CHAPTER: I

INTRODUCTION

1.1 Background of the Study

Nutritional status is a reflection of the general socio-economic condition and well being of individual or group in community or society. Nutrition is one of most important socio-cultural environments which influence the full and potential growth of an individual. It is concerned with how food is produced, processed, handled, prepared, shared and eaten. Growth and development of human beings are influenced by genetic and environmental factors. Nutritious foods are essential for all age but its need is higher during childhood especially under five years of age for growing.

Nutrition is essential component found in food which is required for the survival and growth of human body. In this sense, it is a basic component of health as well as proper growth and development of the body. It is can be obtained only through a balance diet. The requirement of nutritional food may be varied according to age, physical activities and psychological condition of an individual. (Park, 2010)

Human beings do not eat all edible things or objects available in nature. Food is seen by humans through the eyes of beliefs, knowledge, socio-cultural perspectives (Poudel, 2011). Therefore, in sociological term food is not only the nutritious things but also a socially and culturally constructed thing. Different socio-cultural groups have defined the foods in different ways. The food is nothing itself but it becomes edible plants only through a system of culture and cultural understanding of human beings (Poudel, 2011). People perception and understanding towards the nutritional food may be varied among different socio-cultural groups within the same community. For example, there is a variation in food items and feeding practices among the distinct socio-cultural group i.e.,

tamsahi objects (garlic, onion, tomato, *jand* and *raksi* etc.) are not taken as food by orthodox Brahmin people where as others do.

This is the study conducted in Sanai VDC on nutritional status of children under the age of five. However, this study mainly focuses on the nutritional status of children based on sex, caste/ethnic composition level of economics, type of family, occupation and education.

1.2 Statement of the Problem

To be malnourished is not a matter of interest of any person but an obligation. Unwillingly people become malnourished. It is a consequence of disease and inadequate dietary intake. Nutrition is directly concerned about the food that a person eats to live, to grow, to reproduce, to keep healthy and have energy for work. In our Nepalese society lack of access of good education and correct information plays important role for promoting malnutrition. Beyond these; social, political, economic, cultural and physiological factors are also equally responsible. A Situation Analysis on Children and Women in Nepal 2010 deals that the immediate cause of malnutrition is inadequate dietary intake and disease. The underlying cause includes inadequate maternal and child care, insufficient health services, insufficient household food security and unhealthy home environment. (UNICEF; 2010)

In brief, nutrition is intimately related to food and health. The science of nutrition began to emerge in Europe in the late nineteenth century as chemists, and physiologists studied the human body and food. Since 1900, many persons have contributed in significant ways to the development of nutrition since in this country. In the developing countries, like Nepal, nutrition is an important determinant of health status of the people. Nutritional status of children is an indicator of nutritional profiles of an entire community as well as the country. Good nutrition makes a child physically strong and mentally alert as he/she grows up. It has been observed that 90 % of the brain and 50 percent of total growth of

human body occurs in the first five years of the human life (Thani, 2010). In this sense, the first five years of human life are crucial for growth and overall development of human beings, this is the most vulnerable age in terms of environmental effects, nutritional deficiencies and communicable diseases.

The nutritional status of an individual is often the result of many interrelated factors. It is highly influenced by the in adequacy of food intake both in terms of quantity and quality, and also by physical health of the individual. The nutritional status of a community is the sum of the nutritional status of the individuals who form that community., the main objective of a nutritional sway is to obtain precise information on the prevalence and geographical distribution of nutritional problems of a given community and identical community and identification of individuals or population groups at risk or in greatest need of assistance. In the absence of this information, problems cannot be defined and cannot be properly formulated. That is why many nutritional surveys have been conducted by different organizations. (Galli, 1998)

The general policy of the government in the nutrition sector has been to address the underlying causes of malnutrition with particular attention to food distribution, the need for greater agricultural productivity and improvement in the purchasing power of families as well as in food conservation, processing, marketing and pricing mechanisms. Childhood malnutrition is a serious problem in Nepal, nearly two third of Nepalese children aged 6-36 months suffer from chronic malnutrition (Nepal Multiple Indicator Surveline; 2009). Physically and mentally healthy children are vital resource of a nation because they are the one who was stepped into next generation. It is said that “morning shows the day” so and investment on children is indeed an investment in nation’s future. Hence the importance of nutrition is wildly accepted. Situation of child nutrition is a matter of health and child welfare.

There are some important and essential questions which strike the researcher to carry out this study. These hidden questions are as follows:-

- What is the nutritional status of children in the Sanai VDC?
- Is the caste/ethnic composition determining the nutritional status of the children? If yes, how?
- Is feeding practices differing among male and female child in community?
- What is the relationship between education and nutritional status?
- Is economy a prime indicator of the nutritional status of children?

1.3 Objectives

The main objective of the study is to carry a sociological analysis of the nutritional status of children less than five years of age residing in Sanai VDC of Nawalparashi district. The specific objectives are as followings:

- To find out the nutritional status of children by caste/ethnic and sex composition.
- To find out relationship between nutritional status of children by type of family, level of economy, occupation and educational status of parents.

1.4. Significance of the Study

The present study is intended to understand the nutritional status of the children less than five years of age of different caste/ethnic groups in Sanai VDC. Therefore, this study will be a milestone to further researcher who will be interested in this field. Similarly, the study will be also benefited to the sociologist, planners, policy makers, development practitioners, institutions and other agencies who will be concerned and interested in the field.

1.5 Organization of the Study

This study is divided into six chapters. The first chapter includes the introduction such as background of the study, statement of the problem and research questions, objectives, significance of the study, limitation of the study, definition of the used term and organization of the study.

The second chapter presents review of pertinent literature such as general overview on nutrition, socio-cultural aspect of nutrition and measurement practice of nutritional status of children. The third chapter deals with research methodology including - rationale for selection of study area, research design, universe and sampling, nature and source of data, data collection techniques, anthropometry tools and data presentation and analysis.

The fourth chapter mainly concerns with the geographical and socio-cultural setting of the study area. The fifth chapter presents the nutritional status of children in the study area. The last chapter covers the summary, conclusion and recommendation of the study.

1.6 Definition of the used Terms

Nutrition: It is the process in which food is consumed and utilized for nourishing the body.

Malnutrition: It has been defined as a pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients in living organism.

Under-nutrition: The condition, which results when insufficient food is eaten over an extended period of time. In extreme case, it is starvation.

Nutritional Status: It is a reflection of the general socio-economic condition and well being of people in a country. It depends in the total food produced by the family size, feeding procedure of essential food to the child, disease suffering to the child, mother's diary intake during pregnancy, etc.

Protein Energy Malnutrition: It is a range of pathological conditions arising from coincident lack of protein and energy in varying properties must frequently seen in infants and young children and is usually associated with infection.

Anthropometric measure: while measuring anthropometry of any child, height, weight, MAUC and other body measurement (head, chest etc) are essential tools. The following basic anthropometric measurements are made in nutritional surveys, height, and weigh and arm circumferences.

Gomez Classification: This Gomez classification (weight for age) is expressed as percentage of the standard weight for a given age. According to this classification there are four classifications. They are:

- Normal: above 90% of the standard.
- Mild: 75%-89% of the standard.
- Sever: below 60%

The first degree, second degree and third degree is also called mild, moderate and severe malnutrition respectively (Adhikari and Krantz 2009).

CHAPTER: II

LITERATURE REVIEW

Literature review is the most important and essential part of the thesis in which researcher review different books article, magazine related to the title of the thesis. The researcher gets different idea and information related to his subject matter through literature review. The chapter mainly discusses about general overview on nutritional status of children, socio-cultural aspect of nutritional status and measurement practices of nutritional status.

2.1Conceptual Reviews

Nutritional status is a condition of health of an individual which is influenced by the consumption and utilization of nutrients. In other word, it is a balance of an

individual that doesn't depend on single factor but depends on different factors like production of food and its availability, economic condition, family structure and family size, prevalence of communicable disease and the status of education. Therefore, nutritional status is taken as one of the best objective measurement of the well-being of an individual.(UNICEF,2012)

The nutritional status of young children and women of reproductive age reflects household, community, and national development. Nutrition status of the population reflects history to date, future potential and health status. Malnutrition impairs an individual's ability to function resulting in poor work performance, reduced learning capacity and inadequately developed if skills thereby negatively affecting the quality of life and the socio-economic development of the country. (National Demographic Health Survey,2011)

Malnutrition in Nepal is among the highest in the world (CBS, WFP and WB, 2009), and Nepal ranks 3rd in terms of poor nutrition among the countries of South Asia. Globally, malnutrition contributes to around half of all child deaths and 56 % in Nepal, and malnutrition is associated with many of the risk factors for maternal death. Most common forms of malnutrition are protein energy malnutrition (PEM), iodine deficiency disorders (IDD), vitamin A deficiency (VAD), and iron deficiency anemia. Major six nutritional issues in Nepal include high prevalence of low birth weight, childhood under nutrition, chronic energy deficiency in mothers, vitamin A deficiency, iodine deficiency disorders, and iron deficiency anaemia. There are different indicators (Box 4) of malnutrition and varieties of cause, and not evenly spread throughout the country. Besides poverty and ability of HHs to access sufficient food, many other factors determine the nutritional status of a child. In Nepal, 49.3 % are stunting (20 % are severely stunted), 12.6 % are wasting (3 % are severely wasted) and 38.6 % are underweight (11 % are severely underweight and 24 % of women are underweight. Wasting in Nepal is on the border of emergency thresholds (WHO

Emergency thresholds is 15 %). Nutritional status is improving except wasting.(UNICEF,2012)

Similarly, prevalence rates for all indicators are higher in the mountains than in the hills and the Malnutrition situation is double in Mountain and Hills of Far and Mid Western region and 48 % - 75 % of local population have been affected from malnutrition. Up to 30% of people living in Hill and Mountain areas of Far- and Mid-Western region have an estimated daily energy intake of less than 1,600 kilocalories. According to NDHs 2006, prevalence of diarrhoea in under-fives was 11.9 % (20 % in 2001) and ARI 5.3 % (22.8 %. More than half of rural community do not have access to health facilities Physical and financial causes effect food access and it is restricted due to scarce non-agricultural income possibilities, limited access to productive resources, lack of functioning services and substandard managerial and organizational capacity. This is a measure of a household's entitlement to food. Report released by WFP notes both supply reduction and sharp price increases for basic foods and related commodities. For example, that in the six months to April 2008, supply of coarse rice fell by 30 %, while its price rose by the same proportion; supply of cooking oil fell by 20 % and its price rose by 23 %. Such developments have led to people buying smaller quantities and cheaper food items and buying more on credit, reduced food intake, particularly by groups defined as poor and extreme poor (WFP and NDRI 2008). This is due to problem of economic access (income, price of agri-input and food, food production, government policies, trade agreements and disaster) and physical access (access to road and market and barrier to them). (UNICEF, 2011)

Diets are varied, typically high in carbohydrate and low in protein, fat and micronutrient. As a result of culture, women usually receive less quantity and quality food , even leftover food. The prevalence of caste system and social hierarchy are more vulnerable to shocks, crisis and food insecurity. The 16 % of rural HH s have very poor (and 11% have poor) food consumption patterns and

consume maize on a daily basis, complemented by rice, barley and tubers, depending on the season (UNICEF, 2011).

Nationwide survey found that 30 % of rural sample population consumed a nutrition poor homogenous diet that exposes them to an increased risk of food insecurity. (Nationwide survey, 2008).

Intra-household food distribution discriminate against women and girls, this pattern is reflected in general with Terai women being the most likely to have inadequate diets. Women in the Terai have been found to have the highest incidence of low body mass index (BMI) at 40%, almost twice the level of women in the hills (22%). This is partly due to cultural practices that restrict their access to a balanced and adequ. (UNICEF, 2011)

According to Collins Dictionary, malnutrition is inadequate nutrition. Some believe that malnutrition is of imbalance in the intake of nutrients. Others say that it is a clinical syndrome with typical symptoms and sighs, depending upon the type of nutrients responsible for diseases. Nevertheless, both over nutrition and under nutrition are considered as malnutrition. Malnutrition is prevalence all over the world, but it rate is different from country to country. Mainly, its rate is higher in developing country than developed country. Malnutrition contributes to more than half of the twelve million children fewer than five deaths on developing counties each year (UNICEF, 2011). The report of UNICEF that half of the south Asian's countries children are malnourished .The malnutrition rate of child is highest in Pakistan among Asian countries. Similarly in the case of Africa, one of three children is under weight (UNICEF, 2011).

Malnutrition adversely affects mental development. Physical development, productively the span of working year- all of which significantly influence the economic potential of man. Malnutrition during the fetal period in infancy is associated with intellectual impairment. Severely malnourished children have brains smaller than average size and have been found to have 15-20 percent fewer

brain cells than well nourished children (UNICEF, 2011). There is also a growing body of literature pointing to malnutrition as a cause of abnormal behavior as well as evidence that suggests that abnormalities in the young may produce chromosomal abnormalities that may persist.

Foods are widely used from the nutritional point of view by human beings. They have been broadly grouped under three heads.
i) Energy yielding foods ii) Body building foods and iii) Productive foods (Swaminathan, 2011)

i. **Energy yielding foods:** Foods rich in carbohydrates and fats are called energy yielding foods. Cereals, roots and tubes, dried food, sugar and fat are included under this group.

ii. **Body building foods:** Foods rich in proteins are called body building foods. Milk, meat, fish, egg, pulse, oilseeds, nuts, low fat oilseed flours are included in the group.

iii. **Protective foods:** Foods rich in proteins, vitamin and minerals are termed protective foods. Milk, egg, lever, green leafy vegetables and fruits are included in this group. Protective foods are broadly classified into two groups i.e. food rich in vitamins, minerals and proteins of high biological value e.g. milk, egg, lever and foods rich in certain vitamins and minerals only i.e. green leafy vegetables and fruits.

Nutrition servers carried out in many developing countries have shown that diets consumed by majority of the population are based in mainly cereals roots and tubers and contain small amount of legumes and vegetables and negligible amount of milk, meat, fish and eggs (Swaminnathan, 2011). A fair percentage of population does not get enough food to eat. The diets are in general lacking in calories, protein, vitamins (particularly vitamin ‘A’), riboflavin and folic acid and minerals; calcium and iron. Protein-calorie malnutrition is widely prevalent among

weaned infants and preschool children. Disease due to deficiency of vitamin A and anemia are also present among children and mothers (Swaminnathan, 2011).

According to Nepal Nutritional Status Survey that was jointly conducted by GoNs and USAID (2008), the 221 sample size from all over Nepal representing all types of geographical area were visited and anthropometric data on 6562 children between 6 to 71 months of age were collected. It was found that 44.8 percent second degree and 5.1 percent of sampled children Suffered from Gomez third degree malnutrition. When they used the Indian Academy of Pediatrics Classification, (IAPC), the 24.1 percent sampled children suffered from second degree and 5.1 percent are third degree malnutrition. NNS survey (1971) showed that 48.1 percent of children stunned, 2.8 percent were wasted and 3.8 percent were both stunned and wasted from waterlow classification. The GoN/USAID (2008) survey found more stunting and wasting in the total sample of 2157 children from their Terai. Out of them 50.5 percent were classified as normal 40.7 percent as stunted and 8.5 percent wasted. This compares with a wasting rate of 5.7 percent and a stunting, rate of 51.9 percent for children living in the hill regions. Only 42.2 percent of hill children were classified as normal (Wagle, 2010).

Gautam (2010) studied the nutritional status of 540 children studying in primary schools of Tanahu district with the help of anthropometric measurements of height and weight. He used Waterlow, Gomez, Pelidisi classifications to access the data. The Waterlow classification showed the 62.68 and 59.19 percents of boys and girls respectively were found normal (90^{+}) nutritional status. The Gomez classification showed that 16.2% of the children were found to be normal 35.18% were in the first degree malnutrition 39.07 percent were in the moderate of second degree of malnutrition, and 9.63 percent of the children were found to be in the third degree of Protein Energy Malnutrition (PEM). According to the Pelidisi classification only 0.75 percent of the children were found obese whereas 28.15percent were found well nourished, but the majority of the children

(62.4percent) were found thin. He concluded that the nutritional status of the children got influenced by the dietary intake, number of family members and educational and occupational background of the parents.

Nepal Micronutrient Status Survey 1998 showed very high levels of chronic under-nutrition in all parts of Nepal. The survey was based on the measurements of 17,140 preschool children for height for age. 17,471 for weight for age. 17,189 for weight for height and 17,458 for MUAC. The children for the study were from different age-group ranging from 6 months to 59 months. The survey revealed that 59.3percent of the children in the age-group 3 to 4 yrs were stunted where as 45.9percent of them were under weight. Likewise, in the same age-group only 4.3percent were found wasted by weight for height and the measurement of MUAC showed 21.2percent of the children in under nutrition. The survey also revealed that, in the age-group 4 to 5 yrs 60.6percent of the children were stunted by height for age whereas 42.6percent of them were under weight by weight for age. In the same age-group 3.3percent of the children were found wasted by weight for height and 22.8percent of them were found under nourished by the measurement of MUAC. In all, there was little difference between boys and girls in the prevalence of under nutrition. It was found that 54.4percent of boy and 53.7percent of girls were stunted whereas 46.8percent of boys and 47.4percent of girls were under weight. On the other hand the prevalence of under-nutrition was found higher in rural areas than urban areas (Gautam,2010).

Children issues were not of the greater importance to Nepalese Government till 1980s. Children as a development concern was only included for the first time in the seventh Plan (1985-90). Nepalese children are facing various difficulties due to social beliefs, persistence of poverty, gender discrimination, and illiteracy relating to their development.

The poor nutritional status of children and women has been considered a serious problem in Nepal for many years. The most common forms of malnutrition in a

the country are Protein Energy Malnutrition (PEM) Iodine Deficiency Disorder (IDD), Vitamin A Deficiency (VAD) and Iron Deficiency Anemia (IDA) initiatives have been underway for more than three decades with national nutritional strategy developed in 2006. (National Nutrition strategy; 2006)

PEM is a range of pathological condition arising from coincident lack of protein and energy in varying properties, most frequently seen in infants, young children and it usually associated with infection (WHO, 1983). In other word, PEM means a kind of malnutrition, which results from insufficient intake of energy protein and other nutrients. Some forms of PEM are marasmus and kwashiorkor.

It is possible that if accumulation of micronutrients is poor infants born to women with inadequate micronutrients stores intake, and that subsequently these infants become depleted of those nutrients postpartum. This situation could exacerbate if the concentration of micronutrients are low in maternal mild and if the quality or quality of complement of food is inadequate (WHO 2010).

Though it is extremely difficult to evaluate the various actives, the growing awareness to the problems has led GoN to constitute a high-powered national nutrition co-ordination committee under the leadership of a National Commission on Population (NCP) member. It is expected that before long, a national policy will be formulated and programmed of activities drawn up, clearly delineating the rate of various ministries and voluntary organization both national and international. (GoN, 2009).

Iron Deficiency Anemia (IDA) is a widespread and neglected problem among women and children in Nepal. Although nutritional anemia is common, especially among pregnant women. There are no national level studies which give definite pictures of the problem. According to the Joint Nutrition Support Program (JNSP) Survey of 2008, prevalence rates of anemia ranged from 71 percent in Sindhupalchowk district (in the hills) to 95 percent in Nawalparasi district (in the Terai) among mothers of children 6 to 36 months.

According to NDHS 2001 the mean height of women in reproductive age is 150.2cm as indication of the fact that has remained more or less constant since 1996. Body Mass Index (BMI) is an index calculated using the height and weight of the women in reproductive age. A BMI of less than 18.5 indicates chronic energy deficiency among non pregnant women. Observing the data from NDHS2007 we know that slightly more than a quarter (26.7) of women have body mass of 18.5 or less suggesting that more than a quarter of Nepalese women in reproductive age suffer from protein energy malnutrition.

2.2 Socio- Cultural Aspect of Nutritional Status of Children

Various groups of people have their own socio-cultural practices, perception and use value about their food item. Different group of people practice different food items according to their culture. Culture plays vital role for adopting their food items. In this sense we can say that culture is one of the determinants to practice foods. In different caste/ethnic groups they practice different food varieties in their different festivals e.g. what food varieties we observe in Newar's festivals that can't be seen in Chhetri and Bahun's festivals, likewise, it differs from community to community (Subedi, 2003). Though people know about the nutritious food but they don't practice them because of their cultural practices people from different group know the edible foods but they practice them if such foods are culturally accepted for them, e.g. Bahuns don't collect and eat mushroom though they know the mushroom is eatable foods. They have their own cultural value for not eating mushroom. They take mushroom as Tamasi (polluted) food and don't take into their kitchen. Brahmin believes that mushrooms are spontaneously grown from stale food, rotten things, or death body of insects which are considered polluted in Hindu ideology (Poudel, 2008). Likewise, different caste/ethnic groups also practice different food items accepted by their culture. In Dhimal community, it is the prevalence to collect snail and crab as their food items. And, it is said that such foods are very nutritious for our health but it is not culturally accepted for others

caste/ethnic groups. For Matwali group alcohol is important and essential for their every festivals but it is not culturally accepted for Chhetri and Brahmin group.

Most of Socio-economic variables that have been an influence on nutritional status are effective through brining changes in food consumed pattern. Although changes in the quality or calories values of food consumed by a family (due to change in the size income/expenditure) are computable. It is till difficult to assess the subsequent impact on nutritional status of family land of each family member in particular. Because food habits, food preparation, intra families distribution of food and health status of family members are such factors effect of which are not easily assessable and has escape to afford actual intake of nutrient from what is available to the family (CDR. 1982).

The nursing association of Nepal under took a study of the feeding practices 0-3 year children among different the analysis of data, ethnic groups in Nakathum VDC of Bara District. It was found that the knowledge of significance of the colostrums feeding was not similar among all mothers. Some mother fed their breast for a year and some fed for three years. The idea of supplementary feeding was highly ignored. The kind of food supplementary feeding was also found inappropriate according to the age of the baby. It was also fund that the supplementary like; *"Jaulo and Sattu"* were use as replacement of breast milk rather than additional feeding need for growth and development. Minimum numbers of mothers were feeding their babies during diarrhea which was very appreciable (Dhahal, 1996).

Children and Women in Nepal, a situation analysis, 1996 explains the various relationships of children and women to economy, health, environment etc. It also reflects that under five mortality rate is high impalpable, which is due to the acute respiratory infection, diarrhea related disease and exploitation, disability, vaccine preventable disease and exploitation.

Kayastha (2012) in her study of malnutrition of under five years children found that 49% of the children were good health status, 40% were mild health status, and rest of them were poor health status. Her study was based on the measurement of mid upper arm circumference using the standard shakir tape. She stated that the nutritional status of the children, whose family members were job holder, was better than daily waged labor's children. She further stated that the nutritional status was found better in boys than in girls and the children of the age group of 0-12 months were found well nourished among the children of all age group while it is worst among 49-60 months age group children.

It also state that Nepali children are generally adequately nourished in early infancy, chronic malnutrition (stunting) is seen after six month to seventeen month which is due to poor complementary feeding practices, infection and poor environmental conditions. The children, who are malnourished and consequently stunned never, catch up at later stage, although they may give plenty of food and care. Though some of the families are able to spend adequate amount of money on food, they are suffering from malnutrition. It is due to lack of proper knowledge about dietary food. So the children in such families are not getting notorious food in right proportion. In the absence of sound nutrition knowledge, household may remain under nourished even with good access to sufficient food, on the other hand, nutrition education can't be effective it household are to poor.

Parent’s education plays on important role. When the degree or level of education of parents in increased, the nutritional status of children is better than the illiterate parents or literate parents. In case of economic source of their parents, ways dependent children are facing more malnutrition problems than other sources of income of their parents (Bohara, 2010).

2.3 Measurement Practices of Nutritional Status

Nutritional status of an individual can be assessed by measuring physical dimension such as weight, height and MUAC (Mid–Upper Arm Circumference).

This is called anthropometric assessment of nutritional status which means measuring weight, height and MUAC of a group of children and comparing the measurement from the same age-sex group of well nourished communities. The measurement of well nourished communities are called the reference standard. For Nepalese children, no such reference standard is available. Instead, in Nepal we use USA standard of weight, height and MUAC for comparison. It may not be suitable genetically, but provide a rough guide against which result of different studies can be compared. Nowadays Indian standard of weight and height is available which may be more appropriate than the European and USA standard because the body build of Nepalese and Indian is similar genetically. But a report based on ACC/SCN workshop, Geneva (2008) says that anthropometric measurements should be reported in relation to internationals reference even if estimates are also made with internal standards. For this purpose US national center for health statistics (NCHS) data sheet should be used (WHO, 2010).

The nutritional status of children under 5 by various background characteristics, nationally, 41 percent of children under 5 age are stunted, and 16 percent are severely stunted. Analysis by age group shows that stunting is highest (53percent) in children age36-47 months and lowest (14 percent) in children age 9-11months. Severe stinting shows a similar pattern. With the highest proportion of sever stuning in children age 36-47 months (23 percent) and lowest in those age 6-1 months (4 percent) stuning is slightly higher in male children (41 percent) then in female children (40 percent). There is inveried U-shaped relationship between the length of the preceding birth interval and proportion of children who are stunted, with stunting being higher among children born within 4-47 months of previous birth than among first birth and births 48 and more months after a pervious birth. More than half of the children whose size at birth was very small or small are stunted. Mothers' nutritional status, as measured by their body mass index, also has an impact on the level of stunting in their children. For example, mother who are thin (IBM<18.5)have children with the highest levels of stunting (47 percent),

while mothers who are overweight/obese (BMI≥25) have children with the lowest levels (27 percent).(NDHS, 2011).

We compare the nutritional status of the children in their different categories developed by USA, they are:

MUAC (Mid-Upper Arm Circumference) Standard

This is the measurement of muscle mass in the arm. The measurement was taken by placing a tape around the child's left arm mid way between the elbow and the shoulder. The tape which is used for the measurement of arm, has divided into three zones which tells the level of malnutrition.

Red Zone: Danger, it measure 7 cm to 12.5 cm, which shows serve malnutrition.

Yellow Zone: Careful it measures. 12.5cm to 13.5cm it indicate risk of under nutrition.

Green Zone: Normal, it measure 13.5cm to 17.5cm and it means children are normally nourished.

In this study, the researcher also used these three methods for the analysis of nutritional status of children under the age of 5 year in Bahuni VDC, particularly at Radhanagar.

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According to Collins Dictionary, malnutrition is inadequate nutrition. Some believe that malnutrition is of imbalance in the intake of nutrients. Others say that it is a clinical syndrome with typical symptoms and sighs, depending upon the type of nutrients responsible for diseases. Nevertheless, both over nutrition and under.

2.4 Empirical Review

Subedi, (2010),Various groups of people have their own socio-cultural practices, perception and use value about their food item. Different group of people practice different food items according to their culture. Culture plays vital role for adopting their food items. In this sense we can say that culture is one of the determinants to practice foods. In different caste/ethnic groups they practice different food varieties in their different festivals e.g. what food varieties we observe in Newar's festivals that can't be seen in Chhetri and Bahun's festivals, likewise, it differs from community to community.

Heath Ministry Report,(2010). According to Survey the 221 sample size from all over Nepal representing all types of geographical area was visited and anthropometric data on 6562 children between 6 to 71 months of age were collected. It was found that 44.8 percent second degree and 5.1 percent of sampled children Suffered from Gomez third degree malnutrition. When they used the Indian Academy of Pediatrics Classification, (IAPC), the 24.1 percent sampled children suffered from second degree and 5.1 percent are third degree malnutrition. It shows that 48.1 percent of children stunned, 2.8 percent were wasted and 3.8 percent were both stunned and wasted from waterlow classification. UNICEF survey found more stunting and wasting in the total sample of 2157 children from their Terai. Out of them 50.5 percent were classified as normal 40.7 percent as stunted and 8.5 percent wasted. This compares with a wasting rate of 5.7 percent and a stunting, rate of 51.9 percent for children living in the hill regions. Only 42.2 percent of hill children were classified as normal

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National Nutrition Strategy (2010), the poor nutritional status of children and women has been considered a serious problem in Nepal for many years. The most common forms of malnutrition in a the country are Protein Energy Malnutrition (PEM) Iodine Deficiency Disorder (IDD), Vitamin A Deficiency (VAD) and Iron Deficiency Anemia (IDA) initiatives have been underway for more than three decades with national nutritional strategy developed in 1978.

WHO (2010),It is possible that if accumulation of micronutrients is poor infants born to women with inadequate micronutrients stores intake, and that subsequently these infants become depleted of those nutrients postpartum. This situation could exacerbate if the concentration of micronutrients are low in maternal mild and if the quality or quality of complement of food is inadequate.

CDR. (2008) Most of Socio-economic variables that have been an influence on nutritional status are effective through brining changes in food consumed pattern. Although changes in the quality or calories values of food consumed by a family

(due to change in the size income/expenditure) are computable. It is still difficult to assess the subsequent impact on nutritional status of family land of each family member in particular. Because food habits, food preparation, intra families distribution of food and health status of family members are such factors effect of which are not easily assessable and has escape to afford actual intake of nutrient from what is available to the family.

In this study researcher applied only gometz classification, so the study only illustrate the problem of underweight. According to researcher, up to the time of this day, no institution /individual has been conducted the research work in the field of nutrition by cast wisely/ethnically.

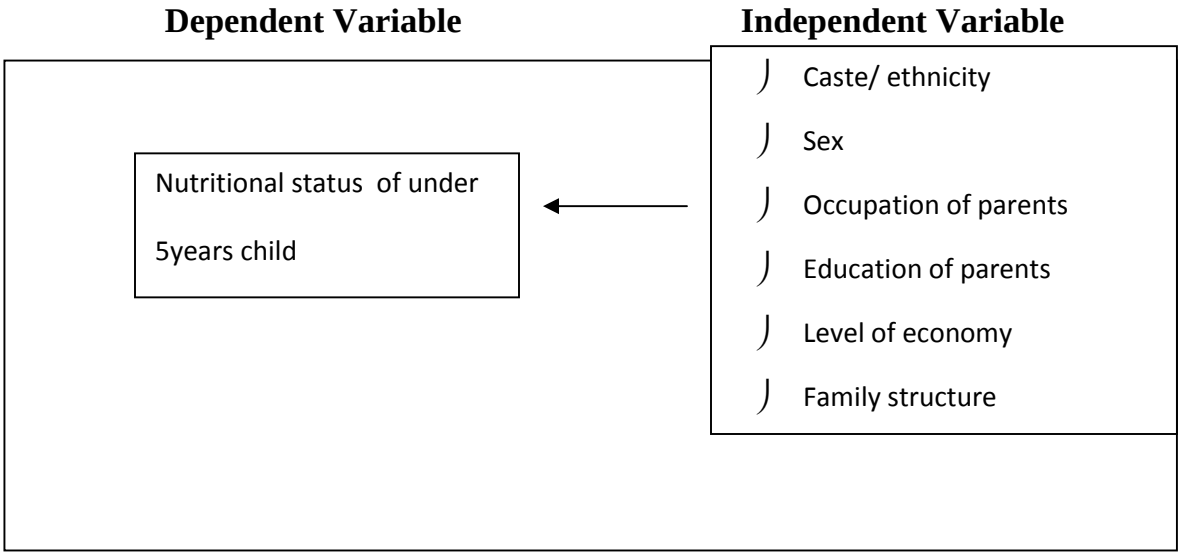
Every technical problem have a social dimension and without social study ,no problem neither had solved, nor will be .In this way, this study extend the area of sociology/anthropology in the field of technology as well as .

2.5 Conceptual Frame Work

Conceptual Frame Work

In this research, I have developed conceptual framework to analyses the relationship between the nutritional status of under five children and social characteristics like, caste/ethnicity, sex, occupation of parents, type of family, level of economic and education of parents in the framework. So the interconnectedness between social characteristics with nutritional status under five children among the people Sanai VDC of Nawalparsi district. There are variations in feeding practices among different socio-economic background of the people that directly or indirectly influence the nutritional status of people. The following figure shows the conceptual framework which helps me to understand the nutritional statues of fewer than five children and social features of people.

Conceptual Frame Work



Nutritional status is correlated to various issues habit, belief too, preparing technology and attitude toward the food is difference by caste/ethnic, availability of food and affording power to purchase mineral food of fruits may have the affect the nutrition status. Education and level of economy also play the important role of nutritional status of children.

CHAPTER: III

RESEARCH METHODOLOGY

This chapter deals with the research methodology applied by researcher to obtain the research questions. The chapter mainly deals with the rationale for the selection of study area, research design, universe and sampling, nature and sources of data, tools and techniques of data collection, data presentation and analysis.

3.1 Rationale for Selection of Study Area

This study has carried out at Sanai VDC of Nawalparashi district which lies in the south-west of the country. There are various reasons behind to select the site for the study. The one reason was that the area was the inhabitance of different caste/ ethnic group such as Brahmin, Yadav, Tharu, kewat, Muslim and Harijan etc. They are culturally differing from each-other and their feeding manner and food items are also differ from each other group. Similarly, health condition of children in different caste/ethnic groups somehow differs from each-other groups. Therefore, this study area is suitable for me to meet the objectives. Economically, people, of the study area, are categorized in high and low income level. That is why different classes of people practice different feeding manner and food items. In this sense, the site was suitable for me to obtain the objectives.

3.2 Research Design

Both descriptive and exploratory research design were applied in this study. The research has been descriptive in this sense that the research described the socio-economic, caste/ethnic composition, educational status of the people. Moreover, research was explorative in this sense that it was also explored the relationship between nutritional status and caste/ethnic composition, economy, education of the study population.

3.3. Universe and Sampling

Sanai, one of the VDCs of Nawalparsi district, was select purposively for the study. The inhabitants of this VDC belong to various caste/ethnic groups such asTharu ,Yadav, Bramhan, Kewat Muslim and Harijan. According to

the Record book of Sanai sub health post, the number of less than 5 years children ward wisely mentioned below. For the study 15% of children and their parents were involved in this study. For the study under five years children each ward Sanai VDCselected by using simple random sampling method particularly lottery method.

Data of under 5 years children ward wisely

W. no.	No. of < five years child	Sample (15%)	No. of HH
1.	163	25	12
2.	63	10	7
3.	144	22	13
4.	130	20	13
5.	61	10	7
6.	120	18	8
7.	119	18	10
8.	127	19	13
9.	223	33	20
Total	1150	175	103

We were collected the information by gaping 5 houses one another when the 5^{th} was childless. In this way we were collected the data per ward. I take all the children whose age of under 5 even in same house. We found 175 children from 103 household.

For the study 175 children and their parents were involved.

3.4 Nature and Source of Data

Both qualitative and quantitative data were used and primary and secondary data are the source of data collection. Primary data was collected through filed work by using different tools such as interview, observation and household survey and Growth monitoring camp. Secondary data was collected from different sources such as local health post, books, and research articles.

3.5 Data Collection Techniques

3.5.1 Household Survey

In this research, research has applied household survey to collect socio-cultural and economic information like: age/sex composition, caste/ethnic composition, religion, education, marital status, income, land holding size, feeding time table.

3.5.2 Observation

Observation is the basic tools for the collection of data from the field. I was applied the tool to obtain supplement information. During the field study period, I was observed, food habit, feeding practices, physical structure of children. During the course of data collection, it has been also scrutinized the geographical setting, housing pattern and social structure of the study area.

3.5.3 Interview

Interview was conducted with mother of children as well as elderly family members of the sampled household. For interview, the researcher was used a set of questions. Data was collected the information about feeding practices, feeding items.

3.5.4 Anthropometry Tools

In this research, measurement of weight was measured in the 175 Children and their parents were involved to assist in the growth monitoring by health worker at each ward.

3.6 Data Presentation and Analysis

Collected data and information were analyzed by using simple mathematical and statistical tools such as percentage, table etc.

3.7 Limitation of the Study

This study was limited in the following limitations which are as follow:

This study was limited in the following limitations which are as follows:

- The study was concentrated on nutrition status children under five year's age.
- Under five years 175 children and their guardian were participated in this study.
- The study was covered the area of Sanai VDC, Nawalparasi
- This study performed only by Gomez method.

CHAPTER: IV

DESCRIPTION OF THE STUDY AREA

This chapter describes the physical situation of the study area. In addition, it also deals about the some socio-cultural characteristics such as caste and ethnicity, occupation, age, sex and marital status of the study population.

4.1 Setting of Nawalaprashi district and Sanai VDC

Nawalparasi district lies between $86^0$36' east to $84^0$35' east in longitude and $27^0$22' north to $27^0$47' north latitude. From the Nawalparasi district Chitwan district leis to the east and to the west side Rupandehi district is situated and on the north side palpa district and Tanahun district is located. Our neighboring country India's Uttar Pradesh and Bihar situated on the south direction from the Nawalparasi district. Nawalparasi district is situated 100m to 1936 m from the side of sea level. Toatal population of this district is 643,508 in 2011.(CBS report,2011)

Introduction of Sanai VDC

Sanai VDC is one of the VDC of Nawalparshi which is located in east part of the district. From the Sanai VDC Ramgram municipality and Sukrauli VDC lies to the north and Hakui VDC lies to the west and palhi VDC and Germ I VDC lies to the east and utter pardesh, India lies to south.

Avvording to the Census rport 2011: the total pop;ulation of anai VDC is 7434. There are the major of Yadav, Tharu, Harijan, Kewat and Muslims. Very few numbers of Bhramins & Chhetris are resided there.

Bhojpuri is the mother tongue language for all most people. Whereas very few numbers of people who are migrated from hill region uses the Nepali language as a first language. Most of the people use the Nepali language as a formal conversation and all most all the people understand the Naples language.

The road of Sanai VDC are graveled and kachhi (not pitched). All the people use the tubewell for the sources of water. There is the paschim Gandak nahar by which most of the land is irrigated. Popular lake named Nandan tal is also lies in the Sanai VDC.

Most of the people are Hindus where as some of them prefer to recognize them the follower of Buddha whereas all most are followed the Hindu rituals & customs. Very few numbers of people are Muslim. We are not found the number of people who is Christian and other religion.

There are four primary level schools, one lower secondary school & one secondary school. There is one sub health post. Very few: two-three private medical halls. People get primary level of service from these institutions for the further treatment; they visit Bhairahawa, Butwal, Parasi & India.

There are very few co-operatives & other non government organization such as: Youth Club, Mother Group & FCHV who played the vital role fofr social mobilization in health sector.

Climate

The climate of the village is tropical with the hottest period from April to June leading up to the monsoon. The monsoon covered between Mid June to mid September. During the monsoon the weather is cooler but very humid. Towards November the weather becomes cooler still, with the nights being cold, until February. From March the hot season begins again. The village is covered with thick layers of mist, which last for three to four hours in most of the mornings from late October to the middle of February. The village experiences violent windstorms of short time in the April. The annual rainfall occurs around 2000 mm. the temperature very between 4^0 c in winter to 40^0 c in summer.

Topography

The village has plain landscape, with gentle slope from north to south. The elevation of village may be approximately around 100 meter mean sea levels. Three small streams, called ghost in the locality, drain the village.

Most of the solid of the village are of alluvial original. The soils can be classified into clay-loam and sandy-loam. The low land contains clay-loam while the upland contains sandy-loam. The soil profile of village consists of three-district layers: first layer of humus soil in the top surface, second layer of sand in the middle, and below it layer of pebbles at the bottom. Such type of soil profile indicates that once long ago the village was under the course of river or floods. Most of the land is irrigated by paschim Gandak nahar built by Indian government.

The vegetation of the village is tropical deciduous as well as tropical evergreen with the domination of former over latter. However, most of the original vegetation has now been replaced by cultivation. The trees that are found in the village include Sisoo, Simal, Bakaino, Jamunu, and Bamboo etc. Outside of the village in its west and south side, large area is covered by Nandan Lake where varieties of shrubs and grasses are found. This Lake represents truly the natural vegetation of the village.

Economic Aspect

The economy of village is predominantly rural and agrarian. According to population census of 2011, about 74 percent of economically active population is engaged in agriculture sector. Most of the people are subsistence farmers. A substantial proportion of the households do not own land. Wage earning by landless people is becoming the second major source of livelihood. Pressure of population on land has already reached to extremity. Encroachment of landless people into forestland and public land is common scene in the village. All of these suggest controlling population growth, developing non-farm sector and

improvement and diversification in agriculture for the enlistment of village economy.

Agriculture and Livestock

Since the village is endowed with fertile cultivable land, farming has been the main economic activity of the people; cereal crops dominate Agriculture in the village. Since the whole Terai is called the 'granary' of Nepal, the village also produces in surplus quantity. The farming system is somewhat mixed as applied both the primitive and improved method. Farmers have been practicing chemical fertilizers, high yielding varieties and pesticide and insecticide in their farms. One of the important change occurred in the farming system of the village is increasing use of tractor instead of bullocks. Few rice farmers in the village have owned the tractors, which are hired by other farmers. Tractors are used in several farming activities such as ploughing, pudding and leveling of farm and threshing of rice and wheat. However, other farming activities-planting, weeding and harvesting are still performed manually.

The main cereal crops farmed in the village are paddy, Wheat and maize. Paddy, which is grown twice a year in lowland, has highest production and land coverage, followed by wheat and maize. Besides the cereal crops, other agricultural crops which are grown in the village are mustard, potato, pulses and leguminous crops.

Since cereal crops dominate the agriculture of village, horticultural crops and vegetable are not farmed for marketing. Though they are the possible sources of income but are limited to home consumption due to the strong inclination of farmers towards cereal crops. The main fruits planted in the village are mango, bananas, jackfruits, pineapple, litchi & guavas. Cauliflower, cabbage, radish, Rayo, Brinjal, chili, potato, tomato etc, are the main vegetables cultivated in the village. Very few numbers of farmers have started growing vegetables to sell in the market.

Cropping Pattern

The types of landforms determine cropping patterns. The cropping pattern in the village is associated with three types of land forms. Ghol or lowland, Tandi or upland and Sukkha Tandi or rain fed upland. However, former two types dominate most of the land while latter one has very limited land coverage. The cropping patterns are shown in the tabular from below.

CHAPTER: V

DATA PRESENTATION AND ANALYSIS

In this chapter it analyzed the data collected from the field and deals with the nutrition of children in the study area. The specific issues presented in the chapter are initiation of breastfeeding, breastfeeding status of children by age, duration and frequency for breast feeding, food consumed by mother, micronutrient intake among children, breast feeding practices by education, breast feeding practice by caste/ethnicity, complementary food to children.

5.1 Socio Economic Characteristic of the Respondents

In this sub section it analyzed the socio economic status of the respondents which play important role to maintain health and nitration situation of the children.

Respondents by Sex

Table: 1

Sample by Sex

Caste/Ethnic	Male	Female
Brahman/Chhetri	6	8
Indigenous	14	10
Terrian	31	30
Dalit	18	26
Muslim	12	20
Total	81	94

Source: Field Survey, 2013

Table 1 shows the sex composition of the respondents. According to data out of 175 respondents 81 are male and 94 are female. Among them 6 Bramin are

male and 8 are female in the same way 14 are indigenous male and 10 are female. Similarly 31 are terrain male and 30 are female. In the same way 18 are dalit male and 26 are female. Lastly, 12 are muslin male and 20 are female. Population of terrain is high in this study because these people are dominant in this area.

Respondents by Age

Table: 2

Respondents by Age

Age	No.	%
15-25 years	70	40
26-35 years	53	30.29
36-50 years	52	29.71
Total	175	100

Source: Field Survey, 2013

Table 2 shows age composition of the respondents. Out of 175 40% are 15-25 and 30.29% 26-35 years whereas next 29.71% are 36- 50 years age group. 15-25 years age group is more than other age group because these aged groups have children.

Respondents by Education

Table: 3

Education of Mother of Sample Children by Caste/ethnic

Caste/ethnic	Illiterate	Primary	Secondary	10+2 & above
Brahman/Chhetri	-	4	6	4
Indigenous	-	13	8	3
Terrian	38	11	8	4
Dalit	31	10	3	-
Muslim	18	8	4	2
Total	87	46	29	13

Source: Field Survey, 2013

Table 3 shows the education of mother of sample children. In total Bramin 4 passed primary level and 6 passed secondary and 4 passed +2 levels in the same way in indigenous 13 passed primary, 8 secondary and 3 passed +2 levels. Similarly, in Terrian 38 are illiterate 11 passed primary, 8 secondary and 4 passed +2 level. In the same way, among Dalit 31 are illiterate 10 passed primary 3 passed secondary and in muslin 18 are illiterate 8 primary , 4 secondary and 2 passed +2 level. Data shows that terrain and Dalit mother are illiterate than other castes' mother**.**

Table: 4

Education of Father of Sample Children by Caste/ethnic

Caste/ethnic	Illiterate	Primary	Secondary	10+2 & above
Brahman/Chhetri	-	-	4	10
Indigenous	3	4	9	8
Terrian	14	10	25	12
Dalit	19	21	4	-
Muslim	11	12	6	3
Total	47	47	48	33

Source: Field Survey, 2013

Table 4 shows the education status of father of sample children. Among Bramin Chhetri 10 are passed +2 levels. In indigenous 3 are illiterate, 4 passed primary level, 9 passed secondary level and only 8 passed +level. In Terrian 14 are illiterate, 10 passed primary level 15 completed secondary level and 12 passed +2 levels. In Dalit 19 are illiterate, 21 passed primary level and 4 passed secondary level. In the same way, in Muslim, 11 are illiterate, 12 passed primary level , 6 passed secondary level and only three passed +2 level.

Data shows that high number of dalit are illiterate and less number of Chhreti /Bramin are literate because Scio-economic situation of Dalit is low that impact on education status

Respondents by Caste/Ethnicity

Table:5

Respondents by Caste/Ethnicity

Caste/ Ethnicity	No.	%
Brahaman/Chhhetri	14	8
Indigenous(Adibasi)	24	13.71
Terion	61	34.86
Untouchable(Dalit)	44	25.14
Muslim	32	18.28
Total	175	100

Source: Field Survey, 2013

Table 5 delineates the caste and ethnic composition of the respondents. Data shows that in total 8 % are Bramin/Chhetri and 13.71% are indigenous. In the same way, 34.86 % are terrain and 25.14% are dalit. Similarly, 18.28 are Muslim. Among total indigenous sample population is high than other because in this study are their number is high.

Respondents by Religion

Table 6

Respondents by Religion

Caste/ethnic	Hindu	Buddhist	Muslim	Total
Brahman/Chhetri	14	-	-	14
Indigenous	20	4	-	24
Terrian	61	-	-	61
Dalit	30	14	-	44
Muslim	-	-	32	32
Total	125	18	32	175

Source: Field Survey, 2013

Table 6 portrays religious composition of the respondents. Data shows that 125 are Hindu. In total Hindu population Bramin covers 14,indigenous covers 20 , terrain covers 61 and Dalit covers 30. Among Hindu population Terrians ' numbers is high. In the same way, among Buddhist, 20 are indigenous and 14 Dalit .Similarly 32 Are Muslim.

Respondents by Occupation

Table: 7

Respondents by Occupation

Caste/ethnic	Farmer	Business	Service	Labour	Total
Brahman/Chhetri	8	2	4	-	14
Indigenous	19	3	7	5	34
Terrian	36	9	10	6	61
Dalit	17	-	-	27	54
Muslim	21	1	-	11	33
Total	91	14	21	49	175

Source: Field Survey, 2013

Table 7 shows the occupation of respondents. Among total respondents 91 are farmers. Among them 8 are from Bramin/Chhetri community 19 indigenous

community, 36 Terrian community, 17 Dalit community and 21 Muslim community. In the same way 14 involve in business. Among them 2 are from Bramin/ Chhetri community, 3 indigenous 9 Terrian and 1 Muslim. Similarly 21 involved in service, among total, 4 are from Bramin community,7 from indigenous community 10 from Terrain,. In the same way, 49 particiapte in labor activities, among them 5 from indigenous, 6 from Terrian ,27 from Dalit and 11 from Muslim

Respondents by annual Household income

Table: 8

Respondents by annual Household income in (Rs. 000)

Caste/ethnic	20-40	40-60	60-100	>100
Brahman/Chhetri	-	1	3	10
Indigenous	5	7	3	9
Terrian	10	14	25	12
Dalit	12	14	10	4
Muslim	8	8	13	3
Total	35	44	54	38

Source: Field Survey, 2013

Table 8 shows the respondents by annual household income. Data shows that 35 earn 20-40 (000). In total 5 indigenous, 10 Terrian ,12 Dalit and 8 Muslim earn the amount. In the same way, 44 earn 40-60(000), whereas, 1 Bramin/Chhetri,7 indigenous, 14 Terrian, 14 Dalit and 8 Muslim the amount. In the same way, 54 earn 60-100 whereas, 3 Bramin/Chhetri,3 indigenous,25 Terrian,10 Dalit and 13 Muslim earn the amount. Similarly, 38 earn more than 100(000), among five caste groups, 10 Bramins/Chhetri, 9 indigenous,12 Terrian, 4 Dalit and 3 Muslim earn the amount. In total Bramin/Chhetri earn more than other caste grup people**.**

Table: 9

Respondents by Level of Economy

Caste/ethnic	Good	Medium	Low
Brahman/Chhetri	6	6	2
Indigenous	10	6	8
Terrian	29	18	14
Dalit	1	4	38
Muslim	8	6	18
Total	55	40	80

Source: Field Survey, 2013

Table 9 shows the respondents level of economy. There are three level of economy in total whereas 55 found good, 40 medium and 80 low. Among good situation Bramin /Chhetri covere 6, indigenous covers, 10, Terrian covers, 29, Dalit covers,1 and Muslim covers 8. In the same way, in medium, Bramin/Chhetri covers 6, indigenous covers 6, Terrian covers, 18, dalit cover 4 and Muslim covers 6. Similarly, in low Bramin/Chhetri covers 2, indigenous covers 8, Terrian cover 14, Dalit covers, 38 and Muslim covers 18. Data shows that poverty level is high in Dalit and Muslim among five castes.

Respondents by treat fist time while become ill

Table: 10

Respondents by treat while become ill

Caste/ethnic	Jharfuk	Hospital	Own self
Brahman/Chhetri	2	12	-
Indigenous	10	5	9
Terrian	16	39	6
Dalit	16	28	-
Muslim	2	28	2
Total	46	112	17

Source: Field Survey, 2013

Table 10 shows treatment pattern of respondent while become ill. Data shows that in total 46 go Jarfuk at first while become ill among them 2 Bramin/Chhetri,10 indigenous, 16 Terrian, 16 Dalit and 2 Muslim. In the same way,112 go hospital/ health post among them 12 Chheri/ Bramin, 5 indigenous,39 Terrian,28 Dalit and 28 Muslim. Similarly, 17 treat ownself while become ill, among them 9 are indigenous,6 Terrian and 2 Muslim. Data shows that still people are believing in Jharfuk in the study area.

Respondents by having toilet

Table 11 Respondents by having toilet

Caste/ethnic	Have Toilet	Have not Toilet
Brahman/Chhetri	9	5
Indigenous	6	18
Terrian	8	53
Dalit	-	44
Muslim	3	29
Total	26	149

Source: Field Survey, 2013

Table 11 shows respondents by having toilet. Data shows that only 26 have toilet and 149 have not toilet in their house. In total of having toilet, 9 Bramin/Chhetri, 6 indigenous, 8 Terrian and 3 Muslim have toilet. Similarly, in not having toilet, 5 Bramin, 18 indigenous,23 Treeian,44 Dalit and 29 Muslim. Majority of Terrian have not toilet. Open defecation is the main cause of disease so it need to lunch program against open defecation in the study area.

Respondents by Annual food Sufficiency (on months)

Table12

Respondents by Annual food Sufficiency (on months)

Caste/ethnic	1-6	6-10	10-12	More than need
Brahman/Chhetri	3	2	4	5
Indigenous	-	5	16	3
Terrian	25	14	17	5
Dalit	22	20	2	-
Muslim	10	12	6	4
Total	60	53	45	17

Source: Field Survey, 2013

Table 12 shows the food sufficiency of respondents. Data shows that 60 respondents have food sufficiency 1-6 month whereas 3 Bramin/Chhetri, 25 Terrians 22 Dalits and 10 Muslims have food sufficiency up to six months. In the same way,53 have food sufficiency 6-10 months whereas, 2 Bramin/Chhetri , 5 indigenous,14 Terrians, 20 Dalit and 12 Muslim. Similarly,45 respondents have food sufficiency 10-12 month whereas 4 Bramin/Chhetri,16 indigenous,17 Terrian,2 Dalit and 6 Muslim. Only 17 respondents produce more than they need, 5 Brain/Chhetri, 3 indigenous, 5 Terrian and 4 Muslim. Food sufficiency found high in Bramin/Chhetri among all and worst in dalit.

Respondents by Family Type

Table: 13

Family Type by caste/ethnic

Caste/ethnic	Nuclear	Joint	Extended
Brahman/Chhetri	1	10	3
Indigenous	6	11	7
Terrian	21	31	9
Dalit	24	16	4
Muslim	3	19	10
Total	55	87	33

Source: Field Survey, 2013

Table 13 shows the family type of respondents which also play vital role in nitration. Data shows that 55 family of different caste/ethnic groups are live in nuclear family whereas 1 Bramin/Chhetri, 6 indigenous,21 Terrian,24 Dalit and 3 Muslim . in the same way, 87 lives in joint family whereas 10 are bramin /Chhteri 11 indigenous ,31 Terrian 16 Dalit and 19 Muslim. Simialrly,33 live in extended family. In extended family 3 Bramin/Chhetri, 7 indigenous 9 Terian ,4 Dalit and 10 Muslim are lived

Respondents by type of house

Table 14 Respondents by Type of House

Caste/ethnic	Katchi	kpt	Pakki
Brahman/Chhetri	-	3	11
Indigenous	8	10	7
Terrian	31	18	12
Dalit	33	8	3
Muslim	6	11	15
Total	78	50	48

Source: Field Survey, 2013

Table 14 shows the respondents type of house. In total 78 have Kachhi house whereas 8 indigenous,31 Terrian,33 Dalit and 6 Muslim live in Kachhi house. In the same way, 50 live in KPT among them 3 Bramin/Chhetri,10 indigenous,18 terrian,8 Dalit and 11 Muslim. Similarly, 48 live in Pakki house whereas, 11 bramin/Chhetri, 7 indigenous,12 terrian,3 Dalit and 15 Muslim live in Pakki house. It shows that the number of Bramin/Chhetri is high having Pakki house than other community people. Majority of the dalit and terrain have kachchi house, poor housing is also play negative role on health.

5.2 Initiation of Breast feeding

Like other organism, breast-feeding is a universal practice among human beings. It confers enormous benefits to both mother and children such as help to prevent malnutrition and illness of children and prevent breast diseases and birth spacing of mother. Moreover it also develops emotional attachment among mother and child and bind together.

Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early sucking because it stimulate breast milk production and

facilities the release of oxytocin which helps the contraction of uterus and reduces postpartum blood loss. The first breast milk contains colostrums, which is highly notorious and has antibodies that protect the new born from diseases (USAID, et al, 2006).

An old woman informed me that all most all mothers did not use to feed their first milk to their child before last fifteen years ago. They believed that first milk have full of colostrums and not good for the health of their babies. At present, throwing of first milk of mother has also totally stopped among the mother. One of the informants informed me that feeding of initial milk had begun among the mothers of study area after beginning of the delivery at health post or hospital. Some of the informants informed me that along with the increased of the level of education among the women in the study area, they became more and more conscious about the breastfeeding of first milk to their children. Similarly, some of the informant informed me that they gained that knowledge from the different awareness programs organized by different NGO or CBO located at district. Sub health post mother group meeting by FCHV. There are no any ritual peograms and customs about pasni. But they begin to feed complimentary food supply by the respondents to their children.

Table 15 Complementary Food Supply

Caste/ethnic	0-5	6-9	10-12	13-18	After 19 month
Brahman/Chhetri	-	14	-	-	-
Indigenous	-	20	5	-	-
Terrian	-	35	19	5	2
Dalit	-	14	16	10	2
Muslim	-	11	13	8	-
Total	-	94	53	23	4

Source: Field Survey, 2013

Table 15 shows the Complementary food supply situation of the respondents. Data shows that among five different communities 94 supply complimentary food during 6-9 month whereas 14, Bramin/Chhetri, 20 indigenous,35 Terrian, 14 Dalit 11 Muslim. In the same way, 53 supply during 10-12 months whereas 5 indigenous ,19 terrian, 16 Dalit and 13 Muslim supply food. Similarly, 23 supply complimentary food 13-18 month whereas 5 Terrian,10 Dalit and 8 Muslim supply food during the time. Only 4 supply after 19 month,2 Terrian and 2 Dalit supply food after the time. Brahmin is the only one caste who celebrate pasni played the in timely.

5.3 Breastfeeding Status of children by Age

In Nepal, generally children breastfed during the first six months of life and those children be given solid or semi-solid complementary food in addition to continued breastfeeding after six months which was also commonly practiced among the people in study area. Breastfeeding protects the child from diarrhea and Acute Reparatory Infection (ARI). It has observed in the course of data collation that

children under the age of six months are feed breast of their mother in more frequency than the other children. Such children are completely depending on their mothers' milk. They introduced *lito* after arranging *'Passne'*, a feeding ritual commonly practices among the all groups in Nepal. After that the breast feeding was gradually reduced. In the case of the Dhimal community, there was no fixed data for rice feeding ceremony of a baby. Rice feeding was considered as supplementary to breast feeding. If the mother of the baby was not strong and cannot breast-feed the baby, then rice was given to the child at any time but not earlier i.e., before three month. The rice feeding was known as *Umchapaligyang* in Dhimal language. Therater, they fed their children Jaulo, milk, non-milk liquid.

Table 16 Respondents by Answering extra care for Male Baby than Female Baby

Caste/ethnic	Yes	No	Total
Brahman/Chhetri	3	11	14
Indigenous	7	17	24
Terrian	11	50	61
Dalit	14	30	44
Muslim	12	20	32
Total	47	128	175

Source: Field Survey, 2013

Table 16 shows the respondents by answering extra care for male baby than female Baby. Data shows that 47 say yes and 128 say no . Among five different community 3 Bramin/Chhetri, 7 indigenous, 11 Terrian,14 Dalit,12 Muslim say yes and 14 Bramin/Chhetri, 24 indigenous, 61 Terrian,44 Dalit,32 Muslim say no.

5.4 Duration and Frequency of Breast Feeding

The duration of breast feeding is one of the major components of nutrition for the infants. That means the duration and frequency of breastfeeding also determine the nutritional status of their children of any group. I have already mentioned that breastfeeding prevent malnutrition, illness and many other diseases of the children. In the course of field observation, I ask one old responded about the duration of breast feeding, she replied that old and less educated mothers feed their breast for long period (up to four years) the child's school going day. Such mothers have not thinking about their physical fitness but in the case of educated mothers they don't feed their breast more then two years. According to the responded educated mother are conscious about their physical fitness and they don't feed their breast more than two years.

Table 17

Per day Breast Feeding Episode

Caste/ethnic	4-5	6-9	10 & >10
Brahman/Chhetri	-	-	14
Indigenous	-	2	23
Terrian	-	21	40
Dalit	7	17	20
Muslim	2	10	20
Total	9	50	116

Source: Field Survey, 2013

Table 17 shows the per day breast feeding time. Data shows that 9 feed 4-5 times in aday whereas Dalit 7a nd Muslim 2 do such. In the same way, 50 fed 6-9 times whereas indigenous 2, Terrian 21,Dalit 17 and Muslim 10. Similarly,116 fed morethan 10 times, 14 Bramin/Chhetri,23 indigenous, 40 terrian,2 Dalit ,20 Muslim do such. It shows that most of the respondents feed breast more than 10 times per day .

5.5 Food Consumed by Mothers

The quality and quantity of food that mother eat influence their health and their children's health especially breastfeeding children. In the field observation, it was found that all most all the villagers of study area followed subsistence economy. That means they produced food grains for their own consumption. The villagers informed me that they were more conscious toward the heath of the mother. However, I observe that there was no specific variety of foods for the mother in study area. I observed that all the members of the family including mother consumed food cooked in the same pot. Generally, villagers drank milk tea in the morning and *dal-bhat* and curry as lunch before 10 a.m., they take *roti, tarkare, makai-vatmas,* noodles, *chambre* as their breakfast at 2:00-4:00 pm. They take *Dal-bhat* and curry as dinner at evening. It was found that on the day of child birth, the mother is fed with fried dal (Pulses) and rice, they say that these two cereals provide the mother necessary nutrition. After that day they provided carbohydrate related things meat and eggs in more frequency for one month from child birth. The mother is taken special care till the placenta comes out. Green vegetables are forbidden as the mother's diet. They believe that green vegetable brings cold to her. Especially, mothers are feed pig's fish and chicken are also given for strengthening mother body. But Brahmin and Chhetri don't practice such things rather they practice milk related things and *Juwano* in more frequency. In some Brahmin and Chhetri households, it was found that they provided mutton for mother after the seven days of the baby birth. Till 10 years before, in than continually the mother of baby was banned or taking everything till 3 days.

5.6 Micronutrient Intake among Children

Micronutrient deficiency has serious consequences for childhood mobility and mortality. Children can receive micronutrients from food, fortified foods and direct supplementation. Vitamin 'A' is an essential micrometry for the immune system. Severe Vitamin A Deficiency (VAD) can cause eye damage. VAD can also increase the severity of infections such as measles and diarrheal diseases in children and can slow recovery from illness. Vitamin A is found in breast milk, liver egg, fish butter, red palm oil, mangoes, papayas, carrots, pumpkins, and dark leafy vegetables. The liver can store enough vitamin A for four to six month.

It was found in the study area that, there was easy access to get fruit which contains different vitamin for the villagers. Especially, children of this area unknowingly practices Vitamin 'A' rich food such as egg, liver, papayas, breast milk, other milk, butter, fresh vegetables, carrots. It has been observed that though they have easy access of getting vitamin rich food but the have less consciousness for practices such foods properly. And it also found that all most all children share common food like *Dal, Bhat, Tarkary* (as lunch and dinner) with their family members. It has been observed that some factors like education and economy directly affect in foods practice. Children born to mothers with higher level of education are more likely to have received vitamin rich foods, and also children living in the wealthy households are much more likely to consumed vitamin 'A' rich food than children living in poor households.

5.7 Complementary food to Children

In the study area, villagers introduced the solid or semi solid food to their infants after arranging *Pashni.* It is generally organized at the five month for girl and six month for boy only for Brahmin community. Villagers also informed me that mother's milk was not sufficient to maintain hunger of children after the age of 6 months. The initiated small amount of food and increased the amount of foods and frequency of feeding as the child gets older. Table 5.7 shows the complementary food consumed by children in the study area by different caste/ethnic group.

Table: 18

Complementary Food to Children

Caste/eth	Breakfast	Lunch	Tiffin	dinner
Brahmin and Chhetri	Milk/ Tea, Egg, Biscuits, Bitten Rice,	Rice/ Pluse, Milk,	Noodles, Biscuits, Bitten Rice, Tea/Milk.	Rice, pluse, meat, wheat-bread, lito, milk and milk
Tharu	Tea/ Milk Egg, Biscuits	Rice/ Pluse,	Noodles, Biscuits, Bitten	Rice/pluse, Rice/Meat, Roti,
Madesi	Egg, Biscuits, Bitten rice	Rice/ Pluse,	Noodles, Biscuits, Egg	Rice/Pluse, Rice/Meat,
Muslim	Egg, Biscuits, Bitten Rice	Rice/ Pluse,	Noodles, Biscuits, Egg	Rice/pluse, Rice/Meat,
Dalit	Egg, Biscuits, Bitten Rice,	Rice/ Pluse,	Noodles, Biscuits, Bitten	Rice/pluse, Rice/Meat, Roti,

(Source: Field Survey, 2013)

Table 18 shows Tharu and other hill origin ethnic groups, they practice meat, eggs more than Brahamin and Chhetri community in the study area. In the field observation, it was also found that Brahmin and Chhetri caste consumed milk and milk related products like ghee, yogurt, curd higher than other groups. Now Bahun/ chetri also adopted the meat egg.

5.8 Nutritional Status of Children

The nutritional status of children reflects household, community and national development (USAID, 2010). Children in developing society especially rural community are most vulnerable to mal-nutrition because of low dietary intake, infectious diseases, lack of appropriate health care and inequitable distribution of food within the household.

The nutritional status of children in this research is compared with the WHO Child Growth Standards, which are based on an international sample. WHO used three indices to measure the nutritional status of children. The three indices are height-for-age, weight-for-height, and weight-for-age which provide different information about growth and body composition of children. Height for age**:** A measure of height of a child compared with the height of reference children of same age and sex,

Weight for height**:** This is a weight of child compared with weighty of reference children of the same height and sex**,** weight for age**:** This is the weight of a child compared with the weight of reference children of same age and sex.

5.9 Nutritional Status of Children According to Gomez classification

5.9.1 Age-wise Nutritional Status of Children

In the study, researcher applied Gomez classification to understand the weight of children on the basis of their age. According to this calcification, there are four

categories; normal (above 90% of the standard), first degree (75%-89% of the standard), second degree (60%-74% of the standard), and third degree (below 60% of the standard). The table 11 shows the nutritional status of children by age according to Gomez classification.

Table :19

Nutritional Status of Children by Age according to Gomes Classification

Nutritional Status	Normal		Mild		Severe		Total	
Age in Month	**No**	**%**	**No**	**%**	**No**	**%**	**No.**	**%**
0-11	34	94.44	1	0.57	1	0.57	36	100
12-23	30	58.82	12	23.53	9	17.65	51	100
24-35	23	69.69	6	18.18	4	12.12	33	100
36-47	14	56	5	20	6	24	25	100
48-59	18	60	9	30	3	10	30	100
Total	119	68	33	18.86	23	13.14	175	100

Source: Field Survey, 2013

Table 19 clearly reveals that just the majority of the children are fall under the normal category where as nearly 68% of the children of study area were fall the normal category. It was higher between the ages of 0 to 11 months. That means the health condition of children was poor by age after 1year. Baby get barest milk, bustaic weight normal to 0-11, after then they need more complementary food but

child can not get, properly most of the parent feed their child junk food on complementary food. That's why child get mal nutrished after one year.

Table :20

Nutritional Status of Children by caste/ethnic

Caste/ethnic	Normal	Mild	Sever	Total
Brahman/Chhetri	9	5	-	14
Indigenous	20	4	-	24
Terrian	43	9	9	61
Dalit	27	10	7	44
Muslim	20	7	5	32
Total	119	35	21	175

Source: Field Survey, 2013

Table :20 shows the nutritional status of children by caste/ethnic. Data shows that children of 9 Bramin/Chetris' ,20 indigenous,43 Terrian,27 Dalit and 20 Muslim are normal whereas children of 5 Bramin/Chetris' ,4 indigenous,9 Terrian,10 Dalit and 7 Muslim are normal and children of 9 Terrian,7 Dalit and 5 Muslim are sever. It shows that caste/ethnicity also play vital role in nutrition status of children. Branmin and indigenous caste child have not severe malnutrition because they feed complementary food after 6month whereas other cast have not

Dalit are deprived from public property such as pond, tap. They cannot purchase ghee and milk nor they sell their food product easily because of cast system.AS a result neither they feed balance diet nor they can earn. Which make them poor. poverty is the source of all evil.

In muslim community , they belief and follow religious norms strongly .they are not positive to family planning, so born more child as a result there is less birth

spacing and parent can't manage the problem of daily need, then child suffer from malnutrition.

Caste/ethnically there is various norms ,values, and technique to food and feeding practice ,so nutrition is related to caste/ethnic.

Table: 21

Nutritional Status of Children by mother's education

Education status of mothers	Normal	Mild	Sever	Total
Illiterate	58	18	11	87
Primary	28	11	7	46
Secondary	23	4	2	29
10+2 & Above	10	2	1	13
Total	119	35	21	175

Source: Field Survey, 2013

Table: 21 shows the nutritional status of children by mother's education. Data shows that 87 illiterate, 46 primary,29 secondary 119 above educational status mothers' children found normal whereas 58 illiterate, 28 primary,23 secondary 10 above found mild and 11 illiterate, 7 primary,2 secondary 1 above found sever. It shows that there relation between mother's education and nitration situation of children.

Table :22

Nutritional Status of Children by Father's education

Education status of father	Normal	Mild	Sever	Total
Illiterate	22	13	9	47
Primary	13	9	4	47
Secondary	15	11	4	48
10+2 & Above	6	2	4	33
Total	56	35	21	175

Source: Field Survey, 2013

Table: 22 shows the nutritional status of children by father's education. Data shows that 22 illiterate, 13 primary,15 secondary 16 above educational status fathers' children found normal whereas 13 illiterate, 19 primary,11 secondary 2 above found mild and 9 illiterate, 4 primary,4 secondary 4 above found sever. It shows that there sis relation between father education and nitration situation of children.

Education level of parent's education effected the health status of children but specially mother's education is more effective. In Nepalese society most of the children is cared by their mother than father so the mother's education more effective than father's education on health and nutrition status of children.

Table: 23

Nutritional Status of Children by occupation of parents (Specially Father)

Occupation of parents	Normal	Mild	Sever	Total
Farmer	71	11	10	91
Business	9	2	3	14
Service	15	5	1	21
Labour	25	17	7	49
Total	119	35	21	175

Source: Field Survey, 2013

Table: 24 shows the nutritional status of children by occupation of parents. Data shows that 71, farmer , 9 business ,15 service and 25 labor occupation holders children situation is normal whereas 11 farmers, 2 business, 5 service 17 labour occupation holders children found mild and 10 famers' 3 businessmans'1 servivce holders' and 7 labours childer found in server.

Those parents who involved in business and service, their children's health status is better than other's occupational parents children. They have cash ,their economic condition is better than labour and farmer so they can provide sufficient food to their children and they can care to their children in timely. They have to maintain neat and clean enviroment at their house becauseof social prestiage. They have to expose daily to various kind of people , have to move town to countryyard to continue their job , bussiness which makes them access to nutritional objects, and information as a result they are sencetive to nutrition and balance diet than farmer, and labour. Farmer and labour who priorize daily needs chase them to work otherwise they have to face the problem hands to mouth so could not feed and care their children timelyand properly., their most of the time passed in the field and care of domestic animal, they are ignore the sanitation so their children are unhealthy and under weight .

Table: 24

Nutritional Status of Children by family type

Type of family	Normal	Mild	Sever	Total
Nuclear	34	13	8	55
Joint	66	14	7	87
Extended	19	8	6	33
Total	119	35	21	175

Source: Field Survey, 2013

Table 24 shows the nutritional status of children by family type. Data shows that 119 have normal whereas 34 in nuclear family, 66 joint family and 19 extended family. In the same way, 35 have mild whereas, 13 nuclear family, 14 join and 8 extended family. Similarly, 21 server whereas, 8 nuclear, 7 joint 6 extended.

In nuclear family, father and mother are busy on other work, they could not give time to their children, they could not feed and treatment their children in timely so their children are malnuitited than joint family. In joint family their grandparents are care the children, they feed and treatment in timely so their children are healthy than nuclear family's children. In extended family there are many family member, they did not provide sufficient food, so their children are less healthy than joint and nuclear family's children.

Table: 25

Nutritional Status of Children by level of Economy

Level of Economy	Normal	Mild	Sever	Total
Well	40	10	5	55
Mild	32	6	2	40
Poor	47	19	14	80
Total	119	35	21	175

Source: Field Survey, 2013

Table 25 shows nutritional status of children by level of economy. Data shows the three categories such as 119 normal, 35 mild 21 sever. In economic level the respondents who have good economic status 40 are normal whereas 10 are mild and 5 server . In the same way, who have mild economic status 32 normal,6 mild 2 sever.

Economy level also effect the health status of the children. In poor economy level family could not provided sufficient food and other complementary food/care to their children, they have not proper housing ,no toilet, they have no sufficient money, and grain , they are less educated so their children are less healthy then other economy level of family. Well economic status family could provide sufficient food/care, proper housing and they have toilet, their income is high then mild and poor family, their education status is high so they have more knowledge how to care/feed children so their children are more healthy than others children.

5.9.2 Nutritional Status of Children by Sex

The feeding practices to the children may be varied according to sex. Generally, in the patriarchal society people give more priority to the male children than the

female child in every aspect including feeding manner and practices due to the protector of lineage.

Table: 26

Nutritional Status of Children by Sex

Classification	Boys		Girl		Total
	No	%	No.	%	No.
Normal	56	47	63	53	119
Mild	13	39.9	20	60.6	33
Sever	10	43	13	56.5	23
Total	84	100	91	100	175

Source: Field Survey, 2013

Table 26 presents that the health condition or nutritional status of children. Girl's children status was worst than boy children in the case of study area. Because, only 47% of the male children were found under the normal condition majority of children had mal-nutritional status where as only 53% of girls children were fall under this categories. From the above fact, it can be concluded that girl have worse nutritional status than boys.

Our society is patriarchal society .In Nepalese society there is more priority of boy children then girl children, they are more care to boy child then girl child. When the first child is girl their parents born other child as a result first baby have to face less birth space so the girl gets less care and have to get less time period brest feeding than boy child so their health condition is worse than boy's.

CHAPTER: VI

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Summary

Nutrition, a process of providing and receiving food necessary for health and growth is foremost aspect of human being. It is the science of food essential for the proper maintenance of our body. Nutritional status of any people can be determined with how and what food is eaten. The main objective of the research was to determine the nutritional status of children under the age of five on the basis so caste/ethnic composition, sex occupation and educational-wise.

There were altogether 175 under five years children selected households in Sonai VDC Nawalparashi among them 81 were boy and 94 boys. These children were studied of the basis of caste/ethnicity, occupation education, sex, eating habits and different socio-economic characteristics. For the information, mothers were requested to fill up question are and children were measured i.e. weight for age.

In this study, there were three types of classification for measuring nutrition of children. These were Gomez classification, water low classification, MUAC standard. In these classifications, Gomez classification is used to find weight for age.

The study has shown that girls nutritional status is worse than boys in Gomez classification, and MUAC standard. In case of education, children from higher educated parents have better nutritional conditional than parents who were less auctioned, similarly, children whose parents were involved in service and business were better, nourished than the children whose parents involved in farming and other occupation.

6.2 Conclusion

out of 175 respondents 94 are male and 81 are female. Among them 6 Bramin are male and 8 are female in the same way 14 are indigenous male and 10 are female. Similarly 31 are terrain male and 30 are female. In the same way 18 are dalit male and 26 are female. Lastly, 12 are muslin male and 20 are female. Population of terrain is high in this study because these people are dominant in this area. Out of 175 40% are 15-25 and 30.29% 26-35 years whereas next 29.71% are 36- 50 years age group. 15-25 years age group is more than other age group because these aged groups have children. In total Bramin 4 passed primary level and 6 passed secondary and 4 passed +2 levels in the same way in indigenous 13 passed primary, 8 secondary and 3 passed +2 levels. Similarly, in Terrian 38 are illiterate 11 passed primary, 8 secondary and 4 passed +2 level. In the same way, among Dalit 31 are illiterate 10 passed primary 3 passed secondary and in muslin 18 are illiterate 8 primary , 4 secondary and 2 passed +2 level. Data shows that terrain and Dalit mother are illiterate than other castes' mother. Data shows that high number of dalit are illiterate and less number of Chhreti /Bramin are literate because Scio-economic situation of Dalit is low that impact on education status. 18.29% are Bramin/Chhetri and 32% are indigenous. In the same way, 205 are terrain and 9.17 are dalit. Similarly, 205 are Muslim. Among total indigenous sample population is high than other because in this study are their number is high. Hindu population Bramin covers 14,indigenous covers 20 , terrain covers 61 and Dalit covers 30. Among Hindu population Terrians ' numbers is high. In the same way, among Buddhist, 20 are indigenous and 14 Dalit .Similarly 32 Are Muslim. In the same way, 49 particiapte in labor activities, among them 5 from indigenous, 6 from Terrian ,27 from Dalit and 11 from Muslim. 35 earn 20-40 (000). In total 5 indigenous, 10 Terrian ,12 Dalit and 8 Muslim earn the amount. In the same way, 44 earn 40-60(000), whereas, 1 Bramin/Chhetri,7 indigenous, 14 Terrian, 14 Dalit and 8 Muslim the amount. In the same way, 54 earn 60-100 whereas, 3 Bramin/Chhetri,3 indigenous,25 Terrian,10 Dalit and 13 Muslim earn the amount. Similarly, 38 earn more than

100(000), among five caste groups, 10 Bramins/Chhetri, 9 indigenous,12 Terrian, 4 Dalit and 3 Muslim earn the amount. In total Bramin/Chhetri earn more than other caste group people. 55 found good, 40 medium and 80 low. Among good situation Bramin /Chhetri covere 6, indigenous covers, 10, Terrian covers, 29, Dalit covers,1 and Muslim covers 8. In the same way, in medium, Bramin/Chhetri covers 6, indigenous covers 6, Terrian covers, 18, dalit cover 4 and Muslim covers 6. Similarly, in low Bramin/Chhetri covers 2, indigenous covers 8, Terrian cover 14, Dalit covers, 38 and Muslim covers 18. Data shows that poverty level is high in Dalit and Muslim among five castes. 46 go Jarfuk at first while become ill among them 2 Bramin/Chhetri,10 indigenous, 16 Terrian, 16 Dalit and 2 Muslim. In the same way,112 go hospital/ health post among them 12 Chheri/ Bramin, 5 indigenous,39 Terrian,28 Dalit and 28 Muslim. Similarly, 17 treat ownself while become ill, among them 9 are indigenous,6 Terrian and 2 Muslim. Data shows that still people are believing in Jharfuk in the study area. 26 have toilet and 149 have not toilet in their house. In total of having toilet, 9 Bramin/Chhetri, 6 indigenous, 8 Terrian and 3 Muslim have toilet. Similarly, in not having toilet, 5 Bramin, 18 indigenous,23 Treeian,44 Dalit and 29 Muslim. Majority of Terrian have not toilet. Open defecation is the main cause of disease so it need to lunch program against open defecation in the study area. 60 respondents have food sufficiency 1-6 month whereas 3 Bramin/Chhetri, 25 Terrians 22 Dalits and 10 Muslims have food sufficiency up to six months. In the same way,53 have food sufficiency 6-10 months whereas, 2 Bramin/Chhetri , 5 indigenous,14 Terrians, 20 Dalit and 12 Muslim. Similarly,45 respondents have food sufficiency 10-12 month whereas 4 Bramin/Chhetri,16 indigenous,17 Terrian,2 Dalit and 6 Muslim. Only 17 respondents produce more than they need, 5 Brain/Chhetri, 3 indigenous, 5 Terrian and 4 Muslim. Food sufficiency found high in Bramin/Chhetri among all.

55 family of different caste/ethnic groups are live in nuclear family whereas 1 Bramin/Chhetri, 6 indigenous,21 Terrian,24 Dalit and 3 Muslim . in the same way, 87 lives in joint family whereas 10 are bramin /Chhteri 11 indigenous ,31 Terrian

16 Dalit and 19 Muslim. Simialrly,33 live in extended family. In extended family 3 Bramin/Chhetri, 7 indigenous 9 Terian ,4 Dalit and 10 Muslim are lived. 78 have Kachhi house whereas 8 indigenous,31 Terrian,33 Dalit and 6 Muslim live in Kachhi house. In the same way, 50 live in KPT among them 3 Bramin/Chhetri,10 indigenous,18 terrian,8 Dalit and 11 Muslim. Similarly, 48 live in Pakki house whereas, 11 bramin/Chhetri, 7 indigenous,12 terrian,3 Dalit and 15 Muslim live in Pakki house. It shows that the number of Bramin/Chhetri is high having Pakki house than other community people

94 supply complimentary food during 6-9 month whereas 14, Bramin/Chhetri, 20 indigenous,35 Terrian, 14 Dalit 11 Muslim. In the same way, 53 supply during 10-12 months whereas 5 indigenous. 19 terrian, 16 Dalit and 13 Muslim supply food. Similarly, 23 supply complimentary food 13-18 month whereas 5 Terrian,10 Dalit and 8 Muslim supply food during the time. Only 4 supply after 19 month,2 Terrian and 2 Dalit supply food after the time. 47 say yes and 128 say no . Among five different community 3 Bramin/Chhetri, 7 indigenous, 11 Terrian,14 Dalit,12 Muslim say yes and 14 Bramin/Chhetri, 24 indigenous, 61 Terrian,44 Dalit,32 Muslim say no. 9 feed 4-5 times in aday whereas Dalit 7a nd Muslim 2 do such. In the same way, 50 fed 6-9 times whereas indigenous 2, Terrian 21,Dalit 17 and Muslim 10. Similarly,116 fed morethan 10 times, 14 Bramin/Chhetri,23 indigenous, 40 terrian,2 Dalit ,20 Muslim do such. It shows that most of the respondents feed breast more than 10 times per day. 9 Bramin/Chetris' ,20 indigenous,43 Terrian,27 Dalit and 20 Muslim are normal whereas children of 5 Bramin/Chetris' ,4 indigenous,9 Terrian,10 Dalit and 7 Muslim are normal and children of 9 Terrian,7 Dalit and 5 Muslim are sever. It shows that caste/ethnicity also play vital role in nutrition status of children

6.2 Recommendation

Nitration is one of the important component of human being with out blace diet and its practice it is impossible to image healthy and developed community. So government, public society and other concern government and non government scoters as well household member children' parents (father/ mother) should conscious about nitration practice.

Most of the children are faced malnutrition problem so it is necessary to reduce because malnutrition is the main cause of inflection of various disease. For that government provide sufficient food for children. Government should take a policy to food security act.

Mother milk is the main food for children less than six month of age so mother should frequently feed breast except other food.

Most of the children situation is not good so it is necessary to take weight of the children in time treat them according to height and weight

- It is found the field more interesting but I could not find out many things due to time and other constraints. Therefore, I suggest the other researcher to seek the other aspects which are not focused by the study.

- Due to poverty and low income of the parent people children are facing food problems so government should bring program to increase food security of the people of the study area.

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APPENDIX 1

Questionnaire to the respondents

A. Introduction part

- Head of the households :
- Name :
- Add /Ward no.
- Cast/ Ethnicity
- Type of Family
- Religion

Educational status:	Illiterate	Literate:	
		Primary	Graduation level
Father			
Mother			

- Occupation : Father Mother
- If farmer

  Land size: (in katha) registered non-registered

  Rented in: Rented Out:
- Type of House : Paki kachikachi + paki
- Toilet :
- Annual Expenditure :
- Annual Income :
- No. of under 5 years Children Male Female Total

Q.uestion Related to Nutrition parts

1. What is the food usually prefer to serve on the especial celebration?

J

J

2. How many times do you feed your child daily?

2 times	3 times	4 times	> 5 times	others

3. Do you take green leafy vegetable daily? Yes No

4. What is the source of drinking Water?

   - Hand pipe
   - Tube well
   - Boring
   - Rainfall
   - Pond / River
   - Others

5. What type of Water do you consume daily?

   - Boiled
   - Filtered
   - Clorinized
   - Directly

6. Do you feed complementary food / milk to your > 6 month baby except breast milk? Yes No

7. What type of complementary food given to your Child <6 month to 5 years?

   Animal milk porridge sarbotamPitho and others

8. How many times daily feed complementary food?

9. Do you know how to build sarbotamPitho?

   Yes No (only after explanation)

10. Is it necessary to extra food/ care for Male Baby than Female Baby?

    Yes No

11. Do you monitor your child Growth regularly?

    Yes No

12. Have you ever involve in Health educational meeting?

    Yes No

13. Where do you consult firstly if your child is sick?

    Traditional Doctor (jharfuk) FCHV Health Institutions others

14. Do you taken some fruits daily? Yes No

15. What type of salt do you use?

    Two child logo others

16. Have you/she taken iron regularly when you/she pregnant?

Yes No

17. How many times do you visit health institution for ANC /PNC checkup? 0 1-3 4 4+

18. Have you immunized your child? Yes No

19. If not why? Cultural taboo out of rich unknown

20. How many times do you take meat monthly?

21. Have you give your child antihelmenth drug 6 monthly?

22. Have you given your child vitamin A 6 monthly?

23. What type of food/vegetable must not given to child? Why

24. What type of food must not given to lactating mother's?

25. What types of food should be fed to child?

26. What types of food should be fed to lactating mothers?

27. What types of khaja will you prefer to give your child?

Junk food or homemade food

28. Calender of green/leafy vegetable locally produce/available:- five items only. (Mark if used).

Ba.	Jes.	Ash.	Shr.	Bhad.	Ash.	Kar.	Man.	Pou.	Mar.	Fal	Cha.
YL Beans	YL Beans	YL Beans	Cucumber	String Gourd	Mustard Green	Mustard Green	Mustard Green	Cabbage	Cabbage	Cabbage	Cabbage
Snake Gourd	Snake Gourd	Snake Gourd	Snake Gourd	Snake Gourd	Fenugreek Green	Fenugreek Green	Fenugreek Green	Cauliflower	Cauliflower	Cauliflower	Ladies Figner
Biter Gourd	Biter Gourd	Biter Gourd	Biter Gourd	Biter Gourd	Snake Gourd	Biter Gourd	Biter Gourd	Mustard Green	Mustard Green	Eggplant	Eggplant
Lidies Figner	Lidies Figner	Botle Gourd	Lidies Figner	Lidies Figner	Spnich	Spnich	Spnich	Bethe	Bethe	Bethe	Bethe
Bethe	Eggplant	Eggplant	Pumpkin	Pumpkin	String Beans	String Beans	String Beans	Beans	Beans	Beans	Beans

29 Name of child; age sex wt