CHAPTER-I
INTRODUCTION

1.1 Background of the Study

Health is the most precious property of human life. It is multi-dimensional element in a person's life: it has several dimensions such as physical, mental, social and spiritual. This influences human lifestyle. Health enables individuals to adjust in changing environment. Good health is described as the condition where both body as well as our mind function well. Health is defined as 'the state of being free from illness or injury' (Oxford Advanced Learners' Dictionary of Current English, 8th Edition): and the main cause behind poor health condition are disease, improper diet, injury, mental stress, lack of hygiene, unhealthy lifestyle etc. Only healthy people can involve in economic development of a country. Healthy people are backbone of the national development of any country. So we should be very careful to be healthy. Water is lifeblood of the ecosphere. It is a precious resource for economic development and also for the maintenance of our environment, health and sanitation. The quality of life directly depends on quality of water. Access to safe drinking water is a human right.

Water is a natural resource that every human being on earth can use to satisfy his or her needs. According to the well known facts, a perfectly healthy man or woman can live from 3 to 5 days without water. But there are some requirements that should be fulfilled. First of all, the person must be absolutely healthy. Second of all, he or she must be located in perfect conditions. This means that the temperature shouldn’t be high or low. But this is just a theory – there’s no need to practice it!

What are the functions of water? First of all, water can easily quench the thirst. Besides, it can make us survive, clean or organism and simply recharge our fatigue. To say more, water is known for its revitalizing functions that make our skin look better. According to the recent investigations performed by the scientists, 70% of the human being’s body mass is composed of water. Thus, we can openly state how important this liquid is for us.

Although water is an integral part of our life and health in particular, we lose it every single day. In what way do we do that? We can lose water through bowel movement,

perspiration and respiration. For instance, if you're a fan of regular exercising, you know that the process will start perspiration which is respiration and sweating.

Water is not only important to people and animals, but to plants as well. So, if we look deeper, it's easy to see that if there was no water to feed the plants, there would be no oxygen for us.

Water also provides us with a great number of benefits. The number one advantage that water brings into our life is its revitalizing function. Our skin dries under the sun and water is always there to revitalize it.

Taking in account the fact that we all live in huge cities where regular stress is something that we all have got used to, it's no wonder that constant nervous tension makes us age. This is when water also can help through its revitalizing features. Besides that, this precious liquid can rehydrate our body, in our everyday life we like to play games, we work a lot and perspire that usually is the reason behind the body's dehydration. This, in turn, can cause many problems with health and even might lead to death – in most extreme conditions.

In the process of studying, work and playing, we all get tired. This means that our organism is in need of water to recharge fatigue in order to go on with our everyday activities. It is important to mention that fatigue can be of both – physical and mental nature. Mental fatigues causes extensive sleepiness and decrease of attention of an individual whereas physical fatigue will make the muscles tired and pain. As the result of all these aspects, a human being becomes absolutely sluggish. And finally, water is a precious source for help when the person is in need of detoxification, which is the process of cleansing the bacteria in the body of a human being. On this planet, there is no better helper in the process of detoxification than water! This is definitely the best agent, and, without any doubts, the cheapest.

To make it clear, water is the most important part of our life. We can spend days without food and still be alive. But if we got deprived of water, very soon we would close our eyes forever. Water provides our life with a great variety of advantages. That is why we have to take care of our health and water is the number one tool to make use of in the process!

Nepal is one of developing countries which has many people suffering from different disease and health problem. Nepal, though rich in water resources, still has many drinking water related problems. A large proportion population has no access to safe drinking water. Major quantity and quality issues in Nepal include the imbalance in supply and demand, growing population, domestic waste, insufficient or weak policy implementation, lack of storage capacity.

Water is one of the basic human necessities; but large proportion of Nepalese population is deprived of access to safe drinking and adequate drinking water. According to Department of Water Supply and Sewerage in Nepal, even though an estimated 80% of total population has access to drinking water. It is not safe. Those belonging to poor and excluded groups in rural areas have limited or no access to safe drinking water. Many remote areas have to rely on small waterfalls running from the mountains and spend hours traveling to get water. Still, drinking water that is available is not always safe, and supplied water is often polluted. One of the reasons is the fact that the surface and groundwater of Kathmandu Valley is deteriorating by natural and anthropogenic contaminations. The surface water is polluted by industry and domestic waste along with discharge of untreated sewage from tightly packed residential neighborhoods. It is without doubt that the domestic sewage system is a cause of one of the top sources of water pollution that seep in to rivers and lakes, which are the primary sources of drinking water. The capital city of Kathmandu is estimated to produce 150 tons of waste daily and almost half of this is dumped in to rivers and 80% of the waste water is generated by household. In addition to the increase in the population and establishments, surface water source alone has become inadequate to serve everyone.

In some of the rural regions of Nepal communities still rely on getting their drinking water from tube wells. Recently, one of the major concerns in these regions, especially in the region of the Terai, is groundwater contamination from arsenic. The Terai region contains sedimentary layer of sand. Gravel deposits interlock with flood plains carried by rivers and is extremely vulnerable to arsenic contamination.

As only 27%of population has access to basic sanitation, those without access rely on local surface water sources like rivers for bathing and washing clothes. At the same time, the establishment of water treatment facilities throughout the urban and rural

regions are limited. As result, Nepal faces high number of water borne disease such as diarrhea, dysentery, typhoid, gastroenteritis and cholera.

Children under the age of five are most affected with estimated 44,000 children dying every year in Nepal from waterborne diseases.

The demand for water is increasing significantly in Nepal and access to safe and adequate drinking water is crucial. The public lacks awareness and education on proper sanitation issues and domestic and industrial wastewater treatment plants need to be widespread. Nepal struggles to overcome this obstacle and needs solutions to eradicate this so that its citizens can live healthier lives.

(https://thewaterproject.org/water-crisis/water-in-crisis-nepal).

August 23rd 2016 if we take the scenario of Kathmandu valley, its population is growing a rate of 4.7% which is more than double the population growth rate of Nepal .The daily water demand for Kathmandu valley is more than 360 million litter per day where is around 90 million litters per day in dry season and 140 million litter per day in wet season.

The primary sources of water most of the household of Kathmandu Valley tap- water (for more than 70% house hold)As per recent data –tanker water has stepped up to second stop proving out to be primary water, sources more than 14% of household in the valley.

80%tap water were found to be infected with e coli bacteria it making it unsuitable for drinking directly but even them many people drinking it directly.

(http://smartpaani.com/the-water-situation-in-kathmandu-valley/)

“Water is essential for life. The amount of fresh water on earth is limited and its quality under constant pressure. Preserving the quality of fresh water is important for drinking water supply, food production and recreational water use. Water quality can be compromised by presence of infection agents, toxin, chemicals and radiological hazards.”

(http://www.who.int/topics/water/en/)

Muscle consists of 75% water, brain consists of 90% water, bone consists of 22% water, blood consists of 83% water, water need for human for regulate body and provide means for nutrients to travel organs and tissue.

Drinking water also known as potable water or improved drinking water is water that is safe to drink or use for food preparation, without risk of health problem. Globally, 89% of people had access to suitable for drinking. Nearly 4.2 billion had access to tap water, while another 2.4 billion had access to well or public tap1.8 billion people still use unsafe drinking water source which may be contaminated by faces. This can result in infectious diarrhoea such as cholera etc.

(https://en.wikipedia.org/wiki/Drinking_water)

Dictionary.com define it's briefly as "a transparent, odourless, tasteless liquid a compound of hydrogen and oxygen H_2O,freezing at 32F and boiling at 212 f or 10°C that is more less impure states constitute rain, ocean, lakes, rivers etc. It contains 11.188% hydrogen and 88.812% oxygen by weight.

(http://www.dictionary.com/browse/water)

Water is Essential components of life on earth and safe drinking water and sanitation are important for good public Health. Water is potentially useful to human being. People use for water for different purpose such as agriculture. Industrial, household, recreation and others. The insufficiency of safe drinking water is the big problem in this Tole. In this area every house have hand pump, and Tube well among them few house have tap. Class of people manage drinking water by buying sources and they bring water in their own house but low class people cannot afford it. Itahari is situated 26^0.66N and 87^0.27E state no 1 in Nepal. There are 20 ward this tole is situate at east and north side beside of Budhi river in Itahari part of Sunsari Districts in this area total house hold is 105 and population is 525

1.2 Statement of the Problem

Water is an important element to growth and development of human body and also for all things. The world without water cannot be imagining. We cannot live for days in absence of it. Drinking water is most communities is obtain from surface sources such natural water supplies particularly steam pound are likely to pollutes with domestic and other wastage.

Nepal is rich in water resources, however the rural and city area of hill and terrain are facing the problem of water insufficiency. Most of the rural area and remote area's people use drinking water directly from the sources like river, spring, and pound tap, stone tap etc. These open sources of water is pollinate, such pullulate water is the cause of waterborne disease like typhoid, cholera, dysentery. In every year many infant children and adult is suffer from this disease.

Most of districts and municipality of Nepal are suffering from insufficiency of safe drinking water among them this tole may not exception. People of this area also suffering from the undrinkable water. Hand pump in every house among them few tap in few house, other hand toilets are so close to water sources so almost toilets urine and stools has big chance to mix with water. Tube well they dig few in dip that cannot be pure to drink and arsenic element also not examine into water. Mostly, in this area people are poor and backward so they cannot assess the risk and danger of drinking non pure water and cannot afford water bring tap in their own house. Some people use river and stream water these open resources not pure for drink. Unsafe water cause for waterborne disease like viral, dysentery etc .It's all my big reason to study in this topic in this area.

According to WHO data published in may 2014 Diarrheal disease, death in Nepal reached 6,160 or 3.89% of total death. The age adjusted death rate is 28.82 per 100,000 of population ranks Nepal 147 in the world.

(http://www.worldlifeexpectancy.com/nepal-diarrhoeal-diseases)

Polluted water is not just dirty, it's deadly some. 1.8 million People died every year of diarrheal disease like cholera, tens of millions of other are seriously sickened by host

of water related ailments many of which are preventable (https://www.koshland-science-museum.org/water/html/en/Overview/Why-is-Safe-Water-Essential.html)

June 12, 2016 there is an increase in number of causes between 25 and 30%who come hospital suffering diarrhoea disease, typhoid and fever mostly due to poor quality drinking water inside Kathmandu" said Baburam Marasini chief of Epidemiology and disease control division under Department of Health services (http://kathmandupost.ekantipur.com/news/2016-06-12/waterborne-diseases-up.html)

Although access to clean drinking water is crucial to public health. It is a highly neglected issue in Nepal 80% of all disease in the world are related to either water or sanitation, according to the world health organisation WHO also reports that 30,000 adults and children die every year due to waterborne across the world. The Nepalese public health department says that 3,500 children die every year due to water borne disease.

(https://phys.org/news/2016-07-urban-sources-nepal-heavilycontaminated.html)

Incidence of diarrhoea per1,000 under five year children (2070/71)-2013-2014) 629 and 2071/72(2014/15)-520 and 2072/73(2014/15)-422.% of children under five year with diarrhoea suffering from dysentery 12 (blood in stool).(2071/72) and 11%(2072/73).% of children under 5 with diarrhoea treated with Zinc, ORS (2070/71)- 98 and 93 (2071/72)87-(2072/73)% of children under five years with diarrhoea with iv fluid 2.24(2070/2071),0.64-(2071/72) and 0.76(2072/73) (http://dohs.gov.np/)

Knowledge and practice of safe drinking water play vital role enhancing people health status. Knowledge is the key point to show the behavior, thus, the present problem is state as" knowledge and practice of safe drinking water among the people of Budhi Ganga Tole"

1.3 Objectives of the Study

The general objectives of this study is to find out knowledge and practice of safe drinking water among the people of Budhi Ganga Tol (Iathari Sub-Metropolitan Ward 4). Specific objectives of the study are as following-

1.3.1 To identify the knowledge about safe drinking water among the people.

1.3.2 To assess the practice of drinking water adopted by the people.

1.3.3 To Find out the current situation of safe drinking water.

1.4 The signification of the Study are as follows:

1.4.1 The result of the study has found the real situation of knowledge and practices about safe drinking water.

1.4.2 The result of study can be helpful for those who want to gain knowledge about safe drinking water.

1.4.3 The result of study is useful for community, government and NGOs /INGOs to support and management the practice of safe drinking water.

1.4.5 The result is helpful for concerned persons about safe drinking water.

1.4.6 The result of study can be helpful for further researcher as reference.

1.5 Delimitation of the Study

Limitation is a most important step in research. It helps the researcher to work by limit time, money and materials. The study has own delimitation. It focused on particular area which investigated within the limit of research capacity. Therefore this study has been delimited in following areas:

1.5.1 Budhi Ganga Tol (Itahari Sub-Metropolitan City, Ward No. 4) has been selected as study area.

1.5.2 The study is concerned about knowledge and adopted practice of safe drinking water among target population. (525)

1.5.3 Only 105 households were selected on the basis of census method.

1.5.4 Questionnaire, observation checklist has been used to collect data.

1.5.5 Researcher found out contextual and is not able in generalization to large area.

1.5.6 Only one respondent is taken from one house, they were male and female above 16 years.

1.5.7 In the knowledge of safe drinking water, meaning of source, disease cause by contamination of water are delimit.

1.5.8 Likewise, method of water purification, method of cleaning water pot, time duration of boiling water was considered in the study.

1.6 Operational Definitions of Key Terms

Attitude: Way of felling or thinking about drinking water.

Awareness: Make consciousness of well- informed about drinking water.

Behavior: Personal way to act about drinking water.

Environment: The environment is defined as the total from of all life external conditions and influence affection the development of an organism, human behavior of society.

Health Personnel: The person who is related to health sectors, for example, auxiliary health worker, pharmacist, A.N.M. etc

Health: Health is the state of physical, mental and social well-being not merely absences of disease or infirmities. (WHO 1947)

Healthy: Having or indicating good health in body and mind.

Observation: The power of taking notice and record information.

Practices: Daily action in to drink water way of drinking.

Safe Drinking Water: Free from any pathogenic agent.

Supply: Distribution of water.

CHAPTER-II
REVIEW OF RELATED LITERATURE

Generally, review of related literature enable to explore the research problem on different variables it may also guide the new researchers to gain the technique data collection and interpretation. The review of related literature process can be helpful to plain and conduct the present study systematically and more scientifically. Some of the facts, opinion and principle and study are review and present here.

2.1 Theoretical Literature

Safe drinking water is essential for life. Drinking water, also known as potable water, is water is that safe to drink or to use for use food preparation .To amount of Drinking water Required for varies .It depends on physical activity ,age ,health issue and environment conditions.(https://en.wikipedia.org/wiki/Drinking_water)

Water is fundamental human need. Each person on Earth requires at least 20 to 5o litres of clean, safe water for drinking, cooking and simply keeping themselves clean (https://www.koshland-science-museum.org/water/html/en/Overview/Why-is-Safe-Water-Essential.html)

Safe drinking water is treated water that has been tested for harmful and potentially harmful substances and has met or exceeds drinking water quality standards set by the united stated Environment protection Agency (EPA) and the state of Alabama.

The EPA sets safe drinking water standards set to define the limits of contaminants considered safe drinking water .These level are based on studies of health effects associated with each contaminant and include a sufficient safety margin to ensure that water meeting these standards is safe for nearly everyone to drink.

Safe drinking water supplied by Anniston water works meet or surpasses the EPA water quality standards. The water supplied by the Anniston water works is designed to be healthful and stay healthful from the time it leaves the treatment facility, through to plumbing system and out of your tap.

The United States Environmental protection Agency (EPA) sets drinking water standards to define “the water supply by the Anniston water works meets or surpasses these EPA water quality standards (http://www.awwsb.org/Default.asp?ID=125)

“Water is essential for life. The amount of fresh water on earth is limited and its quality under consent pressure. Preserving the quality of fresh water supply, food production and recreational water quality can be compromised by presence of infection agents, toxin, chemical and radical Hazards

(http://www.who.int/topics/water/en/)

2.2 Empirical Literature

Drinking water safety is a major concern during the summer. Every year thousands of people acquired waterborne illness and are hospitalized because of contaminated drinking water. Recently district public health office Kathmandu identified that 66%of water source have been contaminated by coli form bacteria are often referred to as” indicator organism” because they indicate potential presence of disease causing bacteria in water.

The presence of coli form bacteria indicates that a contamination pathway exists between a Sources of bacteria and the water supply .Disease causing bacteria may use this pathway to enter the water supply.

According to national census85% Nepalese have access to safe drinking water. However drinking water supplied is not always safe even when it is supplied through systematic piped water system. Many of improved or even treated and safe water may be contaminated during transmission, distribution and household use. Therefore, only 12 to 15% of the people have access to safe drinking water.

Tanker water and jar water is generally used to overcome this scarcity in many urban area of country .But water safety was major concern .Poor sanitation and hygiene are giving rise to many epidemics that kill people.

Every summer we find many illness like cholera, Dysentery and diarrhea caused by contaminated drinking water in rural areas and in Kathmandu.

In cities poor drainage, air pollution and poor solid waste disposal are major burden to maintain sanitary measures. Open defection is a prime concern and main cause of fecal contamination of Drinking water.

Water systems are required to deliver safe and reliable drinking water to their consumers.

Access to safe drinking water is a fundamental requirement for good health so drinking water suppliers and government should be responsible to ensure safe drinking water

(https://thehimalayantimes.com/opinion/topics-safe-drinking-water-2/)

In additional to daily maintenance of our bodies, water also plays a key role in prevention disease. Drinking eight glass of water daily can decrease the risk of colon cancer by 45%, bladder cancer by 50% and its can potentially even reduce the risk of breast cancer. Water can aid in the prevention and cure of many types of disease, aliment and disorders that effects the many systems of our bodies (http://www.purewaterservices.co.nz/about/water-information/water-for-health)

Bhandri (2011) carried out study entitle “knowledge and practice of safe drinking water of the people Sychtar VDC Kathmandu “’base open respondent 141.According to his study 67%were found having knowledge about safe drinking water fifty respondent used different method for water purifying drinking water 27%respondent used filtration method to treatment of drinking water .this research found that most the respondent who lived in hut, they all used unsafe water about 33.19%respondent had proper knowledge about disease by contaminated.

Regial (2011) studied on “knowledge and safe drinking water among house household Salyantar VDC ward no Dhadingding Districts in this researcher found that knowledge about purification of drinking water majority of respondent i.e 90% of reported known about purification water where as only 10% had them known about it. in the context of using drinking water majority of them used water without any treatment .Most of the people in study area were found using plan water instead of using various method of purification. Therefore the people have suffered from

waterborne disease like diarrhea, jaundice, cough, cold, typhoid, dysentery etc. Nearly 96% of the house hold members were suffered from water bone disease; similarly 64% respondent said boiling is the best method of purification of water.

2.3 Implication of Review of the Study

The review is the vital part of the research process. It gives knowledge ; awareness. It can improve the chance of obtaining significant result. It provides information about useful information about research producers and instrument. The implication of review for the study given below:

a) To determine topic of the study

b) To gain additional knowledge about research method

c) To evaluate recent research

d) To give reference to future studies related to the topic

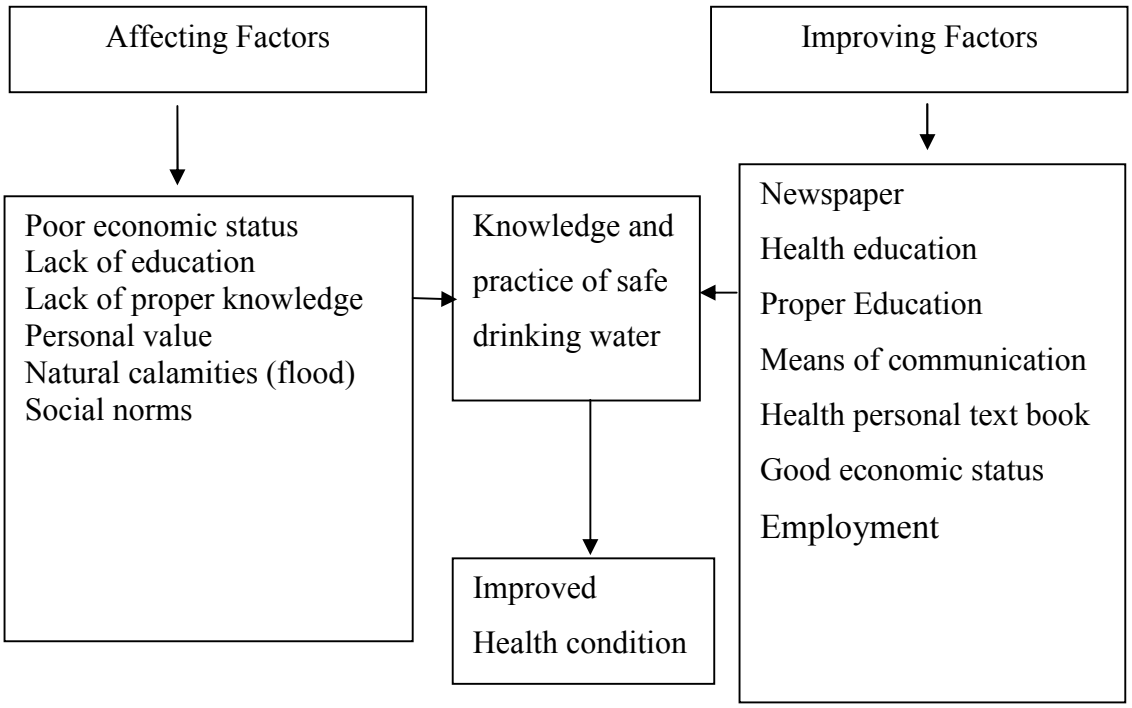
f) To identify the related field for the study

g) To compare the old finding for the study with present one.

2.4 Conceptual Framework

Conceptual framework according to educational researcher Smyth (2004) are structured form a set of board ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. A conceptual framework is tool researchers use to guide their inquiry; it is set of idea use to structure the research, a sort of map that may include the research question, the literature review, method and data analysis.

Conceptual Framework



Knowledge and practice of safe drinking water are directly related to different variables. Gaps between knowledge and attitude making people unable to practice basis on hygiene. Poor economic status, lack of education, lack of proper knowledge, personal value, natural calamities, and social norms directly affect people behavior directly. Similarly newspaper, health education, means of communication, health personal, text book, economic good status, and employment are improving factors. Mass media, health volunteer use to diffusion the message into community. This element birding the gap between knowledge and practice. Its indicated that high knowledge level of community people can significantly improve their practice. Similarly with low economic status people with low economic status, have not afforded the means of purifying water.

In this context of safe drinking water, these elements play important role to make people healthier. If these elements are positive people healthier and element are negative people have unhealthier life.

CHAPTER-III

RESEARCH METHOLDOGY

Research methodology was the main part of research work. The terms methodology refers to procedures how the study will be lunched. It provides reliability and validity of research. It covers like research design population and sample, sampling producers, data collection tools and techniques, data collection procedures, data analysis and interpretations.

3.1 Research Design

The descriptive method of research has applied to meet the above state objective. Data has collected to apply census method through house hold survey in research.

3.2 Population and Sample and Sampling Strategy

The study has limited on Budhiganga tole ward no 4 Itahari Sub Metropolitan. There were 525 populations. 105 house hold only selected and 105 ho use hold also total house in this tole. For the data collection census method has been employed. Only one respondent chosen from one house, they were male and female above 16 years. Interview has taken those house hold member.

3.3 Study area and Field

Budhi Ganga tole of Itahari Sub Metropolitan ward no 4 had been select for the study area. The total population of this tole is 525 and total household 105 had been selected by census method.

3.4 Data Collection Tools and Techniques

In this study interview scheduled and observation check list had use for data collection. Book, article, journal, tole record, old research and supervisor suggestion.

3.5 Data Collection Procedures

First of all made research question then visit study area with an a then researcher met tole educated people and explained about purpose of study, then it took permission for data collection information basis of objectives.

3.6 Data Analysis and Interpretation Procedures

After collection of data researcher carefully recheck and correct the mistake. Then different heading after that data has been analyzed and interpreted by using mathematical numerical like number, percentage with table, diagrams, graph and figure has been used in this research.

CHAPTER- IV

ANALYSIS AND INTERPRETATION OF RESULTS

This chapter deals about the analysis and interpretation of data collect by the researcher. The main objectives of this study was analyzed knowledge and practice of safe drinking water among the people of Budhi Ganga tole Itahari. Data were analyzed and interpreted sequentially as per objectives. This chapter has been divided in to three parts which as follow:-

1) Demographic and Socio- Economic characteristics

2) Knowledge about Safe drinking water.

3) Practice about Safe drinking water.

4) Current Situation of safe drinking water

4.1 The demographic and Socio-Economic Characteristics

The Demographic and Socio –Economic characteristics of the population play big role in life status of people as well development of the country. The development of Country depends on its demographic natural resources and socio economic of the people.

The thesis of the study the total population of respondents house according to Religion type, educational status, Sex Distribution, types of family, occupational status of respondents and their majors Income Sources, of Respondents.

4.1.1 Distribution of Population to Sex

Sex plays important in Population composition. Sex is important inputs for the formulation of development policy and programmed..

Table No. 1: Total population Respondents House According to sex

S.N	Sex	Number	Percent
1	Male	205	39.04%
2	Female	320	61.53%
	Total	**525**	**100**

Table No.1 shows the population of areas of 105 House where 205 male (39.04%) male and 320 (61.53%) female.

4.1.2 Religion Types of Respondents

As habitant of the majority group of Hindus in the locality, they respond according to their religion. Before going into federal republic of Nepal, it was Hindus Kingdom of Nepal. So, Hindus people are mentionable number in the society. So, they had believed that water should be the basic rights for the every citizen in the country. Every level of people should get the water supply for their daily needs and to survive.

Table No. 2: Religion Types of Respondents

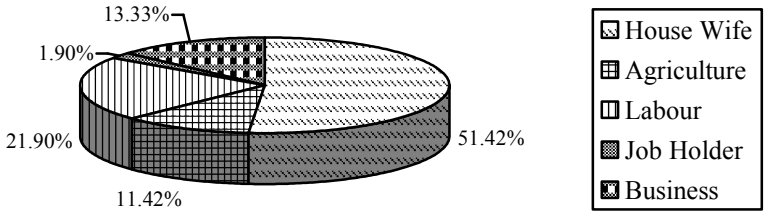
SN	Types of religion	Number	percents
1	Hindu	97	92.38%
2	Buddhist	8	7.61%
	Total	105	100

Here are respondent's religion types 93.38% Hindu and 7.61% Buddhist.

4.1.3 Occupational status of Respondents

Occupation drives people good or bad life. People status totally depends on their occupation. Occupational status play vital role for progress of individual as well as community health. Their professional leads them to in contact with the people who beliefs in hygiene, good habits and sanitation in the house and community. Educated and the people who are in job of respectable offices, are the responsible person of green and clean local environment, which is major cause for clean and pure water.

Figure No. 1: The Occupational Status of Respondents



Housewife, 51.42%, 21.90% labor, likewise 13.33% business, 11.42%Agricultural and 1.90% job holder.

4.1.4 Major Income Sources of Respondents

People Major Income's sources also play big role in their family. if people incomes sources good then that impact also good and if people incomes sources bad their impact also bad in their family.

Table No. 3: Major Income Sources of Respondents

SN	Statement	Number	Percentage
1	Agricultural	22	20.95%
2	Business	29	27.61%
3	Foreign Employer	25	23.80%
4	Labor	29	27.61%
	Total	**105**	**100**

Table No. 2 Shows Respondents Major Income Sources labor 27.61%, 20.9% Agricultural, 27.61%, 23.80 foreign Employer and 27.61% Business.

4. 1.5 Types of family

In joint family the need of family member hard to fulfill but in Nuclear family easy to full fill need of family member.

Figure No. 2: Types of family

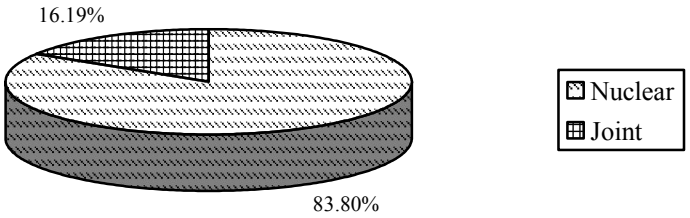


Figure No. 2 shows the Respondents Family type here is 83.80% Nuclear Family and 16.19% Joint family

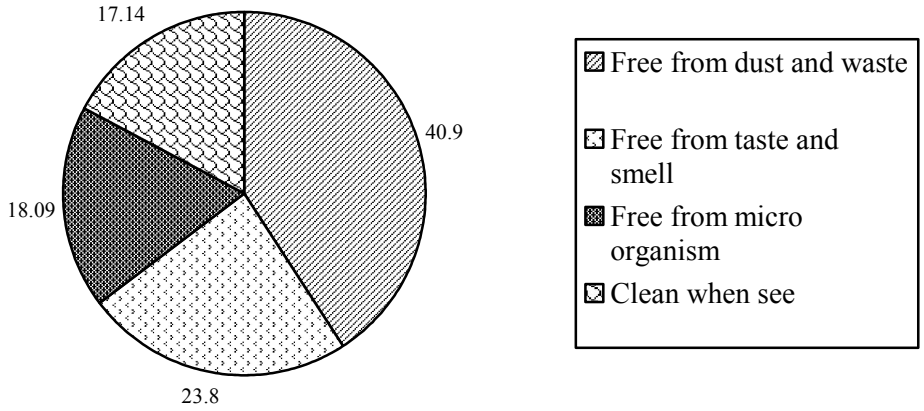
4.2 Knowledge about Safe Drinking Water

Safe drinking water is the basic need of people. Without safe drinking water we cannot imagine healthier life. The appropriate knowledge about safe drinking water is actual way of prevention of water related disease. Respondent's knowledge about safe drinking water can be presented in the following topic:

4.2.1 Meaning of Safe Drinking Water

Meaning show the actual status of knowledge. It gives clear concept about related subject matter. In the context of safe drinking water it plays a vital role to find out actual situation. Report of the respondent regarding the meaning of safe drinking water is shown below.

Figure No. 3: Meaning of Safe Drinking Water



The figure No.3 shows that the meaning of safe drinking water in the view of respondents. Out of total 17.14% says that safe drinking water is about clean when see, 40.95% free from dust and waste and 23.80% free from test and smell .This data shows that they have not proper knowledge about safe drinking water. Only the few people have proper knowledge about safe drinking water in this respondent. Out of total 17.14% says that safe drinking water is about clean when see,40.95% free from dust and waste and 23.80% free from test and smell. This data shows that they have not proper knowledge about safe drinking water. Only the few people have proper knowledge about safe drinking water in this tole.

The data shows only 18.09% have clear concept of safe drinking water .They said safe drinking water is free from micro organism. It means that the people have not proper idea related drinking water. Lack of information and lack of proper education is the main causes of it.

4.2.2 Sources of Receiving Information about Safe Drinking Water

In connection meaning of safe drinking water they were asked about sources of water. To get information is natural right of human beings .Information is valuable things which affects the human health directly and directly. It plays a vital role to make

people healthier. Sources of receiving information about safe drinking water reported by the respondent shows following Figure Number 4.

Figure No. 4: Sources of Receiving Information about safe Drinking Water

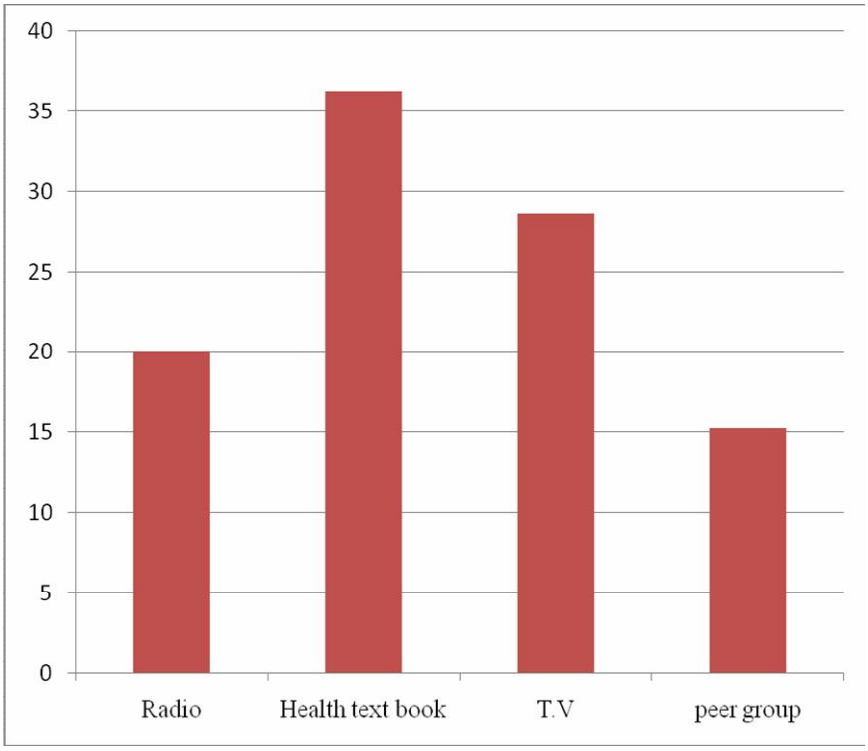


Figure No 4. Shows Means of communication about safe drinking water of the Respondents. We can know that most of the respondents are being informed by health text book.36.19% know information from text book,28.57% get information receive from T.V, 20 % get information from radio and 15.23% get information from peer group .

4.2.3 Understanding about the Water Pollution

Water pollution is the major global problem of this contexts. It has been suggested that it is the worldwide causes of death and disease. The understanding level of water pollution.

Table No. 4: Understanding about Water Pollution

S.N	Statement	Number	Percentage (%)
1	Dim water	45	42.85
2	Impurities of various kind	24	22.85
3	Contacts with soil and instincts	23	21.90
4	Contain microscopic organism	13	12.38
	Total	**105**	**100**

Table No. 4 Number show 42.85% of the total respondent respond that dim water is polluted water .Most of the respondent also told Dim water. Here 12.38% of total respondent give the right answer about water pollution .They says that if water contain microscopic organism, that is polluted water. The data show the understanding level of respondent related to the water pollution poor. Clean water may not be safe to drinking it may contains various invisible bacteria. It means that respondent have not clear concept about it. Lack of education, lack of proper education is main cause of it.

4.2.4 Understanding about Problem Raised by Dirty Water

Dirty water creates a lot problem in people life. Safe water play big role in role for people healthier life .Table Number 5 shows respondents of understanding Raised by dirty water.

Table No 5 Understanding about Problem Raised by Dirty Water

S N	statement	Number	Percentage
1	Bad smell and bad taste	4	3.80%
2	Teeth problem	11	10.47%
3	Sickness	60	57.14%
4	All above	30	28.57%
	Total	105	100

The table Number 4shows respondents of understanding about dirty water arise problem. Most of the respondents says sickness 57.14%,28.57% say all above likewise 10.47% say teeth problem and 3.80% says bad smell an bad taste.

4.2.5 Disease Mainly Appeared in the Society

According to various data every year millions of people are sick by polluted water. Water pollution involves the pollution of surfaces water or underground water which may cause a series of disease referred to as water pollution disease. These could have serious health impacts. The question asked by the researcher about the disease mainly appear in the society was answered by people is shown in figure Number.5.

Figure No. 5: Disease Mainly Appeared in the Society

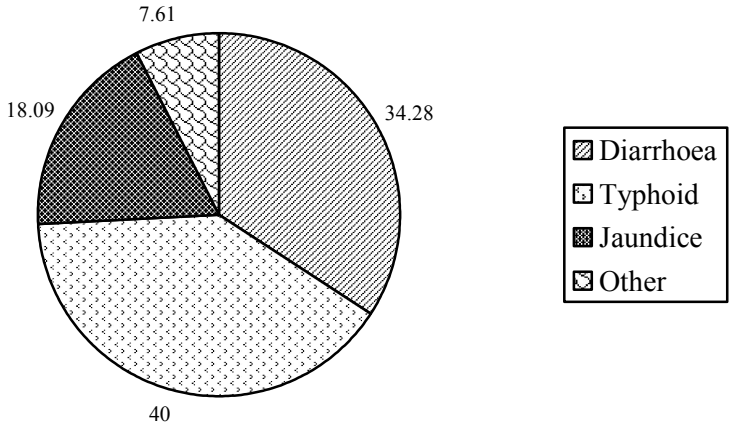


Figure Number 5 shows that most of the respondents 40% reported that typhoid is main disease that appear in the society, the researcher also found that 34.28%people suffered from diarrhea and 18.9%suffered from jaundice and other 7.61%.

Most of the respondent reported that typhoid is frequently appearing in this tole. But water only cannot be responsible for typhoid. There are also many reasons that cause typhoid dirty hand, damage food, unhealthy behavior, lack of proper knowledge etc.

4.2.6Treatment Place of the Respondents

The past day people trust Dhamijhakri. They were having no idea about hospital and health center. But nowadays many people know about hospitals. In the researcher found the various place for treatment according to respondents in this tole. Which shown as table No. 6

Table No. 6: Treatment Place of Respondent

S.N	Treatment place	Number	Percentage%
1	Dhamijhakri	10	9.52
2	Health center	27	25.71
3	Clinic	58	55.23
4	Home treatment	10	9.52
	Total	105	100

From the table Number 6 we can know that most of respondent respond that they goes to clinic when they problem of sickness. Likewise 25.71% goes to health center, 9.52% goes to Dhamijhakri and 9.52% use home treatment. Most of their respondents clinic that nice. Researcher found nice knowledge about in this topic in this community but few people still believe Dhamijhakri that not nice.

4.2.7 Understanding about Arsenic

Long-term exposure to arsenic in drinking-water is causally related to increased risks of cancer in the skin, lungs, bladder and kidney, as well as other skin changes such as hyperkeratosis and pigmentation changes. These effects have been demonstrated in many studies using different study designs. Exposure–response relationships and high risks have been observed for each of these end-points. The effects have been most thoroughly studied in Taiwan but there is considerable evidence from studies on populations in other countries as well. Increased risks of lung and bladder cancer and of arsenic-associated skin lesions have been reported to be associated with ingestion of drinking-water at concentrations £50 μg arsenic/litre.

Occupational exposure to arsenic, primarily by inhalation, is causally associated with lung cancer. Exposure–response relationships and high risks have been observed.

Increased risks have been observed at cumulative exposure levels ≥ 0.75 (mg/m^3) × year (e.g. 15 years of exposure to a workroom air concentration of 50 $\mu g/m^3$). Tobacco smoking has been investigated in two of the three main smelter cohorts and was not found to be the cause of the increased lung cancer risk attributed to arsenic; however, it was found to be interactive with arsenic in increasing the lung cancer risk.

Even with some negative findings, the overall weight of evidence indicates that arsenic can cause clastogenic damage in different cell types with different end-points in exposed individuals and in cancer patients. For point mutations, the results are largely negative.

Figure No. 6 Understanding about Arsenic

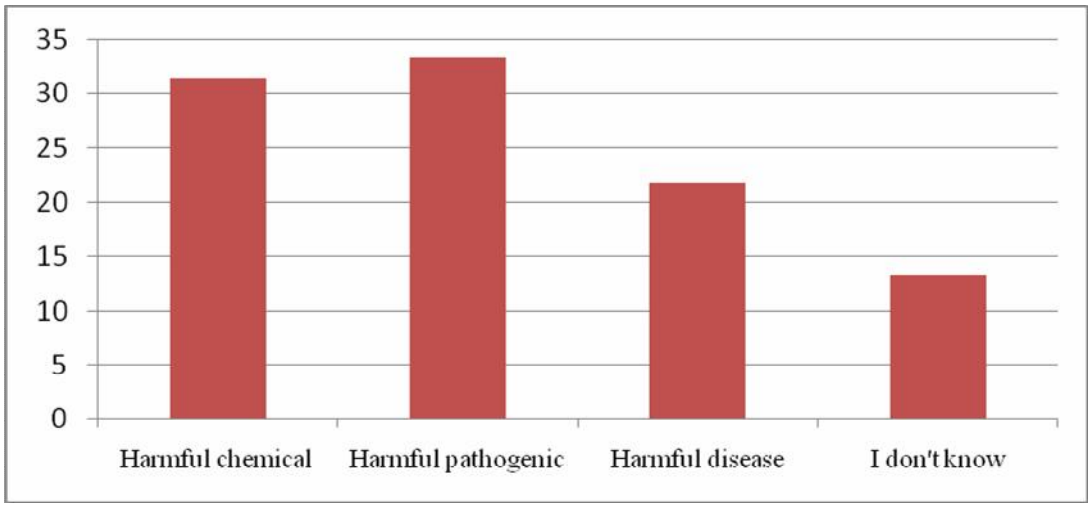


Figure No. 6 know shows the understanding arsenic respondent here is 31.42% says Harmful chemical, 33.33% says harmful pathogenic, 21.90% says Harmful disease and 13.33% don't know about arsenic.31.42 % know right knowledge about arsenic.

4.2.8 Respondents Suffering From Water Borne Disease

Mainly Typhoid affected locals were large in number, where both male and female were affected by the disease. Accordingly there were warm infected people in few numbers. Dysentery in make was large in number, where majorly jaundice affected female is large in group. Another big affected number of diseases are diarrhea, where 10 numbers of people were affected. Rest of the data were presented in the table below.

Table No. 7: Respondents Suffering from Water Borne Disease

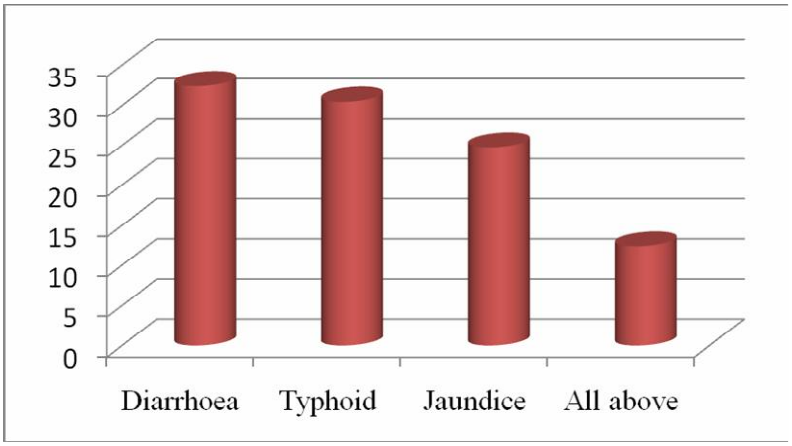
S.N	Disease	Male(n)	Female(n)	Male(p)	Female(p)
1	Typhoid	27	25	22.88%	21.18%
2	Warm infection		3		2.54%
3	Dysentery	11	5	9.32%	4.32%
4	Jaundice	6	16	5.08%	13.55%
5	Diarrhea	10	6	8.47%	5.08%
6	Skin disease	6	3	5.08%	2.54%
	Total	**60**	**58**		

Table No. 7 shows respondents suffer waterborne disease here 22.88% male 21.180% female suffer typhoid,2.54% suffer from warm infection,9.32% male and4.32% suffer from dysentery,5.08% male and13.55% female suffer jaundice and 5.08% and 2.54% suffer from skin disease.

4.2.9 Knowledge about Disease Caused by Contaminated Water

Disease is an abnormal condition of body. Some organs of body are not functioning properly due to harmful effects and process of injuries. Contaminated water cause different type of disease such a Diarrhea, cholera, warm infection, Jaundice etc. In this research researcher try to find out the people knowledge about disease cause by contaminated water in the study area .Data that achieved from research are presented as follow:

Figure No. 7: Knowledge about Disease Caused by Contaminated Water



From figure No. 7 show that higher Number of the respondent (32.38%) reported contaminated water cause Diarrhea. Similarly (12.38 %) reported diarrhea , typhoid and jaundice are cause by contaminated water.

4.3 Practice of Safe Drinking Water

Practice is the act of rehearsing behavior for purpose of improving. Practice of safe drinking water play a vital role enhancing people 'health status. The appropriate practice about safe drinking water is the actual way of prevention of water related disease. Respondents practice about safe drinking water can be presented in the flowing topic:

4.3.1 Sources of Drinking water

Nepal is rich in natural resources and it is second richest having highly potential in term of water resources .There are more than 6000 rivers and rivulets including big and small .The economic development of the country depends on how water has been utilized .Rivers are the main sources of electricity . There are mainly two types of water resources. They are:

1. Surface water resources
2. Underground water resources

The source of water on the surface is called surface water resources like the river, rainfall, pond, etc. The water resources which implies underground sources like well, tube well, piped water under the ground. There are more than thousand of a river which is more than 11km length .The theoretical hydroelectric potentiality is 83,000 MW but 42 thousand MW electricity can be generated from technical and economic perspective. Nepal rivers hold a high promise of energy that very few places in the world can match

(https://www.kullabs.com/classes/subjects/units/lessons/notes/note-detail/3694)

Table No. 8: Source of Water

SN	Water sources	Number	Percentage
1	public	12	11.42%
2	private	93	88.57%
	Total	**105**	**100**

Table No. 8 shows respondent's water sources .Water source play big role for safe water .People daily clean their private source but they cannot clean public sources in daily. Here are 11.42% use public sources and 88.7% use private sources.

4.3.2 Types of Water Pot

People used different types of pot bring water from various places and sources .water stored copper pot also better for health. In the study area the researcher found following type of water pot used by respondents:-

Table No. 9: Types of Drinking Water Pot

Types of pot	Number	Percentage%
Plastic and silver	31	29.52
plastic	60	57.14
Copper and brass	14	13.33
Total	105	100.00

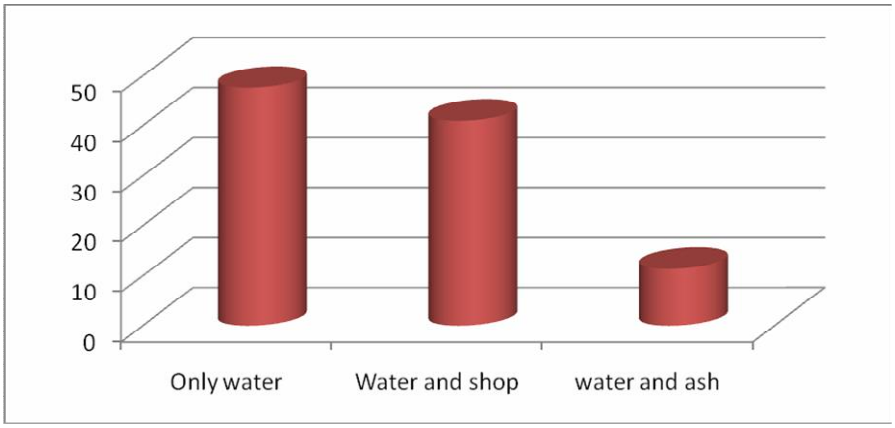
From the table no 8,it is found that most of the respondents 57.14% plastic water pot bring the water likewise 29.52%uesd silver and plastic water pot and 13.3% respondents used copper and brass pot. It means most of the respondents used plastic and silver pot because it is easily available in market and economically cheaper than copper pot. Lack up education and lower economic status people cannot buy copper pot.

4.3.3 Method of Cleaning Water Pot

For clean water only purification method is not enough. There is need of proper care of water pot. Methods of cleaning water pot is different according to people and their

life style .The following figure no 8 presents the methods used by the people for clean water pot in this tole.

Figure No 8 Method of Cleaning Water pot



Dirty pot contains harmful germs which may bring sickness to person and the society. We clean water pot day by day. Here among 105 respondent 47.61%cleaning water only. Likewise 40.95% clean the pot water and shop and 11.42% cleaned the pot by ash and water. Ways of cleaning water pot of the respondent is seems satisfactory in this tole but by using water is not so good. So there is need little bit improvement.

4.3.4 Medium of Getting Water from Pot

Water is our life. To save our life. We must be responsible and careful. People used different methods and material for handling water.

Table No. 10: Medium of Getting Water from Pot

S .N	Medium of getting water	Number	Percentage (%)
1	Dipping mug and glass in to the water	48	45.71
2	Purring water from pot	47	44.76
3	Cleaning mug before use	10	9.52
	Total	105	100.00

From the table 10, we can know that, among 105, 45.71% dipping the glass in the pot. Likewise 44.76%take water by purring the water from pot. It is the best idea taking water from pot .Dipping glass is not good way of taking water. Because our hand may

contains germs of various kinds. Here only 9.52% found cleaning the mug before dipping in to the water pot.

4.3.5 Knowledge on Reasoning of Covering Drinking Water Pot

We must cover drinking water pot. It can protect from various germs, virus and bacteria. Different people have a different attitude towards the reason of covering drinking water pot. Respondent were being asked about reason of covering water pot. Which showing in figure Number. 9.

Figure No. 9 Knowledge on Reasoning of Covering Drinking Water Pot

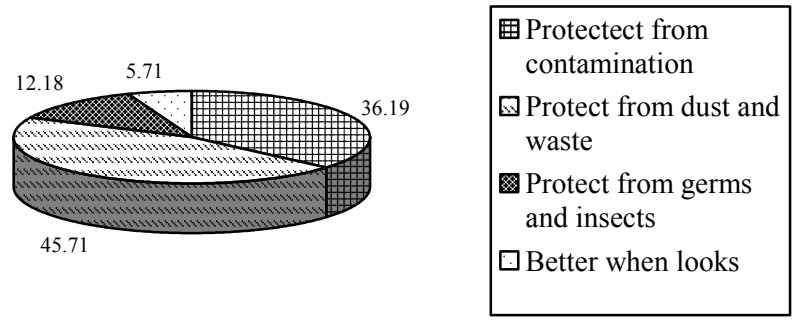


Figure No.9 shows that 36.19%of the total respondent stated the reason of covering drinking water pot is protect from contamination 45.71% says that to protect from dust and waste. Likewise 12.18% of the respondent says that they cover water pot to protect from germs and insects and 5.71% better when looks.

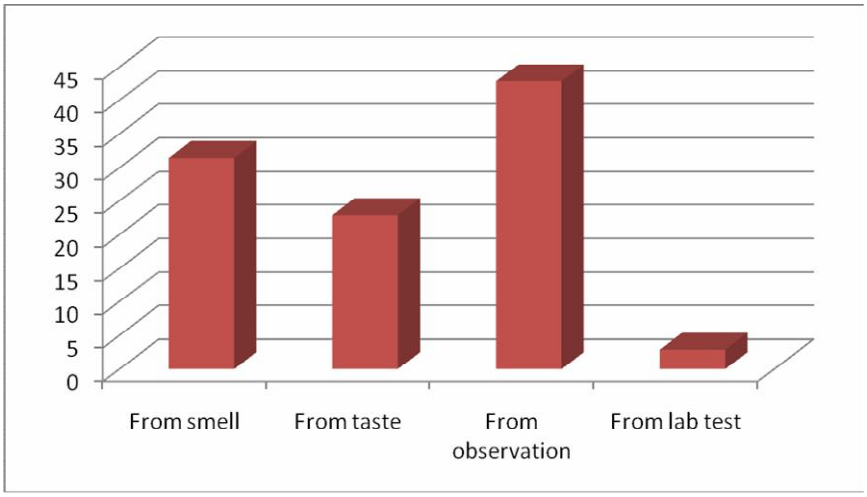
The data show that Reasons of covering drinking water pot is seems higher and good knowledge of the respondent in this tole.

4.3.6 Knowing about Unsafe Drinking Water

Unsafe drinking water may bring many disease, such as Typhoid, Diarrhea, Dysentery and cholera etc. We must know about condition of our drinking water must be safe to drink. Its' basic human necessities and fundamental part for health. Knowledge about

unsafe drinking water is the people of Budhi ganga tole can shown as the figure Number 10:-

Figure No. 10: Knowing about Unsafe Drinking Water



The figure No. 10 deals about knowledge about unsafe drinking water of the respondent. From the figure we can know that most of the respondents of Budhi ganga tole 22.85% told unsafe drinking water is known from test. They told that it should be test less. Only 2.85%gave right answer they find unsafe water from lab test. Likewise 31.42% told they can know unsafe water from smell and test and 42.85% told they can know from observation. So there is need of awareness in the society about safety water.

The above data shows that awareness related to unsafe drinking water is poor. They think that if the water is clean when see, free from smell and test is safe to drink but it is not actual knowledge.

4.3.7 Knowledge about Method of Water Purification

At the time of data collection Researcher found out most of the respondent know about at least one method of water purification but in reality researcher found out every one did not apply. Only knowledge is not enough for good condition of health, we also apply in your daily life .The flowing data presents knowledge of respondents in course of water purification method, which is shown table Number 9.

Table No. 11 Knowledge about Method Water Purification

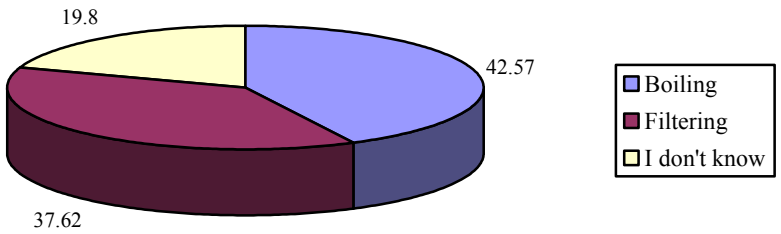
S.N	Characteristic	Number	Percentage (%)
1	Boiling	11	12.5
2	filtering	3	3.40
3	Boiling and filtering	61	69.31
4	Boiling ,filtering, chemical	9	10.22
5	Boiling, faltering, chemical and sodis	4	4.54
	Total	**88**	**100.00**

The table No. 11 shows that most of the respondents reported about boiling and filtering method. It is6.31% of total respondent .Likewise 12.5% boiling method reported,3.40% reported filtering method,10.22 %boiling,filtering,chemicals,4.54% reported boiling, filtering, chemicals, sodis method for water purification. Boiling method is the best method for water purification when we boiled water for 15 to 20 minutes its kill 99.9%of all living things.

4.3.8 Knowledge about Best Method of Water Purification

The purification process of water may remove bacteria and virus. Purified water is safe to drink. The flowing figure shows the best method of water purification according to the respondent of Bhudi ganga tole.

Figure No. 11: Knowledge about Best Method of Water Purification



The figure No. 11 shows that most of the respondent told about boiling method is the best method for water purification. It is 42.57%of the total respondent, likewise

37.62%% says filtering method is the best than others. But 19.80% respondents say that they have not any idea about water purification or they don't know which one is the best method for water purification .it is due to lack of health education. So there is needed of awareness in the people, who don't know about any method of water purification.

4.3.9Knowledge about Time Duration of Boiling Water

Safe drinking water play important role in enhancing people's health status. So that it must be safe to drink. Boiling method is the best method of water purification. Boiling water prevents us from 90% water related disease. Most germs die quickly at high temperatures. The answer of the respondents about time duration of boiled water can be shown.

Table No 12 Knowledge about Time Boiling Water

S. N	Time duration Boiling water	Number	percent
1	Just being hot	54	51.42%
2	5- 10 minute	33	31.42%
3	10-15 minute	11	10.47%
4	15- 20 minute	7	6.66
	Total	**105**	**100**

Table no. 12 show the time duration of boiling water according to the respondents. 51.42% of the total respondents drink the just being hot. But it is not free from germ. It is due to lack of education and awareness in people. This type of water cannot be says purified water. Among the 105 Respondents 31.42 % give the right answer. According to them the safe water is that water which boiled 5-10 minute after one time boiled.

4.3.10 Reason not use Any Method of Water Purification

In sciences and health water is pure when free from bacteria and harmful chemical and bacteria. But people have their own view about purity of water. Some people used methods of water purification where so other not use any methods .Table no 12presents the reason relating to not use of purification:-

Table No. 13: Reason not to use Any Method of Water Purification

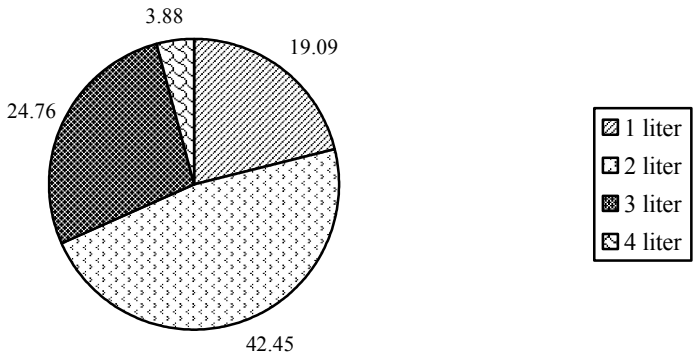
S.N	Characteristics	Number	Percent (%)
1	I don't know about purification	5	8.19
2	Poor economic	18	29.50
3	Sources is clear	38	62.29
	Total	**61**	**100.00**

The table No 13 shows the data related to reason of not using any methods of water purification among 105 respondents, 8.9%told they don't know about purification so they don't use any methods. Likewise 29.50% say they are poor economic so they cannot buy any purification martial and 62.29% says that source is clear so they don't use any method. Due to lack of proper knowledge they have not any idea about safe drinking water so Government should make awareness programmed about safe drinking water for them.

4.3.11 Knowledge about Amount of Water Required to Drink Per Days

Human body contain 70% of water. If the quantity of water is unbalanced different types physical problem may be arise .Drinking water is not only base of human life ,it is also right for them if water is not safe to drink ,this base of life can be the cause of different disease and also death. Respondent's knowledge about required amount of water per day is shown in the figure no. 12.

Figure No. 12: Knowledge about Amount of Water Required to Drink Per Days



From the figure no. 12 we understood that 43% of total respondents drinks 2 liter water per day 25% drink per day 3 liter and 13% drink 4-5 liter per day likewise 19% drink 1 liter per day. It shows that 13% had right knowledge about essential of water per day. It was found that quality of water base on work.

4.3.12 Types of Toilet

To safe from various diseases, we must have a toilet. It saves us from various diseases. We should proper disposal of human waste and after use of toilet we must wash our hand properly. Type of toilet, which is use by respondents are presented the following figure Number 13:-

Figure No. 13: Types of Toilet

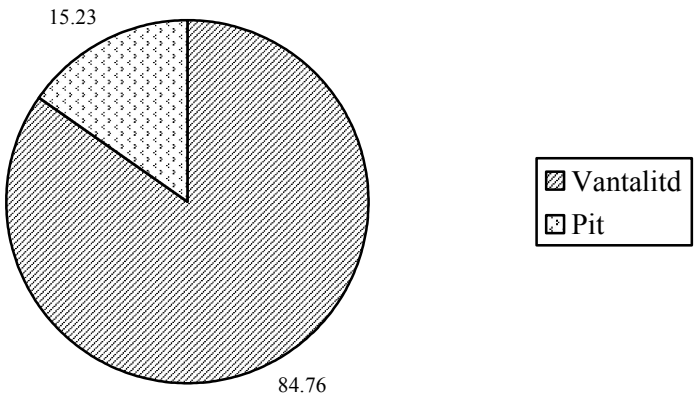


Figure no. 13 show that most of the respondent have pit toilet. It shows that 84.76% of the total respondent use pit toilet and 15.23% have ventilated toilet from the analysis data ,most of the responded made pit toilet because low economic, lack of health knowledge .The people who have high economic they made ventilated toilet.

4.3.13 Knowledge about Distance between Toilet and Sources of Water

Surface level of water and deeper level inside the ground, more or less, water connection lines are possibly near to each other. So, it is most important that, the drinking water sources and toilet must keep in distance. Because, the toilet is the main

bacteria containing source of disease and if the people drinking water is mix with that germs containing water, it may cause huge disease in the society. So, every people who use those types of toilet, they must have knowledge of distance regards toilet and water.

Table No. 14 Knowledge about Distance between Toilet and Sources of Water

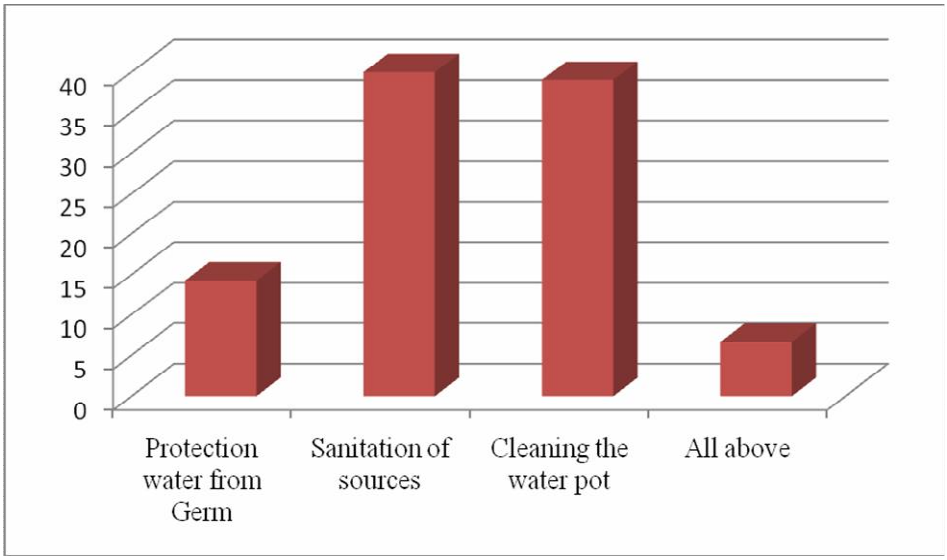
S.N	Statement	Number	percent
1	5 meter	33	31.42
2	10 meter	35	33.33
3	15 meter	16	15.23
4	20 meter	21	20
	Total	**105**	**100**

Table no 14 shows knowledge about distances between toilet and sources of water. Here is 31.42% says 5 meter,33.33% says 10 meter likewise 15.23% says 15 meter and 20% says 20 meter .here 20% respondents right knowledge about distances between toilet and water sources

4.3.14 Knowledge Regarding Methods of Prevents from Water Borne Disease

Water is essential element for life .without water we cannot imagine our life ,so water should be free from germ and bacteria. If we aware about the problem from water borne disease and apply simple techniques for water purification, most people will be healthy in our country Figure no 14 shows the knowledge regarding various method to prevent from water borne disease in view of respondents.

Figure No. 14: Knowledge Regarding Methods of Prevents from Water Borne Disease



From the figure no 14 ,it is understood that 105% respondents, 14.28% told that protect water from germ is the best method to prevent from water borne disease.40% told that to protect from water borne disease we must clean the sources. Likewise 39.04% told that if we clean water pot we can save from water borne disease. On the other hand 6.66%of the total respondents says that we should apply all above method to prevent from water borne disease. Sanitation of the sources and cleaning of water pot are not sufficient to prevent from water borne disease. So there need of awareness programmed for them.

4.3.15 Knowledge About Responsible for Safe Drinking Water

Water borne disease is the most serious problem. If we careful about drinking water we can easily protect our health. All people every sector should be responsible for safety water .The reported of the respondents regarding responsible person for drinking water can be shown in flowing figure 15.

Figure No. 15: Knowledge About Responsible for Safe Drinking Water

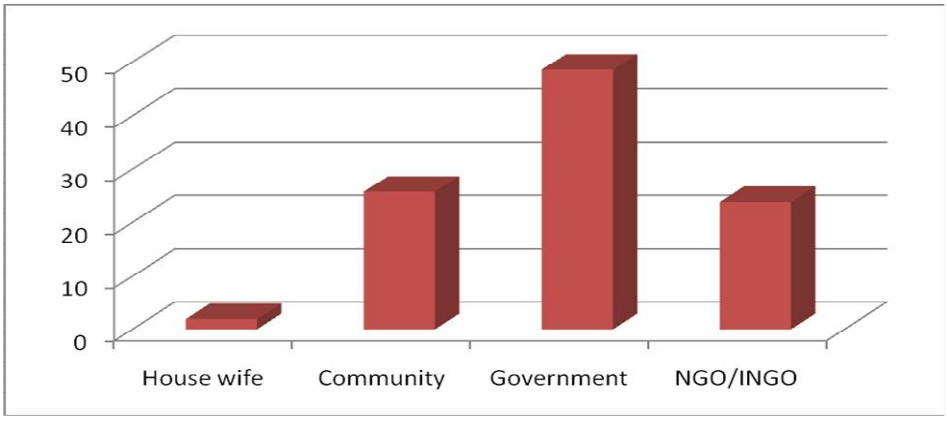


Figure no 15 shows that 105 respondent's shows that 1.90% reports that house wife should be responsible for safe drinking water. Likewise 25.71% told the community should be responsible and 48.57% told government should be responsible for safe drinking water. Likewise 23.80% NGO/INGO should be responsible for safe drinking water.

Most of the respondent says government should be responsible for save drinking water but if people want they can use different method then use tube well water for drinking water.

4.3.16 Knowledge about Time Duration for clean water Tanki/big pot

When we use something, according the pot or vessel, it need to be clean before the insect or bacteria hatch the eggs of their siblings. That will be increase in multiple numbers. So, including big tanks of water to big pot, small pot and every utensil, we use to transfer water, necessary to periodic clean for the healthy purpose.

Table No. 15: Knowledge about Time Duration for Clean Tank/Big pot

S.N	Statement	Number	Percentage
1	Every week	9	8.75%
2	In 15 days	30	28.57%
3	In 1 month	41	39.04%
4	1-2 month	25	23.80%
	Total	**105**	**100**

Table 15 shows the respondent's time duration clean water store tank or big pot. We understood that most of respondents clean tank in one month. 28.57% clean tank in one month likewise 8.75% clean tank in every week,23.80% clean tank 1-2 month who educated they clean their tank in every week and in 15 days because they are aware of dirty water effects than clean tank in one month and 1-2 month people.

4.3.17 Disposal Place of Dirty Water

Respondent were asked to report the dispose of the dirty water. The respondent report by them can be seen on figure no 16.There are different types of waste disposing practices in the community. We should dispose the dirty water in proper place, otherwise it also harmful for human health.

Figure No. 16: Disposal Place of Dirty Water

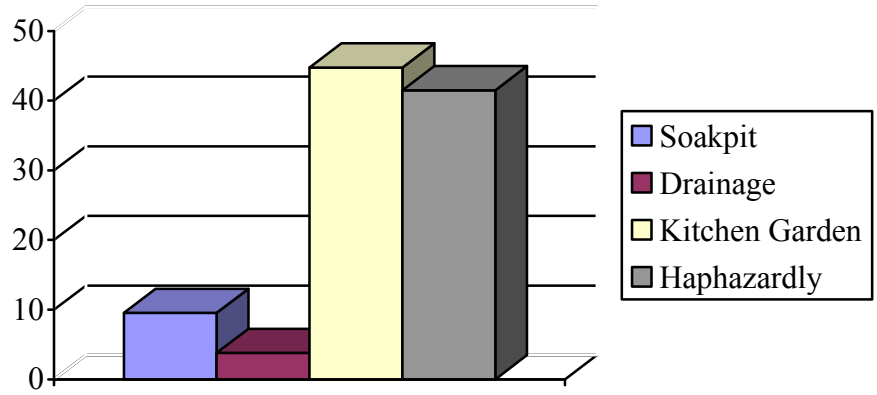


Figure no. 16, reveals that most of the people dispose the dirty water kitchen garden It is 44.76% of the total respondents. 42.5% dispose water haphazardly. Likewise 9.52% soak pit and 3.08% Drainage. Kitchen garden, soak pit, drainage best nice for dispose dirty water but haphazardly not good for health that is need to overcome. There should be proper manage of dirty water.

4.4 Current situation of safe Drinking water

4.4.1 Educational Status of Respondent

Education is fundamental factors for all round development of individuals, community and country. Educated people can make every work productive. Education play big role to change people attitude then give people awareness for their own activity. Respondent's educational status shows given below by table.

Table No.16: Education Status of Respondents

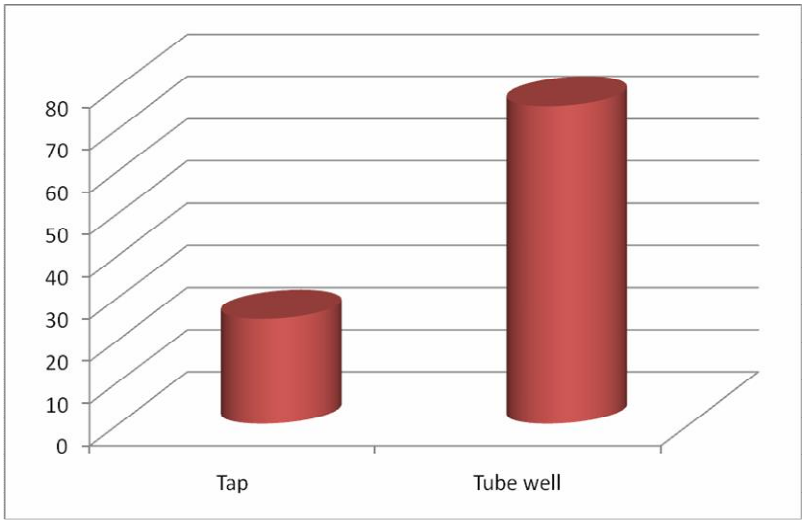
S.N	Educational Status	Number	Percent
1	illiterate	30	28.57%
2	Literates	20	19.04%
3	Primary	25	23.80%
4	Lower Secondary	18	17.14%
5	Secondary	8	7.61%
6	+2	4	3.80%
	Total	**105**	**100**

The table No. 16 shows that educational status 28.57% are illiterate,19.04% literates, similarly 23.8% passed primary level likewise 17.14% pass lower secondary level,7.61% pass secondary and 3.80% pass +2 complete .Most of the respondents illiterate that not good so little bit improve educational status of community people.

4.4.2 Using Source of Drinking Water

The hygienic and unhygienic water are classified on the basis of their sources. In this community.

Figure No. 17: Using Source of Drinking Water



From the figure no. 17 show that higher proportion of respondents (75.23%) use the water from tube well and 24.76%% of total respondent use water from tap. The researcher found that the facility of safe drinking water is satisfactory in this tole.

4.4.3 Knowledge about Ways of Using Drinking Water

There are various method of water purification .Boiling filtering, using chemical are the some of the example of them .Method of water purification prevents us from 90% water borne disease. In Bhudi ganga tole, respondent's knowledge about way of purification of water can be shown in figure18

Figure No. 18: Knowledge about Ways of Using Drinking Water

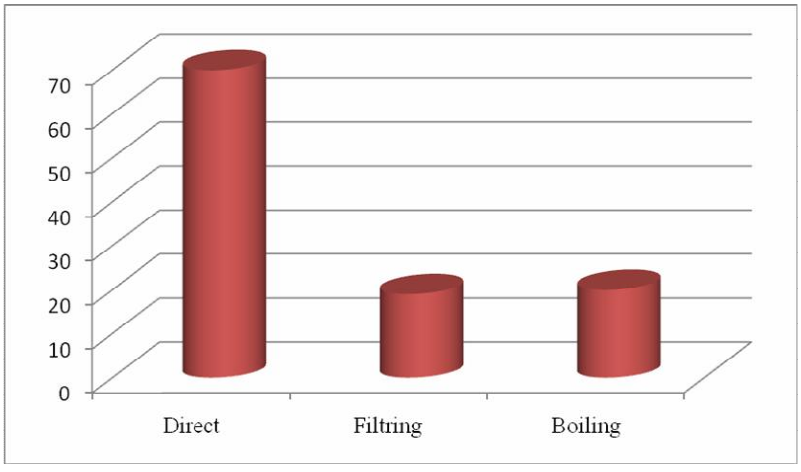


Figure no. 18, revels that higher proportion of respondents use water directly without any method of water purification. It is not good for human health. It shows 60.95% use water directly. On other hand 19.04% water use after filtering and 20% use the water after boiling method. Boiled water is better for health.

The above data shows that most of the respondent using directly without any treatment. They have not proper knowledge about water purification. Among them some of the respondent who are educated and health conscious, they use filtering and boiling method.

4.4.4 Time Taken for Collecting Drinking Water

Most people know that they should drink the water when they thirsty, but only the few people know, that it is physical and body's internal function need water to run the all operation inside and outside of body. Below table describes in detail regards time consuming in water obtained by the people.

Table No. 17: Time Taken for Collection Drinking Water

S.N	Statement	Number	Percentage
1	1-2 minute	39	37.14%
2	3-4 minute	29	27.61%
3	4-5 minute	23	21.90%
4	Above 5 minute	16	15.23%
	Total	**105**	**100**

Table no 17 shows the time consuming for Drinking water, most of the respondents 1-2 37.14%, 3-4 minute 27.61% and 21.90% respondent consuming water in 4-5 minute and above 5 minute 15.23% respondents consume the water.

4.4.5 Observation Cheek List

Table No. 18: Observation Cheek List

S.N	Statement	Good		Satisfactory		poor	
		Number	Percent	Number	percent	Number	percent
1	Source of water	80	28.57%	67	63.80%	8	7.61%
2	Availability of water	32	30.46%	64	60.35%	9	8.57%
3	Cleanness of water pot	37	32.23%	40	38.09%	28	26.66%
4	Covering of water	7	6.66%	76	72.38%	22	20.95%
5	Management of dirty water	16	15.23%	46	43.08%	43	40.95%

4.4.6 Sources of Water

Water is also found earth surface. Rain, lakes, stream, pond and spring are natural sources. Tube well, hand pump, cannel are the man made sources. Sources determined water quality. In this study area tube well and tap are main water sources.tap safe water sources but tube well not safe for drink. Tube well water not safe than tap water.

4.4.7 Availability of Water

Availability and access both nice in this study area if people properly purification drink water .Most of the people use tube well water, if check arsenic and properly use purification method than water nice for drink.

4.4.8 Clean the Water Pot

As safe drinking water is life .unsafe drinking water is the cause of disease and it can cause of death. Only purification method can’t make clean .There should be proper management of clean water collection pot and covering pot facility. People use

different type of pot to bring water .From observation educated people clean the water pot is good where as uneducated people is careless of clean of pot and sanitation were affected by different type of water borne disease.

4.4.9 Covering of Water

Only use purification method cannot pure the water, proper cover also need for safe drinking water. Here is most of the respondent's satisfactory cover the water.

4.4.10 Disposal of Dirty Water

Dirty water should be dispose in good way .if this is dispose haphazardly, it brings many kind of water borne disease. People may apply different technique to dispose dirty water. For example soak pit, kitchen garden etc .In the study area some people dispose water haphazardly, some people dispose in kitchen garden and some people dispose soak pit. Those people dispose dirty water in kitchen garden and soak pit, they are healthy compare to others. People who dispose haphazardly, they suffered from mosquito problem and water borne disease.

4.4.11 Summary/ Finding

4.4.12 Summary

Water is essential component of life. The Study has been carried out to examine the knowledge and practice and situation of Budhi Ganga Tol, Ward No 4 of Itahari Sub-Metropolitan City, based on primary data.

Reviewed many literatures and studies directly and indirectly related to this study. It was observed and studied the knowledge level about safe drinking and practice and current situation safe drinking water.

However the objectives of this study is to analyze the knowledge and practice and current situation in Bhudhi Ganga Tol. This Study is Descriptive in the Nature. The questionnaire was about only safe drinking water for the collection of primary data. On the process of collecting data and information, the researcher visited door to door

of respondents. Necessary information was collected from 105 respondents' house in Bhudhi Ganga Tol.

4.5.13 Findings

After analyzing and interpreting data the following results were found:

Respondents' demographic and socio-economic characteristics

a) 39.04% male and 61.53% female
b) 93.38% hindu and 7.61% Buddhist
c) 51.42% housewife and 21.90% labourers
d) 16.19% joint family and 83.80 nuclear family

Respondent's knowledge about safe drinking water:

a. In terms of understanding about safely water 18.09%, of the total respondents gave appropriate answer. They said that safe water was free from microorganisms. Likewise 49.95% say that water that is free from dust and waste was safe, and 23.80% respondents said that free from taste and smell, 17.14% clean when we see.

b. Similarly 36.19% of total respondents get information about safe drinking water from health textbooks and 28.57% get information from TV, 20% from radio and 15.23% of them get information from peer group.

c. Regarding the knowledge about pollution, water 42.85% reported dim water, 22.85% had reported impurities of various kind, 21.90% had said contact with soil and insects and 12.38% respondent responded that contains micro-organism.

d. Similarly 32.38% respondents told that diarrhoea is caused by contaminated water, 12.38% reported diarrhoea, typhoid and jaundice caused by contaminated water.

e. Among the 105 respondents 9.52% still followed dhami–jhakri for treatment of water-borne diseases.

Respondents' Practice Related to Safe Drinking Water

a) Majority of respondents 88.57% use private water source and 11.42% use public sources.
b) 13% of respondents have right knowledge about drinking water. They said one has to drink 4- 5 litre of water per day.
c) Majority of the respondents use silver and plastic for collecting and keeping water.
d) In regard to the way of cleaning water pot, 47.61% use only water and clean the pot.
e) In terms of taking water pot majority of respondents 44.76% pour water from pot 45.71 % reported dipping mug and glass in the water pot and only 9.52% cleaning the mug before used.
f) Out of the total respondents, 36.19% cover water pot for protection from contamination and 5.71% cover so that it looks better.
g) Reporting the knowledge about unsafe water 42.85% say they know by observation 31.42% know by smell and taste and 2.85% know from the lab test.
h) In terms of knowledge of method of purification water, respondents reported boiling, chemical, sodish etc.
i) In terms of the best method of water purification majority of them 42.57% reported boiling and 19.8% of the total respondents they have no any idea about water purification.
j) Regarding the knowledge about time duration of boiling 31.42% have proper knowledge.
k) In terms 31.42% says right meaning about arsenic. They said harmful chemicals, and 13.33% respondents said don’t know about arsenic.
l) In response to the reason why they don't use any method of water purification, most of them (62.29%) respondents reported that sources is clear.
m) Among 105 household 84.76% had pit toilet and 15.23% had ventilated toilet.
n) In terms of knowledge about distance between toilet and source of water 20% respondent give right answer. They said that it should be 20 meter.

o) In the study area 48.57% of total respondents reported that government should be responsible for safe drinking water. Similarly 27.71% said the community should be responsible.
p) The respondents expressed that the tank and water pot needs cleaning every 15 days, 28.57% and 23.8% says in a month or two.
q) Regarding the knowledge of the disposal of dirty water 9.52% dispose dirty water into a soak pit, 3.08% into a drainage and 44.76% reported they dispose in the kitchen garden and 42.2% reported haphazardly.

Relate to current safe drinking water situation

a) Literate 19.04%, primary 23.80% lower secondary 17.14%, secondary 7.61% and illiterate 28.57%.
b) Most of the respondents said that 60.95% used drinking water directly from tube well and tap and 19.04% said used boiling method and 20% said used filter method.
c) Respondents 24.76% used tap water and 75.23% respondent used tube well water.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

From this study, we can see that majority of respondents had knowledge about safe drinking water and had understanding about disease caused by contaminated water but still people have no idea about safety of water. Most of the people use tube well water and a few people use tap water for drinking. Richer people use tap water and poorer people can't buy tap water. Most of the people use drinking water directly without using any water purification method. Most of the respondents use boiling method for water purification. Educated persons use more positive terms for purification of water, uneducated people directly use drinking water without purification.

5.2 Recommendations

According to conclusion of this study, following recommendations have been made. Which is especially focused on improvement of the managing safe drinking water and adoption of better practices as well as recommendations for further similar study.

5.2.1 Practice-Related Recommendation

(a) Community should be encouraged to use sodish method for purification of water. Which is very simple and affordable method to all people.

(b) Managing the toilet and household disposals are essential for improvement the sanitation situation in the study area.

5.2.2 National Policy Related Recommendation

a. Safe drinking water related information should be launched by formal and informal programmes.
b. This research can be useful for making policy for this type of community.

c. It can be useful for planning to make awareness programme about safe drinking water.
d. It can also be useful for getting some ideas to manage the safe drinking water programs.

5.2.3 Recommendation for Further Study

a. The researcher may study in large area to find out the clear picture.
b. The upcoming researcher may conduct comparative study in that area.

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APPENDIX – 1

TRIBHUVAN UNIVERSITY

FACULTY OF EDUCATION

JANTA MULTIPLE CAMPUS

DEEPARTMENT OF HEALTH EDUCATION

ITHARI, SUNSARI

QUESTIONNAIRE

Information collected in this questions will be kept confidential and used only for academic purpose.

Name .....,.....Address .....

Age.....

Demographic and economic character

1. What is the level of your education?

(a)Illiterate (b) Literate (c) primary

d) Lower Secondary (e) Secondary (f) +2 or Higher

2. What are your main sources of income?

(a) Agriculture (b) Business

(c) Foreign employment (d) Labor

3. What is your family type?

(a) Nuclear (b) joint

4. Which is your main religion?

.....

5. What do you do?

(a) House wife (b) Agriculture

(c) Labor (d) Job Holder (e) Business

B. Questions Related to Knowledge of Safe Drinking Water

1. What do you mean by safe drinking water?

(a) Free from dust and waste (b) Free from micro-organism

(c) Free from test and smell (d) Clean when we see

2. From which sources do you know about safe drinking water?

(a) Radio (b) Health person/ text book

(c) Television (d) peer group

3. How much time do you consume to collect drinking water?

(a) 1-2 minute (b) 3-4 minutes

(c) 4-5- minutes (d) above 5 minute

4. What do you mean by water pollution?

(a) Dim water (b) Impurities of various kind

(c) Contact with soil and insect (d) Contains microscopic organism

5. In your view, what problem arises due to dirty water?

(a) Bad smell/Bad taste (b) Teeth problem

(c) Sickness (d) All above

6. Which of the following diseases is caused by contaminated water?

(a) Diarrhea (b) Typhoid

(c) Jaundice (c) All of the above

7. Which of the following water borne disease mainly appears in your society?

(a) Diarrhea (b) Typhoid

(c) Jaundice (d) Other

8. If your family member was suffering from water borne disease, where do you go for treatment?

(a) Dhami/Jhakri (b) Clinic

(c) Health centre (d) Home treatment

9. What do you mean by arsenic?

(a) Harmful chemical (b) Harmful pathogenic

(c) Harmful Disease (d) I don't know

10. Which of the following water borne diseases appears in your household in the past one year?

S.N	Disease	Children>5 year	Male	Female
1	Typhoid			
2	Worm Infection			
3	Dysentery			
4	Jaundice			
5	Skin disease			
6	Diarrhea			
7	Other			

C. Questions related to practice of safe drinking water

1. Which kind of sources do you have water from?

(a) Public (b) private

2. Which type of water sources do you use for drinking?

(a) Tap (b) River

(c) Tube well (d) other

3. Which type of pot do you use to collect drinking water?

(a) Plastic and silver (b) plastic

(c) Copper and brass (d) other

4. How do you clean the water pot?

(a) Only with water (b) with water and soap

(c) With water and ash (d) other

5. How do you take water from the pot?

(a)Dipping mug/glass (b) Pouring water from the pot

(c) Cleaning mug before use (d) other

6. Why is it necessary to cover drinking water?

(a) Protect from contamination (b) Protect from dust

(c) Protect from insect (d) to look better

7. Which method would you apply for drinking water?

(a) Direct (b) Boiling

(c) Filtering (d) Use chemical

8. Why don't you use any method of water purification?

(a) I don't know about purification (b) Poor economic condition

(c) Sources is clear (d) all above

9. How do you know that your water isn't safe for drinking?

(a) From smell (b) From taste

(c) From observation (d) from lab test

10. What are the methods of water purification?

....

11. In your view, which is the best method of water purification?

.....

12 In boiling method, how long would you heat the water?

(a) Just after being hot (b) 5-10 minutes

(c) 10-15 minutes (d) 15-20 minutes

13. How much water we do have to drink per day?

(a) 1 liter (b) 2 liter

(c) 3 liter (d) 4-5 liter

14. Which type of toilet is in your home?

(a) Pit toilet (b) ventilated toilet

15. How far should toilet be built from source of water?

(a) 5 meter (b) 10 meter

(c) 20 meter (d) 15 meter

16. Which of the following methods should you apply to prevent yourself from water borne diseases?

(a)Protect from germ (b) Sanitation of sources

(c) Cleaning the water pot (d) other

17. Who is responsible for safe drinking water?

(a)House wife (b) Community

(c) Government (d) NGOs/INGOs

18. How many times do you clean water Pot and Tank?

(a) Every week (b) In 15 days

(c) In one month (d) In 1-2 month

19. Where do you dispose dirty water?

(a)Soak pit (b) Drainage

(c) kitchen garden (d) Haphazardly

Observation checklist

S.N	Observation item	Good	Satisfactory	Poor	Remarks
1	Sources of water				
2	Availability of drinking water				
3	Cleanliness of water pot				
4	Covering of water				
5	Management of dirty water				