CHAPTER I
INTRODUCTION

In their attempt to understand human variation and evolution, physical anthropologists have also realized the need to understand the relationship between human biology and culture, especially to those aspects relating to health and nutrition, and various socio-cultural factors. The study of genetic diversity and its linkage, for example, with health and culture has become a major interest in biological anthropology. In fact, it is now believed that human biological processes are largely influenced by various socio-cultural aspects of the human society. Thus, it is important on the part of physical anthropologist to undertake such studies with a view to understanding not only the process of human evolution but also the health and nutritional aspects of human populations, thereby the survival and well-being of human populations.

This thesis is an attempt to deal with the reproductive and child health among the Lois of the Imphal Valley with a view to understanding how certain indicators of the reproductive and child health are associated with demographic, biological and socio-economic variables of the study population.

According to the United Nations (UN, 1994), "Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this last condition are the rights of men and women to be informed and have access to safe, effective, affordable and acceptable methods of family planning of their choice. It also includes the right of access to other methods of their choice for regulation of fertility, which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely
through pregnancy and child birth and provide couples with the best chance of having a healthy infant. Also included is sexual health, the purpose of which is the enhancement of life and personal relations, and not merely counseling and care related to reproduction and sexually transmitted diseases."

Reproductive health is now internationally understood to be a cornerstone of sustainable development. Improving reproductive health is not only essential for improving the overall health status of populations but also crucial to the attainment of gender equity. With the growing pandemic of HIV/AIDS and sexually transmitted infections in many countries of the world, the need for governments to focus on reproductive health has never been greater. According to WHO (2002) efforts to achieve reproductive health involve a wide range of health promotion and preventive measures. Of all the health challenges faced by different countries, those posed in relation to sexual and reproductive health are among the most daunting because they involve not only diseases but also normal components of life such as sexual maturation and pregnancy, surrounded by cultural, social, ethical and religious considerations. In no other aspect of health is the need for broad community involvement, alongside focused and effective interventions, so necessary.

The basic elements of reproductive health include “responsible reproductive/sexual behavior, widely available family planning services, effective maternal care and safe motherhood, effective control of reproductive tract infection (including sexually transmitted diseases), prevention and management of infertility, elimination of unsafe abortion and treatment of malignancies of reproductive organs” (WHO, 1978). In addition, reproductive health affects, and is affected by other aspects of health, especially HIV infection/Acquired Immune Deficiency Syndrome (AIDS), nutrition, infant and child health, adolescent health and sexuality, life style and environmental factors including social and cultural factors (WHO, 1978). In fact, several studies have revealed that the various components of reproductive health are interrelated and influenced by various biological, socio-cultural and environmental factors (Mosley and Chen, 1984). Thus, the subject of reproductive health is very vast and holistic in nature, and it is not simple to consider all its components and indicators in a given study, especially in the case of the individual research because it requires a technical knowledge from different fields, or disciplines. However, selection of few sensitive, specific and reliable indicators are also
meaningful, especially for screening or identifying the reproductive health problems of specific population at a given point of time which are required for immediate intervention (Park, 1994). Also, the reproductive health-care strategies should take into consideration women’s multiple needs including education for responsible and healthy sexuality, safe contraception and appropriate services for sexual transmitted diseases, pregnancy problems, delivery and abortion (Sai and Nassim, 1989).

From the biological anthropological point of view, demographic variables (e.g., fertility, mortality and reproductive wastage), antenatal care, delivery characteristics and adoption of family planning methods, anemia, maternal and child morbidity (self-reported illness), immunization of the children, breast feeding and supplementation, educational and health facility, knowledge of sexually transmitted diseases (STDs), nutritional anthropometry of the mothers, physical growth and nutritional status of the children may be considered as important indicators of the child and reproductive health. An attempt to understand the relationship of these indicators with various cultural, social and economic factors may be very helpful in understanding the reproductive and child-health of a population.

Some recent studies have revealed that reproductive health outcomes are poor in many developing countries such as India (Hardee et al., 1999; WHO, 2000). A recent review has shown that most efforts to estimate the prevalence of reproductive and the morbidity are generally based on measures of diseases (Sadana, 2000). As a matter of fact, there is a need to take into consideration the basic elements of reproductive health as mentioned above. For example, to understand how multiple factors are regulating maternal and child health, there is an urgent need to understand “biomedical factors within varying socio-economic and cultured contexts” (Pachauri, 1991). According to WHO (2002), there is also a need to have a more carefully developed research agenda to get an in-depth understanding of whether a given programme in a given country has been successfully implemented and whether the desired outcomes for various interventions have been achieved. Issues such as gender, quality of care and provider perspectives should all be considered as part of the research agenda. Many reproductive health issues are better addressed by a multidisciplinary research approach. Local academics should be encouraged to undertake this research with the support of international technical assistance if required.
Thus, the study of reproductive health may be considered one of the emerging health issues that need an interdisciplinary approach with a view to improving the health and well being of women and children. In the present study, an attempt will be made to understand the relationship of the child and reproductive health with various biological and socio-economic factors like age, sex, body dimensions, nutritional status, educational level, occupation, income and expenditure of the household, family size, religion, etc.

The main purpose of this thesis is to assess the present status of child and reproductive health among the Loi community of Manipur and to analyze and determine the major biological and socioeconomic determinants of the child and reproductive health in the study population. The research outcomes in this thesis are likely to provide basic information on child and reproductive health at the population level from Northeast India. It is also expected to serve as a model of bio-cultural approach to studying the health and survival of the Loi population, which will stimulate new research questions for future anthropological researches in Northeast India. In addition, the results of the present study are likely to help the policy markers and others in matters relating to improvement of the child and reproductive health in Manipur.

OBJECTIVES
In chapter II, we have given a brief review of literature and it reveals that in recent years more attention has been given to the study of the reproductive health. The review has highlighted that various biological, socio-cultural, and environmental factors have a great influence on reproductive and child health. Again, it has also revealed that maternal mortality and morbidity, demographic variables and family planning, anaemia, nutritional status, growth and development of children are widely used as the indicators of reproductive and child health. Such studies on the reproductive and child health are very limited in Northeast India particularly in the populations of Manipur, except those carried out by the National Family Health Survey (NFHS-2) (IIPS, 2000) at the state level. Therefore, we propose to undertake a reproductive and child health study among the Lois of Imphal Valley in West district of Manipur taking into consideration the following objectives:
1. To understand the reproductive and child health of both rural and urban areas in terms of demographic variables, maternal morbidity, hemoglobin level, body dimensions, family planning services and practices, antenatal care and immunization coverage.

2. To assess the nutritional status of children aged 3 to 7 years, using anthropometric measurements and indices.

3. To understand the effects of biological and socio-economic factors on the reproductive and child health.

**STUDY AREA**

Manipur is one of the small states in Northeast India (Figure 1). The state of Manipur lies between 23° 80' N and 25° 68' N latitude and 93° 03' E and 94° 78' E longitude. It is bounded by Mizoram and Burma on the north and by Nagaland on the south. On the east it is bounded by upper Burma and on the west by Cachar district of Assam. It covers an area of about 22,327 Sq. km, which is divided into 9 districts namely, Imphal West, Imphal East, Thoubal, Bishenpur, Churchandpur, Chandel, Ukrl, Senapati and Tamenglong.

According to 2001 census (census of India, 2001) the total population in the state is 23,88,634 of which are 12,07,338 males and 11,81,296 females. The sex ratio is about 978 females per 1000 males and the literacy rate is 68.78%. Manipur is ethnically heterogeneous. The people inhabiting Manipur can be divided into 2 broad categories: the tribal communities and the non-tribal communities. The tribal communities are divided into three groups, namely, Nagas, Chin-Kuki-Mizos and intermediary groups and the non-tribal population can be divided into three groups, namely, the Meitei, including the Lois, the Bishnupriyas and the Pangans (Manipuri Muslims), (Zehol, 1998). Most of the Manipuris belong to the Mongoloid group except for the Manipuri Muslims, Manipuri Brahmins and some new migrants from Assam and Bengal.

The present study was carried out in three Lois areas of Imphal West district namely; Sekmai which is 18km to the north of Imphal and Phayeng and Kourtuk which are 19 km and 17 km respectively to the West side of Imphal (Figure 1).
Soil and Climate
The physical composition of soil is loose and porous; therefore, it does not hold water. So they are generally light, except in the river valleys where silt has accumulated. The perpetual burning in course of shifting cultivation, in some parts of the hills, has rendered the soil devoid of humus. The soils of the central plain are transported ones and contain high proportion of clay.

The climate of Manipur is mostly pleasant throughout the year. There are two seasons separated by two short transitions. From November to February is the period of winter season and summer season commences from April and ends in September. Summer season is also a period of rains while October is the period of transition between summer and winter, so is the month of March, between winter and summer. The temperature in the central plain seldom touches freezing point, nor at any time of the year is extremely hot. In hill areas it is much cooler due to the effect of altitude.

Rainfall
The central valley, Imphal has an annual rainfall in between 1,600mm and 2,860mm. The rainy season is during May- September and little rainfall is experienced during the post monsoon period of October and November. From December, the North-East monsoon begins to blow in Manipur and extends up to February. The coldest month is January. From March the temperature starts rising and from October the temperature begins to drop.

Flora and Fauna
The flora of Manipur is very rich in a number of species. This is on account of the great diversity in temperature and rainfall in different parts of the state. In Manipur, different types of vegetation occur in definite belts even on the same mountains or plains. At the latitude of Manipur, forests occur up to an altitude of about 2,850 meters above the sea level. In the past, the state was richer in forests but now there is no forest in the valley as it is very thickly populated. The valley is still rich in aquatic flowers like the lotus and water lilies. The gorgon fruit (scientific term Eurale fero, local term, thangjing) grows in lakes, fens and ponds etc.
The state is rich in a large number of orchid varieties of which some are really beautiful. So, Manipur is one of the few places in India where there is such an abundant variety of beautiful orchids.

The fauna of Manipur is very interesting. The state has both the cold and hot region animals. The goral (local term sabeng) which is essentially an animal of cold regions is found in the state. On the hand, there is also the Hyelaphus porcinus (Local term Kharsha), an animal of the region of south east Asia, is also found in Manipur. But most birds and animals are those that are common in eastern India. Among migratory birds, we may mention the parrot, the wag-tail, geese and ducks of different species including the Brahminy duck.

THE PEOPLE
In the present study, we shall deal with the Lois of the Imphal West district. They belong to the Mongoloid racial stock and speak a dialect known as Chakpa. They closely resemble the Meitei although certain shade of differences does exist with regard to few characteristic features. They believe in natural gods and goddess like Koubreu, Wangbren, Sanamahi. They still follow their traditional occupations, such as pottery works, sericulture, distillation of liquor, rearing of pigs, which are considered as "derogatory" by the Meities (Das, 1985; Hodson, 1989). They also engage in weaving, business and services as their secondary occupation. At present, many of them have been absorbed into the Meitei community.

Origins and Characteristics
Lois is indigenous Scheduled Castes people of Manipur which is mainly distributed in different parts of the valley. They are called as ‘Meitei Ariba’ in the local dialect. They belong to the Mongoloid racial stock and speak a dialect known as ‘Chakpa’. They were included in the list of the scheduled castes only in 1956 on the basis of an application submitted by Kh. Chaoba, President of the ‘Chakpa-speaking Loi Association’ to the Additional Deputy Commissioner, Tribal Welfare (Das, 1985). With advent of Hinduism, the Meitei began to imitate caste system of the Hindus. The idea of touch ability and untouchability came to the minds of the Hindu Meitei. So, there was a time in the Meitei society when the Meitei degraded some Meitei who did not adopt Hinduism and did not mix, eat and sit with them. “Lois” is one such community who did not adopt Hinduism.
And for a long time, they were been treated as a separate tribe even though they belong to the same clans of the Meitei.

In the present study, the term “Loi” generally stands for the people who preserve the pre-Hindu traditions and customs of the Meitei. It may be noted that according to some scholars it also refers to the people who were banished to the penal colonies, as a punitive measure for some offences (Das, 1985). “King Khagemba one of the kings of Meitei seemed to be the first monarch to make use of the Loi villages as places of detention for prisoners....” Hudson (1989). Otherwise, the Lois and the other Meitei who have adopted Hinduism are to all intents and purposes indistinguishable from each other. The Lois claim that they are the autochthones of Manipur and their traditional customs, still being preserved, are same as those of the Meitei customs prior to their embracing of Hinduism (Devi, 2002).

The origin of the Meitei including the Lois is obscure. Hodson (1989) has proposed a common origin of the Lois and the Meitei and he writes, “In discussing the origin of the Loi communities, I found it necessary to set in array facts which clearly show that they are for the most part of the same origin as their Meitei master”. Scholars have different views about the origins of the Meitei. Some scholars traced the origin of Meitei to the Mahabharata, some to China and South East Asia; some scholars try to prove that the Meitei were the Hindus from the prehistoric time thereby claiming to be of Aryan blood. Singh W, (1966) in his ‘Early History of Manipur’ mentioned that, “The present Manipur State is the Manipur of Mahabharata. As I have said that in the Mahabharata and other Sanskrit literature, this country under review was called Manipur..............it was the same Manipur as mentioned there” Another group of scholars totally discarded the idea of Manipur being the Manipur of Mahabharata and began to trace its origin in South East Asia. Pemberton (1966) observed in this way, “we may safely conclude them (Meitei) to be descendants from a Tartar colony from China.” Again, according to Roy (1973), “The fertile valley of Manipur witnessed the invasions of different tribes from time immemorial. At different periods, the Nagas, the Kukis, the Shans, the Chinese came and settled in this land and merged themselves into the Manipuri community. Some Aryan and Dravidian features are also found in them”. And according to local version of the Lois, they believed that they have been living here since the creation of Universe and they are the descendents of ‘Soraren’ (king of Gods) and descended directly from his abode (Devi, 2002).
The “Lois” are worshippers of traditional Meitei gods – the Imung Lais (household gods: referring to the traditional deities believed to be in the household), the Lamlais (wild country gods: referring to the deities believed to exist in the wild) and the Umang Lais (forest gods: referring to the deities believed to exist in forests) and Apokpa (ancestors). The Umang Lais and Apokpas are in some cases different from one community to another community and from one clan to another clan. But the common gods not only the Loi communities but also of the whole of the Meitei are ‘Guru Sidaba’, ‘Sanamahi’ and ‘Leimaren Sidabi’. And the nature of worship of the ‘Imung Lais’, ‘Umang Lais’, ‘Lam Lais’ and ‘Apokpa’ are all similar in principle. The difference between the Hindu Meitei and Loi Meitei is that the Loi Meitieis generally do not worship a Hindu god. But now time has changed and there is a constant interaction between the “Lois” and Hindu Meitei (Devi, 2002). As a result, the Hindu Meitei has influenced the religious practices of the present day “Lois”.

The general form of marriage is elopement. In case of arranged marriages, the parents take the consent of the boy and the girl. If a boy and a girl elope and live together they will be considered as husband and wife. If the parents of the girl do not like to perform “marriage ceremony” because of their unwillingness to the choice of their daughter, they will do ‘Inthokpa’ (boycott by parents). After sometime, the parents of the boy will request the parents of the girl for acceptance. Then ‘Loukhatpa’ (acceptance) is performed. Dowry is not compulsory for the Lois. Generally some gifts are given to the girl by the parents. In general cases, the Lois stick to their traditional customs with regard to marriage. But at present, in rare cases, the higher class Lois (better financial condition) due to social intercourses imitates the Hindu Meitei Marriage.

**Occupation**

The main occupations of the Lois are agriculture, silk manufacturing, smelting of iron, distilling of spirits, making of earthen vessels for containing water or for cooking in, cutting of posts and beams and canoes, manufacturing of salt, fishing, rearing of pigs etc. (Hodson, 1989; Das, 1985). They are also engaged in some other part time occupations such as cutting of firewood, quarry works and other such activities, while women folk are engaged in small cottage industries. Liquor making is another common occupation of the Lois in spite of its prohibition by the Government under the Bengal and Assam Excise Act
of 1910 since 1959 (Das 1985). Besides these traditional occupations, they are also engaged in business and government services.

**Common Reproductive Health Practices**

Among the Lois pregnancy of a woman is confirmed when menstruation stops for two months or so. Traditionally no special treatment is given to her and she has no restrictions to observe. Lifting of heavy things and doing daily routine works are not prohibited in the early stages of pregnancy, but depending upon the health condition of a woman. During the advanced months of pregnancy, women are not allowed to walk long distances and they are discouraged from doing strenuous physical works. If they have to walk out during the night because of certain unavoidable circumstances, then they have to cover their head with cloths, otherwise, it is believed that they may be caught by evil spirits. There is no system of diets or restriction of any type of foods. Traditionally, a baby is delivered with the help of the village *Chabokpi* (a local mid-wife, also called Maibee). But at present, instances of delivering the child in hospital have taken place and even delivering at home is also done with the help of nurses. Usually, the umbilical cord is cut with a sharp razor. In earlier times, it was cut by with a sharp bamboo blade called *Wakthou*. The dismembered umbilical cord is then put inside a small earthen pot and buried at the right side of the main door in the case of boy and at left side in the case of girl. Normally the father does it. In the early days they fed the baby for the first time from a woman who has recently given birth to a baby. But nowadays, they have started giving mother’s first milk to the baby. Normally a belt is worn by the woman to tighten up the loose muscles of the abdomen. During the early weeks of child birth, the mother also sleeps near the fire with the backside of her waist area exposed to the heat. This practice is believed to be helpful in purifying the blood of the mother and in the speedy recovery of the mother’s health. After delivery, the mother washes her body with very hot water, at least two times in a day for at least a month. Right after delivery, the mother is allowed to eat only rice and fish which is fried without oil. In some families, they give boiled egg and chicken soup prepared by any family members. But a week after delivery, they were given curry fried without oil, mostly a curry of local yam stem called *Yendem*. It is believed that, this local yam has rich iron contain which helps in giving energy to the mother.
In Lois communities weaning period of the baby starts after completion of 3 months with pounded rice. Some families also give other solid foods like cerelac depending on the economic condition of the family. Breast feeding is continued up to 2 to 3 years or before getting another baby. When a baby gets sick they restrict their food habit.

**Food habits**
The Loi people are non-vegetarians, and rice is their staple food. They eat two major meals in a day - one in the early morning and other in the early evening. Large quantities of cooked rice, meat, and vegetables are consumed with various kinds of chutney, ginger, garlic, chilies, and spices. They also take pork, chicken and fish, depending upon their economic status. The Lois eats lots of hot chilli (pepper) but with very little spice. It is their common practice to eat pork and drink liquor in every occasion whether it be a marriage party, death celebration etc. Vegetables like potatoes, pumpkin, tomato, onion and various kinds of green leafy vegetables are some of their favorites. Milk is not a part of their regular diet. Morning tea is not a necessary item. Beverages are not taken into account in their dietary habit.