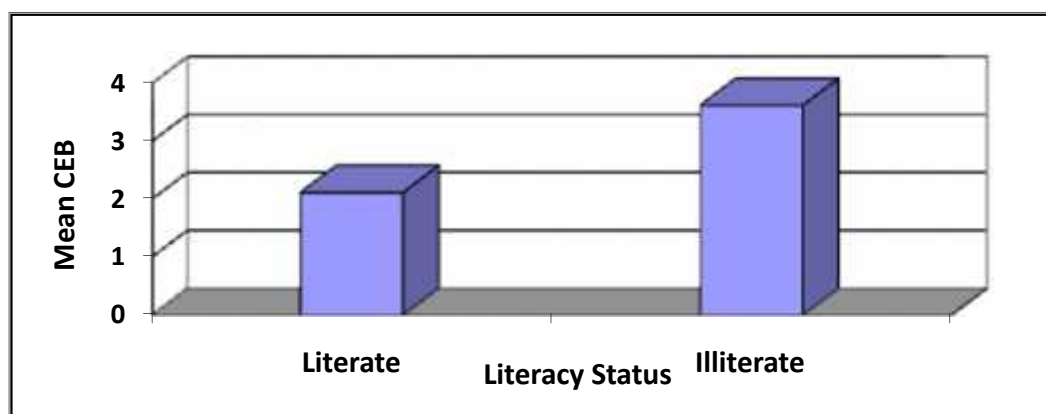
**Table 4.13**  
**Mean CEB by Literacy Status of Eligible Women**

Literacy Status	No. of women	Mean CEB	St.dev
Literate	50	2.12	1.1718
Illiterate	35	3.63	1.2148
Total	85	2.74	1.3985

**Source: Field Survey, 2013**

From table 4.13 it is observed that fertility level between literate and illiterate is significant and the result support that the literate women have low fertility level than illiterate. The mean CEB of literate woman accounts for 2.12 and that of illiterate women is 3.63. Similarly, the standard deviation for literate and illiterate are respectively 1.1718 and 1.2148. It indicates that CEB is more homogeneous among literate women and heterogeneous among illiterate women.

**Figure 4.7**  
**Mean CEB by Literacy Status**



#### 4.5.3 Mean CEB by Age at Marriage

Age at marriage is another important factor of determining women's fertility. Table 4.14 shows the variation in fertility by age at marriage.

**Table 4.14**  
**Mean CEB by Age at Marriage**

Age group	Number	Mean CEB
10-14	10	3.10
15-19	64	2.63
20 and above	11	3.09
Total	85	2.74

Source: Field Survey, 2013.

From the table 4.14 it was found that there is negative relationship between fertility and age at marriage. The mean number of CEB is 3.10 for the women who married between ages 10 – 14. This was the highest mean CEB of the study population. The mean CEB was found lowest (2.63) where age at marriage was age group of 15- 19 years. The mean CEB of the respondents whose age at marriage was age group 20 and above was 3.09. On a nutshell, it can be revealed that as the age at marriage increases the mean CEB of the eligible women decreases.

#### **4.5.4 Occupation and Fertility**

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 fertility behavior, affected by the house holding and employment both the terms are treated as occupation. One of the important determinants of fertility is the occupational status, which relates to fertility behavior and contraceptive practices.

The mean CEB by occupation as reported by the respondents is shown in table 4.15.

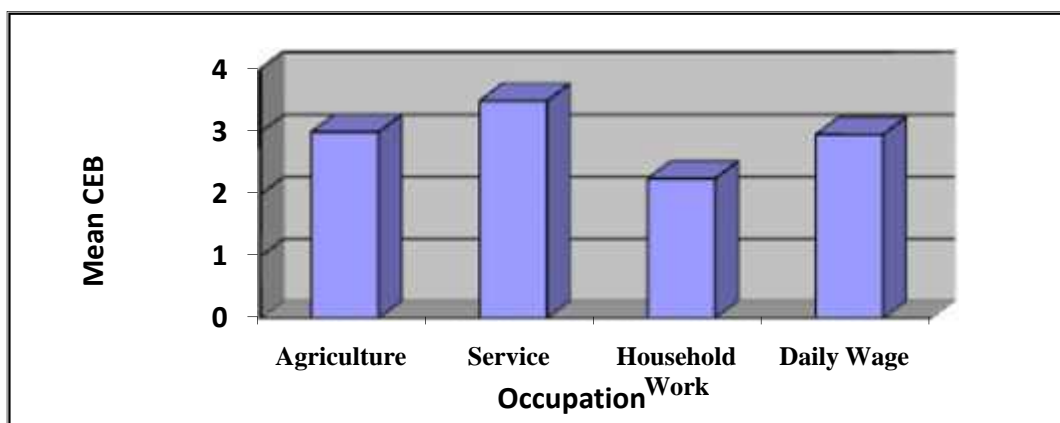
**Table 3.15**  
**Mean CEB by Women's Occupation**

Occupation	Number	Mean CEB	St.dev
Agriculture	2	3	0
Service	2	3.5	2.1213
Household work	28	2.25	1.6015
Daily Wage	53	2.96	1.2398
Total	85	2.74	1.3985

**Source: Field Survey, 2013.**

The mean CEB was the highest (3) among those who involved in agriculture followed by daily wage of 2.96. The lowest mean CEB was found among those who involved in household work. It indicates that Lower caste women's mean CEB is higher due to the non - service involvement. The variability is lowest in agriculture and the highest in service sector.

**Figure 4.8**  
**Mean CEB by Occupation**



#### **4.5.5 Fertility and Users and Non-users of Contraception**

The prevalence of contraceptive has been identified as one of the major determinants of fertility. Contraceptive method is used to prevent women from fertilization and 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. Birth control methods help couples to achieve their desire 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.

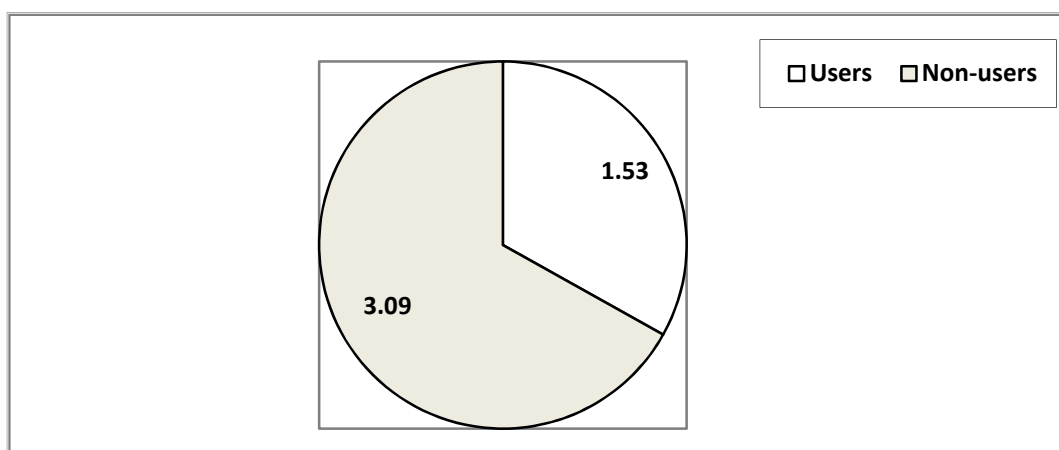
**Table 4.16**  
**Mean CEB and User and Non user of Contraceptives**

Method	Number	Mean CEB	St.dev
Non-users	19	1.53	0.9643
Users	66	3.09	1.3094
Total	85	2.74	1.3985

Source: Field Survey, 2013.

Table 4.16 shows that the mean CEB is 1.53 among those who are not contraceptive users, whereas it is 3.09 for those who are users of family planning methods. The result clearly shows that the rate of fertility is high among users of family planning. The result is quite beyond the general assumption. Similarly, the variability among the users is also greater than that of non-users of family planning.

**Figure 4.9**  
**Mean CEB by Users and Non-users of Contraception**



#### **4.5.6 Mean CEB and Children Died**

Among the several determining factors, child mortality is one of the major determinants. People want to replace the dead child by giving next birth. The lower cast community is not in exception. Hence, there is positive relationship between child loss and fertility. Higher child loss promotes women to reproduce more children,

therefore it is hypothesized that there is a positive relationship child mortality and fertility. Table 4.17 shows the mean CEB by child loss experience of the women.

**Table 4.17**  
**Mean CEB by Children Dead**

Experience of Child Loss	Number	Mean CEB	St.dev
No loss of child	68	2.44	1.20
Loss of child	17	3.94	1.29
Total	85	2.74	1.3985

**Source: Field Survey, 2013.**

From the table 4.17 it is clear that the mean CEB is higher (3.94) under child loss experience group. About 68 women had no experience of child loss. They have very low mean CEB, 2.44. This analysis shows that higher the child loss experience, the more the mean CEB. Not only this, child loss experience group has more variability as compared to the non-child loss experience.

#### **4.6 Correlation Analysis**

The previous section dealt with the fertility behavior among women with various socio-economic and demographic characteristics based on cross and mean tables. This section deals with the fertility behavior using statistical such as correlation analysis. Correlation analysis involves various methods and mechanics used for studying and measuring the extent of the relationship between variables. In this study Karl Pearsons Coefficient of Correlation is used. The measurement of degree of relationship between dependent and independent variable is used to examine the fertility behavior of Lower caste community. Following are the variables used to analyse for correlation.

Where,

CEB = Child Ever Born

AAM = Age at Marriage

.



The correlation matrix forever married women of reproductive age of (15 -49) years of the study population of the above mentioned variables are displayed in table 4.18.

**Table 4.18**  
**Correlation between Age at Marriage and Child Ever Born**

Variables	CEB	AAM
CEB	1.0	
AAM	-0.0601	1.0

There is negative relationship between age at marriage and mean CEB as measured by correlation coefficient. The correlation coefficient is -0.0601. The negative relationship indicates that the higher the age at marriage the lower the fertility level. But, the relationship is weak and statistically not significant.

## CHAPTER –FIVE

# **SUMMARY, CONCLUSION AND RECOMMENDATION**

## **5.1 Summary**

Nepal is facing the problems of high fertility especially in different caste/ethnic groups characterized with distinct characteristics. The high fertility is also pronounced in backward and depressed communities such as Kami, Damai, Sarki, and Gaine, the lower caste group. These communities who are backward in the areas of economic, social, cultural, educational and all other conditions are known as Dalit community, who are supposed to be untouchable. This study, therefore, tries to find out the fertility behavior of lower caste to identify whether the theory match with the real practices or not.

It has been observed that the levels and patterns of fertility vary considerably in various sub groups of the same population. These sub groups may be based on residence, whether urban or rural, social and economic status in terms of educational attainment, occupation, income, size of land holding, religion, caste, race etc. A study of differential fertility is useful in identifying the factors which determine fertility levels among various sub groups. A study of differential fertility is also important from the point of view of the implementation of family planning programme because it helps us identify high fertility groups on which the programme efforts can be concentrated

The main objective of the study is to examine the fertility behavior of lower caste people in relation to demographic and socio economic variables. The specific objectives of the study are: to examine the demographic and socio – economic characteristics of Dalit community, to assess the fertility differential behavior of Dalit community and to examine the relationship between the children ever born and specific socio – economic and demographic variables of Dalit community

This study is based on descriptive cum analytical research design. Descriptive approach is used mainly for conceptualizing the problem and analytical approach is used mainly to analyze the relationship between the children ever born and specific

socio – economic and demographic variables of Dalit community. This study is primarily based on primary data collected from the field survey. The respondents are ever married women aged 15 – 49 years. Structure and semi structure questionnaire are used for the data collection regarding fertility behavior of Dalit community using interview method of each of the selected ever married women age 15 – 49 years. Secondary data are also be used as per the requirement of the study.

Every household of Dalit community in ward no 6, 7 and 8 of Lamachaur VDC are included in the study and the household data collection is based on every household enumerating system. To fulfill the objectives of the study, information have been collected from Dalit married women of reproductive age and they are selected as census. There are 85 household and 85 eligible women have been administered the questionnaire relating to fertility.

In this study, the number of CEB of the women within the reproductive age is considered as dependent variable. The independent variables constitute :(1) Demographic Variables: i. Age at marriage ii. Child Loss (2) Socio – economic Variables: i. Education ii. Occupation (3) Family Planning Variables (4) Use and non-use of contraception. The available data are reclassified, regrouped and analyzed in order to make them useful in examining the objectives of the study by using ratio, mean, standard deviation and correlation analysis. To make the information easily understandable and visible, the data are presented in graphs.

## **5.2 Major Findings**

- Out of the total 420 population from 85 households, 51.20 percent were male and 48.80 percent were female. Among these 85 female were eligible respondents of reproductive aged 15 – 49 years.
- Out of total population, 399 populations were aged above 4 years. Out of total population 289 (73.16%) were literate and 106 (26.84%) were illiterate. Similarly, out of total literate male represents 167 (57.79%) and female represents 122 (42.21%).
- Among the total population, 361 (85.95%) population were aged above 10 years. Out of total 361 population, 101 (27.98%) persons were unmarried and 260 (72.02%) were married.

- In case of male and female, 33.33 percent of total male and 22.65 percent of total female were unmarried and 66.67 percent of male and 77.35 percent of female were married.
- Out of total 361 population aged above 10 years, 54.29 percent were engaged in daily wage that consists of 67.78 percent of male and 40.88 percent of female. Similarly, 20.78 percent of total population was in student representing 21.11 percent of male and 20.44 percent of female. Likewise, 16.34 percent were in household work, 2.49 percent in service and dependent, 2.22 percent in business and 1.39 percent in agriculture.
- Out of total 85 respondents, majority (23.53%) of the respondents were found in the age group of 25-29 and then followed by the age group 40 – 44 (22.35%), age group 45 – 49 (16.47%), age group 30 -34 (12.94%), age group 35 – 39 (11.76%), age group 20 -24 (10.59%) and age group 15 – 19 (2.35%).
- Out of the total currently married women, 75.29 percent of the women married at age 15 – 19 and followed by the age group 20 and above (12.95%), and age group below 15 (11.76%). The mean age at marriage has found to be 17 years.
- Regarding the knowledge of the family planning method, 85.88 percent have the knowledge of female sterilization and then followed by 83.53 percent male sterilization, 69.42 percent Depo, Pills 67.05 percent, Condom 54.12 percent, Kamal 22.35 percent, Norplant 12.94 percent, IUD 5.88 percent, withdrawal 4.70 percent and injectable 2.35 percent.
- Out of total eligible women, 78 eligible women were ever heard about the family planning methods. Similarly, out of total respondents 57.64 percent women were currently using family planning methods. Among users 27.06 percent were the users of female sterilization, followed by Depo 12.94 percent, male sterilization 9.41 percent, Pills 7.06 percent and IUD 1.18 percent
- Majority of the women's first menstruation were at age less than 15 years (77.65%), followed by the age 15- 19 (22.35%). No women had their first menstruation at the age 20 years and above.
- Out of total respondents 58.8 percent are literate and 41.2 percent are illiterate. Similarly, out of total literate respondents, 34 percent respondents have primary level education, followed by lower secondary (26%), SLC and above (14%), and non- formal education (26%).

- Out of total respondents, 62.3 percent women are engaged in daily wage. This was followed by household work (32.9%), agriculture as well as business 2.4 percent.
- The mean CEB of entire women of the study was found 2.74. There was positive relationship between CEB and age group. Child bearing is highly concentrated in the age group 40 – 44. The dispersion or scatterness as measured by the standard deviation went on increasing with the increase in age group.
- The literate women have low fertility level than the illiterate women. The mean CEB of literate woman accounts for 2.12 and that of illiterate women is 3.63. Similarly, the standard deviation for literate and illiterate are respectively 1.1718 and 1.2148.
- There is negative relationship between fertility and age at marriage. The mean number of CEB is 3.10 for the women who married between ages 10 – 14. This was the highest mean CEB of the study population. The mean CEB was found lowest (2.63) where age at marriage was age group of 15- 19 years. The mean CEB of the respondents whose age at marriage was age group 20 and above was 3.09.
- The mean CEB was the highest (3) among those who involved in agriculture followed by daily wage of 2.96. The lowest mean CEB was found among those who involved in household work.
- The mean CEB is 1.53 among those who are not contraceptive users, whereas it is 3.09 for those who are users of family planning methods. The result clearly shows that the rate of fertility is high among users of family planning. Similarly, the variability among the users is also greater than that of non-users of family planning.
- The mean CEB is higher (3.94) under child loss experience group. About 68 women had no experience of child loss. They have very low mean CEB, 2.44. Not only this, child loss experience group has more variability as compared to the non-child loss experience..

### **5.3 Conclusion**

Education is one of the major determinants of fertility. When the women become educate their view about family size also changes shifting from large family size to

small family size. Education changes way of thinking and ultimately it affects the fertility. In the study area out of total respondents 58.8 percent are literate and 41.2 percent are illiterate. Hence, level of education of the women of reproductive age needs to be increased to reduce fertility. Age has strong power for declining fertility levels. So the level of fertility depends on age. The mean CEB is varied by age of mother. The number of CEB is expected with the mother getting older. In this study the findings shows the positive relationship between age and mean CEB. Similarly, the research study in relation to fertility and age at marriage come to the end in the conclusion that lower age at marriage is associated with high fertility. The general theoretical principal of marriage at 20 years and above is supported by only 12.94%. Though negative relationship between age at marriage and mean CEB as measured by correlation coefficient is weak and statistically not significant, it is better to rise the age at marriage for the reduction of fertility.

It is common knowledge that where there is high death rate, birth rate is bound to be very high. In developing countries death rate is always high. The study reveals that there is positive relationship between children dead and Mean CEB. Therefore, attempt should be made to decrease mortality rate to reduce fertility rate. Contraceptive method is used to prevent women from fertilization and to stop giving birth or to increase the birth interval. It is expected to have low fertility level for those women who use family planning methods than those who do not. In this study about 23 percent of the respondents still do not use any methods of family planning. They are usually orthodox and religious minded. They believe that family planning is anti-religious. They believe that every family must have a male child and for this couple tries, no matter what may be the size of the family. They feel that what God has given to them is what was in their fate. Under the circumstances they do not care much for high living standard. They are also not careful or mindful even if their living standard somewhat goes down, believing that as the will of god. This is the reason that high fertility does not worry for them.

Higher level of occupation plays an important role to reduce fertility. Those women who are in unorganized sectors had relatively high level of fertility as compared to the women working in organized sector. Due to maximum involvement of women in unorganized sector with low education level, labor value increased and that tended to

increase fertility. Since chances of employment and educational facilities are limited, women always live at home and feel pleasure in bringing up and playing with their children. In this study area almost all the people are engaged in labor based work. In this occupation additional manpower is always a welcome. Thus, adding of a child in the family is considered a matter of joy rather than that of sorrow. When child birth is a matter of pleasure, obviously fertility rate will considerably increase. The more surprising is that though the Nepal is agricultural country, only 1.39 percent of the population was in this sector in the study area. This is due to the reason that the categorization is based on relative measure rather than the absolute measure. Most of the persons engaged in daily wage were also engaged in agriculture but they are highly dependent upon daily wage rather than agriculture.

On a nutshell, social awakening among the low caste people is very limited. The couple does not know full well social responsibilities which will fall upon them with increase in the size of family. The cost of bringing up children is very low. The children are not provided very nutritive diets. They also are not well fed or clothed. It is not necessary that they should be given higher education or even elementary education. Thus they are not a burden on the family. On the other hand when they grow up a little they begin to earn and thus add to the income of the family which is a welcome. Therefore, they go on adding to the number of children, thereby increasing fertility.

#### **5.4 Recommendation**

On the basis of the above findings and conclusion, the following recommendations are made.

- In the study area. Female respondent's education level was low. So to increase the level of education and literacy status of women, the informal literacy class as well as free and compulsory education for all women in child bearing aged should be launched.
- In the study area, the number of contraceptive users was low due to many reasons such as losing health, not knowing about the family planning methods etc. For the solution of the problem, motivation to use contraceptive against the concept relating to losing health and side effect, IFC service and quality family

planning service should be expanded for increasing prevalence of contraception users.

- The use of temporary contraceptive method should be increased by launching family planning programme extensively.
- The main reason for high fertility is the poverty. Therefore, there should be effective programme to create employment opportunities, self-job beside daily wage and agriculture to improve the economic status of the people.



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## APPENDIX

Questionnaire for interview used to obtain necessary information regarding Fertility

Behavior of Dalit Community

### Household Questionnaire Design

Selected Household Number: .....

Name of the respondent: .....

Caste..... Sex .....

VDC: ..... Ward no. ....

Name of the village: ..... District: .....

Date of interview: .....

S.No.	Name of the family	RTHHH	Sex	Age	MS	Ed	OCC	EW

RTHHH : Relation to the head of the household

Ed : Education

MS : Marital Status

OCC : Occupation

EW : Eligible Women.

### Code for the household questionnaire

Relation to the Household Head	Sex	Marital Status	Education	Occupation
Household Head – 01	Male – 01	Never married – 01	Illiterate – 00	Agriculture – 01
Husband/wife – 02	Female-02	Married – 02 Widow – 03 Divorced – 04 Separated – 05	Grade 1 – 01	Service – 02
Son/Daughter – 03			Grade 2 – 02	Business – 03
Brother/Sister – 04			Grade 9 – 09	Household work – 04
Sister in law – 05			S.L.C. – 10	Daily wage – 05
Grand Son/Daughter- 06			Intermediate – 11	Pension – 06
Father/Mother – 07			Bachelor – 12	Student – 07
Nephew/Niece – 08			Master and above – 13	Dependent – 08
Other – 09				Don't know - 09

#### A. Individual Questionnaire

1. What is your completed age?  
.....
2. What is your religion?  
Hindu       Buddhist       Other
3. Where is your birth place?  
Migrated       Native born
4. Do your family have own land?  
Yes       No
5. Have your family have land on rent?  
Yes       No
6. If yes, how much?  
Ropani       Aana       Paisa
7. Does the production from land is sufficient for your family?

Yes  No

8. Which facility do you have in your family?

Radio  Television  Telephone  Others

9. Which facility do you have in your village?

Road  Electricity  Post office  School  Others

10. What type of house do you have?

Pakki  Semi-pakki  Kachhi  Others

## B. Educational Status

11. Can you read and write?

Yes  No

12. Have you ever gone to school?

Yes  No

13. If yes, what is the highest class did you pass?

.....

14. Are you now going to School/College

Yes  No

15. If not, why do not want to continue your further study then?

.....

## C. Occupation

16. What is your occupation?

Agriculture  Service  Business  Household work  Daily   
wage  Pension  Dependent  Student

17. What is your household occupation?

Agriculture  Service  Business  Daily Wage  Household   
work

18. How much your husband's monthly income?

Less than Rs.5000  5000 – 10,000  10,000 – 20,000  Above   
20,000

## D. Marital Status

19. What is your marital status?

Married  Unmarried  Widow  Divorce  Separated

20. What was your age at first menstruation?

.....



21. What was your age at the time of your marriage?  
.....
22. What was your husband's age at the time of marriage?  
.....

### E. Fertility Behavior

23. Have you given any birth?  
Yes  No
24. If yes, what was your age at first birth of your child?  
.....
25. Is your first child is living now?  
Yes  No
26. What is the age of your first child?  
.....
27. How many births did you have?  
Son  Daughter  Total
28. How many children are living with you?  
Son  Daughter  Total
29. How many children are living in other place?  
Son  Daughter
30. Have you any children been dead after born alive?  
Yes  No
31. If yes, how many children were died?  
Son  Daughter  Total
32. Did you give any birth during the last 12 month period?  
Yes  No
33. How many children have you desired?  
Son  Daughter  Total
34. Have you demand more children?  
Yes  No
35. If yes, how many sons and daughters do you desire?  
Son  Daughter  Total
36. Why do you demand more children?  
Desire of husband  Family pressure  Fear of generation loss  Self   
interest  Religious belief  Others
37. Are you pregnant now?

Yes  No  Don't know

**F. Family Planning:**

38. Have you ever heard about family planning?

Yes  No

39. If yes, from where?

Radio  Hospital  Relative  Health  
post

Friends  Husband  Family planning centre  Other

40. When did you know family planning methods?

Before marriage  After marriage  No remember

41. Which of the following method have you heard?

Pills  IUD  Depo  Female Sterilization

Male

Sterilization  Condom  Norplant  Kamal

Withdrawl

Safe period  Injectable  Others

42. Have you ever used any family planning method?

Yes  No

43. If yes, which method have you used?

Pills  IUD  Depo  Female Sterilization  Male

Sterilization  Condom  Norplant  Kamal

Withdrawl  Safe period  Injectable  Others

44. From where you obtained these contraception devices?

Hospital  Pharmacy  Health post  Friends

Health workers  Family planning centre  Other

45. Why did you use these methods?

Birth interval  Avoid pregnancy  Do not want more children

Easy to use and available  Low side effect  Others

46. If no, why didn't you use contraception method?

Due to long distance  Don't know the place of available  Due to afraid of loosing  
health

Due to want another child  Due to side effect  Expensive  Husband   
disagree  Family pressure  Others

47. Have your husband ever used contraception?

Yes  No

48. If yes, which method?

Condom

Sterilization

49. How many children have you been when you first started to use contraception?

Son

Daughter

Total

50. Have you ever gotten pregnancy while using family planning method?

Yes

No

51. Are you currently using ant contraceptive method?

Yes

No

52. If yes, which method?

- Pills  IUD  Depo  Female Sterilization  Male   
Sterilization  Condom  Norplant  Kamal  Withdrawl  Safe   
period  Injectable  Others

53. If no, why?

- Due to long distance  Don't know the place of available  Due to afraid of losing health   
Due to want another child  Due to side effect  Expensive   
Husband disagree  Family pressure  others

54. Is it easy to obtain contraceptive method?

- Yes  No

55. Do you want to use any method in the future?

- Yes  No

56. If yes, what method is that?

.....